SNA Messages

Version 2 Release 1
This edition applies to Version 2 Release 1 of z/OS (5650-ZOS), and to subsequent releases and modifications until otherwise indicated in new editions.

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About this document

This document is intended to help network operators and system programmers in a VTAM® environment understand the meaning of VTAM messages. You can use this document as a reference for specific VTAM messages. For background reading to help understand concepts involved in VTAM operations and for examples of message output for a variety of DISPLAY commands, see z/OS Communications Server: SNA Operation.

The information in this document supports both IPv6 and IPv4. Unless explicitly noted, information describes IPv4 networking protocol. IPv6 support is qualified in the text.

Who should read this document

This document is for anyone required to interpret a VTAM message. Familiarity with VTAM concepts and terms is assumed.

How this document is organized

The messages are listed in alphanumeric order by message ID. For each message ID, the book contains the text and a description of the message. This book contains the following chapters:

- **Chapter 1, “Introduction,” on page 1** contains information about message text formats, message description format, message groups and subgroups, message routing, message suppression, the online message facility, and user-selected message changes.
- **Chapter 2, “ELM messages for logon manager network operators,” on page 9** contains all logon manager messages.
- **Chapter 3, “IKT messages for TSO/VTAM network operators,” on page 23** contains all TSO/VTAM messages for network operators.
- **Chapter 4, “IKT messages for TSO/VTAM terminal users,” on page 41** contains all TSO/VTAM messages for terminal users.
- These chapters contain VTAM messages for network operators organized in message number order:
  - **Chapter 5, “IST messages for VTAM network operators IST001I – IST399I,” on page 43**
  - **Chapter 6, “IST messages for VTAM network operators IST400I – IST799I,” on page 139**
  - **Chapter 7, “IST messages for VTAM network operators IST800I – IST1199I,” on page 273**
  - **Chapter 8, “IST messages for VTAM network operators IST1200I – IST1599I,” on page 459**
  - **Chapter 9, “IST messages for VTAM network operators IST1600I – IST1999I,” on page 675**
  - **Chapter 10, “IST messages for VTAM network operators IST2000I – IST2417I,” on page 821**
Chapter 11, “ISTH messages for IBM Health Checker for z/OS,” on page 1039 and Chapter 12, “ISTM messages for migration checks for IBM Health Checker for z/OS,” on page 1047 contains the messages that are issued by IBM® Health Checker for z/OS®.

Chapter 13, “IUT messages for VTAM network operators,” on page 1051 contains the IUT VTAM messages for network operators.

Chapter 14, “IVT messages for VTAM network operators,” on page 1053 contains the IVT VTAM messages for network operators.

Chapter 15, “USS messages,” on page 1079 contains information on unformatted system services (USS) messages.

Chapter 16, “Command and RU types in VTAM messages,” on page 1083 lists the command and request/response unit (RU) types displayed in VTAM operator messages.

Chapter 17, “Node and ID types in VTAM messages,” on page 1097 lists the node and ID types displayed in VTAM operator messages.

Appendix A, “Message additions and changes,” on page 1099

Appendix B, “Message-flooding prevention,” on page 1101

Appendix C, “Message routing and suppression,” on page 1103

Appendix D, “Messages affected by the MSG_LVL option,” on page 1165

Appendix E, “Message text for VTAM operator messages,” on page 1177

Appendix F, “Related protocol specifications,” on page 1219 lists the related protocol specifications for TCP/IP.

Appendix G, “Architectural specifications,” on page 1243 lists documents that provide architectural specifications for the SNA protocol.

Appendix H, “Accessibility,” on page 1245 describes accessibility features to help users with physical disabilities.

“Notices” on page 1247 contains notices and trademarks used in this document.

“Bibliography” on page 1257 contains descriptions of the documents in the z/OS Communications Server library.

How to use this document

IP addresses in messages are displayed as either dotted decimal for IPv4, or colon-hexadecimal for IPv6.

Determining whether a publication is current

As needed, IBM updates its publications with new and changed information. For a given publication, updates to the hardcopy and associated BookManager® softcopy are usually available at the same time. Sometimes, however, the updates to hardcopy and softcopy are available at different times. The following information describes how to determine if you are looking at the most current copy of a publication:

• At the end of a publication's order number there is a dash followed by two digits, often referred to as the dash level. A publication with a higher dash level is more current than one with a lower dash level. For example, in the publication order number GC28-1747-07, the dash level 07 means that the publication is more current than previous levels, such as 05 or 04.

• If a hardcopy publication and a softcopy publication have the same dash level, it is possible that the softcopy publication is more current than the hardcopy.
publication. Check the dates shown in the Summary of Changes. The softcopy publication might have a more recently dated Summary of Changes than the hardcopy publication.

- To compare softcopy publications, you can check the last 2 characters of the publication's file name (also called the book name). The higher the number, the more recent the publication. Also, next to the publication titles in the CD-ROM booklet and the readme files, there is an asterisk (*) that indicates whether a publication is new or changed.

**How to contact IBM service**


Most problems can be resolved at this website, where you can submit questions and problem reports electronically, and access a variety of diagnosis information.

For telephone assistance in problem diagnosis and resolution (in the United States or Puerto Rico), call the IBM Software Support Center anytime (1-800-IBM-SERV). You will receive a return call within 8 business hours (Monday – Friday, 8:00 a.m. – 5:00 p.m., local customer time).

Outside the United States or Puerto Rico, contact your local IBM representative or your authorized IBM supplier.

If you would like to provide feedback on this publication, see “Communicating your comments to IBM” on page 1261.

**Conventions and terminology that are used in this document**

Commands in this book that can be used in both TSO and z/OS UNIX environments use the following conventions:

- When describing how to use the command in a TSO environment, the command is presented in uppercase (for example, NETSTAT).
- When describing how to use the command in a z/OS UNIX environment, the command is presented in bold lowercase (for example, `netstat`).
- When referring to the command in a general way in text, the command is presented with an initial capital letter (for example, Netstat).

All the exit routines described in this document are *installation-wide exit routines*. The installation-wide exit routines also called installation-wide exits, exit routines, and exits throughout this document.

The TPF logon manager, although included with VTAM, is an application program; therefore, the logon manager is documented separately from VTAM.

Samples used in this book might not be updated for each release. Evaluate a sample carefully before applying it to your system.

**Note:** In this information, you might see the following Shared Memory Communications over Remote Direct Memory Access (SMC-R) terminology:

- RDMA network interface card (RNIC), which is used to refer to the IBM 10GbE RoCE Express® feature.
- Shared RoCE environment, which means that the 10GbE RoCE Express feature operates on an IBM z13™ (z13) or later system, and that the feature can be used
concurrently, or shared, by multiple operating system instances. The RoCE Express feature is considered to operate in a shared RoCE environment even if you use it with a single operating system instance.

For definitions of the terms and abbreviations that are used in this document, you can view the latest IBM terminology at the IBM Terminology website.

Clarification of notes

Information traditionally qualified as Notes is further qualified as follows:

**Note**  Supplemental detail

**Tip**  Offers shortcuts or alternative ways of performing an action; a hint

**Guideline**  Customary way to perform a procedure

**Rule**  Something you must do; limitations on your actions

**Restriction**  Indicates certain conditions are not supported; limitations on a product or facility

**Requirement**  Dependencies, prerequisites

**Result**  Indicates the outcome

Prerequisite and related information

z/OS Communications Server function is described in the z/OS Communications Server library. Descriptions of those documents are listed in “Bibliography” on page 1257 in the back of this document.

Required information

Before using this product, you should be familiar with TCP/IP, VTAM, MVS™, and UNIX System Services.

Softcopy information

Softcopy publications are available in the following collection.

<table>
<thead>
<tr>
<th>Titles</th>
<th>Order Number</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>IBM System z Redbooks Collection</td>
<td>SK3T-7876</td>
<td>The IBM Redbooks® publications selected for this CD series are taken from the IBM Redbooks inventory of over 800 books. All the Redbooks publications that are of interest to the System z® platform professional are identified by their authors and are included in this collection. The System z subject areas range from e-business application development and enablement to hardware, networking, Linux, solutions, security, parallel sysplex, and many others. For more information about the Redbooks publications, see <a href="http://www-03.ibm.com/systems/z/os/zos/zfavorites/">http://www-03.ibm.com/systems/z/os/zos/zfavorites/</a></td>
</tr>
</tbody>
</table>

Other documents

This information explains how z/OS references information in other documents.
When possible, this information uses cross-document links that go directly to the topic in reference using shortened versions of the document title. For complete titles and order numbers of the documents for all products that are part of z/OS, see [z/OS Information Roadmap](SA23-2299). The Roadmap describes what level of documents are supplied with each release of z/OS Communications Server, and also describes each z/OS publication.

To find the complete z/OS library, visit the [z/OS library](www.ibm.com/support/knowledgecenter/SSLTBW/welcome) in IBM Knowledge Center.

Relevant RFCs are listed in an appendix of the IP documents. Architectural specifications for the SNA protocol are listed in an appendix of the SNA documents.

The following table lists documents that might be helpful to readers.

<table>
<thead>
<tr>
<th>Title</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>SNA Formats</td>
<td>GA27-3136</td>
</tr>
<tr>
<td>TCP/IP Tutorial and Technical Overview</td>
<td>GG24-3376</td>
</tr>
<tr>
<td>Understanding LDAP</td>
<td>SG24-4986</td>
</tr>
<tr>
<td>z/OS Cryptographic Services System SSL Programming</td>
<td>SC14-7495</td>
</tr>
<tr>
<td>z/OS IBM Tivoli Directory Server Administration and Use for z/OS</td>
<td>SC23-6788</td>
</tr>
<tr>
<td>z/OS JES2 Initialization and Tuning Guide</td>
<td>SA32-0991</td>
</tr>
<tr>
<td>z/OS Problem Management</td>
<td>SC23-6844</td>
</tr>
<tr>
<td>z/OS MVS Diagnosis: Reference</td>
<td>GA32-0904</td>
</tr>
<tr>
<td>z/OS MVS Diagnosis: Tools and Service Aids</td>
<td>GA32-0905</td>
</tr>
<tr>
<td>z/OS MVS Using the Subsystem Interface</td>
<td>SA38-0679</td>
</tr>
<tr>
<td>z/OS V2R1 Program Directory</td>
<td>GI11-9848</td>
</tr>
<tr>
<td>z/OS UNIX System Services Command Reference</td>
<td>SA23-2280</td>
</tr>
<tr>
<td>z/OS UNIX System Services Planning</td>
<td>GA32-0884</td>
</tr>
<tr>
<td>z/OS UNIX System Services Programming: Assembler Callable Services Reference</td>
<td>SA23-2281</td>
</tr>
<tr>
<td>z/OS UNIX System Services User's Guide</td>
<td>SA23-2279</td>
</tr>
<tr>
<td>z/OS XL C/C++ Runtime Library Reference</td>
<td>SC14-7314</td>
</tr>
<tr>
<td>zEnterprise System and System z10 OSA-Express Customer's Guide and Reference</td>
<td>SA22-7935</td>
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</table>
Redbooks publications

The following Redbooks publications might help you as you implement z/OS Communications Server.

<table>
<thead>
<tr>
<th>Title</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM z/OS V2R1 Communications Server TCP/IP Implementation, Volume 1: Base Functions, Connectivity, and Routing</td>
<td>SG24-8096</td>
</tr>
<tr>
<td>IBM z/OS V2R1 Communications Server TCP/IP Implementation, Volume 2: Standard Applications</td>
<td>SG24-8097</td>
</tr>
<tr>
<td>IBM z/OS V2R1 Communications Server TCP/IP Implementation, Volume 3: High Availability, Scalability, and Performance</td>
<td>SG24-8098</td>
</tr>
<tr>
<td>IBM z/OS V2R1 Communications Server TCP/IP Implementation, Volume 4: Security and Policy-Based Networking</td>
<td>SG24-8099</td>
</tr>
<tr>
<td>IBM Communication Controller Migration Guide</td>
<td>SG24-6298</td>
</tr>
<tr>
<td>IP Network Design Guide</td>
<td>SG24-2580</td>
</tr>
<tr>
<td>Managing OS/390 TCP/IP with SNMP</td>
<td>SG24-5866</td>
</tr>
<tr>
<td>Migrating Subarea Networks to an IP Infrastructure Using Enterprise Extender</td>
<td>SG24-5957</td>
</tr>
<tr>
<td>SecureWay Communications Server for OS/390 V2R8 TCP/IP: Guide to Enhancements</td>
<td>SG24-5631</td>
</tr>
<tr>
<td>SNA and TCP/IP Integration</td>
<td>SG24-5291</td>
</tr>
<tr>
<td>TCP/IP in a Sysplex</td>
<td>SG24-5235</td>
</tr>
<tr>
<td>TCP/IP Tutorial and Technical Overview</td>
<td>GG24-3376</td>
</tr>
<tr>
<td>Threadsafe Considerations for CICS</td>
<td>SG24-6351</td>
</tr>
</tbody>
</table>

Where to find related information on the Internet

z/OS

This site provides information about z/OS Communications Server release availability, migration information, downloads, and links to information about z/OS technology

http://www.ibm.com/systems/z/os/zos/

z/OS Internet Library

Use this site to view and download z/OS Communications Server documentation

www.ibm.com/systems/z/os/zos/bkserv/

IBM Communications Server product

The primary home page for information about z/OS Communications Server


IBM Communications Server product support

Use this site to submit and track problems and search the z/OS Communications Server knowledge base for Technotes, FAQs, white papers, and other z/OS Communications Server information


IBM Communications Server performance information
This site contains links to the most recent Communications Server
performance reports.

http://www.ibm.com/support/docview.wss?uid=swg27005524

**IBM Systems Center publications**

Use this site to view and order Redbooks publications, Redpapers™, and
Technotes

http://www.redbooks.ibm.com/

**IBM Systems Center flashes**

Search the Technical Sales Library for Techdocs (including Flashes,
presentations, Technotes, FAQs, white papers, Customer Support Plans,
and Skills Transfer information)

http://www.ibm.com/support/techdocs/atsmastr.nsf

**Tivoli NetView for z/OS**

Use this site to view and download product documentation about Tivoli®
NetView® for z/OS

http://www.ibm.com/support/knowledgecenter/SSZJDU/welcome

**RFCs**

Search for and view Request for Comments documents in this section of
the Internet Engineering Task Force website, with links to the RFC
repository and the IETF Working Groups web page

http://www.ietf.org/rfc.html

**Internet drafts**

View Internet-Drafts, which are working documents of the Internet
Engineering Task Force (IETF) and other groups, in this section of the
Internet Engineering Task Force website

http://www.ietf.org/ID.html

Information about web addresses can also be found in information APAR III11334.

**Note:** Any pointers in this publication to websites are provided for convenience
only and do not serve as an endorsement of these websites.

**DNS websites**

For more information about DNS, see the following USENET news groups and
mailing addresses:

**USENET news groups**

comp.protocols.dns.bind

**BIND mailing lists**

https://lists.isc.org/mailman/listinfo

**BIND Users**

- Subscribe by sending mail to bind-users-request@isc.org.
- Submit questions or answers to this forum by sending mail to
  bind-users@isc.org.

**BIND 9 Users (This list might not be maintained indefinitely.)**
• Subscribe by sending mail to bind9-users-request@isc.org.
• Submit questions or answers to this forum by sending mail to
bind9-users@isc.org.

The z/OS Basic Skills Information Center

The z/OS Basic Skills Information Center is a web-based information resource intended to help users learn the basic concepts of z/OS, the operating system that runs most of the IBM mainframe computers in use today. The Information Center is designed to introduce a new generation of Information Technology professionals to basic concepts and help them prepare for a career as a z/OS professional, such as a z/OS systems programmer.

Specifically, the z/OS Basic Skills Information Center is intended to achieve the following objectives:
• Provide basic education and information about z/OS without charge
• Shorten the time it takes for people to become productive on the mainframe
• Make it easier for new people to learn z/OS

To access the z/OS Basic Skills Information Center, open your web browser to the following website, which is available to all users (no login required):
Summary of changes

This document contains terminology, maintenance, and editorial changes, including changes to improve consistency and retrievability. Technical changes or additions to the text and illustrations are indicated by a vertical line to the left of the change.

Changes made in z/OS Version 2 Release 1, as updated February 2015

This document contains information previously presented in z/OS Communications Server: SNA Messages, SC27-3671-01, which supported z/OS Version 2 Release 1.

New information

- IST2417

Changed information

- IST2361
- IST2362
- IST2389
- IST2396
- IST2397
- IST2398

Changes made in z/OS Version 2 Release 1, as updated September 2014

This document contains information previously presented in z/OS Communications Server: SNA Messages, SC27-3671-00, which supported z/OS Version 2 Release 1.

Summary of changes for z/OS Version 2 Release 1

For specifics on the enhancements for z/OS Version 2, Release 1, see the following publications:

- z/OS Summary of Message and Interface Changes
- z/OS Introduction and Release Guide
- z/OS Planning for Installation
- z/OS Migration
Chapter 1. Introduction

This topic contains the following information about SNA message standards:

- “Message text formats”
- “Message description format” on page 3
- “Message groups and subgroups” on page 4
- “Message routing” on page 5
- “Message suppression” on page 5
- “User-selected message changes” on page 5
- “DATE and TIME formats” on page 6

Message text formats

Most VTAM messages are preceded by an identifier, as illustrated in Figure 1. Unformatted system services (USS) messages that have been coded by the user might or might not have identifiers.

<table>
<thead>
<tr>
<th>Identifier</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELM005I</td>
<td>MEMBER REQUEST ACCEPTED</td>
</tr>
<tr>
<td>IKT006I</td>
<td>TCAS ENDED</td>
</tr>
<tr>
<td>IKT00400I</td>
<td>INPUT DATA LOST</td>
</tr>
<tr>
<td>IST1020I</td>
<td>INSUFFICIENT STORAGE-DATA SPACE dsname FULL</td>
</tr>
<tr>
<td>USSMSG005</td>
<td>UNSUPPORTED FUNCTION</td>
</tr>
</tbody>
</table>

Figure 1. Sample message format

See Appendix C, “Message routing and suppression,” on page 1103 for additional information on message formats and message format differences.

Message identifiers

All message identifiers include the following sections:

- Prefix
- Message number
- Message type code
Prefix
Message identifiers include a prefix that identifies the source of the message.

Prefix  Source
ELM   Logon manager messages
IKT   TSO/VTAM messages
IST   VTAM network operator messages
IUT   MPC connection manager messages
IVT   Communications Storage Manager (CSM) messages
USS   Unformatted system services messages

Message number
Message identifiers include a unique 2- through 5-digit message number.

Message type code
The following type codes are used in VTAM messages:

A  Action:
The system is waiting for you to respond. For information about how to respond to VTAM operator messages, see “Responding to a VTAM message.”

E  Eventual Action:
You must eventually take some action to correct a problem. The system continues processing without waiting for your response.

I  Information:
The message is for your information. This type code can be used to notify you of an error. No response is necessary, but you might need to take some action.

The following message type code is used only in IKT messages for TSO/VTAM network operators:

D  Decision:
You must decide among several alternatives.

Responding to a VTAM message
The format of your response to a VTAM message, such as IST095A, is operating system dependent.
The response format for MVS and an example follow:

Format Example

r (reply ID),(response)
    r 6,YES

Enter the following response to display the reply ID:

d r,r

You might be able to customize the response format. See your operating system documentation for additional information.

Syntax notation in message text

In this document, VTAM messages are described with the following syntax notation:

**UPPERCASE CHARACTERS**

Represent the actual text of the message.

*italic characters*

Represent message variables. The variables are replaced by their values in the actual message.

**Braces [ ]**

Represent a group of text strings, only one of which is displayed in the actual message. The text strings are separated by or-signs (|) in the braces.

The braces and or-signs are not displayed in the actual message.

**Brackets [ ]**

Represent optional messages or optional parts of a message. Optional messages or optional parts of a message are displayed only under certain circumstances which are described in the "Explanation" section of the message. If an optional part has more than one possible value, or-signs separate the possibilities.

The brackets and or-signs are not displayed in the actual message.

---

**Message description format**

A message consists of several sections. Not all categories are used for each message. For messages that are always issued as a group, the "Explanation" section of the first message usually contains a complete description of the other messages in the group.

**Explanation**

Explains why VTAM issued the message and describes all text and variables in the message.

**System action**

Explains the state of VTAM or the operating system after VTAM issues the message. This section also indicates whether the system is waiting for a reply.

**Operator response**

Describes actions that the operator can or must take at the console.

**Programmer response**

Suggests actions, programming changes, or system definition changes that isolate or correct errors or improve the efficiency of the system.
User response (USS messages only)

Describes actions that the user can or must take at the terminal.

---

**Message groups and subgroups**

**Message Groups**

A message group contains two or more messages that are displayed together in response to a specific command or error condition. The following example is a message group.

```plaintext
IST1188I VTAM level STARTED AT time ON date
IST1349I COMPONENT ID IS dddd-ddddd-ddd
IST1348I VTAM STARTED AS nodetype
IST1189I option = current_value [option = current_value]

IST314I END
```

In most cases, the "Explanation" section of the first message in the group contains an example of the group and information about all messages in the group. The message descriptions of members of the group refer back to the first message for complete information.

Message groups that are in response to DISPLAY commands are an exception. For these groups, each individual message in the group usually contains a complete message description. See [z/OS Communications Server: SNA Operation](https://publib.boulder.ibm.com/infocenter/zos/v2r1/topic/com.ibm.zos vz1icp_snaenrv2rl0.html) for examples of these types of groups.

**Message Subgroups**

A message subgroup contains two or more messages that are displayed together in response to a specific command or error condition. The major differences between a group and a subgroup are that a subgroup is always displayed in a larger group, and one message in the subgroup is always displayed with the other.

Some subgroups are optional parts of the group, and this is indicated by the use of brackets at the beginning and end of the subgroup. Subgroups can also be repeated, and this is indicated by three vertical dots following the last message in the subgroup.

The following example contains several message subgroups.

```plaintext
IST951I DISPLAY DISK INFORMATION FOR ncpname
[IST957I NO NCP LOAD MODULE OR DUMP ON DISK]
[IST952I DUMP NAME DATE TIME
dumpname date time]
...
[IST954I LOAD MODULE DATE TIME STORE STATUS [ACTIVE]
loadmodname date time status [YES|NO]]
...
[IST924I -------------------------------------------------------]
[IST1065I LOAD MODULE REQUESTED IPL ESTIMATED IPL
load_module requested_time
estimated_time]
...
IST965I AUTO DUMP/LOAD: {YES|NO}
IST314I END
```

In this example, the following three subgroups exist in the group headed by IST951I:

- IST952I and IST953I
- IST954I and IST955I
IST1065I and IST1066I
These subgroups are always displayed in the larger IST951I group.

**Message routing**

See Appendix C, “Message routing and suppression,” on page 1103 for information on message routing.

For an explanation of message percolation and a list of percolated VTAM operator messages, see “Message rerouting and percolation” on page 1106.

**Message suppression**

For information on message suppression levels, see "Message suppression levels" on page 1109.

For an explanation of suppression rules for message-flooding prevention and an example of message suppression, see the z/OS Communications Server: SNA Resource Definition Reference.

**Unsupported characters in WTO messages**

Some characters in a message are not supported and will not be displayed by MVS. MVS documents these in a table in the z/OS MVS Programming: Assembler Services Guide.

**User-selected message changes**

The messages that VTAM issues appear exactly as listed in this document unless:

- You have added the name of the VTAM module to the message text by using the MSGMOD start option or the MODIFY VTAMOPTS or MODIFY MSGMOD command.
- You have changed the message text or other message characteristics.
- You have translated messages using the LANGTAB USS tables or the MVS Message Service (MMS).

**Adding the originating module to the message text**

You can add the name of the VTAM module that issued the message to the message text. This can be done by using the MSGMOD start option when VTAM is started or by entering the MODIFY VTAMOPTS or MODIFY MSGMOD command.

If you specify MSGMOD=YES, the last 5 characters of the name of the VTAM module that issued the message are inserted into each VTAM message between the message identifier and the message text.

For example:

- If you specify MSGMOD=NO, message IST285I will appear as follows:
  
  **IST285I**
  
  dumptype DUMP OF resourcename status

- If you specify MSGMOD=YES, message IST285I will appear as follows:
  
  **IST285I INFXI**
  
  dumptype DUMP OF resourcename status

  VTAM module ISTINFXI issued the message.
Note: If you specify MSGMOD=YES, some VTAM messages might be truncated on the right. Significant information might be lost if this occurs.

The MSGMOD start option is described in the z/OS Communications Server: SNA Resource Definition Reference. See z/OS Communications Server: SNA Operation for information on the MODIFY VTAMOPTS and MODIFY MSGMOD commands.

Changing message characteristics
You can change the following VTAM message characteristics:

- Descriptor codes
- Message text
- Routing codes
- Suppression level
- Suppression of extra blanks


For additional information on changing other message characteristics, see the description of the USS macro in the z/OS Communications Server: SNA Resource Definition Reference.

Selecting USS language tables
End users can select a USS table at the time a USS command is entered. This table, selected with the LANGTAB operand on USS commands, takes priority over standard USS tables when messages are issued. This allows the end user to select a language of choice for USS messages.

See the z/OS Communications Server: SNA Network Implementation Guide for additional information. For more information on the LANGTAB operand, see the z/OS Communications Server: SNA Resource Definition Reference.

Translating end-user messages
End users can select a language to be used to translate USS and TSO/VTAM end-user messages using the MVS Message Service (MMS). This language is selected using the LANG operand on USS commands.

See the z/OS Communications Server: SNA Network Implementation Guide for more information. For more information on the LANG operand, see the z/OS Communications Server: SNA Resource Definition Reference.

DATE and TIME formats
When a date is displayed in an IST message for VTAM network operators, the format of the date value is based on the DATEFORM start option. See the information about the DATEFORM start option in z/OS Communications Server: SNA Resource Definition Reference.

Possible date values are:

DATEFORM | DATEFRM=DMY
DD/MM/YY
DATEFORM | DATEFRM=MDY
(default) MM/DD/YY

DATEFORM | DATEFRM=YMD
YY/MM/DD

When a time is issued in a message, the time value is expressed in 24-hour system (hh:mm:ss). For example, 1:00 p.m. is displayed as 13:00:00.

Module

If you want the name of the module that issued a message to be displayed in a VTAM message when the message is issued, use the modifiable VTAM start option MSGMOD=YES. You can set the MSGMOD start option in the following ways:

- Specify MSGMOD=YES in your VTAM start list.
- Specify MSGMOD=YES on the START command when you start VTAM.
- Modify the start option with the F procname,MSGMOD=YES command.
- Modify the start option with the F procname,VTAMOPTS,MSGMOD=YES command.

See the information about the START command, the MODIFY MSGMOD command, or the MODIFY VTAMOPTS command in z/OS Communications Server: SNA Operation. See the information about the MSGMOD start option in z/OS Communications Server: SNA Resource Definition Reference.
Chapter 2. ELM messages for logon manager network operators

This chapter lists logon manager messages that can appear on a network operator’s console.

See the z/OS Communications Server: SNA Network Implementation Guide for information on logon manager.

ELM001I REDEFINITION COMPLETE
Explanation: The logon manager MODIFY MEMBER command was entered. The new configuration definition is now in effect.
System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2,8
Descriptor code: 6

ELM002I LOGON MANAGER INITIALIZATION COMPLETED
Explanation: The logon manager is prepared to accept requests.
System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2,8
Descriptor code: 6

ELM003I NO SUBAREAS DETECTED IN CONFIGURATION DEFINITION
Explanation: The logon manager MODIFY MEMBER command was entered. The logon manager input data set contains no subarea definition records. The logon manager requires subarea definitions to process requests.
System action: The redefinition request is processed, and an empty subarea configuration takes effect.
Operator response: Reenter a logon manager MODIFY MEMBER command specifying a data set that contains a valid subarea configuration.
System programmer response: Correct the configuration-definition data set member adding required subarea definition records.
Routing code: 2,8
Descriptor code: 6

ELM004I REDEFINITION IN PROGRESS — COMMAND QUEUED
Explanation: An operator command was entered during logon manager redefinition.
System action: The command is queued for later processing.
Operator response: None.
System programmer response: None.
ELM005I • ELM009I

Routing code: 2,8
Descriptor code: 6

ELM005I MEMBER REQUEST ACCEPTED
Explanation: The logon manager MODIFY MEMBER command entered by the operator was accepted by the logon manager.
System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2,8
Descriptor code: 6

ELM006I REDEFINITION IN PROGRESS
Explanation: The configuration specified by the logon manager MODIFY MEMBER command is being processed. Subarea distance and index tables are updated for all subtasks.
System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2,8
Descriptor code: 6

ELM007I REDEFINITION UNSUCCESSFUL
Explanation: Logon manager redefinition failed.
System action: Processing continues with the previous configuration definition.
Operator response: Save the system log for problem determination.
System programmer response: Use the information issued in ELM017I, ELM020I, or ELM021I to correct the problem.
Routing code: 2,8
Descriptor code: 6

ELM008I REPLY TRUNCATED
Explanation: The response to a logon manager MODIFY HELP or logon manager MODIFY INFO command is incomplete because of a buffer shortage.
System action: Processing continues.
Operator response: Reenter the command. If the condition persists, save the system log for problem determination.
System programmer response: If necessary, increase the number of buffers by configuration definition.
Routing code: 2,8
Descriptor code: 6

ELM009I STOP REQUEST ACCEPTED
Explanation: A logon manager MODIFY STOP command entered by an operator was accepted.
System action: Termination processing begins.
Operator response: None.
**System programmer response:** None.

**Routing code:** 2,8

**Descriptor code:** 6

---

**ELM010I**  
**INFO REQUEST ACCEPTED**

**Explanation:** A logon manager MODIFY INFO command entered by an operator was accepted by the logon manager.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2,8

**Descriptor code:** 6

---

**ELM011I**  
**MINLINK REQUEST ACCEPTED**

**Explanation:** A logon manager MODIFY MINLINK command entered by an operator was accepted by the logon manager.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2,8

**Descriptor code:** 6

---

**ELM012I**  
**SELECTED RESOURCE NOT FOUND**

**Explanation:** An operator command was entered that specified a resource not known to the logon manager.

**System action:** Processing continues.

**Operator response:** Reenter the command, specifying a valid resource.

**System programmer response:** None.

**Routing code:** 2,8

**Descriptor code:** 6

---

**ELM013I**  
**MINLINK REQUEST COMPLETED**

**Explanation:** A logon manager MODIFY MINLINK command was completed.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2,8

**Descriptor code:** 6

---

**ELM014I**  
**NAME: TYP: STATUS: CURRENT: CONTROL: REASON: INITS:**

**Explanation:** This message is the first in a group of messages in response to a logon manager MODIFY INFO command. A complete description of the message group follows.

**ELM014I**  
**NAME: TYP: STATUS: CURRENT: CONTROL: REASON: INITS:**

**ELM040I** name type status curop=curcnt conop=concnt reason inits
name indicates the name of the resource.

type indicates the type of the resource and is either an application (APPL) or channel-attached control point LU (CLU).

status indicates the status of the resource and can be one of the following values:

**ACTIVE**
Active

**INACTIVE**
Inactive

**PENDACTV**
Pending active

**PENDINAC**
Pending inactive

If type is APPL,
curop is link count (LNKCNT).
curcnt is the number of CLUs that support (handle session initiations for) application name.
conop is minimum link count (MINLNK).
concnt is the smallest link count at which application name remains active.

If type is CLU,
curop is session count (SESCNT).
curcnt is the number of sessions initiated across CLU name as reported by the CLU.
conop is session limit (SESLMT).
concnt is the largest number of sessions that can be initiated across CLU name.

reason indicates the reason for the current status of the resource (when known).

inits indicates the number of session initiations sent to application name or across CLU name as determined by the logon manager.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

Routing code: 2,8
Descriptor code: 6

---

**ELM015I**

NO PENDING RESOURCES FOUND

**Explanation:** A logon manager MODIFY INFO command for pending resources was completed. No resources were found in the pending state.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

Routing code: 2,8
Descriptor code: 6
ELM016I LOGON MANAGER CLOSEDOWN COMPLETED
Explanation: Logon manager termination completed.
System action: Logon manager session is completed and control returns to MVS.
Operator response: None.
System programmer response: None.
Routing code: 2,8
Descriptor code: 6

ELM017I REQUIRED STORAGE UNAVAILABLE
Explanation: An operator command was entered that required the logon manager to acquire additional storage.
System action: If the condition occurs during logon manager initialization, initialization fails and ELM110I is issued. Otherwise, the logon manager continues processing.
Operator response: If the logon manager continues processing, try the operation again.
System programmer response: Respond to MVS messages for a storage shortage. A larger region might be required.
Routing code: 2,8
Descriptor code: 6

ELM018I SA RECORD CAUSES MAXSUBA PARAMETER TO BE EXCEEDED
Explanation: The logon manager MODIFY MEMBER command was entered. The number of unique or adjacent subareas encountered in the system-definition data set exceeds the number specified in the MAXSUBA parameter at system startup.
System action: The SA record is ignored and processing continues.
Operator response: Save the system log for problem determination.
System programmer response: Ensure that the subarea configuration in the specified member is consistent with the job-step parameters. Adjust the MAXSUBA parameter if necessary.
Routing code: 2,8
Descriptor code: 6

ELM019I LMAPPL RECORD CAUSES MAXAPLC VALUE TO BE EXCEEDED
Explanation: The logon manager MODIFY MEMBER command was entered. The number of applications defined in the LMAPPL statement exceeds either the default value or the value specified in the MAXAPLC statement.
System action: The LMAPPL record is processed. Storage fragmentation might result.
Operator response: Save the system log for problem determination.
System programmer response: Adjust the MAXAPLC value in the specified member.
Routing code: 2,8
Descriptor code: 6

ELM020I UNABLE TO ACCESS CONFIGURATION DEFINITION DATA SET MEMBER
Explanation: A logon manager MODIFY MEMBER command was entered. Either data set ELMDEFDS could not be opened, or the member specified could not be found in the data set.
System action: Processing continues with the previous configuration definition.
Operator response: Save the system log for problem determination.
**System programmer response:** Validate the data-set name associated with data set ELMDEFDS and the member specified in the command.

Routing code: 2,8
Descriptor code: 6

**ERROR ENCOUNTERED IN READING CONFIGURATION DEFINITION DATA SET MEMBER**

**Explanation:** The logon manager MODIFY MEMBER command was entered. A READ error was encountered while processing the member.

**System action:** Processing continues with the previous configuration definition.

**Operator response:** Save the system log for problem determination.

**System programmer response:** Check the integrity of the data set ELMDEFDS.

Routing code: 2,8
Descriptor code: 6

**HELP REQUEST ACCEPTED**

**Explanation:** A logon manager MODIFY HELP command was accepted by the logon manager.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

Routing code: 2,8
Descriptor code: 6

**VALID COMMAND PARAMETERS ARE:**

**Explanation:** This is the first message of the HELP message group, which is displayed after message ELM022I. The entire message group is listed below.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

Routing code: 2,8
Descriptor code: 6
**ELM024I**  HELP ...GET VALID COMMAND FORMATS

**Explanation:**  This is part of the HELP message group that begins with message ELM023I. See the explanation of that message for a complete description.

Routing code:  2,8
Descriptor code:  6

**ELM025I**  INFO,ID=NNNNNNNN ...GET STATUS FOR RESOURCE NAMED NNNNNNNNN

**Explanation:**  This is part of the HELP message group that begins with message ELM023I. See the explanation of that message for a complete description.

Routing code:  2,8
Descriptor code:  6

**ELM026I**  INFO,ID=CLU ...GET STATUS FOR EACH CONTROL LOGICAL UNIT

**Explanation:**  This is part of the HELP message group that begins with message ELM023I. See the explanation of that message for a complete description.

Routing code:  2,8
Descriptor code:  6

**ELM027I**  INFO,ID=CLU,PEND ...GET STATUS FOR EACH PENDING CLU

**Explanation:**  This is part of the HELP message group that begins with message ELM023I. See the explanation of that message for a complete description.

Routing code:  2,8
Descriptor code:  6

**ELM028I**  INFO,ID=APPL ...GET STATUS FOR EACH SUPPORTED APPLICATION

**Explanation:**  This is part of the HELP message group that begins with message ELM023I. See the explanation of that message for a complete description.

Routing code:  2,8
Descriptor code:  6

**ELM029I**  INFO,ID=APPL,PEND ...GET STATUS FOR EACH PENDING APPL

**Explanation:**  This is part of the HELP message group that begins with message ELM023I. See the explanation of that message for a complete description.

Routing code:  2,8
Descriptor code:  6

**ELM030I**  INFO,ID=ALL ...GET STATUS FOR EACH CLU AND APPL

**Explanation:**  This is part of the HELP message group that begins with message ELM023I. See the explanation of that message for a complete description.

**ELM031I**  INFO,ID=ALL,PEND ...GET STATUS FOR EACH PENDING CLU AND APPL

**Explanation:**  This is part of the HELP message group that begins with message ELM023I. See the explanation of that message for a complete description.

Routing code:  2,8
Descriptor code:  6
ELM032I • ELM040I

ELM032I  MEMBER=MMMMMMMM ...PROCESS DEFINITION MEMBER MMMMMMMMMM

Explanation: This is part of the HELP message group that begins with message ELM023I. See the explanation of that message for a complete description.

Routing code: 2,8
Descriptor code: 6

ELM033I  MINLINK=VVV,ID=ALL...SET MINLINK VALUE TO VVV (1–255)

Explanation: This is part of the HELP message group that begins with message ELM023I. See the explanation of that message for a complete description.

Routing code: 2,8
Descriptor code: 6

ELM034I  FOR EACH SUPPORTED APPLICATION

Explanation: This is part of the HELP message group that begins with message ELM023I. See the explanation of that message for a complete description.

Routing code: 2,8
Descriptor code: 6

ELM035I  MINLINK=VVV,ID=NNNNNNNN ...SET MINLINK VALUE FOR APPL NNNNNNNNN

Explanation: This is part of the HELP message group that begins with message ELM023I. See the explanation of that message for a complete description.

Routing code: 2,8
Descriptor code: 6

ELM036I  STOP ...REQUESTS CLOSEDOWN

Explanation: This is part of the HELP message group that begins with message ELM023I. See the explanation of that message for a complete description.

Routing code: 2,8
Descriptor code: 6

ELM037I  LMAPPL RECORD IGNORED — WOULD CAUSE MAXAPLC LIMIT TO BE EXCEEDED

Explanation: The logon manager MODIFY MEMBER command was entered. One or more LMAPPL records were encountered, either exceeding the number of applications specified for MAXAPLC or resulting in more than 4095 applications being defined to the logon manager.

System action: Processing continues.
Operator response: Save the system log for problem determination.
System programmer response: Check the member specified to ensure that no more than 4095 applications are defined to the logon manager.

Routing code: 2,8
Descriptor code: 6

ELM040I  name type status curop=curcnt conop=concnt reason inits

Explanation: This message is issued as part of a message group. The first message of the group is ELM014I. See the explanation of that message for a complete description.

Routing code: 2,8
Descriptor code: 6
ELM050I SYNTAX ERROR [AFTER keyword] [AT token] IN type

Explanation: A syntax error has been encountered in an operator command, definition member, or job parameters. type indicates the type of error and can be one of the following types:

OPERATOR COMMAND
DEFINITION MEMBER
JOB PARAMETERS

If any valid input was recognized, the token at which the error was detected is indicated by token.

If a keyword was recognized before the error was detected, the keyword is indicated by keyword.

System action: The input is ignored.

Operator response: Ensure that you entered the command correctly. If problems persist, save the system log for problem determination.

System programmer response: Correct the definition member or job parameters.

Routing code: 2,8
Descriptor code: 6

ELM051I INCORRECT VALUE SPECIFIED FOR operand IN type

Explanation: The value for the indicated operand is out of range. type indicates the type of error and can be one of the following types:

OPERATOR COMMAND
DEFINITION MEMBER
JOB PARAMETERS

System action: The operand is ignored. Processing continues.

Operator response: For an operator command, check the command for errors, correct them, and try the command again. If problems persist, save the system log for problem determination.

System programmer response: Correct the definition record or job parameter.

Routing code: 2,8
Descriptor code: 6

ELM060I NO VALID VALUE FOR PARAMETER parameter PROVIDED

Explanation: Parameter parameter is missing or invalid.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2,8
Descriptor code: 6

ELM061I CURRENT VALUE OF MEMBER PARAMETER IS membername

Explanation: One or more parameters are missing or invalid. VTAM provides the value of the MEMBER parameter for the operator’s information.

System action: Processing continues.

Operator response: None.

System programmer response: None.
**ELM062I • ELM070I**

Routing code: 2,8  
Descriptor code: 6

---

**ELM062I** CURRENT VALUE OF MAXSUBA PARAMETER IS value

**Explanation:** One or more parameters are missing or invalid. The value of the MAXSUBA parameter is provided for the operator’s information.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

Routing code: 2,8  
Descriptor code: 6

---

**ELM063A** ENTER LOGON MANAGER START PARAMETERS (OR 'END')

**Explanation:** One or more parameters required to start the logon manager are missing or invalid.

**System action:** Prompts for valid parameters.

**Operator response:** Enter the valid parameters. The value for any parameter specified in response to this message overrides the current value for that parameter. If you enter END instead of a parameter string, the logon manager terminates.

**System programmer response:** None.

Routing code: 2,8  
Descriptor code: 6

---

**ELM070I** macro FAILURE [FOR APPLICATION applname], RETURN CODE value

**Explanation:** The macro indicated by macro failed.

If the macro failure affected the processing of a session initiation for a specific application, the application name is indicated by applname.

If available, a return code (as indicated by value) is provided for problem determination.

value, displayed in decimal, can be one of the following values:

- 32  GETMAIN failure
- 38  Logon manager not available
- 39  CLU not found
- 52  APLB not found
- 56  Subarea address not found
- 60  Function code not valid
- 70  Logon manager exit not initialized

If macro is ISTIECIV and value is not listed above, value might have been returned by ELMCLUEx, the CLU search exit routine. See your ELMCLUEx exit routine for the meaning of those return codes. See z/OS Communications Server: SNA Customization for more information on the CLU search exit routine.

**System action:** Begins termination processing.

**Operator response:** Save the system log for problem determination.

**System programmer response:** For failure information concerning the specified macro, see z/OS Communications Server: SNA Programming or the appropriate MVS manual. For information on the APPCCMD macro, see the z/OS Communications Server: SNA Programmer's LU 6.2 Guide.
ELM075I  SESSION SETUP FOR olu TO dlu FAILED, SENSE = code

**Explanation:** A dependent secondary logical unit (SLU) olu attempted to log on to a Transaction Processing Facility (TPF) application dlu, but session setup failed.

*olu* is the origin logical unit.

*dlu* is the destination logical unit.

*code* is the sense code and provides information about the cause of the failure. See the [z/OS Communications Server: IP and SNA Codes](https://www.ibm.com/support/docview/wa?uid=swg27046605) for a description of code.

**System action:** Processing continues.

**Operator response:** Save the system log for problem determination.

**System programmer response:** The cause of this message is usually a definition or line problem. Take the following actions:

1. Ensure that *olu* is defined to the TPF system on which the TPF application *dlu* resides.
2. Ensure that the TPF application *dlu* is active and accepting session requests.
3. Ensure that VTAM has a valid session to the TPF system.
4. If you cannot identify a definition or line problem, dump Logon Manager.
5. If this message is the result of an apparent software error, take the following actions:
   - If you have access to IBMLink, search for known problems with similar symptoms. If no applicable matches are found, report the problem to IBM by using the Electronic Technical Report (ETR) option on IBMLink.
   - If you do not have access to IBMLink, report the problem to the IBM software support center.

For additional information on Logon Manager and TPF, see the [z/OS Communications Server: SNA Network Implementation Guide](https://www.ibm.com/support/docview/wa?uid=swg27046605).

Routing code: 2,8

Descriptor code: 6

---

ELM080I  ATTACH FAILED FOR SUBTASK taskname

**Explanation:** The logon manager attempted to ATTACH subtask *taskname*. The ATTACH failed.

**System action:** If the condition occurs during logon manager initialization, initialization fails and ELM110I is issued. Otherwise, the logon manager continues processing.

**Operator response:** If the message recurs, enter the logon manager MODIFY MINLINK command to stop activation attempts for this subtask.

**System programmer response:** None.

Routing code: 2,8

Descriptor code: 6

---

ELM081I  BUFFER STORAGE NOT AVAILABLE FOR RECEIVE FROM CLU cluname

**Explanation:** No buffer is available to issue a receive for the channel-attached control-point logical unit (*cluname*).

**System action:** The session with the channel-attached control-point logical unit is ended.

**Operator response:** Save the system log for problem determination.

**System programmer response:** If necessary, increase the number of buffers by configuration definition.

Routing code: 2,8

Descriptor code: 6
**ELM090I • ELM101A**

**ELM090I**  SEND TO CLU *cluname* FAILED[ RC/FB=*value*]

Explanation:  A SEND to channel-attached control-point LU *cluname* failed.

When the associated RPL can be read, the return code and feedback values are indicated by *value*. See the [z/OS Communications Server: IP and SNA Codes](https://www.ibm.com/support/knowledgecenter/SSEQ22_2.15.0/com.ibm.zos.v2r1.sna.messages.doc_2.15.0/elnl09i.htm) for a description of *value*.

System action:  Processing continues.

Operator response:  Try the operation that caused the SEND macro to fail again. If the condition persists, save the system log for problem determination.

System programmer response:  For additional information on the SEND macro, see [z/OS Communications Server: SNA Programming](https://www.ibm.com/support/knowledgecenter/SSLTBW_2.15.0/com.ibm.zos.v2r1.sna.messages.doc_2.15.0/elnl09i.htm).

Routing code: 2,8
Describer code: 6

---

**ELM091I**  RECEIVE FROM CLU *cluname* FAILED[ RC/FB=*value*]

Explanation:  A RECEIVE from channel-attached control-point LU *cluname* failed.

When the associated RPL can be read, the return code and feedback values are indicated by *value*. See the [z/OS Communications Server: IP and SNA Codes](https://www.ibm.com/support/knowledgecenter/SSEQ22_2.15.0/com.ibm.zos.v2r1.sna.messages.doc_2.15.0/elnl09i.htm) for a description of *value*.

System action:  The session with the channel-attached control-point LU is terminated.

Operator response:  Save the system log for problem determination.

System programmer response:  For additional information on the RECEIVE macro, see [z/OS Communications Server: SNA Programming](https://www.ibm.com/support/knowledgecenter/SSLTBW_2.15.0/com.ibm.zos.v2r1.sna.messages.doc_2.15.0/elnl09i.htm).

Routing code: 2,8
Describer code: 6

---

**ELM100I**  ACB RELEASE-LEVEL VECTOR INDICATES INCORRECT VTAM LEVEL

Explanation:  The active version of VTAM is pre-V3R2.

System action:  Begins termination processing.

Operator response:  Save the system log for problem determination.

System programmer response:  Ensure that a V3R2 VTAM or higher is installed before activating the logon manager.

Routing code: 2,8
Describer code: 6

---

**ELM101A**  ENTER 'CONTINUE' WHEN VTAM IS ACTIVE (OR 'END')

Explanation:  The logon manager attempted to open its ACB and determined that VTAM was not active.

System action:  Waits for operator input.

Operator response:  Enter CONTINUE when VTAM message IST020I indicates that VTAM is active. Enter END to stop the logon manager.

System programmer response:  None.

Routing code: 2,8
Describer code: 6
ELM110I  INITIALIZATION UNSUCCESSFUL

Explanation: The logon manager initialization failed.

System action: Termination processing begins.

Operator response: Save the system log for problem determination.

System programmer response: Use the information in previous messages to assist you in correcting the problem.

Routing code: 2,8

Descriptor code: 6
Chapter 3. IKT messages for TSO/VTAM network operators

This chapter lists TSO/VTAM messages that can appear on a network operator’s console.

These messages have a different prefix than TSO messages. TSO/VTAM issues messages that begin with IKT; TSO issues messages that begin with IKJ.

TSO/VTAM messages for terminal operators are described in Chapter 4, “IKT messages for TSO/VTAM terminal users,” on page 41.

See the z/OS Communications Server: SNA Network Implementation Guide for information on TSO/VTAM. For information on diagnosing TSO/VTAM problems, see z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures.

IKT001D  nnnn USER(S) ACTIVE REPLY ‘U’, ‘SIC’, OR ‘FSTOP’

Explanation:  An operator entered a start command to activate TCAS. nnnn users were found to be active from a previous session. This situation can occur if TCAS previously failed, and users were not properly terminated.

System action:  The system waits for the operator to reply.

Operator response: Check to determine whether the users tried to enter a logoff command before a new start command for TSO was entered. If logoff was entered and the users’ address space is still active, there might be a VTAM/TSO interface problem. Otherwise, take one of the following actions:
- Reply “U" to continue start command processing and to allow the active users to remain active.
- Reply “SIC” to cancel the active users normally, allowing any messages queued for them to be received. Start command processing will then continue.
- Reply “FSTOP” to force immediate cancellation of the active users. Start command processing will then continue. Use “FSTOP” only if “SIC” is ineffective.

System programmer response:  None.

Routing code:  1,8
Descriptor code:  ***

IKT002I  TCAS IS TERMINATING, REASON CODE=code

Explanation:  TCAS was unable to continue its normal processing because of an error, indicated by code:

04  The attempt to activate TCAS was invalid because TCAS was already active in the system.
16  The TCAS main task was unable to attach the VTAM interface subtask.
20  The TCAS main task was unable to attach the user interface subtask.
24  The TCAS main task was unable to attach the console communication subtask.
28  TCAS was unable to obtain storage for the TCAS table (TCAST) in the common service area (CSA).
32  The TCAS main task was abnormally terminated and unable to recover.
48  The VTAM interface subtask was abnormally terminated and unable to recover.
52  The user interface subtask was abnormally terminated and unable to recover.
56  The console communication subtask was abnormally terminated and unable to recover.

System action:  TCAS terminates normally for codes 04, 48, 52, and 56. TCAS terminates abnormally for codes 16, 20, 24, 28, and 32.
IKT003D

**Operator response:** Obtain a dump by specifying “DUMP” in response to TCAS termination message IKT012D. Save the system log for problem determination.

**System programmer response:** The reason code indicates the reason TCAS is terminating. Correct the problem as determined from the TCAS dump and console output provided by the operator. See z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures for more information on termination problems.

Routing code: 1,8
Descriptor code: ***

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IKT003D  TCAS UNABLE TO ACCEPT LOGONS, REASON CODE=code  REPLY ‘RETRY’ OR ‘TERM’

**Explanation:** TCAS issues this message when VTAM fails to open the TCAS access method control block (ACB) or to accept logons to TSO. This is either an OPEN ACB or SETLOGON macro failure.

code (in decimal) indicates the reason for the problem.

16  The SETLOGON macro, issued by TCAS to allow VTAM to accept logons, failed.

20  A VTAM OPEN macro could not be processed because of a temporary shortage of storage.

36  TCAS tried to open an ACB. The password in the ACB did not match the password in the corresponding APPL entry, or the ACB did not specify a password when one was specified in the APPL entry.

82  The VTAM operator entered a HALT command, and VTAM is shutting down.

84  Either the address supplied in the ACB’s APPLID field lies beyond TCAS’s addressable range, or the name indicated by the ACB’s APPLID field is not defined to VTAM. If the OPEN macro was specified correctly, you might have left out TSO’s application program ID (which is TSO) during VTAM definition.

86  A match for application program ID TSO was found, but it was for an entry other than an APPL statement.

88  Another ACB, already opened by VTAM, indicates the same application program ID (TSO) that this ACB does. You might have assigned the same application program ID to two different versions of TSO. This is valid only if the programs do not run (or at least do not open their ACBs) concurrently.

90  The name (TSO) indicated by the ACB’s APPLID field is not defined to VTAM. This error might have occurred because:
   1. No APPL definition statement was coded for TSO.
   2. The major node containing the APPL definition statement for TSO has not been activated.
   3. The major node containing the APPL definition statement for TSO has been deactivated.

92  VTAM has been included as part of the operating system, but it is inactive.

96  An apparent system error occurred. Either there is a defect in VTAM’s logic, or there is an error in TCAS’s use of the OPEN macro that VTAM did not properly detect.

112  The ACB failed to open because close processing was not completed.

**System action:** Processing continues.

**Operator response:**
- Reply ‘RETRY’ to cause TCAS to try again to accept logons.
- Reply ‘TERM’ to cause TCAS to terminate.

Save the system log for problem determination.

**System programmer response:** See z/OS Communications Server: SNA Programming for a description of the OPEN ACB and SETLOGON macros. See the z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures for more information on logon problems.

Routing code: 1,8
Descriptor code: ***
IKT004D  INVALID PARAMETERS SPECIFIED, RESPECIFY OR REPLY ‘U’

Explanation: One or more invalid parameters were specified when trying to start, modify, or stop TCAS. For more information, see z/OS MVS Initialization and Tuning Reference.

System action: The system waits for the operator to reply.

Operator response: Check for an invalid parameter. Respecify all the parameters, or reply ‘U’ to cause the command to be ignored.

System programmer response: None.
Routing code: 1,8
Descriptor code: ***

IKT005I  TCAS IS INITIALIZED

Explanation: TCAS initialization began in response to a START TSO command and is now complete.

System action: Unless they are suppressed, logons to TSO/VTAM are now accepted.

Operator response: None.
System programmer response: None.
Routing code: 1,8
Descriptor code: ***

IKT006I  TCAS ENDED

Explanation: TCAS has ended normally.

System action: TSO/VTAM is terminated.

Operator response: None.
System programmer response: None.
Routing code: 1,8
Descriptor code: ***

IKT007I  TCAS ACCEPTING LOGONS

Explanation: Logons are allowed with an operator START or MODIFY command.

System action: Logons to TSO/VTAM are now accepted.

Operator response: None.
System programmer response: None.
Routing code: 1,8
Descriptor code: ***

IKT008I  TCAS NOT ACCEPTING LOGONS

Explanation: TCAS has stopped accepting logons in response to an operator’s command (for example, MODIFY TSO USERMAX=...). No new logons will be accepted until requested by the operator.

System action: Processing continues.

Operator response: None.
System programmer response: None.
Routing code: 1,8
Descriptor code: ***
IKT009I • IKT011I

IKT009I TPEND HAS OCCURRED, TCAS TERMINATION IN PROGRESS

Explanation: VTAM has notified TCAS of a VTAM abend (TPEND exit driven). A HALT command was entered to stop VTAM, or TCAS is terminating.

System action: TCAS performs termination processing.

Operator response: None.

System programmer response: None.

Routing code: 1,8

Descriptor code: ***

IKT010D nnnnn USER(S) ACTIVE, REPLY ‘SIC’ OR ‘FSTOP’

Explanation: A STOP command was entered to stop TCAS, but nnnnn terminal users are still active.

System action: The system waits for the operator to reply.

Operator response: The two acceptable replies are:

- Reply ‘SIC’ to cancel the active users normally. This allows them to receive any messages queued for them. It allows TSO/VTAM to perform its normal termination processing.
- Reply ‘FSTOP’ to force immediate cancellation of the active users. The users will not receive any messages queued for them. TSO/VTAM will not perform its normal termination processing; that is, task resource manager processing will be circumvented. Use ‘FSTOP’ only if ‘SIC’ did not work in a previous attempt.

System programmer response: None.

Routing code: 1,8

Descriptor code: ***

IKT011I TCAS UNABLE TO {ACCEPT|QUIESCE} LOGONS, REASON CODE=code

Explanation: TCAS issues this message in response to a TSO MODIFY command requesting that TCAS accept or quiesce logons. VTAM either failed to open the TCAS ACB or failed to accept or quiesce logons to TSO.

code (in decimal) indicates the reason for the problem.

16 The SETLOGON macro, issued by TCAS to request VTAM to accept or reject logons, failed.

20 A VTAM OPEN macro could not be processed because of a temporary storage shortage.

82 The VTAM operator entered a HALT command, and VTAM is shutting down.

84 Either the address supplied in the ACB’s APPLID field lies beyond TCAS’s addressable range, or the name indicated by the ACB’s APPLID field is not defined to VTAM. If the OPEN macro was specified correctly, you might have left out TSO’s application program ID (which is TSO) during VTAM definition.

86 A match for application program ID TSO was found, but it was for an entry other than an APPL entry.

88 Another ACB, already opened by VTAM, indicates the same application program ID (TSO) that this ACB does. You might have assigned the same application program ID to two different versions of TSO. This is valid only if the programs do not run (or at least do not open their ACBs) concurrently.

90 The name (TSO) indicated by the ACB’s APPLID field is not defined to VTAM. This error might have occurred because:

1. No APPL definition statement was coded for TSO.
2. The major node containing the APPL definition statement for TSO has not been activated.
3. The major node containing the APPL definition statement for TSO has been deactivated.

92 VTAM has been included as part of the operating system, but it is inactive.

96 An apparent system error occurred. Either there is a defect in VTAM’s logic, or there is an error in TCAS’s use of the OPEN macro that VTAM did not properly detect.
No more TSO user APPLIDs are available. You might have defined too few TSO user APPLIDs.

**System action:** Processing continues.

**Operator response:** Save the system log for problem determination.

**System programmer response:** Use the system log and reason code to assist you in correcting the problem. See [z/OS Communications Server: SNA Programming](https://www-03.ibm.com/software/products/en/zos Communications Server) for a description of the OPEN ACB and SETLOGON macros. See [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](https://www-03.ibm.com/software/products/en/zos Communications Server: SNA Diagnosis Vol 1) for more information on TSO/VTAM logon problems.

**Routing code:** 1,8

**Descriptor code:** ***

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**IKT012D** TCAS TERMINATION IN PROGRESS — SPECIFY ‘U’ OR ‘DUMP’

**Explanation:** TCAS is terminating. An SVC dump can be requested. This message might be due to an abend. See IKT002I for more information.

**System action:** The system waits for the operator to reply.

**Operator response:**
- Reply ‘U’ to continue termination processing without a dump.
- Reply ‘DUMP’ to produce a dump of virtual storage.

**System programmer response:** None.

**Routing code:** 1,8

**Descriptor code:** ***

---

**IKT013I** PARAMETER FILE CANNOT BE OPENED - DEFAULT PARAMETERS USED

**Explanation:** An error occurred while TCAS was trying to open the TSO parameter file. This caused TSO/VTAM default parameters to be used. The parameter file can be found in:
- The data set defined by the PARMLIB DD statement in the TSO start procedure
- A data set in the logical parmlib concatenation (for z/OS)
- SYS1.PARMLIB

**System action:** TCAS initialization continues.

**Operator response:** If the defaults are not acceptable, stop TSO/VTAM. Save the system log for problem determination.

**System programmer response:** See [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](https://www-03.ibm.com/software/products/en/zos Communications Server: SNA Diagnosis Vol 1) for more information on TSO/VTAM problems.

**Routing code:** 1,8

**Descriptor code:** ***

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**IKT014I** I/O ERROR READING MEMBER member_name - DEFAULT PARAMETERS USED

**Explanation:** An I/O error occurred while TCAS was reading TSO/VTAM parameters from the parameter member member_name. This caused TSO/VTAM default parameters to be used. The parameter member member_name can be found in:
- The data set defined by the PARMLIB DD statement in the TSO start procedure
- A data set in the logical parmlib concatenation (for z/OS)
- SYS1.PARMLIB

*member_name* is the name of the member of the parameter data set.

**System action:** TCAS initialization continues.
IKT015I • IKT018I

**Operator response:** If the defaults are not acceptable, stop TSO/VTAM. Save the system log for problem determination.

**System programmer response:** See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](https://www.ibm.com) for more information on TSO/VTAM problems.

Routing code: 1,8
Descriptor code: ***

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**IKT015I MODIFY COMMAND REJECTED, INVALID PARAMETERS SPECIFIED**

**Explanation:** A TSO MODIFY command entered to modify TCAS specified one or more invalid parameters.

**System action:** The command is ignored.

**Operator response:** Reenter the command using the correct parameters. See [z/OS MVS System Commands](https://www.ibm.com) for additional information on commands.

**System programmer response:** None.

Routing code: 1,8
Descriptor code: ***

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**IKT016D INVALID REPLY — RESPECIFY**

**Explanation:** While processing the STOP command, TCAS asked the operator a question and the operator gave an invalid reply.

**System action:** The system waits for the operator to reply.

**Operator response:** Specify a valid reply, either ‘FSTOP’ or ‘SIC’. See IKT010D for descriptions of ‘FSTOP’ and ‘SIC’.

**System programmer response:** None.

Routing code: 1,8
Descriptor code: ***

---

**IKT017I FILE FOR PRINTING TSO/VTAM TIME SHARING PARAMETERS CANNOT BE OPENED**

**Explanation:** An error was encountered during TCAS initialization while trying to open the file for printing TSO/VTAM parameters.

**System action:** The parameters are not printed, but TCAS initialization continues.

**Operator response:** None.

**System programmer response:** Determine if the file should be open and if so, open it.

Routing code: 1,8
Descriptor code: ***

---

**IKT018I I/O ERROR PRINTING TSO/VTAM TIME SHARING PARAMETERS, PRINTING STOPPED**

**Explanation:** An error was encountered during TCAS initialization while printing TSO/VTAM parameters.

**System action:** Printing of the parameters is stopped, but TCAS initialization continues.

**Operator response:** None.

**System programmer response:** None.

Routing code: 1,8
Descriptor code: ***
IKT020I  TCAS CONSOLE COMMUNICATION TASK ABENDED, RECOVERY IN PROGRESS
Explanation:  A TCAS subtask abended.
System action:  TCAS reattaches the terminated task.
Operator response:  None.
System programmer response:  None.
Routing code:  1,8
Descriptor code:  ***

IKT026D  TCAS ABEND IN PROGRESS — SPECIFY ‘U’ OR ‘DUMP’
Explanation:  TCAS is abending. You can request an SVC dump.
System action:  The system waits for the operator to reply.
Operator response:
  •  Reply ‘U’ to continue termination processing without a dump.
  •  Reply ‘DUMP’ to produce a dump of virtual storage.
System programmer response:  None.
Routing code:  1,8
Descriptor code:  ***

IKT028I  RC= aabbcc  SENSE= code  TERMINAL termid  CANNOT BE CONNECTED OR RELEASED BY VTAM
Explanation:  A user tried unsuccessfully to log on to TSO/VTAM from terminal termid.
The reason code is made up of three parts:
  aa  Indicates the general reason that the message is being issued.
      01  CLSDST to terminal termid failed.
      04  OPNDST to terminal termid failed.
      06  OPNDST to terminal termid failed when trying to issue message IKT00201I to indicate that the maximum number of users are logged on.
  bb  RPLRTNCD field in the RPL (return code).
  cc  RPLFDB2 field in the RPL (feedback code).
See the z/OS Communications Server: IP and SNA Codes for a description of bb and cc.

code is the sense code and represents the RPLFDBK2 field in the RPL. See the z/OS Communications Server: IP and SNA Codes for a description of code.

termid is the terminal identifier. If VTAM issues a network-qualified name, termid is in the form netid.name.

System action:  Processing continues. If no action is taken, the terminal might be unavailable for use until the next time TSO is started.
Operator response:  Save the system log for problem determination.
System programmer response:  Use the system log and the descriptions of aabbcc and code to assist you in correcting the problem.
Routing code:  1,8
Descriptor code:  ***
IKT029I • IKT030I

IKT029I RC= aabbcc SENSE= code TERMINAL termid ABOUT TO BE RELEASED BY VTAM

Explanation: A user tried to log on to TSO/VTAM from terminal termid. An error occurred that prevented a connection between the terminal and TCAS. As a result, the terminal is about to be freed.

The reason code is made up of three parts:

**aa** Indicates the general reason that the message is being issued.

01 CLSDST to terminal termid failed.
02 INQUIRE device characteristics failed.
03 INQUIRE session parameters failed.
04 OPNDST to terminal termid failed.
06 OPNDST to terminal termid failed when trying to issue message IKT0020I to indicate that the maximum number of users are logged on.
20 GETMAIN for work area failed.
21 Invalid session parameters.
22 Invalid device characteristics.

**bb** If an RPL-based macro failed, bb contains the RPLRTNCD field in the RPL. Otherwise, it is 0.

**cc** If an RPL-based macro failed, cc contains the RPLFDB2 field in the RPL. Otherwise, it is 0.

If **bb** and **cc** are not 0, see the [z/OS Communications Server: IP and SNA Codes](http://www.ibm.com) for a description of these codes.

If an RPL-based macro failed, **code** is the sense code and represents the RPLFDBK2 field in the RPL. Otherwise, it is 0. If **code** is not 0, see the [z/OS Communications Server: IP and SNA Codes](http://www.ibm.com) for a description of **code**.

**termid** is the terminal identifier. If VTAM issues a network-qualified name, **termid** is in the form netid.name.

System action: Processing continues, and TCAS tries to release the terminal.

Operator response: If you VARY LOGON to TSO either by using the VARY LOGON command or by specifying LOGAPPL=TSO in a definition statement, a new logon attempt is made when the user session ends, even if it ends in error. If this occurs, this message is issued repeatedly with **SENSE=0821**. Enter the VARY NOLOGON command to correct the situation.

Otherwise, save the system log for problem determination.

System programmer response: Use the system log and the description of **aabbcc** and **code** to assist you in correcting the problem.

- If **RC = 220000**, this might indicate that FEATUR2=EDATS is coded on the LOCAL definition statement for a channel-attached non-SNA device. To correct this error, remove the FEATUR2 operand from the LOCAL definition statement. Deactivate and reactivate the major node to use the new definition. See the [z/OS Communications Server: SNA Resource Definition Reference](http://www.ibm.com) for additional information on coding the LOCAL definition statement and the FEATUR2 operand.
- If **RC = 061001**, this might indicate that FASTPASS=NO should be coded on the SLU definition statement so that the SLU can support the type of session initiation required. See the section on common subarea network problems, in the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](http://www.ibm.com) for more information about this problem.

Routing code: 1,8

Descriptor code: ***

IKT030I TCAS LOGON PROCESS FAILURE PLU=pluname SLU=sluname [SENSE= code]

Explanation: TCAS has received notification in its NSEXIT that a session failure occurred while processing a logon request to TSO.

**pluname** is the primary logical unit.
If `pluname` is the name of the TCAS address space, no sense information is displayed, and the session has been terminated for one of the following reasons:
- Session outage occurred.
- The operator terminated the session.
- A logoff TYPE(FORCE) was entered.

If `pluname` is not the name of the TCAS address space, `code` is the sense code and indicates the reason for the failure. See the [z/OS Communications Server: IP and SNA Codes](https://publib.boulder.ibm.com/infocenter/comsvcs/v2r2/topic/com.ibm.zos.v2r2.iseries.doc/infphp000500.html) for a description of `code`.

`sluname` is the secondary logical unit. If VTAM issues a network-qualified name, `sluname` is in the form `netid.name`.

**System action:** The address space created for the logon request is canceled. Processing continues.

**Operator response:** Save the system log for problem determination.

**System programmer response:** Use the system log and explanation of `code`, if issued, to assist you in correcting the problem.

See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](https://publib.boulder.ibm.com/infocenter/comsvcs/v2r2/topic/com.ibm.zos.v2r2.iseries.doc/infphp000500.html) for more information on TSO/VTAM logon problems.

**Routing code:** 1,8

**Descriptor code:** ***

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**IKT031I**  
PARAMETER(S) SPECIFIED IN MEMBER `member_name` NOT VALID

**Explanation:** One or more parameters that are not valid were specified in the `member_name` member of the parameter data set. This caused TSO/VTAM default parameters to be substituted for the parameters that are not valid. The parameter member `member_name` can be found in:
- The data set defined by the PARMLIB DD statement in the TSO start procedure
- A data set in the logical parmlib concatenation (for z/OS)
- SYS1.PARMLIB

`member_name` is the name of the member of the parameter data set.

**System action:** Default values are substituted for the values that are not valid. Processing continues.

**Operator response:** If the defaults are not acceptable, stop TSO/VTAM. Save the system log for problem determination. Save the output from the procedure used to start TSO/VTAM.

**System programmer response:** See the TSO/VTAM output to identify parameters that are not valid. This output will be on the device specified by the PRINTOUT DD statement of the procedure or on the device specified by the device name operand of the MVS operator START command. For additional information on the MVS START command, see [z/OS MVS System Commands](https://publib.boulder.ibm.com/infocenter/mvs/v2r11/topic/com.ibm.mvspe.v2r11.doc/mvsstart.html)

**Routing code:** 2,8

**Descriptor code:** ***

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**IKT032I**  
macro FAILED FOR `gname` RPLRTNCD `aa` RPLFDB2 `bb`

**Explanation:** TSO/VTAM issues this message when an error occurs from a macro used to create or terminate a generic name association.

`macro` specifies the failing request type and can be either:
- SETLOGON OPTCD=GNAMEADD
- SETLOGON OPTCD=GNAMEDEL.

`gname` is the generic resource name.

`aa` is the RPLRTNCD field in the RPL (return code).

`bb` is the RPLFDB2 field in the RPL (feedback code).
**System action:**  When the request type is SETLOGON GNAMEADD:

- If there are no active users, TSO/VTAM processing stops.
- If there are active users, processing continues but no generic name support is available for TSO/VTAM.

When the failing request type is SETLOGON GNAMEDEL, TSO/VTAM processing continues.

**Operator response:**  Save the system log for problem determination.

**System programmer response:**  See the [z/OS Communications Server: IP and SNA Codes](https://www.ibm.com/support/knowledgecenter/en/SSGDST_2.2.1/itm018.html) for a description of the return and feedback codes.

**Routing code:**  1,8

**Descriptor code:**  ***

---

**IKT033I**  
TCAS USERMAX VALUE SET TO count

**Explanation:**  TSO/VTAM issues this message to indicate the successful completion of an MVS MODIFY TSO, USERMAX command.

count is the number of TSO/VTAM users that can be active concurrently.

**System action:**  Processing continues.

**Operator response:**  None.

**System programmer response:**  None.

**Routing code:**  1,8

**Descriptor code:**  ***

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**IKT100I**  
USERID userid CANCELED DUE TO UNCONDITIONAL LOGOFF

**Explanation:**  A VTAM USS unconditional logoff command was entered by a terminal user userid. The session with userid is terminated.

**System action:**  The address space created for the session is canceled. Processing continues.

**Operator response:**  None.

**System programmer response:**  None.

**Routing code:**  2,8

**Descriptor code:**  4

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**IKT103I**  
UNKNOWN ENTRY CODE code TO VTAM LOSTERM EXIT

**Explanation:**  The return code given to the LOSTERM exit routine of TSO/VTAM is not recognized. Either a list of entry codes is outdated or there is a parameter list error.

code is the return code in error.

**System action:**  code is written to the LOGREC data set. Processing continues.

**Operator response:**  Save the system log for problem determination.

**System programmer response:**  See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](https://www.ibm.com/support/knowledgecenter/en/SSGDST_2.2.1/t6416646.html) for more information on the LOGREC data set.

**Routing code:**  2,8

**Descriptor code:**  4
IKT105I   LOGON REJECTED DUE TO INVALID APPLICATION ID

Explanation: TCAS assigned an invalid application program ID to a terminal user attempting to log on to TSO/VTAM.

System action: The terminal user’s address space is terminated and dumped. System processing continues.

Operator response: Save the system log for problem determination.

System programmer response: Find the invalid application ID (offset 0 in TVWA) in that dump. SYS1.VTAMLST contains valid application IDs.

See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](https://www.ibm.com/support) for more information on TSO/VTAM logon problems.

Routing code: 1,8
Descriptor code: 4

IKT106I   LOGON REJECTED, CANNOT OPEN ACB, ACBERFLG=X’nn

Explanation: A terminal user was unable to log on to TSO/VTAM because of an OPEN ACB failure.

nn is the ACB error flag value in hexadecimal. See the [z/OS Communications Server: IP and SNA Codes](https://www.ibm.com/support) for a description of nn.

System action: The OPEN ACB failure causes a dump. The user address space is terminated. System processing continues.

Operator response: Save the system log and dump for problem determination.

System programmer response: Correct the problem as determined from the ACB error flag nn, and the output from the system log and dump.

Routing code: 1,8
Descriptor code: 4

IKT109I   TSO/VTAM LOSTERM FAILED DUE TO VTAM SHORTAGE OF UECB/VRPL

Explanation: The TSO/VTAM LOSTERM exit could not be scheduled because of a shortage of storage for required control blocks.

System action: The user’s address space is terminated.

Operator response: If VTAM continues to issue this message, save the system log and request a dump to determine current storage usage.

System programmer response: Increase storage as required.

Routing code: 2,8
Descriptor code: 4

IKT111I   APPLNAME=applname FAILED DUE TO: reason

Explanation: This message always follows IKT117I.

applname is the application name running in this TSO user’s address space.

reason indicates the reason for the failure. The following reasons are valid:

- GETMAIN FAILURE (GLOBAL 239)
- GETMAIN FAILURE (LOCAL 229)
- INSUFFICIENT STORAGE FOR QUEUE ELEMENTS
- INVALID TERMINAL TYPE
- OPEN ACB, INSUFFICIENT STORAGE
- OPEN ACB, VTAM IS NOT ACTIVE
- OPNDST, INSUFFICIENT STORAGE
IKT112I

**OPNDST, RPLRTNCD= aa, RPLFDB2= bb, RPLFDBK2= code**

**SETLOGON GNAME= SUB, RPLRTNCD= aa, RPLFDB2= bb**

**TCAS CLSDST PASS FAILURE**

**TCAS TERMINATED**

**System action:** Logon is terminated. The user’s address space is terminated.

**Operator response:** For insufficient storage errors, if VTAM has been initialized, wait a short time and reenter the command. If VTAM continues to issue this message, save the system log and request a dump to determine current storage usage.

If VTAM initialization failed, save the system log for problem determination.

**System programmer response:** `reason` determines the recommended action.

**GETMAIN FAILURE (GLOBAL 239)**

Review CSA storage requirements. Increase storage as required.

**GETMAIN FAILURE (LOCAL 229)**

Review storage requirements for TCAS. Increase storage as required.

**INSUFFICIENT STORAGE FOR QUEUE ELEMENTS**

Contact the IBM software support center. This is a TSO/VTAM control block problem.

**INVALID TERMINAL TYPE**

Ensure the terminal is supported by TSO/VTAM.

**OPEN ACB, INSUFFICIENT STORAGE**

The OPEN ACB return code from VTAM indicates a storage shortage. Review VTAM storage requirements.

**OPEN ACB, VTAM IS NOT ACTIVE**

Make sure VTAM is active.

**OPNDST, INSUFFICIENT STORAGE**

The OPNDST return code from VTAM indicates a storage shortage. Review VTAM storage requirements.

**OPNDST, RPLRTNCD= aa, RPLFDB2= bb, RPLFDBK2= code**

OPNDST failed.

`aa` is the RPLRTNCD field in the RPL (return code), and `bb` is the RPLFDB2 field in the RPL (feedback code).

See the [z/OS Communications Server: IP and SNA Codes](https://www.ibm.com/support/docview.wss?uid=swg27011621) for a description of these codes.

`code` is the sense code and represents the RPLFDBK2 field in the RPL. See the [z/OS Communications Server: IP and SNA Codes](https://www.ibm.com/support/docview.wss?uid=swg27011621) for a description of `code`.

**SETLOGON GNAME= SUB, RPLRTNCD= aa, RPLFDB2= bb**

SETLOGON failed.

`aa` is the RPLRTNCD field in the RPL (return code), and `bb` is the RPLFDB2 field in the RPL (feedback code).

See the [z/OS Communications Server: IP and SNA Codes](https://www.ibm.com/support/docview.wss?uid=swg27011621) for a description of these codes.

**TCAS CLSDST PASS FAILURE**

TCAS issued a CLSDST PASS to place the terminal in ownership of the newly created user address space, and the CLSDST has failed. Examine the API records in the VTAM internal trace to determine the cause for the CLSDST failure in TCAS. See the [z/OS Communications Server: SNA Diagnosis Vol I, Techniques and Procedures](https://www.ibm.com/support/docview.wss?uid=swg27011621) for more information.

**TCAS TERMINATED**

Make sure TCAS is active and not in the process of terminating or abending when the logon is attempted.

**Routing code:** 2,8

**Descriptor code:** 4

---

**IKT112I {SEND|RECEIVE} ERROR DURING QUERY PROCESSING FOR applname,RPLRTNCD= aa,RPLFDB2= bb,SENSE= code**

**Explanation:** During logon for application `applname`, TSO/VTAM tried to issue a QUERY 3270 data stream to a terminal in order to determine the terminal’s characteristics. The SEND or RECEIVE failed for the reason described by the return code `aa`, feedback code `bb`, and sense code `code`. 

34 [z/OS V2R1.0 Communications Server: SNA Messages](https://www.ibm.com/support/docview.wss?uid=swg27011621)
aa is the RPLRTNCD field in the RPL (return code) and bb is the RPLFDB2 field in the RPL (feedback code). See the z/OS Communications Server: IP and SNA Codes for a description of these codes.

code is the sense code and represents the RPLFDBK2 field in the RPL. See the z/OS Communications Server: IP and SNA Codes for a description of code. See the z/OS Communications Server: IP and SNA Codes for a description of sense information for a 3270 SNA or non-SNA device.

System action: The logon continues. Default terminal characteristics as specified by the LANG operand of the terminal’s MODEENT entry in the logon mode table were assumed.

Operator response: Save the system log for problem determination.

System programmer response: Use the system log and the descriptions of aa, bb, and code to assist you in correcting the problem.

See z/OS Communications Server: SNA Programming for information on the SEND and RECEIVE macros.

Routing code: 2,8
Descriptor code: 4

IKT115I  TSO UNABLE TO DISCONNECT TERMINAL luname

Explanation: A terminal user logged off from TSO/VTAM. The VTAM ACB associated with the user was closed, but a VTAM error has prevented the user’s disconnection from TSO. luname is the logical unit that TSO was unable to disconnect. If VTAM issues a network-qualified name, luname is in the form netid.name.

System action: The user address space terminates with ABEND code hexadecimal 0AB (register 15 contains X'0105'). The terminal that could not be disconnected is not available to other users.

Operator response: Try to make the terminal available to other users by varying it offline, deactivating it, and then reactivating it.

System programmer response: None.

Routing code: 2,8
Descriptor code: 4

IKT116I  userid [SEND|RECEIVE] ERROR,RPLRTNCD= aa, RPLFDB2= bb, SENSE= code, WAITING FOR RECONNECTION termid

Explanation: A SEND or RECEIVE request entered by the TSO/VTAM user userid at terminal termid had an I/O error. If VTAM issues a network-qualified name, termid is in the form netid.name.

aa is the RPLRTNCD field in the RPL (return code) and bb is the RPLFDB2 field in the RPL (feedback code). See the z/OS Communications Server: IP and SNA Codes for a description of these codes.

code is the sense code and represents the RPLFDBK2 field in the RPL. See the z/OS Communications Server: IP and SNA Codes for a description of code. See the z/OS Communications Server: IP and SNA Codes for a description of sense information for a 3270 SNA or non-SNA device.

System action: The user’s connection to termid has failed, and the LOSTERM exit is scheduled. The user’s address space is still intact. It can be reconnected to a terminal with a LOGON userid RECONNECT command. If the command is not entered, the address space will terminate at the end of the reconnect time limit (RECONLIM) specified in the TSO/VTAM parameter file.

Operator response: This is probably a hardware error. Save the system log for problem determination.

System programmer response: Use the system log and the descriptions of aa, bb, and code to assist you in correcting the problem.

See z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures for more information on TSO/VTAM problems and terminal problems. See z/OS Communications Server: SNA Programming for information on the SEND and RECEIVE macros.

Routing code: 2,8
Descriptor code: 4
IKT117I  •  IKT119I

IKT117I  TSO/VTAM INITIALIZATION FAILED FOR APPLNAME=applname, LUNAME=luname

Explanation: This message always precedes message IKT111I.

applname is the application name running in this TSO user's address space.
luname is the LU name of the device being used. If VTAM issues a network-qualified name, luname is in the form netid.name.

See the explanation of message IKT111I for additional information.

Routing code: 2,8
Descriptor code: 4

IKT118I  INVALID QUERY REPLY, TERMINAL ID: termid

Explanation: During a logon for the TSO application, TSO/VTAM issued a QUERY 3270 data stream to a terminal in order to determine the terminal's characteristics. The response to the query had a field length of zero, which is an invalid length value.

termid is the terminal identifier. If VTAM issues a network-qualified name, termid is in the form netid.name.

System action: The logon continues. It will use the terminal characteristics from the valid part of the query response.

Operator response: Terminal termid has a hardware problem. Save the system log for problem determination. Run your operating system service aid program to determine whether MDR/OBR information has been recorded. See the EREP User's Guide and Reference for more information on service aid programs.

If you use a network management application such as NetView, check to determine whether an alert was recorded for this problem.

System programmer response: If you cannot determine the cause of the problem from the output provided or need additional assistance, contact the IBM hardware support center.

If available, provide the MDR/OBR information from your operating system service aid program or the alert information recorded by your network management application.

Routing code: 2,8
Descriptor code: 4

IKT119I  langcode MESSAGES NOT AVAILABLE FOR LU luname, USING DEFAULT

Explanation: TSO/VTAM issues this message when a TSO/VTAM terminal user message cannot be sent to a terminal in the desired language. This might occur for one of the following reasons:

• The terminal user message was defined using a double-byte character set, but the terminal does not support double-byte character sets.
• The desired language is not currently available from the MVS message service.

Note: This message is not issued when langcode is ENU, the default language.

langcode is a 3-character language code that indicates the preferred language for TSO/VTAM terminal user messages.

• langcode corresponds to the value of the PLANG operand on the PROFILE command or is passed on the CINIT during session initiation. See the z/OS Communications Server: SNA Customization for additional information.
• See the z/OS Communications Server: SNA Programming for a list of valid language code settings.

luname is the name of the LU to which the message is being sent. If VTAM issues a network-qualified name, luname is in the form netid.name.

System action: Processing continues.

Operator response: Save the system log for problem determination.

System programmer response: This message might be useful for problem determination if a terminal user is not receiving translated messages as desired. The MVS message service might need to be updated to support the desired language.
IKT120I CLOSE ACB FOR applname FAILED, CODE= returncode ERROR= acberflag

Explanation: TSO/VTAM issues this message when CLOSE ACB failed during the termination of a TSO session with application program applname.

returncode provides information about the cause of the failure and is one of the following register 15 values:

<table>
<thead>
<tr>
<th>Value</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 (X'04')</td>
<td>One or more ACBs were not successfully closed. Depending on the type of error, the OFLAGS field can indicate that the ACB is closed even though the CLOSE has failed (for example, the ACB might never have been opened).</td>
</tr>
<tr>
<td>8 (X'08')</td>
<td>One or more ACBs were not successfully closed. Inspect the ERROR field for the cause of the failure. Another CLOSE macro can be used.</td>
</tr>
<tr>
<td>12 (X'0C')</td>
<td>One or more ACBs were not successfully closed. Another CLOSE macro cannot be issued.</td>
</tr>
</tbody>
</table>

acberflag is the value set by VTAM in the ERROR field of the ACB. See the [z/OS Communications Server: IP and SNA Codes](https://www.ibm.com/support/knowledgecenter/en/a2h6828_1.5.0/content/sofa000a2h6828 referencenavn.html) for a description of acberflag.

- A nonzero value in this field provides additional information about the cause of the failure.
- If acberflag is 0, this indicates that the operating system rejected the close.

System action: The session is terminated. Other processing continues.

Operator response: Save the system log for problem determination.

System programmer response: Use the system log and the values of returncode and acberflag to assist you in correcting the problem. For more information about the CLOSE macro, see [z/OS Communications Server: SNA Programming](https://www.ibm.com/support/knowledgecenter/en/a2h6828_1.5.0/content/sofa000a2h6828 referencenavn.html).

Routing code: 2,8
Descriptor code: 4

IKT121I TCAS SEND/RECEIVE NOT POSTED FOR TERMINAL termid

Explanation: During a logon for the TSO application, TCAS issued a 3270 data stream to a terminal. Terminal termid is not responding to the TCAS SEND/RECEIVE request.

This message is issued to the system console, rather than a TSO/VTAM terminal, because TCAS cannot issue an IKTnnnnn message to the terminal for this error.

System action: The logon is terminated, and the terminal is released by TCAS.

Operator response: Terminal termid has a hardware problem. Save the system log for problem determination. Run your operating system service aid program to determine whether MDR/OBR information has been recorded. See the [EREPI User’s Guide and Reference](https://www.ibm.com/support/knowledgecenter/en/a2h6828_1.5.0/content/sofa000a2h6828 referencenavn.html) for more information on service aid programs.

If you use a network management application such as NetView, check to determine whether an alert was recorded for this problem.

System programmer response: If you cannot determine the cause of the problem from the output provided or need additional assistance, contact the IBM hardware support center. If available, provide the MDR/OBR information from your operating system service aid program or the alert information recorded by your network management application.

See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](https://www.ibm.com/support/knowledgecenter/en/a2h6828_1.5.0/content/sofa000a2h6828 referencenavn.html) for more information on TSO/VTAM problems and terminal problems. See [z/OS Communications Server: SNA Programming](https://www.ibm.com/support/knowledgecenter/en/a2h6828_1.5.0/content/sofa000a2h6828 referencenavn.html) for information on the SEND and RECEIVE macros.
IKT122I  •  IKT124I

Routing code: 2,8
Descriptor code: 4

IKT122I  IPADDR..PORT ipaddr..portno
Explanation: TSO/VTAM issues this message when a TN3270 client attempts to logon to TSO/VTAM but fails to do so.

ipaddr is the IP address of the TN3270 client that is attempting to log on.
portno is the port number associated with the IP address.

System action: Processing continues.
Operator response: Save the system log for problem determination.
System programmer response: Use the system log, the ipaddr, and the portno to assist you in correcting the problem.
Routing code: 1,8
Descriptor code: 4

IKT123I  DNS NAME: dns_name
Explanation: TSO/VTAM issues this message when a TN3270 client attempts to logon to TSO/VTAM but fails to do so.

It is issued when a DNS Name is available and an APPL, CDRSC, or LU resource is associated with a TN3270 connection. This message is optional and will only be displayed if a DNS name is received from the TN3270 Server. If the message ends with the (..) characters, it means that the DNS name was truncated as passed to z/OS Communications Server from the TN3270 Server. See the z/OS Communications Server: IP Configuration Reference for information about enabling messages.

dns_name is the DNS NAME of the TN3270 client.

System action: Processing continues.
Operator response: Save the system log for problem determination.
System programmer response: Use the system log and the dns_name to assist you in correcting the problem.
Routing code: 2
Descriptor code: 5

IKT124I  dns_name_continued
Explanation: This message is a continuation of message IKT123I. It is issued as many times as necessary to display the entire DNS name. If the message ends with the (..) characters, it means that the DNS name was truncated as passed to z/OS Communications Server from the TN3270 Server.

dns_name_continued is the continuation of the DNS NAME displayed in IKT123I.

System action: Processing continues.
Operator response: Save the system log for problem determination.
System programmer response: Use the system log and the dns_name_continued to assist you in correcting the problem.
Routing code: 2
Descriptor code: 5
Explanation: During a logon for the TSO application, TSO/VTAM issued a QUERY 3270 data stream to determine the characteristics of the terminal. The response to the query was more than the allowed 4096 bytes.

In the message text:

*termid*

The LU name of the terminal.

System action: The user address space ends and ABEND0AB RC 204 is issued. System processing continues.

Operator response: Save the dump and system log for problem determination. Contact the system programmer.

System programmer response: If you cannot determine the cause of the problem from the output provided or need additional assistance, contact the IBM Software support center.

User response: Not applicable.

Problem determination: Not applicable.

Source: z/OS Communications Server TCP/IP: TSO/SNA

Module: IKTXINIT

Routing code: 1,8

Descriptor code: 4

Automation: Not applicable.

Example:

IKT125I TSO LOGON REJECTED: QUERY REPLY TOO LARGE - TERMINAL ID: NETA.L7201A
Chapter 4. IKT messages for TSO/VTAM terminal users

This chapter lists TSO/VTAM messages that can appear on a terminal user’s console.

See the z/OS Communications Server: SNA Network Implementation Guide for information on TSO/VTAM. For additional information on diagnosing TSO/VTAM problems, see z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures.

### IKT00201I  MAXIMUM USERS LOGGED ON, TRY LATER

**Explanation:** TSO issues this message when a logon to TSO fails because it exceeded the maximum number of TSO users allowed on the system.

**System action:** Processing continues.

**Operator response:** If you want to temporarily allow more users to log on to TSO concurrently, issue the system MODIFY command. If the maximum allowed users should be changed permanently, contact the system programmer.

See Modifying TSO/VTAM Time Sharing in z/OS MVS System Commands.

**System programmer response:** If you want to permanently allow more users to log on to TSO concurrently, update the USERMAX parameter in the system parmlib member, TSOKEY00.

See Statements/parameters for TSOKEY00 in z/OS MVS Initialization and Tuning Reference.

**User response:** If your user ID is in a disconnect state, you can attempt to logon again using LOGON user ID RECONNECT. If your logon attempts continue to fail, contact the operator.

**Problem determination:** Not applicable.

**Source:** z/OS Communications Server VTAM: TSO/VTAM

**Example:**

IKT00201I MAXIMUM USERS LOGGED ON, TRY LATER

### IKT00202I  INSUFFICIENT STORAGE AVAILABLE FOR REQUIRED CONTROL BLOCKS

**Explanation:** During the logon process, TCAS issued a GETMAIN to obtain storage for control blocks. The GETMAIN failed, and the LOGON is terminated.

### IKT00203I  ADDRESS SPACE CREATION FAILED

**Explanation:** During the logon process, TCAS issues an SVC 34 to obtain address space. The return code indicates that no more storage is available for address spaces. The logon is terminated.

### IKT00204I  LOGON FAILED, NO USER APPLID AVAILABLE

**Explanation:** During logon processing, no VTAM application program name was available to assign to the user’s address space. The logon is terminated.

### IKT00300I  LOGON RECONNECT SUCCESSFUL, SESSION ESTABLISHED

**Explanation:** A TSO/VTAM terminal session was successfully reestablished.
IKT00301I  LOGON RECONNECT UNSUCCESSFUL DUE TO SYSTEM ERROR

Explanation: A TSO/VTAM terminal session could not be reestablished because storage for the I/O manager could not be obtained.

IKT00400I  INPUT DATA LOST

Explanation: Data was not properly received by VTIOC, data could not be placed on a VTIOC input queue, or data was lost from a VTIOC input queue.

IKT00401I  OUTPUT DATA LOST

Explanation: Data was lost from a VTIOC output queue.

IKT00402I  REENTER DATA BEGINNING WITH text

Explanation: A BREAKIN TPUT occurred during input. text indicates the last text received during input processing. Reenter data including what is indicated by text.

IKT00403I  ERROR ON OUTPUT, RETRY IN PROGRESS

Explanation: VTIOC encountered a problem while sending output to the terminal. It is attempting to resend the output.

IKT00405I  SCREEN ERASURE CAUSED BY ERROR RECOVERY PROCEDURE

Explanation: TSO/VTAM erased the screen as part of the I/O error recovery procedure.
Chapter 5. IST messages for VTAM network operators IST001I – IST399I

This chapter lists the VTAM messages beginning with IST in the range of IST001I through IST399I. These messages can appear on a network operator’s console.

See Appendix E, “Message text for VTAM operator messages,” on page 1177 for a list of the text of all VTAM operator messages.

Note: Messages that begin with the prefix ISTF are issued by the VTAM dump analysis tool and the VTAM internal trace (VIT) analysis tool. Help information is available as a part of each tool by pressing F1. Therefore, ISTF messages are not documented in z/OS Communications Server: SNA Messages. See z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures for additional information.

<table>
<thead>
<tr>
<th>Code</th>
<th>Message Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IST001I</td>
<td>VTAM START REJECTED — reason</td>
</tr>
</tbody>
</table>

**Explanation:** VTAM initialization has been terminated for one of the following reasons:

- **CANNOT LOCATE name**
  Load of module name failed.

- **CANNOT LOCATE name IN ISTCSLOD**
  Module name could not be located in ISTCSLOD.

- **CANNOT LOCATE name IN library**
  Member name could not be located in library.

- **ERROR DEFINING TABLE tablename**
  An error occurred while defining table tablename.

- **ESTAE FAILED**
  An attempt to create an ESTAE exit was unsuccessful. The necessary storage is not available if VTAM abends before initialization has completed.

- **FAILURE ATTEMPTING TO FIX STORAGE**
  Not enough real storage is available for VTAM to make required pages nonpageable.

- **INCONSISTENT VTAM RELEASE STARTED**
  A different release of VTAM than was previously active was started without re-IPLing MVS.

- **INSUFFICIENT 24-BIT CSA AVAILABLE**
  There is not enough 24-bit CSA storage available to initialize VTAM.

- **INSUFFICIENT 31-BIT CSA AVAILABLE**
  There is not enough 31-bit CSA (ECSA) storage available to initialize VTAM.

- **INVALID ENVIRONMENT**
  The current release of VTAM has been initialized on an unsupported operating system.

- **ISTCSLOD SET name AS AN ALIAS**
  Either the alias module name could not be located in the vector list of its load module or the alias module was loaded before the vector list.

- **LOAD SUBTASK name INOPERATIVE**
  An abend occurred in the directed load subtask name.

- **name NOT A VALID USS TABLE**
  Table name did not have the USS table format that VTAM expected.
**IST001I**

**TABLE HAS NO TYPE ID**

Table *name* did not have a valid control block ID field (CBID).

**TABLE LOAD HAD I/O ERROR**

An attempt to load table *name* during a search of load library directory data on a disk caused a permanent I/O error.

**TABLE LOAD HAD I/O TIMEOUT**

An attempt to load table *name* caused a timeout while building a directory entry list from load library directory data on a disk. The disk I/O might be hung.

**LIBRARY NOT APF AUTHORIZED**

Named VTAM load library is not APF-authorized.

**OPERATOR REQUESTED TERMINATION**

Termination was selected in response to message IST1216A.

**PROCESSING ERROR**

VTAM internal resources failed because of a duplicate resource name.

**TERMINATION IN PROGRESS**

VTAM was terminating during an initialization call.

**UNABLE TO ALLOCATE STORAGE**

Request for storage has failed during initialization.

**System action:** VTAM initialization has terminated. An attempt to start VTAM has failed.

**Operator response:** Save the system log for problem determination.

**System programmer response:**

**CANNOT LOCATE name**

Verify that *name* is present in the definition library. Verify that SYS1.SISTCLIB is APF authorized. Also, ensure that the linkage editor output from the VTAM generation and maintenance has appropriate entries.

**CANNOT LOCATE name IN ISTCSLOD**

Contact the IBM Support Center.

**CANNOT LOCATE name IN library**

Check the directory of *library*, and determine if *name* is present. If not, add *name* to *library*. If *name* is of the form ATCSTRxx or ATCCONxx, verify that the xx that was specified on the LIST or CONFIG start option correctly identifies the number.

**ERROR DEFINING TABLE tablename**

You must correct the definition of *tablename*. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information.

**ESTAE FAILED**

Increase the size of the VTAM address space prior to restarting VTAM. See the [z/OS Communications Server: New Function Summary](#) for help to determine the storage requirements for VTAM.

**FAILURE ATTEMPTING TO FIX STORAGE**

See the [z/OS Communications Server: New Function Summary](#) to determine the storage requirements for VTAM.

**INCONSISTENT VTAM RELEASE STARTED**

If you are trying to start a different release of VTAM than was previously active, you must re-IPL MVS, then restart the different VTAM release. If you are trying to start the release of VTAM that was previously active, specify the correct release.

**INSUFFICIENT 24-BIT CSA AVAILABLE**

You must define a sufficient amount of 24-bit CSA storage. See the [z/OS Communications Server: New Function Summary](#) to determine the amount of 24-bit CSA storage required.

**INSUFFICIENT 31-BIT CSA AVAILABLE**

You must define a sufficient amount of 31-bit CSA (ECSA) storage. See the [z/OS Communications Server: New Function Summary](#) to determine the amount of ECSA storage required.
INVALID ENVIRONMENT
Run this VTAM only on MVS licensed processors and operating systems.

ISTCSLOD SET name AS AN ALIAS
Contact the IBM Support Center.

LOAD SUBTASK name INOPERATIVE
See the z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures for more information on diagnosing VTAM problems.

name NOT A VALID USS TABLE
Check the contents of the CSECT for the table name. If errors are found, rebuild the load library with the corrected CSECT.

name TABLE HAS NO TYPE ID
Check the contents of the CSECT for the table name. If errors are found, rebuild the load library with the corrected CSECT.

name TABLE LOAD HAD I/O ERROR
Determine if the disk containing the load library is accessed correctly and access it again if it is not.

name TABLE LOAD HAD I/O TIMEOUT
Check the disk and determine whether the problem is poor I/O performance or hung disk I/O for the directed load subtask.

name LIBRARY NOT APF AUTHORIZED
Authorize the named VTAM load library.

OPERATOR REQUESTED TERMINATION
None.

PROCESSING ERROR
Check the definition library to ensure that all requirements for VTAM are correct for your system.

TERMINATION IN PROGRESS
None.

UNABLE TO ALLOCATE STORAGE
Use the z/OS Communications Server: New Function Summary to determine the storage requirements for VTAM.

Routing code: 2
Descriptor code: 5

IST003I ABEND OCCURRED DURING NETWORK DEFINITION OF CONFIG configname, CODE = code

Explanation: VTAM issues this message when the VTAM network definition of configuration configname has abnormally terminated. Network definition occurs:

• During VTAM start processing to process the CONFIG operand
• In response to one of the VARY commands

code is the abend code. See the z/OS Communications Server: IP and SNA Codes for a description of code.

System action: configname is not defined to VTAM and must be activated or deactivated with a VARY command. Other processing continues.

Operator response: Save the system log and dump for problem determination.

System programmer response: Use the system log and the description of code to assist you in correcting the problem. See the z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures for information on the abend procedure.

Routing code: 2
Descriptor code: 5
IST009I • IST010I

IST009I  VTAM IS ALREADY ACTIVE — START REJECTED
Explanation:  VTAM issues this message when the operator attempted to start VTAM, and VTAM is already active.
System action:  VTAM ignores the start request.
Operator response:  If you want to restart VTAM, halt the first instance of VTAM.
System programmer response:  None.
Routing code:  2
Descriptor code:  5

IST010I  command COMMAND INVALID
Explanation:  VTAM issues this message when the command failed because an incorrect command format was entered through the program operator interface. The only valid commands are VARY, MODIFY, and DISPLAY.
The most frequent cause for this message is that a START or HALT command was entered.
System action:  VTAM does not execute command. Other processing continues.
Operator response:  Save the system log for problem determination.
System programmer response:  Correct the program operator application. See the z/OS Communications Server: SNA Programming for information about writing program operator applications.
Routing code:  2
Descriptor code:  5

IST011I  command FOR ncpname status
Explanation:  VTAM issues this message in response to a MODIFY DUMP command for NCP ncpname.
See Chapter 16, “Command and RU types in VTAM messages,” on page 1083 for a description of command.
status can be one of the following values:

COMPLETE
  The dump is complete.

FAILED, SENSE = code
  The dump failed.

REJECTED — NCP LEVEL
  The NCP is an NCP release prior to V5R2. MODIFY DUMP,ACTION=PURGE is valid only for NCP V5R2 and later releases.
System action:  Other processing continues.
Operator response:

COMPLETE
  None

FAILED, SENSE = code
  Check the value of code for a possible hardware problem. See the z/OS Communications Server: IP and SNA Codes for a description of code.

REJECTED — NCP LEVEL
  Ensure that you do not enter a MODIFY DUMP command for an NCP release prior to V5R2.
System programmer response:  None.
Routing code:  2
Descriptor code:  5
IST013I       I/O ERROR FOR member IN datasetname

Explanation: VTAM attempted to load member in the data set associated with DDNAME datasetname and encountered an I/O error.

System action: If member is critical to VTAM, another message will be issued. Otherwise, VTAM continues processing.

Operator response: This is probably a hardware error. If member is not critical to the VTAM task, but is needed by an application program, halt VTAM and try to restart it with alternate devices or volumes.

If problems persist, save the system log for problem determination. Run your operating system service aid program to determine whether MDR/OBR information has been recorded. See the EREP User’s Guide and Reference for more information on using EREP.

If you use a network management application such as NetView, check to determine whether an alert was recorded for this problem.

System programmer response: If you cannot determine the cause of the problem from the output provided or need additional assistance, contact the IBM hardware support center.

If available, provide the MDR/OBR information from your operating system service aid program or the alert information recorded by your network management application.

Routing code: 2,10
Descriptor code: 4

IST015A       ERROR PROCESSING LIST IDENTIFIER — ENTER LIST ID OR BLANK

Explanation: VTAM detected an error while processing the LIST start option.

System action: VTAM waits for a reply to this prompt.
• If a list identifier xx is entered, VTAM will attempt to read the specified start list, ATCSTRxx.
• If a blank is entered, VTAM will not process any list. It will use the previously processed start options.

After the reply is received, VTAM will process any additional options specified by the operator in response to a previous prompt for start options, or when the START command was entered.

Operator response: Enter the list identifier specified by your installation (2 characters) or use the previously processed start options by entering a blank.

System programmer response: Check that the identifier to be used is valid and has been correctly communicated to the VTAM operator, or respond with the identifier for the default start option list.

See the z/OS Communications Server: SNA Resource Definition Reference for information on the LIST start option. See the z/OS Communications Server: SNA Network Implementation Guide for an explanation of starting VTAM and a description of the types of start options and how start options are processed.

Routing code: 1
Descriptor code: 2

IST018I       CONFIG COULD NOT BE INITIALIZED — VTAM START CONTINUES

Explanation: This message is the first in a group of messages that VTAM issues when the network configuration specified on the CONFIG start option could not be initialized. A complete description of the message group follows the example.

IST018I CONFIG COULD NOT BE INITIALIZED — VTAM START CONTINUES
IST523I REASON = reason
IST314I END

The second message in the group explains the reason for the failure. reason can be one of the following values:

ERROR IN CONFIG LIST
The configuration list contains an error. This error might be caused by a missing data set definition statement.
ERROR READING VTAMLSL FILE

The specified configuration list could not be found, or an error occurred while reading the list. For example, CONFIG=xx was specified, but there is no corresponding ATCONnxx configuration list in the appropriate library.

Another cause might be that a syntax error in the ATCONnxx configuration list is discovered and reported in the IST1249I message group. When a list itself contains a syntax error, the entire list is ignored.

INSUFFICIENT STORAGE

There is not enough storage available.

NAME IN CONFIGURATION LIST IS NOT VALID

The configuration list contains a major node name or a path definition name that does not follow the correct naming convention. VTAM will issue the message, but proceed with the remaining nodes.

System action: VTAM initialization continues.

- If the list itself contains a syntax error, the entire list is ignored.
- If reason is NAME IN CONFIGURATION LIST IS NOT VALID, VTAM continues processing the remaining nodes in the list.
- For all other reasons, VTAM ignores the rest of the nodes in the list after the error was encountered.

Operator response: To make the network usable while this error is being investigated, activate parts (or all) of the network using VARY ACT commands for specific nodes in the network.

- If reason is INSUFFICIENT STORAGE, enter the DISPLAY BFRUSE command or the DISPLAY STORUSE command. Save the system log and request a dump for problem determination.
- For all other reasons, save the system log for problem determination.

System programmer response:

- If reason is INSUFFICIENT STORAGE, verify that the operator entered the buffer pool or CSA start options as specified in the start procedures.
  Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA start options. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.
  - See the z/OS Communications Server: SNA Resource Definition Reference for a description of VTAM start options.
  - See the z/OS Communications Server: SNA Operation for information about the DISPLAY BFRUSE command and the MODIFY VTAMOPTS command.
  - See the z/OS Communications Server: SNA Network Implementation Guide for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
  - See the z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.
  - For all other reasons, if you want the specified configuration, halt VTAM and correct the configuration list specified by the start option or a start list. Then have the operator restart VTAM.

Routing code: 2

Descriptor code: 5

IST020I  VTAM INITIALIZATION COMPLETE FOR level

Explanation: VTAM issues this message when initialization of VTAM is complete. Previous messages identify start options that were not processed.

level is the version (x) and release (y) of VTAM for z/OS Communications Server that is being run. For example, CSVxRy is displayed for VTAM for z/OS Communications Server Version x Release y.

This message is followed by message IST1348I, which provides the node type of this host, and message IST1349I, which provides the component identifier of the version of VTAM that is running.

System action: Processing continues.

Operator response: You can now enter VTAM network operator commands (VARY, MODIFY, DISPLAY, or HALT) and start VTAM application programs.
If the logon manager has been activated, you should now enter END or CONTINUE in response to message ELM101A.

**System programmer response:** None.

**Routing code:** 2  
**Descriptor code:** 5

---

**IST025I**  
**BLDL FAILED FOR** member **IN** library

**Explanation:** Build link-list failed because VTAM could not find member in library.

**System action:** VTAM issues another message stating the VTAM action taken as a result of this condition.

**Operator response:** Save the system log for problem determination.

**System programmer response:** Check library for member. If the member does not exist and is needed, add it.

**Routing code:** 2  
**Descriptor code:** 5

---

**IST033I**  
**command** COMMAND CANCELLED

**Explanation:** VTAM cancelled command as a result of unavailable resources. For example, VTAM might not be able to obtain a lock.

command is either the START trace option or the MODIFY TRACE command.

**System action:** VTAM does not execute the command.

**Operator response:** When the resources become available, reenter the command. If problems persist, save the system log for problem determination.

**System programmer response:** Check the system log provided by the operator to ensure that all requirements for VTAM are correct for your system. When you have corrected the error condition, ask the operator to reenter the command.

**Routing code:** 2  
**Descriptor code:** 5

---

**IST037I**  
**command** FAILED — SYNTAX ERROR

**Explanation:** The command failed because of one or more of the following syntax errors:

- Does not have expected delimiters or punctuation
- Has an operand that exceeds 8 characters in length
- Might have quotation marks around a keyword
- Might have a non-EBCDIC character in one of the operands.

See [Chapter 16, “Command and RU types in VTAM messages,” on page 1083](#) for a description of command.

**System action:** VTAM rejects the command. Other processing continues.

**Operator response:** Reenter the command with the correct format. For information on command formats, see [z/OS Communications Server: SNA Operation](#)

**System programmer response:** None.

**Routing code:** 2  
**Descriptor code:** 5
IST038I  VARY FAILED FOR ID = cdrmname — HOST CDRM IS NOT ACTIVE

Explanation: A VARY ACT command to activate an external cross-domain resource manager cdrmname failed because this domain’s CDRM has not been activated.

System action: VTAM rejects the command.

Operator response: To start a session with cdrmname, enter a VARY ACT command to activate the host’s CDRM. Enter a DISPLAY ID command for your host’s CDRM to make sure that it is active before reentering the command for cdrmname.

System programmer response: None.

Routing code: 2

Descriptor code: 5

IST039I  command FAILED — CANNOT IDENTIFY COMMAND TYPE

Explanation: The command does not contain an identifiable keyword that distinguishes the type of command. For example, the VARY command does not contain an identifiable keyword such as ACT, ACQ, or LOGON.

System action: VTAM rejects the command. Other processing continues.

Operator response: Reenter the command with the correct keyword. See z/OS Communications Server: SNA Operation for a list of operands.

System programmer response: None.

Routing code: 2

Descriptor code: 5

IST040I  START OPTION option REQUIRED — REENTER WHEN PROMPTED

Explanation: VTAM issues this message when a required start option was either not specified or was specified incorrectly.

option is the name of the start option in error.

System action: VTAM continues processing the other start options and prompts for additions or corrections. VTAM initialization cannot complete until a valid value for option is entered.

Operator response: Enter the required option when prompted.

System programmer response: None.

Routing code: 2

Descriptor code: 5

IST043I  value INVALID VALUE FOR KEYWORD keyword

Explanation: An unacceptable value was specified for keyword in a VTAM operator command. value is the first 8 characters of the invalid value.

System action: VTAM rejects the command.

Operator response: Correct the keyword keyword and reenter the command.

System programmer response: None.

Routing code: 2

Descriptor code: 5
IST049I VTAM START REJECTED – macroname FOR [acbtype] ACB FAILED

Explanation: This message is the first in a group of messages issued when VTAM is terminated because an access method control block (ACB) or SETLOGON macro failed.

macroname is the name of the macro that failed. Possible values are: OPEN or SETLOGON.

The second message in the group explains the reason for the failure. Possible message groups follow:

- If macroname is OPEN, the following message group is displayed.

  IST049I VTAM START REJECTED – OPEN FOR [acbtype] ACB FAILED
  IST1218I ACB ERROR FIELD = acberflg
  IST314I END

  acberflg is the error field of the ACB. It is a hexadecimal value returned by the OPEN macro and indicates the specific nature of the error encountered. See the z/OS Communications Server: IP and SNA Codes for a description of acberflg.

- If macroname is SETLOGON, the following message group is displayed.

  IST049I VTAM START REJECTED – SETLOGON FOR [acbtype] ACB FAILED
  IST1219I RTNCD = rtncd, FDB2 = fdb2
  IST314I END

  rtncd is the error field RPLRTNCD. It is a hexadecimal value returned by the SETLOGON macro.
  fdb2 is the feedback field RPLFDB2. It is a hexadecimal value returned by the SETLOGON macro.

  See the z/OS Communications Server: IP and SNA Codes for a description of the rtncd-fdb2 combination.

System action: VTAM is terminated.

Operator response: Save the system log for problem determination.

System programmer response: Use the system log and return code information to assist you in correcting the problem.

For a description of acberflg in message IST1218I, see the z/OS Communications Server: IP and SNA Codes
For a description of the rtncd-fdb2 combination in message IST1219I, see the z/OS Communications Server: IP and SNA Codes
For additional information on the OPEN and SETLOGON macros, see z/OS Communications Server: SNA Programming

Routing code: 2
Descriptor code: 5

IST050I command COMMAND REJECTED — OPEN FOR VTAM DATA SET datasetname FAILED

Explanation: In response to a command, VTAM attempted to open data set datasetname, which could not be opened but is required to continue processing.

System action: VTAM rejects the command. Other processing continues.
IST051A  ENTER VTAM START PARAMETERS

**Operator response:** Ensure that you entered the command correctly. If the problem persists, save the system log for problem determination.

**System programmer response:** Check the output provided by the operator to ensure that all requirements for VTAM are correct for your system. Review the system definition, the VTAM definition statement, and the VTAM start procedure. Verify VTAM data set construction and allocation. When you have corrected the error condition, ask the operator to reenter the command.

**Routing code:** 2

**Descriptor code:** 5

---

IST051A  ENTER VTAM START PARAMETERS

**Explanation:** VTAM issues this message when the PROMPT start option was coded in the default start list, ATCSTR00. VTAM is prompting the operator to enter start options to override the default start options already stored or to provide additional options.

**System action:** VTAM waits for the reply and then processes the options entered.

**Operator response:** Take one of the following actions:

- Enter the start options recommended by the system programmer or contained in your operator instructions. (If you cannot fit all the required start options on one line, put a comma after the last option on the line. This causes message IST1311A to be issued, allowing you to specify more start options.)
- Enter a blank to cause VTAM to use the start options from the default start list.

**Note:** If you enter a LIST start option, ensure that you enter it correctly. VTAM will not give you an opportunity to correct a spelling error. You cannot enter the LIST start option in response to message IST1311A. See the z/OS Communications Server: SNA Resource Definition Reference for more information on VTAM start options.

**System programmer response:** None.

**Routing code:** 1

**Descriptor code:** 2

---

IST052I  parameter IS AN INVALID START OPTION KEYWORD – IGNORED

**Explanation:** The operator specified parameter parameter as a VTAM start option, but this is an invalid keyword.

**System action:** VTAM ignores this option and continues processing any other start options.

**Operator response:** When prompted by VTAM, enter the correct keyword and options, or enter a blank to indicate that you do not want to enter any options.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

---

IST054I  member IN library [NOT FOUND|IS EMPTY] – START PROCESSING CONTINUES

**Explanation:** VTAM issues this message during start processing when a specified library member is empty or is not found.

**member** is either ATCSTR00 or ATCSTRxx, where xx is from the LIST start option.

**library** is the DDNAME specified for the definition library.

**System action:** VTAM ignores member and continues processing the other start options.

**Operator response:** Save the system log for problem determination.

**System programmer response:** Verify that member was either intentionally left empty or not found. If member is necessary to your system, halt and restart VTAM with the correct library member.

**Routing code:** 2
IST056A  LIST = listid IS INVALID — ENTER LIST ID OR BLANK

Explanation: The value specified for listid in the LIST start option is invalid. One of the following situations is true:
• No corresponding member exists for this identifier.
• The identifier is more than the allowable 2 characters long. If more than 3 characters were entered, only the first 3 are printed in the message.
• The identifier contains characters other than the allowed alphanumeric characters.

System action: VTAM waits for a reply to this message.

Operator response: If you enter an identifier in response to this message, VTAM will attempt to process the options in the definition library.
If you select a default list, VTAM will prompt you to enter individual start options. Take one of the following actions:
• Determine the correct identifier, and enter it.
• Invoke the default list by entering a blank.

System programmer response: Ensure that the specified member actually exists. See the z/OS Communications Server: SNA Resource Definition Reference for more information on VTAM start options.

Routing code: 1
Descriptor code: 2

IST057I  KEYWORD MISSING AFTER TRACE/NOTRACE OPTION ON START PARMS

Explanation: VTAM issues this message when a required keyword did not follow the TRACE or NOTRACE keyword in the start options.

System action: VTAM does not process the TRACE or NOTRACE options but continues to process any remaining start options.

Operator response: Correct the trace option by responding to IST1311A or ignore the error by entering a blank.

System programmer response: Examine the VTAM start options contained in ATCSTRxx, and verify that the correct options are specified. See the z/OS Communications Server: SNA Resource Definition Reference to verify the appropriate options for ID or TYPE keywords on the TRACE/NOTRACE start option and for more information about VTAM start options.

Routing code: 2
Descriptor code: 5

IST058I  keyword1 AND keyword2 OPTIONS HAVE DUPLICATE VALUES

Explanation: The same value was specified for start options keyword1 and keyword2. This situation occurs when you enter values for the HOSTPU and SSCPNAME start options or two VTAM coupling facility structures have been assigned the same name.

System action: If keyword1 is HOSTPU and keyword2 is SSCPNAME, then HOSTPU defaults to ISTPUS. VTAM issues message IST1311A, which prompts you to reenter any start option overrides.

Operator response: If the duplicate keywords were in a start list, save the system log for problem determination. If not, enter any start option overrides when prompted by message IST1311A. For coupling facility structures, you will continue getting prompted with IST1311I until the options specified by keyword1 and keyword2 have unique values.

System programmer response: If the duplicate keywords were in a start list, change them so that they have unique values. See the z/OS Communications Server: SNA Network Implementation Guide for more information about VTAM coupling facility structures. See the z/OS Communications Server: SNA Resource Definition Reference for more information on VTAM start options.

Routing code: 2
Descriptor code: 5
IST059I  •  IST061I

IST059I  text  IGNORED – INSUFFICIENT STORAGE

Explanation:  VTAM could not obtain sufficient storage to complete the operation indicated by text:

TRACE FOR nodename
   A TRACE start option for node nodename.

PATH pathname FOR nodename
   Update of dynamic path update set named pathname for node nodename.

System action:  If text indicates:

TRACE FOR nodename
   If the nodename value is VTAM and you are trying to start an internal trace (for example, type=VTAM),
      initialization continues without a VTAM internal trace table.
   If the nodename value is anything other than VTAM, VTAM issues message IST1311A, which prompts you to
      reenter any start option overrides.

PATH pathname FOR nodename
   VTAM does not update dynamic path update set pathname.

Operator response:  Wait a short time and reenter the command. If VTAM continues to issue this message, enter the
      DISPLAY BFRUSE command. Issue the DISPLAY STORUSE command to display storage usage for storage pools.
      Save the system log and request a dump for problem determination.
      For a VTAM internal trace, enter a MODIFY TRACE command, specifying a smaller buffer size.

System programmer response:  Verify that the operator entered the buffer pool or CSA start options as specified in
      the start procedures.
      Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA
      limits. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM
      start options file (ATCSTRxx) and restart VTAM to use the start option.
      • See the z/OS Communications Server: New Function Summary to determine the storage requirements for VTAM.
      • See the z/OS Communications Server: SNA Resource Definition Reference for a description of VTAM start options.
      • See z/OS Communications Server: SNA Operation for information about the DISPLAY BFRUSE command, the
         DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
      • See the z/OS Communications Server: SNA Network Implementation Guide for an explanation and description of
         buffer pools and for general information on buffer pool specification and allocation.
      • See the z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures for information about
         analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

Routing code:  2
Descriptor code:  5

IST061I  command FOR nodename FAILED — NODE UNKNOWN TO VTAM

Explanation:  The operator entered a command for a resource nodename that is not defined to VTAM. A null name
   (one consisting entirely of blanks) is also an identifier that is not valid.

System action:  VTAM rejects the command.

Operator response:  Ensure that you entered the command correctly.
   • If you were trying to activate a minor node, the message indicates that there is no such minor node in any
      currently active major node. In this case, the major node containing minor node nodename must be activated first.
      You can issue the DISPLAY MAJNODES command to determine which major nodes are active.
   • If you were trying to activate a major node, the message indicates that there is no such major node in the
      definition library.
   • If you were trying to deactivate either a major or minor node, the message indicates that there is no such node
      currently defined to VTAM.

Save the system log for problem determination.

System programmer response:  Validate that the nodename value is correct, and provide the operator with the correct
name. If necessary, change the VTAM definition statements to use the correct name.

Routing code:  2
Descriptor code:  5

IST066I  command FAILED — CONFLICTING OR INVALID OPTIONS

Explanation:  The operator entered the command with an operand or combination of operands that was not valid. Two or more options might be mutually exclusive, or a particular option might be valid only for some types of nodes. This message might also occur when an NCP or channel-to-channel adapter is already activated with different parameters.

System action:  VTAM rejects the command.

Operator response:  Ensure that you entered the command correctly. If the problem persists, save the system log and print the major node definition for problem determination.

System programmer response:  Check the command description for restrictions on the use of operands.
  • If this message was the result of the activation of a major node that was already active, such as an NCP, the conflict is probably between an operand on the command and either:
    – An operand on a definition statement, or
    – An operand specified on the prior activation.
  • If the major node in question is not active, instruct the operator to simply reenter the command with corrected options.
  • If, however, the major node is already active and the conflict is between an operand specified on the new activation and the one used on a prior activation, you will need to deactivate the major node if the new operand is required, then reactivate it.

Note: Deactivating the major node will disrupt any active sessions that use the node.

Routing code:  2
Descriptor code:  5

IST072I  command FOR ID = nodename FAILED DURING NETWORK DEFINITION

Explanation:  VTAM issues this message when the command entered to activate or acquire the major node nodename failed during network definition.

command is the command that failed. Possible values are:

VARY ACT or VARY ACQ
  The VARY ACT or VARY ACQ command for a major node definition is in error.

VARY DRDS
  Processing of a VARY DRDS (dynamic reconfiguration data set) command failed, and the entire definition was rejected.

MODIFY DR
  A MODIFY DR command failed.

nodename is the name of the major node specified on the command.

System action:  The command fails. The major node or DRDS definition and its resources remain inactive, and VTAM cannot use them.

Operator response:  Save the system log and print the major node definition for problem determination.

System programmer response:  Previous messages provide information about the cause of the failure.
  • If this is a definition error, correct the major node definition or DRDS definition to resolve the problem before the operator reenters the command.
  • If this is not a definition error, tell the operator to reenter the command using the correct major node name. See z/OS Communications Server: SNA Operation for more information about command.

Routing code:  2
IST073I • IST075I

Descriptor code: 5

IST073I  command FOR ID = nodename FAILED — MORE POWERFUL REQUEST IN PROGRESS

Explanation: VTAM issues this message when the command fails because nodename has a deactivation request pending.

Note: If the command was a VARY INACT command, the pending deactivation is of a stronger type (Immediate or Force).

System action: VTAM rejects the command.

Operator response: Monitor the progress of the deactivation by using the DISPLAY command. When nodename is deactivated, reenter the command.

System programmer response: None.

Routing code: 2

Descriptor code: 5

IST074I  command FOR ID = nodename FAILED — INSUFFICIENT STORAGE

Explanation: A command for nodename failed because VTAM could not obtain a work area to process the request.

System action: VTAM rejects the command.

Operator response: Messages IST561I, IST562I, IST563I, IST564I, IST565I or IST566I might be issued prior to this message to indicate the type of storage affected.

Issue the DISPLAY BFRUSE command to display storage used by VTAM buffer pools and information about the common service area (CSA). Total VTAM private storage information is also displayed in message IST981I. Issue the DISPLAY STORUSE command to display storage usage for storage pools.

Save the system log and request a dump for problem determination.

If nodename is an independent logical unit that is being converted to a definition for a resource in another domain, then the NCP major node for nodename must be deactivated. Activate the NCP major node when the storage shortage no longer exists.

System programmer response: Verify that the operator entered the buffer pool or CSA start options as specified in the start procedures.

Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA limits. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxz) and restart VTAM to use the start option.

• See the z/OS Communications Server: New Function Summary to determine the storage requirements for VTAM.
• See the z/OS Communications Server: SNA Resource Definition Reference for a description of VTAM start options.
• See z/OS Communications Server: SNA Operation for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
• See the z/OS Communications Server: SNA Network Implementation Guide for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
• See the z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

Routing code: 2

Descriptor code: 5

IST075I  NAME = name, TYPE = type

Explanation: This message is part of several different message groups that VTAM issues in response to one of the following commands:
• DISPLAY ID=nodename
• DISPLAY EE
### IST077I • IST080I

- DISPLAY GRPREFS
- DISPLAY LUGROUPS
- DISPLAY MODELS, ID=model_name
- DISPLAY TRACES,TYPE=NODES,ID=nodename1, nodename2,..., nodenamen
- DISPLAY TRACES,TYPE=NODES,ID=*  
- DISPLAY TRACES,TYPE=ALL
- DISPLAY TRI,TRLE=trl_element
- DISPLAY TSUSER,ID=nodename
- DISPLAY TRACES,TYPE=EXIT,ID=exitname
- DISPLAY VTAMSTOR,NETADDR=(subarea_address,element_address)
- DISPLAY VTAMSTOR,RESOURCE=resource_name
- MODIFY NOTRACE,TYPE=EXIT,ID=exitname,OPT=optionlist
- MODIFY TRACE,TYPE=EXIT,ID=exitname,OPT=optionlist.

**name** is the name of the resource or ID type that is displayed.

See [Chapter 17, “Node and ID types in VTAM messages,” on page 1097](#) for a description of type.

**System action:**  Processing continues.

**Operator response:**  None.

**System programmer response:**  None.

**Routing code:**  2

**Descriptor code:**  5

**IST077I**  
\[ SIO = sio \]  
\[ CUA = device_address \]  
\[ SLOWDOWN = YES \]

**Explanation:**  VTAM issues this message in response to a DISPLAY ID command requesting the status of a channel-attached node. For a DISPLAY ID command for a local NCP, this message is issued for every channel-attached link station defined from the host to the PU type 4.

*sio* is the number of start I/O operations counted for the channel. This number is cumulative (from the time that the node was last activated) and is expressed in decimal. The value of *sio* is never larger than 65535. If *sio* is 65535, its value is reset to 0 when the next start I/O operation takes place.

*device_address* is the hexadecimal address of the channel-attached device. This field contains *NA* if the device address is not available.

*SLOWDOWN=YES*, if present, indicates that the node is in slowdown.

**System action:**  Processing continues.

**Operator response:**  None.

**System programmer response:**  None.

**Routing code:**  2,8

**Descriptor code:**  5

**IST080I**  
\[ resource1 status1 resource2 status2 resource3 status3 \]

**Explanation:**  This message is part of a group of messages that VTAM issues in response to one of the following commands:

**DISPLAY APPLS command**  
This message lists the resources and gives the status of each.

**DISPLAY ID command**  
This message lists the resources and gives the status of each.
IST081I

**DISPLAY LINES command**
This message lists the resources and gives the status of each.

**DISPLAY LUGROUPS command**
This message lists the resources but does not display status since resource represents a symbolic resource name.

**DISPLAY PENDING command**
This message lists the resources and gives the status of each.

**DISPLAY TERMS command**
This message lists the resources and gives the status of each.

If there are more than three nodes, the message is repeated as many times as necessary to display all the nodes. This message is preceded by a message that identifies the type of resources that are listed.

resource is the name of the resource.

If a DISPLAY APPLS, DISPLAY ID, DISPLAY LINES, DISPLAY PENDING, or DISPLAY TERMS command was entered, see the [z/OS Communications Server: IP and SNA Codes](https://www.ibm.com/support/knowledgecenter/SSECG2_2.2.0/COMM/SNA/comm_h_vtammng旅游资源.htm) for status information.

If a DISPLAY LUGROUPS command was entered, the status field is blank.

See [z/OS Communications Server: SNA Operation](https://www.ibm.com/support/knowledgecenter/SSECG2_2.2.0/COMM/SNA/comm_h_vtammng旅游资源.htm) for information on commands. See the [z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com/support/knowledgecenter/SSECG2_2.2.0/COMM/SNA/comm_h_vtammng旅游资源.htm) for information on LUGROUPS.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

---

IST081I   LINE NAME = linename, LINE GROUP = groupname, MAJNOD = nodename

**Explanation:** VTAM issues this message in the following situations:

- In response to a DISPLAY ID command
- When a connection request for resource nodename in message IST680I has been rejected. See the description of IST680I for more information.
- When a switched connection between VTAM and a physical unit was unsuccessful because the station identifier stationid displayed in message IST690I did not resolve to a node name in an active switched major node. See the description of IST690I for more information.

linename is the line to which nodename is connected.

groupname is the line group to which the line linename belongs.

nodename is the major node with which the line is associated.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5
IST082I  DEVTYPE = devicetype [, CONTROLLING LU = luname]

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY ID command.

devicetype is the device type. If devicetype is INDEPENDENT LU / CDRSC, the node is an independent LU that is represented by a CDRSC.

luname is the name of the controlling LU that was previously specified on the LOGAPPL operand of the definition statement or on the LOGON operand of the VARY LOGON command. If there is no controlling application program, VTAM does not display CONTROLLING LU = luname.

System action: Processing continues.
Operator response: None
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST084I  NETWORK RESOURCES:

Explanation: This message is the first in a group of messages that VTAM issues in response to a DISPLAY ID command requesting status of a line, local SNA major node, or switched SNA major node. The message immediately following this message will provide details about subordinate nodes associated with the displayed node.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST085I  DISPLAY FAILED — INFORMATION NOT AVAILABLE

Explanation: VTAM cannot execute a DISPLAY PATHTAB or a DISPLAY STATS,TYPE=CFS command because VTAM cannot gather the requested information.

If the operator specified ADJSUB on the DISPLAY PATHTAB command, there are no routes passing through the named adjacent subarea. If the operator specified DESTSUB on the DISPLAY PATHTAB command, there are no routes going to the named destination subarea.

If the message was issued in response to a DISPLAY STATS,TYPE=CFS command, it will be followed by message IST1366I. See the description of that message for more information.

System action: VTAM rejects the command.
Operator response: For the DISPLAY PATHTAB command ensure that you entered the command correctly. If problems persist, save the system log for problem determination.

For the DISPLAY STATS,TYPE=CFS command see the description of message IST1366I.

System programmer response: For the DISPLAY PATHTAB command see the z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures for more problem determination information.

For the DISPLAY STATS,TYPE=CFS command see the description of message IST1366I.
Routing code: 2
Descriptor code: 5
IST087I

IST087I TYPE = line_type, CONTROL = line_control, HPDT = hpdtvalue

Explanation: This message is part of several different message groups that VTAM issues in response to DISPLAY ID or DISPLAY TRL commands.

line_type indicates the type of line and can be one of the following values:

- LEASED
- SWITCHED DIAL-IN
- SWITCHED DIAL-OUT
- SWITCHED DIAL-INOUT

line_control can be one of the following values:

- BSC
  - Binary synchronous communication
- CTCA
  - Channel-to-channel attached
- MPC
  - Multipath channel
- NCP
  - Channel-attached NCP
- ROCE
  - Remote Direct Memory Access (RDMA) over Converged Ethernet
- SDLC
  - Synchronous data link control
- SS
  - Start-stop
- TCP
  - Transmission Control Protocol
- USER
  - User-defined protocol
- XCF
  - Cross-system coupling facility

hpdtvalue can be one of the following values:

- YES
  - Indicates the connection is capable of performing channel I/O directly to or from communications storage manager (CSM) buffers.
- NO
  - Indicates the connection is not capable of performing channel I/O directly to or from communications storage manager (CSM) buffers.
- *NA*
  - Is displayed when line_control is not MPC or when the connection is not active.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 8

Descriptor code: 5
IST089I  nodename TYPE = search=nodeid.nodetype, search=rescd.status [{,CUA=device_address} | {,PHYS=puname}]

Explanation: This message is part of several different message groups that VTAM issues in response to DISPLAY ID commands or DISPLAY commands that display the status of a particular category of resources in a domain.

nodename is the name of the resource or ID type that is displayed.

See Chapter 17, “Node and ID types in VTAM messages,” on page 1097 for a description of nodetype.

See the z/OS Communications Server: IP and SNA Codes for a description of status.

device_address is the hexadecimal channel address of the node. It provides attachment for the communication controller normally attached by the physical unit type 4 nodename. VTAM issues *NA if device_address is not available.

puname is the name of the PU that is the physical resource for nodename and is specified on the PHYSRSC operand of the GROUP definition statement. puname is issued only with TYPE=LINE or TYPE=LINE GROUP.

If the physical unit, defined in the NCP definition, whose name is specified by the PHYSRSC keyword is a switched PU that is not currently connected, then highernode is the physical line.

System action: Processing continues.

Operator response: For more information about the nodename value, enter a DISPLAY ID command.

Note: The DISPLAY ID command is not valid for model LU or PU nodes. For more information about a model LU or PU node, enter a DISPLAY MODELS command.

System programmer response: None.

Routing code: 2

Descriptor code: 5

IST092I REQUESTED limit LESS THAN CURRENT ALLOCATION – REQUEST [REJECTED | ACCEPTED]

Explanation: The value specified on the CSALIMIT start option, the CSA24 start option, or the MODIFY CSALIMIT command, is less than the common service area (CSA) size currently being used by VTAM. VTAM rejects a MODIFY CSALIMIT request unless F was indicated in the command to force the change.

During VTAM start, the requested start option is always rejected.

limit is one of the following:

- CSALIMIT, which indicates total CSA
- CSA24 LIMIT, which indicates CSA below 24-bit addressable storage.

System action:

- If ACCEPTED is indicated, the operator entered a MODIFY CSALIMIT command with the F operand. VTAM sets the limit to the new value specified in the command.
- If REJECTED is indicated after the operator entered a MODIFY CSALIMIT command, VTAM rejects the command and the limit remains unchanged.
- If REJECTED is indicated during VTAM start, VTAM rejects the command, the limit remains unchanged, and the operator is prompted to enter an acceptable (larger) value for limit.

Operator response: If VTAM accepts the request, no action is required. If VTAM rejects the request:

- For a START command, reenter either the CSALIMIT option or the CSA24 option with an acceptable (larger) value.
- Restriction:
  - If the specified limit is too low and you force this limit to take effect by using the F operand of the MODIFY CSALIMIT command, you cannot enter other VTAM commands (except HALT and CANCEL) until usage falls below the specified limit. This is because this storage is needed to process all VTAM operator commands except HALT or CANCEL.
  - If the CSA usage does not fall below the new level, you can use the MODIFY VTAMOPTS command to revise the CSALIMIT value. Verify that circumstances warrant limiting the amount of common service area (CSA) available to VTAM to an amount less than the size that is already in use.

Chapter 5. IST messages for VTAM network operators IST001I – IST399I  61
IST093I • IST095A

System programmer response: If necessary, redefine either CSALIMIT or CSA24 limit with an appropriate value. Otherwise, no response is necessary.
Routing code: 2
Descriptor code: 5

IST093I nodename ACTIVE

Explanation: VTAM issues this message in response to a VARY command when resource nodename has been successfully activated. Active states of resources include the connectable (CONCT) state.

Notes:
1. If you specify or accept the default value BASE for the MSGLEVEL option, you receive this message twice if the resource is the host SSCP. See Appendix D, “Messages affected by the MSGLEVEL option,” on page 1165 for additional information.
2. If you are expecting this message to confirm activation of a resource and it is not issued, this can occur if the VARY command was overridden by other VTAM processing.
   For example, if an NCP INOPs prior to completion of a VARY ACT command and recovery is attempted, then VTAM activates the resource rather than the operator command. In this situation, message IST493I or IST1141I might be displayed indicating that the VARY ACT command was overridden.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST095A OPTION TO DUMP controller AVAILABLE — REPLY ‘YES’ OR ‘NO’ OR ‘YES,DUMPSTA=linkstaname’

Explanation: This message prompts the VTAM operator to determine whether VTAM should dump the communication controller associated with the network control program represented by controller.

The prompt occurs when the communication controller has failed and AUTODMP has not been specified on the PCCU macro. Therefore, the operator can choose whether or not to dump the contents of the communication controller.

System action: VTAM waits for a valid reply.
Operator response:
• Reply YES for a dump of the contents of the communication controller using the link station specified at NCP generation or by the VARY ACT command.
• Reply YES,DUMPSTA=linkstaname, where linkstaname is the value coded for the DUMPSTA operand of the PCCU macro in the NCP generation.
   If you specify YES,DUMPSTA= without naming the link station, VTAM selects a default dump station.
• Reply NO if you do not want to dump the contents of the communication controller.

Notes:
1. You should have instructions from the system programmer as to which of the replies you should enter at your console. Operators of multiple-channel or multiple-link attached communication controllers should avoid replying YES simultaneously to this message. Only one operator should reply YES to this message. Other operators should wait for that operator’s dump to be completed and then should enter NO.
2. For additional information on how to respond to this message, see “Responding to a VTAM message” on page 2.
IST096I  command FAILED — DUPLICATE parameter PARAMETERS SPECIFIED

Explanation: VTAM issued this message when parameter was specified more than once in the command.

System action: VTAM rejects the command. Other processing continues.

Operator response: Reenter the command as many times as necessary, but specify parameter only once each time.

System programmer response: None.

Routing code: 2

Descriptor code: 5

IST097I  command ACCEPTED

Explanation: VTAM accepted the command for initial processing. See Chapter 16, “Command and RU types in VTAM messages,” on page 1083 for a description of command.

System action: The syntax of the command is correct and VTAM begins processing command.

Operator response: Wait until VTAM completes any command for a node before entering another affecting that node.

System programmer response: None.

Routing code: 8

Descriptor code: 5

IST101I  command FAILED — operand_name NOT SPECIFIED

Explanation: VTAM issues this message when the command was entered without the required operand operand_name.

See Chapter 16, “Command and RU types in VTAM messages,” on page 1083 for a description of command.

System action: VTAM rejects the command. Other processing continues.

Operator response: Reenter the command with the required operand. See z/OS Communications Server: SNA Operation for more information about command.

System programmer response: None.

Routing code: 2

Descriptor code: 5

IST102I  VTAM IS NOW INACTIVE

Explanation: VTAM has terminated, either because of an error or because of a HALT command.

System action: System processing continues. VTAM processing stops.

Operator response: No response is required unless you need to restart VTAM. In that case, follow your normal VTAM start procedure.

System programmer response: None.

Routing code: 2,8

Descriptor code: 4

IST105I  nodename NODE NOW INACTIVE

Explanation: The operator successfully deactivated the node nodename. In most cases, this is the result of a VARY INACT command. If nodename is a cross-domain resource manager (CDRM) in another domain, then deactivation could be the result of a deactivation request from the domain of nodename.

System action: Processing continues.

Operator response: None.
IST107I  •  IST115I

System programmer response:  None.
Routing code:  2
Descriptor code:  5

IST107I  TIME AND DATE NOT SET IN ncpname DUE TO INVALID TIMER IN HOST

Explanation:  VTAM found the time-of-day clock in the host processor to be in error or not operational. Therefore VTAM did not set the time and the date in the NCP ncpname after it was loaded.

System action:  VTAM completes activation of ncpname normally except for setting the time and date.

Operator response:  If time and date are required in the communication controller, deactivate the NCP, set the time-of-day clock in the host processor, and reactivate the NCP.

System programmer response:  None.
Routing code:  2
Descriptor code:  5

IST109I  function IS NOW TERMINATED

Explanation:  VTAM issues this message when an ABEND occurred while processing was in the tuning statistics (TNSTAT) subtask.

function will always be TNSTAT.

System action:  Tuning statistics support ended.

Operator response:  See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures] for information about collecting documentation for an abnormal end (ABEND.)

System programmer response:  See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures] for information about collecting documentation for an abnormal end (ABEND) then contact the IBM Software Support Center for service.

Routing code:  2
Descriptor code:  5

IST113I  uservar IS A USERVAR WITH VALUE value IN NETWORK netid

Explanation:  VTAM issues this message in response to a DISPLAY SESSIONS or DISPLAY ID=uservar command.

uservar is a user-defined name for a network resource with the value of value in network netid.

If uservar is both a user variable and a network resource, VTAM will display the resource and ignore the user variable value. Otherwise, VTAM will display the resource represented by the value of the USERVAR, value. Message IST075I contains the name of the resource being displayed for DISPLAY ID.

System action:  Processing continues.

Operator response:  None.

System programmer response:  None.
Routing code:  2
Descriptor code:  5

IST115I  INSUFFICIENT STORAGE TO READ member MEMBER OF VTAM DEFINITION LIBRARY

Explanation:  VTAM issues this message when insufficient storage existed in the common service area (CSA) or partition to read member in the definition library. A subsequent message indicates which VTAM function is affected.

System action:  See the System Action of the next message that appears on the console.

Operator response:  Wait a short time and reenter the command. If VTAM continues to issue this message, enter the DISPLAY BFRUSE command. Issue the DISPLAY STORUSE command to display storage usage for storage pools.
Save the system log and request a dump for problem determination.

**System programmer response:** Verify that the operator entered the buffer pool or CSA start options as specified in the start procedures.

Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA limits. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

- See the [z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com) for a description of VTAM start options.
- See [z/OS Communications Server: SNA Operation](https://www.ibm.com) for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](https://www.ibm.com) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

Routing code: 2
Descriptor code: 5

---

**IST116I**  
**MEMBER member NOT FOUND ON VTAM DEFINITION LIBRARY**

**Explanation:** VTAM searched the definition library, and failed to locate `member`. A subsequent message indicates which VTAM function is affected.

**System action:** If `member` is a resource specified in a VARY ACT command, the VARY ACT command fails. If `member` is a model name table or an associated LU table, the table is not defined, but the VARY ACT command is not affected.

**Operator response:** If VTAM issues this message because the USSTAB start option is not valid, you can enter a MODIFY TABLE command to supply a new USS table represented by ISTNOPT. Save the system log for problem determination.

**System programmer response:** Check the VTAM definition library, and correct the problem.

Routing code: 2
Descriptor code: 6

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**IST117I**  
**I/O ERROR READING member MEMBER OF VTAM DEFINITION LIBRARY**

**Explanation:** An I/O error prevented VTAM from reading `member` in the definition library.

**System action:** See the System Action of the next message that appears on the console.

**Operator response:** See the Operator Response of the next message that appears on the console.

**System programmer response:** See the Programmer Response of the next message that appears on the console.

Routing code: 2,10
Descriptor code: 4

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**IST118I**  
**ANOMALY FOUND NEAR RECORD count IN MEMBER member – CODE = code**

**Explanation:** VTAM detected inconsistent syntax in the coding of a definition statement in `member` in the definition library.

VTAM issues this message when the syntax used in the statement being processed leaves the intent of the statement unclear. The message does not indicate a syntax error. The error is probably an error of omission or text placement.

`count` is the approximate count of 80-byte logical records read from the beginning of the member (including all comment lines) to the point of detection. This number will be equivalent to the line or record number seen for that record when the member is viewed under an editor.

`code` can be one of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
</table>

2 While processing major node member, VTAM detected a record that ended in a comma, indicating continuation, but column 72 was blank, indicating no continuation records follow. Major node activation continues.

3 While processing major node member, VTAM detected a properly structured record with a non-blank character in column 72, indicating continuation. However, the continuation record began in column 17 or beyond, which caused VTAM to consider it a comment and ignore it. A scan of the ignored record shows that it contains an equal sign (=), and might therefore contain operands which were not intended to be ignored.

4 While processing major node member, VTAM detected a record containing an asterisk (*) in column 1, indicating that it is a full-line comment. Column 72 contained a nonblank character, indicating to VTAM that the next record should also be treated as a comment.

VTAM will consider each proceeding line a comment, and ignore it, until it reads a record in which column 72 is blank, indicating that the records should no longer be considered a comment. This code will be issued for each of the ignored records, which will most probably be sequential records in a group.

System action: Processing continues.

Operator response: Save the system log for problem determination.

System programmer response: Use the information provided by member, count, and code to confirm that the syntax of the record is correct. If the syntax is correct, then this message can be ignored, or you can restructure the text to eliminate the message.

Routing code: 2
Descriptor code: 5

IST120I • NODE nodename NOW HAS CONTROLLING LU luname

Explanation: VTAM has finished processing the LOGON operand of either a VARY ACT or VARY LOGON command. When logical unit nodename, or the logical units associated with nodename, are not in session with another application program, VTAM will automatically log them on to application program luname. Resources must be active in order for the logon to complete. This does not mean that a session with the application program has been initiated.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2
Descriptor code: 5

IST122I • ATTACH OF VTAM SUBTASK subtask FAILED

Explanation: VTAM cannot attach one of the VTAM subtasks, subtask, because VTAM could not find the named subtask on SYS1.LINKLIB.

System action: A message will follow indicating the action that the system takes as a result of this error.

Operator response: Save the system log for problem determination.

System programmer response: Make sure that subtask is in the system library and restart VTAM.

Routing code: 2
Descriptor code: 6

IST124I • STOP COMMAND REJECTED — NOT SUPPORTED FOR VTAM

Explanation: The operator entered a STOP command for the VTAM task. VTAM does not support this command.

System action: VTAM rejects the command. Other VTAM processing continues.

Operator response: To stop the VTAM task, enter a HALT command.
**IST126I** • **IST129I**

**IST126I**  
*modename* MODE NOT SUPPORTED DUE TO LOADING FAILURE

**Explanation:** VTAM cannot load *modename*.

**System action:** Processing continues.

**Operator response:** Save the system log for problem determination.

**System programmer response:** No action is necessary if the absence of the indicated mode will not affect operations. Otherwise, check the system libraries for the presence of *modename*. If it is not there, you must include it. This message follows message IST001I or IST013I, which identifies the module and system library to be checked.

**Routing code:** 2

**Descriptor code:** 5

**IST127I**  
*modename* STILL ACTIVE — VTAM TERMINATION WAITING FOR *text*

**Explanation:** VTAM cannot terminate because application program *modename* has not yet closed its ACB.

*text* is JOB = *jobname* STEP = *stepname*.

**System action:** VTAM waits for JOB = *jobname* STEP = *stepname* to close its ACB.

**Operator response:** Either wait for JOB = *jobname* STEP = *stepname* using *modename* to be completed, or cancel JOB = *jobname* STEP = *stepname* to allow VTAM to terminate.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

**IST128I**  
HALT OF VTAM ALREADY IN PROGRESS

**Explanation:** The operator entered a HALT command, but a previously entered HALT command is in progress. The only valid duplication of HALT commands is HALT followed by HALT QUICK or HALT CANCEL.

**System action:** VTAM rejects the command.

**Operator response:** If you want to close down the VTAM network at once, enter a HALT QUICK or HALT CANCEL command. Otherwise, allow the normal HALT to continue.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 6

**IST129I**  
UNRECOVERABLE OR FORCED ERROR ON NODE *nodename* — VARY INACT SCHED

**Explanation:** VTAM scheduled a VARY INACT command for the resource *nodename* because one of the following occurred:

**Reason**  
**Description**

1. An unrecoverable error occurred in a communication controller, physical unit, logical unit, link, or link station. Message IST259I precedes this message and provides additional information.

2. The operator issued a VARY INACT,TYPE=FORCE command.

3. If the maximum RU size was exceeded on the SSCP-LU session or the SSCP-PU session, VTAM scheduled an internal VARY INACT,TYPE=FORCE command.

**System action:** VTAM automatically issues a VARY INACT command for the resource *nodename*.
Operator response:

- For **Reason 1**, save the system log for problem determination. See the explanation of message IST259I for additional problem determination actions.
- For **Reason 3**, save the system log for problem determination. A buffer trace can provide additional information regarding the cause of the error.

System programmer response:

- For **Reason 1**, use the system log and the explanation of message IST259I to assist you in correcting the problem. If you cannot determine the cause of the problem and need additional assistance, contact the IBM hardware support center.
- For **Reason 3**, use the system log and buffer trace, if provided, to assist you in correcting the problem.
  - Run your operating system service aid program to determine whether MDR/OBR information has been recorded. See the [EREPS User's Guide](#) for more information on using EREP. If you use a network management application such as NetView, check to determine whether an alert or an event was recorded for this problem.
  - If you cannot determine the cause of the problem from the output provided or need additional assistance, contact the IBM hardware support center. If available, provide the MDR/OBR information from your operating system service aid program or the alert information recorded by your network management application.
  - If this message is the result of an apparent software error, take the following actions:
    - If you have access to IBMLink, search for known problems with similar symptoms. If no applicable matches are found, report the problem to IBM by using the Electronic Technical Report (ETR) option on IBMLink.
    - If you do not have access to IBMLink, report the problem to the IBM software support center.

Routing code: 2,8,1

Descriptor code: 5

**IST130I VTAM SUBTASK subtask INACTIVE — ABEND THRESHOLD EXCEEDED**

**Explanation:** VTAM issues this message when `subtask` abnormally terminated more than four times in the last 30 minutes. VTAM tried to reattach it by using the ETXR exit routine but could not because the abend threshold for the subtask was exceeded.

**System action:** VTAM will make no further attempts to attach the subtask. VTAM continues without the support of the subtask.

`subtask` can be one of the following subtasks:

**ISTATM00**
VTAM termination subtask

**ISTINCAV**
ACTLINK/DACTLINK subtask

**ISTINCDS**
Dump/load/restart subtask

**ISTINCTS**
Tuning statistics subtask.

**ISTINMLS**
Directed load subtask

**ISTCSCEX**
Configuration services XID exit subtask

**ISTCSCSD**
SDDLU exit subtask

**ISTPDUCL**
LU subtask interface with session monitor or NLDM

**ISTPUCX0**
Virtual route selection subtask

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Operator response: Save the system log for problem determination. It might be necessary to halt VTAM and start it again if you need this subtask.

System programmer response: Examine the output from the operator to determine the cause of the problem. See the z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures for information on the abend procedure.

Routing code: 2
Descriptor code: 4

IST132I VTAM SUBTASK subtask NOT REATTACHED — CANNOT BE FOUND

Explanation: VTAM issues this message when subtask ended abnormally. subtask was not reattached because VTAM could not find it in the system library.

System action: VTAM continues but without the support of the subtask.

subtask can be one of the following:

ISTATM00 VTAM termination subtask
ISTINCDD Dump/load/restart subtask
ISTINCCT Tuning statistics subtask.
ISTINMII Directed load subtask
ISTCSSS Configuration services XID exit subtask
ISTCSSSD SDDLU exit subtask
ISTP0CLU LU subtask interface with session monitor or NLD
ISTPUCLX Virtual route selection subtask
ISTSDCLM System definition subtask

Operator response: Save the system log for problem determination.

System programmer response: Ensure that subtask is present in the system library and restart VTAM.

Routing code: 2
Descriptor code: 5

IST133I VTAM TERMINATION IN PROGRESS

Explanation: VTAM is terminating, either because of an unrecoverable error or because the operator issued a HALT command.

System action: The reason for termination of VTAM can be one of the following:

- The operator entered the HALT command.
- The operator entered the HALT QUICK command.
- The operator entered the HALT CANCEL command.
- VTAM detected an unrecoverable error.
For detailed descriptions of the processing of the different HALT commands, see z/OS Communications Server: SNA Operation. If VTAM detected an unrecoverable error, the processing is similar to that which follows the HALT CANCEL command. See that description in z/OS Communications Server: SNA Operation.

Operator response: If this message is the result of a HALT command, no response is required. If it is caused by an abnormal termination, determine the cause of the termination from prior messages.

System programmer response: None.
Routing code: 2
Descriptor code: 4

IST134I • GROUP = groupname, MAJOR NODE = nodename

Explanation: This message is part of a group of messages that VTAM issues in response to:
- A DISPLAY ID command for a line
- Failed activation of an ATM native connection network

When the message is issued in response to a DISPLAY ID command, groupname is the symbolic name of the line group in which the line being displayed is defined.

nodename is the name of the major node in which the line group is defined.

When the message is issued in response to a failed ATM native connection network activation, it is part of a group of messages. The first message in the group is IST1166I. See the explanation of that message for a complete description.
Routing code: 2
Descriptor code: 5

IST135I • PHYSICAL UNIT = puname [,CUA = device_address]

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY ID command for a logical unit.

puname is the name of the physical unit associated with the logical unit.

device_address is the hexadecimal device address of the physical unit and is issued only if the display is for a logical unit in a local SNA major node.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST136I • [(SWITCHED|LOCAL)] SNA MAJOR NODE = majornode

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY ID command.

- SWITCHED or LOCAL is the type of SNA major node in which the logical unit or physical unit exists (if it is defined in a local or remote SNA major node).
  - SWITCHED means that the node is accessed by dial lines.
  - LOCAL means that the node is channel-attached to the host processor.
- majornode is the name of the local or remote SNA major node.

System action: Processing continues.
Operator response: None.
System programmer response: None.
IST137I  •  IST146I

Routing code:  2
Descriptor code:  5

IST137I  CONFIG configname BYPASSED – LOCAL ADDRESS OF LU luname IS INVALID

Explanation:  The local address (LOCADDR) value specified in the definition statement of configuration configname for logical unit luname is not valid. A local major node definition or switched definition containing dependent LUs requires all dependent LUs to have a unique valid value coded for LOCADDR.

System action:  Processing continues. VTAM does not include the configuration containing luname in the VTAM network.

Operator response:  Save the system log and print the major node or switched definition for problem determination.

System programmer response:  Correct the local address statements and file them in the definition library using the same name originally assigned to that local major node or switched definition. You need to deactivate and reactivate the major node or switched definition to use the new definition values.

See the z/OS Communications Server: SNA Resource Definition Reference for a description of VTAM definition statements.

Routing code:  2
Descriptor code:  5

IST142I  CONFIG configname BYPASSED — PATH MACRO macroname ERROR, REASON CODE code

Explanation:  While processing macro macroname during activation of a switched SNA major node, VTAM bypassed configuration configname because of an error shown by code, as follows:

<table>
<thead>
<tr>
<th>Code</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The MAXDLUR, MAXNO, or MAXGRP value on the VBUILD definition statement is zero or is the default.</td>
</tr>
<tr>
<td>2</td>
<td>The MAXPATH value on the preceding physical unit definition statement is zero or is the default.</td>
</tr>
<tr>
<td>3</td>
<td>The number of paths specified exceeds the MAXPATH value of this physical unit.</td>
</tr>
<tr>
<td>4</td>
<td>The number of unique dial numbers and unique line names exceeds the MAXNO value specified on the VBUILD definition statement.</td>
</tr>
<tr>
<td>5</td>
<td>The number of unique group names exceeds the MAXGRP value specified on the VBUILD definition statement.</td>
</tr>
<tr>
<td>6</td>
<td>The number of unique dial numbers and unique line names exceeds the MAXNO value specified on the VBUILD definition statement.</td>
</tr>
<tr>
<td>7</td>
<td>The number of PATH definition statements that code DLCADDR for a single switched major node exceeds the maximum allowed.</td>
</tr>
</tbody>
</table>

System action:  Processing continues. VTAM does not add the configuration specified in the message to the VTAM network.

Operator response:  Save the system log for problem determination. Keep a record of the occurrences of this message.

System programmer response:  Correct the problem indicated by code in this message. After correcting the error, tell the operator to use the VARY command to activate the configuration again.

Routing code:  2
Descriptor code:  5

IST146I  LINE NAME = linename, STATUS = status

Explanation:  This message is part of a group of messages that VTAM issues in response to a DISPLAY TERMS command requesting the status of all LUs in a domain. The message gives the status of the line linename that provides attachment for subsequently listed LUs.
IST148I DIAL OUT PATH INFORMATION FOR PHYSICAL UNIT puname

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY PATHS command for physical unit puname. The message gives the name of the physical unit for which the paths are being displayed. This physical unit is a minor node in a switched SNA major node and can use the displayed paths to communicate with an NCP.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST149I LINE GRP TELEPHONE NUMBER OR LINE NAME PID GID CNT

Explanation: This message is the first in a group of messages that VTAM issues in response to a DISPLAY PATHS command. A complete description of the message group follows.

This message is a header message for the information displayed in message IST168I.

IST168I linegroup phonenum linename blanks pid gid cnt {AVA|NAV} {MAN|AUT|DIR}

IST1575I DIALNO PID: pid[instance]

IST1318I parameter_value

IST1680I type IP ADDRESS ip_address

IST1909I REMOTE HOSTNAME value

IST1911I value...

IST314I END

IST149I

This message is a header message for the information displayed in message IST168I.

IST168I

linegroup is the line group name for this path.

phonenum is a telephone number (for non-X.21 lines). This information is not displayed for PATH statements that describe Enterprise Extender (HPR/IP) connections.

linename is a line name for X.21 lines only.

pid is the path identifier (PID).

gid is the group identifier (GID) for a group of paths across all physical units.

cnt is the number of times the dial operation is to be tried again at the NCP.

AVA indicates that the path is available for use by VTAM.

NAV indicates that the path is not available for use by VTAM.

MAN indicates manual dial.

AUT indicates automatic dial for non-X.21 lines.

DIR indicates direct dial for X.21 lines.
*parameter_value* is the first 60 characters of the DIALNO value specified on the PATH definition statement, when the number of characters exceeds 32.

**IST1319I**

This message is used to display overflow information from *parameter_value* in message IST1318I.

**IST1575I**

- This message is issued when the DIALNO operand specified on the PATH definition statement exceeds 32 characters and cannot be displayed in message IST168I.
  - *pid* is the path identifier specified on the PATH definition statement.
  - *instance* indicates that *parameter_value* in messages IST1318I and IST1319I that follow correspond to the *instance* instance of the message IST168I with *pid* of 000. You must count the group of IST168I messages to find the *instance* instance of message IST168I with a *pid* of 000. *instance* is only displayed when *pid* is 000.

**IST1680I**

- This message is issued when the PATH definition statement describes an Enterprise Extender (HPR/IP) connection to a remote node.
  - *type* is REMOTE.
  - *ip_address* is the IP address of the remote Enterprise Extender node. An *****NA*** in this field indicates that the value is not available because the name-to-address resolution of the HOSTNAME value associated with this PATH definition has not completed or was unsuccessful.

**IST1909I**

- This message is issued when the PATH definition statement describes an Enterprise Extender (HPR/IP) connection to a remote node, and the HOSTNAME operand was specified on the PATH definition statement.
  - *value* is the value, or up to the first 44 characters of the value, specified on the HOSTNAME operand on the PATH definition statement. If the value is longer than 44 characters, then the first 44 characters are displayed as *value* and the remaining characters are displayed using one or more IST1911I messages.

**IST1911I**

*value* is the continuation of *value* on IST1909I. IST1911I is repeated as often as necessary to display the entire *value*.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

---

**IST150I**

RRT LOAD MODULE *rrtname* DOES NOT CONTAIN RESOURCE SEGMENT [EXTENSION]

**Explanation:** While processing definition statements, VTAM could not find the resource segment or resource segment extension in the resource resolution table (RRT) named *rrtname*. The RRT was produced during NCP generation. VTAM uses the resource segment (together with its entries) to correlate a minor node with its network address, and uses the resource segment extension to correlate the name of a physical unit type 4 with a transmission group number. Both the resource segment and resource segment extension are stored in the data set where the NCP load module is linked.

**System action:** The activation of the NCP fails. Processing continues.

**Operator response:** You can use the network only if the NCP is not essential. Save the system log for problem determination.

**System programmer response:** Do one of the following:

1. If the NCP generation process did not complete successfully, check the output from the NCP generation to see whether the resource resolution table was produced. If it was, restart VTAM definition processing. If it was not, regenerate the NCP, restart VTAM definition processing.
2. If the resource resolution table has been damaged, take a dump of the RRT load module to determine whether it contains a resource segment or resource segment extension or both.

In either case, correct or reproduce the RRT load module by regenerating the NCP. Restart the VTAM definition processing.

Routing code: 2
Descriptor code: 5

IST153I PENDING DEACTIVATION OF nodename OVERRIDDEN

Explanation: A stronger deactivation request from another domain has overridden a VARY INACT command and placed nodename in deactivate-pending status. A VARY INACT,TYPE=FORCE command or VARY INACT,TYPE=IMMED command entered from another domain will override a VARY INACT command entered in the current domain.

System action: The system processes the stronger command. The overridden command will probably be canceled.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 6

IST154I EXPANSION FAILED FOR bp BUFFER POOL — CODE code,USERID= ***NA***

Explanation: The number of available buffers in VTAM buffer pool bp dropped to or fell below the expansion point value specified for that pool, and VTAM attempted to expand the pool. VTAM could not expand the pool for the reason indicated by code.

Note: This message is percolated. See "Message rerouting and percolation" on page 1106 for additional information. bp is the name of the buffer pool.

VTAM issues the following codes when a failure occurs during a deferred expansion.

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Not enough CSA storage was available for the expansion.</td>
</tr>
<tr>
<td>5</td>
<td>Not enough fixed storage available for the expansion.</td>
</tr>
<tr>
<td>7</td>
<td>Storage is not available because VTAM’s CSA limit has been exceeded.</td>
</tr>
<tr>
<td>8</td>
<td>Expansion would have caused the pool to exceed its xpanlim specification. See the z/OS Communications Server: SNA Network Implementation Guide for additional information about xpanlim.</td>
</tr>
</tbody>
</table>

VTAM issues the following codes when a failure occurs during an immediate expansion.

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>Not enough CSA storage was available for the expansion.</td>
</tr>
<tr>
<td>15</td>
<td>Not enough fixed storage available for the expansion.</td>
</tr>
<tr>
<td>17</td>
<td>Storage is not available because the VTAM CSA limit has been exceeded.</td>
</tr>
<tr>
<td>18</td>
<td>Expansion would have caused the pool to exceed its xpanlim specification. See the z/OS Communications Server: SNA Network Implementation Guide for additional information about xpanlim.</td>
</tr>
</tbody>
</table>

System action: VTAM did not expand the buffer pool this time. When VTAM contracts other buffer pools, it will try again to expand this pool. Performance might be adversely affected by this failure to obtain more buffers.
Operator response: See the explanation of IST930I when that message is issued.

If VTAM continues to issue this message, enter the DISPLAY BFRUSE command. Save the system log and request a dump for problem determination.
**System programmer response:** See the explanation of IST930I when that message is issued.

If APPL-APPL sessions are not paced at the session level, storage expansion failures can occur. If an APPL-APPL session is not paced at the session level, there is no limit to the number of VTAM I/O buffers that the session can use. See the section on common subarea network problems in the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](https://www.ibm.com/servers/zseries/library/comm/sna/diag/refer.htm) for more information about this problem.

Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA start options. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTR\_xx) and restart VTAM to use the start option.

- See [z/OS Communications Server: SNA Operation](https://www.ibm.com/servers/zseries/library/comm/sna/oper/oper.htm) for information about the DISPLAY BFRUSE command and the MODIFY VTAMOPTS command.
- See the [z/OS Communications Server: SNA Network Implementation Guide](https://www.ibm.com/servers/zseries/library/comm/sna/impl/impl.htm) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
- See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](https://www.ibm.com/servers/zseries/library/comm/sna/diag/refer.htm) for additional information.

**Routing code:** 2  
**Descriptor code:** 5

### IST155I SUBTASK subtask HAS ABENDED, CODE code

**Explanation:** VTAM issues this message when subtask abnormally terminates.

code is the system abend code and indicates the reason for the abend. Check your operating system abend code manual for a description of code.

**System action:** The system action is determined by the value of subtask:

- **ISTCPCRY**  
  VTAM processing continues. This subtask is invoked to perform cryptographic management services.

- **ISTENOIO**  
  VTAM terminates the disk I/O processing associated with a specific instance of the subtask. This subtask is invoked during initialization or by the MODIFY CHKPT command.

- **ISTINCI**  
  VTAM terminates the dump (static or dynamic). For a static dump, deactivation of the NCP continues. This subtask is invoked by the MODIFY DUMP command.

- **ISTINCM**  
  VTAM terminates the remote static dump, dynamic dump, or dump transfer. This subtask is invoked by the MODIFY DUMP command.

- **ISTINCO5**  
  Loading of the communication controller is terminated. The command fails. This subtask is invoked by conditional, unconditional, and nondisruptive loads of a 37XX communications controller.

- **ISTINCR6**  
  The configuration might not be restored to checkpointed status (START command) or the major node checkpoint record might be lost (VARY command), but processing of the command continues. This subtask is invoked by a checkpoint on a major node.

- **ISTINCOQ**  
  The module assumes a default reply. This subtask is invoked by an attempt by a VTAM module to write a message that requires an operator reply.

- **ISTINCY0**  
  If an application program issued an open destination (OPNDST), the request fails. Verify that the physical path to the control unit is available. Make sure the unit is online and is operational. If the operator issued a VARY ACT or VARY INACT command, processing continues, but the connection or disconnection of the 3791 fails. This subtask is invoked by a dial abandon, a dial contact, a dial out, or a dial enable answer.

**Operator response:** Save the system log for problem determination. Check your operating system abend code manual for a description of code.
System programmer response: Use the output provided and the meaning of code to assist in determining the cause of the abend. Make sure that the failing job step includes a SYSABEND DD statement. When the error is corrected, ask the operator to try the command again.

See the z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures for information on the abend procedure.

Routing code: 2
Descriptor code: 5

IST159I THE FOLLOWING NODES ARE IN A PENDING STATE

Explanation: VTAM issues this message in response to a DISPLAY PENDING command.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2
Descriptor code: 5

IST165I CDRM cdrmname HAS AN INVALID ELEMENT VALUE — 1 IS ASSUMED

Explanation: VTAM issues this message when a value other than 1 has been defined as the element address for CDRM cdrmname. Every VTAM cross-domain resource manager (CDRM) must have an element address of 1 in its own network.

System action: VTAM gives the definition of cdrmname a network address with an element address of 1. All other hosts that processed this CDRM statement have the CDRM defined with an element value other than 1. Thus, other domains cannot communicate through cdrmname with this domain. This applies only to CDRMs in the same network.

Operator response: Save the system log and print the CDRM definition for problem determination.

System programmer response: The CDRM is now defined as a CDRM in this domain. If you want to change cdrmname to a non-VTAM domain, deactivate the major node in which cdrmname is defined and change the cdrmname definition in the definition library.

After changing the cdrmname definition, use an operating system utility program to delete a member of a partitioned data set. Then reactivate the major node in which cdrmname is defined.

Notes:
1. If cdrmname was meant to define this host’s CDRM, then change the element address to 1 in the definition of cdrmname.
2. If cdrmname was meant to define another host’s CDRM, then change the subarea address to something other than this VTAM’s HOSTSA start option.

Routing code: 2
Descriptor code: 5

IST167I NO DIAL OUT PATH FOR puname

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY PATHS command for puname. No dial out paths exist for physical unit puname.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2
Descriptor code: 5
IST168I  linegroup (phonenum) linename pid gid cnt {AVA | NAV} {MAN | AUT | DIR}

Explanation: VTAM issues this message as part of a message subgroup. The first message in the subgroup is either IST149I or IST1351I. See the explanation of either message for a complete description.

Routing code: 2
Descriptor code: 5

IST169I  DISCONNECTION CAUSED VARY action FOR PU = pu name

Explanation: One of the following conditions occurred:
• All LU-LU sessions have ended. If you specified DISCNT=YES on the PU statement for pu name, action will be INACT.
• VTAM received an immediate or normal REQDISCONT request from the PU.
  – If the PU is local, action will be REACT.
  – If the PU is switched, action will be INACT.
  – If the PU is attached via a leased line, action depends on the CONTACT option in the request.
• VTAM disconnected the PU because the time specified on DISCNT=(DELAY has lapsed.
• The last LU-LU session has ended as a result of a TERM-SELF RU request or the end-user issued a LOGOFF HOLD=NO command.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST170I  LINES:

Explanation: This message is a header line that VTAM issues in response to a DISPLAY LINES command or a DISPLAY ID command for a subarea physical unit. Subsequent messages indicate the name and status of the lines associated with the subarea physical unit.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST171I  ACTIVE SESSIONS = sessions, SESSION REQUESTS = requests

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY ID command.

sessions is the number of active sessions, including XRF backup sessions.
requests is the number of pending or queued logon requests or both. requests does not apply to SSCP-SSCP sessions.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5
IST172I

**Explanation:** VTAM issues this message in response to various DISPLAY commands. *text* can be any of the following:

- ADJCLUST TABLE EXISTS
- ADJCP FOUND
- ADJCP MAJOR NODE EXISTS
- ADJLISTS EXIST
- ADJSSCP TABLE EXISTS
- ADJSSCP TABLES EXIST
- APPLICATIONS {ACTIVE | ACTONLY | ACTSESS | CONCT | EXIST | INACTIVE | INACTONLY | PENDING | RESET}
- APPN COS ENTRIES EXIST
- APPNTOSA TABLE EXISTS
- BLOCKED VIRTUAL ROUTE
- CDRMS {ACTIVE | ACTONLY | ACTSESS | CONCT | EXIST | INACTIVE | INACTONLY | PENDING | RESET}
- CDRSCS {ACTIVE | ACTONLY | ACTSESS | CONCT | EXIST | INACTIVE | INACTONLY | PENDING | RESET}
- CONNECTIONS ACTIVE
- COSMAP TABLE EXISTS
- DLUR NODES SERVED
- HELD VIRTUAL ROUTE
- LINES {ACTIVE | ACTONLY | ACTSESS | CONCT | EXIST | INACTIVE | INACTONLY | PENDING | RESET}
- LOGICAL UNITS {ACTIVE | ACTONLY | ACTSESS | CONCT | EXIST | INACTIVE | INACTONLY | PENDING | RESET}
- LUGROUP NODES EXIST
- MAJOR NODES {ACTIVE | EXIST | INACTIVE}
- MODELS EXIST
- MODEL SEGMENTS EXIST
- NETWORK NODES {ACTIVE | EXIST | INACTIVE}
- RTPS FOUND
- SAMAP TABLE EXISTS
- SATOAPPN TABLE
- SAW SENSE FILTER
- SESSIONS {ACTIVE | EXIST | PENDING | QUEUED}
- STRUCTURE CONNECTIONS EXIST
- TRL EXISTS
- TRLES EXIST
- USERVARS EXIST
- VIRTUAL ROUTES EXIST

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5
IST176I  command FAILED — option1 AND option2 ARE CONFLICTING OPTIONS

Explanation: The command failed because the options specified (option1 and option2) are mutually exclusive and should not appear on the command simultaneously.

System action: VTAM rejects the command. Other processing continues.

Operator response: Reenter the command using only one of the options specified above and verifying that no other conflicting options appear. When VTAM completes processing of the command, reenter the command with the remaining option, if desired.

System programmer response: None.

Routing code: 2

Descriptor code: 5

IST180I  OPEN FAILED ON CKPT DS datasetname MAJ NODE nodename RTNCD = major minor

Explanation: The VSAM OPEN function failed for the specified checkpoint data set.

datasetname is the DDNAME for the checkpoint data set.
nodename is the major node name.

major is the register 15 return code from VSAM (hexadecimal).

minor is the ACBERFLG return code from VSAM (hexadecimal).

System action: VTAM terminates checkpointing for this major node.

Operator response: Save the system log for problem determination.

System programmer response: See the appropriate VSAM documentation for the correct response to each return code.

Routing code: 2

Descriptor code: 5

IST181I  CLOSE FAILED ON CKPT DS datasetname MAJ NODE nodename RTNCD = major minor

Explanation: The VSAM CLOSE function failed for the specified checkpoint data set.

datasetname is the DDNAME for the checkpoint data set.
nodename is the major node name.

major is the register 15 return code from VSAM (hexadecimal).

minor is the ACBERFLG return code from VSAM (hexadecimal).

System action: VTAM terminates checkpointing for this major node.

Operator response: Save the system log for problem determination.

System programmer response: See the appropriate VSAM documentation for the correct response to each return code.

Routing code: 2

Descriptor code: 5

IST182I  UNABLE TO GET STORAGE FOR CKPT datasetname MAJOR NODE nodename

Explanation: VTAM was unable to obtain VTAM private storage for checkpointing of the specified major node.

datasetname is the checkpoint data set DDNAME.
nodename is the major node name.

System action: VTAM terminates checkpointing for this major node. If nodename is a major node named in a VARY ACT command (with the WARM operand), processing of the command terminates.
**IST183A • IST185I**

**Operator response:** Issue the DISPLAY STORUSE command to display storage usage for storage pools. Message IST981I displays total VTAM private storage information. If this message does not appear in the display, you might need to reissue the DISPLAY STORUSE command, specifying a higher value for the NUM operand. See z/OS Communications Server: SNA Operation for information about the DISPLAY STORUSE command. Save the system log and request a dump for problem determination.

**System programmer response:** Increase storage as required.
- See z/OS Communications Server: SNA Operation for additional information.
- See the z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT for information about analyzing dumps about about analyzing storage using the VIT analysis tool, if external trace is active.

**Routing code:** 2
**Descriptor code:** 5

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**IST183A**

**Explanation:** During the restart of a configuration, VTAM found the specified controller to be loaded with NCP ncpname. You specified AUTOSYN=NO or VFYLM=YES on the PCCU macro in the NCP generation when you defined the NCP. The operator can therefore decide to reload the specified NCP or continue with it as it is.

**System action:** Processing continues.

**Operator response:** If you want to reload the indicated NCP, reply YES. A reply of NO will continue to activate the NCP without reloading. Exercise caution with multiple-channel or multiple-link attached communication controllers. If you want to reload the NCP, only one of the hosts sharing the communication controller should reply YES. The others should wait until the load is completed before replying NO. This requires operator communication across domains.

**Note:** For additional information on how to respond to this message, see “Responding to a VTAM message” on page 2.

**System programmer response:** None.

**Routing code:** 2
**Descriptor code:** 2

---

**IST184I**

**Explanation:** An I/O error occurred for the specified checkpoint data set.

**System action:** VTAM terminates checkpointing for this major node. If nodename is a major node name on a VARY ACT command (with the WARM operand), VTAM stops processing the command.

**Operator response:** This is probably a hardware error. Save the system log for problem determination.

**System programmer response:** See the applicable VSAM documentation for appropriate responses.

**Routing code:** 2
**Descriptor code:** 5

---

**IST185I**

**Explanation:** An incompatibility exists between the checkpoint data set and the current VTAM configuration.

**Routing code:** 2
**Descriptor code:** 5
System action: VTAM terminates checkpointing for this major node.
Operator response: Save the system log for problem determination.
System programmer response: Compare the contents of the data set against the current VTAM configuration to check for incompatibilities.
Routing code: 2
Descriptor code: 5

IST186I  

command FOR ID = nodename CONTINUES COLD — CHECKPOINT DATA SET datasetname {EMPTY | ERROR}

Explanation: The operator entered a VARY ACT command with the WARM operand to start VTAM. However, because the configuration restart data set (checkpoint data set) for the node nodename contained no records, VTAM activated the node to its initial (cold) status.

datasetname is the DDNAME for the checkpoint data set.

• An empty configuration restart data set indicates that the node has not been previously activated with checkpointing. You cannot perform a warm activation for a node that was not previously activated.

• If the message indicates an error, a previous message will give an explanation of the error.

NOT AVAILABLE
The checkpoint data set does not exist.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST187I  

command FOR ID = nodename FAILED — CHECKPOINT DATA SET reason

Explanation: The operator entered a VARY ACT command with the WARM operand for the node nodename and VTAM rejected the command for one of the following reasons:

cpdsname EMPTY
Configuration-restart data set (checkpoint data set) cpdsname contained no records. (An empty configuration-restart data set generally indicates that the node has not been previously activated with checkpointing. You cannot reactivate a node to a warm status if the node was not previously activated.)

cpdsname ERROR
VTAM encountered an error while processing the configuration-restart data set (checkpoint data set) cpdsname. A previous message provides an explanation of the error.

NOT AVAILABLE
The checkpoint data set does not exist.

System action: The command fails. Other processing continues.
Operator response: To activate the node to initial (cold) status, reenter the VARY ACT command without the WARM operand.
System programmer response: None.
Routing code: 2
Descriptor code: 5
IST191I  command SYNTAX ERROR

Explanation: A syntax error occurred in the command that was entered by a program operator application.

System action: VTAM rejects the command. Other processing continues.

Operator response: Save the system log for problem determination.

System programmer response: Correct the syntax of the command in the program operator application. See [z/OS Communications Server: SNA Operation] for the correct command syntax.

Routing code: 2
Descriptor code: 5

IST192I  POA MSG TRANSFER FAILED — INSUFFICIENT STORAGE

Explanation: VTAM issues this message to the system console when the program operator interface could not allocate VTAM private storage for a VTAM message to be transferred to a program operator application.

System action: Processing continues. If the VTAM message is a write-to-operator with reply (WTOR) or an unsolicited VTAM message, VTAM will reroute the “failing” message to the system console. Other messages will be discarded.

Operator response: Wait a short time and reenter the command. If PPOLOG=YES is in effect, messages being written to the primary program operator log could be causing VTAM private storage to be depleted. Issue a MODIFY PPOLOG=NO command to stop logging.

If VTAM continues to issue this message, enter the DISPLAY STORUSE command to display storage usage for storage pools. Message IST981I displays total VTAM private storage information. If this message does not appear in the display, you might need to reissue the DISPLAY STORUSE command, specifying a higher value for the NUM operand. See [z/OS Communications Server: SNA Operation] for additional information. Save the system log and request a dump to determine current private storage usage.

System programmer response:
• Review the amount of private storage allocated to VTAM. Verify that the size of the user region for VTAM is defined properly.
• You might want to cancel program operator applications that are using excessive private storage.
• If PPOLOG=YES was in effect, verify that all VTAM messages have been received by the primary program operator (PPO) by issuing RCVCMD macros.

Note: If PPOLOG=YES and the no-storage condition has cleared, the primary program operator application might also receive this message.

IST193I  REPLY id IGNORED — REPLY TOO LONG FOR REQUESTOR

Explanation: A program operator application program entered a REPLY id command. The reply text was too long for the requirements of the requested reply.

Note: Only two digits will appear in the REPLY id even if more than two digits were entered.

System action: VTAM rejects the REPLY id command and processing continues.

Operator response: Save the system log for problem determination.

System programmer response: Correct the program operator application.

Routing code: 2
Descriptor code: 5
IST194I REPLY id NOT OUTSTANDING

Explanation: A program operator application entered a REPLY id command. However, there is no outstanding reply request with the identification id. Either the message reply request was already answered or the message reply identification id is incorrect.

Note: Only two digits will appear in the REPLY id even if the program operator application entered more than two digits.

System action: VTAM rejects the REPLY id command.

Operator response: Save the system log for problem determination.

System programmer response: Correct the program operator application.

Routing code: 2

Descriptor code: 5

IST195I REPLY id IGNORED — NON-DECIMAL ID

Explanation: A program operator application entered a REPLY id command specifying a nondecimal identification. The REPLY id command must be entered as decimal digits, with or without a leading zero, in identification 00–99.

Note: Only two digits will appear in the REPLY id even if the program operator application entered more than two digits.

System action: VTAM rejects the REPLY id command. Processing continues.

Operator response: Save the system log for problem determination.

System programmer response: Correct the program operator application.

Routing code: 2

Descriptor code: 5

IST198I VTAM INTERNAL TRACE ACTIVATION FAILED — GTF NOT ACTIVE

Explanation: The operator entered a MODIFY or START command for the VTAM internal trace with a MODE=EXT operand. This operand specifies that the trace records be written to a general trace facility (GTF) data set. However, GTF is not active.

System action: VTAM rejects the MODIFY or START command for the internal trace and does no tracing.

Operator response: Activate the general trace facility. Then reenter the command to activate the VTAM internal trace.

System programmer response: None.

Routing code: 2

Descriptor code: 5

IST199I OPTIONS = optionlist

Explanation: VTAM issues this message as part of several message groups. Possible message groups follow:

- If IST199I is preceded by IST315I, see the description of IST315I for more information.
- This message group is issued in response to one of the following commands:
  - MODIFY TRACE,TYPE=EXIT,ID=exitname,OPT=optionlist
  - MODIFY NOTRACE,TYPE=EXIT,ID=exitname,OPT=optionlist
  - DISPLAY TRACES,TYPE=EXIT,ID=exitname
  - DISPLAY TRACES,TYPE=ALL

IST075I NAME = exitname, TYPE = EXIT
IST199I OPTIONS = optionlist
IST314I END
IST199I

Note: ID is a required parameter for TYPE=EXIT, but only ISTEXCAA, ISTEXCCS, or ISTEXCDM is valid.

- This message group is issued in response to a DISPLAY TRACES, TYPE=STATE or a DISPLAY TRACES, TYPE=MODULE command.
  
  IST350I DISPLAY TYPE = type
  IST199I OPTIONS = optionlist
  IST314I END

- This message group is issued when MODULE or STATE tracing is initiated.
  
  IST1515I tracetype TRACE ACTIVE
  IST199I OPTIONS = optionlist
  ...
  IST314I END

- This message group is issued in response to a DISPLAY EXIT, ID=exitname or DISPLAY EXIT, ID=*.
  
  IST350I DISPLAY TYPE = EXIT
  IST1250I NAME LEVEL MODULE STATUS
  IST1251I exitname exitlevel module status
  ...
  [IST1315I DISPLAY TRUNCATED AT MAX = number]
  [IST199I OPTIONS = {NONE|optionlist}]
  ...
  IST1454I count EXIT(S) DISPLAYED
  IST314I END

IST075I

exitname is the resource being displayed. For this message group, type is always EXIT.

IST199I

If TYPE = EXIT on the DISPLAY TRACES, MODIFY TRACE, or MODIFY NOTRACE command, or if DISPLAY EXIT, ID=exitname or DISPLAY EXIT, ID=* is entered, optionlist can include the following options:

- For ISTEXCAA:

  ACCTING
  Initial and final accounting

  ADJSSCP
  Adjacent SSCP selection

  ALIAS
  Alias translation

  ALL
  All functions of the exit are traced

  ALS
  Adjacent link station selection

  BEGIN
  Begin function

  END
  End function

  GWPATH
  Gateway path selection

  INITAUTH
  Initial authorization

  REPL
  Exit replacement and replaced function

  SECAUTH
  Secondary authorization

  VRSEL
  Virtual route selection

  HPRVRS
  HPR Virtual Routes Selection

  HPRP_OLU
  HPR OLU RTP node role authorization
HPRP_DLU
   HPR DLU RTP node role authorization
HPRP_ANR
   HPR ANR RTP node role authorization
XRF    XRF session switch

• For ISTEXCCS:
BEGIN Begin function
CONNSTAT
   Connection Status
DYN_XID
   XIDs for DYNAMIC PUs
PRED_XID
   XIDs for PREDEFINED PUs
END   End function

• For ISTEXCDM:
BEGIN Begin function
INITAUTH
   Initial authorization
BN_SEL
   Border Node Selection
CDS_SEL
   Central Directory Server Selection
ADS_SEL
   Alt. Central Directory Server Selection
CRR_SEL
   Central Resource Registration Selection
ICN_SEL
   Interchange Node Selection
REPL
   Exit replacement and replaced function
END   End function

If TYPE = MODULE on the DISPLAY TRACES, MODIFY TRACE, or MODIFY NOTRACE command, or the TRACE,TYPE=MODULE start option was specified, optionlist can include the following options:

COMMAND(CMD)
   Modules associated with command processing are being traced
CONNECTION(CON)
   Modules associated with connection processing are being traced
DEFINITION(DEF)
   Modules associated with definition processing are being traced
INTERFACES(INT)
   Modules associated with interfaces processing are being traced
MANAGEMENT(MGMT)
   Modules associated with management processing are being traced
NOEXIT
   Module exit tracing has been started or stopped
NONE  No modules are being traced
IST206I

PURGE
    Information in the module tracing buffers has been written to VTAM internal trace (VIT) entries

SESSION(SES)
    Modules associated with session processing are being traced

If TYPE = STATE on the DISPLAY TRACES, MODIFY TRACE, or MODIFY NOTRACE command, or the
TRACE,TYPE=STATE start option was specified, optionlist can include the following options:

ADJCP  States of all adjacent control points are being traced
APPL   States of all applications are being traced
CDRM   States of all cross-domain resource managers are being traced
CDRSC  States of all cross-domain resources are being traced
GROUP  States of all groups are being traced
LINE   States of all lines are being traced
LU     States of all logical units are being traced
NCP    States of all type 4 and type 5 nodes are being traced
NONE   No resource types are being traced
PU     States of all physical units are being traced

IST1315I
    VTAM issues this message when the number of exits to be displayed exceeds the value specified on the MAX
    operand.
    number is the value specified for the MAX operand.

IST1454I
    This message gives the number of exits displayed.

IST1515I
    tracetype will be MODULE or STATE.

System action:
    • If this message is in response to a DISPLAY TRACES command, other processing continues.
    • If this message is in response to a MODIFY TRACE,TYPE=MODULE or a MODIFY TRACE,TYPE=STATE
      command, the trace begins for the options selected.
    • If this message is in response to a MODIFY NOTRACE,TYPE=EXIT; MODIFY NOTRACE,TYPE=MODULE; or
      MODIFY NOTRACE,TYPE=STATE command, the trace stops for the options selected.

Operator response:  None.

System programmer response:  None.

See z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures for information on traces and to
z/OS Communications Server: SNA Operation for information on the DISPLAY and MODIFY commands.

Routing code:  2
Descriptor code:  5

IST206I     SESSIONS:

Explanation:  This message is a header for the message IST634I group which is generated as the result of a DISPLAY
ID command.

System action:  Processing continues.
IST2081 • IST212I

Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

**IST2081** UNABLE TO TERMINATE SESSIONS FOR ID = minornode — INSUFFICIENT STORAGE

Explanation: VTAM could not terminate sessions for minornode because the system lacked the storage necessary to complete termination processing.

System action: VTAM rejects the command.

Operator response: Wait a short time and reenter the command. If VTAM continues to issue this message, enter the DISPLAY BFRUSE command. Save the system log and request a dump for problem determination.

System programmer response: Verify that the operator entered the buffer pool or CSA start options as specified in the start procedures.

Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA start options. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

- See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of VTAM start options.
- See [z/OS Communications Server: SNA Operation](#) for information about the DISPLAY BFRUSE command and the MODIFY VTAMOPTS command.

Routing code: 2
Descriptor code: 5

**IST211I** NCP SLOWDOWN INITIATED FOR controller

Explanation: The communication controller controller has entered system slowdown mode because the NCP SLODOWN buffer threshold has been reached. NCP reduces the number of PIUs it will accept from VTAM, and will stop accepting PIUs if buffer depletion continues and the CWALL limit is reached.

System action: VTAM performs no direct VTAM action. The actual function of entering slowdown occurs at a channel interface level.

Operator response: Save the system log for problem determination and obtain an NCP dump with the NCP dump utilities.

System programmer response: Make the necessary changes to the NCP generation. See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for more information about NCP dumps.

Routing code: 2
Descriptor code: 4

**IST212I** ACBNAME = acbname

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY ID command for an application program. The message appears only if the ACBNAME keyword acbname does not match the application program’s APPL definition statement label.

System action: Processing continues.

Operator response: None.

System programmer response: None.
Routing code: 8
Descriptor code: 5
IST213I • IST221I

IST213I  ACBNAME FOR ID = applname

**Explanation:** The operator entered a DISPLAY ID command for an application program. The name of the application program’s APPL definition statement is *applname*. The name specified in the DISPLAY ID command was the ACBNAME keyword used in the APPL statement.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 8

**Descriptor code:** 5

IST214I  NCP SLOWDOWN TERMINATED FOR controller

**Explanation:** Slowdown mode has ended in communication controller *controller* and the communication controller is now accepting outbound PIUs.

**System action:** VTAM performs no direct action. Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 4

IST219I  I/O ERROR ON READ FOR nodename – BYTECNT MISMATCH

**Explanation:** VTAM issues this message when an input buffer error is detected during a READ operation for one of the following:

- Channel attached NCP *nodename*
- Channel attached local SNA control unit *nodename*.
- Channel attached multipath channel (MPC) line, where *nodename* is the name of the line.

The data count field for the PIU does not match the amount of data transferred (BYTECNT).

**System action:** VTAM deactivates *nodename*.

If the node is attempting to send more data than VTAM can receive, the operating system might generate message IOS000I.

**Operator response:** This is probably a hardware error. Save the system log for problem determination. Run your operating system service aid program to determine whether MDR/OBR information has been recorded. See the [EREPS User's Guide](#) for more information on using EREP.

If you use a network management application such as NetView, check to determine whether an alert was recorded for this problem.

**System programmer response:** If you cannot determine the cause of the problem from the output provided or need additional assistance, contact the IBM hardware support center.

If available, provide the MDR/OBR information from your operating system service aid program or the alert information recorded by your network management application.

**Routing code:** 2

**Descriptor code:** 4

IST221I  majornode: minornode IS INVALID, n, UNSUPPORTED OPTION — option

**Explanation:** VTAM attempted to activate a logical unit that requires cryptography in a system that does not support cryptography. Only MVS has a data encryption facility.

*majornode* is the name of a major node being activated by a VARY ACT command.
minornode is the name of a node in majornode.

n is either 1 or 2. This number indicates the method that specified cryptography for the logical unit:
• If n is 1, a checkpoint-restart data set specified cryptography.
• If n is 2, a definition statement specified cryptography.

option is the name of the unsupported option that caused the rejection of the VARY command for minornode. The option names are:

ENCR=REQD OR SEL
   The data encryption facility is necessary for a node requiring these levels of encryption.

MAC=REQD AND DES
   The data encryption facility is necessary for a node that has a message authentication code (MAC), which is required, and MACTYPE=DES. If the node did not explicitly code an encryption value, ENCR=SEL was used.

System action: VTAM activates majornode, but not minornode.

Operator response: If minornode is required for network operation, save the system log for problem determination.

System programmer response: If minornode is required, remove the requirement for cryptography from the definition statements.

Routing code: 2
Descriptor code: 5

IST223I MODIFY [type] COMMAND COMPLETED

Explanation: VTAM issues this message when the MODIFY command has successfully completed.

type, if displayed, indicates the type of MODIFY command. type is not displayed for the following commands:
• MODIFY CSALIMIT
• MODIFY INOPDUMP
• MODIFY IOPD
• MODIFY MSGMOD
• MODIFY PPOLOG
• MODIFY SUPP

See z/OS Communications Server: SNA Operation for more information about MODIFY commands.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2
Descriptor code: 5

IST225I command FOR ID = nodename FAILED — reason

Explanation: VTAM issues this message when the command failed for reason.

reason indicates the cause of the failure and can be one of the following:

ALSNAME NOT VALID
   A MODIFY TRACE,TYPE=GPT command was entered for nodename. The adjacent link station name (ALSNAME) that was either specified or used by default was not in a valid state when the command was entered. If ISTAPNPU was used by default because it was the only entry in the adjacent link station list, then this is the reason the command failed. ISTAPNPU is the name of the generic APPN adjacent link station. A real adjacent link station name must be specified for the command to succeed.
ALSNAME PARAMETER OMITTED
A MODIFY TRACE,TYPE=GPT command was entered for nodename. No ALSNAME was specified, and a default ALSNAME could not be determined because of one of the following:
- The adjacent link station list for nodename contains no entries.
- The adjacent link station list for nodename contains two or more entries (other than ISTAPNPU).

ARM REJECTED
A MODIFY TRACE command or TRACE start option was specified with TYPE=QDIOSYNC. An Arm request was initiated and the reply indicates that the OSA-Express2 or later adapter supports the QDIOSYNC function, but an error occurred while attempting to arm the OSA-Express2 or later adapter.

CALL SECURITY ERROR
VTAM detected a mismatch of the encrypted security data fields during the XID exchange. This mismatch might be caused by:
- An unauthorized subarea dial physical unit attempting to establish a connection over a switched line
- The absence of the PRTCT operand
- Not having the correct password coded for both the caller and receiver
- One of the subarea nodes that is of a level that does not support call security verification

CURRENT LEVEL HIGHER
The operator entered a MODIFY ENCR command or MODIFY SECURITY command for nodename to lower (make less secure) the level of cryptographic session for the logical unit or application program indicated by nodename. The level of cryptographic session for a logical unit or application program can only be raised (make more secure). For example, if you have defined an LU as selective, you cannot modify it to optional. You can modify it to required.

DYNAMIC CDRSC NOT VALID
nodename is a dynamic cross-domain resource; this is not valid for the TRACE command you entered.

EXIT IS NOT FOUND
The operator entered a DISPLAY EXIT command for a VTAM installation-wide exit which could not be located.

FUNCTION NOT OPERATIONAL
The Cryptographic Facility is not available to process a MODIFY ENCR command.

FUNCTION NOT SUPPORTED
A MODIFY ENCR command was entered for nodename and the cryptographic facility is not supported by this host.

INSUFFICIENT STORAGE
The operator entered a MODIFY ENCR command for nodename and the VTAM address space has insufficient storage.

INVALID MODEL LU
The operator entered a DISPLAY LUGROUPS command for nodename. Model LU nodename was not found in the LUGROUP specified on the GROUP operand of the DISPLAY LUGROUPS command.

INVALID STATE FOR CDRSC
Giveback processing or internal delete for node nodename failed. VTAM found a predefined CDRSC to be not active, and VTAM was not able to transfer the active sessions from the LU to the CDRSC.

ISTLSXCF NOT ACTIVE
Another node in the sysplex attempts to establish a connection with an XCF node, but the connection is not established because the dynamic local SNA major node, ISTLSXCF, is not in an active state.

ISTLSXCF NOT FOUND
Another node in the sysplex attempts to establish a connection with an XCF node, but the connection is not established because the dynamic local SNA major node, ISTLSXCF, does not exist.

ISTTRL NOT FOUND
Another node in the sysplex attempts to establish a connection with an XCF node, but the connection is not established because the TRL major node, ISTTRL, does not exist.

MACLNTH NOT VALID
The operator entered a MODIFY SECURITY command with a MACLNTH value that is not valid. The
MACLNTH value is dependent on the most recent specification of MACTYPE. The MACTYPE value might have been specified on a MODIFY SECURITY command or on the APPL definition statement.

**MACTYPE NOT VALID**
The operator entered a MODIFY SECURITY command with a MACTYPE value that is not valid with the most recent specification of MACLNTH. The MACLNTH value might have been specified on a previous MODIFY SECURITY command or on the APPL definition statement.

**MODULE LOAD FAILED**
Attempt to load XCF modules fails.

**NODE HAS NO KEY**
The operator entered a MODIFY ENCR command or a MODIFY SECURITY command for `nodename`, and the node `nodename` does not have a properly defined cryptographic key in the cryptographic key data set.

**NO SUITABLE RESOURCES FOUND**
The operator entered a VARY ACQ or a VARY REL command, but it had no effect on the NCP.
Either all the resources were acquired or released already, or the OWNER specified on the command did not match any of the owner names specified on the NCP resources. Two different networks cannot share the same native resources.

**NOT AN APPLICATION PROGRAM**
The operator entered a MODIFY ENCR command or MODIFY SECURITY command for `nodename` for one of the following purposes:
- To set the encryption level to CONDITIONAL
- To set the values of MACLNTH or MACTYPE

MACLNTH, MACTYPE, and the CONDITIONAL encryption level are valid only if `nodename` is an application program.

**NOT SUPPORTED**
A MODIFY TRACE command or TRACE start option was specified with TYPE=QDIOSYNC. When the OSA-Express2 or later adapter was contacted, it was discovered that it does not support the QDIOSYNC function.

**REJECTED BY INSTALLATION EXIT**
The operator entered a MODIFY ENCR command for `nodename`, and VTAM rejected the MODIFY ENCR command because of user-written routines related to the GENKEY function.

**RESOURCE NOT VALID**
The operator entered a MODIFY SECURITY command with the CKEY operand for `nodename`, but `nodename` is not a device type LU.

**RTP PU NOT VALID**
A VARY ACT command for an RTP PU is issued. This is a dynamic PU and activates automatically if RTP is supported. A VARY ACT of a RTP PU is invalid.

**SECURITY MANAGER ERROR**
A security error occurred while VTAM was processing the command command.

**SECURITY MANAGER NOT AVAILABLE**
The security manager is not available or the resource class APPCLU is not active.

**SUBORDINATE NODE PENDING INACT**
VTAM rejected a VARY INACT, TYPE=GIVEBACK or VARY REL, TYPE=GIVEBACK command because a logical unit subordinate to `nodename` has LU-LU sessions and is pending deactivation.

**SYSPLEX JOIN FAILED**
VTAM is attempting to join the sysplex, but a nonzero return code is sent from MVS.

**SYSPLEX UNAVAILABLE**
VTAM is attempting to join the sysplex, but the sysplex is not active.

**UNABLE TO ALLOCATE CDRSC**
Giveback processing or internal delete for node `nodename` failed. VTAM has insufficient resources to allocate a cross-domain resource or does not support a dynamic CDRSC and was not able to transfer the active sessions from the LU to a CDRSC.
VTAM ERROR
One of the following occurred:

- VTAM abended while processing a MODIFY PROFILES command.
- VTAM abended while processing a MODIFY ENCR command for nodename. The error might be due to the improper cleanup of the cryptographic facility (that is, the operator cancelled the cryptographic facility via the CANCEL command).

XCF BUILD FAILED
A VARY ACT command fails for a dynamic local SNA major node.

XCF PU NOT FOUND
A D TRL,XCFP=cp_name command was issued for nodename. The nodename is the CP name specified in the display command. The associated dynamic PU for that CP was not located.

XCF TRLE NOT FOUND
One of the following occurred:

- A D TRL,XCFP=cpname command was issued for nodename. The nodename is the CP name specified in the display command. The associated dynamic TRLE for that CP was not located.
- A V ACT,ID=ISTLSXCF command was issued. An XCF connection is in the process of being deactivated and an activation request is received. The dynamic TRLE which is required for activation does not exist.

System action: The command is not completed. Processing continues.

CALL SECURITY ERROR
VTAM terminates the switched connection and deactivates the PU.

DYNAMIC CDRSC NOT VALID or UNABLE TO ALLOCATE CDRSC
LU nodename remains known to VTAM in an inactive state with active sessions.

FUNCTION NOT OPERATIONAL, NOT SUPPORTED, or ARM REJECTED
The command is not executed.

FUNCTION NOT SUPPORTED
Install Cryptographic Facility.

SECURITY MANAGER ERROR or SECURITY MANAGER NOT AVAILABLE
VTAM does not refresh the profiles and continues to use the profiles that are in storage.

Operator response: The reason determines the response:

ALSNAME NOT VALID
Enter a DISPLAY ID command for nodename to determine the correct adjacent link station and reenter the command.

The state (active or inactive) of the PU with which the independent LU is associated must be as follows:

- Active if it has been dynamically reconfigured in the NCP
- Active if it is on an NCP switched line
- Active or inactive if it is on an NCP nonswitched line

ALSNAME PARAMETER OMITTED
Enter a DISPLAY ID command for nodename to determine the correct adjacent link station, and reenter the command.

CALL SECURITY ERROR
Monitor the console for further occurrences of this message. If VTAM continues to issue this message, use the VARY ANS command to take the line out of answer mode.

DYNAMIC CDRSC NOT VALID or UNABLE TO ALLOCATE CDRSC
Activate a CDRSC major node that defines a CDRSC with nodename.

FUNCTION NOT OPERATIONAL
Make sure the Cryptographic Facility is installed and operational.

INSUFFICIENT STORAGE
If VTAM continues to issue this message, enter the DISPLAY BFRUSE command. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and request a dump for problem determination.
ISTLSXCF NOT ACTIVE
Enter a VARY,ACT,ID=ISTLSXCF to activate ISTLSXCF.

MACLNTH NOT VALID
Try the command again with a valid value for MACLNTH.

MACTYPE NOT VALID
Try the command again with a valid value for MACTYPE.

MODEL LU NOT VALID
Check that nodename is correct and try the command again. If problems persist, save the system log for problem determination.

NO SUITABLE RESOURCES FOUND
Verify that all of the NCP resources have been acquired or released or that the OWNER specified on the command matches the owner name specified on the resources to be acted upon.

NOT SUPPORTED
Issue the DISPLAY NET,TRL,TRLE=trlename command to display the active OSA-Express2 or later TRLE. Look for message IST1716I or IST2263I in the response. The OSA CODE LEVEL field is at the end of these messages. Record this value of the OSA CODE LEVEL field for the system programmer. See the description of IST1716I or IST2263I for more information.

RESOURCE NOT VALID
Check that nodename is correct and try the command again. If problems persist, save the system log for problem determination.

SECURITY MANAGER ERROR
Try the command again. If VTAM continues to issue this message, contact the security administrator.

SUBORDINATE NODE PENDING INACT
Wait until all subordinate nodes have completed deactivation and try the command again.

VTAM ERROR
Save the system log and dump for problem determination. If the error was due to the improper cleanup of the cryptographic facility, enter the STOP command to stop the cryptographic facility, and save the system log for problem determination.

XCF PU NOT FOUND
Check the CP name specified on the parameter XCFCP to ensure it is correct and try the command again. Issue a DISPLAY TRL,CONTROL=XCF to determine whether any XCF TRLEs exist. Issue a DISPLAY ID=ISTLSXCF to determine whether an associated dynamic PU exists for the connection.

XCF TRLE NOT FOUND
Check the CP name specified on the parameter XCFCP to ensure it is correct and try the command again. Issue a DISPLAY TRL,CONTROL=XCF to determine whether any XCF TRLEs exist.

All other reasons
Save the system log for problem determination.

System programmer response: The reason determines the response:

ARM REJECTED
Perform the following traces to help you determine the cause of the rejection:
- A CCW trace of the TRLE read and write control channels taken at the time of the first attempt to arm the adapter. This trace will show the Arm request being written and the Arm reply being read. Use a CCW trace data length of 256 bytes.
- A CTRACE using the VTAM and VTAMDATA options.
- A VTAM internal trace using the CIA and CIO options.

CALL SECURITY ERROR
Verify that all nodes involved in the dial process are at a level that supports call security verification. The passwords used to verify the identity of the caller and the receiver must match. See the PRTCT keyword on the PU statement in the switched major node definition.

CURRENT LEVEL HIGHER
If you want to lower the cryptographic session level of a node, you must redefine the system definition cryptographic option in SYS1.VTAMLST and reactivate the major node that contains nodename.
DYNAMIC CDRSC NOT VALID
Reenter the TRACE command with a resource that is not a dynamic cross-domain resource. You cannot trace a
dynamic cross-domain resource.

EXIT IS NOT FOUND
Make sure the VTAM installation-wide exit that could not be found has been installed on your system.

INSUFFICIENT STORAGE
If this error occurs often, review the VTAM storage allocation. Increase storage as required.
- Use the z/OS Communications Server: New Function Summary to determine the storage requirements for
VTAM.
- See the z/OS Communications Server: SNA Resource Definition Reference for a description of VTAM start
options.
- See z/OS Communications Server: SNA Operation for information about the DISPLAY BFRUSE command, the
DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- See the z/OS Communications Server: SNA Network Implementation Guide for an explanation and
description of buffer pools and for general information on buffer pool specification and allocation.
- See the z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT for information about
analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

INVALID MODEL LU
Check the definition of nodename to ensure that it is correct.

NODE HAS NO KEY
Define the cryptographic key for node nodename in the cryptographic key data set. For information about
defining cryptographic keys, see the z/OS Cryptographic Services ICSF System Programmer’s Guide and the
z/OS Communications Server: SNA Network Implementation Guide.

NOT AN APPLICATION PROGRAM
Make sure nodename is the correct node name. If nodename is the correct name, see z/OS Communications Server:
SNA Operation for more information on valid encryption levels. Otherwise, reenter the MODIFY ENCR
command with the correct value for nodename.

NOT SUPPORTED
The OSA CODE LEVEL determined by the operator indicates the OSA processor code level of the OSA-Express2
or later adapter. That value will show that the OSA-Express2 or later processor code level is insufficient. You
must upgrade to a level that supports QDIOSYNC to use the function.

REJECTED BY INSTALLATION EXIT
GENKEY failed with RETURN CODE 16 from the common cryptographic architecture product (CCA) or the IBM
Cryptographic Unit Support product (CUSP).

For further information, see the documentation for the cryptographic facility that you are using.

SYSPLEX JOIN FAILED
Trace the return code from MVS. Verify that the sysplex environment exists and restart VTAM.

UNABLE TO ALLOCATE CDRSC
Take VTAM down and restart it so that it supports dynamic CDRSCs.

VTAM ERROR
See the z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures for information on the
abend procedure. If you cannot determine the cause of the problem from the output provided or need additional
assistance, contact the IBM software support center.
If the error was due to the improper cleanup of the cryptographic facility, start the cryptographic facility if it is
not already started.

XCF BUILD FAILED
Restart VTAM with full XCF support.

XCF PU NOT FOUND
Verify that XCF support is active for this VTAM.

XCF TRLE NOT FOUND
Verify that XCF support is active for this VTAM.
For all other reasons, no further action is recommended.

Routing code: 2
Descriptor code: 5

IST226I command FOR ID = nodename NOT EFFECTIVE DURING CURRENT OR QUEUED SESSIONS

Explanation: The operator entered the MODIFY ENCR command and changed the cryptographic session level of nodename. However, node nodename is in session or has queued sessions. The change will not affect the current or queued sessions, but will affect future sessions for nodename.

nodename is the name of the node specified on the command.

System action: VTAM retains the new cryptographic session level specified in the MODIFY ENCR command and uses it when processing subsequent session-establishment requests.

Operator response: None.

System programmer response: None.

Routing code: 2
Descriptor code: 5

IST228I ENCRYPTION = encryption_level , TYPE = min_type

Explanation: This message is the first in a group of messages that VTAM issues in response to a DISPLAY ID, DISPLAY LUGROUPS, or a DISPLAY MODELS command for an application or a logical unit. This message indicates the level of cryptography supported by the node in question. A complete description of the message group follows.

IST228I ENCRYPTION = encryption_level , TYPE = min_type
IST1563I CKEYNAME = ckeyname CKEY = ckey_value CERTIFY = certify_value
IST1552I MAC = mac_level MACTYPE = mac_type
IST314I End

IST228I

• encryption_level describes the levels of cryptography and can be one of the following:

REQUIRED
  Indicates that VTAM must encrypt all messages that this application program sends and decrypt all messages that the application program receives.

CONDITIONAL
  If the session partner supports cryptography, VTAM must encrypt all messages that this application program sends and must decrypt all messages that the application program receives.
  If the session partner does not support cryptography, VTAM will set up a session without encryption.

SELECTIVE
  Indicates that this application program can choose which messages are encrypted by VTAM.

OPTIONAL
  Indicates that the application program has no special cryptographic requirements; its cryptographic capability is the same as the host processor’s capability.

NONE
  Indicates that the application program has no special cryptographic requirements; its cryptographic capability is the same as the host processor’s capability.

• min_type describes the minimum type of cryptography and can be one of the following:

DES
  Indicates that VTAM must use a minimum of DES encryption using an 8-byte key, if the session uses encryption.

TDES24
  Indicates that VTAM must use a minimum of Triple-DES encryption using a 24-byte key, if the session uses encryption.

**IST1552I**

- `mac_level` describes the message authentication code (MAC) levels and can be one of the following:
  - **REQUIRED**
    - Indicates that VTAM must use message authentication codes for all messages this application program sends and verify all messages the application program receives.
  - **CONDITIONAL**
    - Indicates that if the session partner supports message authentication codes, VTAM must use message authentication codes for all messages this application program sends and must verify all messages the application program receives. If the session partner does not support message authentication codes, VTAM will set up a session without them.
  - **NONE**
    - Indicates that the application program will not use message authentication codes.
  - `mac_type` describes the method used to generate the MAC and can be one of the following:
    - **CRC**
      - Indicates that VTAM will use a cyclic redundancy checking (CRC) algorithm to perform message authentication code functions.
    - **DES**
      - Indicates that VTAM will use the data encryption standard (DES) to perform message authentication code functions. If a session partner is using CRC, that method is used during the session.
    - **TDES**
      - Indicates that for sessions utilizing Triple DES, Triple DES encryption (not DES encryption) will be used even if the operand value is DES.
    - **NONE**
      - Indicates that VTAM does not perform message authentication code functions. This value is displayed only when `MAC=NONE`.

**IST1563I**

- `ckeyname` indicates the cryptographic key name of a key-encryption-key (KEK) in the cryptographic key data set (CKDS) for the defined resource, and is used to encrypt session keys. It is always the resource name for applications and cross-domain resources.
- `ckey_value` can be one of the following:
  - **PRIMARY**
    - Indicates that cryptographic session keys are generated using the primary cryptographic key name (the name on the LU definition statement, or the value of the CKEYNAME operand). CKEY is always set to PRIMARY for applications and cross-domain resources.
  - **ALTERNATE**
    - Indicates that cryptographic session keys are generated using the alternate cryptographic key name with the suffix `.ALT`.
- `certify_value` can be one of the following:
  - **YES**
    - Indicates that cryptographic sessions are authenticated at both the SLU and the PLU, if the session uses encryption.
  - **NO**
    - Indicates that cryptographic sessions are authenticated only at the SLU, if the session uses encryption.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5
IST231I  nodetype MAJOR NODE = majornode

Explanation: VTAM issues this message in response to a DISPLAY command for a major node.

nodetype lists the type of the major node. See Chapter 17, “Node and ID types in VTAM messages,” on page 1097 for a description of nodetype.

For a DISPLAY command for LINES, STATIONS, or TERMS, majornode is the major node that contains the resources listed in subsequent messages.

For a DISPLAY ID command that has a group name specified, majornode is the major node that contains the group definition.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2,8

Descriptor code: 5

IST232I  linename, status, CUA = device address] [, CONTROL = MPC]

Explanation: VTAM issues this message in response to a DISPLAY command for a communication adapter, a LAN major node, or a multipath channel (MPC) attached resource.

linename is the name of a leased line defined for a type 5 physical unit, a switched line defined for a type 2 physical unit, or a VCNS line.

status is the condition or state of the channel-to-channel adapter or the token-ring subsystem. See the z/OS Communications Server: IP and SNA Codes for a description of status.

device address is the hexadecimal device address of linename. device address is only displayed for a communication adapter.

CONTROL = MPC is displayed if the resource is multipath channel (MPC) attached.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2,8

Descriptor code: 5

IST234I  I/O ERROR terminalname, command, ncspresponse[, bscstatus]

Explanation: VTAM issues this message when an I/O error occurred on a BSC 3270 terminal or control unit.

terminalname is the name of a terminal or control unit.

command is the basic transmission unit (BTU) command and modifier. It represents the command that the NCP received when the I/O error occurred. For more information, see NCP and EP Reference Summary and Data Areas for the 3725 and 3745.

ncspresponse is the system or extended response that the NCP sends upon receiving the command. For more information, see NCP and EP Reference Summary and Data Areas for the 3725 and 3745.

bscstatus is the BSC status information. For more information, see the 3174 Functional Description.

System action:
• For an I/O error on a BSC 3270 terminal, VTAM sends an error indication to the application program.
• For an I/O error on a BSC 3270 control unit, depending on NCP response and the number of failures, VTAM might resume polling for the data from the control unit.

Operator response: This is probably a hardware error. If the problem persists, save the system log for problem determination.
System programmer response: Use the output provided to assist you in determining the cause of the problem.

Routing code: 2,8,1
Descriptor code: 4

IST238I  runame (REQ|RES) FOR ID = nodename RCVD text

Explanation: VTAM has received a request (REQ) or response (RES) unit runame for nodename. For a description of runame, see Chapter 16, “Command and RU types in VTAM messages,” on page 1083.

text provides additional information about runame and VTAM actions. Possible values are:

RECOVERY IN PROGRESS
VTAM is recovering nodename. See the subsequent message for the results of the recovery attempt.

ACTIVATION IS RESTARTED
VTAM is restarting the activation of nodename. Previous activation messages no longer require operator action and might be repeated by this reactivation.

RU DATA-TYPE= type, CAUSE = cause
For an AM GUNBIND (DACTPU) request, type and cause values are included in this message. See SNA Formats for a definition of DACTPU.

Following are the RU DATA-TYPE fields and the RU DATA-CAUSE fields (expressed in hexadecimal):

<table>
<thead>
<tr>
<th>type</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Final use, physical connection might be broken.</td>
</tr>
<tr>
<td>02</td>
<td>Not final use, physical connection should not be broken.</td>
</tr>
<tr>
<td>03</td>
<td>Session outage notification (SON).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>cause</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>07</td>
<td>VR-INOP: The virtual route carrying the SSCP-PUs session has become inoperative forcing deactivation of the SSCP-PUs session.</td>
</tr>
<tr>
<td>08</td>
<td>REX-INOP: The route extension serving the SSCP-PUs session has become inoperative forcing deactivation of the SSCP-PUs session.</td>
</tr>
<tr>
<td>09</td>
<td>HIERARCHICAL RESET: VTAM is deactivating the identified session because of a positive response to ACTPU.</td>
</tr>
<tr>
<td>0B</td>
<td>DACTPU: VTAM deactivated the identified SSCP-PUs session because of a forced deactivation of the virtual route that the session was using.</td>
</tr>
<tr>
<td>0C</td>
<td>FAIL: VTAM reset the identified session because the SSCP-PUs session ended.</td>
</tr>
<tr>
<td>0D</td>
<td>FAIL: RECOVERABLE. VTAM reset the identified session because the SSCP-PUs session ended.</td>
</tr>
<tr>
<td>0F</td>
<td>CLEANUP: The SSCP is resetting its half-session before receiving the response from the PU that is being deactivated.</td>
</tr>
<tr>
<td>10</td>
<td>ALS RESET: VTAM should reset the peripheral adjacent link station (ALS) owned by the sending SSCP.</td>
</tr>
<tr>
<td>11</td>
<td>GIVEBACK: The sending SSCP relinquishes ownership of owned resources.</td>
</tr>
</tbody>
</table>

System action: The system continues recovery or activation of nodename.

Operator response: Wait for additional messages indicating the success or failure of the recovery or activation.

System programmer response: None.

Routing code: 8
Descriptor code: 4
IST240A  WAIT STATE IN VTAM DUE TO INSUFFICIENT NUMBER OF I/O BUFFERS SPECIFIED BY USER

Explanation: A VTAM process needs more I/O buffers than were allocated to the I/O buffer pool. This condition can occur if the number of buffers in the I/O buffer pool is less than the MAXBFRU value specified during NCP generation or is less than the number of buffers needed for a local 3270.

System action: The VTAM process that requested I/O buffers enters a wait state. Other VTAM processing might continue.

Operator response: If VTAM has been initialized, wait a short time and reenter the command. If VTAM continues to issue this message, enter the DISPLAY BFRUSE command. Save the system log and request a dump for problem determination. If VTAM has not been initialized, save the system log for problem determination.

System programmer response: Since this is a VTAM definition error on the start option, specify a greater number of I/O buffers when you restart VTAM. Use the z/OS Communications Server: SNA Network Implementation Guide to determine the I/O buffer requirements for all devices connected by VTAM. Adjust this requirement as needed.

Routing code: 2
Descriptor code: 2

IST241I  command COMMAND COMPLETE FOR nodename

Explanation: VTAM issues this message when the command for nodename has been processed.
See Chapter 16, “Command and RU types in VTAM messages,” on page 1083 for a description of command.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 8
Descriptor code: 5

IST242I  command COMMAND FAILED FOR ID = nodename SENSE = code

Explanation: VTAM issues this message when the command for nodename failed for the reason indicated by code.

Note: If you are attempting a DISPLAY DISK command or a DISPLAY NCPSTOR command, and the command fails (most probably with a sense code of X'1005xxxx'), verify that the command is supported by the release of NCP you are using.

See Chapter 16, “Command and RU types in VTAM messages,” on page 1083 for a description of command.

See the z/OS Communications Server: IP and SNA Codes for a description of code.

System action: VTAM rejects the command. Other processing continues.

Operator response: Ensure that you entered command correctly. If problems persist, use code to help you determine the cause of the error.

System programmer response: None.

Routing code: 8
Descriptor code: 4
IST243I • IST246I

IST243I  FRAMES SENT = sent, RCVD = received, RCVD WITHOUT ERRORS = noerrors

Explanation: VTAM issues this message as part of a group of messages. The first message is IST549I. See the explanation of that message for a full description.

Routing code: 8
Descriptor code: 5

IST244I  NCP type STORAGE FOR ID = ncpname

Explanation: This message is the first in a group of messages that VTAM issues in response to a DISPLAY NCPSTOR command.

IST244I  NCP type STORAGE FOR ID = ncpname
IST245I  address  xxxxxxxx xxxxxxxx xxxxxxxx xxxxxxxx...
IST246I  function_code return_code

IST245I  address  xxxxxxxx xxxxxxxx xxxxxxxx xxxxxxxx

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY NCPSTOR command. The first message in the group is IST244I. See the explanation of that message for a full description.

Routing code: 8
Descriptor code: 5

IST246I  function_code return_code

Explanation: This message is seen at the console only when the Program Operator Application (POA) is not active.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 8
Descriptor code: 4
IST247I  LOAD/DUMP PROCEDURE STATUS = status [, RU COUNT = rucount]

Explanation: VTAM issues this message in response to a DISPLAY ID command for an NCP (PU type 4).

status is the load or dump procedure state for the PU type 4 being displayed. The finite state machine values describe whether the procedure is load or dump and the current status of that procedure. See the z/OS Communications Server: IP and SNA Codes for a description of status.

If status is RESET, the load or dump procedure is not in progress at the time of the display.

rucount indicates the number of IPLTEXT (PLOAD) or DUMPTEXT (PFDMP) request units that have been sent to the controller. This field can be used to monitor the progress of a dump or load of a remote NCP. VTAM displays RU COUNT = rucount only when status is PLOAD or PFDMP.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2,8

Descriptor code: 5

IST257I  VTAM SDUMP FAILED WITH RETURN CODE code REASON X'reason'

Explanation: VTAM started an SVC dump (SDUMP) for an abend, or for a first-failure-data-capture (FFDC) detected error, and the system could not complete the dump successfully.

- code indicates the return code received from MVS SDUMP and might be one of the following:
  - 4 The system obtained only a partial dump. The dump data set or file might be too small. When code is 4, reason will be X'00'.
  - 8 The system was unable to schedule a dump. When a return code of 8 is received, a hexadecimal reason code (reason) is returned.

reason indicates the cause of the SDUMP failure.

System action: VTAM takes no further action to obtain a dump. Other processing continues.

Operator response: Save the system log for problem determination.

System programmer response: If code is 4, look for system message IEA911E for further information. Message IEA911E includes reason codes that explain why the system could not execute a complete dump. Message IEA911E is documented in the z/OS MVS System Messages, Vol 6 (GOS-IEA).

If code is 8, see z/OS MVS Programming: Authorized Assembler Services Reference LLA-SDU for an explanation of the return code and reason code for the SDUMP macro.

Routing code: 2,8

Descriptor code: 4

IST258I  STMT IN ERROR = text

Explanation: VTAM issues this message as part of a group of messages. The first message in the group is IST1249I. See the explanation of that message for a complete description.

Routing code: 2

Descriptor code: 5

IST259I  INOP RECEIVED FOR nodename CODE = code [text]

Explanation: VTAM received an INOPERATIVE RU for nodename. The code field gives the INOP reason code.

Note: If the resource that is going INOP is attached remotely off an NCP, then the NCP, not VTAM, generates the INOP.
IST259I

If code is hex 0F, text supplies additional information about the INOP type.

code (expressed in hexadecimal) can be:

01 Station INOP: There was a loss of contact, unexpected loss of connection, or a connection establishment failure.
   This error type normally occurs after a successful connection has been established. When link-level errors occur, the boundary function will attempt link-level recovery procedures to recover the session. One of the definitions that affects this recovery activity is the RETRIES operand on the GROUP, LINE or PU definition statements. When normal recovery fails, a higher level of recovery is needed. That recovery is identified by this message.
   This type of failure is normally followed by message IST619I and later by IST621I or IST129I to report the success or failure of the recovery actions. A RECMS RU should always accompany this error. The RECMS is saved as a miscellaneous data record (MDR) on the system error recording data set or is passed to NPDA. Use Netview/NPDA or EREP to do the analysis.

02 Link failure.

03 Station INOP: SDLC Disconnect request received. An SNA-PU SDLC connection has terminated its link manager and is informing the primary station that it is not available (for example, it is offline).

04 Station INOP: SDLC Request Disconnect response received. During normal SDLC link activity, a RR poll received a DISC. This usually means that the secondary station is requesting a DISC from the primary.

05 Station INOP: SDLC Disconnect Mode received. The transmitting secondary SDLC station is disconnected.

06 Station INOP: IPL or dump in progress.

07 Station INOP: Remote power off (RPO) in progress.

08 Link: Unconditional reset by force deactivate DACTLINK.

0A X.21 switched link: Outgoing call establishment failed because the X.21 call-progress signal was received but is not included in bytes 6-7.

0B X.21 switched link: Outgoing call establishment failed because of data circuit-terminating equipment (DCE) signaling DCE clear condition.

0C X.21 switched link: Outgoing call establishment failed because of expiration of time-out on changing DCE conditions.

0D X.21 switched link: There was an unexpected loss of connection during the X.21 call phase.

0E X.21 switched link: A failure occurred during the X.21 call-clearing phase.

0F X.21 switched link: An outgoing call establishment failed. X.21 call progress signals were received and are included in the INOP.

FD BSC line: BSC cluster PU=YES modem failure occurred. The line and the PU will be deactivated.

FE Station INOP: Station INOP on S/370 channel-link occurred.

FF Link: S/370 channel-link failure occurred.

text is displayed if code is hex 0F, and describes the call progress signal (CPS).

text can be one of the following:

- CPS = UNRECOGNIZED CALL PROGRESS SIGNAL
- CPS = yy - [descr]

The values of yy (expressed in decimal) and optionally descr can be one of the following:

- 20 NO CONNECTION
- 21 NUMBER BUSY
- 22 PROCEDURE ERROR
- 23 TRANSMISSION ERROR
**IST260I**

ncpname — sscpname SESSION LOST, SA subarea CODE code

**Explanation:** The session between SSCP sscpname and NCP ncpname failed. subarea is the subarea of ncpname. The hexadecimal reason code code can be one of the following:

07 Virtual route inoperative: VR INOP received for the virtual route used by the SSCP-PU session.

0A Forced deactivation of the SSCP-PU session: DACTPU received by the PU.

0B Virtual route deactivated: A forced deactivation occurred for the virtual route used by the SSCP-PU session.
IST262I • IST264I

0C  SSCP failure.

Note: If sscpname is ***NA***, the name for this SSCP was not available or could not be determined.

System action: None.

Operator response: If you have been instructed to provide backup procedures for ncpname, do so.

System programmer response: Define the recovery procedures that the network operator should perform when VTAM issues this message.

Routing code: 2

Descriptor code: 5

IST262I  [ACBNAME|LUNAME] = nodename, STATUS = status

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY TSOUSER command. It appears twice in the group, first with ACBNAME displaying the application status status of the application name nodename with which the TSO user ID is associated, and second with LUNAME displaying the status status of the logical unit nodename.

See the z/OS Communications Server: IP and SNA Codes for a description of status.

Note: Other messages in this group display the name of the TSO user ID associated with the application and the logical unit (LU). This message is followed by message IST486I, which indicates the current status of the TSO user ID.

If the TSO user ID has been disconnected from the LU, the LU status will still be ACT/S (active and in session) if it is in session with another application. To find the LU's session partner, you may enter a DISPLAY ID command for the logical unit nodename.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2,8

Descriptor code: 5

IST264I  REQUIRED resource [luname] reason

Explanation: VTAM issues this message as part of a group of messages when a resource requests a session, and the session initiation request fails for one of the reasons listed below. The first message in the group is IST63I.

Message IST64I, which is part of the IST63I message group, shows the names of the partners for which a session could not be established.

The combination of resource and reason might be any of the following:

- ADJSSCP TABLE
  - UNDEFINED
- COS NAME cosname
  - UNDEFINED
- LOGMODE NAME logmode
  - UNDEFINED
- RESOURCE luname
  - UNDEFINED
- RESOURCE luname
  - NOT ACTIVE
- RESOURCE luname
  - UNSTABLE (device-type LUs only)
**RESOURCE luname**  
**DISABLED**

**RESOURCE luname**  
**QUIESCING**

**RESOURCE luname**  
**BLOCKING LOGONS** (for application PLUs only)

**STORAGE**  
**NOT AVAILABLE**

*luname* appears when resource is **RESOURCE**. luname is the real name of the LU or application that was in error. If the SLU is not known, ***NA*** is displayed for *luname*.

- If *luname* is the SLU, the resource is undefined, not active, disabled, or quiescing.
- If *luname* is the PLU, the resource is undefined, not active, disabled, quiescing, or blocking logons.
- For *cosname*, no CoS (class of service) entry with that name has been defined. *cosname* is blank if the default Class of Service was used.
- For *logmode*, the logon mode is not valid for the SLU because:
  - The logon mode is not in the logon mode table for the SLU in the VTAM definition statements.
  - No logon mode table is associated with the SLU, and the logon mode is not included in the default logon mode table.
  - No valid logon mode table is associated with the SLU, and no default logon mode table exists.
- If *logmode* is not provided or contains blanks, IST264I is still issued. ***NA*** is displayed for *logmode*.

**System action:** VTAM rejects the session initialization request. The session setup fails.

**Operator response:** Follow the appropriate action:

- If the required resource is **UNDEFINED**, enter a VARY ACT command to activate the resource major node in which the resource is defined.
- If the required resource is **NOT ACTIVE**, enter a VARY ACT command to activate the resource. If the resource is an application program, start it.
- If the required resource is **UNSTABLE**, it might be going through some type of error recovery process. This can be due to ERP, an INOP, or session termination. Display the resource and try the request again after it has recovered.
- If the required resource is **DISABLED** and it is a device type LU, check to determine whether it is powered on.
- If the required resource is **DISABLED** and it is an application program, start the application program or ensure that the application has issued SETLOGON START.
- If the required resource is an application program and is **QUIESCING**, SETLOGON QUIESCE is in effect. The application program is shutting down and cannot accept new sessions unless VTAM closes and reopens the ACB.
- If the required resource is an application program, and the ACB was opened with MACRF=NLOGON, it is **BLOCKING LOGONS**. The only LU-LU sessions allowed for the application program are those initiated by the application program itself using OPNDST OPTCD=ACQUIRE.
- For a **LOGMODE** problem, verify that the resource specified the correct logon mode on the request. You can use the DISPLAY ID command to determine the table identified for the resource. You can use the MODIFY TABLE command to change the logon mode table name associated with a resource.
- If **STORAGE** is **NOT AVAILABLE**, wait a short time and reenter the command. If VTAM continues to issue this message, enter the DISPLAY BFRUSE command. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and dump for problem determination.

**System programmer response:**

- For a **COS** problem, verify that you have defined the Class of Service.
- For a **LOGMODE** problem, either correct the logon mode table currently assigned to the SLU or assign a different logon mode table that does contain the correct mode.
- For a **STORAGE** problem, increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA limits. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.
  - See the **IBM Documentation Library: z/OS Communications Server: New Function Summary** to determine the storage requirements for VTAM.
Routing code: 8
Descriptor code: 4

IST265I command FOR ID = nodename1 FAILED — DUP nodename2 HL highernode

Explanation: VTAM rejected command for node nodename1 because this domain already has an active resource nodename2. highernode is the higher level nodename (either a PU name or a major node name) of nodename2.

System action: VTAM rejects the command.

Operator response: If the network requires nodename1, deactivate the segment that contains nodename2 with the higher level node highernode, or enter a VARY REL command to release it.

If nodename1 and nodename2 are required simultaneously, one of the names must be changed. Save the system log for problem determination.

System programmer response: Change one of the resource names if both are needed simultaneously.

Routing code: 8
Descriptor code: 4

IST266I subtask STARTED

Explanation: VTAM issues this message in response to a MODIFY SUBTASK,FUNCTION=ATTACH command to start a specific subtask. The subtask could be TPRINT, subsystem support services, batch transfer program, or any routine for which the operator can enter a MODIFY SUBTASK,FUNCTION=ATTACH command. This message indicates that VTAM has successfully attached subtask as a subtask of VTAM.

System action: VTAM successfully completed processing the MODIFY command.

Operator response: None.

System programmer response: None.

Routing code: 2
Descriptor code: 5

IST270I LOAD OF ncpname COMPLETE — LOAD MODULE = loadmodname

Explanation: In response to a VARY ACT command, or to an NCP reload after an error recovery procedure, VTAM successfully loaded the communication controller NCP ncpname with load module loadmodname. The communication controller is now ready for use.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2
Descriptor code: 5
IST271I JOBNAME = jobname, STEPNAME = stepname, DSPNAME = dspname

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY ID command for an application program. The jobname and stepname listed are those of the job controlling the application program at the time of the request.

dspname is the name of the data space associated with the application program. The data space name is generated automatically when the data space is created by VTAM and is in one of the following formats:

ACYcccc
    ccccc is 0-FFFFC
ISTcccc
    ccccc is 0-FFFFC
cccccIST
    ccccc is 1-99999

If jobname, stepname, or dspname are not available, VTAM issues ***NA***.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST272A NO INITIAL TEST FOR controller — REPLY ‘U’ TO BYPASS — OR CANCEL

Explanation: While processing a VARY ACT command or during error recovery processing, VTAM attempted to load the communication controller controller. However, VTAM could not use the initial test routine of the load utility program prior to loading because VTAM could not use the file containing the initial test program.

The reason for this is either a permanent I/O error or erroneous or missing job control statements.

System action: VTAM waits for a reply.
Operator response: Either:
    • Enter ‘U’ to bypass the initial test routine, that is, to initiate loading of the NCP without testing the hardware.
    • Enter ‘CANCEL’ to cancel the loading operation.

Note: For additional information on how to respond to this message, see "Responding to a VTAM message" on page 2.

System programmer response: Check that the job control statements for the VTAM start procedure contain a DD statement with DDNAME INITEST and that the initial test program resides on SYS1.LINKLIB.

Routing code: 1
Descriptor code: 2

IST278A INVALID REPLY FOR ID = controller LOAD — ENTER ‘U’ — OR CANCEL

Explanation: The operator issued an invalid response to message IST272A. The message asked whether to load the communication controller controller with an NCP. The only valid responses are:
    • ‘U’—to bypass the initial test routine. In this case, the NCP is loaded without testing the hardware.
    • ‘CANCEL’—to cancel the request.

System action: VTAM waits for a valid reply.
Operator response: Examine previous messages about the communication controller in question and then make a valid reply. Any unacceptable reply will cause a repetition of this message.
IST282A • IST284A

Note: For additional information on how to respond to this message, see “Responding to a VTAM message” on page 2.

System programmer response: None.
Routing code: 1
Descriptor code: 2

IST282A INVALID REPLY FOR ID = controller action reason

Explanation: The operator issued an invalid response to message IST095A or IST284A.

action can be one of the following:
• RELOAD
• DUMP

reason can be one of the following:
• SYNTAX ERROR
• DUMPSTA = dumpstaname IS NOT AVAILABLE
• LOADSTA = loadstaname IS NOT AVAILABLE

Valid responses are:
NO Applies to IST095A and IST284A
YES Applies to IST095A and IST284A
YES,DUMPSTA=dumpstaname Applies to IST095A only
YES,LOADSTA=loadstaname Applies to IST284A only

If the message indicates that dump dumpstaname or load station loadstaname is not available, then the link station is not active or is not connected to the communication controller controller, or the dump station dumpstaname does not support dump.

System action: VTAM reissues the original message.

Operator response: Enter YES if you want to dump or load the communication controller contents, NO if not.

Note: For additional information on how to respond to this message, see “Responding to a VTAM message” on page 2.

System programmer response: None.
Routing code: 1
Descriptor code: 3

IST284A OPTION TO RELOAD controller AVAILABLE — REPLY ‘YES’ OR ‘NO’ OR ‘YES,LOADSTA=LINKSTANAME’

Explanation: The NCP running in communication controller controller has failed.

• If you want to reload the communication controller (over a channel), VTAM will determine whether the communication controller still needs to be loaded, and will proceed with the reload, if necessary.
• If you want to reload the communication controller (over an SDLC link), VTAM loads the communication controller automatically.
• If this host is not to reload the communication controller, as in the case of a shared communication controller where another host performs the reload, those link stations formerly in contact with the failed NCP will be activated. Reply NO after the completion of such a reload by another host.

System action: VTAM waits for a reply. The nodes associated with this communication controller are inaccessible.
**Operator response:** If this communication controller is multiple-channel or multiple-link attached, coordinate your reply with the reply of the operators of the other affected domains.

Each recovery operation **must** be completed before the next one is started.

To start reloading the controller in your domain using the default link station specified at VARY ACT or NCP generation, enter a reply of YES.

To specify a different link station, enter YES,LOADSTA=linkstaname where linkstaname is the name of the link station. If YES,LOADSTA= is specified without a link station name, VTAM chooses a default link station.

If you do not want this host to reload the communication controller, enter a reply of NO. In this case, if another host does not reload this communication controller, the communication controller’s resources will be unusable. You can enter a VARY INACT command to deactivate the NCP.

If all hosts sharing this communication controller specified NO and you subsequently decide to reload it with a VARY ACT command, you must enter a VARY INACT command **first** to deactivate it.

**Note:** For information on how to respond to this message, see “Responding to a VTAM message” on page 2.

**System programmer response:** None.

**Routing code:** 1

**Descriptor code:** 2

---

**IST285I**

*dumptype DUMP OF resourcename status*

**Explanation:** VTAM issues this message when the contents of the communication controller have been scheduled to be dumped to a disk, or have successfully or unsuccessfully been dumped to a data set.

resourcename is one of the following:

- The name of the NCP
  - The data set is named in the DUMPDS operand of the MODIFY DUMP command or the DUMPDS, CDUMPDS, or MDUMPDS operands on the PCCU definition statement for the specified NCP.
- The name of an SDLC link station in an NCP in a communication controller that is adjacent to the communication controller containing the NCP to be dumped.

*dumptype* can be one of the following:

**STATIC**
- NCP processing stops. The contents of the communication controller are dumped by microcode services, and VTAM deactivates the major node associated with resourcename.

**DYNAMIC**
- NCP processing continues while the NCP contents are dumped. VTAM does not deactivate the NCP.

**MOSS**
- VTAM transfers a maintenance operator subsystem dump contained on the MOSS disk in the IBM 3720, 3725, or 3745 Communication Controller to a host data set.

**CSP**
- VTAM transfers a communication scanner processor dump contained on the MOSS disk to a host data set.

**TRANSFER**
- VTAM transfers an NCP dump contained in the IBM 3720, 3725, or 3745 Communication Controller to a host data set.

**status** can be one of the following:

**CANCELLED — PATH BLOCKED**
- VTAM attempted the dump but was unable to access the controller because it was being dumped or loaded by another host.

**CANCELLED — PATH NOT OPERATIONAL**
- VTAM attempted the dump but was unable to access the controller because the channel path was not
operational. This is probably because the controller is in the process of being dumped or loaded by another host. However, this can also indicate a hardware or software problem.

**COMPLETE**
The dump is complete.

**PARTIALLY COMPLETE**
During dump processing, a permanent I/O error occurred on the communication controller, the dump data set, or the SDLC link. A portion of the dump is not usable. The dump data set might be too small to contain the entire dump.

**Note:** If ACTION=TRANSFER and either TYPE=CSP or TYPE=MOSS were specified on the MODIFY DUMP command, the BER log, CDF, TIC dump, and CA dump are transferred from the hard disk even when the CSP or MOSS dump is not present on the disk. This message indicates that data has been transferred to the dump data set even though the specified dump was not present.

**SCHEDULED TO DISK**
The dump to disk request has been forwarded to the NCP `resourcename`.

**STARTED**
The dump has begun.

**FAILED — PERMANENT I/O ERROR**
During dump processing, an unrecoverable I/O error occurred on the communication controller or the dump data set. The dump is unusable.

**FAILED — `ddname` CANNOT BE OPENED**
VTAM attempted the dump, but could not open the dump data set defined by `ddname`. Dump processing terminated.

**FAILED — UNSUPPORTED DEVICE TYPE**
VTAM attempted the dump, but could not open the dump data set because it was located on an unsupported device. Dump processing terminated.

**System action:** If `status` is:

**CANCELLED — PATH BLOCKED**
The dump terminates, and VTAM waits for contact with NCP `resourcename` to be re-established.

**CANCELLED — PATH NOT OPERATIONAL**
The dump terminates, and VTAM waits for contact with NCP `resourcename` to be re-established.

**COMPLETE**
Processing continues.

**PARTIALLY COMPLETE**
The dump terminates.

**SCHEDULED TO DISK**
Processing continues.

**STARTED**
The dump has begun.

**FAILED — PERMANENT I/O ERROR**
The dump terminates.

**FAILED — `ddname` CANNOT BE OPENED**
The dump terminates.

**FAILED — UNSUPPORTED DEVICE TYPE**
The dump terminates.

**Operator response:** If `status` is:

**CANCELLED — PATH BLOCKED**
None.
CANCELLED – PATH NOT OPERATIONAL
If contact with NCP resourcename is not re-established in a few minutes, save the system log for problem determination.

COMPLETE
You can format the entire dump using the NCP dump utility program.

PARTIALLY COMPLETE
If the dump is valid and enough data was saved, you can format and print the portion of the dump that was taken using the NCP dump utility program. Dump utility messages will provide information about the validity of the dump and data saved.

Attempt to dump the NCP using the NCP dump utilities. See the NCP, SSP, and EP Diagnosis Guide for information on using the NCP dump utilities.

Save the system log for problem determination, and run your operating system service aid program. See the EREP User’s Guide and Reference for more information on using EREP.

SCHEDULED TO DISK
Re-establish communication with the NCP resourcename and query the MOSS disk for the dump status. If the dump is present, you can use the MODIFY DUMP command to transfer the dump to a host data set. The dump can be formatted and printed using the utility program.

STARTED
None.

FAILED – PERMANENT I/O ERROR
This is probably a hardware error.

- Make sure the communication controller is powered on.
- Check the HARD STOP and PROGRAM STOP indicators on the communication controller operator panel. If either indicator is on, press the LOAD switch.
- If the communication controller is switchable between processors, make sure the communication controller is switched to the VTAM host processor.
- Attempt to dump the NCP using the NCP dump utilities. See the NCP, SSP, and EP Diagnosis Guide for information on using the NCP dump utilities.
- Save the system log for problem determination, and run your operating system service aid program. See the EREP User’s Guide and Reference for more information on using EREP.

FAILED – ddname CANNOT BE OPENED
If you specified the dump data set name correctly, save the system log for problem determination.

FAILED – UNSUPPORTED DEVICE TYPE
Ensure that the dump data set resides on a supported access device. If the problem persists, save the system log for problem determination.

System programmer response: If status is:

CANCELLED – PATH BLOCKED
None.

CANCELLED – PATH NOT OPERATIONAL
Take the following actions:

1. Check the channel definition in the NCP definition library to ensure that the channel adapter that failed is defined to NCP resourcename.
2. If the channel adapter is correctly defined to NCP resourcename, this is probably a hardware error. Ensure that the channel adapter is online from MOSS.
3. If the channel adapter is online, and you continue to have problems, contact the IBM hardware support center.

COMPLETE
None.

PARTIALLY COMPLETE
You might need to increase the size of the dump data set. If you cannot determine the cause of the problem from the output provided or need additional assistance, contact the IBM hardware support center.
SCHEDULED TO DISK
None.

STARTED
None.

FAILED — PERMANENT I/O ERROR
If you cannot determine the cause of the problem from the output provided or need additional assistance, contact the IBM hardware support center.

FAILED — ddname CANNOT BE OPENED
Ensure that
- The dump data set name is spelled correctly on either the DUMPDS operand of the MODIFY DUMP command or the DUMPDS, CDUMPDS, or MDUMPDS operands of the PCCU definition statement.
- The appropriate JCL statements are included with the VTAM start options.

Check the output provided by the operator to ensure that all requirements for VTAM are correct for your system. When you have corrected the error condition, ask the operator to reenter the command.

FAILED — UNSUPPORTED DEVICE TYPE
Check the output provided by the operator to ensure that all requirements for VTAM are correct for your system. When you have corrected the error condition, ask the operator to reenter the command.

Routing code: 2
Descriptor code: 5

IST302I INVALID DEFINITION TYPE IN MEMBER member IN VTAM DEFINITION LIBRARY

Explanation: VTAM issues this message when:
- The first definition statement or macro in major node definition member is not valid. The statement in error can be an operand on the definition statement. One possible cause of this error is that a definition statement is in the wrong column.
- The first definition statement or macro in major node definition member is not compatible with a VTAM start option or the start option is not specified correctly.

Note: Activating an NCP requires special consideration. VTAM selects the PCCU definition statement associated with this host by comparing the SUBAREA keyword value with the subarea of this host (specified by HOSTSA start option). If VTAM finds no PCCU definition statement with that subarea value, VTAM issues this message. For further information, see the descriptions of the PCCU definition statement and the HOSTSA start option in the z/OS Communications Server: SNA Resource Definition Reference.

System action: VTAM does not include major node member in the VTAM network.

Operator response: Save the system log for problem determination, and print the major node definition.

System programmer response: Correct the definition that is not valid and update member in the definition library.

Routing code: 2
Descriptor code: 5

IST303I INSUFFICIENT STORAGE TO BUILD CONFIGURATION configname

Explanation: VTAM terminated processing of major node configname because the storage required for internal VTAM tables associated with that major node is not available.

The size of the storage requested exceeds the limit that can be allocated for a single request. This can occur when you activate a major node with too many resources defined. The storage limit on the size of a major node is 33 554 423 bytes.

System action: VTAM does not include major node configname in the VTAM network.

Operator response: Total VTAM private storage information is also displayed in message IST981I. Issue the DISPLAY STORUSE command to display storage usage for storage pools.
Save the system log and request a dump for problem determination. If necessary, reduce the number of resources in the major node `configname` being activated.

**System programmer response:** This message indicates an underestimation of storage requirements for the VTAM address space.

- See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](index) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.
- See [z/OS Communications Server: SNA Operation](index) for information about the DISPLAY BFRUSE command and the MODIFY VTAMOPTS command.

Routing code: 2  
Descriptor code: 5

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**IST309I**  
**Unable to load module** `loadmodname` **from library** `[libraryname]`  
**Explanation:** VTAM could not load the communication controller (NCP, RRT) specified by `loadmodname` from library `libraryname`.  
**System action:** VTAM could not activate the communication controller associated with the load module and library combination.  
**Operator response:** Save the system log for problem determination.  
**System programmer response:** Inspect `libraryname` for missing or misnamed `loadmodname`. If `loadmodname` is missing, assume that the NCP was not generated successfully. Check the NCP generation output, correct the NCP system generation, and try the activation again.  
**Routing code:** 2, 4, 8  
**Descriptor code:** 5

---

**IST310I**  
**Invalid space request for configuration** `majornode`  
**Explanation:** VTAM issues this message in response to a VARY ACT command for `majornode`. VTAM cannot proceed because it encountered an entry that does not fit in the preallocated build area.  
**System action:** The VTAM network will not contain major node `majornode`.  
**Operator response:** Try the VARY ACT command again for this major node. If the condition persists, save the system log for problem determination.  
**System programmer response:** Check the output provided by the operator to ensure that all requirements for VTAM are correct for your system. See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](index) for more information on diagnosing VTAM problems.  
**Routing code:** 2  
**Descriptor code:** 5

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**IST311I**  
**NCP load module library** `libraryname` — **Failed to open**  
**Explanation:** VTAM attempted to open the communication controller NCP load module library `libraryname`, but the OPEN failed.  
**System action:** VTAM cannot activate a communication controller whose NCP system generation output is on library `libraryname`.  
**Operator response:** Ensure that you entered `libraryname` correctly. If problems persist, save the system log for problem determination.  
**System programmer response:** Use the output provided to assist you in determining the reason for the failure. When the problem is corrected, try the activation of the communication controller again.  
**Routing code:** 2, 4, 8  
**Descriptor code:** 5
IST314I • IST315I

IST314I END

Explanation: This message marks the end of a message group. See previous messages in the group for more information.

Routing code: 2

Descriptor code: 5

IST315I VTAM INTERNAL TRACE ACTIVE – MODE = modename, SIZE = size unit

Explanation: This message is part of a group of messages. Possible message groups follow.

• This message group is issued in response to a MODIFY TRACE, TYPE=VTAM command or when TRACE, TYPE=VTAM is specified on the TRACE start option.

Note: This message group is always issued at VTAM startup even if no trace options have been requested because the VTAM internal trace is automatically started with the options API, CIO, MSG, NRM, PIU, PSS, SMS, and SSCP.

IST350I DISPLAY TYPE = TRACES, TYPE=VTAM

IST315I VTAM INTERNAL TRACE ACTIVE – MODE = EXT, SIZE = bfrnum BUFFERS
IST199I OPTIONS = {NONE|optionlist}
IST315I VTAM INTERNAL TRACE ACTIVE – MODE = INT, SIZE = size MB
IST199I OPTIONS = {NONE|optionlist}
IST1730I SUBTRACE subtrace ACTIVE UNDER TRACE OPTION traceopt
IST314I END

• This message group is issued in response to a DISPLAY TRACES command when TYPE=VTAM or TYPE=ALL is specified on the command.

IST350I

This message identifies the type of information shown in the display. For this message group, type is always TRACES, TYPE=VTAM, and the display contains the status of the VTAM internal trace.

IST315I

• modename is EXT (external) or INT (internal) and indicates where the VTAM internal trace data is recorded.
  – If MODE = EXT:
    - The external trace is writing records to a generalized trace facility (GTF) data set.
    - bfrnum specifies the number of 8K GTF buffers that VTAM is using for external trace processing. VTAM will accumulate approximately 8K of external trace data prior to sending the data to GTF via GTRACE. If 0 is indicated then VTAM is sending each trace record (or logical group of trace records) individually to GTF via GTRACE. Running in this mode should be avoided due to the large system overhead involved. It is only provided for backward compatibility reasons.
    - unit is always BUFFERS for MODE = EXT.
  – If MODE = INT:
    - The internal trace is writing records in an internal trace table.
    - size specifies the number of megabytes allocated for the internal trace table. When this area has been filled, the table wraps.
      The default and minimum internal trace table size is 4 (megabytes).
      Storage for the internal trace table is obtained from the 64-bit common area.
    - unit is always MB for MODE = INT.

IST199I

This message displays the functions being traced. A list of all user-selected options being traced for TYPE=VTAM appears in this message.
If \texttt{MODE} = \texttt{INT} and \texttt{OPTIONS} = \texttt{NONE}, this indicates that no user-selected internal trace options are active. Only exception conditions and certain trace entries are being traced.

\textit{optionlist} can include the following options:

- **API**
  - Application program interface
- **APPC**
  - LU 6.2 communication
- **CFS**
  - Coupling facility services
- **CIA**
  - Channel I/O Auxiliary
- **CIO**
  - Channel I/O
- **CMIP**
  - CMIP services and the VTAM topology agent
- **CSM**
  - Communications storage manager
- **ESC**
  - Execution sequence control
- **HPR**
  - High performance routing
- **LCS**
  - LAN channel station
- **LOCK**
  - VTAM locking services
- **MSG**
  - Message to operator
- **NRM**
  - Network resource management
- **PIU**
  - Path information unit
- **PSS**
  - Process scheduling services
- **SMS**
  - Storage management services
- **SSCP**
  - System services control point
- **TCP**
  - VTAM to TCP/IP interface events
- **VCNS**
  - VTAM Common Network Services
- **XBUF**
  - Extended buffer list
- **XCF**
  - Cross coupling facility

See the \textit{z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures} for more information about VTAM internal trace options.
IST1730I
subtrace is the SUBTRACE type currently active. The values for subtrace are TREE and ARBP.
traceopt is the trace option associated with the SUBTRACE type. The values for traceopt are SSCP and HPR.
This message displays an active SUBTRACE type and its associated trace option. The trace option must be specified on the command used to activate or deactivate the subtrace type.
The SUBTRACE type TREE under trace option SSCP traces APPN routing trees used for APPN sessions.
The SUBTRACE type ARBP under trace option HPR traces ARBP entries for all RTP connections utilizing the ARBP algorithm.

System action:
• If this message is in response to a MODIFY TRACE command or a TRACE start option, the VTAM internal trace (VIT) begins.
• If this message is in response to a DISPLAY TRACES command, other processing continues.

Operator response: If you want to dump the trace records, use your installation-defined procedure or obtain instructions from the system programmer. See z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures for more information on the VTAM internal trace.

System programmer response: None.
Routing code: 2
Descriptor code: 5

IST316I VTAM INTERNAL TRACE USER OPTIONS ARE NOT ACTIVE
Explanation: VTAM issues this message in response to a DISPLAY TRACES command or a MODIFY NOTRACE,TYPE=VTAM,OPT=END command. This message indicates that all user-selected internal trace options are now inactive.
System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST317I VTAM INTERNAL TRACE ACTIVATION FAILED — INSUFFICIENT STORAGE
Explanation: VTAM attempted to activate its internal trace as a result of a MODIFY TRACE,TYPE=VTAM command, or as a result of a TRACE,TYPE=VTAM start option. The attempt to obtain storage for a trace table failed.
System action: VTAM rejects the request.
Operator response: Contact the system programmer.
System programmer response: An attempt to allocate the VIT table from HVCOMMON failed or an attempt to acquire ECSA to support the VIT failed.
You might need to increase the HVCOMMON parameter value on the IEASYSxx parmlib member of SYS1.PARMLIB. Refer to MVS Initialization and Tuning for more information.
• See z/OS Communications Server: SNA Resource Definition Reference for a description of VTAM start options.
• See z/OS Communications Server: SNA Operation for information about the DISPLAY BFRUSE command and the MODIFY VTAMOPTS command.
Routing code: 2
Descriptor code: 5
IST319I  CONFIGURATION configname FIRST SPECIFICATION USED reason

Explanation: During the activation of configuration configname, VTAM encountered an error in an NCP definition statement or a VTAM definition statement.

reason can be one of the following:

- COMBINATION ERROR
- DUPLICATE PARAMETER
- EXTRA PARAMETER
- EXTRA VALUE

A second message, IST323I, provides details of the error.

System action: The VTAM network will include configname defined with the first specification found.

Operator response: Save the system log for problem determination.

System programmer response: Use the information in this message and in message IST323I to determine the cause of the error. Correct the definition statement in error for future use.

The NCP definition statements are described in the NCP Resource Definition Guide and the NCP Resource Definition Reference.

The VTAM definition statements are described in the z/OS Communications Server: SNA Resource Definition Reference.

Routing code: 2

Descriptor code: 5

IST320I  DEFINITION configname NOT SUCCESSFUL — reason

Explanation: During activation of configuration configname, VTAM detected an error in an NCP definition statement or VTAM definition statement.

reason can be one of the following:

- DUPLICATE MACRO
- INSUFFICIENT STORAGE
- INVALID MAJOR NODE NAME
- INVALID NAME
- INVALID PARAMETER
- INVALID VALUE
- MISSING PARAMETER
- MISSING MACRO
- MISSING NAME
- PARAMETER CONFLICT
- SEQUENCE ERROR
- SYNTAX ERROR

A second message, IST323I, provides details of the error.

System action: The VTAM network will not include configuration configname. If reason is INVALID MAJOR NODE NAME, the dynamic PUs and LUs supplied by the VTAM Configuration Services Exit will not be created.

Operator response: If reason is INSUFFICIENT STORAGE and VTAM has been initialized, wait a short time and attempt to reactivate configname. If VTAM continues to issue this message, enter the DISPLAY BFRUSE and DISPLAY STORUSE commands. Save the system log and request a dump for problem determination. If VTAM initialization failed, save the system log for problem determination.

For all other reasons, save the system log for problem determination.
System programmer response: Use the information in this message and in message IST323I to determine the cause of the error. Correct the definition statement.

- If the error is in an NCP definition statement, correct the statement and regenerate the NCP.
- If the error is in a VTAM definition statement, update the VTAM definition library to correct the definition of configuration configname. For more information on VTAM definition statements, see the z/OS Communications Server: SNA Resource Definition Reference.
- If reason is **INSUFFICIENT STORAGE**, the storage required for internal VTAM tables is not available. Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA limits. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.
  - See the z/OS Communications Server: New Function Summary to determine the storage requirements for VTAM.
  - See the z/OS Communications Server: SNA Resource Definition Reference for a description of VTAM start options.
  - See z/OS Communications Server: SNA Operation for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
  - See the z/OS Communications Server: SNA Network Implementation Guide for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
  - See the z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.
- If reason is **INVALID MAJOR NODE NAME**, the VTAM Configuration Services Exit, ISTEXCCS, has supplied a major node name to VTAM that is not valid. The following rules apply to the name supplied:
  - configname must be 1-8 characters
  - The first character must be alphabetic or national; remaining characters must be alphabetic, national, or numeric
  - configname must not start with IST

Based on the preceding rules, if a valid name is supplied and the major node already exists, the following rules must also apply to the major node name:
  - The resource must be a switched major node.
  - The switched major node must be dynamic.
  - The major node must be in an ACTIVE state.

You can use the MODIFY EXIT command to install a new version of ISTEXCCS.

Routing code: 2
Descriptor code: 5

**IST321I**

**CONFIGURATION configname DEFAULT TAKEN — reason**

Explanation: During activation of configuration configname, VTAM encountered an error in an NCP definition statement or a VTAM definition statement.

reason can be one of the following:

- COMBINATION ERROR
- DUPLICATE PARAMETER
- EXTRA PARAMETER
- EXTRA VALUE
- INVALID PARAMETER
- INVALID VALUE
- MISSING PARAMETER
- PARAMETER CONFLICT

A second message, IST323I, provides details of the error.

System action: VTAM assumes the appropriate defaults and continues processing.
Operator response:  Save the system log for problem determination.

System programmer response:  Use the information in this message and in message IST323I to determine the cause of the error. Correct the definition statement in error for future use. The NCP definition statements are described in the NCP Resource Definition Guide and the NCP Resource Definition Reference. The VTAM definition statements are described in the z/OS Communications Server: SNA Resource Definition Reference.

Routing code:  2
Descriptor code:  5

IST322I  CONFIGURATION configname ERROR IGNORED — reason

Explanation:  During activation of configuration configname, VTAM encountered an error in an NCP definition statement or in a VTAM definition statement.

VTAM is ignoring the definition statement or an operand for one of the following reasons:

  COMBINATION ERROR
  DUPLICATE NAME
  DUPLICATE PARAMETER
  DUPLICATE VALUE
  EXTRA MACRO
  EXTRA PARAMETER
  EXTRA VALUE
  INVALID LENGTH ERROR
  INVALID MACRO
  INVALID NAME
  INVALID PARAMETER
  INVALID VALUE
  MISSING MACRO
  MISSING NAME
  MISSING PARAMETER
  MISSING VALUE
  PARAMETER CONFLICT
  SEQUENCE ERROR
  SYNTAX ERROR
  TABLE LOAD FAILURE
  TABLE NOT FOUND
  TABLE NOT VALID

Two additional messages, IST323I and IST330I, provide details of the error.

System action:  VTAM continues processing the definition statement, but ignores the incorrect operand.

Operator response:  If reason is TABLE LOAD FAILURE, TABLE NOT FOUND, or TABLE NOT VALID, try loading the table with the MODIFY TABLE command after the configuration is complete.

For all other reasons, save the system log and network logs, and print the major node definition for problem determination.

System programmer response:  Use the information in this message and in messages IST323I or IST330I to isolate the cause of the error.

If reason is TABLE LOAD FAILURE or TABLE NOT FOUND, ensure that the table exists in the system library.

If reason is TABLE NOT VALID, ensure that a valid table name was coded for the type of table being created. If not, correct the table name on the definition statement and reactivate the configuration configname. If reason is TABLE NOT VALID during a dynamic reconfiguration attempt involving a USS table, make sure the USSTAB is coded with FORMAT=DYNAMIC.
For all other reasons, correct the statement in error for future use. The NCP definition statements are described in the NCP Resource Definition Guide and the NCP Resource Definition Reference. The VTAM definition statements are described in the z/OS Communications Server: SNA Resource Definition Reference.

Routing code: 2
Descriptor code: 5

IST323I LABEL = labelname — MACRO TYPE = macrotype — KEYWORD = keyword

Explanation: This message supplements messages IST319I, IST320I, IST321I, IST322I, IST363I, IST886I, and IST979I. Although the definition can contain mixed cases, all values displayed in the message are in uppercase.

labelname is the name or label of the macro or statement in error.

macrotype is the type of macro.

keyword shows the actual keyword (or the first 8 characters of the keyword) that was in error.

Tip: If PORTNAME is being specified on a TRLE definition and keyword is READ, the READ address must be an even number that is one less than the address specified on the corresponding WRITE operand. For example, if you specify 500 on the READ operand, you must specify 501 on the WRITE operand.

System action: The action carried out is given in the preceding message.

Operator response: Save the system log for problem determination.

System programmer response: Locate the keyword in error on the macro labeled labelname. Use the previous error message for the specific problem with that keyword.

If macrotype is PU and labelname is a model PU, check the definition to determine whether the TRLE keyword is coded. The TRLE keyword signifies that the model PU is for XCF. An XCF model PU definition requires specific values to be coded for some keywords or to be allowed to default to the correct values.

See the z/OS Communications Server: SNA Resource Definition Reference for the correct use of VTAM operands on NCP definition statements.

Note: If macrotype is * and keyword is ***NA***, then the error is due to miscoding a comment line in the definition deck. Comment lines must have an asterisk (*) in column one. Placing the asterisk in a different column will generate this error message.

Routing code: 2
Descriptor code: 5

IST324I procedure IN PROGRESS WITH ID = nodename DUE TO runame REQUEST

Explanation: VTAM issues this message when procedure for nodename is in progress.

procedure was initiated by request unit runame (a cross-domain request), which was sent from nodename to this domain’s cross-domain resource manager (CDRM). Possible values are: INACT, ACTIVATE, or RESET.

See Chapter 16, “Command and RU types in VTAM messages,” on page 1083 for a description of runame.

System action: Processing continues.

Operator response: Check with the operator of nodename’s domain. Determine whether further action is required in order to complete this request.

System programmer response: None.

Routing code: 2
Descriptor code: 5
**IST326I**  
REQUEST = runame FAILED FOR procedure ID = nodename, SENSE = code

**Explanation:** The processing of procedure for request unit (RU) runame in resource nodename failed. The cause of the failure is indicated by the sense code.

See [Chapter 16, “Command and RU types in VTAM messages,” on page 1083](#) for a description of runame.

See the [z/OS Communications Server: IP and SNA Codes](#) for a description of code.

**System action:** Processing continues. VTAM should complete processing of procedure successfully in this domain, but the status of procedure in nodename's domain is uncertain.

**Operator response:** If VTAM completes processing of procedure successfully, no response is necessary in this domain. However, notify the operator of nodename's domain because action will be required to complete that domain's processing of procedure.

For example,

REQUEST = DACTCDRM FAILED FOR INACT ID = nodename, SENSE = 80020000

One of the SNA requests sent during a cross-domain resource manager (CDRM) deactivation procedure is DACTCDRM. This request did not reach nodename because of a link failure (sense code 8002).

VTAM completes deactivation successfully in this domain, but the deactivation processing in nodename's domain is waiting for the lost DACTCDRM. In this example, the operator in nodename's domain should enter a DISPLAY ID command for nodename followed by a VARY INACT,TYPE=FORCE command for this domain's CDRM in order to complete the deactivation procedure. Ask the operator of the other domain to complete the problem determination action.

Save the system log for problem determination.

**System programmer response:** Use the output provided by the operator and the description of code to assist in determining the reason for the failure. See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for more information on diagnosing VTAM problems.

**Routing code:** 2

**Descriptor code:** 5

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**IST327I**  
procedure ID = nodename INCOMPLETE, REQUEST = runame, SENSE = code

**Explanation:** VTAM is unable to complete the processing of procedure procedure. This procedure (either INACT or ACTIVATE) was initiated by request unit (RU) runame. The cause is indicated by the sense code.

See [Chapter 16, “Command and RU types in VTAM messages,” on page 1083](#) for a description of runame.

See the [z/OS Communications Server: IP and SNA Codes](#) for a description of code.

**System action:** VTAM has not completed the processing of procedure.

**Operator response:** Notify the operator of nodename's domain that commands might have to be entered from that domain as well as from yours. Find out the commands and operands that were entered from that domain.

For example,

INACT ID = nodename INCOMPLETE, REQUEST = CDTAKEDOWN, SENSE = 08090000:

One of the requests sent during a cross-domain resource manager (CDRM) deactivation procedure is CDTAKEDOWN. CDRM nodename rejected this request because it and this domain’s CDRM are not synchronized (08090000 indicates mode inconsistency). This could be caused by operator commands entered in the different domains interfering with each other, or by a system error in one of the CDRMs. Enter a VARY INACT command in both domains to complete the deactivation procedure.


**Routing code:** 2

**Descriptor code:** 5
IST328I • IST331I

IST328I  COMMUNICATION WITH CDRM ID = cdrmname LOST

Explanation: Communication with cross-domain resource manager cdrmname is no longer possible. cdrmname's subarea failed or a subarea in a migration mode path to cdrmname failed.

System action: Although cdrmname and its existing sessions remain active, VTAM marks cdrmname as lost. VTAM can establish no new sessions with cross-domain resources managed by cdrmname. Existing sessions remain active as long as the physical path being used still exists.

Operator response: To determine whether any sessions are active, enter a DISPLAY ID command for cdrmname and then enter a DISPLAY ID command for each cross-domain resource listed as active. This will show you which resources have sessions with cdrmname.

To establish new sessions, deactivate and then reactivate cdrmname. To deactivate cdrmname, use the VARY INACT,TYPE=FORCE command.

Follow the same procedure at other hosts involved in the lost subarea issue.

System programmer response: None.

Routing code: 2

Descriptor code: 5

IST330I  TABLE TYPE = tabletype NAME = tablename

Explanation: This message supplements message IST322I. VTAM could not load the table type tabletype, table name tablename.

For information about coding tables, see the [z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com/support/knowledgecenter/SSEQJZ_2.2.0/snmz dispmsg41.xml).

System action: VTAM continues processing using the previously loaded table.

Operator response: If the problem persists, save the system log for problem determination.

System programmer response: Ensure that tablename is the name of a tabletype table and that it exists in the definition library.

Routing code: 2

Descriptor code: 5

IST331I  CONFIG configname BYPASSED — ‘MAXSUBA’ VALUES CONFLICT

Explanation: VTAM could not add the major node configname to the network for one of the following reasons:

v The MAXSUBA start option value in effect at the time the major node was first activated does not equal the value specified in the MAXSUBA start option.

v If the major node is a communication controller, the MAXSUBA value specified in the NCP BUILD generation definition statement does not equal the value specified in the MAXSUBA start option.

MAXSUBA is used only for migration purposes in order to communicate with a pre-V3R1 level of VTAM.

System action: VTAM does not include major node configname in the VTAM network.

Operator response: Save the system log for problem determination.

System programmer response: The MAXSUBA values must match. Change the appropriate VTAM definition in the definition library.

v If the MAXSUBA value in the start option does not match the value that was in effect when the major node was activated, restart VTAM with the correct MAXSUBA value.

v For a communication controller, if the MAXSUBA value specified in the BUILD definition statement is incorrect, correct the BUILD definition statement, and regenerate the NCP.

Note: MAXSUBA can be coded on the NETWORK definition statement in the NCP. In a nonnative network, this is the MAXSUBA value that must match.

See the [z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com/support/knowledgecenter/SSEQJZ_2.2.0/snmz dispmsg41.xml) for more information on the MAXSUBA start option and the BUILD definition statement.
IST333I • IST348I

Routing code: 2
Descriptor code: 5

IST333I  CONFIG configname USING DUPLICATE RESOURCE NAME minornode — CODE 3

Explanation: VTAM issues this message when the node name minornode used in major node configname duplicates a name already known to VTAM. All node names in a domain must be unique.

System action: The node name minornode defines a subordinate node in an NCP definition. The major node configname is not included in the VTAM network.

Operator response: Save the system log and print the major node definition for problem determination.

System programmer response: Correct the duplicate names in the major node, and if the major node is the NCP, then also regenerate the NCP. Deactivate the major node containing the node that caused the failure.

Routing code: 2
Descriptor code: 5

IST336I  THIS NCP MAJOR NODE WAS action

Explanation: VTAM issues this message in response to a DISPLAY ID command for an NCP major node that VTAM has acquired.

action is one of the following:

• ACQUIRED BEFORE ACTIVATION
  This indicates that the NCP major node was acquired before being activated.

• ACTIVATED BEFORE ACQUISITION
  This indicates that the NCP major node was activated before being acquired.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2
Descriptor code: 5

IST339I  CONFIG configname BYPASSED — minornode UNKNOWN TO THE NCP

Explanation: VTAM did not include the major node configname in the network configuration because minornode was unknown to the NCP. The NCP generation was probably not completed. VTAM issues this message when it cannot find a resource resolution table (RRT) extension or when an entry fails to meet DR ADD requirements.

System action: VTAM did not add major node configname to the VTAM network.

Operator response: Save the system log for problem determination.

System programmer response: Rerun the NCP generation, ensuring that it runs to completion. You might need to include the LUDRPOOL macro in the NCP generation. See the NCP Generation and Loading Guide for more information.

Routing code: 2
Descriptor code: 5

IST348I  UNABLE TO PROCESS DISCONNECTION FOR PU = puname DUE TO LACK OF STORAGE

Explanation: VTAM issues this message when the disconnection of physical unit puname failed because of lack of storage.

System action: Processing continues.

Operator response: Enter a VARY INACT(TYPE=FORCE command for puname. If you have frequent command
failures because of insufficient storage, enter the DISPLAY BFRUSE command. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and dump for problem determination.

**System programmer response:** Verify that the operator entered the buffer pool or CSA start options as specified in the start procedures.

Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA limits. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

- See the [z/OS Communications Server: New Function Summary](https://www.ibm.com/docs/en/zos) to determine the storage requirements for VTAM.
- See the [z/OS Communications Server: SNA Operation](https://www.ibm.com/docs/en/zos) for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- See the [z/OS Communications Server: SNA Network Implementation Guide](https://www.ibm.com/docs/en/zos) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
- See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](https://www.ibm.com/docs/en/zos) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

**Routing code:** 2

**Descriptor code:** 5

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**IST350I**

**DISPLAY TYPE = type**

**Explanation:** This message is part of several different message groups and subgroups that VTAM issues in response to a DISPLAY command.

This message serves as a header message for the display and identifies the type of information shown in the display. The message group contains further identification and status information.

`type` is the type of information or resource being displayed and can be one of the following:

- **ADJACENT CLUSTER TABLE**
  The display contains the adjacent subnetwork routing list for the specified network ID and the status of each border node in the list.

- **ADJACENT CONTROL POINT**
  The display contains the attributes of a specific adjacent control point node definition and the connections that are assigned to it.

- **ADJACENT SSCP TABLE**
  The display contains a list of adjacent SSCPs used for routing session initiation requests.

- **APPL MAJ NODES/NAMES**
  The display contains the name and status of all active application program major nodes in the domain and the application programs contained in those nodes.

- **APPN COS**
  The display contains a list of APPN class of service (CoS) entries and the name of the last APPNCOS table that was used to create or update the CoS entry.

- **APPNTOSA**
  The display shows the corresponding APPN and subarea class of service (CoS) mappings.

- **AUTOLOG**
  The display contains information relative to pending autologon requests.

- **BLOCKED VIRTUAL ROUTES**
  The display shows the blocked Virtual Routes.

- **BNCOSMAP**
  The display shows the corresponding nonnative and native class of service (CoS) names.

- **BUFFER POOL DATA**
  The display describes VTAM buffer storage usage.
CDRMS
The display contains the status of cross-domain resource managers known to this host processor.

CDRSCS
The display contains the status of cross-domain resources known to this domain.

CLUSTERS/PHYS UNITS
The display contains the name and status of physical units in the domain.

CSDUMP TRIGGERS
The display contains the message and sense CSDUMP triggers.

DIRECTORY
The display contains directory services information about resources.

DLURS
The display contains the dependent LU requesters (DLURs) that are supported by the dependent LU server (DLUS) and their CPSVRMGR session pipe status. The CPSVRMGR pipe consists of two LU 6.2 sessions, a contention winner (conwinner) and a contention loser (conloser). The status of both sessions is displayed.

EE
The display contains Enterprise Extender information known to this APPN node.

EEDIAG
The display contains Enterprise Extender (EE) diagnostic information known to this APPN node for specific EE connections that meet specified thresholds.

EXIT
The display contains the name and status of user-written exit routines.

GENERIC AFFINITY
The display contains information about generic resource affinities in the generic resource coupling facility structure.

GR PREFERENCES TABLE
The display shows the generic resource preference table.

GROUPS
The display contains the name and status of each group in the domain.

HELD VIRTUAL ROUTES
The display shows the Held Virtual Routes.

LINES
The display contains the name and status of lines in the domain.

LOGICAL UNITS/TERMS
The display contains the name and status of logical units in the domain.

LUGROUP MAJOR NODES
The display contains the names of all LUGROUP major nodes in the domain.

MAJOR NODES
The display contains the status of all active major nodes in the domain.

MODELS
The display contains either the names of model major nodes in the domain and the model minor nodes contained in those major nodes, or the name, if any, of a model application definition.

NETWORK NODE SERVER LIST
The display contains the names of all the network nodes currently allowed to act as network node server for this end node.

NETWORK SEARCH
The display contains the results of an operator-initiated search for a specified resource name.

PATH TABLE CONTENTS
The display contains a listing of paths defined to this host processor.

PENDING
The display contains the names of all nodes in a pending state.
RSCLIST
The display contains information about resources whose names match a particular pattern.

SAMAP TABLE
The display shows the mapping of a desired session path through a composite network node (CNN) environment. The table can be used to specify the desired session path through other CNNs in the network if the subarea numbers are unique across all of the CNNs in the APPN subnetwork.

SATOAPPN
The display shows the corresponding SA and APPNCOS mappings.

SESSIONS
The display contains a count of all queued, pending, and active sessions in the domain. The display might also contain the status and partner names for each session in the domain.

SNSFILTR
The display contains user-specified sense codes.

SRCHINFO
The display contains outstanding search request information.

STATIONS
The display contains the name and status of link stations in the domain.

STATS, TYPE=CFS
The display contains the current statistics for the coupling facility structure.

STATS, TYPE=COMPRESS
The display contains compression levels and the number of half-sessions (one end of a session) using that level of compression on input or output session traffic.

STATS, TYPE=VTAM
The display contains VTAM storage estimates statistics in response to the DISPLAY STATS command.

STORAGE USAGE
The display describes VTAM utilization of storage pools and data spaces.

SUBAREA COS
The display contains the class of service (CoS) table name for a particular network or all networks associated with a specified PU type 4 or 5.

TDU DIAGNOSTICS
The display contains TDUDIAG diagnostic information that can be used for problem determination about topology database updates (TDUs) for topology resources (nodes and TGs). A DISPLAY TOPO command with LIST=TDUDIAG provides this information.

TDU INFORMATION
The display contains information that can be used for problem determination about topology database updates (TDUs) that were received and sent for topology resources (nodes and TGs). A DISPLAY TOPO command with LIST=TDUINFO provides this information.

TGPS
The display contains the currently defined transmission group profiles by name, along with the transmission group characteristics they represent.

TNSTAT
The display contains the settings of both global and TRLE group tuning statistics, as well as whether the tuning statistics reports are being displayed at the system console and the tuning statistics reporting interval. The display will also indicate if SMF is unavailable.

TOPOLOGY
The display contains topology information that can be used for problem determination and network verification purposes. It provides information such as link outages, unacceptable routing nodes or links, and node connectivity.

TRACES, TYPE=CNM
The display contains the status of the CNM buffer trace. CNM buffer traces are PDPIUBUF (Problem Determination PIU buffer) and SAWBUF (Session Awareness buffer).
TRACES, TYPE=MODULE
The display contains information about module tracing.

TRACES, TYPE=NODES
The display contains the status of the BUF, GPT, IO, LINE, SIT, and TG trace for a particular resource and its subordinate nodes.

TRACES, TYPE=ROUTE
The display contains the status of the APPN route selection trace.

TRACES, TYPE=STATE
The display contains information about resource state tracing, for example, which types of resources are being traced.

TRACES, TYPE=SMS
The display contains the status of the SMS buffer trace.

TRACES, TYPE=TSO
The display contains the status of the TSO trace for one or more TSO user IDs.

TRACES, TYPE=VTAM
The display contains the status of the VTAM internal trace.

TRL
The display contains the status and data link control of each element in the active transport resource list.

USERVAR
The display contains the name and status of all USERVARs in the domain.

VTAMSTOR
The display contains the storage contents associated with VTAM modules and resources.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST351I LOCAL 3270 MAJOR NODE = majornode
Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY TERMS command. This message identifies the local non-SNA 3270 major node majornode to which the logical units listed in subsequent messages in the display belong. This message might be followed by message IST089I.
System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST352I LOCAL SNA MAJOR NODE = majornode
Explanation: This message is part of a group of messages that VTAM issues in the following situations:
• In response to a DISPLAY TERMS command. majornode is the local SNA major node (local cluster controller) to which the physical units and logical units listed in subsequent messages are attached. Subsequent messages list majornode’s subnodes.
• When a connection request has been rejected for resource nodename in message IST680I. majornode is the local SNA major node (local cluster controller). See the description of message IST680I for more information.
System action: Processing continues.
Operator response: None.
IST353I • IST356I

System programmer response: None.
Routing code: 2
Descriptor code: 5

IST353I SWITCHED SNA MAJOR NODE = majornode

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY TERMS command. majornode is the switched SNA major node to which the physical units and logical units listed in subsequent messages are attached.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST354I PU T4/5 MAJOR NODE = majornode

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY command for COS, LINES, or TERMS, or for a DISPLAY ID command which has a group name specified.

For a DISPLAY COS command, majornode is the PU type 4 or 5 major node that subsequently listed Class of Service information, lines, physical units, and logical units are associated with.

For a DISPLAY TERMS command, majornode is the PU type 4 or 5 major node that subsequently listed lines, physical units, and logical units are associated with.

For a DISPLAY LINES command, majornode is the channel-attached PU type 4 or 5 major node that subsequently listed lines are associated with.

For a DISPLAY ID command which specifies a group name, majornode is the PU type 4 or 5 major node that the group is defined in.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST355I LOGICAL UNITS:

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY command. This message indicates that the nodes listed in subsequent messages are logical units.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST356I bpid[Q] [F] bufsize curtot curavail maxtot maxused times exp/cont incr

Explanation: VTAM issues this message as part of a message group in response to a DISPLAY BFRUSE,BUFFER=SHORT command. See IST632I for a complete description of the message group.

Routing code: 2
Descriptor code: 5

IST359I ATTACHMENT = linetype

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY TERMS
command. This message indicates the type of line that connects one node to another.

linetype can be LEASED or SWITCHED.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2

Descriptor code: 5

IST360I APPLICATIONS:

Explanation: This message is issued in response to a DISPLAY APPLS or DISPLAY ID command for an application
major node only. The message indicates that the nodes in subsequent messages are application program nodes.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2

Descriptor code: 5

IST361A nodename/subarea FOUND LOADED WITH loadmodname/subarea REPLY ‘YES’ TO RELOAD OR ‘NO’ TO CANCEL ACTIVATION

Explanation: While processing a VARY ACT command, VTAM found the specified nodename and subarea already
loaded with NCP load module loadmodname or already defined for subarea. If the load module is not known, VTAM
displays ***NA*** for loadmodname.

VFYLM=YES was specified on the NCP’s PCCU definition statement. The operator might therefore decide to reload
the specified communication controller or terminate the activation.

Note: VTAM continues to issue message IST361A until you enter a correct response.

System action: Processing continues.

Operator response: Reply ‘YES’ if you want to reload the communication controller. Other VTAMs sharing the
communication controller will be affected when you reload.

Reply ‘NO’ if you want to stop the activation of the communication controller. This will result in a load module
mismatch between the load module that is active for this VTAM and the load module that is active for another
VTAM which is sharing the same communication controller.

System programmer response: None.

Note: For additional information on how to respond to this message, see "Responding to a VTAM message" on page
2.

Routing code: 2

Descriptor code: 2
IST362I • IST366I

IST362I  GROUP groupname DEVICES UNAVAILABLE — MISSING SYSCNTRL OPTION

Explanation: While activating a BSC or start-stop group, groupname, VTAM found the RIMM or MODE option to be missing on the SYSCNTRL definition statement.

Note: The BHSASSC option might be required on the SYSCNTRL definition statement if you are using block handlers. (You specified BHSET in the GROUP definition statement.)

System action: VTAM does not include the BSC or start-stop group groupname in the network.

Operator response: Save the system log for problem determination.

System programmer response: Specify the required SYSCNTRL options. See the z/OS Communications Server: SNA Resource Definition Reference for more information on the SYSCNTRL options.

Routing code: 2
Descriptor code: 5

IST363I  CONFIG configname NODES AND SUBNODES SET UNAVAILABLE — reason

Explanation: While activating configuration configname, VTAM detected an error in an NCP generation definition statement or a VTAM definition statement.

reason can be one of the following:

DUPLICATE MACRO
DUPLICATE VALUE
INVALID NAME
INVALID PARAMETER
INVALID VALUE
MISSING MACRO
MISSING NAME
MISSING PARAMETER
PARAMETER CONFLICT
REPEATED VALUE
SEQUENCE ERROR
SYNTAX ERROR

A second message, IST323I, provides details of the definition statement in error.

System action: VTAM continues processing the macro or definition statement. Message IST323I provides the name of the node that is unavailable. The subnodes of this node are also unavailable.

Operator response: Save the system log for problem determination.

System programmer response: Correct the macro or statement in error.

Routing code: 2
Descriptor code: 5

IST366I  CONFIG configname UNABLE TO DEFINE nodename — MAXIMUM NUMBER OF NETWORK ADDRESSES FOR HOST SUBAREA EXCEEDED

Explanation: While activating configuration configname, VTAM exceeded the maximum number of network addresses in the host subarea. VTAM cannot define a new element in the host subarea. If an Enterprise Extender (EE) line, an EE PU, or an RTP PU was being activated, the request exceeded the limit of 16,776,960 extended element addresses. Therefore, VTAM failed to define a new network address for the resource.
**System action:** If `nodename` is all asterisks, the activation of `configname` fails. VTAM did not assign an element address to nodes in the major node definition.

If `nodename` is not all asterisks, the activation of `configname` continues and the node identified by `nodename` is marked invalid and is unusable in the VTAM network.

**Operator response:** Deactivate any unneeded segment in the host subarea to free network addresses, and deactivate and then activate `configname`. If VTAM continues to issue this message, save the system log for problem determination.

**System programmer response:** Check the output provided by the operator to ensure that all requirements for VTAM are correct for your system.

Since the maximum number of elements that can be assigned by VTAM in the host subarea has been reached, examine the possibility of allocating devices and applications to other subareas.

To use higher-order element addresses for LUs, you can specify YES for the ENHADDR start option. You must modify the start options file (ATCSTRxx) and restart VTAM to use the start option. For more information, see the [z/OS Communications Server: SNA Network Implementation Guide](#).

**Routing code:** 2

**Descriptor code:** 5

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**IST367I**

NO STORAGE TO DEFINE NODE `nodename` CONFIG `configname`

**Explanation:** VTAM did not have sufficient storage to define node `nodename`.

**System action:**
- If `nodename` is all asterisks, the activation of `configname` fails. VTAM did not assign an element address to nodes in the major node definition.
- If `nodename` is not all asterisks, the activation of `configname` continues, and `nodename` is unusable as it was defined in `configname`.
  - If `nodename` did not previously exist, it is unavailable to the VTAM network.
  - If `nodename` did previously exist (for example, as an independent LU), then the existing node is not affected by the definition that failed.

**Operator response:** If VTAM has been initialized, deactivate any active segment in the host subarea that is not needed to free network addresses. After you deactivate any active segment in the host subarea that is not needed to free network addresses, deactivate and activate `configname`. If VTAM continues to issue this message, enter the DISPLAY BFRUSE command. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and dump for problem determination.

**System programmer response:** Do one of the following:
- Check the output provided by the operator to ensure that all requirements for VTAM are correct for your system. Determine if any major nodes can be deleted from the configuration so that more storage is available.
- Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA limits. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.
  - See the [z/OS Communications Server: New Function Summary](#) to determine the storage requirements for VTAM.
  - See the [z/OS Communications Server: SNA Resource Definition Reference](#) for a description of VTAM start options.
  - See [z/OS Communications Server: SNA Operation](#) for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
  - See the [z/OS Communications Server: SNA Network Implementation Guide](#) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
  - See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

**Routing code:** 2

**Descriptor code:** 5
IST368I • IST380I

IST368I  FUNCTION GROUP functiongroup FAILED

Explanation: VTAM issues this message as part of a message group. The first message in the group is IST886I or IST1277I. See the explanation of the first message in the group for a complete description.

Routing code: 2
Descriptor code: 5

IST380I  ERROR FOR ID = nodename — REQUEST: runame, SENSE: code

Explanation: VTAM issues this message when the request runame for the resource nodename failed.

code is the sense code and indicates the reason for the failure. See the z/OS Communications Server: IP and SNA Codes for a description of code.

runame is the name of the request that failed. See Chapter 16, “Command and RU types in VTAM messages,” on page 1083 for a description of runame.

System action: VTAM does not perform the request runame.

When VTAM receives a failing activation request for RUs such as ACTLINK, CONTACT, ACTLU, or ACTPU, VTAM usually deactivates the resource and all subordinate resources, regardless of whether the resource was being activated or deactivated.

Operator response:

- Attempt to activate or trace the node again.
- If a failure still occurs, save the system log for problem determination.
- If VTAM issues this message repeatedly, disable the line and save the system log for problem determination.
- If code indicates a storage problem, wait a short time and reenter the command. If VTAM continues to issue this message, enter the DISPLAY BFRUSE command to display storage used by VTAM buffer pools and information about the common service area (CSA). Message IST981I displays total VTAM private storage information. Issue the DISPLAY STORUSE command to display storage usage for storage pools.
- Save the system log and request a dump for problem determination.
- Sense Code 081Cnnnn
  Correct the cause indicated by the user portion of the sense code (nnnn), and try the command again.

Note: Only some of the possible sense codes issued in this message are described here. For a complete description of the sense codes, see the z/OS Communications Server: IP and SNA Codes.

System programmer response:

- If code indicates a storage problem, increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA start options. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.
  - See the z/OS Communications Server: New Function Summary to determine the storage requirements for VTAM.
  - See the z/OS Communications Server: SNA Resource Definition Reference for a description of VTAM start options.
  - See the z/OS Communications Server: SNA Operation for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
  - See the z/OS Communications Server: SNA Network Implementation Guide for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
  - See z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.
- Sense Code 081Cnnnn
  If an ACTLINK request failed on a VARY ACT request with the sense code of 081Cnnnn, check the CUADDR operand of the PU (local SNA) or PCCU definition statement to make sure that the correct device address was specified for the node nodename.
If sense code 081C0010 is received and message IST1386I is issued, see the return code and reason code in message IST1386I to determine the cause of the failure.

- **Sense Code 08A30001**
  If VTAM issues sense code 08A30001 repeatedly, determine the subarea node that is attempting to establish a switched connection. If the SSCP is authorized to request that connection, verify that both SSCPs have identical PRTCT operands coded for their PU statements on the switched major nodes. Also verify that both nodes and their SSCPs are of a level that supports call security verification.
  VTAM might issue this message with sense code 08A30001 because an unauthorized subarea node is attempting to establish a switched connection to the host that received the message.
  - You might need to include the LUDRPOOL macro in the NCP generation.
  - Make sure that the device is available to the system and that there are no hardware problems.

Routing code: 2
Descriptor code: 5

---

**IST381I**

*command FOR ID = nodename FAILED – CANNOT DEFINE NODE*

**Explanation:** VTAM stopped processing *command*. VTAM could not define the resource *nodename* for one of the following reasons:

- *nodename* has the same name as another resource in this domain.
- *nodename* has the same network address as another resource in this domain.
- The value for VNNAME for *nodename* matches the value for CPNAME on a PU in this domain.
- The value for VNNAME for *nodename* refers to an ADJCP for which VN=YES is not specified.

*command* is the command that failed. See Chapter 16, “Command and RU types in VTAM messages,” on page 1083 for a description of *command*.

*nodename* is the name of the resource specified on the command.

**System action:** VTAM rejects the command.

**Operator response:** Display *nodename*:

- If the resource already exists, *command* failed because the resource was already defined.
- If *nodename* is a communication controller, enter a DISPLAY STATIONS command.
- If the subarea of *nodename* is listed as an adjacent subarea in the display, another communication controller has been defined for that subarea. The communication controller might still exist if the link to that subarea is still active. To correct the problem, enter a VARY INACT command for the link to the adjacent subarea.
- If the resource does not exist, display VNNAME. If VNNAME already exists, *command* failed because the VNNAME was already defined with a different nodetype.

Save the system log for problem determination.

**System programmer response:** Ensure that *nodename* has a unique name, unique network address, or unique VNNAME. See the z/OS Communications Server: SNA Resource Definition Reference for more information on VNNAME definitions.

Routing code: 2
Descriptor code: 5

---

**IST382I**

*command FOR ID = nodename FAILED — STATE: state NOT VALID FOR REQUEST*

**Explanation:** VTAM rejected *command* because *nodename* was not in a state that is valid for the request.

See Chapter 16, “Command and RU types in VTAM messages,” on page 1083 for a description of *command*. See the z/OS Communications Server: IP and SNA Codes for a description of *state*.

**System action:** VTAM rejects the command.

**Operator response:** Use the DISPLAY ID command to monitor the progress of *nodename*. When processing is completed, enter the commands required to obtain the network configuration or device state required.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST383I DEACTIVATION OF ID = nodename FAILED — REQUEST: request SENSE: code

Explanation: VTAM cannot complete deactivation of nodename because request has failed with a sense code of code. See Chapter 16, “Command and RU types in VTAM messages,” on page 1083 for a description of request. See the z/OS Communications Server: IP and SNA Codes for a description of code.

System action: VARY deactivate processing for nodename is pending. The node is not available to VTAM.

Operator response: Enter a VARY INACT,TYPE=FORCE command to deactivate the node. If the problem persists, save the system log for problem determination.

System programmer response: Use the output provided and the description of code to assist in determining the cause of the problem.
Routing code: 2
Descriptor code: 5

IST384I command FOR ID = nodename FAILED

Explanation: VTAM issues this message when processing of the command for nodename failed. For example, a deactivate command failed because no storage was available to continue.

nodename is the name of the resource and is either an NCP or logical unit (LU).

System action: VTAM rejects the command.

Operator response:
• If message IST383I or IST1268I precedes this message, enter a VARY INACT,TYPE=FORCE command to deactivate the resource.
• If this is a storage problem, messages IST561I, IST562I, IST563I, IST564I, IST565I or IST566I may be issued prior to this message to indicate the type of storage affected. If message IST467I is displayed with contacted error type 5, see the programmer response of that message for additional information.

Issue the DISPLAY BFRUSE command to display storage used by VTAM buffer pools and information about the common service area (CSA). Total VTAM private storage information is also displayed in message IST981I. Issue the DISPLAY STORUSE command to display storage usage for storage pools.

Save the system log and request a dump for problem determination.

System programmer response: For a storage problem, verify that the operator entered the buffer pool or CSA start options as specified in the start procedures.

Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA start options. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx), and restart VTAM to use the start option.

See z/OS Communications Server: SNA Operation for more information on the DISPLAY BFRUSE, DISPLAY STORUSE, and MODIFY VTAMOPTS commands. The z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures provides additional information.

See the z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.
Routing code: 2
Descriptor code: 5
IST388I  DYNAMIC CDRSC DEFINITION SUPPORT = {YES | NO}

Explanation: VTAM issues this message in response to a DISPLAY ID command for a host cross-domain resource manager. This message indicates whether the named host will process session initialization requests from cross-domain resources that are not explicitly defined to the host. If you specified CDRDYN=YES on the host CDRM definition statement, the host will support sessions for dynamically defined resources.

A value of YES in this message combined with a value of OPT in message IST389I means that VTAM will build a dynamic CDRSC entry if necessary.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 8

Descriptor code: 5

IST389I  PREDEFINITION OF CDRSC = {OPT | REQ}

Explanation: VTAM issues this message in response to a DISPLAY ID command for an external CDRM. It indicates whether explicit definition of the CDRM's CDRSCs is optional or required.

A value of OPT in this message combined with a value of YES in message IST388I means that VTAM will build a dynamic CDRSC entry, if necessary, when it initiates a session.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 8

Descriptor code: 5

IST391I  ADJ LINK STATION = linkstation, LINE = linkname, NODE = majornode

Explanation: This message is part of the output from a DISPLAY ID command entered for a PU type 4 (NCP) major node. This message describes the attachment of the displayed NCP.

linkstation is the adjacent link station.

linkname is the connecting link.

majornode is the major node that the link is defined in. For a leased station, majornode is also the major node that the link station is defined in.

linkname and majornode will be ***NA*** if the link station is not defined in an active major node.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 8

Descriptor code: 5

IST393I  PU T4/5 MAJOR NODE majornode, SUBAREA = subarea

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY STATIONS command. It identifies a PU type 4 (NCP) major node majornode or a PU type 5 (host) major node majornode for which associated link stations will subsequently be listed. subarea is the subarea address of majornode.

System action: Processing continues.

Operator response: None.
System programmer response: None.
Routing code: 8
Descriptor code: 5

IST394I · IST396I

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY STATIONS command. This message serves as a heading for message IST395I, which will appear as many times as necessary.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 8
Descriptor code: 5

IST395I

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY STATIONS command. It lists, for a given PU type 4 or PU type 5 major node, the unowned adjacent link stations that are awaiting activation. Each variable linkstation represents an adjacent link station.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 8
Descriptor code: 5

IST396I

Explanation: VTAM issues this message as part of a group of messages in response to the following commands:

DISPLAY ID command for a link station and the associated line
- Shows the link station and the associated line.

DISPLAY ID command for a line that has one or more associated link stations
- Message IST397I is issued for each link station associated with the line. Message IST610I is not issued.

DISPLAY STATIONS command
- Shows all of the link stations in each PU type 4 and PU type 5 major node. Messages IST397I and IST610I are repeated for each link station line pair. Message IST610I displays the line name linename and its status linestatus.

A complete description of the message group follows.

IST396I LNKSTA STATUS CTG GTG ADJNODE ADJSA NETID ADJLS

IST397I linkstation status ctg gtg adjnode adjsa netid adjls

IST610I LINE linename - STATUS linestatus]

The following fields are displayed in the messages:

linkstation  Link station name.
status     Link station status. See the z/OS Communications Server: IP and SNA Codes for a description of status.
ctg        Current transmission group.
gtg        Generated transmission group.
adjnode
Adjacent PU type 4 or 5, if available. (This is blank if this is a migration NCP or a VTAM to VTAM connection.)

adjsa
Subarea associated with adjacent PU type 4 or 5. (This is 0 if not known.)

netid
The name of the network of the associated PU type 4 or 5.

adjls
The name of the adjacent link station if known.

linename
Line name (associated with link station).

linestatus
Status of line linename. See the z/OS Communications Server: IP and SNA Codes for a description of status.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 8
Descriptor code: 5

IST397I

IST399E

IST397I

IST398I

IST399E
Routing code:  2
Descriptor code:  3
Chapter 6. IST messages for VTAM network operators IST400I – IST799I

This chapter lists the VTAM messages beginning with IST in the range of IST400I through IST799I. These messages can appear on a network operator’s console.

See Appendix E, “Message text for VTAM operator messages,” on page 1177 for a list of the text of all VTAM operator messages.

Note: Messages that begin with the prefix ISTF are issued by the VTAM dump analysis tool and the VTAM internal trace (VIT) analysis tool. Help information is available as a part of each tool by pressing F1. Therefore, ISTF messages are not documented in z/OS Communications Server: SNA Messages. See z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures for additional information.

IST400I TERMINATION IN PROGRESS FOR APPLID applname

Explanation: The VTAM termination task is about to close the ACB of VTAM application ACBNAME with the applname, which has terminated (either normally or abnormally).

applname is the ACBNAME if ACBNAME is coded in the APPL definition. If ACBNAME is not coded, applname is the NAME as coded on the APPL definition statement.

System action: Processing continues.

Operator response: Any attempts to reopen the ACB for applname before VTAM issues message IST805I will fail. If you do not see message IST805I, save the system log for problem determination.

System programmer response: See the z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures for more information on diagnosing VTAM problems.

Routing code: 2
Descriptor code: 5

IST401I command INITIATED FOR ID = nodename

Explanation: VTAM has successfully started the command for resource nodename.

See Chapter 16, “Command and RU types in VTAM messages,” on page 1083 for a description of command.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2
Descriptor code: 5

IST403I command COMMAND FAILED — MULTIPLE OPTIONS FOR operand_name NOT ALLOWED

Explanation: The command failed because VTAM does not accept multiple values for operand operand_name.

System action: VTAM rejects the command. Other processing continues. If command is START, VTAM prompts the operator for corrections. Processing continues.

Operator response: Reenter the command, and specify only one option for command. See the z/OS Communications Server: SNA Resource Definition Reference for the format of the VTAM start options.
IST410I • IST412I

System programmer response: None.
Routing code: 2
Descriptor code: 5

IST410I  bp BUFFER POOL COULD NOT BE BUILT — CODE code

Explanation: VTAM could not build the bp buffer pool.
bp is the name of the buffer pool. See the z/OS Communications Server: SNA Network Implementation Guide for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
code indicates the reason for the failure and can be one of the following:
 2  Pages could not be fixed in storage.
 3  Building the pool would exceed the CSALIMIT or CSA24 limit.
4-99 GETMAIN failure return code. See the z/OS MVS Programming: Authorized Assembler Services Reference EDT-IXG for more information.

System action: VTAM start processing fails. VTAM is terminated.
Operator response: Save the system log and request a dump for problem determination.
System programmer response: Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA start options by modifying the VTAM start options file (ATCSTRxx) before restarting VTAM.
See the z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

Routing code: 1
Descriptor code: 5

IST411I  command COMMAND REJECTED DUE TO TERMINATION IN PROGRESS

Explanation: VTAM rejected the command because termination is in progress.
System action: VTAM termination processing continues.
Operator response: If you did not halt VTAM, have the system log available for problem determination action.
System programmer response: If VTAM was not halted by issuing the HALT command, use the system log to help you determine why HALT was in progress.

Routing code: 2
Descriptor code: 5

IST412I  VTAM COMMAND PROCESSING TERMINATED

Explanation: VTAM is in the process of terminating, and rejects any commands that are entered during termination.
System action: VTAM termination processing continues.
Operator response: None.
System programmer response: None.

Routing code: 2
Descriptor code: 5
**IST413I** VTAM DUMPING FOR JOB jobname STEP stepname

**Explanation:** VTAM has encountered a problem with the indicated job jobname and step stepname. The system will attempt an SDUMP.

**System action:** Processing continues. VTAM takes a dump if the system dump data set is usable at this time. If VTAM successfully initiates the SDUMP, the performance for other jobs might be degraded until VTAM completes the SDUMP.

**Operator response:** Save the system log and the contents of the SDUMP for problem determination.

**System programmer response:** Review the contents of the SDUMP to determine the correct problem determination action. If the SVC dump failed, message IST257I might have been issued and can be found in the system or network log. If no SVC dump was written to a dump data set, check the system log for write to operator with reply (WTOR) system message IEA793A. The message indicates that no dump data sets are available and that MVS dump services is waiting for operator action to free up a dump data set.

**Routing code:** 2

**Descriptor code:** 5

---

**IST414I** command FOR ID = nodename FAILED — PROCESS UNAVAILABLE

**Explanation:** VTAM issues this message when the command failed because nodename is not active. See Chapter 16, “Command and RU types in VTAM messages,” on page 1083 for a description of command.

Either of the following conditions might have occurred.

- A forced deactivate command was entered for nodename, and the resource is already inactive.
- A forced reactivate command was entered for nodename. The resource is being activated, but the activate processing has not proceeded far enough.

**System action:** VTAM stops processing command.

**Operator response:** Ensure that you entered the command for the correct node. If so, save the system log for problem determination.

**System programmer response:** Use the system log to assist you in correcting the problem. When you have corrected the error condition, ask the operator to reenter the command.

**Routing code:** 2

**Descriptor code:** 5

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**IST416I** SDUMP ISSUED DUE TO ADDRESS SPACE TERMINATION

**Explanation:** An abend has occurred in the VTAM address space.

**System action:** The minimum cleanup required for a restart of VTAM will be performed. A dump is taken if the system-dump data set is usable.

**Operator response:** Save the system log and dump for problem determination.

**System programmer response:** Review the contents of the SDUMP for problem determination.

**Routing code:** 2, 8

**Descriptor code:** 4

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**IST422I** I/O ERROR ON DS datasetname RTN CD = major, minor

**Explanation:** An I/O error occurred on the checkpoint data set datasetname. major and minor are major and minor return codes from VSAM.

**System action:** VTAM terminates checkpointing.

**Operator response:** Save the system log for problem determination.

**System programmer response:** This is probably a hardware error. Consult the applicable VSAM documentation for appropriate responses.
IST423I • IST425I

If this message is issued with RTNCD=X'0808' and datasetname specifies the NODELST data set or the CONFIGDS data set, then verify that the VSAM CLUSTER definition is correct. The KEYS parameter of the CLUSTER definition must specify the correct key length as stated in the z/OS Communications Server: SNA Network Implementation Guide.

Routing code: 2
Descriptor code: 5

IST423I UNABLE TO GET STORAGE FOR DS name

Explanation: VSAM was unable to obtain VTAM private storage for the checkpoint data set identified by name.

System action: VTAM terminates checkpointing.

Operator response: If VTAM has been initialized, wait a short time and reenter the command. If VTAM continues to issue this message, enter the DISPLAY STORUSE command to display storage usage for storage pools. Message IST981I displays total VTAM private storage information. If this message does not appear in the display, you might need to reissue the DISPLAY STORUSE command, specifying a higher value for the NUM operand. See z/OS Communications Server: SNA Operation for additional information. Save the system log and request a dump for problem determination.

If VTAM initialization failed, save the system log for problem determination.

System programmer response: Check the output provided by the operator to ensure that all requirements for VTAM are correct for your system. Re-evaluate your storage needs for the VTAM address space and increase storage as required. To restart checkpointing, halt and restart VTAM.

See the z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

Routing code: 2
Descriptor code: 5

IST424I CLOSE FAILED ON DS name RTN CD = major, minor

Explanation: The VSAM CLOSE function failed for the major node checkpoint data set or book identified by name. The major return code from VSAM (major) is register 15. The minor return code from VSAM (minor) is ACBERFLG.

System action: VTAM terminates checkpointing.

Operator response: Save the system log for problem determination.

System programmer response: This is probably a hardware error. Consult the applicable VSAM documentation for further appropriate responses.

Routing code: 2
Descriptor code: 5

IST425I OPEN FAILED ON DS name RTN CD = major, minor

Explanation: The VSAM OPEN function failed for the major node checkpoint data set or book identified by name. The major return code from VSAM (major) is register 15. The minor return code from VSAM (minor) is ACBERFLG.

System action: VTAM terminates checkpointing.

Operator response: Save the system log for problem determination.

System programmer response: Consult the applicable VSAM documentation for further responses. To avoid this problem, use the VERIFY operation as a regular part of the VTAM start routine to ensure that the data set is properly closed. Consult the applicable VSAM documentation for further appropriate responses.

Routing code: 2
Descriptor code: 5

z/OS V2R1.0 Communications Server: SNA Messages
IST430I  runame FOR ID = nodename DISCARDED

Explanation: VTAM did not process the runame for node nodename because there was insufficient storage available to process the recovery of the node.

See Chapter 16, "Command and RU types in VTAM messages," on page 1083 for a description of runame.

System action: Node nodename might appear active to VTAM, but it cannot process any requests. Any logical units associated with this node are inaccessible.

Operator response: Enter a DISPLAY ID command for nodename. If nodename is still active, enter a VARY INACT,TYPE=FORCE command for nodename to deactivate the node. Then enter VARY ACT,ID=nodename to reactivate it.

If VTAM continues to issue this message, enter the DISPLAY BFRUSE command. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and dump for problem determination.

System programmer response: Verify that the operator entered the buffer pool or CSA start options as specified in the start procedures.

Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA limits. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

• See the z/OS Communications Server: New Function Summary to determine the storage requirements for VTAM.
• See the z/OS Communications Server: SNA Resource Definition Reference for a description of VTAM start options.
• See z/OS Communications Server: SNA Operation for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
• See the z/OS Communications Server: SNA Network Implementation Guide for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
• See the z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

Routing code: 2
Descriptor code: 5

IST433I  COMMAND REJECTED — TUNING STATISTICS TASK NOT ATTACHED

Explanation: VTAM rejected a MODIFY TNSTAT command because tuning statistics support is not part of the system. During VTAM initialization, the attempt to start the tuning statistics subtask failed.

System action: System processing continues.

Operator response: Tuning statistics cannot be collected at this time.

System programmer response: If you want to collect tuning statistics, determine and correct the reason for the failure to start the VTAM tuning statistics subtask.

Routing code: 2
Descriptor code: 5

IST435I  UNABLE TO RECORD ON TUNSTATS FILE, RETURN CODE = code

Explanation: An error occurred when the tuning statistics subtask, ISTINCTS, tried to open or write to the tuning statistics file.

ISTINCTS, is active in VTAM, but failed to write a tuning statistics record to the system management facility (SMF) data set.

code is a reason code, in decimal, that indicates why the write attempt failed. For explanations of the reason codes, see the return codes from the SMFWTM macro located in z/OS MVS System Management Facilities (SMF).

System action: The tuning statistics record is lost. System processing continues.

Operator response: Save the system log for problem determination.

System programmer response: For the appropriate responses to code, see the return codes from the SMFWTM macro
IST436I • IST440I

located in [z/OS MVS System Management Facilities (SMF)]

Routing code: 2
Descriptor code: 5

IST436I STORAGE NOT AVAILABLE FOR TUNING STATISTICS DATA

Explanation: The tuning statistics subtask, ISTINCTS, is active in VTAM, and no storage was available to temporarily store a tuning statistics record.

System action: VTAM will include the data in the record in the next tuning statistics record. System processing continues.

Operator response: Wait a short time and reenter the command. If VTAM continues to issue this message, enter the DISPLAY BFRUSE command. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and dump for problem determination.

System programmer response: Verify that the operator entered the buffer pool or CSA start options as specified in the start procedures.

Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA limits. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

- See the [z/OS Communications Server: New Function Summary] to determine the storage requirements for VTAM.
- See the [z/OS Communications Server: SNA Resource Definition Reference] for a description of VTAM start options.
- See [z/OS Communications Server: SNA Operation] for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- See the [z/OS Communications Server: SNA Network Implementation Guide] for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
- See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT] for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

Routing code: 2
Descriptor code: 5

IST440I TIME = time DATE = date ID = id

Explanation: This message is the first in a group of messages that displays tuning statistics for a SNA controller. A complete description of the message group follows.

IST440I TIME = time DATE = date ID = id
IST441I DLRMAX = dlrmax CHWR = chwr CHRD = chrd
IST442I ATTN = attn RdATN = rdatn IPDU = ipdu
IST443I OPDU = opdu RDBUF = rdbuf SLODN = slodn
IST1568I INLP = inlp ONLP = onlp BFNLP = bfnlp
IST314I END

IST440I

time indicates the time (in hours, minutes, seconds, and hundredths of seconds) at which the record is recorded. For example, 07431380 means that the record was recorded at the 7th hour, 43rd minute, 13th second, and 80 one-hundredths of a second of the day.

date is the date on which the tuning statistics report is recorded. The date is in the form yyddd, where yy is the last two digits of the numeric year and dddd is the numeric day of the year. For example, 00190 means the record is recorded on the 190th day of 2000.

id is the name of the user-defined channel-attached SNA cluster controller or the name of the channel link that attaches the communication controller for which the statistics are gathered. For a VTAM-generated channel-link name, this field contains the channel unit address followed by “-L.”
dlrmax is a decimal value that indicates the maximum number of dump-load-restart requests that were awaiting processing or were being processed at one time during the interval. This number refers to the entire domain, not to the SNA controller named in the report. The dump-load-restart subtask processes the following types of requests:
- Dump, load, or restart of an NCP
- Some VTAM messages to the operator that require a reply
- Session establishment and termination processing for a local major node
- Any I/O to a configuration restart or NODELST file.

This value can be used to determine the proper setting for the DLRTCB start option, which determines how many dump-load-restart requests can be processed concurrently. If DLRMAX consistently exceeds DLRTCB, it indicates that VTAM is serializing requests on the available TCBs and that performance might be affected.

chwr is a decimal value that indicates the total number of write channel programs issued during the interval covered by this record.

chrd is a decimal value that indicates the total number of read channel programs issued to read data. It does not include the read that informs the cluster controller to clear its buffers.

attin is a decimal value that indicates the total number of attention interrupts received from a controller, including the total number of READ ATTENTIONs (RDATN).

rdattn is a decimal value that indicates the total number of times that the attention is included in the ending status on a read channel program (that is, the number of times that VTAM, after reading data, is requested with an attention to read more data).

iptu is a decimal value that indicates the total number of inbound (to VTAM) PDUs received from this controller.

opdu is a decimal value that indicates the total number of outbound (from VTAM) PDUs sent to this controller.

rdbuf is a decimal value that indicates the total number of read buffers used.

slodn is a decimal value that indicates the total number of times the controller has entered a slowdown condition; for NCP, this is the number of times the CWALL buffer threshold has been reached.

Note: The SLODN field is not related to message IST211I. This message is issued at a threshold value greater than CWALL.

inlp is a decimal value that indicates the total number of inbound (to VTAM) NLPs received from this controller.

onlp is a decimal value that indicates the total number of outbound (from VTAM) NLPs sent to this controller.

bfonlp is a decimal value that indicates the total number of bytes read from inbound NLPs.

System action: Processing continues.

Operator response: Follow the instructions of the system programmer to tune the system. To discontinue statistics recording, enter the MODIFY NOTNSTAT command.

System programmer response: For additional information on tuning and analyzing tuning statistics, see the z/OS Communications Server: SNA Network Implementation Guide

Routing code: 2
Descriptor code: 4

IST441I

DLRMAX = dlrmax CHWR = chwr CHRD = chrd

Explanation: VTAM issues this message as part of a message group. The first message in the group is IST440I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 4
**IST442I • IST448I**

**IST442I**  
**ATTN** = **attn**  
**RDATN** = **rdtn**  
**IPDU** = **ipdu**

**Explanation:** VTAM issues this message as part of a message group. The first message in the group is IST440I. See the explanation of that message for a complete description.

**Routing code:** 2  
**Descriptor code:** 4

**IST443I**  
**OPDU** = **opdu**  
**RDBUF** = **rdbuf**  
**SLODN** = **slodn**

**Explanation:** VTAM issues this message as part of a message group. The first message in the group is IST440I. See the explanation of that message for a complete description.

**Routing code:** 2  
**Descriptor code:** 4

**IST447I**  
**BUFFER SIZE WAS IGNORED FOR ONE OR MORE POOLS**

**Explanation:** VTAM issues this message when the programmer specified the buffer size in a pool that does not allow buffer size specification. You might specify only the IOBUF buffer size.

**System action:** The incorrect buffer size was ignored. The default size was used. VTAM start procedure continues.

**Operator response:** Save the system log for problem determination.

**System programmer response:** Specify the size of the buffer for IOBUF.

**Routing code:** 2  
**Descriptor code:** 4

**IST448I**  
**option** **OPTION IGNORED – reason**

**Explanation:** VTAM issues this message during processing of VTAM start options or in response to a DISPLAY VTAMOPTS or MODIFY VTAMOPTS command when an error is encountered while processing **option**.

**option** is the name of the start option that was ignored.

**reason** indicates the reason for the problem and is determined by when the error occurred.

- If the error occurred during the processing of VTAM start options, **reason** can be one of the following:

  **COUPLING FACILITY NOT SUPPORTED**
  The coupling facility is not supported by the current version of MVS. There is no active CFRM policy or no CFRM data set.

  **CPC IS NOT A MEMBER OF AN ENSEMBLE**
  The central processing complex (CPC) is not configured as a member of an ensemble network.

  **HARDWARE SUPPORT NOT AVAILABLE**
  The required hardware support associated with this option is not available.

  **HPR FUNCTION NOT SUPPORTED**
  This start option requires the NODETYPE to be NN.

  **HPR PATH SWITCH NOT SUPPORTED**
  This start option requires the specification of HPR=RTP.

  **INSUFFICIENT STORAGE**
  There was insufficient common or private storage to process this start option.

  **LLINES NO LONGER SUPPORTED**
  This value (LLINES) for the OSITOPO start option is not supported by the current version of VTAM.

  **NO LONGER SUPPORTED**
  This start option is not supported by the current version of VTAM.

  **NOLLINES NO LONGER SUPPORTED**
  This value (NOLLINES) for the OSITOPO start option is not supported by the current version of VTAM.
NOT A USS TABLE
The table identified by the USSTAB start option is not a USS table.

NOT VALID DUE TO HPR CAPABILITY
This start option requires the specification of HPR=RTP.

RESULTING STRUCTURE NAME TOO LONG
Either the MNPS structure name specified by the STRMNPS start option or the Generic Resource structure name specified by the STRGR start option is too long (longer than 14 characters) to be suffixed by the XCFGRPID value specified.

VALID ONLY FOR ICN
This start option is valid only for an interchange network node.

VALID ONLY FOR ICN OR MDH
This start option is valid only for an interchange network node or migration data host.

VALID ONLY FOR NETWORK NODE OR MDH
This start option is valid only for a network node or migration data host. It is not valid for an end node that supports only APPN functions.

XCF NOT SUPPORTED
Either the sysplex is unavailable or you are running with a level of MVS that does not support XCF.

If the error occurred in response to a DISPLAY VTAMOPTS command, reason can be one of the following:

CANNOT BE DISPLAYED
This start option is not valid on the DISPLAY VTAMOPTS command.

HAS NOT BEEN MODIFIED
This start option cannot be displayed because FORMAT=MODIFIED was specified on the command, and this start option has not been modified since VTAM was initialized.

UNRECOGNIZED OPTION
option is not a valid VTAM start option.

If the error occurred in response to a MODIFY VTAMOPTS command, reason can be one of the following:

CANNOT BE MODIFIED
This start option is not valid on the MODIFY VTAMOPTS command.

CANNOT VERIFY IF CONFLICT EXISTS
This start option cannot be modified because VTAM is unable to verify if the start option is in conflict with other start options specified on the MODIFY command. VTAM can process up to eight conflicting start options on a MODIFY VTAMOPTS command. If more than eight are specified, VTAM cannot verify whether a conflict actually exists.

CPC IS NOT A MEMBER OF AN ENSEMBLE
The central processing complex (CPC) is not configured as a member of an ensemble network.

EE XCA MAJOR NODE MUST BE INACTIVE
This start option cannot be modified while the XCA major node representing Enterprise Extender connections is active.

HARDWARE SUPPORT NOT AVAILABLE
The required hardware support associated with this option is not available.

INSUFFICIENT STORAGE
There was insufficient private storage to process this start option.

IPADDR OBTAINED FROM TCP STACK
This start option cannot be modified because VTAM has acquired the local IP address to use for all Enterprise Extender connections from the TCP/IP stack.

LLINES NO LONGER SUPPORTED
This value (LLINES) for the OSITOPO start option is not supported by the current version of VTAM.

NOLLINES NO LONGER SUPPORTED
This value (NOLLINES) for the OSITOPO start option is not supported by the current version of VTAM.
SAWDATA REQUIRES SAW DATA FILTER
   This value (SAWDATA) for the SAVERSCV start option is not valid on the MODIFY VTAMOPTS command because there is not an active SAW filter table.

SPECIFIED VALUE NOT VALID
   The specified value for this start option is not a valid value for this option.

UNRECOGNIZED OPTION
   option is not a valid VTAM start option.

VALID ONLY FOR A NETWORK NODE
   This start option is not valid on the MODIFY VTAMOPTS command because it applies only to a network node configuration. This VTAM must be configured as a network node in order for this start option to be modifiable.

VALID ONLY FOR AN APPN NODE
   This start option is not valid on the MODIFY VTAMOPTS command because it applies only to an APPN configuration. This VTAM must be configured as a network node, interchange node, end node, or migration data host in order for this start option to be modifiable.

VALID ONLY FOR AN END NODE OR MDH
   This start option is only valid at end nodes and migration data hosts (MDH).

VALID ONLY FOR ICN
   This start option is not valid on the MODIFY VTAMOPTS command because it applies only to an interchange network node configuration.

VALID ONLY FOR ICN OR MDH
   This start option is not valid on the MODIFY VTAMOPTS command because it applies only to an interchange network node or migration data host configuration.

VALID ONLY FOR NETWORK NODE OR MDH
   This start option is not valid on the MODIFY VTAMOPTS command because it applies only to a network node or migration data host configuration. It is not valid for an end node that supports only APPN functions. This VTAM must be configured as a network node or migration data host in order for this start option to be modifiable.

System action:
- Processing of VTAM start options
  - If reason is STRUCTURE NOT DEFINED, a connection attempt will not be made to the coupling facility structure. VTAM initialization continues.
  - If reason is NOT A USS TABLE, VTAM uses the IBM-supplied default USS table.
  - If reason is LLINES NO LONGER SUPPORTED, or NOLLINES NO LONGER SUPPORTED, VTAM will ignore this value for OSITOPO. If other values have been specified for OSITOPO, they will be processed.
  - For all other reasons, VTAM ignores this start option, but the processing of VTAM start options continues.

- DISPLAY VTAMOPTS command
  - VTAM does not display this start option.

- MODIFY VTAMOPTS command
  - VTAM ignores this start option. If there are other valid options specified on the MODIFY VTAMOPTS command, processing of the command continues.

Operator response:
- Processing of VTAM start options
  - For INSUFFICIENT STORAGE, if VTAM has been initialized, wait a short time and reenter the command. If VTAM continues to issue this message, enter the DISPLAY BFRUSE command to display information about the common storage area. Total VTAM private storage information is also displayed in message IST981I. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and request a dump for problem determination.
    If VTAM initialization failed, save the system log for problem determination.
– For **STRUCTURE NOT DEFINED**, check the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option. The value is the name of a coupling facility structure. If the value is incorrect, restart VTAM with the correct value. If the value is correct, the structure has not been defined in the active CFRM policy. Provide the structure name to the system programmer.
– For all other **reasons**, save the system log for problem determination.

Provide the start options used to start VTAM.

• **DISPLAY VTAMOPTS command**
  – For **CANNOT BE DISPLAYED** or **UNRECOGNIZED OPTION**, ensure that you entered *option* correctly. See [z/OS Communications Server: SNA Operation](https://www.ibm.com/support/knowledgecenter/SSFKQS_8.2.3/com.ibm.zos.v1r12.sna-op.doc/nt516wm5.html) to check options that are valid for the DISPLAY VTAMOPTS command.

• **MODIFY VTAMOPTS command**
  – For **CANNOT VERIFY IF CONFLICT EXISTS**, issue multiple MODIFY VTAMOPTS commands with a single start option specified instead of issuing a single MODIFY VTAMOPTS with multiple start options specified. In particular, do not specify two or more conflicting start options on the MODIFY command. See the [z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com/support/knowledgecenter/SSFKQS_8.2.3/com.ibm.zos.v1r12.rdf.doc/nt542wm5.html) and [z/OS Communications Server: SNA Operation](https://www.ibm.com/support/knowledgecenter/SSFKQS_8.2.3/com.ibm.zos.v1r12.sna-op.doc/nt516wm5.html) for details about start option conflicts when specified on MODIFY VTAMOPTS.
  – For **EE XCA MAJOR NODE MUST BE INACTIVE** and **IPADDR OBTAINED FROM TCP STACK**, the XCA major node that represents the Enterprise Extender connections must be inactive before this start option can be modified. Issue VARY INACT,ID=XCA_majornode_name to deactivate the XCA major node if the start option modification must be made immediately; otherwise, wait for all Enterprise Extender connections to end and then issue the VARY INACT command.
  – For **INSUFFICIENT STORAGE**, wait a short time and reenter the command. If VTAM continues to issue this message, enter the DISPLAY BFRUSE command to display information about total VTAM private storage. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and request a dump for problem determination.
  – For **SPECIFIED VALUE NOT VALID**, ensure that you entered *option* correctly. See [z/OS Communications Server: SNA Operation](https://www.ibm.com/support/knowledgecenter/SSFKQS_8.2.3/com.ibm.zos.v1r12.sna-op.doc/nt516wm5.html) to check values that are valid for this start option.
  – For **UNRECOGNIZED OPTION**, ensure that you entered *option* correctly. See [z/OS Communications Server: SNA Operation](https://www.ibm.com/support/knowledgecenter/SSFKQS_8.2.3/com.ibm.zos.v1r12.sna-op.doc/nt516wm5.html) to check options that are valid for the MODIFY VTAMOPTS command.
  – For **VALID ONLY FOR A NETWORK NODE**, save the system log for problem determination. Message IST1348I is issued during VTAM initialization and in response to the DISPLAY VTAMOPTS command and displays the node type of this VTAM.

If node type in message IST1348I is **NETWORK NODE** or **INTERCHANGE NODE**, this VTAM is a network node.

– For **VALID ONLY FOR AN APPN NODE**, save the system log for problem determination. Message IST1348I is issued during VTAM initialization and in response to the DISPLAY VTAMOPTS command and displays the node type of this VTAM.

If node type in message IST1348I is **END NODE**, **INTERCHANGE NODE**, **MIGRATION DATA HOST**, or **NETWORK NODE**, this VTAM is an APPN node. Otherwise, this node is a **SUBAREA NODE**.

– For **VALID ONLY FOR ICN**, save the system log for problem determination. Message IST1348I is issued during VTAM initialization and in response to the DISPLAY VTAMOPTS command and displays the node type of this VTAM.

If node type in message IST1348I is **INTERCHANGE NODE**, this start option can be modified in this VTAM.

– For **VALID ONLY FOR ICN OR MDH**, save the system log for problem determination. Message IST1348I is issued during VTAM initialization and in response to the DISPLAY VTAMOPTS command and displays the node type of this VTAM.

If node type in message IST1348I is **INTERCHANGE NODE**, or **MIGRATION DATA HOST**, this start option can be modified in this VTAM.

– For **VALID ONLY FOR NETWORK NODE OR MDH**, save the system log for problem determination. Message IST1348I is issued during VTAM initialization and in response to the DISPLAY VTAMOPTS command and displays the node type of this VTAM.

If node type in message IST1348I is **NETWORK NODE**, **INTERCHANGE NODE**, or **MIGRATION DATA HOST**, this start option can be modified in this VTAM.

**System programmer response:**

• Processing of VTAM start options
IST449I

– For **HPR FUNCTION NOT SUPPORTED**, stop VTAM, modify the NODETYPE start option to specify NN, and restart VTAM.
– For **HPR PATH SWITCH NOT SUPPORTED**, stop VTAM, modify the HPR start option to specify RTP, and restart VTAM.
– For **INSUFFICIENT STORAGE**, increase storage as required. You can modify the CSALIMIT and CSA24 start options using the **MODIFY VTAMOPTS** command.
– For **NOT A USS TABLE**, supply the operator with the name of a valid USS table. The **MODIFY TABLE** command can be entered with ID=ISTNOP to change the USS table used for operator messages and commands.
– For **NOT VALID DUE TO HPR CAPABILITY**, stop VTAM, modify the HPR start option to specify RTP, and restart VTAM.
– For **RESULTING STRUCTURE NAME TOO LONG**, specify a shorter (less than 15 characters) name on the STRGR or STRMNPS start option keyword, and add a structure definition to the active CFRM policy for the structure name suffixed by each of the possible subplex (XCFGRPID) values.
– For **STRUCTURE NOT DEFINED**, define the structure name in the active CFRM policy. See [z/OS MVS Setting Up a Sysplex](https://www.ibm.com/support/knowledgecenter/SSDYJM_2.15.0/com.ibm.zos.v2r1.mvs.smp/xref/r00028019.html) for more information on how to define a structure in the CFRM policy.

**DISPLAY VTAMOPTS command**

– None.

**MODIFY VTAMOPTS command**

– For **EE XCA MAJOR NODE MUST BE INACTIVE** and **IPADDR OBTAINED FROM TCP STACK**, specify the start option in the start option list used to activate VTAM.
– For **INSUFFICIENT STORAGE**, increase storage as required.
– For **VALID ONLY FOR A NETWORK NODE**, review the system log to correct the command issued and the definition statements (if appropriate). To configure this VTAM as a network node, you must specify NODETYPE=NN during start processing.
– For **VALID ONLY FOR AN APPN NODE**, review the system log from the operator to correct the command issued and the definition statements (if appropriate). To configure this VTAM as an APPN node, you must specify NODETYPE=NN or NODETYPE=EN during start processing.
– For **VALID ONLY FOR ICN**, review the system log from the operator to correct the command issued and the definition statements (if appropriate). To configure this VTAM as an interchange network node, you must specify NODETYPE=NN, HOSTSA=n, and SACONNS=YES during start processing.
– For **VALID ONLY FOR ICN OR MDH**, review the system log from the operator to correct the command issued and the definition statements (if appropriate). To configure this VTAM as an interchange network node, you must specify NODETYPE=NN, HOSTSA=n, and SACONNS=YES during start processing. To configure this VTAM as a migration data host, you must specify NODETYPE=EN, HOSTSA=n, and SACONNS=YES during start processing.
– For **VALID ONLY FOR NETWORK NODE OR MDH**, review the system log from the operator to correct the command issued and the definition statements (if appropriate). To configure this VTAM as a network node, you must specify NODETYPE=NN during start processing. To configure this VTAM as a migration data host, you must specify NODETYPE=EN, HOSTSA=n, and SACONNS=YES during start processing.

Routing code: 2
Descriptor code: 5

### IST449I  

**limitname = csa, CURRENT = current, MAXIMUM = maxlevel**

**Explanation:** This message is the first in a group of messages that VTAM issues in response to a **DISPLAY BFRUSE** command. This message displays information about VTAM common service area (CSA) usage. A complete description of the message follows.

IST449I  

IST790I  

IST1667I  

IST1831I  

[IST449I  

IST981I  

IST924I  

z/OS V2R1.0 Communications Server: SNA Messages
**Note:** Values are expressed in kilobytes.

**IST449I**

- `limitname` is either `CSALIMIT` (the request is to set the CSA limit) or `CSA24 LIMIT` (the request is to set the CSA limit for 24-bit addressable storage).
- `cسا` is the maximum amount of the particular type of CSA that VTAM can use for buffers. Limits are enforced on the requested amount of storage, but `cسا` can be `NO LIMIT`, which means VTAM can request as much as is available.
- `current` is the current VTAM CSA allocation for buffers.
- `maxlevel` is the largest CSA allocation level for buffers since the last DISPLAY BFRUSE command.

**IST595I**

- `irnlimit` is the maximum amount of VTAM storage that can be used for intermediate routing node slowdown traffic.
- `currentirn` is the amount of storage currently in use for intermediate routing node slowdown traffic.
- `maximumirn` is the largest allocation level since the last DISPLAY BFRUSE command.

**IST790I**

- `type` can be one of the following:
  - `CSA` 31-bit and 24-bit addressable common storage
  - `CSA24` 24-bit addressable common storage
- `maxK` is the maximum amount of `type` ever in use for buffers since VTAM was started.

**IST981I**

This message shows the private storage (both above and below the 16M line) that VTAM explicitly acquires (with GETMAIN).

- `currentK` is the amount of VTAM private storage currently in use. This does not include the amount of private storage required to load the VTAM modules.
- `maximumK` is the maximum amount of VTAM private storage ever in use since VTAM was started.

**IST1565I**

- `type` can be one of the following:
  - `CSA` 31-bit and 24-bit addressable common storage acquired for VTAM modules
  - `CSA24` 24-bit addressable common storage acquired for VTAM modules
  - `PRIVATE` Private storage used to load VTAM modules
- `currentK` is the current VTAM CSA/ECSA allocation for modules.

**IST1667I**

- `sys_csa_limit` is the maximum amount of system CSA and is determined by adding the total amount of CSA and ECSA defined in the system. The maximum amount that VTAM will use is derived by multiplying the `sys_csa_limit` by 0.9 (in other words, VTAM will never use more than 90 percent of the total CSA for the system). See z/OS Communications Server: SNA Resource Definition Reference for more information about how the system CSA limit relates to the CSALIMIT Start Option.

**IST1831I**

- `percent` is the percentage of system CSA plus Extended CSA available for use.
- `sys_csa_avail` is the current total amount of system CSA plus Extended CSA available for use.

**System action:** Processing continues.
IST450I • IST452I

Operator response: Inspect the data to determine whether further action is required.
If the current allocation is close to the limit, it might not be reasonable to begin significant modifications to the system configuration or workload. Save the system log for problem determination.

System programmer response: Review this data before making significant changes to the system configuration or workload. Use this data to ensure that storage requirements are being met and that CSA and private storage are being used effectively in the management of VTAM's storage resources.

Routing code: 8
Descriptor code: 5

IST450I  INVALID command COMMAND SYNTAX

Explanation: VTAM issues this message when the command has invalid syntax.
See Chapter 16, “Command and RU types in VTAM messages,” on page 1083 for a description of command. If VTAM cannot determine the command type because of the syntax error, the command field in this message will be blank.

System action: VTAM rejects the command.

Operator response: Reenter the command with the correct syntax. See z/OS Communications Server: SNA Operation for the correct syntax.

System programmer response: None.

Note: If you modify this message, you must specify MSG=(IST450I,1) on the USSMSG macro. This will define IST450I and USS message 1 to be identical in the operation-level USS table. See the z/OS Communications Server: SNA Resource Definition Reference for information on the USSMSG macro for VTAM operator messages.

Routing code: 2
Descriptor code: 5

IST451I  command COMMAND UNRECOGNIZED, PARAMETER=parameter

Explanation: VTAM issues this message when the command with the specified parameter is not supported on this operating system.
See Chapter 16, “Command and RU types in VTAM messages,” on page 1083 for a description of command.

System action: VTAM rejects the command.

Operator response: Reenter the command correctly. See z/OS Communications Server: SNA Operation for the correct syntax.

System programmer response: None.

Note: If you modify this message, you must specify MSG=(IST451I,2) on the USSMSG macro. This will define IST451I and USS message 2 to be identical in the operation-level USS table. See the z/OS Communications Server: SNA Resource Definition Reference for information on the USSMSG macro for VTAM operator messages.

Routing code: 8
Descriptor code: 5

IST452I  parameter PARAMETER EXTRANEOUS

Explanation: VTAM issues this message when an extraneous parameter parameter is specified for an operator command. The parameter might not be valid for the command because it might conflict with another parameter entered for the command.

Notes:
1. This message might be issued as the result of conflicting verbs being specified on the command. For example, ACT and INACT are conflicting verbs on the following command:
   V ACT,INACT,ID=name
2. The parameter might be valid for other combinations of parameters and resource types.
3. Parameters on the operator commands are not processed in the order they are provided in the command.
4. All positional parameters in a command that occur before the first positional keyword parameter will be labeled P<sub>x</sub>, starting with P<sub>1</sub>.

**System action:** VTAM rejects the command.

**Operator response:** Reenter the command correctly. See [z/OS Communications Server: SNA Operation](https://www.ibm.com/support/knowledgecenter/en/POWER7comsvc_610/zos9r3_snaopref.htm) for the correct syntax.

**System programmer response:** None.

**Note:** If you modify this message, you must specify MSG=(IST452I,3) on the USSMSG macro. This will define IST452I and USS message 3 to be identical in the operation-level USS table. See the [z/OS Communications Server](https://www.ibm.com/support/knowledgecenter/en/POWER7comsvc_610/zos9r3_snaopref.htm) SNA Resource Definition Reference for information on the USSMSG macro for VTAM operator messages.

**Routing code:** 8

**Descriptor code:** 5

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**IST453I**

**parameter** PARAMETER VALUE value NOT VALID

**Explanation:** VTAM issues this message when **parameter** was specified on an operator command and is not valid. **value** is the first 17 characters of the value specified for **parameter**. If no value is displayed for **value**, then the value of the parameter specified was of zero length (e.g. NETID=).

Possible reasons for this message include:

- If the value specified for **parameter** is a network name, the name might be undefined or the resource might be inactive.
- If the value specified for **parameter** is a network name, and IDTYPE was also specified on the command, this message can be displayed when:
  - The network name **parameter** does not exist.
  - The network name **parameter** might be correct, but does not exist with the IDTYPE that was specified on the command.

**Notes:**

1. The parameter might be valid for other combinations of parameters and resource types or might have been omitted when required.
2. Parameters on operator commands are not processed in the order they are entered on the command.

**System action:** The command is not executed.

**Operator response:** Ensure that you entered the command correctly. For additional information on commands and command syntax, see [z/OS Communications Server: SNA Operation](https://www.ibm.com/support/knowledgecenter/en/POWER7comsvc_610/zos9r3_snaopref.htm)

**System programmer response:** None.

**Note:** If you modify this message, you must specify MSG=(IST453I,4) on the USSMSG macro. This will define IST453I and USS message 4 to be identical in the operation-level USS table. See the [z/OS Communications Server](https://www.ibm.com/support/knowledgecenter/en/POWER7comsvc_610/zos9r3_snaopref.htm) SNA Resource Definition Reference for information on the USSMSG macro for VTAM operator messages.

**Routing code:** 8

**Descriptor code:** 5

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**IST454I**

**command** COMMAND FAILED, INSUFFICIENT STORAGE

**Explanation:** Not enough storage is available for successful processing of **command**. If VTAM cannot determine the command because of lack of storage, the **command** portion of the message will be null.

**System action:** VTAM rejects the command.

**Operator response:** Wait a short time and reenter the command. If VTAM continues to issue this message, enter the DISPLAY BFRUSE command. Issue the DISPLAY STORUSE command to display storage usage for storage pools.
Save the system log and request a dump for problem determination.

**System programmer response:** Verify that the operator entered the buffer pool or CSA start options as specified in the start procedures.

Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA limits. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

- See the [z/OS Communications Server: New Function Summary](https://www.ibm.com) to determine the storage requirements for VTAM.
- See the [z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com) for a description of VTAM start options.
- See the [z/OS Communications Server: SNA Operation](https://www.ibm.com) for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- See the [z/OS Communications Server: SNA Network Implementation Guide](https://www.ibm.com) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
- See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](https://www.ibm.com) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

**Note:** If you modify this message, you must specify MSG=(IST454I,8) on the USSMSG macro. This will define IST454I and USS message 8 to be identical in the operation-level USS table. See the [z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com) for information on the USSMSG macro for VTAM operator messages.

**Routing code:** 8  
**Descriptor code:** 5

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**IST455I**  
**parameters SESSIONS ENDED**

**Explanation:** VTAM ended LU-LU sessions as a result of the VARY TERM command. NOTIFY=YES was specified or was taken by default. **parameters** are the parameters from the VARY TERM command, and will always be network qualified. For example:  
LU1=NETC.APPC2 SESSIONS ENDED

**System action:** Processing continues.  
**Operator response:** None.  
**System programmer response:** None.

**Note:** If you modify this message, you must specify MSG=(IST455I,11) on the USSMSG macro. This will define IST455I and USS message 11 to be identical in the operation-level USS table. See the [z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com) for information on the USSMSG macro for VTAM operator messages.

**Routing code:** 2  
**Descriptor code:** 5

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**IST456I**  
**[keyword] REQUIRED PARAMETER OMITTED**

**Explanation:** VTAM issues this message when a required parameter is missing from an operator command. The **keyword** value might not be displayed.  
**keyword** is the name of the missing parameter, if known; otherwise, **keyword** is the name of the command that was not entered correctly.

**System action:** VTAM rejects the command.  
**Operator response:** Correct and reenter the command. See the [z/OS Communications Server: SNA Operation](https://www.ibm.com) for more information on VTAM commands and their parameters.  
**System programmer response:** None.

**Note:** If you modify this message, you must specify MSG=(IST456I,12) on the USSMSG macro. This will define IST456I and USS message 12 to be identical in the operation-level USS table. See the [z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com) for information on the USSMSG macro for VTAM operator messages.
IST457I POSITIVE command COMMAND RESPONSE

Explanation: VTAM has accepted the VARY TERM command command. Either no applicable sessions exist or session termination will be performed for all applicable sessions as requested. In either case, VTAM issues message IST455I when all applicable sessions have ended (or immediately if no sessions exist), if the NOTIFY=YES parameter has been specified.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Note: If you modify this message, you must specify MSG=(IST457I,0) on the USSMSG macro. This will define IST457I and USS message 0 to be identical in the operation-level USS table. See the z/OS Communications Server SNA Resource Definition Reference for information on the USSMSG macro for VTAM operator messages.

Routing code: 2
Descriptor code: 5

IST458I USS MESSAGE number NOT DEFINED

Explanation: The user-defined unformatted system services (USS) table that supports this program operator application program (POA) does not contain a USSMSG macro to define the text for the USS message number.

System action: If number is 0 or 11, VTAM has completed the command successfully. Otherwise, VTAM does not execute the command.

Operator response: Save the system log for problem determination.

System programmer response: Add the necessary message to the user-defined USS table.

Note: If you modify this message, you must specify MSG=(IST458I,14) on the USSMSG macro. This will define IST458I and USS message 14 to be identical in the operation-level USS table. See the z/OS Communications Server SNA Resource Definition Reference for information on the USSMSG macro for VTAM operator messages.

Routing code: 2
Descriptor code: 5

IST459I command FAILED — ID = nodename — ADJ NODE adjnode reason

Explanation: The command for nodename failed because of an error on the adjacent node adjnode.

reason is one of the following:

INVALID
This reason occurs in the following situations:
• Link station nodename contacted adjacent node adjnode which was not a PU type 4 or a PU type 5.
• Communication controller nodename specified link station adjnode for a load or dump, but adjnode is not a link station, is a switched link station, or is not associated with NCP nodename.
• The link station was not found.

CANNOT BE DEFINED
Link station nodename attempted to contact an adjacent node (adjnode) that was unknown to VTAM. VTAM was unable to define this adjacent node because of insufficient storage.

STATE statename INVALID
Link station adjnode was chosen as the load/dump station for communication controller nodename to load or dump, but it cannot be used for loading or dumping in its current state statename.
CA / NCP CONFLICT
Link station nodename, which is being activated, is a communication-adapter SDLC link station associated with the NCP adjnode. (VTAM allows communication adapters to contact an NCP over a communication-adapter SDLC link or to activate an NCP over a channel- or noncommunication-adapter SDLC link, but not both at the same time.)

UNAVAILABLE
Link station nodename is not associated with NCP adjnode.

System action: VTAM deactivates the node, and the command is rejected.

Operator response:

INVALID
Activate link station nodename. Then enter or reenter command, and do not specify the load or dump station on the command (let VTAM choose it).

CANNOT BE DEFINED
Try to activate the link station later. Issue the DISPLAY BFRUSE command. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and dump for problem determination.

STATE statename INVALID
Activate link station nodename. Then enter or reenter command, but do not specify the load or dump station (let VTAM choose it) on the command.

CA / NCP CONFLICT
Issue the DISPLAY ID command for adjnode (adjnode is the NCP that is adjacent to nodename). Save the system log for problem determination.

UNAVAILABLE
Save the system log for problem determination.

System programmer response:

INVALID
Look at the adjacent node to determine the cause of the problem.

CANNOT BE DEFINED
Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA limits. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

- See the [z/OS Communications Server: New Function Summary](https://www.ibm.com) to determine the storage requirements for VTAM.
- See the [z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com) for a description of VTAM start options.
- See [z/OS Communications Server: SNA Operation](https://www.ibm.com) for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- See the [z/OS Communications Server: SNA Network Implementation Guide](https://www.ibm.com) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
- See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](https://www.ibm.com) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

STATE statename INVALID
Look at the adjacent node to determine the cause of the problem.

CA / NCP CONFLICT
If you want the NCP represented by adjnode to be contacted through the communication adapter SDLC link station, ask the operator to enter a VARY INACT command for adjnode to deactivate the NCP. The operator might then contact the NCP represented by adjnode through the communication adapter SDLC link station by issuing a VARY ACT command for nodename.

UNAVAILABLE
Issue the DISPLAY STATIONS command and review the output for adjnode. The link station nodename might not have been genned into the adjacent NCP adjnode so is therefore unavailable.

If you cannot determine the cause of the problem from the output provided, take the following action:
If you have access to IBMLink, search for known problems with similar symptoms. If no applicable matches are found, report the problem to IBM by using the Electronic Technical Report (ETR) option on IBMLink.

If you do not have access to IBMLink, report the problem to IBM software support center.

Routing code: 2
Descriptor code: 5

IST460I command FOR U/RNAME ENTRY ID = nodename FAILED: reason

Explanation: The command for nodename failed for one of the following reasons:

- The U or RNAME operands were specified on a VARY ACT command for a communication controller.
- The U or RNAME operands were defined in the communication controller deck, and processed when the communication controller was activated.

reason can be one of the following:

ALREADY CONNECTED
The link station specified in the RNAME list is in contact with or is attempting connection to another communication controller.

INSUFFICIENT STORAGE
Because of insufficient storage, VTAM was unable to build the dummy link station to represent a channel device address or a link station that was unknown to VTAM.

STATE state INVALID
The current state of the link station specified in the RNAME list or its higher level node is no longer appropriate. For example, the node might be in the process of being deactivated or might be undergoing error recovery. See the z/OS Communications Server: IP and SNA Codes for a description of state.

NODE CANNOT BE DEFINED
VTAM was unable to define a duplicate name, device address, or a link station that was unknown to VTAM.

NODE INVALID
The node specified in the RNAME list was not a channel adapter, SDLC line, or link station.

NO SWITCHED LINK AVAILABLE
A switched link station connection cannot be established because no switched subarea links are usable.

System action: VTAM ends activation for the U or RNAME entry.

Operator response:

INSUFFICIENT STORAGE
Wait a short time and reenter the command. If VTAM continues to issue this message, enter the DISPLAY BFRUSE command. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and request a dump for problem determination.

STATE state INVALID
Deactivate the node (or its higher level node). Then activate the node (or its higher level node).

NO SWITCHED LINK AVAILABLE
Activate the switched major node after the VARY ACT commands for the communication controllers have been processed. If the switched major node was activated before the communication controllers, activate the communication controllers first and then activate the switched major node. In all cases, display U or RNAME entry nodename, and for problem determination.

For errors in start options or definition lists, save the system log for problem determination.

System programmer response: Ensure that the generated RNAME list or the RNAME list provided to the operator for the communication controller activation contains the correct name of the link station to be connected to the communication controller.

INSUFFICIENT STORAGE
Provide more storage at VTAM start time. You might want to redefine your buffer pool or CSA start options. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.
NO SWITCHED LINK AVAILABLE
Verify that the path definitions for nodename are enabled and CALL=OUT or CALL=INOUT is coded.

For errors in start options or definitions lists, ensure that all requirements for VTAM are correct for your system. When you have corrected the error condition, ask the operator to reenter the command.

Routing code: 2
Descriptor code: 5

IST461I ACTIVATE FOR U/RNAME ENTRY ID = nodename STARTED
Explanation: A VARY ACT command for a communication controller specified nodename as an RNAME operand on that command or as a U generated value.

System action: Activation of nodename is started if the link of the U or RNAME entry nodename is active. For an inactive link, the link is activated first, followed by activation of the nodename.

Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 4

IST462I ACTIVATION OF LINK STATION nodename IS DEFERRED PENDING HIGHER LEVEL NODE ACTIVATION
Explanation: nodename was specified in the RNAME list for a communication controller that is being activated. VTAM cannot activate nodename because the communication controller containing it is not known to VTAM.

System action: VTAM has queued the activation for nodename and will activate it when the communication controller containing it is activated.

Operator response: If the connection with the communication controller containing nodename is desired, enter a VARY ACT command for that communication controller. If the connection is not desired, enter a VARY INACT command for nodename to deactivate the link station.

System programmer response: None.
Routing code: 2
Descriptor code: 5

IST464I LINK STATION nodename1 HAS CONTACTED nodename2 SA subarea
Explanation: The link station nodename1 successfully contacted the node nodename2 in subarea subarea. If nodename2 is blank and subarea is zero, VTAM has contacted a subarea node in another network. Because this VTAM node is nongateway-capable, it cannot identify the network and subarea address of the contacted node. If the link station is in state PCTD1 and is not on an NCP link-station queue, VTAM does not obtain a dummy NCP to queue the link station, so nodename2 is blank and subarea is zero. nodename2 is ***NA*** in a VTAM to VTAM connection.

System action: VTAM activates the link station.

Operator response: If VTAM has contacted a subarea node in another network, and that is not your intention, deactivate the link station.

System programmer response: None.
Routing code: 2
Descriptor code: 4
IST465I  command FOR ID = nodename FAILED — NO [LOAD|DUMP|LINK] STATION AVAILABLE

Explanation: VTAM issues this message when the command failed for nodename because the necessary load, dump or link station was not available for one of the following reasons:
1. VTAM tried to select a default dump or load station, and none was available.
2. The load or dump station was deactivated while a load or dump was being performed.
3. VTAM was unable to establish connectivity between nodename and any link station in the RNAME list from the VARY ACT command.

System action: VTAM deactivates nodename and rejects the command. Other processing continues.

Operator response:
- Display nodename and all link stations to check spelling and status. Save the system log for problem determination.
- For reasons 1 and 2, allow VTAM to choose the default load or dump station.
- For reason 3, activate the link stations before reissuing the command to activate the communication controller.

VTAM will issue other error messages for each link station that failed to establish a connection with the communication controller. See those messages for further help.

System programmer response: Check that the link stations in the RNAME list are valid and can be used to establish connectivity with the communication controller. Correct the RNAME list if needed.

Routing code: 2
Descriptor code: 5

IST466I  command FOR ID = controller CONTINUES — UNABLE TO DO text

Explanation: During the deactivation or recovery of a communication controller controller, VTAM was unable to find a link station to load, dump, or remotely power off (RMPO) the communication controller.

See Chapter 16, “Command and RU types in VTAM messages,” on page 1083 for a description of command. text is one of the following:

- LOAD — NO LINK STATION AVAILABLE
- DUMP — NO LINK STATION AVAILABLE
- RMPO — NO LINK STATION AVAILABLE

System action: VTAM continues to process the command for controller. The load, dump, or remote power-off (RMPO) is not performed.

Operator response: Display controller and all link stations to check status. If the communication controllers containing the link stations are not usable, save the system log for problem determination.

System programmer response: If a communication controller containing a link station in the VARY ACT RNAME list is not usable and it should be, instruct the VTAM operator whether or not to dump and then reload the communication controller.

Routing code: 2
Descriptor code: 4

IST467I  CONTACTED ERROR TYPE type FOR ID = nodename

Explanation: This message is the first in a group of messages. A complete description of the message group follows.

IST1580I XID RECEIVED BY VTAM:
IST1574I offset hexdata_1 hexdata_2 hexdata_3 hexdata_4 EBCDIC_data
...
IST1574I offset hexdata_1 hexdata_2 hexdata_3 hexdata_4 EBCDIC_data
IST1582I CONTROL VECTOR X'22' ANALYSIS:
IST1583I BYTE OFFSET OF FIRST BYTE IN ERROR = byteoffset
IST1584I BIT OFFSET OF FIRST BIT IN ERROR = bitoffset
IST1585I SENSE CODE = sense

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The activation procedure for *nodename* failed because of an error specified by the CONTACTED RU error type.

**Notes:**

1. If the XID received from the adjacent node contains no data (XID(NULL)), VTAM does not issue messages IST1574I, IST1580I, or IST1582I through IST1585I.
2. For a type of 05, 07, and 08, VTAM displays the XID data received from and sent to the adjacent node. The information received from the adjacent node is displayed in messages IST1580I and IST1574I. The information sent to the adjacent nodes is displayed in messages IST1586I and IST1574I. The IST1582I subgroup follows the XID to which it refers.
3. For a type of 0B, VTAM displays the XID data received from the adjacent node, or sent to the adjacent node, or both. The information received from the adjacent nodes is displayed in messages IST1580I and IST1574I. The information sent to the adjacent nodes is displayed in messages IST1586I and IST1574I. The IST1582I subgroup follows the XID to which it refers.

- *type* can be one of the following:
  
  02 Load Required. No fields follow.
  
  03 A CONTACT RU error occurred during processing; no XIDs are available. The routes between the activating host and the target NCP might be defined incorrectly.
  
  05 Exchanged XID parameters are not compatible. Possible reasons include:
  - The transmission group numbers do not match or the transmission group number is zero in both nodes.
  - The adjacent PU is not able to accept the XID parameter.
  - If this is not a transmission group problem, ensure that HOSTSA has been coded in your start list. If HOSTSA is not coded in either start list, you might get this error.
  - There might be a lack of storage in the channel-attached hosts.
  
  07 No routing capability to the adjacent node.
  
  08 VTAM cannot add the link station to the currently active TG. Possible reasons include:
  - XID parameters are incompatible with other links in an NCP multilink transmission group.
  - There is another active TG with the same TG number connecting the same two subareas. One of the subareas is a VTAM host.
  - This host has a connection to another node with the same subarea number as the one being activated.
  - NCP will set this error type if the MLTG segment size of the new link is smaller than the MLTG size currently in use by the TG.
  
  09 The NCP is loaded, but is in another subnetwork.
  
  0A Unable to contact the link station. This error type is set if the PU is in INACT status. Type 0A will be used when both the SSCP and the sending PU support the attachment of T2.1 nodes. Format 3 XID fields are present when the CONTACTED node is a T2.1 node.
  
  0B The 2.1 boundary function detected an XID error during a contact sequence for a PU type 2.0 or 2.1 node.

**IST1574I**

This message displays the XID received from (if preceded by message IST1580I) or sent to (if preceded by message IST1586I) the adjacent node.

*offset* is the hexadecimal offset in the XID.

*hexdata_1, hexdata_2, hexdata_3* and *hexdata_4* each display 4 bytes of the XID in hexadecimal format.
EBCDIC_data displays 16 bytes of the XID in EBCDIC format. Unprintable characters are represented by periods.

IST1580I
This message is a header for the information displayed in messages IST1574I and IST1582I through IST1585I for the XID received from the adjacent node.

IST1582I
This message is a header for the information displayed in messages IST1583I through IST1585I. Messages IST1582I through IST1585I are present only if CV X'22' is present in the XID.
The IST1582I subgroup follows the XID to which it refers.

IST1583I
This message is issued only if byteoffset in message IST1583I is nonzero or bitoffset in message IST1584I is nonzero. byteoffset is the hexadecimal offset of the byte containing the error, as noted by the adjacent node. Offsets are from byte 0 in the XID.

IST1584I
This message is issued only if byteoffset in message IST1583I is nonzero or bitoffset in message IST1584I is nonzero. bitoffset is the hexadecimal offset of the bit containing the error, as noted by the adjacent node. Offsets are from bit 0 in the XID.

IST1585I
This message is issued only if sense data is included in CV X'22'. sense is the SNA sense code set by the adjacent node identifying the reason the XID is rejected.

IST1586I
This message is a header for the information displayed in message IST1574I for the XID sent by VTAM to the adjacent node.

System action: Activation of nodename fails. VTAM deactivates the node.

Operator response: Save the system log and print the major node definition for problem determination.

System programmer response: For types 03, 05, 07, 08, and 0B, verify that the network definitions for the nodes involved are correct.

Additional recommended actions include:
• A type of 02 indicates that the communications controller is not loaded.
• A type of 03 indicates one of the following problems:
  – A link-hardware problem during CONTACT processing. In this case, follow the installation problem determination procedure for the link.
  – There is an emulator program in the communication controller you are attempting to activate.
  – The adjacent link station on the NCP side of the channel connection has not been activated.
• For a type of 05:
  – Make sure that the applicable link and link-station definitions are compatible.
  – Ensure that HOSTSA has been coded in your start list.
  – For a storage problem, check the bufsize value specified for the IObuf buffer pool. If a channel-attached NCP is in this domain, this value must match or be greater than the value used for the UNITSZ operand on the HOST statement in the NCP definition. For an explanation of the bufsize value, see the description of buffer pool start options in the [z/OS Communications Server: SNA Resource Definition Reference]
• For a type of 07, make sure the proper route definitions have been supplied in each subarea node.
• For a type of 08, make sure that the applicable link and link-station definitions are compatible. Issue a DISPLAY STATIONS command for a summary of connections to this subarea.
• For a type of 0B, either the sent or received XID might contain an appended CV X'22' that provides more detailed information about the cause of the error. The last 4 bytes of the CV X'22' might contain sense data.
For type 05, 07, 08, or 0B, see the section on common subarea problems, in the z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures for additional examples and problem determination actions. See SNA Network Product Formats or z/OS Communications Server: SNA Data Areas Volume 1 for additional information on interpreting the CV X’22’ and sense data, if provided in messages IST1582I through IST1585I.

For an apparent software problem, take the following actions:

- If you have access to IBMLink, search for known problems with similar symptoms. If no applicable matches are found, report the problem to IBM using the Electronic Technical Report (ETR) option on IBMLink.
- If you do not have access to IBMLink, report the problem to the IBM software support center.

Routing code: 8
Descriptor code: 5

### IST473I

**CONNECTIVITY TEST TO** terminalname **TERMINATED AFTER n ECHOES DUE TO I/O ERROR,**

**SENSE = code**

**Explanation:** A host-connectivity (echo) test to terminal terminalname, initiated by an IBMTEST command entered by terminalname, was terminated.

code is the sense code and indicates the reason for the error. See the z/OS Communications Server: IP and SNA Codes for a description of code.

n is the number of times, in decimal, the requested data was sent to terminalname before the I/O error.

**System action:** Processing continues.

**Operator response:** Save the system log for problem determination.

**System programmer response:** This is probably a hardware error. Determine the cause of the error, and reenter the command if desired. Follow the installation problem-determination procedure for the link error.

Routing code: 2,8
Descriptor code: 4

### IST475I

**command FAILED FOR nodename REQUEST runame SENSE code**

**Explanation:** VTAM is unable to complete command for nodename. The error occurred during the processing of request unit runame.

See Chapter 16, “Command and RU types in VTAM messages,” on page 1083 for a description of command and runame.

code is the sense code and indicates the reason for the failure. See the z/OS Communications Server: IP and SNA Codes for a description of code.

**System action:** VTAM rejects the command.

**Operator response:** If you can correct the reason for the failure, do so and reenter the command. If nodename is a resource in another domain, the error can be in either domain. Notify the operator of the other domain if action is required in that domain as well.

For example,

- **ACTIVATE FAILED FOR cdrname REQUEST ACTCDRM SENSE 08120000:**
  - The activation of an SSCP-SSCP session, started by an ACTCDRM request from the other domain, failed because of insufficient storage in this domain.
  - The operator can restart the activation in this domain by issuing a VARY ACT command for cdrname.
  - If the activation continues to fail:
    - Use the MODIFY CSALIMIT command to increase VTAM’s common service area storage.
    - Deactivate other network resources to provide the necessary storage.

- **ACTIVATE FAILED FOR cdrname REQUEST ACTCDRM SENSE 084E0000:**
  - The activation of an SSCP-SSCP session failed because the NETID in the ACTCDRM request or response does not match the NETID coded in the CDRM definition.
ACTIVATE FAILED FOR cdrmname REQUEST ACTCDRM SENSE 08810000:

- If this host is not a gateway host, and the operator issues the VARY ACT command for cdrmname for a gateway SSCP, the gateway NCP sends REQACTCDRM to the gateway SSCP. The gateway SSCP then attempts to activate the SSCP-SSCP session.
- If this host is a gateway host and in a back-to-back configuration, the gateway NCP sends REQACTCDRM to the other gateway host to cause the SSCP-SSCP session to be established.

For a storage problem, enter the DISPLAY BFRUSE command. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and dump for problem determination.

**System programmer response:** Verify that the operator entered the buffer pool or CSA start options as specified in the start procedures.

Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA limits. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

- See the [z/OS Communications Server: New Function Summary](index.html) to determine the storage requirements for VTAM.
- See the [z/OS Communications Server: SNA Resource Definition Reference](index.html) for a description of VTAM start options.
- See [z/OS Communications Server: SNA Operation](index.html) for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- See the [z/OS Communications Server: SNA Network Implementation Guide](index.html) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
- See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](index.html) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

**Routing code:** 2  
**Descriptor code:** 5

---

**IST476I**  CDRM TYPE = [HOST|EXTERNAL] [, GATEWAY CAPABLE]

**Explanation:** This message is part of a group of messages that VTAM issues in response to a DISPLAY ID command for a cross-domain resource manager (CDRM). The message indicates whether the CDRM is in this host (HOST), or external to it (EXTERNAL).

If HOST is indicated and this CDRM is gateway capable, GATEWAY CAPABLE is displayed. Otherwise, no optional parameter is displayed.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2  
**Descriptor code:** 5

---

**IST477I**  CDRMS:

**Explanation:** This message is the header for a group of messages that VTAM issues in response to a DISPLAY ID command for a cross-domain resource manager (CDRM) major node or a DISPLAY CDRMS command. One or more IST482I messages will follow to list the CDRM minor nodes in the major node.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2  
**Descriptor code:** 5
**IST478I • IST482I**

**IST478I**  
**CDRSCS:**

**Explanation:** This message is part of a group of messages that VTAM issues in response to a DISPLAY CDRSCS command for a cross-domain resource (CDRSC) major node. Following this heading, message IST483I lists the cross-domain resources that are defined to VTAM and managed by the CDRM or a part of the CDRSC major node being displayed.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

---

**IST479I**  
**CDRM NAME = cdrmname, VERIFY OWNER = {YES | NO}**

**Explanation:** This message is part of a group of messages that VTAM issues in response to a DISPLAY ID command for a cross-domain resource (CDRSC). This message identifies the cross-domain resource manager (CDRM) that owns the CDRSC for which the display was requested. cdrmname will be ***NA*** if the CDRSC was not defined with a CDRM.

Owner verification of a CDRSC is optional, and is accomplished with the VFYOWNER keyword in the definition of a CDRSC.

**VERIFY OWNER = YES** indicates that owner verification is required in this host. When owner verification is in effect, VTAM will reject session setup requests that contain a conflicting owner.

**VERIFY OWNER = NO** indicates that owner verification is not required, so VTAM can automatically change CDRM ownership of a CDRSC.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

---

**IST482I**  
**cdrmname status, SA subarea, EL element, NETID = cdrmnetid**

**Explanation:** This message is part of a group of messages that VTAM issues in response to a DISPLAY command concerning the cross-domain resource manager (CDRM). This message is the result of one of the following:

- A DISPLAY ID command for a cross-domain resource manager major node
- A DISPLAY CDRMS command requesting information about cross-domain resource managers (CDRMs) defined to this domain.

This message lists the CDRM (cdrmname), its status (status), its subarea address (in decimal) (subarea), and its element address (in decimal) (element). If the subarea address or element address is not available, element will be ***NA***.

cdrmnetid is the network ID of cdrmname.

VTAM repeats this message as many times as needed to list the CDRMs in this major node or domain. See the z/OS Communications Server: IP and SNA Codes for a description of status.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 8

**Descriptor code:** 5
IST483I  cdrscname status, CDRM = cdrmname, NETID = cdrscnetid

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY command concerning cross-domain resources (CDRSC). It is the result of one of the following:
- A DISPLAY ID command that specifies a CDRSC major node.
- A DISPLAY ID command that specifies a model CDRSC.
- A DISPLAY CDRSCS command requesting information about cross-domain resources defined to this domain.

The message lists the resource name, its status, the name of the controlling CDRM, and the CDRSC's network ID.

VTAM repeats this message as many times as needed to list all the cross-domain resources in this major node, in this domain, or that were created from this model CDRSC.

cdrscname is name of the resource.

status is the status of the resource. See z/OS Communications Server: IP and SNA Codes for a description of status.

cdrmname is the name of the controlling CDRM. If the CDRM is not available, cdrmname will be ***NA***.

cdrscnetid is the network ID of cdrscname. If the NETID is not available, cdrscnetid will be ***NA***.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 8
Descriptor code: 5

IST484I  SUBAREA = subarea [GATEWAY CONTROL function_type]

Explanation: VTAM issues this message as part of several different message groups in response to a DISPLAY ID command for information about a PU type 4, a DISPLAY ID,IDTYPE=RESOURCE or IDTYPE=DIRECTRY command for directory information for a logical unit, or a DISPLAY DIRECTRY command for directory information for a logical unit.

subarea is the subarea number of the resource (in decimal).

GATEWAY CONTROL function_type is displayed when the PU type 4 is gateway-capable and is in session with this host. function_type can be one of the following:

SHARED
Gateway functions are distributed between SSCP's.

EXCLUSIVE
Gateway functions are performed only by this SSCP.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST486I  STATUS= currentstatus, DESIRED STATE= desiredstate

Explanation: VTAM issues this message as part of several different message groups in response to a DISPLAY ID , DISPLAY TRL, or DISPLAY TSOUSER command.

currentstatus is the current status of the node. See the z/OS Communications Server: IP and SNA Codes for a description of currentstatus.
**IST487I • IST489I**

`desiredstate` is the node state that is desired. See the [z/OS Communications Server: IP and SNA Codes](https://www.ibm.com/support/knowledgecenter/SICX93_2.2.0/com.ibm.zos.v2r1.mhcpp8.docbooks.docbook/chap-zos-comm-ser-v2r1-0.html) for a description of `desiredstate`. If VTAM cannot determine the desired state, `desiredstate` will be *****NA*****.

**System action:** Processing continues.

**Operator response:** When the `currentstatus` and `desiredstate` values are both CONCT, no activation request has been received. CONCT is not an error state but a "ready for activation" state.

Contact the system programmer to activate the device.

**System programmer response:** Activate the device, as requested by the operator.

**Routing code:** 8

**Descriptor code:** 5

---

**IST487I**  
`command2 FOR ID = nodename SCHEDULED BY command1`

**Explanation:** VTAM issues this message when `command2` has been scheduled for `nodename`. `command1` is responsible for scheduling `command2`. For example, explicit deactivation of a peripheral node will cause implicit deactivation of that node's LUs.

**System action:** Processing of `command2` continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

---

**IST488I**  
`command FOR ID = puname FAILED — DUPLICATE NODE: luname`

**Explanation:** VTAM rejected this VARY ACQ command because this domain already has an active resource named `luname`. VTAM cannot acquire physical unit `puname` until its logical unit `luname` has a unique name in this domain.

**System action:** VTAM rejects the command.

**Operator response:** Find the duplicate `luname` by entering a DISPLAY ID command for `luname`.

- If you cannot deactivate the major node containing this node because the major node is needed in the network, save the system log for problem determination.
- Otherwise, deactivate the duplicate `luname`'s major node and reenter the VARY ACQ command.

If the problem continues, save the system log for problem determination.

**System programmer response:** If the resources with duplicate names are needed simultaneously, change the name of this domain's resource in both the NCP macros and the VTAM definition statements. This requires a partial NCP regeneration.

**Routing code:** 2

**Descriptor code:** 5

---

**IST489I**  
`command FOR ID = nodename CONTINUES — CANNOT DEFINE NODE: name`

**Explanation:** During processing of the `command`, VTAM determined that it cannot define `name` as a part of `nodename` for one of the following reasons:

- Adjacent control point `name` is not a valid node type.
- NCP frame relay switching equipment set (FRSESET) `name` has the same name as another FRSESET in this domain.
- Resource `name` contains one of the following errors:
  - `name` has the same name as another resource in this domain.
  - `name` has the same network address as another resource in this domain.
  - `name` has the same value for CPNAME as another resource in this domain.
  - `name` has the same value for LU Alias as another resource in this domain.
  - `name` has the same values for IDBLK and IDNUM as another resource in this domain.
– *name* is in an NCP major node definition, and there is a CDRM definition with the same SUBAREA address as the NCP major node definition.
– *name* has a value for VNNAME that matches the value for CPNAME on a PU in this domain.
– *name* has a value for VNNAME that refers to an ADJCP for which VN=YES is not specified.
– *name* has the same transmission group number (TGN) as another resource in this domain.

• A pre-defined CDRSC is being activated when an MNPS application of the same name is already active on the node.
• Storage is not available to process the request.

See Chapter 16, “Command and RU types in VTAM messages,” on page 1083 for a description of *command*.

**System action:** Processing of *command* continues. However, VTAM cannot use *name*.

**Operator response:**
• This is usually a definition error. Enter a DISPLAY ID command for *name* to check for duplicate names. Save the system log for problem determination.
• If you cannot find a definition error, check for an insufficient storage problem by entering the DISPLAY BFRUSE command. Total VTAM private storage information is also displayed in message IST981I. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and request a dump for problem determination.

This message might be issued during session takeover processing. See the section on common APPN problems, the *z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures* for a description of session takeover problems.

This message might be issued while processing a VARY ACT command with the UPDATE=ALL option specified. The resource specified by *name* did not complete processing. Issue the command again to allow this resource to process completely.

**System programmer response:**
• If the definition failed because of a definition error, use the system log to assist you in correcting the problem. If there are duplicate operands on NCP and VTAM definition statements, you must change one or both of the duplicate statements if you want both resources to be defined at the same time. See the section on common subarea network problems, the *z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures* for more information about this problem. See the *z/OS Communications Server: SNA Resource Definition Reference* for more information on VNNAME definitions.
• If the definition failed because of insufficient storage, increase storage as required for the VTAM address space.
  – See the *z/OS Communications Server: New Function Summary* to determine the storage requirements for VTAM.
  – See the *z/OS Communications Server: SNA Operation* for information about the DISPLAY BFRUSE command, and the DISPLAY STORUSE command.
  – See the *z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT* for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

**Routing code:** 2

**Descriptor code:** 5

**IST490I command2 FOR ID = nodename FAILED — command1 IN PROGRESS**

**Explanation:** Processing of *command1* causes VTAM to reject *command2* for *nodename* because *command1* takes precedence over *command2*. For example, the VARY REL command causes any subsequent VARY INACT for the same node to fail.

**Note:** If this message is displayed on a VARY ACT of an NCP with *command2* having the value SSCP TKOVR and *command1* having the value INACT GVBK, then the switched major node has not been activated before the NCP. See Chapter 16, “Command and RU types in VTAM messages,” on page 1083 for a description of *command1* and *command2*.

**System action:** Processing of *command1* continues, but VTAM rejects *command2*. 
IST493I • IST495I

Operator response: Monitor the progress of command1 with DISPLAY commands. When command1 processing has completed, enter the command required to achieve the desired network configuration or device.

In the above example, if you want nodename to be an active part of the network, enter a VARY ACQ command for nodename followed by a VARY ACT command for nodename. Save the system log for problem determination.

System programmer response: Check the system log to determine the series of commands that caused the problem.

Routing code: 2
Descriptor code: 5

IST493I command1 FOR ID = nodename OVERRIDDEN BY command2

Explanation: VTAM issues this message when command2 for nodename overrides command1. This occurs even if command1 was entered first.

VTAM might have issued command2 when it could not complete command1. For example:
- A VARY INACT,TYPE=IMMED command for a physical unit causes VTAM to reject a VARY REL command for the same device. The VARY INACT,TYPE=IMMED command is processed, and the VARY REL command is not executed, because the release processing is part of the deactivation processing.

See Chapter 16, “Command and RU types in VTAM messages,” on page 1083 for descriptions of command1 and command2.

System action: Processing of command2 continues. VTAM rejects command1.

Operator response: VTAM cannot process command1 and command2 concurrently. command1 is always rejected. Check the system log to determine the reason for the sequence in which the two commands were entered.

System programmer response: None.

Routing code: 2
Descriptor code: 5

IST494I command FOR ID = nodename FAILED — ALREADY IN DESIRED STATE

Explanation: VTAM issues this message when the resource nodename was specified on the command but was already acquired in the desired state. For example, a VARY ACQ command was entered for nodename which specified a node that was already acquired.

System action: VTAM rejects the command.

Operator response: Ensure that nodename was entered correctly.

System programmer response: None.

Routing code: 2
Descriptor code: 5

IST495I type HAS BEEN SET TO value

Explanation: VTAM issues this message when one of the following occurs:
- The operator entered a MODIFY VTAMOPTS,CSALIMIT or a MODIFY CSALIMIT command and the value specified was above the system CSA limit or was 0. This message is part of a group of messages. The first message is either IST1665I or IST1666I. See the explanation of the first message in the group for a complete description.
- The operator entered the CSALIMIT start option and the value specified was above the system CSA limit. This message is part of a group of messages. The first message is IST1665I. See the explanation of the first message in the group for a complete description.
- The operator entered a MODIFY VTAMOPTS,CSALIMIT, a MODIFY VTAMOPTS,CSA24, a MODIFY CSALIMIT, or a MODIFY BFRUSE command and VTAM processed it successfully.
- The operator entered a MODIFY BFRUSE command and the XSPANLIM value specified was outside the acceptable range. See z/OS Communications Server: SNA Operation for more information about the MODIFY BFRUSE command.
**IST496E**

- **type** is one of the following:
  - CSALIMIT, which indicates total CSA.
  - CSA24 LIMIT, which indicates CSA below 24-bit addressable storage.
  - XPANLIM, which indicates total IOBUF CSA usage.

- **value** is one of the following:
  - If **type** is CSALIMIT and the specified value was 0 or was above the system CSA limit, **value** is set to the system CSA limit. See the [z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com/support/knowledgecenter/en/ssh0x0/iscf/iscf300_csa_limit.html) for more information about CSALIMIT and start options.
  - If **type** is CSA24 LIMIT and the specified value was 0, **value** is NO LIMIT.
  - If **type** is XPANLIM and the specified value was 0 or was above the system CSA limit, **type** is set to the VTAM CSA limit. If the specified value was less than the storage amount currently in use for the IOBUF pool, **type** is set to the current amount of storage in use. See the [z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com/support/knowledgecenter/en/ssh0x0/iscf/iscf300_csa_limit.html) for more information about the XPANLIM parameter of the IOBUF start options.
  - Otherwise, **value** is the value specified on the command in kilobytes.

- **System action:** If this message is in response to a MODIFY VTAMOPTS command for CSALIMIT or CSA24, or a MODIFY CSALIMIT command, the use of CSA by VTAM will be limited to **value**.

- **Operator response:** None.

- **System programmer response:** None.

- **Routing code:** 2

- **Descriptor code:** 4

---

**IST496E**  
*function_name* FUNCTION INOPERATIVE DUE TO ABEND

- **Explanation:** VTAM issues this message when several consecutive abnormal terminations have caused the VTAM function *function_name* to become inoperative.

- **function_name** can be one of the following:
  - DYNAMIC CDRSC DELETION
  - I/O RESPONSE MONITOR
  - I/O RESPONSE TIMEOUT

- **System action:** Processing continues. The cause of the repeated abends might also result in the failure of other VTAM operations.

- **Operator response:** Save the system log for problem determination.

  - If *function_name* is DYNAMIC CDRSC DELETION, monitor the usage of dynamic cross-domain resources (CDRSCs) with the DISPLAY ID=ISTCDRDY,SCOPE=ALL command. Issue a VARY INACT command to delete CDRSCs that have no active sessions.
  - If *function_name* is I/O RESPONSE MONITOR, monitor I/O response activity with the DISPLAY PENDING command.
  - If *function_name* is I/O RESPONSE TIMEOUT, assess the importance of the pending I/O that is not receiving a response to determine whether VTAM should be restarted.

- **System programmer response:** You can correct any resulting failures of VTAM operations individually, but you might have to halt and restart VTAM if there are too many failures.

- **Routing code:** 8

- **Descriptor code:** 3

---

**IST499I**  
DISK FUNCTIONS FOR *ncpname* NOT PERFORMED

- **Explanation:** This message is the first in a group of messages that VTAM issues in response to one or both of the following:
  - A VARY ACT command that specified LOADFROM, SAVEMOD, or DUMPLOAD for NCP *ncpname*
  - A PCCU definition statement that specified LOADFROM, SAVEMOD, or DUMPLOAD for NCP *ncpname*.
A complete description of the message group follows.

IST499I DISK FUNCTIONS FOR ncpname NOT PERFORMED

reason in message IST523I is one of the following:

LOAD NOT NECESSARY
   The operator entered a VARY ACT command specifying LOAD=U. Because no load occurs, the functions are not
   set in NCP ncpname.

CCU NOT CORRECT LEVEL
NCP NOT CORRECT LEVEL
SSP NOT CORRECT LEVEL
   The controller (CCU), NCP, or SSP does not support the function requested. An NCP release prior to NCP V5R2
   cannot be loaded with the LOADFROM, SAVEMOD, or DUMPLOAD operands. These operands are valid only
   for NCP V5R2 or a later release.

System action: Activation continues. The LOADFROM, SAVEMOD, and DUMPLOAD operands are ignored.

Operator response:
   • If VTAM issued this message in response to a VARY ACT command and reason is LOAD NOT NECESSARY, you
     must enter a VARY ACT command, specifying LOAD=YES if you want the new functions to be set in NCP
     ncpname.
   
     For all other reasons, save the system log for problem determination.
   • If you did not enter a VARY ACT command, notify the system programmer.

System programmer response: Ensure that the NCP, SSP, and CCU are at the correct level. To use the LOADFROM,
SAVEMOD, and DUMPLOAD operands on the VARY ACT command, the NCP must be NCP V5R2 or a later release,
and the SSP must be SSP V3R4 or a later release.

Routing code: 2
Descriptor code: 5

IST507I name NOT ACTIVE, TSO TRACE REQUEST IGNORED

Explanation: VTAM issues this message in the following situations:
   • A MODIFY TRACE,TYPE=TSO command was entered to request a TSO/VTAM TGET/TPUT/TPG trace for a
     user ID name that is not logged on to TSO/VTAM.
   • A DISPLAY TRACES,TYPE=TSO command was entered, and TSO was not active. name is TSO.
   • A DISPLAY TRACES,TYPE=TSO,ID=name command was entered, and the specified TSO user ID was not active.

System action: VTAM rejects the command. Other processing continues.

Operator response:
   • If name is a TSO user ID, verify that the user ID is spelled correctly, and reenter the command.
   • If name is TSO, verify that TSO is active, and start if necessary.

System programmer response: None.
Routing code: 2,8
Descriptor code: 4

IST510I ROUTE TEST displayid FAILED — ERS NOT DEFINED

Explanation: This message follows a message displaying route status when TEST=YES is specified on the DISPLAY
ROUTE command, and the route display returns a status of UNDEFINED for all ERS in the display, indicating there
are no ERS to test.

The display identification number displayid corresponds to the route display number in the previous message.

System action: Processing continues.
Operator response: None.
IST511I  TRACE REQUEST FAILED — nodename INVALID

Explanation: VTAM issues this message in response to a MODIFY TRACE command or TRACE start option. The trace that VTAM attempted for resource nodename failed because nodename does not exist or is not valid for the type of trace requested.

If the node name is CNMSTATE, this indicates that the communication manager (for example, NetView) is not active, but must be active for the trace requested to be successful.

System action: VTAM rejects the command.

Operator response: Ensure that you entered nodename correctly. If problems persist, verify that nodename is valid for the type of trace requested.

For information on the MODIFY TRACE command or TRACE start option, see z/OS Communications Server: SNA Operation.

System programmer response: None.
Routing code: 8
Descriptor code: 5

IST512I  TRACE TERMINATED FOR NODE = nodename [ALSNAME = alsname]

Explanation: VTAM issues this message in response to a MODIFY NOTRACE command when VTAM has stopped the trace activity on resource nodename. If the SCOPE=ALL operand was specified on the command, VTAM also stops all traces on resources subordinate to nodename.

Note: If you specify or accept the default value BASE for the MSGLVL option, you receive this message twice if the resource is the host SSCP. See Appendix D, “Messages affected by the MSGLVL option,” on page 1165 for additional information.

ALSNAME = alsname is displayed if nodename is an independent LU. alsname is the name of the adjacent link station (ALS) over which LU nodename is traced.

System action: VTAM stops tracing nodename. Processing continues.

Operator response: None.

System programmer response: None.
Routing code: 2
Descriptor code: 5

IST513I  TRACE INITIATED FOR NODE nodename [ALSNAME = alsname]

Explanation: VTAM issues this message in response to a MODIFY TRACE command or a START command with the TRACE option when VTAM has successfully initiated trace activity for resource nodename. If the SCOPE=ALL operand was specified on the MODIFY TRACE command or EVERY was specified on the START command, VTAM initiates traces on all resources subordinate to nodename.

Note: If you specify or accept the default value BASE for the MSGLVL option, you receive this message twice if the resource is the host SSCP. See Appendix D, “Messages affected by the MSGLVL option,” on page 1165 for additional information.

ALSNAME = alsname is displayed if nodename is an independent LU. alsname is the name of the adjacent link station (ALS) over which LU nodename is traced.

System action: VTAM starts tracing nodename.

Operator response: None.
IST516I

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

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**IST516I**

<table>
<thead>
<tr>
<th>DESTSUB</th>
<th>ADJSUB</th>
<th>TGN</th>
<th>ER</th>
<th>ER STATUS</th>
<th>VR(S)</th>
</tr>
</thead>
</table>

**Explanation:** This message is the first in a group of messages that VTAM issues in response to a DISPLAY PATHTAB command. A complete description of the message group follows.

IST516I DESTSUB ADJSUB TGN ER ER STATUS VR(S)
IST517I destsa adjsa tgn er status vrlist
IST1454I count PATH(S) DISPLAYED
IST314I END

**IST516I**

Message IST516I is a header line for the display and identifies the type of information shown in the display.

**IST517I**

- VTAM issues message IST517I for each ER table entry to be displayed. It contains a user-defined list of the virtual routes that map to the explicit routes. It also contains the following information about explicit routes known to this host:
- In the message text:
  - **destsa**
    The destination subarea in which the listed explicit route terminates.
  - **adjsa**
    The adjacent subarea through which the listed explicit route passes.
  - **tgn**
    The transmission group number.
  - **er**
    The explicit route number.
  - **status**
    The current state of the listed explicit route as known to this host. For virtual routes that specify explicit routes with no table entry, the status value is UNDEF. (In this case, the value of adjsa is blank.)

- Possible values are:
  - **ACTIV1**
    The explicit route is active.
    - The explicit route has been defined to VTAM in a path definition set; the route is physically available to the network and has been activated by the node at the other end of the route. A route test (TEST=YES option) should succeed, because physical connectivity exists along the entire route when the route is in this state.
  - **ACTIV2**
    The explicit route is active.
    - The explicit route has been defined to VTAM in a path definition set; the route is physically available to the network, has been activated by the node at the other end of the route, and is in the process of being activated by this node. A route test (TEST=YES option) should succeed, because physical connectivity exists along the entire route when the route is in this state.
  - **ACTIV3**
    The explicit route is active.
    - The explicit route has been defined to VTAM in a path definition set; the route is physically available to the network and has been activated by this node or by both this node and the node at the other end of the route. A route test (TEST=YES option) should succeed, because physical connectivity exists along the entire route when the route is in this state.
INACT
The VR is inactive.

The virtual route has been defined to VTAM in a path definition set, but is not currently active or is pending active. It will be automatically activated when it is needed for a session.

INOP
The ER is inoperative.

The explicit route has been defined to VTAM in a path definition set, but is not physically available to the network. That is, connectivity does not exist along the entire route. A route test (TEST=YES option) will fail, because the explicit route does not have physical connectivity.

PACT
The VR is pending active.

The virtual route has been defined to VTAM in a path definition set and is in the process of being activated by this node.

PDEFA
The ER is “pending definition—active”.

The explicit route is physically available to the network, and activation has been attempted by the node at the other end of the route, but the route has not yet been defined to VTAM in a path definition set. The route is automatically activated by this node when an appropriate path definition set is processed. A route test (TEST=YES option) can succeed, even though the explicit route is not defined in this host. The purpose of the test is to provide information on the physical connectivity of the explicit route so that the operator can decide whether or not to define the route. In order for VTAM to carry session message traffic, the explicit route must be defined to VTAM.

PDEFO
The ER is “pending definition—operative”.

The explicit route is physically available to the network, but it has not yet been defined to VTAM in a path definition set. A route test (TEST=YES option) can succeed, even though the explicit route is not defined in this host. The purpose of the test is to provide information on the physical connectivity of the explicit route so that the operator can decide whether or not to define the route. In order to be used by VTAM to carry session message traffic, the explicit route must be defined to VTAM.

UNDEF
The ER is undefined.

The explicit route has not been defined to VTAM in a path definition set and is not physically available to the network. A route test (TEST=YES option) will always fail, because the explicit route is neither defined to VTAM nor operative.

vrlist
The user-defined virtual route numbers that map onto the listed explicit route.

IST1454I
• In the message text:
  count
  The total number of paths displayed.

System action: Processing continues.

Operator response: The status might be used for information only or might indicate that operator action is necessary if any status does not meet expectations. In particular, a virtual route or an explicit route with a status of UNDEF might indicate that a path definition set should be activated. An explicit route with a status of INOP might indicate that a subarea node, a cross-subarea link, or a cross-subarea link station should be activated, or that there is some network problem with a node, link, or link station.

System programmer response: None.

Routing code: 2
Descriptor code: 5
IST517I • IST520I

IST517I  destsa adjsa tgn er status vrlist

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY PAHTTAB command. The first message in the group is IST516I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST520I  UNABLE TO PROCESS runame {REQ|RSP} [FROM fromnetid] [TO tonetid]

Explanation: This message is the first in a group of messages that VTAM issues in response to a lack of storage, the abnormal termination of a VTAM program, or an RU received out of sequence. A complete description of the message group follows.

• If the reason is insufficient storage or a VTAM program abend, the following message group is displayed.

  IST520I  UNABLE TO PROCESS runame {REQ|RSP} [FROM fromnetid] [TO tonetid]
  IST531I  FROM SUBAREA = subarea, ELEMENT = element
  IST531I  TO SUBAREA = subarea, ELEMENT = element
  IST523I  REASON = reason

• If the reason is an RU received out of sequence, the following message group is displayed.

  IST520I  UNABLE TO PROCESS runame {REQ|RSP} [FROM fromnetid] [TO tonetid]
  IST1694I  REASON = SEQUENCE NUMBER ERROR
  IST314I  END

IST520I

• tonetid cannot process the request or response unit (RU) runame. See Chapter 16, “Command and RU types in VTAM messages,” on page 1083 for a description of runame. If runame is not in Chapter 16, “Command and RU types in VTAM messages,” on page 1083, it is the 3-byte network services header of an RU preceded by a 1-byte category code.

The origin and destination of runame are identified by either their:
– Network names (fromnetid and tonetid) as displayed in message IST520I; or
– Network addresses (subarea address subarea and element address element) as displayed in message IST531I.

IST531I

VTAM will not display message IST531I if both FROM network name fromnetid and TO network name tonetid are known to VTAM. VTAM will display it once if one of the network names is unknown and twice if both of the network names are unknown. If the subarea and element addresses are unknown, VTAM issues either 0 or *NA* in place of the address.

IST523I

• The reason in message IST523I can be any of the following:

  INSUFFICIENT STORAGE
  VTAM PROGRAM ABEND

IST1694I

VTAM will display message IST1694I if the sequence number field in the TH of the RU is not the sequence number that VTAM expected.

System action: Processing continues. Because VTAM cannot process runame, other VTAM operations might fail.

Operator response: Save the system log for problem determination.

System programmer response: For REASON = INSUFFICIENT STORAGE

• Verify that the operator entered the buffer pool or CSA start options as specified in the start procedures.
• Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA limits. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.
• See the z/OS Communications Server: New Function Summary to determine the storage requirements for VTAM.
• See the z/OS Communications Server: SNA Resource Definition Reference for a description of VTAM start options.
IST521I

GBIND [FAILED | QUEUED] FOR COS cosname [FROM fromname] [TO tonetid]

Explanation: This message is the first in a group of messages. A complete description of the message group follows.

IST521I  GBIND [FAILED | QUEUED] FOR COS cosname [FROM fromname] [TO tonetid]
[IST531I  FROM SUBAREA = subarea, ELEMENT = element]
[IST531I  TO SUBAREA = subarea, ELEMENT = element]
[IST531I  VIA gatewayncp]
[IST531I  VIA SUBAREA gwnsubarea]
IST528I  VIRTUAL ROUTE NUMBER vrlist
IST523I  REASON = reason

A generic BIND (ACTPU, ACTLU, ACTCDRM, or BIND) was queued or rejected because a virtual route was unavailable. An ACTPU, ACTLU, or ACTCDRM, sent by an SSCP to bind sessions, is queued if some virtual routes are defined, but not yet operative. Generic BINDs require virtual routes that are defined and operative, and that can be made active.

If a GBIND fails because no routes were activated, one or more virtual routes in the class of service (CoS) VR list (possibly modified by the virtual route selection exit routine) were defined and operative but could not be successfully activated (that is, either the virtual route itself or its associated explicit route could not be activated). This includes the case where the prospective session had a migration requirement for explicit route zero from the SLU to the PLU. This requirement could not be satisfied from the routes in the COS.

If a GBIND fails because no routes were operative, one or more virtual routes in the VR list were defined but not operative.

If a GBIND fails because no routes were defined, no routes in the VR list were defined. Likewise, certain GBINDs might be queued for the same reason, except that a GBIND will not be queued if no routes to the destination subarea are defined.

If a GBIND fails because of a VR selection-exit routine error, the virtual-route-selection exit routine modified the VR list from the CoS to the extent that none of the exit-selected routes was usable. At least one virtual route identifier vrlist was outside the proper numeric bounds for a VR number (0–7) or transmission priority (0–2), or none of the virtual routes was defined.

The vrlist shown in message IST528I is a list of virtual route numbers (regardless of transmission priority) associated with the GBIND at the time of the queueing or failure. If failure occurs before, during, or as a result of the virtual route selection exit routine, the list is from the CoS. Otherwise, the list will appear with any modifications made by the exit routine, if the exit routine is allowed modifications.

The origin and destination of the generic BIND are identified by one of the following:

• Network names (fromname and tonetid) as displayed in message IST521I
• Network addresses (subarea number subarea and element number element) as displayed in message IST531I
**IST521I**

- Gateway network name (`gatewayncp`) as displayed in message IST531I
- Gateway network address (subarea number `gwnsubarea`) as displayed in message IST531I.

*reason* in message IST523I can be any of the following:

- **NO ROUTES DEFINED**
- **NO ROUTES OPERATIVE**
- **NO ROUTES ACTIVATED**
- **VR SELECTION EXIT ERROR—UNDEFINED ROUTES**
- **VR SELECTION EXIT ERROR—INVALID ROUTES**

**Notes:**

1. VTAM will not issue message IST531I if both **FROM** network name `fromname` and **TO** network name `tonetid` are known to VTAM and provided in message IST521I. VTAM issues it once if one of the network names is unknown and twice if both of the network names are unknown. If the subarea and element addresses are unknown, VTAM issues either 0 or "*NA*" in place of the address.
2. VTAM issues message IST531I specifying gateway information only if the failed or queued generic BIND was cross-network.

If the GBIND is an ACTCDRM for an SSCP in another network, VTAM issues message IST531I to specify the names of the gateway node (GWN) through which the ACTCDRM will be sent to the adjacent network when the virtual route to that gateway node (GWN) becomes available.

For a CDRM or CDRSC in another network, the gateway node name `gatewayncp` is given for the gateway node through which the bind request will be sent to the adjacent network. If the name of the gateway node is unknown, the subarea number of the gateway node is given.

COS is a designation of the path-control network characteristics, such as path security, transmission priority, and bandwidth, that apply to a particular session. If the Class of Service name `cosname` does not appear in message IST521I, VTAM used the default Class of Service entry.

**System action:** Processing continues, but the session setup either fails or awaits the availability of an applicable virtual route.

**Operator response:** If a route-activation failure caused a GBIND failure, VTAM issued previous messages to describe the route-activation failure. Correct the problem described in those messages. Re-attempt the GBIND by the SSCP or application program.

If a GBIND failure occurred because no routes were operative, use the DISPLAY ROUTE command, specifying TEST=YES, to test the applicable routes and determine where the outage is. Establish connectivity along the full length of the route.

If a GBIND failure occurred because no routes were defined, activate the appropriate path decks to define the applicable routes.

If VTAM issued IST531I to specify the name of a gateway node (GWN) through which VTAM will send the ACTCDRM to the adjacent network, and if a different GWN subsequently becomes available, use the VARY INACT command, followed by the VARY ACT command, to activate the CDRM through the newly available GWN.

Queuing of an SSCP session request might be normal if separate activation of network nodes or links or both is proceeding. If such other activations are not in progress, or if the GBIND remains queued for an extended period (indicated by subsequent appearances of message IST530I), a problem might exist. Route testing might be appropriate. Cancel the queued session request by deactivating the resource with which the SSCP was “binding” a session.

If a virtual-route-selection exit routine error caused a GBIND failure, either there is a programming error in that exit routine or the routes expected to be available to the exit routine have not been defined. If the former, halt VTAM and have the system programmer fix and replace the exit routine module. If the latter, activate the appropriate path decks to define the applicable routes.

**System programmer response:** If route definitions are the cause of the problem, supply the operator with the appropriate path decks. If the virtual-route-selection exit routine is the cause of the problem, fix it and reinstall the exit routine in VTAM.
For information about network routing, see the **z/OS Communications Server: SNA Network Implementation Guide**.

For information about VTAM routes, see the **z/OS Communications Server: SNA Resource Definition Reference**.

**Routing code:** 8

**Descriptor code:** 4

---

**IST522I**

(ER|VR) n ACT {FAILED|REJECTED} SA subarea1 TO SA subarea2 [FOR TPi]

**Explanation:** This message is the first in a group of messages that VTAM issues for one of these conditions:

- A virtual or explicit route activation initiated by this VTAM node failed in the network.
- An activation request received from the network by this VTAM node was rejected.

A complete description of the message group follows.

**IST522I** (ER|VR) n ACT {FAILED|REJECTED} SA subarea1 TO SA subarea2 [FOR TPi]

**IST523I** REASON = reason

**IST524I** REVERSE ER MASK = ermask

**IST525I** REJECTING SA subarea3 USING TG tg ADJACENT SA subarea4

**Note:** FOR TPi appears only when VR n appears.

*For an explicit route activation:*

**IST522I**

This message indicates that the activation was rejected if the reason for the failure is in this node, or indicates that the activation failed if some node along the route could not permit the activation.

n indicates the one or two-digit ER number.

subarea1 and subarea2 are decimal subarea numbers specifying, respectively, the node that began the route activation and the node at the other end of the route.

**IST523I**

- This message indicates the problem in the rejecting node.
- reason might be one of the following:

  **A REQUIRED TG IS INACTIVE**
  
  A required transmission group (TG) is not active somewhere along the path of the route.

  **EXPLICIT ROUTE NOT DEFINED**
  
  The explicit route is not defined (in the forward direction).

  **EXPLICIT ROUTE NOT REVERSIBLE**
  
  A useable explicit route in the reverse direction cannot be found (because of an incompatible definition or no definition in the reverse direction).

  **EXPLICIT ROUTE LENGTH EXCEEDS MAXIMUM**
  
  The explicit route has a length in excess of the maximum possible length (that is, a routing loop exists).

  **MIGRATION NODE DOES NOT SUPPORT THIS ER**
  
  The adjacent subarea NCP or VTAM does not support extended subarea addressing and the explicit route being activated has an origin or destination subarea greater than 255, or an explicit route number greater than seven.

  **UNEXPECTED TYPE BYTE X'nn'**
  
  An unrecognizable failure code nn was received from the rejecting node.

**IST524I**

ermask is the reverse explicit route mask as received in an NC_ER_ACT or NC_ER_ACT_REPLY RU. This mask indicates the explicit route numbers for flow in the direction opposite the direction of ER n.

If the explicit route activation failed in the network, VTAM issues message IST525I, indicating the transmission group identifier (tg) at the point of rejection.

**IST525I**
IST522I

- subarea3 is the subarea address of the network node rejecting the activation.
- Tg is the number of the transmission group to or from an adjacent node.
- subarea4 is the subarea address of the applicable adjacent node.

Note: The transmission group number or the subarea number of the adjacent node or both might be zero if these numbers are unknown to the rejecting node.

For a virtual route activation, messages IST522I, IST523I, and (sometimes) IST524I will appear.

Note: This message group will appear only once in a display, though multiple sessions might attempt to establish routing from subarea1 to subarea2.

IST522I

n indicates the one-digit virtual route number.
subarea1 and subarea2 specify, respectively, the node that began the route activation and the node at the other end of the route.
TPi is the transmission priority of the route activation.

IST523I

- This message indicates the problem in the rejecting node.
- reason might be one of the following:

ACTVR RESPONSE SENSE IS sense
The node that began the route activation sent the REASON information. See the z/OS Communications Server: IP and SNA Codes for additional information on sense codes.

UNDEFINED EXPLICIT ROUTE REQUESTED
The explicit route defined for use with the virtual route is undefined in this node.

INCORRECT EXPLICIT ROUTE REQUESTED
The node at the other end of the route specified one or more reverse explicit route numbers that are inconsistent with the route definitions in this node.

VIRTUAL ROUTE NOT DEFINED
The virtual route is not defined.

IST524I

ermask is the reverse explicit route mask as received in an NC_ER_ACT or NC_ER_ACT_REPLY RU. This mask indicates the explicit route numbers for flow in the direction opposite the direction of ER n.

System action:
- If this VTAM node rejected a route-activation attempt from another network node, processing continues with no effect on this node.
- If a route activation initiated by this node failed, then some other network node rejected the route-activation request. The failing host continues processing the generic BIND that caused the activation attempt, and places it on some other available route in its requested COS.
- If no routes are available, the generic BIND fails or is queued to wait for a usable route.

Operator response: For a route-activation indicated as FAILED:
- The problem is probably at the node that rejected the route-activation RU.
- If message IST525I is present, it identifies the rejecting node.
- If message IST525I is not present (as for a virtual route activation failure), the node at the far end of the route subarea2 is the rejecting node.
- If an explicit route activation failed because it requires a currently inactive transmission group (TG) in order to complete the route’s physical connectivity, the TG might be activated if the node containing the inactive TG is active or can be made active to this VTAM. Otherwise, call the operator of whatever host owns the node containing the inactive TG and request activation of the TG.
- If route activation failed because it is a migration ER0 that is not supported by VTAM, this is probably a route-definition error. Bring this to the attention of your system programmer.
For a route-activation indicated as REJECTED:

- If message IST522I indicates that his VTAM node rejected a route-activation RU, the problem is in this node. With the following exceptions, your system programmer will need to be informed. The exceptions are:
  - When an ER activation was rejected because the ER is not reversible.
  - When a VR activation was rejected because the VR is not defined. (An ER that is “not reversible” either is not defined or is incompatibly defined in the reverse direction, that is, in the direction from the rejecting VTAM node issuing this message to the node originating the ER activation.)

In these cases, an appropriate path definition set might be activated to cause the applicable route to become properly defined.

**System programmer response:** The information in this group of messages is basically that which appears in the NC_ER_ACT, NC_ER_ACT_REPLY, or NC_ACTVR request units, or the sense information that might appear in the NC_ACTVR response unit.

If this host rejected a virtual route's activation because an incorrect explicit route was requested, you might not be able to resolve the problem. The situation is one of the following:

- The explicit route for the subject virtual route is defined on a physical path different from that defined at the other end of the route (that is, inconsistent route definitions).
- The applicable path deck has only recently been activated, and the other end of the route has tried to activate a virtual route before being notified of one or more new explicit route definitions. Because this is a timing problem, there is no action that you can take. The next attempt to activate the virtual route should succeed.

**Routing code:** 8

**Descriptor code:** 4

<table>
<thead>
<tr>
<th>IST523I</th>
<th>REASON = reason</th>
</tr>
</thead>
</table>

**Explanation:** This message is part of several message groups. See the explanation of the first message in the group for a complete description.

**Routing code:** 8

**Descriptor code:** 4

<table>
<thead>
<tr>
<th>IST524I</th>
<th>REVERSE ER MASK = ermask</th>
</tr>
</thead>
</table>

**Explanation:** This message is part of a group of messages. The first message is IST522I. See the explanation of that message for a full description.

**Routing code:** 8

**Descriptor code:** 4

<table>
<thead>
<tr>
<th>IST525I</th>
<th>REJECTING SA subarea3 USING TG tg ADJACENT SA subarea4</th>
</tr>
</thead>
</table>

**Explanation:** This message is part of a group of messages. The first message is IST522I. See the explanation of that message for a full description.

**Routing code:** 8

**Descriptor code:** 4

<table>
<thead>
<tr>
<th>IST526I</th>
<th>ROUTE FAILED FROM subarea1 TO subarea2 — DSA destsubarea — NETID netid</th>
</tr>
</thead>
</table>

**Explanation:** A transmission group between subarea number subarea1 and subarea number subarea2 has become inoperative. destsubarea is the subarea number of the destination of the route in network netid.

**System action:** Processing continues. VTAM terminates all sessions using this explicit route. An affected session might be reinitiated by the session partners if alternate routes are available to them.

**Operator response:** If the outage is the result of physical failure, save the system log for problem determination. If the outage is a result of some operator action in the network and was not expected, contact the operators controlling the reporting node or its adjacent node or both, to coordinate your actions.
Note: If the system programmer requests more information about a certain explicit route, you can supply it by issuing the DISPLAY ROUTE,TEST=YES command, specifying either subarea1 or subarea2 (whichever is appropriate) as the destination subarea number. If the virtual route numbers affected by this outage and the number of the transmission group number are desired, you can obtain that information by issuing the DISPLAY ROUTE,TEST=YES command, specifying destsubarea as the destination subarea number. If only the virtual route numbers are desired, the TEST=YES operand can be omitted.

System programmer response: If a network failure is involved, repair the network and restore the route.
Routing code: 2
Descriptor code: 5

IST528I VIRTUAL ROUTE NUMBER vrlist
Explanation: This message is part of a group of messages. The first message is IST521I, IST744I, or IST746I. See the explanation of those messages for a full description.
Routing code: 8
Descriptor code: 4

IST529I VR SELECTION EXIT reason [AND IS NOW INACTIVE]
Explanation: The virtual-route-selection exit routine has terminated.
reason can be one of the following:

ABENDED WITH CODE code
The VR exit selection subtask, ISTPUCX0, abnormally terminated with hexadecimal abend code code. See the z/OS MVS System Codes for more information.

EXCEEDED ABEND THRESHOLD
The VR exit selection subtask, ISTPUCX0, abnormally terminated more than four times in less than four minutes.

REQUESTED TERMINATION
The exit routine requested its own termination by specifying a nonzero return code when it returned control to VTAM.

IS NOT OPERATIVE DUE TO A LACK OF STORAGE
The exit routine became inoperative because of a lack of storage.

System action: Processing continues. If the exit routine has abended but has not exceeded its abend threshold, VTAM reinstates the exit routine. If the abend threshold was exceeded or the exit routine requested termination, VTAM stops using the exit routine and performs virtual route selection for session requests strictly on the basis of the requested Class of Service.

Operator response: Save the system log for problem determination.
System programmer response: If the virtual route selection exit routine abended, there is probably a programming error in the exit routine. You can replace the exit routine with the corrected version by using the MODIFY EXIT command. See z/OS Communications Server: SNA Operation for information on the MODIFY EXIT command.

If the exit routine requested its own termination, there might be a programming error.
Routing code: 8
Descriptor code: 4

IST530I runame PENDING FROM fromnetid TO tonetid FOR fornodename
Explanation: This message is the first in a group of messages that VTAM issues when the request unit (RU) runame has been pending on the resource fornodename for a period of time without receipt of a corresponding response unit. A complete description of the message group follows.
Note: If *runame* remains outstanding for subsequent intervals, these messages will be repeated at such intervals until *runame* is received or until the request unit is purged.

**IST530I**

- *runame* is the request unit (RU) that is pending. See Chapter 16, “Command and RU types in VTAM messages,” on page 1083 for a description of *runame*.
- The origin and destination of *runame* are identified by one of the following:
  - Network names (*fromnetid* and *tonetid*) as displayed in this message.
  - Network addresses (subarea number *subarea* and element number *element*) as displayed in message IST531I.

**IST531I**

VTAM will not issue this message if both *FROM* network name *fromnetid* and *TO* network name *tonetid* are displayed in this message.

VTAM will display this message once if one of the network names is unknown and twice if both of the network names are unknown.

If the subarea and element addresses are unknown, VTAM issues either 0 or *NA* in place of the address.

**IST1051I**

*code* is an event code that identifies which format of event ID is being displayed. See the [z/OS Communications Server: IP and SNA Codes](https://www.ibm.com/support/docview.wss?uid=swg21326314) for a description of *code*.

**IST1062I**

*eventid* is an internal VTAM identifier of the pending request. See the [z/OS Communications Server: IP and SNA Codes](https://www.ibm.com/support/docview.wss?uid=swg21326314) for a description of *eventid*.

**System action:** Processing continues, awaiting the corresponding response unit.

**Operator response:** This message group indicates that a problem might exist. The longer an RU remains outstanding (that is, the more often these messages reappear for the same RU), the more probable it is that a problem exists.

If a particular RU remains outstanding for an extended period of time, display the node for which the I/O is pending, and save the system log for problem determination.

If *runame* is CHAR CODED, this message group indicates that VTAM sent a USSMSG to the LU and is waiting for a response. To correct the situation, enter a VARY INACT command for the resource *fornodename* and then enter a VARY ACT for the same resource.

If you want to change the time-out interval controlling the display of this message, see [z/OS Communications Server: SNA Operation](https://www.ibm.com/support/docview.wss?uid=swg21326314).

**System programmer response:** See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](https://www.ibm.com/support/docview.wss?uid=swg21326314) for corrective actions for the common problems.

- If *runame* is CD DSEARCH, this message group might indicate one of the following problems:
  - A low IOINT value and no ADJSSCP table values were coded.
  - The DYNASSCP start option and the ADJSSCP table are not properly tuned.
- If *runame* is CHAR CODED, this message group indicates that VTAM sent a USSMSG to the LU and is waiting for a response. This is usually a device problem. A frequent cause of this error is when a user powers off the terminal without logging off first. To correct the situation, enter a VARY INACT command for the resource *fornodename* and then enter a VARY ACT for the same resource.
- If *runame* is GUNBIND and the message is received at log off time in a cross domain environment, this message group indicates that one of the following probably occurred:
  - The application did not issue a CLSDST macro.
  - The device sent an incorrect response or no response to the UNBIND RU.
If runame is NMVT, this message group might indicate that the device is not real-time-monitor-capable. This means that the device did not process the response and return the requested information properly to the NetView program for most devices, or to the RS/6000® network management program for RS/6000 devices. A microcode change is needed to permanently resolve this problem.

See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for information on the wait procedure.

Routing code: 8
Descriptor code: 4

**IST531I**

```
{[FROM|TO] SUBAREA = subarea, ELEMENT = element | VIA gatewaynetid | VIA SUBAREA gwnsubarea}
```

**Explanation:** VTAM issues this message as part of a message group. See the explanation of the first message in the group for a complete description.

Routing code: 8
Descriptor code: 4

**IST533I**

```
ER er {SUCCEEDED|FAILED} IN ROUTE TEST routetest
```

**Explanation:** This message is the first of a group of messages. A complete description of the message group follows.

vtam performed a route test on an explicit route, er. VTAM receives the results of the route test and displays the information in this message group. A route test and its results were unsolicited if the route test number routetest (in message IST533I) is zero. Otherwise, they were solicited as a result of a DISPLAY ROUTE command in which the TEST=YES option was specified. For the solicited route test, routetest is the route test number that corresponds to the route status display number in the message IST535I group (which should have already been displayed as a result of the DISPLAY ROUTE command).

The explicit route, er, that succeeded or failed in the route test:

- Originated in node originpu, subarea number originsa, in network netid. If name of the origin physical unit is not available, originpu will appear as ***NA*** (not available).
  - originpu is the node specified by the ORIGIN operand of the DISPLAY ROUTE command or used by default.
  - netid is displayed. It is the network ID specified either by the NETID parameter of the DISPLAY ROUTE command or in the NETID start option (during initialization of VTAM).
- Flowed through adjacent node adjnode, subarea number adjsa. tg1 is the transmission group number defined to the link to the adjacent subarea, adjsa.
  - If the route test was unsolicited, the adjacent node does not pertain to the flow and, therefore, adjnode, adjsa, and tg1 will not be displayed. If the node name is not known, adjnode will be displayed as ***NA*** (not available).
- Was destined for node destpu, subarea number destsa.
  - destsa is the destination subarea number specified by the DESTSUB operand of the DISPLAY ROUTE command. If the node name has not been defined for it, destpu will be displayed as ***NA*** (not available).

erlength is the length of the explicit route in terms of the number of transmission groups traversed during the test.

An explicit route completes a route test successfully if the route test request is successfully forwarded to and returned from the other end of the route. In order for this to occur, a physical connection must exist along the entire length of the route, with proper route definitions in each intermediate node and in the end node.
If the explicit route failed in the test:

- It was rejected by the node with subarea number rejsa, adjacent to subarea number rejadjsa through transmission group number tg2. rejadjsa or tg2 or both might be zero if they are not known to the rejecting node.
- ermask is a hexadecimal 4-digit mask representing operative routes in the direction opposite the direction of the explicit route er. The first 8 bits represent ERs 0–7. If mask is 0, the ER is not reversible.
- It was rejected for one of the following values of reason:

  **A REQUIRED TG IS INACTIVE**
  The explicit route requires a transmission group that is not currently active somewhere along the path of the route.

  **ER EXCEEDS MAXIMUM LENGTH**
  The explicit route had a length in excess of the maximum possible length (that is, a routing loop might exist).

  **ER NOT DEFINED**
  The explicit route was not defined in the forward direction.

  **ER NOT REVERSIBLE**
  The explicit route was not reversible because of an incompatible definition or no definition in the reverse direction.

  **MIGRATION ER NOT SUPPORTED**
  A migration node was encountered. Migration nodes do not support ER or VR protocols. ER0 cannot be used.

  **MIGRATION NODE DOES NOT SUPPORT THIS ER**
  The adjacent subarea NCP or VTAM does not support extended subarea addressing and the explicit route being activated has an origin or destination subarea greater than 255, or an explicit route number greater than seven.

  **MIGRATION NODE ENCOUNTERED**
  A migration node was encountered. Migration nodes do not support ER or VR protocols. ER0 can be used.

  **UNEXPECTED TYPE BYTE X'nn'**
  A reason code, nn (expressed in hexadecimal), was received from the rejecting node, and VTAM does not recognize that reason code.

The following is an illustration of a typical route failure:

![Diagram of route failure]

**Figure 3. Typical route failure**

**Note:** Messages IST572I and IST816I do not appear for a route test that completed successfully.

**System action:** Processing continues, regardless of the route-test results, with no effect on this host.

**Operator response:** If the explicit route completed the route test successfully, VTAM can use the route for routing session message traffic (provided the explicit route and an associated virtual route are defined to VTAM). No operator response is necessary unless route definitions are required, in which case the appropriate path definition sets can be activated.

If the explicit route failed the route test, an operator response might not always be necessary, but in order for VTAM to carry session message traffic on this explicit route, it must be properly defined to VTAM and all nodes on the route must support the explicit and virtual route protocols. The route-status display (message group IST535I corresponding to routetest) lists the defined or undefined status of the explicit route in this host.

If the explicit route failed the route test because of an inactive transmission group:

- You can activate the links connecting the rejecting subarea rejsa to its adjacent node of subarea rejadjsa.
- If the problem node is not in your host, you might need to call the operator of the other domain or host to activate the nodes.
If the test had been unsolicited and the originating node is from another host, this might indicate a request that you activate the nodes so that this other host can attempt some session traffic activities on that route.

System programmer response: The information in this group of messages is basically that which appears in the NS ER TESTED request unit. See the description of the explicit route test process and its associated RUs in the Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures. For more information on the DISPLAY ROUTE command, see Communications Server: SNA Operation. Most problems will be the result of inconsistent route definitions among the affected network nodes.

Routing code: 8
Descriptor code: 5

IST534I originsa [tg1] [adjsa] destsa erlength

Explanation: This message is part of a group of messages. The first message is IST533I. See the explanation of that message for a full description.

Routing code: 8
Descriptor code: 5

IST535I ROUTE DISPLAY requestid FROM SA subarea1 TO SA subarea2

Explanation: This message is the first in a group of messages that VTAM issues in response to a DISPLAY ROUTE command. A complete description of the message group follows.

IST535I ROUTE DISPLAY requestid FROM SA subarea1 TO SA subarea2
IST808I ORIGIN PU = originpu DEST PU = destpu NETID = netid
IST536I VR TP STATUS ER ADJSUB TGN STATUS CUR MIN MAX
IST537I [vr] [tp] [vrstatus] [er] [adjsa] [tgn] [erstatus] [cur] [min] [max]

IST314I END

These messages contain virtual route and explicit route status for routes to the destination subarea subarea2. If the explicit route test option (TEST=YES) was requested, the results of actual tests of the applicable explicit routes will appear in subsequent messages.

IST535I The route display number requestid in message IST535I is a request identification number, which also appears in any subsequent messages (resulting from the TEST=YES option) that are derived from the same DISPLAY ROUTE command. subarea1 is the subarea address of the node from which the route status is being reported; subarea2 is the subarea address of the destination node.

IST808I

- Message IST808I indicates the node names of the origin PU (originpu) and destination PU (destpu), and the network ID (netid).
- If the destination subarea (DESTSA) has not been defined in the PATH definition statement, destpu will appear as ***NA*** (not available).

IST536I

Message IST536I is a header line identifying columns of data in subsequent occurrences of message IST537I.

IST537I

- For the virtual route identified by:
  
  vr  virtual route number and
  tp  transmission priority,

- message IST537I identifies:

vrstatus

  The current status of that virtual route transmission priority pair
**er**  The number of the explicit route onto which that virtual route is mapped

**adjsa**  The subarea number of the adjacent node through which the explicit route leaves the origin node

**tgn**  The transmission group number

**erstatus**  The status of the explicit route.

The following fields will also be included if the VR STATUS `erstatus` is ACTIV.

**cur**  The current window size of the virtual route

**min**  The current minimum window size of the virtual route

**max**  The current maximum window size of the virtual route.

**Note:** The default minimum and maximum window sizes that are coded in the PATH definition deck are not included in this display.

If the ORIGIN operand was specified on the DISPLAY ROUTE command with a name other than ISTPUS or the name specified on the HOSTPU start option in this host, the `cur`, `min`, and `max` window sizes reflecting the origin subarea VR information are not available and will not be displayed.

If the COSNAME operand was specified in the DISPLAY ROUTE command, message IST537I will appear in the same order as in the COS table entry. If a virtual route display or an explicit route display was requested, these messages will appear in numeric order by virtual route number (`vr`).

If an explicit route display was requested in the DISPLAY ROUTE command and there are no virtual routes defined to use a given explicit route, all the virtual route information (`vr`, `tp`, and `erstatus`) for that explicit route will be blank. If a virtual route display or a COS display was requested in the DISPLAY ROUTE command and a given virtual route has not been defined to VTAM, all the explicit route information (`er`, `adjsa`, and `erstatus`) for that virtual route will be blank. `adjsa` will be blank for any explicit route with a status of UNDEF.

The `erstatus` field in message IST537I might contain any of the following values:

**ACTIV**

The VR is active.

The virtual route has been defined to VTAM in a path definition set. It has been successfully activated. It is in use by one or more sessions.

**BLCKD**

The VR is blocked.

The virtual route has been defined to VTAM in a path definition set and it has been successfully activated. It is in use by one or more sessions, but congestion has been detected along the route.

**PACT**

The VR is pending active.

The virtual route has been defined to VTAM in a path definition set and is in the process of being activated by this node.

**PINAC**

The VR is pending inactive.

The virtual route has been defined to VTAM in a path definition set and has recently been active, but is now in the process of being deactivated by this node. Unless VTAM is halting, the VR will be automatically reactivated when it is again needed for a session.

**INACT**

The VR is inactive.

The virtual route has been defined to VTAM in a path definition set, but is not currently active or is pending active. It will be automatically activated when it is needed for a session.
The VR is undefined.

The virtual route has not been defined to VTAM in a path definition set.

The erstatus field in message IST537I might contain any of the following values:

**ACTIV1**

The ER is active.

The explicit route has been defined to VTAM in a path definition set, is physically available to the network, and has been activated by the node at the other end of the route. A route test (TEST=YES option) should succeed, because physical connectivity exists along the entire route in this state.

**ACTIV2**

The ER is active.

The explicit route has been defined to VTAM in a path definition deck, is physically available to the network, has been activated by the node at the other end of the route, and is in the process of being activated by this node. A route test (TEST=YES option) should succeed, because physical connectivity exists along the entire route in this state.

**ACTIV3**

The ER is active.

The explicit route has been defined to VTAM in a path definition set, is physically available to the network, and has been activated by this node or by both this node and the node at the other end of the route. A route test (TEST=YES option) should succeed, because physical connectivity exists along the entire route in this state.

**MIGR**

The ER is active (but only for limited function, migration use).

The explicit route has been defined to VTAM in a path definition set and is believed to be physically available to the network. During activation processing, it was determined that one or more nodes along the route do not support the explicit route protocols. A route test (TEST=YES option) will probably fail, because one or more of its nodes does not support explicit route protocols. This does not mean that the physical connectivity of the route has failed. It only means that the route could not be completely tested because of the migration nodes.

**PACT**

The ER is pending active.

The explicit route has been defined to VTAM in a path definition set, is physically available to the network, has not been activated by the node at the other end of the route, and is in the process of being activated by this node. A route test (TEST=YES option) should succeed, because physical connectivity exists along the entire route in this state.

**INACT**

The ER is inactive.

The explicit route has been defined to VTAM in a path definition set and is physically available to the network, but has never been successfully activated. Activation will be attempted automatically when the ER is needed for a session. A route test (TEST=YES option) should succeed, because physical connectivity exists along the entire route in this state.

**INOP**

The ER is inoperative.

The explicit route has been defined to VTAM in a path definition set, but is not physically available to the network. That is, connectivity does not exist along the entire route. A route test (TEST=YES option) will fail, because the explicit route does not have physical connectivity.

**PDEFA**

The ER is pending definition—active.

The explicit route is physically available to the network, and activation has been attempted by the node at the other end of the route, but the route has not yet been defined to VTAM in a path definition set. The route is automatically activated by this node when an appropriate path definition set is processed. A route test (TEST=YES option) can succeed, even though the explicit route is not defined in this host. The purpose of the
test is to provide information on the physical connectivity of the explicit route so that the operator can decide whether or not to define the route. In order for VTAM to carry session message traffic, the explicit route must be defined to VTAM.

**PDEFO**

The ER is pending definition—operative.

The explicit route is physically available to the network, but it has not yet been defined to VTAM in a path definition set. A route test (TEST=YES option) can succeed, even though the explicit route is not defined in this host. The purpose of the test is to provide information on the physical connectivity of the explicit route so that the operator can decide whether or not to define the route. In order to be used by VTAM to carry session message traffic, the explicit route must be defined to VTAM.

**UNDEF**

The ER is undefined.

The explicit route has not been defined to VTAM in a path definition set and is not physically available to the network. A route test (TEST=YES option) will always fail, because the explicit route is neither defined to VTAM nor operative.

**System action:** Processing continues. If the DISPLAY ROUTE command specified TEST=YES, subsequent messages (with route display number _rtn_ being the same as the one appearing in message IST535I) will indicate whether VTAM started any route tests and, if so, their results (as the results are received from the network).

**Operator response:** The status might be used for information only, or might indicate that operator action is necessary if any status does not meet expectations. In particular, a virtual route or an explicit route with a status of UNDEF might indicate that a path definition set should be activated. An explicit route with a status of INOP might indicate that a subarea node, a cross-subarea link, or a cross-subarea link station should be activated, or that there is some network problem with a node, link, or link station.

**System programmer response:** None.

**Routing code:** 8

**Descriptor code:** 5

<table>
<thead>
<tr>
<th>IST536I</th>
<th>VR TP STATUS ER ADJSUB TGN STATUS CUR MIN MAX</th>
</tr>
</thead>
</table>

**Explanation:** This message is part of a group of messages. The first message of the message group is IST535I. See the explanation of that message for a full description.

**Routing code:** 8

**Descriptor code:** 5

<table>
<thead>
<tr>
<th>IST537I</th>
<th>[vr][fp] [vrstatus] [er] [adjsa] [erstatus] [cur] [min] [max]</th>
</tr>
</thead>
</table>

**Explanation:** This message appears as part of a group of messages. The first message of the message group is IST535I. See the explanation of that message for a full description.

**Routing code:** 8

**Descriptor code:** 5

<table>
<thead>
<tr>
<th>IST538I</th>
<th>ROUTE TEST routetest IN PROGRESS</th>
</tr>
</thead>
</table>

**Explanation:** This message follows the group of messages starting with message IST535I if the DISPLAY ROUTE command indicated TEST=YES and no error occurred preventing the ER test. The display identification number _routetest_ is passed in the ROUTE TEST RU and will be used to associate asynchronously received ER test results with the original DISPLAY ROUTE command.

**System action:** Processing continues. The ROUTE TEST RU indicated that ER testing is to be performed. Processing of the ER test is occurring asynchronously. VTAM will display the results of this testing in the messages that follow this one as the tests are completed.

**Operator response:** None.

**System programmer response:** None.
**IST539I • IST541I**

Routing code: 8
Descriptor code: 5

---

**IST539I**  DISPLAY ROUTE COMMAND FAILED, COS CANNOT BE RESOLVED

**Explanation:** VTAM issues this message if COSNAME was specified on a DISPLAY ROUTE command and VTAM could not find the virtual route list associated with the specified COSNAME.

**System action:** VTAM completes execution of the DISPLAY command.

**Operator response:** Ensure that you entered the COSNAME correctly. If problems persist, save the system log for problem determination.

**System programmer response:** If necessary, update the COS table to reflect the desired COSNAME.

Routing code: 8
Descriptor code: 5

---

**IST540I**  DISPLAY ROUTE COMMAND FAILED, SENSE = code

**Explanation:** VTAM issues this message if it encountered an error during the processing of the DISPLAY ROUTE command.

`code` is the sense code and indicates the reason for the error. See the [z/OS Communications Server: IP and SNA Codes](https://www.ibm.com) for a description of `code`.

**System action:** Processing continues.

**Operator response:** Save the system log for problem determination.

**System programmer response:** Use the system log and meaning of `code` to assist you in determining the cause of the failure.

Routing code: 8
Descriptor code: 5

---

**IST541I**  FOLLOWING PATH DEFINITION IS IGNORED

**Explanation:** This message is the first in a group of messages. A complete description of the message group follows.

**IST541I**  FOLLOWING PATH DEFINITION IS IGNORED
**IST544I**  PATH list
**IST523I**  REASON = reason

VTAM ignores the path definition indicated in message IST544I.

`list` can be either of the following:

- `VRn = ern, DESTSA = destsubarea`
- `ERn = adj, tgn DESTSA = destsubarea`

`adj` is the adjacent subarea number.
`destsubarea` is the destination subarea number.
`ern` is the explicit route number.
`tgn` is the transmission group number.

`reason` can be one of the following:

- **INSUFFICIENT STORAGE**
  - There is insufficient storage to build a table entry recording the existence of the route.

- **ER ALREADY DEFINED**
  - The explicit route indicated is already defined in the same way as it is now defined in the current path definition statement.
VR ALREADY DEFINED
The virtual route indicated is already defined in the same way as it is now defined in the current path definition statement.

ER MAY NOT BE REDEFINED
The path definition attempts to redefine an explicit route that is not in a redefinable state (the route is active).

VR MAY NOT BE REDEFINED
The path definition attempts to redefine a virtual route that is not in a redefinable state (the route is active).

System action: If the route described is not already defined, it will not be usable.

Operator response: Save the system log for problem determination.

System programmer response: If insufficient storage is a recurring problem, you might need to increase the size of the appropriate buffer pool as determined by the output from the DISPLAY BFRUSE command.

Have the operator cancel nonessential jobs or deactivate an unused part of the network to prevent further losses. VTAM might have to be halted and restarted with increased storage.

If the route is already defined and you meant to change that definition, check the path specification for errors.

Routing code: 8
Descriptor code: 5

IST542I INVALID DESTSA destsubarea FOR PATH DEFINITION — IGNORED

Explanation: VTAM issues this message when destination subarea value destsubarea is not valid because it is greater than the maximum subarea number supported by a network to which this VTAM host is interconnected. The maximum subarea number is the value specified on the MXSUBNUM start option.

System action: The destination subarea value destsubarea is ignored. The entire path definition will be ignored if destsubarea is the only destination subarea value coded.

Operator response: Save the system log for problem determination.

System programmer response: If a path to destination subarea destsubarea is desired, change the maximum subarea number by modifying the MXSUBNUM start option. You must restart VTAM to use the new value of MXSUBNUM. See the z/OS Communications Server: SNA Resource Definition Reference for a description of this start option.

See the z/OS Communications Server: SNA Resource Definition Reference for information about VTAM start options and their equivalent ISTRACON fields.

Routing code: 8
Descriptor code: 5

IST543I PATH list IS REDEFINED AS follows

Explanation: This message is the first in a group of messages. A complete description of the message group follows.

IST543I PATH list IS REDEFINED AS follows
IST544I PATH list

A route is being redefined as a result of a VARY ACT command for a path definition. Explicit routes are redefined to go through either a different adjacent subarea or transmission group, or both. Virtual routes are redefined to map onto a different explicit route.

list can be either of the following:

VRn = ern, DESTSA = destsubarea
ERn = adj, tgn DESTSA = destsubarea
adj is the adjacent subarea number.
destsubarea is the destination subarea number.
ern is the explicit route number.
tgn is the transmission group number.
IST544I • IST546I

System action: The route indicated has been redefined.
Operator response: None. If you want to restore the old path, you can activate a path table in which the old path is defined.
System programmer response: None.
Routing code: 8
Descriptor code: 5

IST544I PATH list

Explanation: This message is part of a group of messages. The first message is either IST541I or IST543I. See the explanation of the first message in the group for a complete description.
Routing code: 8
Descriptor code: 5

IST546I UNABLE TO PROCESS ER OP REPORT TO DESTINATION SA destsubarea

Explanation: This message is the first in a group of messages. A complete description of the message group follows.
IST546I UNABLE TO PROCESS ER OP REPORT TO DESTINATION SA = destsubarea
IST547I EXPLICIT ROUTE MASK ermask
IST523I REASON = reason

A request unit attempted to report explicit routes as operative to destination subarea destsubarea. Processing failed because of the reason designated by message IST523I.

reason can be any of the following:

INSUFFICIENT STORAGE
There was insufficient storage for VTAM to process the request.

INVALID ADJACENT SUBAREA destsubarea
Subarea destsubarea is greater than the maximum number allowed or is equal to the host subarea.

INVALID DESTINATION SUBAREA destsubarea
Subarea destsubarea is greater than the maximum number allowed or is equal to the host subarea.

Message IST547I designates the explicit routes with a ermask of 4 hexadecimal digits (16 bits). The first bit of the mask indicates ER0, the second bit indicates ER1, and so on.

System action: Processing continues. Because VTAM cannot process the request to make the reported routes operative, subsequent failures of certain VTAM operations might occur.
Operator response: Save the system log for problem determination. If the reason is insufficient storage, enter the DISPLAY BFRUSE and DISPLAY STORUSE commands.
System programmer response: Verify that the operator entered the buffer pool or CSA start options as specified in the start procedures.

Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA limits. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

- See the z/OS Communications Server: New Function Summary to determine the storage requirements for VTAM.
- See the z/OS Communications Server: SNA Resource Definition Reference for a description of VTAM start options.
- See z/OS Communications Server: SNA Operation for information about the DISPLAY BFRUSE command, theDISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- See the z/OS Communications Server: SNA Network Implementation Guide for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
- See the z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

Routing code: 8

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IST547I  EXPLICIT ROUTE MASK ermask

Explanation: This message is part of a group of messages. The first message is IST546I. See the explanation of that message for a full description.

Routing code: 8
Descriptor code: 4

IST548I  command FAILED linkstation subarea1,nodename1 subarea2,nodename2

Explanation: The command for linkstation failed because of a mismatch between information received in the CONTACTED (LOADED) RU and the information the SSCP already had about the contacted adjacent node. The adjacent node in the SSCP table (the subarea or name from the CONTACTED RU) is not a PU type 4, or the subarea or name in the RU does not match the subarea defined to VTAM.

subarea1 and nodename1 are taken from the RU. subarea2 and nodename2 are taken from the definitions defined to VTAM. In either case, if the name of the adjacent node is not available then ***NA*** will be displayed. This can occur if the RU does not have a name field or if VTAM knows the adjacent node only by subarea and not by name.

System action: The link station is deactivated.

Operator response: If the name value is supplied and valid, use the DISPLAY ID command to display the nodes. Also enter a DISPLAY STATIONS command. Save the system log for problem determination.

System programmer response: There are two distinct nodes in the network with the same name or subarea. Identify the one in error and correct it.

Routing code: 2
Descriptor code: 4

IST549I  LL2 TEST FOR ID = name ENDED result

Explanation: This message is the first in a group of messages that VTAM issues in response to a MODIFY command. A complete description of the message group follows.

IST549I  LL2 TEST FOR ID = name ENDED result
IST243I  FRAMES SENT = sent, RCVD = received, RCVD WITHOUT ERRORS = noerrors

The MODIFY LL2 command requests a link level 2 test to name be initiated.

result can be one of the following:

DUE TO A LINK INOP
  The test was terminated prematurely because of a failure in the link to which name is attached.

DUE TO A TEST INIT ERROR
  The test initialization procedure failed because the ERP limit expired while the link station was waiting for a response to the initial test command. In this case, sent, received, and noerrors will be all zeroes. This might occur over a link connecting two NCPs if both NCPs attempt to initiate link level 2 tests simultaneously for that link.

SUCCESSFULLY
  Valid responses were received for the requested number of TEST commands.

WITH ERRORS
  The test results contain errors. See the following explanation for noerrors.

Message IST243I contains counts of the number of SDLC TEST commands and responses that are sent and received.

sent is the number of test commands sent.

received is the number of command responses received.
noerrors is the number of command responses received that contained the user-supplied data intact (unchanged). If no data errors occurred, this number will equal received. If this number is less than received, a data error occurred.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 8

**Descriptor code:** 5

---

**IST561I • IST562I**

**IST561I STORAGE UNAVAILABLE: bp BUFFER POOL**

**Explanation:** A VTAM request for storage from the buffer pool bp could not be satisfied because there was not enough available storage in the buffer pool.

bp is the name of the buffer pool. See the [z/OS Communications Server: SNA Network Implementation Guide](https://www.ibm.com) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.

**System action:** The action depends on why the requested storage was needed. Other messages might follow identifying the effect this storage condition has on VTAM.

**Operator response:** Wait a short time and reenter the command. If VTAM continues to issue this message, enter the DISPLAY BFRUSE command. Save the system log and request a dump for problem determination.

**System programmer response:** Verify that the operator entered the buffer pool or CSA start options as specified in the start procedures.

Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA start options. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

- See [z/OS Communications Server: SNA Operation](https://www.ibm.com) for more information on the DISPLAY BFRUSE and MODIFY VTAMOPTS commands.
- See the [z/OS Communications Server: SNA Network Implementation Guide](https://www.ibm.com) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
- See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](https://www.ibm.com) for additional information.

**Routing code:** 2

**Descriptor code:** 5

---

**IST562I STORAGE UNAVAILABLE: type REACHED**

**Explanation:** A VTAM request for storage from the common service area (CSA) could not be satisfied. Doing so would exceed the CSALIMIT or CSA24 limit start option values.

**type** is one of the following:

**CSALIMIT**

- If the CSALIMIT start option was set with the MODIFY CSALIMIT command, the storage allocation request would exceed the value specified for CSALIMIT.

- If the CSALIMIT start option was set in the VTAM start list, the storage allocation request would exceed the value specified for CSALIMIT, and CSA plus ECSA usage would exceed 75% of the total system CSA plus system ECSA specified in the system parameters in the sys1.parmlib IEASYSxx, where the system CSA and system ECSA are specified.

- If the CSALIMIT start option was not specified, the storage allocation request would cause VTAM to use more than 90% of the total system CSA plus system ECSA storage.

**CSA24 LIMIT**

- If the storage allocation request explicitly specified 24-bit addressable storage, the CSA24 start option limit would be exceeded.

- If the CSA24 start option was not specified, the VTAM allocation of 24-bit addressable CSA would exceed the maximum available 24-bit addressable storage.
**IST563I • IST564I**

**System action:** The action depends on why the requested storage was needed. Other messages might follow identifying the effect this storage condition has on VTAM.

**Operator response:** Issue the DISPLAY BFRUSE command. Save the system log and request a dump for problem determination.

**Note:** If you receive a large number of CSALIMIT is reached messages, use the MODIFY VTAMOPTS or MODIFY CSALIMIT command to increase CSALIMIT as soon as possible. The command might not work if the processing continues until the VTAM LPBUF is exhausted.

**System programmer response:** Verify that the operator entered the CSA start options as specified in the start procedures.

Increase storage as required. For insufficient storage errors, you might want to redefine your CSA limits by using the MODIFY VTAMOPTS command. If the CSA24 or CSALIMIT start options were not specified, or if the CSALIMIT start option was set in the VTAM start list, you might need to increase your system CSA parmlib member value to increase total system CSA and ECSA.

- See the [z/OS Communications Server: SNA Operation](https://www.ibm.com) for more information about the DISPLAY BFRUSE and MODIFY VTAMOPTS commands.
- See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](https://www.ibm.com) for additional information.

**Routing code:** 2

**Descriptor code:** 5

---

**IST563I STORAGE UNAVAILABLE: MAXPVT REACHED FOR jobname stepname**

**Explanation:** A VTAM request for storage from the private area associated with the task identified by jobname and stepname could not be satisfied. Doing so would cause that task’s VTAM MAXPVT value to be exceeded.

**System action:** Action depends on why the requested storage was needed. Other messages might follow identifying the effect this storage condition has on VTAM.

**Operator response:** Wait a short time and reenter the command. If VTAM continues to issue this message, enter the DISPLAY STORUSE command to display storage usage for storage pools. Message IST981I displays total VTAM private storage information. If this message does not appear in the display, you might need to reissue the DISPLAY STORUSE command, specifying a higher value for the NUM operand. See [z/OS Communications Server: SNA Operation](https://www.ibm.com) for additional information.

Save the system log and request a dump for problem determination.

**System programmer response:** Check the specification of the MAXPVT operand on the APPL definition statements for the VTAM application programs running under the indicated task and make adjustments if necessary.

- See the [z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com) for more information on the MAXPVT operand.
- See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](https://www.ibm.com) for additional information.

**Routing code:** 2

**Descriptor code:** 5

---

**IST564I STORAGE UNAVAILABLE: COMMON AREA SUBPOOL subpool**

**Explanation:** VTAM issues this message when a VTAM request for storage from the common service area (CSA) could not be satisfied.

*subpool* identifies the storage subpool from which VTAM attempted to obtain storage (in decimal with leading zeros).

**System action:** The action depends on why the requested storage was needed. Other messages might follow identifying the effect this storage condition has on VTAM.

**Operator response:** Wait a short time and reenter the command. If VTAM continues to issue this message, enter the DISPLAY BFRUSE command. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and request a dump for problem determination.

**System programmer response:** Verify that the operator entered the CSA start options as specified in the start procedures.
IST565I

Increase storage as required. For insufficient storage errors, you might want to redefine your CSA start options by using the MODIFY VTAMOPTS command.

- See the \textit{z/OS Communications Server: New Function Summary} to determine the storage requirements for VTAM.
- See the \textit{z/OS Communications Server: SNA Resource Definition Reference} for a description of VTAM start options.
- See \textit{z/OS Communications Server: SNA Operation} for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- See the \textit{z/OS Communications Server: SNA Network Implementation Guide} for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
- See the \textit{z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT} for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

\textbf{Routing code:} 2

\textbf{Descriptor code:} 5

\textbf{IST565I} \quad \textbf{STORAGE UNAVAILABLE: VTAM PRIVATE AREA SUBPOOL} \textit{subpool}

\textbf{Explanation:} A VTAM request for private storage could not be satisfied. 

\textit{subpool} identifies the storage subpool from which VTAM attempted to allocate storage (in decimal with leading zeros)

\textbf{Note:} This might not represent a permanent lack of storage but a temporary problem whereby VTAM had difficulty obtaining storage quickly enough to satisfy the request at this time.

\textbf{System action:} Action depends on why the requested storage was needed. Other messages might follow identifying the effect this storage condition has on VTAM.

\textbf{Operator response:} Wait a short time and reenter the command. If VTAM continues to issue this message, enter the DISPLAY STORUSE command to display storage usage for storage pools. Message IST981I displays total VTAM private storage information. If this message does not appear in the display, you might need to reissue the DISPLAY STORUSE command, specifying a higher value for the NUM operand.

Save the system log and request a dump for problem determination.

Issue a DISPLAY SRCHINFO,FROMCP=*,FROMSSCP=* command and determine whether there is a particular control point (CP) in the network that is not responding to search requests. VTAM continues to maintain certain information about those search requests, which could cause VTAM private storage to grow. Provide the output of the DISPLAY command to the system programmer.

\textbf{System programmer response:} Verify that the operator entered the buffer pool or CSA start options as specified in the start procedures.

Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA limits. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTR\textit{xx}) and restart VTAM to use the start option.

- See the \textit{z/OS Communications Server: New Function Summary} to determine the storage requirements for VTAM.
- See the \textit{z/OS Communications Server: SNA Resource Definition Reference} for a description of VTAM start options.
- See \textit{z/OS Communications Server: SNA Operation} for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- See the \textit{z/OS Communications Server: SNA Network Implementation Guide} for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
- See the \textit{z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT} for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

Using the output of the DISPLAY SRCHINFO command, determine whether CP-CP sessions should be terminated between this host and the unresponsive host identified in the DISPLAY output. Terminating the CP-CP sessions will free up storage allocated to search requests toward the unresponsive control point.

\textbf{Routing code:} 2

\textbf{Descriptor code:} 5
IST566I  STORAGE UNAVAILABLE:  jobname  stepname  SUBPOOL  subpool

Explanation: A VTAM request for storage from the private area associated with the task identified by jobname and stepname could not be satisfied.

subpool identifies the storage subpool from which VTAM attempted to allocate storage (in decimal with leading zeros).

System action: The action depends on why the requested storage was needed. Other messages might follow identifying the effect this storage condition has on VTAM.

Operator response: Wait a short time and reenter the command. If VTAM continues to issue this message, enter the DISPLAY STORUSE command to display storage usage for storage pools. Message IST981I displays total VTAM private storage information. If this message does not appear in the display, you might need to reissue the DISPLAY STORUSE command, specifying a higher value for the NUM operand. See z/OS Communications Server: SNA Operation for additional information.

Operator response: Increase storage as required.

Routing code: 2
Descriptor code: 5

IST567I  command  OF  loadmodname  FOR  ncpname  status

Explanation: This message is the first in a group of messages that VTAM issues in one of the following situations:

- In response to a VARY ACT,LOAD=YES or LOAD=U command for an NCP when the disk operations associated with the VARY ACT were not performed.
- In response to a VARY ACT command for an NCP that specified LOADFROM, SAVEMOD, or DUMPLOAD for NCP ncpname.
- In response to a MODIFY LOAD command for an NCP when the MODIFY LOAD request was not executable.

A complete description of the message group follows.

IST567I  command  OF  loadmodname  FOR  ncpname  status
IST5231  REASON  =  reason

See Chapter 16, “Command and RU types in VTAM messages,” on page 1083 for a description of command.

loadmodname is the name of the load module being affected. If unknown, loadmodname is ***NA***.

ncpname is the name of the NCP.

status is one of the following:

- CANCELED
- COMPLETE
- FAILED
- NOT PERFORMED

reason is one of the following:

ALREADY LOADED

The VARY ACT command continues; the communication controller was already loaded.

CANCEL IN PROGRESS

A MODIFY LOAD (any ACTION type) command was entered and VTAM was currently processing a CANCEL request for the same NCP. The CANCEL must complete before a subsequent MODIFY LOAD can be entered.
CANCELED BY OPERATOR
A request to cancel a load that was in progress with a MODIFY LOAD,ACTION=CANCEL command has completed.

CONTROLLER DISK OPTION UNAVAILABLE
The VARY ACT command failed because the controller does not support disk functions.

DISK/HARDWARE ERROR
The VARY ACT command failed because of a disk or hardware error.

DISK FUNCTIONS NOT PERFORMED
INITEST=YES was specified on the PCCU definition statement for a non-3705 communication control unit. Although the load was performed, the VARY ACT command failed.

DISK RESOURCE TEMPORARILY UNAVAILABLE
The hardware resource is temporarily unavailable.

DUPLICATE LOAD MODULE ON DISK
A MODIFY LOAD,ACTION=ADD command was entered and there was already a load module on the disk with the same name.

ESTIMATED IPL in 5 MINS OF ANOTHER LOADMOD
The MODIFY LOAD command failed because another load module on the MOSS disk has an IPL scheduled for the same time as the IPL you requested.

FUNCTION NOT SUPPORTED
A MODIFY LOAD command was entered and it is not supported by the NCP.

INITIAL TEST INVALID FOR CCU
INITEST=YES was specified on the PCCU definition statement for a non-3705 communication control unit.

IPLTIME MORE THAN 90 DAYS FROM CURRENT DATE
A MODIFY LOAD command failed because the specified IPLTIME is more than 90 days from the current date.

**keyword** time EARLIER THAN SYSTEM TIME
A MODIFY LOAD command failed.

*keyword* is either *IPLTIME* or *NOTIFY* and indicates why the command failed.

**IPLTIME**
VTAM cannot schedule an IPL because the requested IPL time is earlier than the current system time.

**NOTIFY**
VTAM cannot schedule an IPL because the time at which notification was requested is earlier than the current system time. For example, if you attempt to schedule an IPL 30 minutes from now and ask to be notified 60 minutes before the IPL occurs, the MODIFY LOAD command fails, and VTAM issues this message.

If the values for both IPLTIME and NOTIFY are not valid, VTAM issues this message only once. The value of *keyword* is **IPLTIME**.

The *time* value specifies when an IPL or a notification was requested. See “DATE and TIME formats” on page 6 for information about the *time* value.

LOAD IN PROGRESS
A MODIFY LOAD,ACTION=ADD | REPLACE | PURGE command was entered and VTAM was in the process of another load for the same NCP. Only one load can be processed at a time.

LOAD NOT IN PROGRESS
A MODIFY LOAD,ACTION=CANCEL command was entered to cancel a load in progress and there was no load in progress.

NO IPL SCHEDULED FOR LOAD MODULE *load_module*
A MODIFY LOAD command failed. A scheduled IPL is not currently set for this module.

NO ROOM ON DISK
One of the following happened:
- A MODIFY LOAD,ACTION=ADD command was entered, and the disk was already full.
A MODIFY LOAD, ACTION=REPLACE command was entered, and load module loadmodname was not on the
disk. There is not enough room on the disk to add the additional load module.

REQUESTED FILE NOT FOUND
The command failed because one of the following occurred:
- The operator entered a VARY ACT command specifying the LOADFROM=HOST operand. VTAM could not
  find NCP load module loadmodname on the host.
- The operator entered a VARY ACT command specifying the LOADFROM=EXTERNAL operand. VTAM could
  not find NCP load module loadmodname on the hard disk of the communication controller.
- The operator entered a MODIFY LOAD command specifying the ACT=PURGE operand. VTAM could not
  find load module loadmodname on the hard disk of the communication controller.

RU LENGTH ERROR
The MODIFY LOAD operation was halted because the NCP rejected the IPLINIT RU. This indicates that the
NCP is not the correct level to process MODIFY LOAD commands.

SSP NOT CORRECT LEVEL
The controller (CCU), NCP, or SSP does not support the function requested. An NCP release prior to NCP V5R2
cannot be loaded with the LOADFROM, SAVEMOD, or DUMPLOAD operands. These operands are valid only
for NCP V5R2 or a later release. The command failed.

System action: See the preceding explanation of reason for the system action. Other processing continues.
Operator response: If reason is:

CANCELED BY OPERATOR
No action is required. This an informational message only.

DISK RESOURCE TEMPORARILY UNAVAILABLE
Try the request again.

DUPLICATE LOAD MODULE ON DISK
Try the command again, using the ACTION=REPLACE option of the MODIFY LOAD command instead of the
ACTION=ADD option.

ESTIMATED IPL in 5 MINS OF ANOTHER LOADMOD
Enter a DISPLAY DISK command to determine the IPL times scheduled for all the load modules on the MOSS
disk. Change the value of iptime accordingly and reenter the command.

IPLTIME MORE THAN 90 DAYS FROM CURRENT DATE
Reenter the command with a date fewer than 90 days from the current date.

keyword time EARLIER THAN SYSTEM TIME
Correct the time parameter and reenter the command. See z/OS Communications Server: SNA Operation for
more information.

LOAD IN PROGRESS
Wait until the current load operation completes, then try the command again.

LOAD NOT IN PROGRESS
No action. There was no operation in progress to cancel.

NO IPL SCHEDULED FOR LOAD MODULE load_module
No action is required. This is an informational message only.

NO ROOM ON DISK
Enter a MODIFY LOAD, ACTION=PURGE command to delete an unneeded load module from the disk. Enter a
DISPLAY DISK command to examine the contents of the disk.

REQUESTED FILE NOT FOUND
Follow the procedures set up by the system programmer.

RU LENGTH ERROR
Save the system log for problem determination.

SSP NOT CORRECT LEVEL
Save the system log for problem determination.
Otherwise, follow defined procedures for hardware problems.

System programmer response:

- If reason is RU LENGTH ERROR, ensure that the NCP is at the correct level.
- If reason is SSP NOT CORRECT LEVEL, ensure that the NCP, SSP, and CCU are at the correct level. To use the LOADFROM, SAVEMOD, and DUMPLOAD operands on the VARY ACT command, the NCP must be NCP V5R2 or a later release, and the SSP must be SSP V3R4 or a later release.
- For all other reasons, there is no additional suggested action.

Routing code: 2
Descriptor code: 5

IST571I  LOAD FAILED FOR ID = puname  REQ: ru, SENSE: code

Explanation: After loading a PU type 2, VTAM receives an NS_LOADSTAT request unit that indicates whether or not the load was completed successfully. VTAM issues this message when it receives an NS_LOADSTAT that indicates that the load was not completed successfully.

puname is the name of the physical unit that requested the load.

- When ru is IPL INIT, IPL TEXT, or IPL FINAL, the requested load failed during the load procedure.
- When the failing network services request unit ru is INITLOAD, the load failed because the application program could not process the load request.

code is the sense code and provides additional information about the reason for the failure. See the [z/OS Communications Server: IP and SNA Codes](https://www.ibm.com/support/knowledgecenter/en/STXKQY_2.2.0/com.ibm.zos.V2R2.MH54049/zos_ip_sna_codes.html) for a description of code.

Note: When ru is ***NA***, code is 08000000 (request rejected) and the failing request is not available. (The request and sense information were not included in the NS_LOADSTAT RU.)

System action: The system action depends upon the time at which the load was requested. If the load was requested during activation of the physical unit, VTAM deactivates the PU. Another message will signal completion of the deactivation processing. If the load was requested after the PU was activated, VTAM will take no action.

Operator response: Try activating the physical unit again if load failure caused the physical unit to be deactivated. Otherwise, no response is required. If the problem persists, check the PU hardware for possible problems.

System programmer response: None.

Routing code: 2
Descriptor code: 5

IST572I  REJECTING TG ADJACENT ER MASK

Explanation: This message is part of a group of messages. The first message is IST533I. See the explanation of that message for a full description.

Routing code: 8
Descriptor code: 5

IST574E  START I/O TIMEOUT OCCURRED FOR linkname

Explanation: This host has initiated an I/O operation. An interrupt has not been received in the time specified for that I/O operation. linkname is the name of a communication link.

System action: Processing continues.

Note: If the other host does not respond in roughly 3 minutes from the time that this message appears, request units (RUs) will be lost. If MIH=YES was specified on the LINE or GROUP definition statement, RUs will be lost and the PU will become inoperative at the end of 3 minutes. The interrupt interval can be modified using the MIHTMOUT start option. Evaluate the setting of the REPLYTO operand. See the [z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com/support/knowledgecenter/en/STXKQY_2.2.0/com.ibm.zos.V2R2.MH54064/zos_sna_resource_def_ref.html) for more information.
Operator response:

- If the other host has failed, the operator might want to deactivate the link linkname since it cannot be used.
- If the other host has temporarily stopped, normal operation will resume when the operator starts the system again.

Otherwise, no action is required.

System programmer response: None.
Routing code: 2
Descriptor code: 3

---

IST576I TSO TRACE = {ON|OFF}

Explanation: VTAM issues this message in response to a DISPLAY TSOUSER command. It states whether the TSO trace is on or off for a particular TSO user.

System action: Processing continues.

Operator response: None.
System programmer response: None.
Routing code: 2,8
Descriptor code: 5

---

IST577I TIME = time DATE = date ID = id

Explanation: This message is the first in a group of messages that displays tuning statistics pertaining to the VTAM operation of a channel-to-channel adapter. A complete description of the message group follows.

- time indicates the time (in hours, minutes, seconds, and hundredths of seconds) at which the record is recorded. For example, 07431380 means that the record was recorded at the 7th hour, 43rd minute, 13th second, and 80 one-hundredths of a second of the day.
- The date value specifies when the tuning statistics report is recorded. The date is in the form yyddd, where yy is the last two digits of the numeric year and ddd is the numeric day of the year. For example, 87190 means the record is recorded on the 190th day of 1987.
- id provides the name of the link through which the tuning statistics are taken. It corresponds to the name of the LINE definition statement in the associated channel-attachment major node.

IST578I

- chnrm is the number of channel programs issued that VTAM used to send data to the node on the other side of the adapter.
  - chnrm will be greater than or equal to the number of write triggers (TIMERS + QDPTH + PRI + BUFCAP).
  - The difference between chnrm and the sum of the write triggers represents the following:
    - The number of channel programs with write data that are initiated by an attention from the other host when data was queued, but a channel program with write data could not be triggered.
    - As you increase the value of the DELAY operand for the channel-to-channel adapter, the difference between chnrm and the sum of the write triggers might be greater.
- chmax is 0 because all channel programs are the same size.
- rdbuf is the total number of input bytes transferred during the measurement period.
ATTN is the number of times a channel program is initiated because the other host has data to send. This statistic cannot be correlated with any of the other statistics that are provided; it is simply a value that indicates the number of attention interrupts.

When compared over an interval of time, ATTN usually does not equal the sum of TIMERS, QDPTH, BUFCAP, and PRI at the other host. VTAM counts only the first event that initiates an I/O operation, and when both hosts try to write at once, one of the hosts receives an attention that is not counted in its tuning statistics.

Timers is the number of times a channel program with write data is started because the period specified for queueing channel-to-channel PIUs has expired.

- If session traffic is heavy, the desirable value is 0.
- If session traffic is light, a low value rather than 0 is desirable.
  Increasing the DELAY operand on the LINE definition statement or using transmission priority 2 might decrease the value of timers.

QDPTH is the number of times a channel program is initiated because the queue limit has been reached. This number should be higher than timers.

**Note:** If DELAY=0 is specified for the channel-to-channel adapter, the TIMERS and QDPTH tuning statistics might be misleading.

If DELAY=0, qdpth indicates the number of channel programs that wrote data to the channel-to-channel adapter. VTAM determines the QDPTH limit based on usage except in the case of DELAY=0.

If DELAY=0, timers does not increment.

Bufcap is the number of times a channel program with write data is initiated because there is enough data to fill the read buffers of the host on the other end of the channel.

- Bufcap will also be incremented if a channel program with write data is initiated due to residual PIUs left on the data queue after a channel program with write data containing a full write buffer of data has completed.
- If bufcap is always 0, the other VTAM host has too many read buffers.

Pri is the number of times a channel program with write data is started because a high priority PIU is on the outbound channel queue; that is, the PIU is running under transmission priority 2 or is a virtual route pacing response.

If this number is high and there is very little transmission priority 2 traffic over this channel, the minimum virtual route window sizes are probably too small. The higher this number is in relation to the sum of TIMERS + QDPTH + BUFCAP, the less outbound coattailing occurs, and the more CPU time is used for each PIU.

Slodn indicates the number of times that this VTAM had channel programs with write data blocked by a slowdown condition in the other VTAM.

Ipiu is the number of inbound PIUs. The average number of PIUs for each channel program can be calculated from the sending side as OPIU / (CHNRM + CHMAX).

Opft is the number of outbound PIUs. The average number of output PIUs for each channel program with write data can be calculated as OPIU / (CHNRM + CHMAX).

Dlrmx is a decimal value that indicates the maximum number of dump-load-restart requests that were awaiting processing or were being processed at one time during the interval. This number refers to the entire domain, not to the SNA controller named in the report. The dump-load-restart subtask processes the following types of requests:

- Dump, load, or restart of an NCP
- Some VTAM messages to the operator that require a reply
- Session establishment and termination processing for a local major node
- Any I/O to a configuration restart or NODELST file.

This value can be used to determine the proper setting for the DLRTCB start option, which determines how many dump-load-restart requests can be processed concurrently. If DLRMAX consistently exceeds DLRTCB, it indicates that VTAM is serializing requests on the available TCBs and that performance might be affected.
wrbuf is the total number of output bytes transferred during the measurement period.

**System action:** Processing continues.

**Operator response:** Follow the instructions of your system programmer to tune the system. To discontinue statistics recording, enter the MODIFY NOTNSTAT command.

**System programmer response:** For additional information on tuning and analyzing tuning statistics, see the [z/OS Communications Server: SNA Network Implementation Guide](https://publib-z.boulder.ibm.com/ibmzos/ibmzos/lift/00000020_00000000/00000002/).

Routing code: 2
Descriptor code: 4

**IST578I CHNRM = chnrm CHMAX = chmax RDBUF = rdbuf**

**Explanation:** VTAM issues this message as part of a message group. The first message in the group is IST577I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 4

**IST579I ATTN = attn TIMERS = timers QDPTH = qdpth**

**Explanation:** VTAM issues this message as part of a message group. The first message in the group is IST577I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 4

**IST580I BUFCAP = bufcap PRI = pri SLODN = slodn**

**Explanation:** VTAM issues this message as part of a message group. The first message in the group is IST577I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 4

**IST581I IPUIU = ipiu OPIU = opiu DLRMAX = dlrmax**

**Explanation:** VTAM issues this message as part of a message group. The first message in the group is IST577I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 4

**IST582I 'EVERY' INVALID FOR TRACE OF ID = hostname — OPERAND IGNORED**

**Explanation:** VTAM issues this message if the operator attempts to start or terminate a buffer or I/O trace with the SCOPE=ALL or EVERY option for the host PU name hostname or ISTIRN. The SCOPE=ALL or EVERY option is not supported for host PU trace.

**System action:** VTAM ignores the SCOPE=ALL or EVERY option. The trace is initiated or terminated only for the specified node.

**Operator response:** None.

**System programmer response:** None.

Routing code: 8
Descriptor code: 5
IST583I • IST587I

IST583I  CONFIG configname NOT PROCESSED — SYSDEF TASK NOT ATTACHED

Explanation: The system definition subtask, ISTSDCLM, has not been reattached either because it has exceeded its maximum abend count or because VTAM is halting. The command for the resource identified by the configname field cannot be successfully completed.

System action: If the command is an activate command for a major node, path definition set, or DRDS data set, the command fails. For a VARY INACT command for a major node or path definition set, virtual storage is lost. Further activate or deactivate commands will fail in the same way, and produce this same message again until VTAM is restarted.

Operator response: Save the system log for problem determination.

System programmer response: Correct the problem that caused an unexpected number of subtask ABENDs. Then restart VTAM to regain use of the subtask.

Routing code: 2
Descriptor code: 5

IST585E  VTAM UNABLE TO CLOSE applname — RESOURCES MAY BE LOST TO VTAM

Explanation: VTAM issues this message when the VTAM application program applname has issued a CLOSE ACB macro or when VTAM has attempted to close the application program’s access method control block (ACB).

This message is often displayed when the application issues a CLOSE ACB macro and then the application’s underlying task is abnormally terminated. This abnormal termination results in VTAM attempting to close the ACB on behalf of the application. VTAM might not succeed in closing the ACB, but the CLOSE ACB issued by the application still succeeds.

It is also possible that a system error occurred.

System action: The ACB might not be closed and system resources might be lost.

Operator response: This is probably a software error. If this message appears for several different application programs or if critical resources are tied up, halt VTAM and restart it. In addition, save the system log and problem determination.

If this message appears during a halt of VTAM, enter a HALT CANCEL command.

System programmer response: Analyze the output from the operator to determine the cause of the problem.

Verify that the failing job step includes a SYSABEND DD statement.

See [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](https://www.ibm.com/support/docview农资/145425.txt?language=en) for more information on application program problems.

Routing code: 2
Descriptor code: 3

IST587I  IRN STORAGE [EXCEEDED|DEPLETED] CAUSED BY SLOWDOWN OF NODE nodename

Explanation: This message describes the status of the VTAM storage used for intermediate routing node (IRN) traffic that cannot be routed to an adjacent subarea node.

- If the status is **EXCEEDED**, the user-specified storage limit for intermediate routing node slowdown processing was exceeded.
- If the status is **DEPLETED**, the intermediate routing node buffer manager was unable to obtain pageable storage.

The adjacent subarea node that is in slowdown is identified by nodename.

System action: Intermediate routing node traffic will be kept in fixed buffers.

Operator response: Consider deactivating the node that is in slowdown. This will free all the fixed and pageable storage associated with the node. However, user sessions might be disrupted.

System programmer response: If the limit was exceeded, consider modifying the IRNSTRGE start option. See the [z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com/support/docview农资/145425.txt?language=en) for more information.
IST588I • IST589I

IST588I  SIT TRACE STATUS = status

Explanation: This is one of a series of messages that appears as the result of a DISPLAY command requesting the status of a line.

The scanner interface trace (SIT) helps diagnose NCP and line problems. See the z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures for a description of status.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 8
Descriptor code: 4

IST589I  ERROR FOR ID = ncname, CODE = code, NET = netid

Explanation: An error has occurred during activation of gateway NCP ncname. VTAM was unable to record the network address of ncname as assigned in the nonlocal network netid. For VTAM to accept a request for an LU-LU session through the gateway NCP of another network, VTAM in the local network must be able to record that NCP’s network address in the other network.

Network addresses are assigned by VTAM based on the NETID, MAXSUBA, and SUBAREA operands of the BUILD or NETWORK definition statements in the definition of that gateway NCP.

code indicates the reason for the error and can be one of the following:

1. There already exists in the local network a record of a gateway NCP in the nonlocal network netid with the same subarea number.
2. The subarea range in the network netid is not known. The MAXSUBA operand was not specified in the BUILD or NETWORK definition statement in the definition of ncname. VTAM must be supplied the subarea range of netid in order to assign a network address.
3. There is insufficient storage to record the network addresses.

System action: Activation of the gateway NCP ncname continues; however, VTAM will either not be able to accept a request for a LU-LU session through ncname from the network netid or, if code is 1, will route a session request through a different gateway NCP. Results are unpredictable.

Operator response: Save the system log and print the major node definition for problem determination.

System programmer response: The value of code determines the response:

1. Examine the definition decks of the gateway NCPs that have been activated, or are being activated, for the network netid. Check the NETID and SUBAREA operands of the BUILD or NETWORK definition statements. There should be no duplicate subarea numbers for the same network.
2. Code MAXSUBA in the BUILD or NETWORK definition statement in which NETID = netid has been specified.
3. There is insufficient storage to record the gateway NCP’s network address in network netid. Have the operator cancel nonessential jobs or deactivate an unused part of the network to prevent further losses. You might have to halt and restart VTAM if there are too many failures.

Routing code: 8
Descriptor code: 5
IST590I

**IST590I**  
*type action FOR PU puname ON LINE linename*

**Explanation:** VTAM issues this message when:
- A connection for a switched physical unit has been established as a result of a dial in from the switched PU.
- A connection for a switched physical unit has been established as a result of a dial out to the switched PU.
- An attempt to establish a connection to a switched physical unit was not successful.
- A connection of a switched physical unit has been terminated.

*type* can one of the following:

- **CONNECTIN**  
  Indicates a dial in connection from a switched PU.

- **CONNECTOUT**  
  Indicates a dial out connection to a switched PU.

- **CONNECTION**  
  Indicates an established connection with a switched PU.

*action* can one of the following:

- **ESTABLISHED**  
  Indicates the dial in or dial out connection from a switched PU was successful.

- **FAILED**  
  Indicates a dial out connection to a switched PU was not successful.

- **TERMINATED**  
  Indicates an established connection with a switched PU has been terminated.

*puname* is the name of the switched physical unit.

*linename* is the name of the logical line over which a connection is established, failed, or terminated. If multiple paths to the switched PU have been defined, and *type* and *action* are **CONNECTOUT FAILED**, then *linename* is the name of the last logical line over which the connection was attempted.

VTAM issues this message in the following situations:
- If *type* and *action* are **CONNECTIN ESTABLISHED**, a connection for the switched physical unit *puname* has been established over the logical line *linename* as a result of a dial in from a switched PU.

  **Note:** This action can also be displayed if the dial occurs from the NCP.

- If *type* and *action* are **CONNECTOUT ESTABLISHED**, a connection for the switched physical unit *puname* has been established over the logical line *linename* as a result of a dial out from a switched PU.
  
  The dial out was caused by one of the following:
  - An application program attempting to establish a session with a switched LU associated with the PU.
  - In response to a VARY DIAL command to establish a switched connection to a type 2 or 2.1 device.

- If *type* and *action* are **CONNECTOUT FAILED**, an attempt to establish a connection to switched PU *puname* over the logical line *linename* was not successful.
  
  If multiple paths to the switched PU have been defined, *linename* is the name of the last logical line over which the connection was attempted.
  
  This message might be followed by a message group beginning with message IST1139I. This message group provides more information about the **CONNECTOUT** failure.

- If *type* and *action* are **CONNECTION TERMINATED**, the connection of the switched PU *puname* over the logical line *linename* has been terminated.

**System action:** Processing continues.

**Operator response:** If *type* and *action* are **CONNECTOUT FAILED**, determine why the line is not available and take corrective action. Otherwise, no response is needed.

**System programmer response:** None.
IST591E • IST593I

Routing code:  8
Descriptor code:  4

IST591E VTAM COMMAND CANCELED DUE TO VTAM TASK ABEND — code — RETRY COMMAND

Explanation: The VTAM task has abended while processing an operator command. The command cannot be identified, but it is being canceled. Recovery of the VTAM task is being attempted. See the appropriate operating system codes manual for the meaning of the hexadecimal abend code code.

System action: VTAM processing continues.

Operator response: This is probably a software error. Check the system log to determine which command was not processed. Then reenter the command that caused the failure. If the failure recurs and completion of this command is required to proceed with VTAM, halt VTAM and then start it again. Save the system log and dump for problem determination.

System programmer response: See the z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures for information on the abend procedure.

Routing code:  2
Descriptor code:  3

IST592I VTAM MAIN TASK ABEND — CODE code — VTAM IS BEING TERMINATED

Explanation: The VTAM main task abended with the code specified. See the appropriate operating system codes manual for the meaning of the hexadecimal abend code code.

System action: The operating system terminates the VTAM main task and all of the subtasks. All VTAM processing terminates.

Operator response: Save the system log and dump for problem determination.

System programmer response: See the z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures for information on the abend procedure. Have the operator restart VTAM.

Routing code:  2
Descriptor code:  5

IST593I ISTPDCLU [PD TRACE|SESSION AWARENESS] SESSION ENDED

Explanation: An UNBIND request has been received for one of the LU-LU sessions between the VTAM LU subtask, ISTPDCLU, and the NetView program or NCCF LU, DSIAMLUT. There are two parallel LU-LU sessions. The PD TRACE session is used to transfer the contents of PIU trace buffers filled by VTAM. The session awareness session is used to transfer buffers containing session awareness data. This data is used by the NetView program or NLDM.

System action: If PD TRACE is specified and the VTAM PIU trace buffers become full after the PD TRACE session has ended, PIU trace buffers will be re-used beginning with the buffer containing the oldest trace data. This overwriting will continue until the PD TRACE session is re-initiated. Thus, VTAM always maintains the PIUs most recently traced in its PIU trace buffers. The VTAM subtask ISTPDCLU waits for a new BIND request.

If SESSION AWARENESS is specified, VTAM frees the existing session awareness buffers. The NetView program or NLDM receives a refresh of all existing active sessions in the system when it requests the restart of session awareness tracing.

Operator response: Consult the NetView or NLDM terminal operator to determine the cause of the UNBIND request. If further VTAM PIU tracing is desired, reactivate the PD TRACE session.

System programmer response: None.

Routing code:  2
Descriptor code:  5
IST594I  •  IST597I

IST594I  ISTDCLU macroname FAILED reason1 [ reason2]

Explanation:  The macro macroname, issued by VTAM on behalf of the VTAM LU subtask ISTDCLU, failed.

If macroname is OPEN ACB, reason1 is the ACBERFLG value, and reason2 is not displayed. See the z/OS Communications Server: IP and SNA Codes for a description of the hex value for reason1.

If macroname is an RPL-based macro, reason1 is the return code RPLRTNCD and reason2 is the feedback code RPLFDB2. See the z/OS Communications Server: IP and SNA Codes for a description of reason1 and reason2.

System action:  If the OPEN ACB macro failed, the VTAM subtask ISTDCLU is detached and reattached by VTAM. Up to 25 attempts will be made to re-open ISTDCLU’s ACB.

If the SEND macro failed, the contents of the buffer being sent are lost. Processing on behalf of the ISTDCLU subtask continues.

Operator response:  Save the system log for problem determination.

System programmer response:  Use the ACBERFLG value (for an OPEN ACB failure) or the return-feedback code combination (for an RPL-based macro) to help you determine the cause of failure.

Routing code:  2
Descriptor code:  5

IST595I  IRNLIMIT = irnlimitK, CURRENT = currentirnK, MAXIMUM = maximumirnK

Explanation:  This message is part of a group of messages that VTAM issues in response to a DISPLAY BFRUSE command. The first message in the group is IST449I. See the explanation of that message for a complete description.

Routing code:  8
Descriptor code:  5

IST597I  CAPABILITY–PLU capability,SLU capability,SESSION LIMIT limit

Explanation:  This message is part of a group of messages that VTAM issues in response to a DISPLAY ID command for an application program, a cross-domain resource, or a logical unit. This message shows the capability of a node to be either a primary logical unit (PLU) or a secondary logical unit (SLU).

limit is the maximum number of sessions that can exist for that node and is expressed in decimal with leading zeros.

capability is one of the following:

ENABLED
  The node can act as a PLU or an SLU or both. Local non-SNA devices will always display an enabled capability.

DISABLED
  The node is temporarily unable to act as a PLU or an SLU (until it is in an enabled state). However, a session could be queued. The device might be powered off. This could possibly be cleared by powering the device on. If an application whose ACB was opened will be the SLU, and a SETLOGON START has not been issued, the application will indicate DISABLED.

INHIBITED
  The node is not ready to establish a session, nor does it want any sessions to be queued. It cannot act as a PLU or an SLU. A logical unit without an SSCP-LU session indicates INHIBITED for its PLU and SLU capabilities, as would a CDRSC that had been deactivated. An application without an open ACB would indicate INHIBITED, as well as an application that issued SETLOGON QUIESCE.

UNSTABLE
  The node is attempting some type of error recovery. This could be due to ERP, an INOP, or session termination.

limit is NONE if the resource is an independent LU.

System action:  Processing continues.

Operator response:  If capability is DISABLED for a device, ensure that the device is powered on.

If capability is DISABLED for an application, ensure that the application has issued SETLOGON OPTCD=START.
If capability is INHIBITED for an application, ensure that the ACB has been opened and that SETLOGON START has been entered.

**System programmer response:**

**Note:** When capability for a device LU is INHIBITED, it normally indicates that VTAM has been informed of that capability by the device. This information is passed to VTAM on the X'0C' control vector on a NOTIFY or ACTLU RU. To capture the RU, use a VTAM internal trace with OPT=IPIU or a BUFFER trace of the LU before activating the device or before repeating the procedure that led to the inhibited state. See VTAM Data Areas for the format of the RUs and the X'0C' (LU capabilities) control vector. See z/OS Communications Server: SNA Programming for details on the SETLOGON macro.

**Routing code:** 8

**Descriptor code:** 5

**IST599I**

**REAL NAME = realname**

**Explanation:** This message is part of a group of messages that VTAM issues in response to a DISPLAY ID command. realname is the real network-qualified name of the resource being displayed.

**Notes:**
1. VTAM does not issue IST599I if the name specified in the DISPLAY ID command is the real name.
2. If the name is not known, realname will be *****NA***.

**Routing code:** 8

**Descriptor code:** 5

**IST602I**

**VARY FAILED ID = nodename — HIGHER NODE HAS BECOME INACTIVE**

**Explanation:** A VARY command failed because a preceding VARY command deactivated a higher-level node. The previous VARY command deactivated the higher-level node and, in turn, it will deactivate nodename.

**System action:** VTAM rejects the VARY command. The higher-level node and all subordinate nodes are inactive.

**Operator response:** Save the system log for problem determination.

**System programmer response:** You can reactivate both the higher-level node and nodename. The higher-level node might have been deactivated during error recovery processing. Check the system log to determine whether the deactivation was caused by error recovery or by a sequence of commands.

**Routing code:** 2

**Descriptor code:** 5

**IST605I**

**ERROR FOR ID = nodename – text1 : text2**

**Explanation:** A request from nodename failed, or a response sent by nodename contained data that was not valid. This message might be followed by another message. The following example shows the messages that can be issued with IST605I.

IST605I ERROR FOR ID = nodename – text1 : text2

IST1590I PU NETID DIFFERENT THAN HOST AND CONTACTED REQUEST
IST15911 NCP NOT LOADED
IST15921 NETID IN XID DID NOT MATCH NETID OF PU
IST15931 RESOURCE TYPE NOT VALID
IST15941 CPNAME IN CONTACTED REQUEST SAME AS SSCPNAME
IST15951 LINK STATION NOT ASSOCIATED WITH AN NCP
IST15961 SWITCHED LINK STATION STATE PCTD2 NOT VALID FOR LOAD
IST15971 SWITCHED CALL=IN NCP NOT VALID
IST15981 LEASED LINK STATION STATE PCTD2 NOT VALID FOR LOAD
IST15991 NCP INDICATES LOAD REQUIRED BUT LOAD=NO
IST16001 LOAD MODULE MISMATCH — LOAD=NO
IST16021 RU ERROR: EXTRA CV X'xx'
IST16031 RU ERROR: INVALID POSITIVE RESPONSE
IST16041 RU ERROR: LENGTH, FORMAT, OR TYPE NOT VALID
IST607I • IST608I

text1 : text2 specifies the RU in error and is one of the following:

REQUEST : CONTACTED
See the explanation of the second message in the group for more information.

RESPONSE : ACTPU
See the explanation of the second message in the group for more information.

RESPONSE : RNAA
An error occurred on an RNAA response received from an NCP, causing an invalid response to be returned to VTAM. This is probably an NCP error.

System action: For RESPONSE : RNAA, nodename is deactivated.

Operator response: For RESPONSE : RNAA, save the system log for problem determination.

System programmer response: For RESPONSE : RNAA, if the node should be activated, reactivate it. If the problem persists, try to create the problem again while an I/O trace or buffer trace is running for the affected nodename. If nodename is link-attached, run a line trace for the affected line.

Enter a MODIFY TRACE,ID=nodename command.

Routing code: 2
Descriptor code: 5

IST607I command FOR nodename FAILED — INVALID NODE TYPE OR STATE

Explanation: The operand specified in command is not applicable for nodename because the type or state of nodename is invalid for the operation requested.

See Chapter 16, “Command and RU types in VTAM messages,” on page 1083 for a description of command.

System action: VTAM rejects the command. Other processing continues.

Operator response: Reenter the command for a resource that is either the valid node type or in the valid state for the command. Use the DISPLAY ID command to determine the current resource state. See z/OS Communications Server: SNA Operation for additional information on command.

System programmer response: None.

Routing code: 2
Descriptor code: 5

IST608I command FOR ID = minornode FAILED — HIGHER NODE: highernode NOT ACTIVE

Explanation: VTAM issues this message when a command was entered to activate the resource minornode (a logical unit, physical unit, physical unit type 4, or link). The command failed because its higher-level node highernode is not active.

See Chapter 16, “Command and RU types in VTAM messages,” on page 1083 for a description of command.

• If minornode is a logical unit, highernode is a physical unit.
• If minornode is a physical unit or a physical unit type 4, highernode is its link.
• If minornode is a link, highernode is the physical unit specified on the PHYSRSC operand on the GROUP definition statement for the line group.

If the physical unit, defined in the NCP definition, whose name is specified by the PHYSRSC keyword is a switched PU that is not currently connected, then highernode is the physical line.
highernode must be active before minornode can be activated.

System action: VTAM rejects the command.

Operator response: Enter a VARY ACT command for resource highernode before activating resource minornode.

System programmer response: None.

Routing code: 2

Descriptor code: 5

IST610I  LINE linename — STATUS linestatus

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY command. See the explanation of message IST396I for a complete description of the group.

See the z/OS Communications Server: IP and SNA Codes for a description of linestatus.

Routing code: 8

Descriptor code: 5

IST611I  ADJACENT SSCP TABLE FOR resource [IN netid]

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY ADJSSCPs command. The DISPLAY ADJSSCPs command requests information about adjacent SSCPs used to reach the destination SSCP or CDRSC resource.

IST350I  DISPLAY TYPE = ADJACENT SSCP TABLE
IST611I  ADJACENT SSCP TABLE FOR resource [IN netid]
IST1705I  sc_option = sc_value FROM START OPTION
IST1704I  sc_option = sc_value FROM ADJACENT SSCP TABLE
IST1220I  sscpname NETID CURRENT STATE ROUTING STATUS
IST624I  sscpname[netid] current_state routing_status...

IST350I  END

IST350I

This message identifies the type of information shown in the display. DISPLAY TYPE is always ADJACENT SSCP TABLE in this message group.

IST611I

resource is the name of the resource that was specified on the CDRSC operand of the command. If a network-qualified name was entered on the command line, VTAM issues the network ID netid.

IST624I

VTAM issues this message for each SSCP sscpname in the adjacent SSCP table being displayed and identifies the names of the adjacent SSCPs associated with resource.

sscpname is the name of the adjacent SSCP for which information is displayed.

netid is displayed only if the network ID of sscpname is known to VTAM and CDRSC is specified on the DISPLAY command.

current_state and routing_status are displayed when CDRSC is specified on the command.

For current_state information, see the z/OS Communications Server: IP and SNA Codes. **NA** is displayed if the SSCP is not defined to VTAM.

routing_status can be one of the following:

FAILURE

The most recent routing attempt to the SSCP failed.

SUCCESS

The most recent routing attempt to the SSCP was successful. This does not indicate that session establishment was successful.
**NA**
Routing status is not available.

IST1220I
This message is displayed only when the CDRSC operand is specified on the command and is a header message for the list of adjacent SSCP s that follows in message IST624I.

IST1704I or IST1705I

*sc_option* indicates a search control option associated with the adjacent SSCP table being displayed. Possible values are: SORDER and SSCPORD. When VTAM is enabled for APPN, both search control options will be displayed with SORDER being first. When VTAM is not enabled for APPN, SSCPORD will be the only search control option displayed. Either IST1704I or IST1705I will be issued for each search control option displayed.

*sc_value* indicates the value of the search control option associated with the adjacent SSCP table being displayed. If *sc_value* is ADJLIST, the adjacent SSCP table being displayed is for a resource that specified an adjacent CDRM list (ADJLIST); therefore, the SORDER and SSCPORD search control options do not apply.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

Routing code: 8
Descriptor code: 5

IST617I DEACTIVATION IN PROGRESS FOR *nodename*

**Explanation:** Processing of a VARY INACT command for a CDRM major or minor node resulted in the deactivation of *nodename*.

**System action:** The node *nodename* becomes inactive.

**Operator response:** None.

**System programmer response:** None.

Routing code: 2
Descriptor code: 5

IST619I ID = *nodename* FAILED — RECOVERY IN PROGRESS

**Explanation:** VTAM recognized a failure condition for node *nodename* and is attempting to recover the node. See subsequent messages for the results of that recovery attempt.

**System action:** Users of *nodename* or devices attached to *nodename* might be notified of the failure. VTAM attempts to recover *nodename*.

**Operator response:** Wait for additional messages indicating the success or failure of the recovery attempt.

**System programmer response:** None.

Routing code: 2,8
Descriptor code: 4

IST621I {RECOVERY SUCCESSFUL|SSCP TAKEOVER COMPLETE} FOR NETWORK RESOURCE *nodename*

**Explanation:** Either *nodename* was recovered successfully or a takeover for a link with active sessions completed successfully. The application programs previously connected to *nodename* or nodes subordinate to it have been notified and might use those nodes.

**System action:** Node *nodename* is returned to an active state. Active states of resources include the connectable (CONCT) state.

**Operator response:** None.
IST623I

System programmer response:  None.
Routing code:  2,8
Descriptor code:  4

IST623I  tabletype ADJACENT SSCP TABLE [FOR netid]

Explanation:  This message is part of a group of messages that VTAM issues in response to a DISPLAY ADJSSCPS command when one of the following occurs:

- No specific ADJSSCP list is defined for the CDRM or NETID specified on the command
- Neither CDRM nor NETID is specified on the command
- SCOPE=ALL is specified on the command.

The DISPLAY ADJSSCPS command requests information about adjacent SSCPs used to route to a destination SSCP or cross-domain resource. A complete description of the message group follows.

IST350I  DISPLAY TYPE = ADJACENT SSCP TABLE
IST623I  tabletype ADJACENT SSCP TABLE [FOR netid]
[IST1705I  sc_option = sc_value FROM START OPTION]
[IST1704I  sc_option = sc_value FROM ADJACENT SSCP TABLE]
IST624I  sscpname
;
IST314I  END

If SCOPE=ALL is specified on the command, the IST623I subgroup is repeated for all defined and dynamic ADJSSCPs which match the specifications on the command operands.

IST350I  This message identifies the type of information shown in the display. DISPLAY TYPE is always ADJACENT SSCP TABLE in this message group.

IST623I

- tabletype identifies which adjacent SSCP table is being displayed.
  - If tabletype is DEFAULT, no specific list was defined for the specified CDRM or NETID. The list being displayed was defined as a default list for the specified NETID or the default table for all networks.
  - See the z/OS Communications Server: SNA Resource Definition Reference for more information about defining adjacent SSCP tables.
  - If tabletype is DYNAMIC, no specific list was defined for the specified CDRM or NETID, and no default list was defined. The list being displayed was created dynamically for the specified NETID or the default table for all networks.
    - See the z/OS Communications Server: SNA Network Implementation Guide for more information about dynamic adjacent SSCP tables.

- netid is the network ID of the resource. It is displayed when the DISPLAY ADJSSCPS command specifies a NETID and a default adjacent SSCP list is defined for the specified network.

IST624I  VTAM issues this message for each SSCP sscpname in the adjacent SSCP table being displayed.

IST1704I or IST1705I  sc_option indicates a search control option associated with the adjacent SSCP table being displayed. Possible values are: SORDER and SSCPORD. When VTAM is enabled for APPN, both search control options will be displayed with SORDER being first. When VTAM is not enabled for APPN, SSCPORD will be the only search control option displayed. Either IST1704I or IST1705I will be issued for each search control option displayed.

- sc_value indicates value of the search control option associated with the adjacent SSCP table being displayed.

System action:  Processing continues.
Operator response:  None.
**IST624I • IST632I**

**System programmer response:** None.

**Routing code:** 8

**Descriptor code:** 5

---

**IST624I**  
sscname [netid] current_state routing_status

**Explanation:** VTAM issues this message as part of a group of messages in response to a DISPLAY ADJSSCPs command or a DISPLAY ID command for a CDRSC when SCOPE=ALL. It is preceded by IST611i, IST623i, or IST1333i. See the explanation of those messages for a complete description.

**Routing code:** 8

**Descriptor code:** 5

---

**IST627I**  
**nodename** — INSUFFICIENT STORAGE

**Explanation:** VTAM issues this message when a MODIFY TRACE command, MODIFY NOTRACE command, TRACE start option, or NOTRACE start option was entered to activate or deactivate a VTAM trace for node nodename, but sufficient storage was not available to build a parameter list.

**System action:** VTAM rejects the command or start option.

**Operator response:**

- If VTAM issues this message in response to a command, wait a few minutes, and reenter the command. If the error persists, enter a DISPLAY BFRUSE command. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and dump for problem determination.

- If VTAM issues this message during startup, wait until VTAM is initialized, and enter a DISPLAY BFRUSE command. Save the system log and dump for problem determination.

**System programmer response:** Verify that the operator entered the buffer pool or CSA start options as specified in the start procedures.

Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA start options. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

- See the [z/OS Communications Server: New Function Summary](https://www.ibm.com) to determine the storage requirements for VTAM.

- See the [z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com) for a description of VTAM start options.

- See the [z/OS Communications Server: SNA Operation](https://www.ibm.com) for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.

- See the [z/OS Communications Server: SNA Network Implementation Guide](https://www.ibm.com) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.

- See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](https://www.ibm.com) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

**Routing code:** 2

**Descriptor code:** 5

---

**IST632I**  
BUFF BUFF CURR CURR MAX MAX TIMES EXP/CONT EXP

**Explanation:** VTAM issues this message as part of a message group in response to a DISPLAY BFRUSE,BUFFER=SHORT command. A complete description of the message group follows.

**IST350I DISPLAY TYPE = BUFFER POOL DATA**

**IST632I**  
BUFF BUFF CURR CURR MAX MAX TIMES EXP/CONT EXP

**IST633I**  
ID SIZE TOTAL AVAIL TOTAL USED EXP THRESHOLD INCR

**IST356I**  
bpid[0][F] bufsize curtot curavail maxtot maxused times exp/cont incr

**IST449I** limitname = csa, CURRENT = current, MAXIMUM = maxlevel

**IST790I** MAXIMUM type USED = maxK

**[IST449I]**  
CSA24 = csa, CURRENT = current, MAXIMUM = maxlevel

---

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Message IST356I is repeated for each of the VTAM buffer pools.

IST350I

This message identifies the type of information shown in the display. For this message group, type is always BUFFER POOL DATA.

IST632I and IST633I

These messages are header messages for the information displayed in message IST356I.

IST356I

- **bpid** is the name of the buffer pool. See the [z/OS Communications Server: SNA Network Implementation Guide](https://www.ibm.com/support/docview족보?rs=4188&uid=swg27013007) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.

  - Q, if present, indicates that a request is queued for this pool. This field is usually blank.

  - F, if present, indicates that dynamic buffering has failed. This field is usually blank.

- **bufsize** is a decimal value that indicates the number of bytes in each buffer.

  For IOBUF an overhead value of 87 bytes should be added to the bufsize value in this message. See the [z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com/support/docview족보?rs=4188&uid=swg27013007) for information on buffer pool default sizes.

- **curtot** is a decimal value that indicates the total number of buffers in the pool.

- **curavail** is a decimal value that indicates the number of available buffers that are currently not in use.

- **maxtot** is a decimal value that indicates the highest number of buffers contained in this pool at any one time since the last buffer pool trace record was written.

- **maxused** is a decimal value that indicates the highest number of buffers in use at any one time since the last buffer pool trace record was written.

- **times** is a decimal value that indicates how many times this pool has been expanded since the last buffer pool trace record was written. If the value of times is greater than 99999, ***** is displayed in this field.

- **exp** is a decimal value used for triggering expansion.

  If the number of buffers not in use falls below this value, VTAM adds additional buffers. This field contains \(\text{N/A}\) if dynamic buffering has been suppressed.

- **cont** is a decimal value used for triggering contractions.

  If the number of available buffers becomes larger than this value, VTAM checks the availability of dynamically obtained buffers. If available, VTAM releases those buffers. However, for any available buffer to be released, every buffer on the same page must also be available since buffers are released in pages.

  This value is defined only when the buffer pool is in expansion mode. If blanks appear in the display, the buffer pool is not currently in expansion mode.

  If dynamic buffering has been suppressed, this column contains \(\text{N/A}\).

- **incr** is a decimal value that indicates how many buffers are to be added to the buffer pool during dynamic expansion.

  Buffers are added in full pages. Thus, this number might be larger than the number used when defining the buffer pool. If dynamic buffering is not available, this field contains \(\text{N/A}\).

IST449I, IST790I, IST595I, and IST981I subgroup

See [IST449I](#) on page 150 for a description of this message subgroup.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2
IST633I • IST634I

Descriptor code: 5

IST633I  ID SIZE TOTAL AVAIL TOTAL USED EXP THRESHOLD INCR

Explanation: VTAM issues this message as part of a message group in response to a DISPLAY BFRUSE,BUFFER=SHORT command. See IST632I for a complete description of the message group.

Routing code: 2

Descriptor code: 5

IST634I  NAME STATUS SID SEND RECV VR TP NETID

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY ID command for an application program, a cross-domain resource (CDRSC), the host cross-domain resource manager (CDRM), or a logical unit. Message IST634I is a column header for IST635I, which is repeated for each session partner name. A complete description of this part of the message group follows.

IST634I  name status [sessid] [send] [recv] [vr] [tp] [netid]

IST314I  END

name is the session partner name.

status is the session status and is described in the z/OS Communications Server: IP and SNA Codes.

sessid is the session identification (SID).

send is the send count in hexadecimal of the number of PIUs sent by the resource specified in the DISPLAY ID command. This count is applicable to normal data flow only.

recv is a count in hexadecimal of the number of PIUs received by the resource specified in the DISPLAY ID command. This count is applicable to normal data flow only.

Note: Blank values for send and recv mean that the send and receive counts are not available (in this host), nor is the indication whether BIND (/B) or UNBIND (/U) is in progress. A PU, for example, would not have SEND and RECV counts available.

vr is the virtual route number used by the session. This field is left blank if the session partners are in the same subarea.

tp is the transmission priority assigned to the session. This field is left blank if the session partners are in the same subarea.

Knowledge of subarea information in the host in which the DISPLAY ID=plu_or_slu,E command is entered determines whether vr and tp are blank. In an APPN network, vr and tp will be displayed if a part of the session route between the PLU and the SLU goes across a virtual route, as seen from this host’s perspective.

With the following configuration, different vr and tp values will be displayed in SSCP1A and SSCP2A:

<table>
<thead>
<tr>
<th>SSCP1A (PLU)</th>
<th>SSCP2A</th>
<th>DLUR (SLU)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NN - DLUS</td>
<td>AHHC</td>
<td>NN</td>
</tr>
<tr>
<td>SA1</td>
<td>SA2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NCP(SA4)</td>
<td></td>
</tr>
</tbody>
</table>

In this case, on SSCP1A, since there is not a VR across the AHHC connection, the PLU side of the session is in SA1 and the SLU side of the session enters SA1 over the AHHC connection, so vr and tp do not apply and should not be displayed. vr and tp will be blank for the session displayed in message IST635I.

On SSCP2A, however, the PLU side of the session enters SA2 over the AHHC connection and the SLU side of the session is on SA4, so vr and tp do apply. The vr and tp that are displayed in message IST635I for this session are the vr and tp of the virtual route used between SSCP2A and the NCP.
*netid* identifies the network containing the session partner.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 8

**Descriptor code:** 5

```
IST635I  name status [sessid] [send] [recv] [vr] [tp] [netid]
```

**Explanation:** This message is part of a message group. The first message of the group is IST634I. See explanation of that message for a complete description.

**Routing code:** 8

**Descriptor code:** 5

```
IST636I  CDRSCS OWNED BY cdrmname —
```

**Explanation:** This message is the first in a group of messages that VTAM issues in response to a DISPLAY ID command for an external cross-domain resource manager *cdrmname*. This message is a header for message IST080I, which lists the cross-domain resources owned by *cdrmname*.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 8

**Descriptor code:** 5

```
IST637I  SUBAREA=subarea ELEMENT=element SSCPID = sscpid
```

**Explanation:** VTAM issues this message in response to a DISPLAY ID command for an external cross-domain resource manager.

*subarea* and *element* specify the subarea and element addresses of the external CDRM as defined in your network. If the subarea or element address is unknown, N/A will appear in this display.

*sscpid* is the SSCP identifier of the CDRM. *sscpid* will be displayed for a host CDRM and for an external CDRM with an SSCP-SSCP session with this host. *sscpid* is not available for a CDRM without an SSCP-SSCP session with this host and will be displayed as N/A.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 8

**Descriptor code:** 5

```
IST638I  ADJNETSA = adjnetsa, ADJNETEL = adjnetel
```

**Explanation:** This message is the first in a group of messages that VTAM issues in response to a DISPLAY ID command for an external cross-domain resource manager. A complete description of the message group follows. This group of messages might also appear as a part of another group of messages.

IST638I  ADJNETSA = adjnetsa, ADJNETEL = adjnetel
IST675I  VR = vr, TP = tp
IST639I  GWN = gwn, ADJNET = adjnet
IST640I  hostname ADDR IN ADJNET - SA = hostsa, EL = hostel

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IST638I

Message IST638I indicates the subarea address, \textit{adjnetsa}, and the element address, \textit{adjnetel}, of the external CDRM as defined in the adjacent network. If these addresses are unknown, this message will not appear in the display.

IST675I

Message IST675I indicates the virtual route number (\textit{vr}) and the transmission priority (\textit{tp}) of the CDRM session in the adjacent network. VTAM issues this message only if the route information in the adjacent network is known.

IST639I

Message IST639I indicates the gateway NCP name, \textit{gwn}, used on the path to the CDRM in the adjacent network, \textit{adjnet}. VTAM issues this message only if the gateway NCP name and adjacent network name are both known.

IST640I

Message IST640I indicates the name of your host, \textit{hostname}, its subarea address, \textit{hostsa}, and its element address, \textit{hostel}, as defined in the external CDRM's network. If the name and address are unknown, this message will not appear in the display.

IST641I

Message IST641I is a header line identifying the gateway path selection list that follows. The gateway path selection list is a list of alternate gateway NCPs used in establishing the cross-network SSCP-SSCP session (that is, the session between your host CDRM and an external CDRM in an adjacent network). If \textit{status} does not appear, then messages IST642I and IST643I will follow with a list of gateway NCPs. If \textit{status} is \textbf{DOES NOT EXIST}, then no gateway NCP is defined for the CDRM and messages IST642I and IST643I will not appear.

Each entry in the list contains parameters used to select a particular gateway NCP for establishing the session. Once a session is active, other messages identify the path used to establish the SSCP-SSCP session.

IST642I and IST643I

Message IST642I is a header line for the data displayed in message IST643I. The information displayed by message IST643I is obtained from the operands defined on the GWPATH definition statement in the CDRM major node. VTAM issues message IST643I for each GWPATH definition statement. If any of the information in the display is missing, the corresponding value was omitted from the GWPATH definition statement.

The information includes:

- \texttt{adjnet}  The network identifier of the adjacent network
- \texttt{gwn}  The name of the gateway NCP used on the path to the CDRM
- \texttt{adjsa}  The subarea address of the CDRM as defined in your network
- \texttt{el}  The element address of the CDRM as defined in your network
- \texttt{adjnetsa}  The subarea address of the CDRM as defined in the adjacent network
- \texttt{adjnetel}  The element address of the CDRM as defined in the adjacent network

System action:  Processing continues.
Operator response:  None.
System programmer response:  None.
Routing code:  8
Descriptor code:  5
**IST639I**  
GWN = gwn, ADJNET = adjnet  

**Explanation:** This message is part of a group of messages. The first message in the group is IST638I. See the explanation of that message for a complete description.  
**Routing code:** 8  
**Descriptor code:** 5

**IST640I**  
hostname ADDR IN ADJNET — SA = hostsa, EL = hostel  

**Explanation:** This message is part of a group of messages. The first message in the group is IST638I. See the explanation of that message for a complete description.  
**Routing code:** 8  
**Descriptor code:** 5

**IST641I**  
GATEWAY PATH SELECTION LIST — status  

**Explanation:** This message is part of a group of messages. The first message in the group is IST638I. See the explanation of that message for a complete description.  
**Routing code:** 8  
**Descriptor code:** 5

**IST642I**  
ADJNET GWN SUBAREA ELEM ADJNETSA ADJNETEL  

**Explanation:** This message is part of a group of messages. The first message in the group is IST638I. See the explanation of that message for a complete description.  
**Routing code:** 8  
**Descriptor code:** 5

**IST643I**  
[adjnet] [gwn] [adjsuba] [el] [adjnetsa][adjnetel]  

**Explanation:** This message is issued as part of a message group. The first message in the group is IST638I. See the explanation of that message for a complete description.  
**Routing code:** 8  
**Descriptor code:** 5

**IST644I**  
originpu TG [adjnode] destpu  

**Explanation:** This message is part of a group of messages. The first message of the group is IST533I. See the explanation of that message for a complete description.  
**Routing code:** 8  
**Descriptor code:** 5

**IST645I**  
configname DEFINITION FAILED — NO VALID macrotype MACRO  

**Explanation:** During activation or resource takeover, the NCP definition, configname, failed for one of the following reasons:  
• There is no valid macrotype definition statement in the NCP definition.  
• The NETID operand was specified in each macrotype definition statement of the NCP definition, but none of the NETID values match the network ID of this host.  
• There is no macrotype definition statement in which the value of the specified or defaulted SUBAREA operand matches the subareas of this host. For HOST definition statements, if SUBAREA is not specified, the subarea value defaults to 1, but this can cause a mismatch if the HOSTSA start option value was different. For PCCU definition statements, the SUBAREA operand value defaults to the subarea of this host.
IST650I • IST654I

• The HOST definition statement must be specified for locally attached pre-V4R3 NCPs.
• The BUILD definition statement was encountered before a valid PCCU definition statement (either the PCCU definition statement was not specified or none were found that specified a matching NETID and SUBAREA).

System action: Activation of the NCP definition deck fails during network definition.
Operator response: Save the system log for problem determination.
System programmer response: Correct or include a macrotype definition statement with the proper NETID and SUBAREA values (or defaults).

Routing code: 2
Descriptor code: 5

IST650I  POLL = delay, NEGPOLL = negresponse, SESSION(S) = maxsessions

Explanation: VTAM issues this message as part of a line-status display in response to a response to a DISPLAY ID command for a nonswitched polled line (non-SDLC line).

delay is the polling delay (the time delay between polling sequences) of the line expressed in a decimal number of seconds.
negresponse is the maximum number of consecutive negative polling responses accepted before polling of another terminal on the line.
maxsessions is the maximum number of consecutive line scheduling sessions allowed on the line.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST652I  keyword IS A DUPLICATE KEYWORD IN THE TRACE/NOTRACE OPTION

Explanation: keyword is specified more than once in the TRACE or NOTRACE start option string.
System action: VTAM initialization does not process the TRACE or NOTRACE option, nor any following start options. Preceding start options have been processed.
Operator response: When prompted by message IST1311A, do one of the following:
• Enter the TRACE or NOTRACE option correctly. You must also enter all succeeding options.
• Enter a blank to accept the default value.
System programmer response: Correct your start options. See the [z/OS Communications Server: SNA Resource Definition Reference] for more information on VTAM start options.
Routing code: 2
Descriptor code: 5

IST654I  I/O TRACE = [ON|OFF], BUFFER TRACE = [ON|OFF] [- AMOUNT = value]

Explanation: VTAM issues this message in response to a DISPLAY ID command for a traceable node other than a line. It indicates whether the I/O trace facility is active or inactive for that node, and whether the buffer trace facility is active or inactive for that node.

AMOUNT = value is displayed if BUFFER TRACE = ON, value represents the AMOUNT operand value specified on the TRACE start option or the MODIFY TRACE command, and indicates how much of the buffer’s contents are traceable. value can be one of the following:

PARTIAL The trace record has a maximum size of 256 bytes including header information.
FULL All of the buffer’s contents are traceable.

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Note: If AMOUNT is not specified when the buffer contents trace is activated, the default value PARTIAL is displayed. For additional information on the buffer contents trace, see z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST655I  
tracetype TRACE STATUS = status

Explanation: VTAM issues this message in response to a DISPLAY ID command or a DISPLAY TRACES,TYPE=SMS or a DISPLAY TRACES,TYPE=CNM command.

tracetype can be one of the following:

CNM  Communication Network Management (CNM) trace
LINE  Line trace
SMS  Storage Management Service (SMS) trace
TG  Transmission group trace

status indicates the status of the trace being displayed.

• If a DISPLAY ID command is entered, this message indicates the status of the LINE or TG trace for the displayed line. This message is displayed only if a LINE or TG trace is active or in a pending state when the command is entered.

For status information, see the z/OS Communications Server: IP and SNA Codes

• If a DISPLAY TRACES,TYPE=CNM command is entered, status indicates whether the PDPIUBUF and SAWBUF buffer traces are ON or OFF.

• If a DISPLAY TRACES,TYPE=SMS command is entered, status indicates whether the SMS buffer trace is ON or OFF.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST656I  
ACTIVATE REJECTED FROM UNDEFINED CDRM, SA subarea EL element

Explanation: A cross-domain resource manager (CDRM) in an external domain sent a request to establish a session with your domain, via an ACTCDRM request. The request failed because that CDRM is not known to VTAM. It is not defined in your domain.

subarea is the subarea address of the external CDRM.

element is the element address of the external CDRM.

System action: VTAM rejects the request. No session with that CDRM can be established.
Operator response: Contact the operator of the domain with the subarea subarea to find out which CDRM was requested. Then enter a VARY ACT command for the CDRM major node that contains the definition for the inactive
CDRM. This will enable the CDRMs external to your domain to establish sessions with your domain. Save the system log and network logs for problem determination.

**System programmer response:** Examine the definition library to make sure that all CDRMs in external domains that might want to communicate with your domain are defined to VTAM.

**Routing code:** 2  
**Descriptor code:** 5

---

**IST658I**  
`command` COMMAND FAILED — `uservar` NOT FOUND  

**Explanation:** VTAM issues this message when a MODIFY USERVAR command or DISPLAY USERVAR command for USERVAR `uservar` fails because the USERVAR is not known to VTAM.

**System action:** VTAM rejects the command. Processing continues.

**Operator response:** Enter a DISPLAY USERVAR command to list all USERVARs known to VTAM. Enter the MODIFY USERVAR command with the correct USERVAR name.

**System programmer response:** None.

**Routing code:** 8  
**Descriptor code:** 5

---

**IST660I**  
`command` FOR ID = `nodename` FAILED — PARM: `parameter` NOT VALID  

**Explanation:** VTAM issues this message when the `command` failed for `nodename` because an unacceptable parameter was entered.  

- If `parameter` is `U='` (blank), a line in a channel attached major node or a local SNA PU was defined without a device address, and the device address was not specified with the `U` operand on the VARY ACT command.
- If `parameter` is `U=`*device_address*, a VARY ACT command specifying `U=devicel_address` was entered for a line in a channel attached major node or a local SNA PU that was not active. This error occurs when `device_address` does not match the device address currently in use.
- If `parameter` is `LOGON=controllu`, a controlling LU name was specified on the `LOGON` operand of a VARY ACT command for an application. Controlling LUs are only valid for logical units.
- If `parameter` is `RNAME`, this message can be issued for the following reasons:  
  - If `RNAME=`*nodename* was specified during activation of a communication controller, `nodename` is the name of a logical unit and is therefore not valid.
  - If the value specified in the `RNAME` parameter is not a valid link station name, the `command` fails.
  - If `RNAME=backup` was specified, VTAM was not able to process backup link station `backup`.
  - If the value specified in the `RNAME` parameter does not match the NCP definition, the `command` fails.

**System action:** VTAM rejects the command. Other processing continues.

**Operator response:**  
- If `parameter` is `U='` (blank), reenter the VARY ACT command specifying the device address on the `U` operand.
- If `parameter` is `U=`*device_address*, and the device address is correct, deactivate the line or PU and reenter the command.
- If `parameter` is `LOGON=controllu`, see [z/OS Communications Server: SNA Operation](https://www.ibm.com) for information on the correct syntax of the VARY ACT command.
- If `parameter` is `RNAME`, reenter the command specifying a valid node name or value for `parameter`.

**System programmer response:**  
- If `parameter` is `U='` (blank), you might want to specify a default device address for the line or PU.
- Otherwise, no action is required.

**Routing code:** 2  
**Descriptor code:** 5
**IST663I**

**request REQUEST \[(TO|FROM) adjnode\] action, SENSE= code**

**Explanation:** This message is the first in a group of messages that VTAM issues when a request/response unit (RU) fails to complete successfully. A complete description of the message group follows.

IST663I request REQUEST \[(TO|FROM) adjnode\] action, SENSE=code
IST664I (REAL|ALIAS) (OLU|PLU)=luname1 (REAL|ALIAS) (DLU|SLU)=luname2
IST889I SID = sessid

**Note:** One or more messages might follow IST889I. See “Additional messages” in this message explanation for more information.

**IST663I**

- **request** is the name of the RU that failed. See Chapter 16, “Command and RU types in VTAM messages,” on page 1083 for a description of request.
- **action** can be one of the following:
  - **FAILED** indicates that the request did not complete successfully for the reason described by code.
  - **PURGED** indicates that the request was purged because of the timeout value that was specified on the MODIFY IOPURGE command or on the IOPURGE start option. See z/OS Communications Server: SNA Operation and the z/OS Communications Server: SNA Resource Definition Reference for more information.
  - **RECEIVED** indicates that the request was received, but did not complete successfully for the reason described by code.
- **TO/FROM** is not issued if the failing RU flows in a same domain session. For example, if the INIT OTHER RU failed, TO/FROM is not issued. FROM is issued only if a request failed, not as a reply to a request.
- **adjnode** is the SSCP which sent or is to receive the request, or the related resource to which the request was sent. If a CDINIT failed to initiate an adjacent SSCP for any reason, this message is issued in the following format:
  IST663I CDINIT REQUEST FROM SSCP1A FAILED, SENSE=0801000F
- **code** provides additional information about the cause of the failure. See the z/OS Communications Server: IP and SNA Codes for a description of code.

**IST664I**

- This message occurs during session initiation request and response processing. The origin LU (luname1) might be either the primary logical unit or the secondary logical unit. The same applies for the destination LU (luname2). The real names of the session partners will be displayed if they are known (indicated by REAL); otherwise the alias names will be displayed (indicated by ALIAS). The DLU’s name will indicate REAL if it has been assumed. When the session setup direction cannot be determined, PLU and SLU will be displayed rather than OLU and DLU.

  **Note:** ***NA*** is displayed in place of the network identifier portion of the LU name, or the whole LU name, if either is not known.

**IST889I**

The session ID sessid provides a unique identifier for the session. If the session ID is unknown, VTAM displays ***NA***.

**Additional messages**

- One or more messages might follow IST889I, depending on the type of error.
  - **Processing error**
    IST264I REQUIRED resource [luname] reason
    IST1138I REQUIRED resource [luname] reason
  - The combination of resource and reason can be any of the following:
    
    ADJSSCP TABLE
    UNDEFINED
    
    COS NAME cosname
    UNDEFINED
LOGMODE NAME logmode
  UNDEFINED

RESOURCE luname
  UNDEFINED

RESOURCE luname
  NOT ACTIVE

RESOURCE luname
  UNSTABLE (device-type LUs only)

RESOURCE luname
  DISABLED

RESOURCE luname
  QUIESCING

RESOURCE luname
  BLOCKING LOGONS (for application PLUs only)

STORAGE
  NOT AVAILABLE

luname appears when resource is RESOURCE. luname is the real name of the LU or application that was in error. If the SLU is not known, VTAM displays ***NA*** for luname.

- If a network-qualified name was entered on the command line and the MSGLVL option specifies V4R1 or above, VTAM displays message IST1138I and issues luname as a network-qualified name in the form netid.name
- If the default is used or the MSGLVL option specifies BASE, VTAM issues message IST264I, and luname is not network-qualified.


See the explanation of IST264I or IST1138I for additional information.

- **Autologon session setup failure**
  IST890I  AUTOLOGON SESSION SETUP FAILED

  This message indicates that an autologon attempt to a controlling PLU failed. The autologon could have originated from one of the following:
  - VARY LOGON or VARY ACT with LOGON command
  - VARY ACT command that applied to LUs with LOGAPPL specified
  - Reallocation of the controlling PLU session

- **Dynamic dial failure**
  IST1015I APPLICATION SUPPLIED parameter name = parameter value
  [IST1028I parameter value]

  See the explanation of IST1015I for additional information.

- **Extended sense data**
  IST891I  netid.nodename1[.nodename2] GENERATED FAILURE NOTIFICATION
  [IST892I resourcename ORIGINATED FAILURE NOTIFICATION]
  IST893I  ORIGINAL FAILING REQUEST IS request

  See the explanation of IST891I for additional information.

- **Notification of available resource**
  IST896I  AUTOLOGON WILL BE RETRIED WHEN CONTROLLING PLU IS AVAILABLE

  See the explanation of IST896I for additional information.

- **Adjacent SSCP table information**
For IST1705I or IST1704I:

- The `sc_option` indicates a search control option that was used for the session. Possible values are: SORDER and SSCPORD. When VTAM is enabled for APPN, both search control options will be displayed with SORDER being first. When VTAM is not enabled for APPN, SSCPORD will be the only search control option displayed. Either IST1704I or IST1705I will be issued for each search control option displayed.

- The `sc_value` indicates the value of the search control option that was used for the session. If `sc_value` is ADJLIST, the adjacent SSCP table used for this session was for a resource that specified an adjacent CDRM list (ADJLIST); therefore, the SORDER and SSCPORD search control options do not apply.

For IST895I, see the explanation of IST894I for additional information.

- Translation error

IST523I REASON = IMPROPER TRANSLATION OF (OLU|DLU) NAME

During an LU-LU session setup request, VTAM requested that the alias-name translation facility translate either the OLU name (`luname1`) or the DLU name (`luname2`), and the facility returned a different name with the same network identifier. If the alias and real names are in the same network, VTAM requires that the names be the same.

- TN3270 Resource information

IST1727I DNS NAME: `dns_name`
IST1728I `dns_name_continued`
IST1669I IPADDR..PORT `ipaddr..portno`

Messages IST1669I, IST1727I, and IST1728I will be allowed whenever the SLU of the session is known to be a TN3270-connected application, CDRSC, or LU resource.

- Border node search information

IST2208I sc_option = sc_value FROM START OPTION
IST2209I sc_option = sc_value FROM ADJCLUST TABLE

For IST2208I or IST2209I:

- The `sc_option` value indicates a border node search control option that was used for the locate. Possible values are: BNORD and BNDYN. When VTAM is enabled as a border node and performs border node searching, both border node search control options are displayed. Either IST2208I or IST2209I is issued for each search control option.

- The `sc_value` value indicates the value of the search control option that was used for the search. When the `sc_option` value is BNORD, possible `sc_value` values are PRIORITY and DEFINED. When the `sc_option` value is BNDYN, possible `sc_value` values are NONE, LIMITED, and FULL. See [z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com/support/docview.wss?uid=swg21386398) for a description of the values.

- APPN Locate Search Failure information

IST1942I APPN LOCATE SEARCH STEPS ATTEMPTED
IST1943I DIRECTED SEARCH TO A SERVED END NODE
IST1944I DIRECTED SEARCH TO A NETWORK NODE
IST1945I DIRECTED SEARCH TO A BORDER NODE
IST1946I LOCAL SUBAREA SEARCH
IST1947I BROADCAST SEARCH TO SERVED END NODES
IST1948I DIRECTED SEARCHES TO BORDER NODES
IST1949I DIRECTED SEARCH TO A CENTRAL DIRECTORY SERVER
IST1950I DIRECTED SEARCHES TO ALTERNATE CENTRAL DIRECTORY SERVERS
IST664I

[IST1953I  search nodename - SENSE code FROM reply nodename]
[IST1951I  BROADCAST SEARCH TO NETWORK NODES]
[IST1953I  search nodename - SENSE code FROM reply nodename]
[IST1952I  DIRECTED SEARCHES TO INTERCHANGE NODES]
[IST1953I  search nodename - SENSE code FROM reply nodename]

See [IST1942] for a complete description of the message group.

- Session path information

[IST2102I  RSCV FROM PLU]
[IST1460I  TGN CPNAME  TG TYPE  HPR]
[IST1461I  tgn cpname  ttype  hpr]
[IST2103I  RSCV TOWARDS SLU]
[IST1460I  TGN CPNAME  TG TYPE  HPR]
[IST1461I  tgn cpname  ttype  hpr]
[IST2104I  RSCV TOWARDS DLUR]
[IST1460I  TGN CPNAME  TG TYPE  HPR]
[IST1461I  tgn cpname  ttype  hpr]

See the explanation of [IST2102] [IST2103] or [IST2104] for additional information.

System action:

- If action is FAILED or RECEIVED, the LU-LU session setup request fails.
- If action is PURGED, the LU-LU session setup request continues its routing to other SSCP. If there are no additional adjacent SSCP, the LU-LU session setup fails.

Operator response:  Save the system log for problem determination.

System programmer response:

- If action is FAILED or RECEIVED, review the definition for the facility where the LU translation is defined. Either change the name translation for the LU or change the network ID of the translated name to a different network identifier.
- If action is PURGED, verify that the timeout value specified for IOPURGE on either the MODIFY IOPURGE command or the IOPURGE start option is adequate. If this value is too small, it might result in premature routing failures.

If the IOPURGE value is adequate, verify that the adjacent SSCP adjnode in message IST663I is active and operational.

See [z/OS Communications Server: SNA Operation] for a description of the MODIFY IOPURGE command. See the [z/OS Communications Server: SNA Resource Definition Reference] for a description of the IOPURGE start option.

User response:  Not applicable.

Problem determination:  See the System programmer response.

Source:  z/OS Communications Server SNA

Module:  You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See ["Adding the originating module to the message text" on page 5] for more information about the MSGMOD start option.

Routing code:  8
Descriptor code:  4
Example:  Not applicable.

IST664I  {REAL | ALIAS} {OLU | PLU}=luname1  {REAL | ALIAS} {DLU | SLU}=luname2

Explanation:  This message is part of a message group. The first message in the group is either IST663I or IST1774I. See the explanation of that message for a complete description.

Routing code:  8
Descriptor code:  4
IST670I  VARY command PROCESSING FOR ID = nodename COMPLETE

Explanation: The specified VARY command processing completed for the resource nodename.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 8

Descriptor code: 4

IST674I  command FOR ID = nodename CONTINUES — PARM: parameter IGNORED

Explanation: VTAM issues this message when a parameter was entered that is not valid for the resource nodename specified on the command.

See Chapter 16, “Command and RU types in VTAM messages,” on page 1083 for a description of command.

System action: Processing of command continues, but VTAM ignores parameter.

Operator response: You do not need to reenter the command. Processing of command continues. For the next use of the command, check the valid operands for the command in z/OS Communications Server: SNA Operation.

System programmer response: None.

Routing code: 2

Descriptor code: 5

IST675I  VR = vr, TP = tp

Explanation: VTAM issues this message in response to a DISPLAY ID command for a CDRM or a PU type 4 or 5.

vr is the virtual route number.

tp is the transmission priority for the session of the node being displayed.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 8

Descriptor code: 5

IST678I  INSUFFICIENT STORAGE TO SCHEDULE TPEND EXIT FOR applname

Explanation: VTAM issues this message when storage was not available to schedule the TPEND exit of application applname to notify the application that VTAM was terminating.

applname is the name of a VTAM subtask or a user application.

System action: Processing continues without VTAM scheduling the TPEND exit for the indicated application. For HALT and HALT QUICK, VTAM will not be able to terminate until applname has closed its ACB. The scheduling of the TPEND exit for applname will be tried again by VTAM at some later time.

Operator response: Save the system log for problem determination.

System programmer response: Check VTAM storage allocation as specified in the start options and as modified by the MODIFY CSALIMIT command.

Make adjustments as necessary to your CSA start options by using the MODIFY VTAMOPTS command.

• See the z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

• See z/OS Communications Server: SNA Operation for information about the DISPLAY BFRUSE command, and the MODIFY VTAMOPTS command.
**IST679A • IST680I**

Routing code: 2
Descriptor code: 5

**IST679A**  
**PLEASE DIAL LINE** = linename, **NUMBER** = phonenum

**Explanation:** Manual dial out is required. VTAM prompts the network operator to dial phonenum on linename.

**System action:** VTAM has caused the NCP to begin monitoring for a connection to complete on the line. The application program’s request to connect to the device is kept waiting until the connection is completed.

**Operator response:** You must either successfully establish the requested connection or enter the VARY INOP command to terminate the dial out request.

**System programmer response:** None.

Routing code: 1
Descriptor code: 2

**IST680I**  
**CONNECTION REQUEST DENIED – ID** = nodename text

**Explanation:** VTAM issues this message when a connection request for resource nodename has been rejected. This message is issued as both a single line message and as part of message groups.

- If nodename is a local SNA physical unit, the following message group is displayed.
  
  IST680I  
  CONNECTION REQUEST DENIED – ID = nodename text  
  [IST1394I CPNAME = cpname STATION ID = stationid]  
  [IST352I LOCAL SNA MAJOR NODE = majornode ]  
  IST314I END

- If nodename is a DLUR served physical unit, the following message group is displayed.
  
  IST680I  
  CONNECTION REQUEST DENIED – ID = nodename text  
  IST1354I DLUR NAME = dlurname MAJNODE = majnode  
  IST1394I CPNAME = cpname STATION ID = stationid  
  IST314I END

- For all other types of nodes, the following message group is displayed.
  
  IST680I  
  CONNECTION REQUEST DENIED – ID = nodename text  
  [IST1394I CPNAME = cpname STATION ID = stationid]  
  [IST081I LINE NAME = linename, LINE GROUP = groupname, MAJNOD = nodename ]  
  [IST1544I DIAL OUT PURGE IN PROGRESS – ID = nodename]  
  IST314I END

**IST081I**

linename is the line to which nodename is connected.

**groupname** is the line group to which the line linename belongs.

nodename is the major node with which the line is associated.

**IST352I**

majornode is the local SNA major node (local cluster controller).

**IST680I**

- text can be one of the following:
  
  **CALL SECURITY ERROR**
  
  A dial in or dial out request was rejected because the required information for call security verification was missing or not valid.

  **DIAL OUT IN PROGRESS**
  
  The dial out for the switched physical unit nodename is already in progress over another line. For a manual dial, see IST679A. For an auto dial, the dial in will fail.

  **INVALID NETWORK NAME**
  
  This error can occur for one of the following reasons:
– *nodename* is not a valid name. Either the CPNAME passed in the REQCONT/REQACTPU RU could not be found (matched to a switched PU definition), or the network ID or CPNAME passed in the REQCONT/REQACTPU RU is not valid. This is the most frequent reason for the error.

– *nodename* is attempting to establish a connection with itself. This can occur in response to an operator takeover request.

**LINK NOT IN EAM**
A dial in request was not honored for the switched physical unit *nodename* because the link was not in enable answer mode (EAM).

**MAXLU INADEQUATE**
The dial in request was not honored because the link cannot support the number of logical units required by the switched physical unit *nodename* that dialed in.

**NETID MISMATCH**
NETID found in REQCONT/REQACTPU RU does not match the NETID of the host.

**NO USABLE PATH FOUND**
Call ID verification was indicated on a PATH definition statement for *nodename* and a usable PATH definition could not be found.

**PU ALREADY ACTIVE**
A REQACCTPU is received for a DLUR PU that is already active.

**PU GEN NOT SUPPORTED**
This error can occur for one of the following reasons:
- The host could not identify the switched PU for one of the following reasons:
  - The PU is not defined in a switched major node.
  - The switched major node in which the PU is defined is not active.
  - The PU is not able to be dynamically defined for the following reasons:
    - Non-genned terminal support is not available because ASDP=YES is not specified on the PU definition statement in the switched major node.
    - DYNPU=YES is not specified on the GROUP definition statement in a major node such as NCP or XCA.
  - The network-qualified name of the node that the PU represents, as specified in the XID3 received from the adjacent node, does not match the name defined in the switched major node on the NETID and CPNAME operands on the PU definition statement.
  - The idblk and idnum, as specified in the XID3 received from the adjacent node, do not match the idblk and idnum defined in the switched major node on the IDBLK and IDNUM operands on the PU definition statement.

**PU STATE CHANGED**
The PU state of a predefined PU changed while the c services (CS) exit was in control. When a REQCONT for a predefined PU is sent to the CS exit, the state of the PU is set to Pending REQCONT. If an INOP is received on that PU or its LINE before returning from the CS exit, the state of the PU changes. This indicates that the connection setup cannot continue.

**PUTYPE MISMATCH**
PUTYPE found in REQCONT/REQACCTPU RU does not match the PUTYPE in the switched PU definition.

**REQCONT RU NOT VALID**
The station ID (*nodename*) passed in the REQCONT RU could not be found (that is, matched to a switched PU definition). This indicates a hardware or software problem in the switched physical unit *nodename* attempting the connection.

**T2.1 NOT SUPPORTED**
A connection request for a PU type 2.1 node, *nodename*, with independent LUs was received from an NCP that does not provide the required level of support.

**TG NUMBER NOT USABLE**
An EE model PU with predefined TG numbers was used, but the specified TGNs could not be used. The REQCONT RU fails with sense 08070000 or 10160016.
**IST680I**

dlurname is the network-qualified CP name (in the form netid.name) of the dependent LU requester (DLUR) associated with the DLUR served physical unit nodename in message IST680I.

majnode is the name of the switched major node for the DLUR served physical unit nodename in message IST680I.

**IST1394I**

cpname is the network-qualified name of the control point (CP) that was passed in the XID from the node attempting the connection. VTAM displays cpname in the form netid.name. ***NA*** is displayed if no CP name is provided.

stationid is the 4-byte station identifier in the following format: Byte 1 = PUtype, Byte 2 = reserved, Byte 3 and 4 = IDBLK/IDNUM. For more information on station identifier formats, see the descriptions of the IDBLK and IDNUM operands in the [z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com/support/knowledgecenter/SSEK6A_2.2.0/com.ibm.zos.v2r1.sna.irm/irm_zos_sna.irm.html).

**IST1544I**

- nodename is the physical unit (PU) that dialed out on the associated line.
  - A dial in and a dial out over the same line were attempted at the same time and both requests were rejected.
  - There are two possible causes for the problem:
    - A physical unit (PU) performed a dial out, but the request contact information (cpname or stationid) received in contact RU (REQCONT) matches a different PU that is defined in VTAM.
    - Two different PUs, one performing dial out and the other performing dial in over the same line, cause a race condition.

In both cases, the PU that attempted to dial out is displayed.

**System action:** Processing continues. If the physical unit is offline, the session establishment remains pending. Otherwise, the connection request and any associated session establishment attempts fail.

For message IST1544I, the dial in is rejected and the dial out is purged.

**Operator response:**

For IST1544I: Save the system log for problem determination.

For IST680I

**CALL SECURITY ERROR**

Save the system log for problem determination.

**DIAL OUT IN PROGRESS**

Attempt to dial in on another line.

**INVALID NETWORK NAME**

Save the system log for problem determination.

**LINK NOT IN EAM**

If dial in requests are to be honored on link link, enable answer mode by using the VARY ANS=ON,ID=link command.

**MAXLU INADEQUATE**

Save the system log for problem determination.

**NETID MISMATCH**

Save the system log for problem determination.

**NO USABLE PATH FOUND**

If dial in or dial out requests are to be honored for the node, enable the PATH definitions for nodename by using the VARY PATH=USE,ID=nodename, PID=pathid command.

**PU GEN NOT SUPPORTED**

Try activating the switched major node containing the PU nodename. If problems persist, save the system log for problem determination.

**PUTYPE MISMATCH**

Save the system log for problem determination.

**REQCONT RU NOT VALID**

Save the system log for problem determination.
T2.1 NOT SUPPORTED
Save the system log for problem determination.

System programmer response: For IST154I, ensure that the correct CP name or station ID (IDBLK/IDNUM) is specified on the switched PU definition statement for the PU performing the dial out.

For IST680I

CALL SECURITY ERROR
Verify that all nodes involved in the dial process are at a level that supports call security verification. See the PRTCT operand on the PU definition statement in the switched major node definition.

DIAL OUT IN PROGRESS
None.

INVALID NETWORK NAME
• If nodename is not a valid name, check for a CPNAME mismatch between the switched major node or model major node and the NCP major node definitions. Verify that the network ID passed in the REQCONT/REQACTPU RU matches the network ID specified in the PU definition statement. Line information or I/O trace information or both might be necessary to determine the cause of the problem.
• If this error is due to an operator takeover request, APPN or LEN connectivity is not available until the failing host regains control or another host takes control. See the z/OS Communications Server: SNA Network Implementation Guide for more information.
• If this error is due to a name conflict, correct the duplicate names.

LINK NOT IN EAM
Put the link in enable answer mode (EAM).

MAXLU INADEQUATE
Check for a MAXLU mismatch in the switched major node and NCP major node definitions. Either update the switched major node to match the NCP major node or instruct the remote user of the PU not to dial in over that link.

NETID MISMATCH
• NETID should be the same as the host. If it is not, then the NETID in the REQCONT/REQACTPU RU is incorrect. If cpname is not network-qualified, then NETID will default to the host NETID. See the z/OS Communications Server: SNA Resource Definition Reference for information about XNETALS.
• See the product documentation for the device for information on coding cpname and NETID if they are not correct in the REQCONT/REQACTPU RU.

NO USABLE PATH FOUND
Check the PATH definition statements in the switched major node containing nodename.

PU GEN NOT SUPPORTED
Check the definition statements for the switched PU and revise as needed. Deactivate and reactivate the switched major node to use the revised definitions.

PUTYPE MISMATCH
• PUTYPE as indicated in the XID received on the REQCONT/REQACTPU RU should match PUTYPE as defined on the switched PU. See the z/OS Communications Server: SNA Resource Definition Reference for information about PUTYPE.
• See the product documentation for the device for information on PUTYPE if it is not indicated correctly in the XID received on REQCONT/REQACTPU RU.

REQCONT RU NOT VALID
Check for an IDBLK or IDNUM mismatch between the device and the switched major node.

T2.1 NOT SUPPORTED
Check the PATH and LU definition statements in the switched major node containing nodename.

Routing code: 8
Descriptor code: 4
**IST683I • IST688I**

**IST683I CONNECTION REQUEST DENIED, ID = nodename**

**Explanation:** This message is the first in a subgroup of messages that VTAM issues when the connection for channel-attached physical unit `nodename` failed. A complete description of the message subgroup follows.

**IST683I CONNECTION REQUEST DENIED, ID = nodename**
**IST684I I/O ERR, CSW = channel_status_word, SENSE = code**

*channel_status_word* (also called *subchannel_status_word*) provides information about the device and channel (or subchannel) status.

`code` is the sense code and provides information about the cause of the error. See the appropriate hardware manual for the value of `code`.

**System action:** Processing continues.

**Operator response:** Save the system log for problem determination.

**System programmer response:** Use the information in the two messages to determine appropriate error recovery action. See the appropriate hardware manual for the value of `code`.

If you cannot identify an I/O error or if `SENSE = 0200` or `8200` in message IST684I, check the following:

- Ensure that the buffer size (Iobuf) is compatible between the device and VTAM. This can be determined by referencing the device installation guidelines.

  **Note:** Some devices require an even numbered buffer size.

- Ensure that the PU type defined to VTAM (XID=YES|NO) matches the real PU type.
- Ensure that you have specified an appropriate value for MAXBFRU on the PU definition of `nodename`.
- Ensure that the product of MAXBFRU and the buffer size (Iobuf) is equal to or greater than the hardware's maximum send size. Reference your hardware documentation for additional information about maximum send size.

**Routing code:** 8

**Descriptor code:** 4

**IST684I I/O ERR, CSW = channel_status_word, SENSE = code**

**Explanation:** This message is part of a message subgroup. The first message in the subgroup is IST683I. See the explanation of that message for a complete description of the subgroup.

**Routing code:** 8

**Descriptor code:** 4

**IST688I VARY FAILED FOR ID = cdrmname — INSUFFICIENT STORAGE**

**Explanation:** While VTAM was processing a VARY ACT command for an external CDRM, insufficient storage was available to process a request for node `cdrmname`.

**System action:** The VARY ACT command for `cdrmname` fails.

**Operator response:** Wait a short time and reenter the command. If VTAM continues to issue this message, enter the DISPLAY BFRUSE command. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and dump for problem determination.

**System programmer response:** Verify that the operator entered the buffer pool or CSA start options as specified in the start procedures. Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA start options. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

- See the `z/OS Communications Server: New Function Summary` to determine the storage requirements for VTAM.
- See the `z/OS Communications Server: SNA Resource Definition Reference` for a description of VTAM start options.
• See z/OS Communications Server: SNA Operation for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
• See the z/OS Communications Server: SNA Network Implementation Guide for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
• See the z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

Routing code: 2
Descriptor code: 5

IST690I CONNECTION REQUEST DENIED — INVALID STATION ID = stationid

Explanation: VTAM issues this message when a switched connection between VTAM and a physical unit was unsuccessful because the station identifier stationid did not resolve to a node name in an active switched major node. A complete description of the message group follows.

IST690I CONNECTION REQUEST DENIED - INVALID STATION ID = stationid
[IST1544I DIAL OUT PURGE IN PROGRESS - ID = nodename]
IST081I LINE NAME = linename, LINE GROUP = groupname, MAJNOD = nodename
IST956I PU SAP=sapaddress MAC=macaddress
IST314I END

IST081I

linename is the line to which nodename is connected.

groupname is the line group to which the line linename belongs.
nodename is the major node with which the line is associated.

IST690I

stationid is the station identifier expressed in hexadecimal. For more information on station identifier formats, see the descriptions of the IDBLK and IDNUM operands in the z/OS Communications Server: SNA Resource Definition Reference.

IST956I

Provides the remote LAN address of the PU if the failure is detected during REQCONT processing and the DLC information is available.
sapaddress is the service access point (SAP) address for the LAN connection that the major node defines.
macaddress is the 12-digit hexadecimal medium access control (MAC) address for the LAN connection that the major node defines. If no macaddress was defined, zeroes are displayed.

IST1544I

• nodename is the physical unit (PU) that dialed out on the associated line.

A dial in and a dial out to use the same line were attempted at the same time and both requests were rejected. There are two possible causes for the problem:
– A physical unit (PU) did a dial out, but the request contact information (cpname or stationid) received in contact RU (REQCONT) matches a different PU defined in VTAM.
– Two different PUs, one performing dial out and the other performing dial in over the same line, cause a race condition.

In both cases, the PU that attempted to dial out is displayed.

System action: The connection to the physical unit is broken.
For message IST1544I, the dial in is rejected and the dial out is purged.
Operator response: Save the system log for problem determination.
For IST1544I Save the system log for problem determination.
System programmer response: Possible reasons for this problem are:
The switched major node that contains the PU definitions for this physical unit is not active. The physical unit could be attached to a Token Ring.

Activate the switched major node that contains the definitions for this physical unit.

A remote terminal operator initialized a physical unit with the wrong ID.

Have the remote operator re-initialize the physical unit with the correct station identifier.

The VTAM definition statements are incorrect.

Correct the VTAM definition statements before your operator tries to redial by taking the following actions:

1. Enter a VARY INACT command for the switched major node.
2. Modify and file new VTAM definition statements.
3. Reactivate the switched major node.
4. Redial.

Dynamic definition of the physical unit fails for one of the following reasons:

- The XID exit has not been activated or the XID exit has not been defined.
  Verify that the XID exit is in the VTAMLIB and that the exit has been activated. See z/OS Communications Server: SNA Customization for more information on the XID exit.

- The XID exit is active, but the MODEL major node is not active, not valid, or contains an error.
  In this case, message IST1016I precedes this message and provides more specific information about the cause of the failure.

The switched PU is not in a valid state. This can occur during recovery processing when a PU that is being deactivated by the host through one boundary function, such as NCP, dials in through another boundary function. The PU deactivation can occur in response to an operator command or internal INOP processing. If the current resource state of the PU in VTAM is not CONCT (connectable), the dial request will fail.

Since this situation occurs as a result of internal recovery processing, no operator or programmer actions are needed. When the reactivation of a PU is complete and the state becomes CONCT, the dial request will be successfully completed.

For IST1544I Ensure that the correct CP name or station ID (IDBLK/IDNUM) is specified on the switched PU definition statement for the PU that is performing the dial out.

Routing code: 8
Descriptor code: 4

IST693I UNABLE TO DISCONNECT ID = nodename

Explanation: VTAM issues this message when a session termination request for channel-attached physical unit nodename failed because of insufficient storage or an I/O error.

System action: Processing continues.

Operator response: Message IOS000I might be issued by MVS prior to this message and can provide additional information about the reason for the error.

Enter a VARY INACT,TYPE=IMMED command for nodename so the system can release the resources allocated to nodename.

- To check for a storage problem, take the following actions:
  Issue the DISPLAY BFRUSE command to display information about the common service area (CSA). Total VTAM private storage information is also displayed in message IST981I. If this is a storage problem, it is usually related to private storage. Issue the DISPLAY STORUSE command to display storage usage for storage pools.
  Save the system log and request a dump for problem determination.

- To check for an I/O error, take the following actions:
  Save the system log for problem determination.
  Run your operating system service aid program to determine whether MDR/OBR information has been recorded. See the EREP User’s Guide and Reference for more information on using EREP.
  If you use a network management application such as NetView, check to determine whether an alert was recorded for this problem.
System programmer response:

- For a storage problem, increase storage as required. See the z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.
- For an I/O error, if you cannot determine the cause of the problem from the output provided or need additional assistance, contact the IBM hardware support center.

If available, provide the MDR/OBR information from your operating system service aid program or the alert information recorded by your network management application.

Routing code: 8
Descriptor code: 4

**IST700I**  INVALID type – SKIPPING TO NEXT NETWORK STMT OR EOF

**Explanation:** This message is the first of a group of messages. A complete description of the message group follows the example.

**IST700I** INVALID type – SKIPPING TO NEXT NETWORK STMT OR EOF
**IST700I** CONFIG configname LABEL = labelname STMT TYPE = statementname

VTAM encountered an error in the adjacent SSCP, ADJCLUST or COSMAP table definition configname. One of the following is not valid:

- A definition statement
- A label (such as a numeric first character)
- A value on the NETID operand on a NETWORK definition statement

**IST700I**

*type* is STMT, LABEL, or NETID, indicating the location of the error.

If the NETID is not valid, the value coded on the NETID operand on a NETWORK definition statement in an adjacent SSCP, ADJCLUST, or COSMAP table does not follow the standards for a name. The value must be 8 characters or fewer, the first character must be alphabetic, and the rest of the characters must be alphanumeric.

**IST700I**

*configname* identifies the SSCP, ADJCLUST or COSMAP table definition.

*labelname* is the label on the statement.

*statementname* is the type of definition statement and is filled in only if the label is valid.

**System action:** All statements in the adjacent SSCP, ADJCLUST, or COSMAP table definition following the statement in error are ignored until a NETWORK statement or end of file (EOF) is encountered. If a NETWORK statement is encountered, normal processing resumes for that NETWORK statement and subsequent definition statements.

If the table is an adjacent SSCP table, and the error occurred after one or more valid ADJCDRM definition statements for the NETWORK statement (or the set of NETWORK statements) preceding the statement with label *labelname*, those ADJCDRM statements are processed. If no valid ADJCDRM definition is encountered for the NETWORK statement (or the set of NETWORK statements) preceding the statement with label *labelname*, all definition statements related to the NETWORK statements are ignored.

If the table is an ADJCLUST table, and the error occurred after one or more valid NEXTCP definition statements for the NETWORK statement (or the set of NETWORK statements) preceding the statement with label *labelname*, those NEXTCP statements are processed. If no valid NEXTCP definition is encountered for the NETWORK statement (or the set of NETWORK statements) preceding the statement with label *labelname*, all definition statements related to the NETWORK statements are ignored.

If the table is a COSMAP table, and the error occurred after one or more valid MAPTOCOS definition statements for the NETWORK statement (or the set of NETWORK statements) preceding the statement with label *labelname*, those MAPTOCOS statements are processed. If no valid MAPTOCOS definition is encountered for the NETWORK statement (or the set of NETWORK statements) preceding the statement with label *labelname*, all definition statements related to the NETWORK statements are ignored.

**Operator response:** Save the system log for problem determination.

Chapter 6. IST messages for VTAM network operators IST400I – IST799I  233
IST701I • IST702I

System programmer response: Enter a DISPLAY TABLE command to determine the error. See the z/OS Communications Server: SNA Resource Definition Reference for a description of VTAM table definition statements. After you correct the error, reactivate the major node in order to use the revised table definition.

Routing code: 2
Descriptor code: 5

IST701I  CONFIG configname LABEL = labelname STMT TYPE = statementname

Explanation: VTAM issues this message as part of several different message groups. See the explanation of the first message in the group for a complete description.

Routing code: 2
Descriptor code: 5

IST702I  CONFIG configname – UNEXPECTED stmt_type

Explanation: VTAM encountered an unexpected statement or EOF while processing the adjacent SSCP table definition or dynamic path update set.

configname identifies the adjacent SSCP table definition or dynamic path update set.

stmt_type identifies the unexpected statement. The values can be one of the following:

- CDRM STMT
- NETWORK STMT[labelname], where labelname is the name of the label for a NETWORK statement.
- EOF

One of the following conditions occurred:
- After a valid CDRM definition statement was processed, a NETWORK statement with label labelname or end of file (EOF) was encountered before a valid ADJCDRM statement.
- After a valid NETWORK statement was processed, end of file (EOF) occurred before a valid ADJCDRM statement.
- After a valid ADJLIST statement was processed, a CDRM or NETWORK statement or EOF occurred before a valid ADJCDRM statement.

In the first two conditions, an ADJCDRM definition statement was expected—not necessarily as the next statement, but before EOF or a NETWORK statement. Instead, either EOF or a NETWORK statement defining a destination network for a new set of adjacent SSCP tables was encountered. After a valid VPATH or NCPPATH statement was processed, EOF occurred before a valid PATH statement.

In the third condition, an ADJCDRM definition statement was expected immediately following an ADJLIST statement. Instead, a CDRM or NETWORK statement or EOF was encountered.

System action: For adjacent SSCP table definition, further processing of the NETWORK definition statements and CDRM definition statements not accompanied by an ADJCDRM statement is halted, since the definition statements do not define a valid adjacent SSCP table.

For dynamic path update, the last VPATH or NCPPATH statement is not processed, since the definition statements do not define a valid dynamic path update set.

Operator response: Save the system log and network logs for problem determination.

System programmer response: Review the definition library to make sure all requirements for VTAM are correct for your system.

For adjacent SSCP table definition, either insert one or more valid ADJCDRM definition statements before (not necessarily immediately preceding) the unexpected NETWORK statement or EOF, or delete the extra NETWORK and CDRM statements that do not define the destination networks or destination SSCP in the adjacent SSCP table definitions.

For dynamic path update, insert one or more valid PATH definition statements before EOF or delete the extra VPATH or NCPPATH statement that does not define a complete dynamic path update set.
For ADJLIST definition, do one of the following:

- Insert one or more valid ADJCDRM definition statements immediately preceding the unexpected CDRM or NETWORK statement, or EOF.
- Delete the extra CDRM and NETWORK statements.
- If they are out of order, move the unexpected statements to the proper position.

Routing code: 2
Descriptor code: 5

IST703I CONFIG configname ADJSSCP DEFINITIONS IGNORED – NO ADJCDRM STMT

Explanation: No valid CDRM, ADJCDRM, or ADJLIST definition statements were found in the adjacent SSCP table definitions configname.

System action: Processing of the adjacent SSCP table definitions is halted.

Operator response: Save the system log for problem determination.

System programmer response: Include one or more valid ADJCDRM definition statements in the adjacent SSCP table definitions.

Routing code: 2
Descriptor code: 5

IST706I ADJSSCP TABLE FOR configname IGNORED — INSUFFICIENT STORAGE

Explanation: This message is the first in two message subgroups. A full description of the two message groups follows.

- If an adjacent SSCP table is activated with entries identified with CDRM or NETID definition statements, the following message group is displayed.

  IST706I ADJSSCP TABLE FOR configname IGNORED — INSUFFICIENT STORAGE
  IST708I {[NETID = netid] [NETWORK = macroname] [CDRM = sscpname|DEFAULT TABLE]}|
  DEFAULT TABLE FOR ALL NETWORKS

- If an adjacent SSCP table is activated with entries identified with an ADJLIST definition statement, the following message group is displayed.

  IST706I ADJSSCP TABLE FOR configname IGNORED — INSUFFICIENT STORAGE
  IST1333I ADJLIST = listname

The adjacent SSCP table for the indicated network and the indicated CDRM could not be built during the processing of the ADJSSCP definition, configname, because of a lack of storage.

IST706I

configname is the ADJSSCP definition.

IST708I

netid is the name of the network of the ADJSSCP table that is being defined. This is specified in the NETID operand on the relevant NETWORK definition statement. If the NETID operand or the NETWORK statement was not coded, the NETID defaults to this host’s network.

macroname is the label coded on the NETWORK definition statement. If it does not appear, either a label was not provided on the NETWORK definition statement, or a NETWORK definition statement was not coded at all. In this case, the adjacent SSCP table defaults to the network of this host.

sscpname is the label coded on the CDRM definition statement. The intended adjacent SSCP table was for the adjacent SSCPs that are used to get to CDRM sscpname in network netid. If sscpname does not appear, the ADJSSCP table being defined is the default table for the entire network identified by NETID, and DEFAULT TABLE appears instead of the CDRM=sscpname.

If CDRM=******** appears, there was not enough storage to build adjacent SSCP tables for any of the CDRMs listed following the indicated NETWORK statement.

VTAM issues DEFAULT TABLE FOR ALL NETWORKS when the table being activated has a default adjacent SSCP list for all networks.
IST707I

IST1333I

listname is the name of an adjacent SSCP table as defined by an ADJLIST definition statement.

If an adjacent SSCP table was not specified for the CDRSC, then ***NA*** is displayed.

See the descriptions of the ADJLIST definition statement in the z/OS Communications Server: SNA Resource Definition Reference for more information on adjacent SSCP tables.

System action: No further attempt is made to build adjacent SSCP tables for the indicated network.

Operator response: When VTAM activity has decreased, try the operation again. If problems persist, enter the DISPLAY STORUSE command. Save the system log and request a dump for problem determination.

System programmer response: Increase storage as required.

- See z/OS Communications Server: SNA Operation for more information on the DISPLAY STORUSE command.
- See the z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

Routing code: 2
Descriptor code: 5

IST707I ADJSSCP TABLE BEING MODIFIED BY ACTIVATION OF configname

Explanation: This message is the first in two message subgroups. A full description of the two message groups follows.

- If an adjacent SSCP table is activated with entries identified with CDRM or NETID definition statements, the following message group is displayed.
  IST707I ADJSSCP TABLE BEING MODIFIED BY ACTIVATION OF configname
  IST708I [[NETID = netid] [NETWORK = macrolabel] [CDRM = sscpname] DEFAULT TABLE] | DEFAULT TABLE FOR ALL NETWORKS

- If an adjacent SSCP table is activated with entries identified with an ADJLIST definition statement, the following message group is displayed.
  IST707I ADJSSCP TABLE BEING MODIFIED BY ACTIVATION OF configname
  IST1333I ADJLIST = listname

IST707I

An adjacent SSCP table has been modified.

configname is the ADJSSCP definition that contains an adjacent SSCP table entry defining the same CDRM or NETID or both that were modified. This entry is added to the table, modifying the old table.

IST708I

netid is the name of the network of the ADJSSCP table that is being defined. This is specified in the NETID operand on the relevant NETWORK definition statement. If NETID or the NETWORK statement was not coded, NETID defaults to this host’s network.

macrolabel is the label coded on the NETWORK definition statement. If it does not appear, either a label was not provided on the NETWORK definition statement, or a NETWORK definition statement was not coded at all. In this case, the adjacent SSCP table defaults to the network of this host.

sscpname is the label coded on the CDRM statement. If it does not appear, the ADJSSCP table being defined is the default table for the entire network identified by NETID, and DEFAULT TABLE appears instead of the CDRM=sscpname.

DEFAULT TABLE FOR ALL NETWORKS is issued when the table being activated has a default adjacent SSCP list for all networks.

IST1333I

listname is the name of an adjacent SSCP table as defined by an ADJLIST definition statement.

If an adjacent SSCP table was not specified for the CDRSC, then ***NA*** is displayed.

See the descriptions of the ADJLIST definition statement in the z/OS Communications Server: SNA Resource Definition Reference for more information on adjacent SSCP tables.

System action: The new adjacent SSCP table replaces the old adjacent SSCP table.
IST708I • IST710I

Operator response:  None.
System programmer response:  None.
Routing code:  2
Descriptor code:  5

IST708I  ([NETID = netid] [NETWORK = macrolabel] [CDRM = sscpname] [DEFAULT TABLE])| DEFAULT TABLE FOR ALL NETWORKS

Explanation:  This message is part of a message group. The first message is IST706I, IST707I, or IST831I. See the explanations of those messages for a full description.
Routing code:  2
Descriptor code:  5

IST709I  CONFIG configname FAILED — reason

Explanation:  The activation of NCP major node configname failed during network definition. reason will be one of the following:

NO VALID BUILD OR NETWORK MACRO
The NCP major node definition configname does not contain either a BUILD or a NETWORK definition statement with the appropriate SUBAREA or NETID values or both specified for this host.

CONFLICTING NEWNAME SPECIFIED ON BUILD
The LOADMOD=load module name specified on the VARY ACT command does not match the value coded for the NEWNAME keyword on the BUILD definition statement.

CONFLICTING PUNAME SPECIFIED ON BUILD
The ID=puname specified on the VARY ACT command must match the value coded for the PUNAME keyword on the BUILD definition statement.

System action:  Activation of the NCP major node fails.
Operator response:  When reason is NO VALID BUILD OR NETWORK MACRO, save the system log for problem determination.

When reason is CONFLICTING NEWNAME SPECIFIED ON BUILD, reenter the VARY ACT command with the LOADMOD operand specifying the value coded for NEWNAME on the BUILD definition statement.

When reason is CONFLICTING PUNAME SPECIFIED ON BUILD, reenter the VARY ACT command with the ID operand specifying the value coded for PUNAME on the BUILD definition statement.

System programmer response:  When reason is NO VALID BUILD OR NETWORK MACRO, include a valid BUILD or NETWORK definition statement with the appropriate SUBAREA and NETID values specified for this host.
See the z/OS Communications Server: SNA Resource Definition Reference for a description of the VTAM definition statements.
Routing code:  2
Descriptor code:  5

IST710I  CONFIG = configname NETWORK = netid text

Explanation:  Either the COS table name (defined by the COSTAB operand) or the maximum subarea value (defined by the MAXSUBA operand) on the BUILD or NETWORK definition statement could not be defined to VTAM.

cconfigname specifies the name of the NCP definition; netid specifies the network identifier coded on the NETID operand on the BUILD or NETWORK definition statement that has encountered an error.
text indicates the specific reason for the failure of either operand, as described as follows:

COSTAB CONFLICT
The COS table for the netid and for this NCP has already been defined by another BUILD or NETWORK definition statement in this or another NCP definition.
IST710I

COSTAB NOT LOADED
A table-load error occurred or the COS table could not be found.

COSTAB OVERFLOW
VTAM has exceeded the ability to record NCP sharing of the COS table identified by the COSTAB operand.

MAXSUBA CONFLICT
The maximum subarea value (MAXSUBA) for the netid has already been defined by another BUILD or NETWORK definition statement in this or another NCP definition.

NO STORAGE FOR COSTAB
The COS table name cannot be saved because of the lack of available storage.

NO STORAGE FOR MAXSUBA
The maximum subarea value (MAXSUBA) cannot be saved because of the lack of available storage.

System action:

COSTAB CONFLICT
The COS table name is ignored and processing of the NCP definition continues. The original COS table name for the NETID defined in this NCP definition is used.

COSTAB NOT LOADED
The COS table name is ignored and processing of the NCP definition continues. Following this activation, all cross-network sessions destined to the network identified by the NETID will fail except for SSCP-SSCP sessions and for LU-LU sessions that use the default blank COS entry.

COSTAB OVERFLOW
The COS table name is ignored and processing of the NCP definition continues. Following this activation, all cross-network sessions destined to the network identified by the NETID will fail except for SSCP-SSCP sessions and for LU-LU sessions which use the default blank COS entry. Even though the Class of Service table is defined for other active NCPs, it still cannot be used for this NCP definition, since its usage cannot be recorded to VTAM.

MAXSUBA CONFLICT
The maximum subarea value is ignored and processing of the NCP definition continues. A different value has already been defined successfully to this host, and cannot be changed or redefined for the network identified by the coded NETID unless all sessions which depend on this maximum subarea are terminated.

NO STORAGE FOR COSTAB
The COS table name is ignored and processing of the NCP definition continues. Following this activation, all cross-network sessions destined to the network identified by the NETID will fail except for SSCP-SSCP sessions and for LU-LU sessions which use the default blank COS entry.

NO STORAGE FOR MAXSUBA
The maximum subarea value is ignored and processing of the NCP definition continues. If this host resides in the gateway NCP’s native network, and will own links or link stations in the network identified by the NETID operand, it will be impossible to activate those links or link stations without knowledge of that network’s maximum subarea value. However, if the definition of another NCP has successfully defined the maximum subarea for the network, such link and link station activations will be possible, as long as that other NCP remains defined (that is, not deactivated).

Operator response: Save the system log for problem determination.

If text is NO STORAGE FOR COSTAB or NO STORAGE FOR MAXSUBA, try this activation at a later time when storage becomes available. If problems persist, enter a DISPLAY BFRUSE command or a DISPLAY STORUSE command. Save the system log and request a dump for problem determination.

If text is COSTAB NOT LOADED, COSTAB CONFLICT, or COSTAB OVERFLOW, enter a DISPLAY COS,ORIGIN=configname,NETID=* command, and save the system log for problem determination.

System programmer response:

COSTAB CONFLICT
Review the output from the DISPLAY COS command. Inspect all the BUILD and NETWORK definition statements preceding the definition statement specified for the indicated network to identify the COSTAB name coded for the same NETID. Code only a single COSTAB name for any one network in this NCP definition. Use the MODIFY TABLE command to correct problems.
COSTAB NOT LOADED
Review the output from the DISPLAY COS command. Check to determine whether the Class of Service table identified by the COSTAB operand on the BUILD or NETWORK definition statement for the indicated network exists in the NCP definition. Use the MODIFY TABLE command to correct problems.

COSTAB OVERFLOW
Review the output from the DISPLAY COS command. Restrict the usage of the COSTAB name for each network and NCP to less than 256. If many NCPs need to be active simultaneously, use different COSTAB names, each defining COSTABs for many other networks. Use the MODIFY TABLE command to correct problems.

MAXSUBA CONFLICT
Check to determine whether the maximum subarea value specified on the MAXSUBA keyword for the BUILD or NETWORK definition statement for the indicated NETID start option is valid. This value must also be identical to the maximum subarea values on all other BUILD or NETWORK definition statements in this or another NCP definition that have ever been activated.

NO STORAGE FOR COSTAB
Increase storage as required. Also, have the operator cancel nonessential jobs or deactivate an unused part of the network.

NO STORAGE FOR MAXSUBA
Increase storage as required. Also, have the operator cancel nonessential jobs or deactivate an unused part of the network.

Routing code: 2
Descriptor code: 4

IST712I CONFIG configname GWPATH statement IGNORED — MISSING OPERANDS
Explanation: VTAM ignores the GWPATH definition statement statement in the CDRM major node definition configname because one or more required operands are missing.
System action: VTAM ignores the GWPATH definition statement statement in the CDRM major node configname.
Operator response: Save the system log for problem determination.
System programmer response: Examine the GWPATH definition statement. Verify that the correct combination of operands is coded.
See the z/OS Communications Server: SNA Resource Definition Reference for a description of the GWPATH definition statement.
Routing code: 2
Descriptor code: 5

IST713I CONFIG configname GWPATH statement — opname OPERAND IGNORED
Explanation: VTAM ignores the operand opname on the GWPATH definition statement statement in the CDRM major node configname because its associated operand is missing.
If the ELEMENT operand was coded, but the SUBAREA operand was not, then VTAM ignores ELEMENT.
If the ADJNETEL operand was coded, but the ADJNETSA operand was not, then VTAM ignores ADJNETEL.
System action: VTAM ignores the operand opname on the GWPATH definition statement.
Operator response: Save the system log for problem determination.
System programmer response: Either remove the operand that is being ignored (that is, the ELEMENT or ADJNETEL operand), or add the operand that is missing (that is, the SUBAREA or ADJNETSA operand).
Routing code: 2
Descriptor code: 5
IST714I CONFIG configname GWPATH statement IGNORED — INVALID STMT

Explanation: VTAM ignores the GWPATH definition statement statement in the CDRM major node definition configname.

VTAM issues this message when a GWPATH definition statement follows a CDRM statement, and the CDRM statement defines a resource in this network. This condition can occur in one of the following ways:

- No NETWORK definition statement preceded the CDRM statement; this implies that the CDRM statement is defined for a resource in the host’s network.
- The NETID operand on the preceding NETWORK definition statement indicated that the NETWORK statement was for this host’s network.
- The GWPATH statement cannot be coded in a CDRM major node if the host is not gateway capable, that is, is not started with GWSSCP=YES.
- The class of service (CoS) name as known in the adjacent network is invalid. The keyword value might be too large, the value might contain invalid characters, or the value might not start with an alphabetic character (A–Z). This implies that an invalid COS name might be used for the SSCP-SSCP session.

System action: VTAM ignores the GWPATH definition statement statement.

Operator response: Save the system log for problem determination.

System programmer response: Examine the CDRM major node to determine whether one of the following conditions apply:

- A GWPATH statement could be coded (that is, the preceding CDRM statement is intended to define a CDRM in another network).
- A GWPATH statement should not have been coded (that is, the preceding CDRM statement is intended to define a CDRM in this network).
- If the host needs to be gateway capable, specify GWSSCP=YES when VTAM is started.
- If the host does not need to be gateway capable, remove the GWPATH statement from the CDRM definition.

Routing code: 2
Descriptor code: 5

IST715I CONFIG configname CDRM statementname IGNORED — GWPATH STMT MISSING

Explanation: A GWPATH definition statement is required for all cross-network CDRMs, unless you allow the gateway path to default by specifying the SUBAREA operand on the CDRM statement, statementname. This message is issued if the following conditions exist:

1. A NETWORK or CDRM definition statement in CDRM major node configname precedes at least one valid GWPATH statement for CDRM statementname.
2. The SUBAREA operand is not specified on statement statementname or on a GWPATH statement.

System action: The CDRM statement statementname is ignored; therefore, the CDRM cannot be activated from this host’s network.

Operator response: Save the system log for problem determination.

System programmer response: Ensure that a GWPATH definition statement is defined for every CDRM except for those in this host’s network. Or, if you want to use the default gateway paths, ensure that the CDRM statement has a valid SUBAREA operand specified.

Routing code: 2
Descriptor code: 5

IST716I command FOR linkstation FAILED

Explanation: This message is the first of a group of messages. A complete description of the message group follows.

IST716I command FOR linkstation FAILED
IST717I NETID netid ID nodename SA subarea [CANNOT BE DEFINED|NNODE TYPE INVALID]
The command for link station linkstation failed when the adjacent node nodename was contacted during the activation of the link station.

See Chapter 16, “Command and RU types in VTAM messages,” on page 1083 for a description of command.

The indicated adjacent node is in network netid and has a subarea address of subarea.

One of the following conditions caused the failure:

**CANNOT BE DEFINED**

VTAM could not define the indicated adjacent node because of either insufficient storage or an inability to interpret the adjacent network’s addresses.

**NODE TYPE INVALID**

The indicated adjacent node, as identified by its network address, is not a PU type 4 or PU type 5.

**System action:** The link station is deactivated and command processing is halted.

**Operator response:**

**CANNOT BE DEFINED**

Try to activate the link station again. If the activation is unsuccessful, enter the DISPLAY BFRUSE command. Save the system log and request a dump for problem determination.

**NODE TYPE INVALID**

Save the system log for problem determination.

**System programmer response:**

**CANNOT BE DEFINED**

Check storage availability and code a BUILD or NETWORK definition statement with the MAXSUBA operand for the adjacent network netid in the NCP major node definition that is activated by this host.

**NODE TYPE INVALID**

The indicated adjacent node is known to VTAM as a node other than a PU type 4 or PU type 5. It might be known as a cross-network resource. Check address assignments in the network netid.

**Routing code:** 8

**Descriptor code:** 4

---

**IST717I**

NETID netid ID nodename SA subarea {CANNOT BE DEFINED|NODE TYPE INVALID}

**Explanation:** VTAM issues this message as part of a group of messages. The first message in the group is IST716I. See the explanation of that message for a full description.

**Routing code:** 8

**Descriptor code:** 4

---

**IST718I**

ADDRESS INVALID FOR NETID=cdrmnetid CDRM=cdrmname CODE=X’code’

**Explanation:** This message is the first in a group of messages. A complete description of the message group follows.

IST718I ADDRESS INVALID FOR NETID=cdrmnetid CDRM=cdrmname CODE=X’code’

IST719I {SUBAREA subarea ELEMENT el|ADJNET netid ADJNETSA adjnetsa ADJNETEL el] [GWN gwn]

[IST1421I nodetype resourcename HAS DUPLICATE ADDRESS]

IST3141 END

**IST718I**

- This message is issued during activation of the CDRM major node when the specified address (adjacent network netid, subarea subarea, element el) of cdrmname could not be defined.
- cdrmnetid is the network identifier for cdrmname.
- cdrmname is the name of the cross-network CDRM minor node.
- code is the return code resulting from the attempt to define the network address. Possible return codes (expressed in hexadecimal) are:
IST719I

- The operands and their values displayed are the same as those specified in a GWPATH definition statement for CDRM cdrmname. The name of the gateway NCP, gwn, will be displayed if it is specified in the definition statement.

   If other GWPATH definition statements have been defined for cdrmname, they can be used to establish the SSCP-SSCP session.

IST1421I

This message is issued when VTAM detects a duplicate address for the CDRM minor node.

nodetype is the node type of resourcename. See Chapter 17, "Node and ID types in VTAM messages," on page 1097 for a description of nodetype.

resourcename is the name of the cross-network CDRM minor node that is currently defined to the address in question. The form of resourcename is netid.name.

System action: Processing continues.

Operator response: Action depends on value for code:

04 Save the system log for problem determination.
10 Save the system log for problem determination.
20 Issue the DISPLAY BFRUSE command to display information about the common service area (CSA). Issue the DISPLAY STORUSE command to display storage usage for storage pools. Total VTAM private storage information is displayed in message IST981I. If message IST981I does not appear in the display, you might need to reissue the DISPLAY STORUSE command, specifying a higher value for the NUM operand. Save the system log for problem determination.
28 Save the system log for problem determination.

System programmer response: The indicated address could not be added to VTAM's address structure because of the reasons specified.

04 Check your network address assignments.
10 Check your network address assignments.
20 Examine your storage allocation and increase storage as required.
28 This code indicates that a VTAM error has occurred in managing the address directory.

   Take the following actions:
   - If you have access to IBMLink, search for known problems with similar symptoms. If no applicable matches are found, report the problem to IBM by using the Electronic Technical Report (ETR) option on IBMLink.
   - If you do not have access to IBMLink, report the problem to the IBM software support center.

See the section on non-VTAM problems, in the z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures for additional problem determination actions.

Routing code: 8
Descriptor code: 5
IST719I  [SUBAREA subarea ELEMENT el] [ADJNET netid ADJNETSA adjnetsa ADJNETEL el] [GWN gwn]

Explanation: This message is part of a message group. The first message in the group is IST718I. See the explanation of that message for a full description.
Routing code: 8
Descriptor code: 5

IST720I  linkstation HAS CONTACTED nodename IN netid, SA subarea

Explanation: The link station linkstation has successfully contacted the PU type 4 or PU type 5 identified by network netid, node nodename, and subarea subarea. If node nodename is not available, ***NA*** will be displayed in its place.
System action: The link station is activated.
Operator response: None.
System programmer response: None.
Routing code: 8
Descriptor code: 5

IST721I  SESSION SETUP FOR CDRM cdrmname USING GWN gatewayncp FAILED

Explanation: VTAM issues this message as part of several message groups in response to a VARY ACT,ID=cdrmname command. If this message is preceded by message IST732I, see the explanation of that message for a complete description; otherwise, it is the first in a group of messages. A complete description of the message group follows.
IST721I  SESSION SETUP FOR CDRM cdrmname USING GWN gatewayncp FAILED
IST723I  SSCPID sscpid ALREADY IN USE BY CDRM oldcdrm

The cross-network SSCP-SSCP session with CDRM cdrmname could not be established using gateway NCP gatewayncp.

sscpid is the network identifier of the SSCP that was specified on the SSCPID start option, and is displayed in hexadecimal.

The session failed because more than one SSCP in another network (one of them being CDRM oldcdrm) was started with the same value for the SSCPID start option as sscpid.

System action: The session activation request failed. Other processing continues.
Operator response: Save the system log and network logs for problem determination.
System programmer response:
• Restart one or more of the other network hosts with a different SSCPID start option value. SSCPID values must be unique across networks if two SSCPs are to communicate.
• Ensure that only one of the host CDRMs with duplicate SSCPID is active at a time.
Routing code: 8
Descriptor code: 4

IST723I  SSCPID sscpid ALREADY IN USE BY CDRM oldcdrm

Explanation: This message is part of a message group. The first message in the group is IST721I. See the explanation of that message for a complete description.
Routing code: 8
Descriptor code: 4
**IST725I • IST727I**

**IST725I**

**GWN gatewayncp, SUBAREA subarea, CDRM ALIAS ELEMENT element**

**Explanation:** This message is part of a message group. The first message in the group is IST732I. See the explanation of that message for a complete description.

**Routing code:** 8

**Descriptor code:** 4

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**IST726I**

**ADJNET adjnetid, ADJNETSA adjnetsubarea, ADJNETEL adjnetel**

**Explanation:** This message is part of a message group. The first message in the group is IST732I. See the explanation of that message for a complete description.

**Routing code:** 8

**Descriptor code:** 4

---

**IST727I**

**COMMUNICATION WITH CDRM cdrmname LOST — REASON = X'code'**

**Explanation:** The session with CDRM cdrmname has been disrupted by the session outage notification (SON). The reason for the disruption is shown by the reason code code (expressed in hexadecimal). code is part of the DACTCDRM request and can be any of the following:

<table>
<thead>
<tr>
<th>code</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>07</td>
<td>Virtual route inoperative: The virtual route carrying the SSCP-PU session has become inoperative, forcing deactivation of the SSCP-PU session.</td>
</tr>
<tr>
<td>0B</td>
<td>Virtual route deactivation: The identified SSCP-PU session had to be deactivated because of a forced deactivation of the virtual route being used by the SSCP-PU session.</td>
</tr>
<tr>
<td>0C</td>
<td>SSCP failure—unrecoverable: The identified SSCP-SSCP session had to be deactivated because one of the session's SSCPs abnormally terminated; recovery from the failure was not possible.</td>
</tr>
<tr>
<td>0D</td>
<td>Session override: The SSCP-PU session had to be deactivated because of a more recent session activation request for the same session over a different virtual route.</td>
</tr>
<tr>
<td>0E</td>
<td>SSCP failure—recoverable: The identified SSCP-SSCP session had to be deactivated because of an abnormal termination of one of the SSCPs of the session; recovery from the failure might be possible.</td>
</tr>
<tr>
<td>0F</td>
<td>Cleanup: The SSCP is resetting its half-session before receiving the response from the partner SSCP receiving the DACTCDRM.</td>
</tr>
<tr>
<td>10</td>
<td>SSCP contention: Two SSCPs have sent each other an ACTCDRM request over different virtual routes; the SSCP receiving the ACTCDRM from the SSCP with the greater SSCP ID (SSCPID start option) sends DACTCDRM, with code X'10', to the other SSCP over the same virtual route on which the contention-losing ACTCDRM was sent.</td>
</tr>
<tr>
<td>11</td>
<td>Gateway node cleanup: A gateway node is cleaning up the session because the gateway SSCP session partner has forced deactivation of the session (via NOTIFY).</td>
</tr>
</tbody>
</table>

**System action:** The session with CDRM cdrmname is deactivated without disrupting active LU-LU sessions.

**Operator response:** Save the system log and network logs and print the CDRM definition for problem determination. Issue a VARY ACT command for CDRM cdrmname so that the session can be re-established.

**System programmer response:** Consult SNA Formats for the RU formats, especially DACTCDRM and its reason codes. The meaning of the reason code, cause is found under the explanation of DACTCDRM.

**Routing code:** 8

**Descriptor code:** 4
IST728I GWPATHS FOR GWN gatewayncp ARE NOW status FOR THESE CDRMS

Explanation: This message is the first of a group of messages. A complete description of the message group follows.

IST728I GWPATHS FOR GWN gatewayncp ARE NOW status FOR THESE CDRMS
IST778I cdrmname1 [cdrmname2] [cdrmname3] [cdrmname4] [cdrmname5] [cdrmname6] ...
IST314I END

An SSCP-PU session with gateway node gatewayncp has just been established (status = ENABLED) or broken (status = DISABLED). Paths to the displayed CDRMs, as defined by the GWPATH statement, have been enabled or disabled. This change in session state affects the capabilities of any cross-network SSCP-SSCP session supported by that gateway node. Message IST778I lists the names of all CDRMs affected by the change. Message IST314I ends the list of IST778I messages.

System action: Processing continues. Any pending session activation requests to any of the displayed CDRMs will be tried again.

Operator response: None.

System programmer response: If the SSCP-PU session is DISABLED and the gateway functions are necessary for cross-network sessions supported by any of the listed CDRMs, and the gateway node gatewayncp cannot be reactivated, it might be necessary to deactivate that CDRM and reactivate it with a different gateway NCP specified so that the new gateway NCP can support this SSCP-SSCP session.

Note: Deactivating the SSCP-SSCP session might disrupt active LU-LU sessions.

Routing code: 8

Descriptor code: 4

IST732I request REJECTED DUE TO reason

Explanation: VTAM issues this message as a single message or as part of several message groups. If this message is preceded by message IST734I (cross-network session), see the explanation of that message for additional information.

Possible message groups follow.

- ACTCDRM
  This host received an ACTCDRM request from an external CDRM.
  - If IST732I is issued as a single message, the request cannot be processed for the following reason:
    
    **HOST CDRM INACTIVE**
    No CDRM major node containing a definition for the host CDRM was active or the host CDRM is inactive.
  
  - Otherwise, IST732I is issued as the first message in the following group:
    
    IST732I request REJECTED DUE TO reason
    IST725I GWN gatewayncp, SUBAREA subarea, CDRM ALIAS ELEMENT element
    IST726I ADJNET adjnetid, ADJNETSA adjnetsubarea, ADJNETEL adjnetel

    The request cannot be processed for the following reason:
    
    **SENDING CDRM UNKNOWN**
    The sender of the ACTCDRM request is not defined in this host.

    gatewayncp is the name of a gateway NCP.

    subarea and element are the subarea and element portions of the alias address of the external CDRM in this network.

    The address of the CDRM, as defined in the adjacent network adjnetid, is subarea adjnetsubarea and element adjnetel.

- REQACTCDRM
  This host received a REQACTCDRM request from external CDRM cdrmname over a gateway NCP path.
IST732I

request REJECTED DUE TO reason

IST1421I nodetype resourcename HAS DUPLICATE ADDRESS
IST721I SESSION SETUP FOR CDRM cdrmname USING GWN gatewayncp FAILED
IST726I ADJNET adjnetid, ADJNETSA adjnetsubarea, ADJNETEL adjnetel
IST830I ORIGINATING SSCP NAME = sscpname, NETID = netid

The request cannot be processed for one of the following reasons:

**ACTIVATE IN PROGRESS**
Either the origin CDRM or the destination CDRM is pending active.

**ADDRESS NOT A CDRM**
The adjacent network address in message IST726I is in use by a resource that is not a CDRM. For the
REQACTCDRM to succeed, the adjacent network address **MUST** be a CDRM resource. **resourcename** in
message IST1421I contains the name of the resource using the address (if the name is available).

**HOST CDRM INACTIVE**
No CDRM major node containing a definition for the host CDRM was active or the host CDRM is inactive.

**INACT IN PROGRESS**
The origin CDRM, the destination CDRM, or the CDRM major node is pending inactive.

**INSUFFICIENT STORAGE**
No storage could be allocated to proceed with session setup.

**SENDING CDRM UNKNOWN**
The sender of the ACTCDRM is not defined in this host.

**SENDING GWN INACTIVE**
There is no active definition for the gateway NCP **gatewayncp** that sent the REQACTCDRM.

**SENDING GWN INVALID**
No GWPATH definition exists for the gateway NCP **gatewayncp** that sent the REQACTCDRM.

gatewayncp is the name of the gateway NCP.

The address of CDRM **cdrmname**, as defined in the adjacent network **adjnetid**, is subarea **adjnetsubarea** and element **adjnetel**.

The REQACTCDRM originated with SSCP **sscpname** in network **netid**. If **sscpname** or **netid** are not known to VTAM,
they will be displayed as ***NA***.

**System action:** The session could not be established.

**Operator response:** Do one of the following, depending upon reason:

**ACTIVATE IN PROGRESS**
Do one of the following, depending upon reason:

**ADDRESS NOT A CDRM**
Enter a DISPLAY ID=resource using **resource** from message IST1421I. Enter a DISPLAY
VTAMSTOR,NETID=adjnetid,NETADDR=(adjnetsubarea,adjnetel) command using the values from message
IST726I. Save the console log for problem determination.

**HOST CDRM INACTIVE**
Activate a CDRM major node containing the host CDRM definition, if the major node is active, or activate the
host CDRM.

**INACT IN PROGRESS**
Allow the deactivation to complete and then try the activation again.

**INSUFFICIENT STORAGE**
Enter a DISPLAY BFRUSE or DISPLAY STORUSE command to evaluate your storage requirements. Save the
system log and dump for problem determination.

**SENDING CDRM UNKNOWN**
If the CDRM major node contains the definition of the external CDRM then activate it. Otherwise, save the
system log and network logs and print the CDRM definition statement for problem determination.

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SENDING GWN INACTIVE
Activate the gateway NCP.

SENDING GWN INVALID
Save the system log and network logs and print the CDRM definition statement for problem determination.

System programmer response:
ADDRESS NOT A CDRM
Check your network address assignments to determine which resource should be using the adjacent network address.

INSUFFICIENT STORAGE
Verify that the operator entered the buffer pool or CSA start options as specified in the start procedures. Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA start options. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.
- See the z/OS Communications Server: New Function Summary to determine the storage requirements for VTAM.
- See the z/OS Communications Server: SNA Resource Definition Reference for a description of VTAM start options.
- See z/OS Communications Server: SNA Operation for information about the DISPLAY BFRUSE command, the DISPL PLAY STORUSE command and the MODIFY VTAMOPTS command.
- See the z/OS Communications Server: SNA Network Implementation Guide for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
- See the z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT for information about analyzing dumps and about analyzing storage using the VIT analysis tool.

SENDING GWN INVALID
You need to add a gateway path definition for the gateway NCP that sent the REQACTCDRM. To use the new definition, you must deactivate and reactivate the CDRM major node that contains the new GWPATH definition.

SENDING CDRM UNKNOWN
You need to add a CDRM definition statement for cdrmname. To use the new definition, you must deactivate and reactivate the CDRM major node.

Routing code: 8
Descriptor code: 4

IST734I ACTIVATION OF CDRM cdrmname USING GWN gatewayncp FAILED
Explanation: VTAM issues this message when an ACTCDRM is sent by host CDRM cdrmname via gateway NCP gatewayncp in an attempt to establish an SSCP-SSCP session.

gatewayncp is the name of a gateway NCP. If unknown to VTAM, gatewayncp will be displayed as ***NA***.

System action:
- If this message is displayed as a single message or is followed by IST735I, session establishment is still in progress through other gateway nodes.
- If followed by message IST732I, the session could not be established.

Operator response:
- If this message is displayed as a single message or is followed by message IST735I, additional messages will describe the status of the session as processing continues.
- If followed by message IST732I, see the operator response of that message for recommended action.

System programmer response:
- If this message is displayed as a single message or is followed by message IST735I, session establishment is still in progress, and no response is needed.
- If followed by message IST732I, see the programmer response of that message for recommended action.

Routing code: 8
IST735I • IST737I

Descriptor code: 4

IST735I  NO ADDRESS TRANSFORMS — REQACTCDRM SENT

Explanation: An ACTCDRM was sent during an attempt to establish an SSCP-SSCP session. There were no active alias address transforms in a gateway NCP along the path to the external CDRM. This can happen in one of the following situations:

• In a back-to-back gateway configuration, the second gateway NCP might not yet have received an RNAA request from the external CDRM.
• The external CDRM is responsible for sending an RNAA request to a gateway NCP in a network adjacent to this host, but it has not yet sent the request.
• This host SSCP does not have a session with one or more gateway NCPs supporting the desired SSCP-SSCP session.

If preceded by message IST734I, this message is for a cross-network session.

System action: The activation of the desired SSCP-SSCP session will be attempted from the CDRM indicated by cdrmname in message IST734I.

Operator response: Wait for message IST324I to be displayed indicating that the external CDRM has sent a session activation request (ACTCDRM). If VTAM issues message IST324I promptly, no response if required. If this message does not appear in a reasonable amount of time, save the system log and network logs for problem determination.

Check with the operator of the external host CDRM to see that all session activation procedures at that host have been completed.

System programmer response: Verify that the CDRM and gateway NCP definitions are correct and that those definitions contain sufficient data for routing an ACTCDRM request from the external CDRM to this host SSCP.

Routing code: 8

Descriptor code: 4

IST737I  DEFAULT VR LIST USED FOR CDRM cdrmname USING GWN gatewayncp

Explanation: This message indicates one of the following:

• Gateway NCP gatewayncp does not have a COS table defined for the network in which cdrmname resides.
• Gateway NCP gatewayncp has a COS table defined for the network in which cdrmname resides, but VTAM could not find an entry in the table that matches the name specified in the logon mode table.

If an alias application is active in this host, VTAM attempts to translate the SSCP Class of Service entry ISTVTCOS into a name recognized in the adjacent network. This message indicates that no COS table entry with the translated name or with the default name (ISTVTCOS) exists in the adjacent network. As a result, the default (blank) COS table entry is used to activate a virtual route to external CDRM cdrmname, originating at gateway NCP gatewayncp.

System action: Session activation proceeds using the virtual route (VR) list from the default COS entry.

Operator response: Save the system log and network logs for problem determination.

System programmer response: If the session could not be established and is necessary, take one of the following two sequences of steps:

• If the appropriate COS table is not defined:
  – then
  - Use the MODIFY TABLE,OPTION=LOAD,ORIGIN=gatewayncp command to load the appropriate COS table for the network in which cdrmname resides.
  – or
  - Deactivate gateway NCP gatewayncp.
  - Add the appropriate COSTAB keyword to the NETWORK definition statement for the network in which cdrmname resides for the gateway NCP gatewayncp’s generation deck.
  - Reactivate gateway NCP gatewayncp.
  – or, if the problem involves an alias application:
- Activate the alias application.
- Update the alias-name translation tables (see the NetView Installation and Administration Guide for more information).

• If no matching entry can be found in the COS table:
  – then
    - Deactivate gateway NCP gatewayncp.
    - Add the required entry to the COS table identified by the COSTAB keyword of the NETWORK definition statement in the gateway NCP gatewayncp’s definition deck.
    - Reactivate gateway NCP gatewayncp.
  – or use the MODIFY TABLE,OPTION=ASSOCIATE, TYPE=COSTAB, ORIGIN=gatewayncp command to associate a COS table that has the required entry to gateway NCP gatewayncp.

Routing code:  8
Descriptor code:  4

IST740I  UNABLE TO FREE ALIAS ADDRESSES FOR CDRM cdrmname GWN gatewayncp

Explanation:  This message is the first of a group of messages. A complete description of the message group follows.

Because of an error indicated by reason, VTAM was unable to free a pair of alias-network addresses, causing the failures of subsequent activation of the external CDRM cdrmname using gateway NCP gatewayncp. This condition might be temporary if caused by heavy activity in the network. It might be an indication that VTAM does not have sufficient storage to manage a network of this size.

The reason for the failure is one of the following:

INSUFFICIENT STORAGE
  VTAM was unable to allocate sufficient storage. A NOTIFY RU was sent to the gateway NCP gatewayncp to free alias-network addresses for an SSCP-SSCP session.

NOTIFY REQUEST FAILED
  A NOTIFY RU was sent to gateway NCP gatewayncp to free alias-network addresses for an SSCP-SSCP session. Gateway NCP gatewayncp was unable to free the alias-network addresses.

System action:  The deactivation process continues.

Operator response:  If the major node containing CDRM cdrmname is still active, reissue the VARY INACT command for that CDRM.

You might have to deactivate the NCP major node for gatewayncp to free alias-network addresses if:
  • Additional messages are displayed indicating that session-establishment attempts are failing because the gateway NCP has no alias-network addresses available.
  • The major node containing the external CDRM definition is inactive.

If reason is INSUFFICIENT STORAGE, enter the DISPLAY BFRUSE command. Save the system log and dump for problem determination.

System programmer response:  If reason is INSUFFICIENT STORAGE, ensure that the amount of available storage is adequate for your network and increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA start options. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

  • See the z/OS Communications Server: New Function Summary to determine the storage requirements for VTAM.
  • See the z/OS Communications Server: SNA Resource Definition Reference for a description of VTAM start options.
  • See z/OS Communications Server: SNA Operation for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
  • See the z/OS Communications Server: SNA Network Implementation Guide for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
IST742I • IST744I

See the z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

Routing code: 8
Descriptor code: 4

IST742I ACTIVATION OF CDRM cdrmname [FAILED | QUEUED] — GWN PATH NOT AVAILABLE

Explanation: During the activation of a cross-network CDRM, no gateway NCP could be selected to support the SSCP-SSCP session with external CDRM cdrmname.

If VTAM could find no active gateway NCPs, only this message will be issued. If VTAM was able to select an active gateway NCP, messages issued prior to this one indicate the failures that occurred.

System action: If activation is:
QUEUED
The activation of external CDRM cdrmname is queued pending the availability of a suitable gateway NCP as defined by the GWPATH statements for CDRM cdrmname.

FAILED
The activation of external CDRM cdrmname failed because of insufficient storage, or all paths as defined by the GWPATH statements for CDRM cdrmname have been tried and have failed.

Operator response: If you do not want the activation to remain pending, issue a VARY INACT command for the CDRM cdrmname.

Otherwise, save the system log and network logs for problem determination.

System programmer response: This message is normal if:
• During activation, paths failed but were expected to fail.
• An existing SSCP-SSCP session was disrupted because of the failure of the session from the host SSCP to the gateway NCP.

No action is necessary if, upon recovery of the gateway NCP or an alternate gateway path, the SSCP-SSCP session re-established itself.

You will probably need to add to or change the GWPATH definitions associated with the external CDRM or change the GWNAU definition in the gateway NCP if:
• This message occurs upon initial activation of the external CDRM.
• The activation of the external CDRM or appropriate gateway NCP does not result in recovery of the session.

See the z/OS Communications Server: SNA Network Implementation Guide for more information on how the GWPATH and GWNAU definition statements relate to CDRM activation.

Routing code: 8
Descriptor code: 4

IST744I CROSS-NETWORK SESSION SETUP FAILED, NETWORK = netid

Explanation: This message is the first in two message groups. A full description of the two message groups follows.

The message group displayed depends on the type of session, as follows:
• If the session-establishment attempt was for an SSCP-SSCP session, the failed request is ACTCDRM and the following group of messages is issued:
  IST744I CROSS-NETWORK SESSION SETUP FAILED, NETWORK = netid
  IST745I ACTCDRM TO CDRM = cdrmname FAILED, SENSE = code
  IST531I FROM SUBAREA = subarea, ELEMENT = element
  IST531I TO SUBAREA = subarea, ELEMENT = element
  [IST528I VIRTUAL ROUTE NUMBER vrlist]
  IST523I REASON = {SESSION SETUP REJECTED|VR ACTIVATION FAILED}

  An ACTCDRM request was sent to CDRM cdrmname.
code is the sense data from the negative response to an ACTCDRM request. See the z/OS Communications Server: IP and SNA Codes for a description of code.

- If the session-establishment attempt was for an LU-LU session, the failed request is a BIND RU and the following group of messages is issued:

  IST744I CROSS-NETWORK SESSION SETUP FAILED, NETWORK = netid
  IST746I BIND FAILED FROM pluname TO sluname, SENSE = code
  IST531I FROM SUBAREA = subarea, ELEMENT = element
  IST531I TO SUBAREA = subarea, ELEMENT = element
  [IST528I VIRTUAL ROUTE NUMBER vrlist]
  IST523I REASON = {SESSION SETUP REJECTED | VR ACTIVATION FAILED}

  The real name of the primary logical unit (PLU) is pluname, and the real name of the secondary logical unit (SLU) is sluname. code is the sense data from the negative response to the BIND request. See the z/OS Communications Server: IP and SNA Codes for complete sense code information.

  The first display of message IST531I indicates the PLU’s address, as known in network netid (subarea subarea and element element). If the subarea and element addresses are unknown, VTAM issues either 0 or *NA* in place of the address.

  The second display of message IST531I indicates the SLU’s address as known in network netid (subarea subarea and element element). If the subarea and element addresses are unknown, VTAM issues either 0 or *NA* in place of the address.

  The reason for the session activation failure is indicated by message IST523I:

  SESSION SETUP REJECTED
  The gateway NCP has received a negative response to the session activation request.

  VR ACTIVATION FAILED
  A virtual route in network netid could not be activated. Message IST528I might also be displayed with vrlist providing a list of virtual routes that the gateway NCP tried to activate in network netid.

  System action: Session activation fails.

  Operator response: Issue the DISPLAY ROUTE command for all networks involved in this session setup to display the status of explicit routes and virtual routes. Save the system log for problem determination.

  System programmer response:

  SESSION SETUP REJECTED
  Review the logon mode table entry used with the session.

  VR ACTIVATION FAILED
  Ensure that all COS table definitions and PATH definition statements are correct and that all required links and nodes are active.

  If all definitions are correct, and all required links and nodes are active, take the following actions:

  - If you have access to IBMLink, search for known problems with similar symptoms. If no applicable matches are found, report the problem to IBM by using the Electronic Technical Report (ETR) option on IBMLink.
  - If you do not have access to IBMLink, report the problem to the IBM software support center.

Routing code: 8
Descriptor code: 4

IST745I ACTCDRM TO CDRM = cdrmname FAILED, SENSE = code

Explanation: VTAM issues this message as part of a message group. The first message in the group is IST744I. See the explanation of that message for a complete description.

Routing code: 8
Descriptor code: 4
IST746I • IST752I

IST746I BIND FAILED FROM pluname TO sluname, SENSE = code

Explanation: VTAM can issue this message as the first message in a group or as part of a group of messages that begins with message IST744I. See the explanation of that message for a complete description.

When IST746I appears as the first message in a group, VTAM displays the following:

IST746I BIND FAILED FROM pluname TO sluname, SENSE = code
IST531I FROM SUBAREA = subarea, ELEMENT = element
IST531I TO SUBAREA = subarea, ELEMENT = element
[IST528I VIRTUAL ROUTE NUMBER vlist]
IST523I REASON = VR ACTIVATION FAILED

The NCP could not activate a virtual route from an independent PLU pluname to a SLU sluname in VTAM’s network.

The first display of message IST531I indicates the PLU’s address, as known in network netid (subarea subarea and element element). If the subarea and element addresses are unknown, VTAM issues either 0 or *NA* in place of the address.

The second display of message IST531I indicates the SLU’s address as known in network netid (subarea subarea and element element). If the subarea and element addresses are unknown, VTAM issues either 0 or *NA* in place of the address.

System action: Session activation fails.

Operator response: Save the system log for problem determination.

System programmer response: Ensure that all COS table definitions and PATH definition statements are correct. Ensure that all required links and nodes are active.

Routing code: 8
Descriptor code: 4

IST751I SIO = sio, ERROR CT = count, CUA = device_address

Explanation: VTAM issues this message in response to a DISPLAY ID command requesting the status of a channel-attachment major node for a communication-adapter line.

sio is the number of start-I/O operations counted for the node. This number is cumulative (from the time that the node was last activated). The value of sio is never larger than 65535. If sio is 65535, its value is reset to 0 when the next start I/O operation takes place. If the value of sio is unavailable, VTAM issues ***NA***.

count is the number of I/O errors counted for the node. This number is cumulative (from the time that the node was last activated). VTAM issues ***NA*** if count is not available.

device_address is the hexadecimal channel address of the line to which this node is attached. VTAM issues *NA* if device_address is not available.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2,8
Descriptor code: 5

IST752I GPT TRACE STATUS = status [ ALSNAME = alsname]

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY command requesting the status of a node.

The message indicates the current state of the generalized PIU trace (GPT) for that node.

See the z/OS Communications Server: IP and SNA Codes for more information on trace status code status.

For a DISPLAY command for an independent LU, VTAM indicates the name of all adjacent link stations (ALS) that
the independent LU is using. VTAM issues message IST752I once for each adjacent link station. VTAM issues this message only for adjacent link stations that exist in an NCP major node (or, for a switched connection, link stations that are connected through a link in an NCP major node).

System action: None.
Operator response: None.
System programmer response: None.
Routing code: 8
Descriptor code: 5

IST755I ALERT FROM PU *puname* FOLLOWS

Explanation: VTAM has received an unsolicited Record Formatted Maintenance Statistics (RECFMS) request of type 0 from a communication controller *puname*. VTAM always issues a second message, which describes the specific information depending on the user action code received from *puname*. See the description of the second message for additional information.

This message and the message following it will not be received if there is a communication network management (CNM) application program defined and active to receive the RECFMS RU.

Routing code: 8
Descriptor code: 4

IST756E ALERT FROM PU *puname* FOLLOWS

Explanation: VTAM has received an unsolicited Record Formatted Maintenance Statistics (RECFMS) request of type 0 from a communication controller *puname*. VTAM always issues a second message, which describes the specific information depending on the user action code received from *puname*. See the description of the second message for additional information.

This message and the message following it will not be received if there is a communication network management (CNM) application program defined and active to receive the RECFMS RU.

Note: This message indicates that you must eventually take some action to correct this problem, but the system continues processing without waiting for your response.

Routing code: 8
Descriptor code: 3

IST757E MOSS UNAVAILABLE — HARDWARE ERROR

Explanation: The maintenance and operator subsystem (MOSS) of the IBM 3725 or 3745 Communication Controller is unavailable either because the program control switch is in the wrong position or because a hardware error has occurred. This message is always preceded by IST756E, which identifies the name of the communication controller. The RECFMS request received by VTAM had the user action code of 1 in it. Additional information is provided in the Operating Guide for your communication controller.

System action: Processing continues.
Operator response: Do not attempt to IPL the communication controller. Save the system log for problem determination.
System programmer response: Verify that the program control switch is in the correct position. If it is, contact the IBM hardware support center.
Routing code: 8
Descriptor code: 3
IST758E • IST761E

IST758E  MOSS RELOADED — HARDWARE ERROR

Explanation: The maintenance and operator subsystem (MOSS) of the IBM 3725 or 3745 Communication Controller has been automatically reloaded after a hardware error. This message is always preceded by IST756E, which identifies the name of the communication controller. The RECFMS request received by VTAM had the user action code of 2 in it. Additional information is provided in the Operating Guide for your communication controller.

System action: The error has been successfully recovered. Processing continues.

Operator response: Issue a MODIFY DUMP,TYPE=MOSS command to transfer the MOSS dump to a host data set to allow another dump on the MOSS diskette. Save the system log for problem determination.

System programmer response: No action is required unless the problem occurs repeatedly. If it does, contact the IBM hardware support center.

Routing code: 8
Descriptor code: 3

IST759E  MOSS DISKETTE UNUSABLE

Explanation: The maintenance and operator subsystem (MOSS) diskette drive or diskette adapter in the IBM 3725 or 3745 Communication Controller is rendered unusable because of a hardware error. This message is always preceded by IST756E, which identifies the name of the communication controller. The RECFMS request received by VTAM had the user action code of 3 in it. Additional information is provided in the Operating Guide for your communication controller.

System action: Processing continues.

Operator response: Do not attempt to IPL the communication controller. Save the system log for problem determination.

System programmer response: Contact the IBM hardware support center.

Routing code: 8
Descriptor code: 3

IST760E  MOSS DISKETTE HARDWARE ERROR

Explanation: A portion of the maintenance and operator subsystem (MOSS) diskette in the IBM 3725 or 3745 Communication Controller is unusable because of a hardware error. This message is always preceded by IST756E, which identifies the name of the communication controller. The RECFMS request received by VTAM had the user action code of 4 in it. Additional information is provided in the Operating Guide for your communication controller.

System action: Processing continues.

Operator response: Save the system log for problem determination.

System programmer response: Contact the IBM hardware support center.

Routing code: 8
Descriptor code: 3

IST761E  MOSS CONSOLE UNAVAILABLE

Explanation: A portion of the maintenance and operator subsystem (MOSS) diskette in the IBM 3725 or 3745 Communication Controller is unavailable. This message is always preceded by IST756E, which identifies the name of the communication controller. The RECFMS request received by VTAM had the user action code of 5 in it. Additional information is provided in the Operating Guide for your communication controller.

System action: All sessions using routes over the failing adapter have been terminated, and appropriate recovery actions have been initiated. Processing continues.

Operator response: Save the system log for problem determination.

System programmer response: Check the physical installation and run operator console tests, if desired (as described in the Operator Console Reference and Problem Analysis Guide for your communication controller).
If you cannot determine the cause of the problem or need assistance, contact the IBM hardware support center.

Routing code: 8
Descriptor code: 3

**IST762I** MOSS IN MAINTENANCE MODE

**Explanation:** The maintenance and operator subsystem (MOSS) of the IBM 3725 or 3745 Communication Controller has been placed in the offline mode by explicit action. This message is always preceded by IST755I, which identifies the name of the communication controller. The RECFMS request received by VTAM had the user action code of 6 in it. Additional information is provided in the *Operating Guide* for your communication controller.

**System action:** Processing continues.

**Operator response:** Save the system log for problem determination.

**System programmer response:** Check for maintenance mode. If incorrect, place MOSS in ONLINE MODE.

Routing code: 8
Descriptor code: 4

**IST763I** PHYSICAL UNIT RELOADED — HARDWARE ERROR

**Explanation:** The IBM 3725 or 3745 Communication Controller has been reloaded to recover from a hardware error. This message is always preceded by IST755I, which identifies the name of the communication controller. The RECFMS request received by VTAM had the user action code of 7 in it. Additional information is provided in the *Operating Guide* for your communication controller.

**System action:** The error has been successfully recovered. Processing continues.

**Operator response:** Save the system log for problem determination.

**System programmer response:** No action is required unless the problem occurs repeatedly. If it does, contact the IBM hardware support center.

Routing code: 8
Descriptor code: 4

**IST764I** PHYSICAL UNIT RELOADED — PRIOR ABEND CODE WAS code

**Explanation:** The IBM 3725 or 3745 Communication Controller has been reloaded to recover from a software error that caused an abend. code is the abend code.

This message is always preceded by IST755I, which identifies the name of the communication controller. The RECFMS request received by VTAM had the user action code of 8 in it. Additional information is provided in the *Operating Guide* for your communication controller.

**System action:** The error has been successfully recovered. Processing continues.

**Operator response:** Save the system log for problem determination.

**System programmer response:** No action is required unless the problem occurs repeatedly. If it does, check to ensure that the NCP generation matches the hardware configuration, and dump the NCP.

If you cannot determine the cause of the problem or need additional assistance, contact the IBM hardware support center.

Routing code: 8
Descriptor code: 4
IST765E • IST768E

IST765E  CHANNEL ADAPTER channelname UNAVAILABLE — HARDWARE ERROR

Explanation: The channel adapter channelname in the IBM 3725 or 3745 Communication Controller is unavailable because of a hardware error. This message is always preceded by IST756E, which identifies the name of the communication controller. The RECFMS request received by VTAM had the user action code of 9 in it. Additional information is provided in the Operating Guide for your communication controller.

System action: VTAM terminated all sessions using routes over the failing adapter and initiated appropriate recovery actions.

Operator response: Save the system log for problem determination.

System programmer response: Contact the IBM hardware support center.

Routing code: 8

Descriptor code: 3

IST766I  DUMP FAILED — NO (MOSS|CSP|NCP) DUMP ON ncpname DISKETTE

Explanation: VTAM attempted to transfer a dump from the MOSS, CSP, or NCP diskette to the host 3745, 3725 (for MOSS or CSP) or 3720 (for MOSS, CSP, or NCP) Communication Controller for NCP ncpname. The attempt terminated because the diskette was empty or VTAM could not find the requested file.

System action: Dump processing ends.

Operator response: Issue a dump to the diskette, then reissue the MOSS, CSP, or NCP dump. Despite the empty diskette in the 3725, 3720, or 3745 Communication Controller, some data files might have been transmitted to the host from the NCP. They can be formatted and printed using the NCP utility program.

System programmer response: None.

Routing code: 2

Descriptor code: 5

IST767E  SCANNER scannernum (line1-line2) UNAVAILABLE — HARDWARE ERROR

Explanation: The scanner scannernum in the IBM 3725 or 3745 Communication Controller is unavailable because of a hardware error on a possible range of line numbers between line1 and line2. This message is always preceded by IST756E, which identifies the name of the communication controller. The RECFMS request received by VTAM had the user action code of 11 in it. Additional information is provided in the Operating Guide for your communication controller.

System action: All affected lines are inoperative.

Operator response: Follow the predefined recovery or backup actions, or both, for your network. Save the system log for problem determination.

System programmer response: Reload the affected scanner. No other action is required unless the problem occurs repeatedly. If it does, contact the IBM hardware support center.

Routing code: 8

Descriptor code: 3

IST768E  SCANNER scannernum (line1-line2) UNAVAILABLE — HARDWARE ERROR

Explanation: The scanner scannernum in the IBM 3725 or 3745 Communication Controller is unavailable because of a hardware error on a possible range of line numbers between line1 and line2. This message is always preceded by IST756E, which identifies the name of the communication controller. The RECFMS request received by VTAM had the user action code of 12 in it. Additional information is provided in the Operating Guide for your communication controller.

System action: All affected lines are inoperative.

Operator response: Follow the predefined recovery or backup actions, or both, for your network. Transfer the dump of the communication-scanner processor to a data set in the host using the MODIFY DUMP command. This will allow another dump on the MOSS diskette. Save the system log for problem determination.
System programmer response: Reload the affected scanner. No other action is required unless the problem occurs repeatedly. If it does, contact the IBM hardware support center.

Routing code: 8
Descriptor code: 3

IST769E SCANNER scanernum (line1-line2) UNAVAILABLE — SOFTWARE ERROR

Explanation: The scanner scanernum in the IBM 3725 or 3745 Communication Controller is unavailable because of a software error on a possible range of line numbers between line1 and line2. This message is always preceded by IST756E, which identifies the name of the communication controller. The RECFMS request received by VTAM had the user action code of 13 in it. Additional information is provided in the Operating Guide for your communication controller.

System action: All affected lines are inoperative.

Operator response: Follow the predefined recovery or backup actions, or both, for your network, and save the system log for problem determination.

System programmer response: Reload the scanner scanernum. No other action is required unless the problem occurs repeatedly. If it does, dump the NCP and contact the IBM hardware support center.

Routing code: 8
Descriptor code: 3

IST770E SCANNER scanernum (line1-line2) UNAVAILABLE — SOFTWARE ERROR

Explanation: The scanner scanernum in the IBM 3725 or 3745 Communication Controller is unavailable because of a software error on a possible range of line numbers between line1 and line2. This message is always preceded by IST756E, which identifies the name of the communication controller. The RECFMS request received by VTAM had the user action code of 14 in it. Additional information is provided in the Operating Guide for your communication controller.

System action: All affected lines are inoperative.

Operator response: Follow the predefined recovery or backup actions or both. Save the system log for problem determination.

System programmer response: No action is required unless the problem occurs repeatedly. If it does, dump the NCP and contact the IBM hardware support center.

Routing code: 8
Descriptor code: 3

IST771E SCANNER scanernum LINE linename UNAVAILABLE — HARDWARE ERROR

Explanation: The scanner scanernum on line linename in the IBM 3725 or 3745 Communication Controller is unavailable because of a hardware error. This message is always preceded by IST756E, which identifies the name of the communication controller. The RECFMS request received by VTAM had the user action code of 15 in it. Additional information is provided in the Operating Guide for your communication controller.

System action: Processing continues.

Operator response: Save the system log for problem determination.

System programmer response: Reactivate the affected line. No other action is required unless the problem occurs repeatedly. If it does, contact the IBM hardware support center.

Routing code: 8
Descriptor code: 3
 IST772I  UAC = uac [Q1 = qualifier1  Q2 = qualifier2 [Q3 = qualifier3] ]

Explanation: VTAM issues this message as part of a message group. The first message in the group is IST755I. An alert has been received with a user action code (UAC) of uac. Any qualifiers that were contained in the alert will also be displayed (from 0–3 qualifiers).

Notes:
1. The qualifier text is printed if qualifiers are received with the alert. For example:
   • If two qualifiers are attached to the alert, VTAM will not display the Q3 = qualifier3 text.
   • If no qualifiers are attached to the alert, VTAM will display only uac.
2. If VTAM displays a UAC that is not listed below, VTAM does not recognize the UAC. See IBM 3720/3721 Communication Controller Daily Task and Problem Determination for information regarding UACs not listed in this manual.

A full description of the message based on the UAC follows:

UAC=01

Explanation: The maintenance and operator subsystem (MOSS) has a hardware error or there is a control program to MOSS communication error.

System Action: Processing continues.

Operator Response:
• Do not attempt to IPL the 3720.
• Perform a MOSS IML, set the Function Select switch of the 3720 operator panel to “NORMAL,” and set the MOSS online.
  See the IBM 3720/3721 Communication Controller Operator’s Guide.
• Use a MODIFY DUMP,TYPE=MOSS command to transfer the MOSS dump to the host for later printing.
• If the problem persists, do not transfer the last MOSS dump. Save the system log for problem determination.

Programmer Response: Note the control program to MOSS interface status (Q1) and contact the IBM hardware support center.

UAC=02

Explanation: The maintenance and operator subsystem (MOSS) has a recoverable error. The MOSS has been automatically reloaded.

System Action: Processing continues.

Operator Response:
• Use a MODIFY DUMP,TYPE=MOSS command to transfer the MOSS dump to the host for later printing.
• If the problem persists, do not transfer the last MOSS dump. Save the system log for problem determination.

Programmer Response: Note the reference code (Q1). Contact the IBM hardware support center.

UAC=03

Explanation: The maintenance and operator subsystem (MOSS) has a diskette drive or diskette adapter error.

System Action: Processing continues.

Operator Response: Save the system log for problem determination.

Programmer Response: Contact the IBM hardware support center.

UAC=04

Explanation: The maintenance and operator subsystem (MOSS) has a diskette media error.

System Action: Processing continues.

Operator Response: Save the system log for problem determination.

Programmer Response: Contact the IBM hardware support center.
UAC=05

Explanation: The maintenance and operator subsystem (MOSS) has a local console error.

System Action: Processing continues.

Operator Response: Save the system log for problem determination.

Programmer Response:
- Verify that the local console operates in IBM 3101 mode. See the IBM 3720/3721 Communication Controller Problem Determination Guide.
- Run a console test. See the console documentation.
- Check the cable.
- Run a console link test from the 3720 operator panel. See IBM 3720/3721 Communication Controller Daily Task and Problem Determination.
- If no problem appears, note the reference code (Q2), and contact the IBM hardware support center.

UAC=06

Explanation: The maintenance and operator subsystem (MOSS) is offline because of maintenance mode.

System Action: Processing continues.

Operator Response: Save the system log for problem determination.

Programmer Response: Check for maintenance mode. If it is correct, set MOSS online. See the IBM 3720/3721 Communication Controller Operator’s Guide.

UAC=07

Explanation: The communication controller has a hardware error. A communication controller IPL was re-executed.

System Action: Processing continues.

Operator Response:
- Reactivate lines from host.
- If the problem persists, save the system log for problem determination.

Programmer Response: Note the abend code (Q1) and the reference code (Q2). If you cannot determine the cause of the problem or need additional assistance, contact the IBM hardware support center.

UAC=08

Explanation: The communication controller has a software error. A communication controller IPL was re-executed.

System Action: Processing continues.

Operator Response:
- Reactivate lines from host.
- If the problem persists, save the system log for problem determination.

Programmer Response:
- Ensure no mismatch exists between the hardware configuration and the control program generation (NCPCA, CA, HICHAN, LOCHAN). Valid for abend codes 912 and 915. Correct the generation problem, if any.
- Dump the NCP and analyze the dump according to abend code (Q1).
- If the problem does not appear to be a software problem, note the reference code (Q2) and contact the IBM hardware support center.

UAC=09

Explanation: A channel adapter error has occurred for channel adapter (Q1).

System Action: All sessions using routes over the failing adapter have been terminated, and appropriate recovery actions have been initiated.
**Operator Response:** Save the system log for problem determination.

**Programmer Response:**
- Ensure the compatibility of communication controller channel-adapter parameters with the system (NSC address, ESC addresses, select out priority, burst length).
- Note the reference code (Q2) and contact the IBM hardware support center.

**UAC=11**

**Explanation:** A scanner hardware error has occurred for scanner number Q1. Lines whose addresses are in the range Q2 are inoperative.

**System Action:** All affected lines are inoperative.

**Operator Response:**
- Reissue the IML command for the affected scanner from the MOSS console and reactivate the lines from the host.
  - See the *IBM 3720/3721 Communication Controller Operator’s Guide*.
- If the problem persists, save the system log for problem determination.

**Programmer Response:** Note the reference code (Q3) and contact the IBM hardware support center.

**UAC=12**

**Explanation:** A scanner hardware error has occurred for scanner number Q1. Lines whose addresses are in the range Q2 are inoperative.

**System Action:** All affected lines are inoperative.

**Operator Response:**
- Reissue the IML command for the affected scanner from the MOSS console and reactivate the lines from the host.
  - See the *IBM 3720/3721 Communication Controller Operator’s Guide*.
- Use the MODIFY DUMP,TYPE=CSP command to transfer the scanner dump to the host for later printing.
- If the problem persists, do not transfer the last scanner dump. Save the system log for problem determination.

**Programmer Response:** Note the reference code (Q3) and contact the IBM hardware support center.

**UAC=13**

**Explanation:** A control program error or scanner error has occurred for scanner number Q1. Lines whose addresses are in the range Q2 are inoperative.

**System Action:** All affected lines are inoperative.

**Operator Response:**
- Reissue the IML command for the affected scanner from the MOSS console and reactivate the lines from the host.
  - See the *IBM 3720/3721 Communication Controller Operator’s Guide*.
- If the problem persists, save the system log for problem determination.

**Programmer Response:**
- Check the addresses in control program generation. Correct generation in case of error.
- Dump the NCP and analyze the dump.
- If there does not appear to be a software problem, note the reference code (Q3) and contact the IBM hardware support center.

**UAC=14**

**Explanation:** A control program error or scanner error has occurred for scanner number Q1. Lines whose addresses are in the range Q2 are inoperative.

**System Action:** All affected lines are inoperative.
Operator Response:
- Reissue the IML command for the affected scanner from the MOSS console and reactivate the lines from the host.
  
  See the IBM 3720/3721 Communication Controller Operator’s Guide.
- Use the MODIFY DUMP,TYPE=CSP command to transfer the scanner dump to the host for later printing.
- If the problem persists, do not transfer the last scanner dump. Save the system log for problem determination.

Programmer Response:
- Dump the NCP and analyze the dump.
- If the problem does not appear to be a software problem, note the reference code (Q3) and contact the IBM hardware support center.

UAC=15

Explanation: A line error has occurred for line address Q2 on scanner number Q1.

System Action: The line is inoperative.

Operator Response:
- Reactivate the line from the host.
- If the problem persists, save the system log for problem determination.

Programmer Response:
- According to the reference code (Q3), perform line problem determination with 3720 maintenance and operator subsystem (MOSS) facilities.
  
  See the IBM 3720/3721 Communication Controller Problem Determination Guide.
- If the problem does not appear to be a software problem, note the reference code (Q3) and contact the IBM hardware support center.

UAC=16

Explanation: Re-execution of an automatic-scanner IML is in progress following a hardware error on scanner Q1. Lines whose addresses are in the range Q2 are inoperative.

System Action: All affected lines are inoperative.

Operator Response: Wait for the re-execution of the automatic-scanner IML to complete. Another alert will indicate the IML completion. No action is required.

UAC=17

Explanation: Reexecution of an automatic-scanner IML is in progress following a control program error on scanner Q1. Lines in the range Q2 are inoperative.

System Action: All affected lines are inoperative.

Operator Response: Wait for the re-execution of the automatic-scanner IML to complete. Another alert will indicate the IML completion. No action is required.

UAC=18

Explanation: Re-execution of an automatic-scanner IML is complete following a scanner hardware error on scanner Q1. Lines whose addresses are in the range Q2 are inoperative.

System Action: All affected lines are inoperative.

Operator Response:
- Reactivate the lines from the host.
- If the problem persists, save the system log for problem determination.

Programmer Response: Note the reference code (Q3) and contact the IBM hardware support center.

UAC=19
**IST772I**

**Explanation:** Reexecution of an automatic-scanner IML is complete following a control program error or scanner error on scanner Q1. Lines whose addresses are in the range Q2 are inoperative.

**System Action:** All affected lines are inoperative.

**Operator Response:**
- Use the MODIFY DUMP,TYPE=CSP command to transfer the scanner dump to the host for later printing.
- Reactivate the lines from the host.
- If the problem persists, do not transfer the last scanner dump. Save the system log for problem determination.

**Programmer Response:**
- Take an NCP dump (MODIFY DUMP,TYPE=NCP command) at the time of the re-execution of the scanner IML and analyze the dump.
- If the problem does not appear to be a software problem, note the reference code (Q3) and contact the IBM hardware support center.

**UAC=20**

**Explanation:** A permanent hardware error has occurred for scanner Q1. Scanner re-execution of the IML has stopped. Lines whose addresses are in the range Q2 are inoperative.

**System Action:** All affected lines are inoperative.

**Operator Response:** Save the system log for problem determination.

**Programmer Response:** Note the reference code (Q3) and contact the IBM hardware support center.

**UAC=21**

**Explanation:** A permanent control program error or scanner error has occurred for scanner Q1. Reexecution of the scanner IML stopped. Lines whose addresses are in the range Q2 are inoperative.

**System Action:** All affected lines are inoperative.

**Operator Response:** Save the system log for problem determination.

**Programmer Response:**
- Dump the NCP and analyze the dump.
- If the problem does not appear to be a software problem, note the reference code (Q3) and contact the IBM hardware support center.

**UAC=22**

**Explanation:** Reexecution of the automatic-scanner IML failed because of a hardware error on scanner Q1. Lines whose addresses are in the range Q2 are inoperative.

**System Action:** All affected lines are inoperative.

**Operator Response:** Save the system log for problem determination.

**Programmer Response:** Note the reference code (Q3) and contact the IBM hardware support center.

**UAC=23**

**Explanation:** Re-execution of the automatic-scanner IML failed because of a control program or scanner hardware error on scanner Q1. Lines whose addresses are in the range Q2 are inoperative.

**System Action:** All affected lines are inoperative.

**Operator Response:** Save the system log for problem determination.

**Programmer Response:**
- Dump the NCP and analyze the dump.
- If the problem does not appear to be a software problem, note the reference code (Q3) and contact the IBM hardware support center.

**UAC=24**
**Explanation:** Re-execution of the automatic-scanner IML failed because of a hardware error or maintenance and operator subsystem (MOSS) error for scanner Q1. Lines whose addresses are in the range Q2 are inoperative.

**System Action:** All affected lines are inoperative.

**Operator Response:** Save the system log for problem determination.

**Programmer Response:** Note the reference code (Q3) and contact the IBM hardware support center.

**UAC=25**

**Explanation:** A maintenance and operator subsystem (MOSS) remote-console error occurred because of the line, modems, console or MOSS.

**System Action:** Processing continues.

**Operator Response:** Save the system log for problem determination.

**Programmer Response:**
- Verify that the remote console, remote modem or local modem is powered on.
- Verify the physical installation for the remote console, remote modem, local modem and cables.
  
  *See the IBM 3720/3721 Communication Controller Problem Determination Guide.*
- Run modem tests. See the modem documentation.
- Run a console test. See the console documentation.
- Run a console link test from the 3720 operator panel.
  
  *See IBM 3720/3721 Communication Controller Daily Task and Problem Determination.*
- If no problem appears, note the reference code (Q1) and contact the IBM hardware support center.

**UAC=26**

**Explanation:** A maintenance and operator subsystem (MOSS) remote-console error has occurred.

**System Action:** Processing continues.

**Operator Response:** Save the system log for problem determination.

**Programmer Response:**
- Verify that the remote console operates in IBM 3101 mode.
  
  *See IBM 3720/3721 Communication Controller System Integration.*
- Run a console test. See the console documentation.
- If no problem appears, note the reference code (Q1) and contact the IBM hardware support center.

**UAC=27**

**Explanation:** An error occurred on the maintenance and operator subsystem (MOSS) disk or MOSS disk adapter.

**System Action:** Processing continues.

**Operator Response:** Save the system log for problem determination.

**Programmer Response:**
- An IPL can be executed for the communication controller with the primary diskette on which the disk has been saved.
  
  *See the IBM 3720/3721 Communication Controller Problem Determination Guide.*
- Note the reference code (Q1) and contact the IBM hardware support center.

**UAC=30**

**Explanation:** An error occurred on the maintenance and operator subsystem (MOSS) disk or MOSS disk adapter.

**System Action:** Processing continues.

**Operator Response:**
- Do not IPL from the 3720 disk, or dump to the disk, until the disk is repaired.
- The IPL can only be done by switching to diskette mode on the control panel and using the primary backup diskette on which the customized disk contents have been saved.
IST773I

See the 3720/3721 Communication Controller Operator's Guide.

- Save the system log for problem determination.

**Programmer Response:** Note the reference code (Q1) and contact the IBM hardware support center.

**UAC=31**

**Explanation:** A communication controller hardware error occurred. A communication controller IPL was re-executed.

**System Action:** Processing continues.

**Operator Response:**
- Reactivate the lines from the host.
- Use the MODIFY DUMP,TYPE=NCP,OPTION=TRANS command to transfer the communication controller dump to the host, then purge it from the 3720 disk.
- If the problem persists, save the system log for problem determination.

**Programmer Response:** Note the reference code (Q1) and contact the IBM hardware support center.

**UAC=32**

**Explanation:** A communication controller software error occurred. An IPL has been re-executed for the communication controller.

**System Action:** Processing continues.

**Operator Response:**
- Reactivate the lines from the host.
- Transfer the communication controller dump to the host, then purge it from the 3720 disk.
  - The dump does not have to be transferred to the host, but it should be purged from the 3720 disk. If the dump is not purged, the AUTODUMP/IPL sequence for a subsequent error will not occur.
- If the problem persists, save the system log for problem determination.

**Programmer Response:**
- Ensure there is no mismatch between the hardware configuration and the control program generation (NCPCA, CA, HICHAN, LOCHAN). Valid for abend codes 912 and 915. Correct the generation problem, if any.
- Analyze the dump according to the abend code (Q1).
- If there does not appear to be a software problem, note the reference code (Q2) and contact the IBM hardware support center.

**Routing code:** 8

**Descriptor code:** 5

IST773I SESSION WITH luname IN PROCESS OF BEING TERMINATED

**Explanation:** VTAM was deactivating a PU in response to a VARY INACT,GIVEBACK command. Sessions could not be transferred from a real resource to a CDRSC during the nondisruptive giveback of luname.

**System action:** VTAM terminates the session for luname.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 8

**Descriptor code:** 5
IST778I    cdrmname1 [cdrmname2] [cdrmname3] [cdrmname4] [cdrmname5] [cdrmname6]
Explanation: VTAM issues this message as part of a message group. The first message in the group is IST728I. See the explanation of that message for a complete description.
Routing code: 8
Descriptor code: 4

IST784I    SESSION(S) EXIST(S) WITH UNKNOWN PARTNER(S)
Explanation: VTAM issues this message in response to a DISPLAY ID command for a logical unit. It indicates that one or more sessions exist for which the SSCP has no session partner information (for example, partner name or session ID). This information was lost when the SSCP-LU session ended. When the SSCP-LU session is re-established, the SSCP becomes aware of any LU-LU sessions that remained active.
System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 8
Descriptor code: 5

IST786I    command COMMAND REJECTED — reason
Explanation: VTAM rejects the command for one of the following reasons:

EXCEEDS limit CHARACTER LIMIT
The command exceeded the maximum allowable length limit. The command length should be less than or equal to the limit limit. The permissible command length will be smaller if PPOLOG=YES is in effect.

NO COMMAND OPERANDS
The command’s input command length (after removing the command prefix) was 0.

CMIP SERVICES ALREADY ACTIVE
The MODIFY VTAMOPTS command for CMIP services has been issued and CMIP services has already been started.

System action: VTAM rejects the command.
Operator response:
• If reason is EXCEEDS limit CHARACTER LIMIT, shorten the command to be less than or equal to limit and reenter it.
• If reason is NO COMMAND OPERANDS, reenter command with the required operands.
• If reason is CMIP SERVICES ALREADY ACTIVE, and CMIP services is deactivating, wait until one of the following messages is displayed indicating that deactivation is complete.
  – IST1396I
  – IST1397I
  – IST1398I
  – IST1331I
  Reissue the MODIFY VTAMOPTS,OSIMGMT=YES command.
System programmer response: None.
Routing code: 8
Descriptor code: 5
IST787I • IST792I

IST787I  SSCP TAKEOVER FOR NODE linkname IN PROGRESS
Explanation: Switched link linkname has been activated in the taking-over SSCP during nondisruptive takeover.
System action: None.
Operator response: None.
System programmer response: None.
Routing code: 8
Descriptor code: 5

IST789I  command FAILED FOR ID = ncpname, CA / NCP CONFLICT
Explanation: The command (VARY ACT or VARY ACQ) failed because an NCP was contacted over a communication adapter SDLC link station. (VTAM can contact an NCP over a communication adapter SDLC link or activate of NCP over a channel or noncommunication adapter SDLC link, but not both at the same time.)
System action: VTAM stops processing command.
Operator response: Issue the DISPLAY ID=ncpname command to determine which communication adapter link stations are in contact with the NCP ncpname.
System programmer response: If you want NCP ncpname activated or acquired by this host, ask the operator to deactivate the communication adapter SDLC link stations in contact with this NCP. Then the operator can reenter the VARY ACT or VARY ACQ command for NCP ncpname.
Routing code: 8
Descriptor code: 5

IST790I  MAXIMUM type USED = maxK
Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY BFRUSE command. The first message in the group is IST449I. See the explanation of that message for a full description.
Routing code: 8
Descriptor code: 5

IST792I  NO SUCH SESSION EXISTS
Explanation: The operator issued a VARY TERM command for a session or search that does not exist. For example, if the command is entered for a logical unit that has only a pending active session, no session is found (or terminated) since the default scope of this command is active sessions. Note that no sessions exist for the specified LU or session partners from the VARY TERM command.
System action: None.
Operator response: Issue the DISPLAY NET,SESSIONS,SCOPE=ALL command if SCOPE=APPN is not specified to verify that sessions exist and check session states. If SCOPE=APPN is specified, issue DISPLAY NET,SRCHINFO,LIST=ALL to verify that a search exists and check the session ID.
Reissue the VARY TERM command with the correct SID.
System programmer response: None.
Note: If you modify this message, you must specify MSG=(IST792I,6) on the USSMSG macro. This will define IST792I and USS message 6 to be identical in the operation-level USS table. See the z/OS Communications Server SNA Resource Definition Reference for information on the USSMSG macro for VTAM operator messages.
Routing code: 2
Descriptor code: 5
SESSION MANAGEMENT ERROR, CODE code [—response]

Explanation: The session management exit routine, ISTEXCAA, returned data that was not valid or a return code in register 15 that was not valid. The following codes describe the error conditions which might occur.

code (in Hex)  

<table>
<thead>
<tr>
<th>Error</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>For the gateway path selection function (primary function code X'04'), a gateway path entry in the original list did not match any entry in the list. For the SSCP selection function (primary function code X'06'), an SSCP entry in the returned list did not match any in the default list. code is undefined for the adjacent link station (ALS) selection function (primary function code X'08').</td>
</tr>
<tr>
<td>03</td>
<td>For the gateway path selection function (primary function code X'04'), there were no valid gateway path entries in the returned list. For the SSCP selection function (primary function code X'06'), there were no valid SSCP selection entries in the returned list. For the adjacent link station (ALS) selection function (primary function code X'08'), the name returned in the ALS name vector is not the name of a valid PU.</td>
</tr>
<tr>
<td>04</td>
<td>For the gateway path selection function (primary function code X'04'), the network of the adjacent SSCP was incorrect in the returned list. code is undefined for the SSCP selection function (primary function code X'06'). code is undefined for the adjacent link station (ALS) selection function (primary function code X'08').</td>
</tr>
<tr>
<td>05</td>
<td>For the gateway path selection function (primary function code X'04'), there were more gateway path entries in the returned list than in the original list. For the SSCP selection function (primary function code X'06'), there were more SSCP selection entries in the returned list than in the passed list. code is undefined for the adjacent link station (ALS) selection function (primary function code X'08').</td>
</tr>
<tr>
<td>06</td>
<td>For the gateway path selection function (primary function code X'04'), the exit routine generated a return code that is not valid. code is undefined for the SSCP selection function (primary function code X'06'). For the adjacent link station (ALS) selection function (primary function code X'08'), the exit routine generated a return code that is not 0, 4, 8, 12, 16, or 20.</td>
</tr>
<tr>
<td>07</td>
<td>For the gateway path selection function (primary function code X'04'), the exit routine changed the pointer to the gateway path list. For the SSCP selection function (primary function code X'06'), the exit routine changed the pointer to the SSCP selection list. For the adjacent link station (ALS) selection function (primary function code X'08'), the exit routine changed the pointer to the ALS name information vector.</td>
</tr>
<tr>
<td>08</td>
<td>For the initial authorization function (primary function code X'00'), the exit routine returned an return code that is not valid. Note that a return code of 4 is not valid if the exit does not support the secondary authorization function.</td>
</tr>
<tr>
<td>09</td>
<td>For the secondary authorization function (primary function code X'01'), the exit routine returned a return code that is not valid.</td>
</tr>
<tr>
<td>10</td>
<td>For the initial or final accounting function (primary function codes X'02' or X'03'), the exit routine returned a return code that is not valid.</td>
</tr>
<tr>
<td>11</td>
<td>For the end function (primary function code X'FF'), the exit routine returned a return code that is not valid.</td>
</tr>
<tr>
<td>12</td>
<td>For the begin function (primary function code X'FE'), the exit routine returned a return code that is not valid.</td>
</tr>
</tbody>
</table>
For any function, the session management exit routine abended.

The following installation exit routines could not be invoked because insufficient storage existed for the parameter lists passed to the exit routines when VTAM was initialized:
- Session management exit routine
- Session accounting exit routine
- Session authorization exit routine.

The session management exit routine will never be requested because insufficient below-the-line storage existed during VTAM initialization.

VTAM was unable to obtain 24-bit addressable storage for the gateway path list.

For the alias selection function (primary function code X'07'), the exit routine returned a return code that is not valid.

The alias selection function (primary function code X'07') will not be enabled because there is not enough storage available to pass the alias parameter list, which is needed to pass information to the session management exit routine.

For the alias selection function (primary function code X'07'), the network ID had to be determined. The required network ID has been omitted in the return parameter list.

For the alias selection function (primary function code X'07'), a network ID was returned that was not the same as the network ID sent.

For the alias selection function (primary function code X'07'), the original data sent for translation has been altered in the input parameter list. This is not allowed.

The information for the alias selection function (primary function code X'07') contains a syntax error.

The information for the virtual route selection function (primary function code X'0B') contains a syntax error.

**response** is one of the following:

**DEFAULT ALS LIST USED**
- This is issued for the adjacent link station selection function.

**STANDARD GW PATHLIST USED**
- This is issued for a gateway node.

**STANDARD SSCP ROUTING USED**
- This is issued for the SSCP selection function.

**STANDARD VR/TP LIST USED**
- This is issued for the virtual route selection function.

**System action:** The system action depends on **code**. See the following list.

**code** (in Hex)
- **Action**
  
<table>
<thead>
<tr>
<th>code</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>01–07</td>
<td>response is <strong>STANDARD GW PATHLIST USED</strong> for a gateway node (primary function code X'04'); processing continues. VTAM uses the default gateway node path list as determined by the gateway path operand on the CDRM macro.</td>
</tr>
<tr>
<td>08–09</td>
<td>The session is not authorized by VTAM.</td>
</tr>
<tr>
<td>10–11</td>
<td>VTAM ignores the return code.</td>
</tr>
<tr>
<td>12</td>
<td>Processing continues as though no exit routine existed. The exit routine will not be invoked again. All</td>
</tr>
</tbody>
</table>
sessions are authorized, accounting data is discarded, the default gateway path list is used for gateway path
selection, the default SSCP selection list is used for SSCP routing, and the alias application is invoked for
translation.

14–16 The session management exit routine is functionally disabled and the function for which it was called is
rejected.
17 The session continues as if the alias selection function did not exist. Reevaluate the alias selection function to
determine the error and provide the correct return code.
18 VTAM initialization continues and the alias selection function is disabled. (The alias selection function will
not be performed.)
19 The information from the alias selection function is not used because the translation that was given is not
valid. The session setup fails. Ensure that a network ID is returned if it was not known before the alias
selection function is invoked.
20 The data returned from the alias selection function is not used. A network ID was returned that is not valid.
The session setup fails. Correct the bad translation.
21 The data returned from the alias selection function will not be used. The session setup fails. Storage that was
reserved for input only is being accessed. See the [z/OS Communications Server: SNA Customization] for
more information.
22 The data returned from the alias selection function will not be used because it was syntactically incorrect.
The session will fail to set up. Check the returned data to ensure that all names have the correct syntax,
determine if blank names are valid for each value, and make sure all values are padded with blanks.
23 The data returned from the virtual route selection function will not be used because it was syntactically
incorrect. The session will be set up with the VR/TP list defined in the COS table. Valid VR and TP numbers
must be used, and the maximum number of VR/TP pairs cannot be exceeded. See the [z/OS
Communications Server: SNA Resource Definition Reference] for more information about coding the COS
table.

Operator response: Save the system log for problem determination.

System programmer response: The session management exit routine contains an error. Use the error code in the
message to determine the cause of the error and correct it. You can replace the exit routine with the corrected version
by using the MODIFY EXIT command. See [z/OS Communications Server: SNA Operation] for additional information.

Routing code: 8
Descriptor code: 3

IST796I HOSTSA VALUE EXCEEDS option

Explanation: VTAM issues this message when the value specified for the HOSTSA start option exceeds the value of
option.

option is the start option name and is either MAXSUBA or MXSUBNUM.

- MAXSUBA is the highest subarea value that can be assigned to any node in this network that communicates with
pre-ENA nodes.
  This message requires no action if your network supports extended network architecture (ENA). ENA was
- MXSUBNUM is the maximum subarea number supported by another network to which this host is connected.
  Therefore, if your host subarea number is greater than MXSUBNUM, you cannot communicate with the other
  network.

System action:
- If option is MAXSUBA, processing continues.
- If option is MXSUBNUM, VTAM issues message IST1311A to prompt for valid values of HOSTSA and
  MXSUBNUM, and waits for a response.

Operator response:
- If option is MAXSUBA, this message requires no action if your network supports extended network architecture
  (ENA). If your network contains pre-ENA nodes, save the system log for problem determination.
If option is MXSUBNUM, enter valid values for HOSTSA and MXSUBNUM when prompted by IST1311A.

You do not have to enter both values. VTAM does not ignore the value of HOSTSA. However, you can enter a new value of HOSTSA that is smaller than the initial value of MXSUBNUM.

Message IST1311A is repeated until HOSTSA's value does not exceed MXSUBNUM.

**System programmer response:** If option is MAXSUBA, review the VTAM start options and their relationships. To communicate with pre-ENA nodes, the maximum HOSTSA value cannot exceed the MAXSUBA value.

See the [z/OS Communications Server: SNA Resource Definition Reference](https://pic.dhe.ibm.com/infocenter/ibmz/v2r1/m vnode=CommServerosopher=SNAResRef) for more information on the MAXSUBA and MXSUBNUM start options.

**Routing code:** 2  
**Descriptor code:** 5

---

**IST797I**  
**Explanation:** VTAM issues this message as part of a group of messages. The first message in the group is IST533I. See the explanation of that message for a full description.

**Routing code:** 2  
**Descriptor code:** 5

---

**IST798I**  
**netid**  
**Explanation:** VTAM issues this message as part of a group of messages. The first message is IST533I. See explanation of that message for a full description.

**Routing code:** 2  
**Descriptor code:** 5

---

**IST799I**  
**type procedure IN PROGRESS**  
**Explanation:** VTAM issues this message in response to a DISPLAY ID command requesting the status of an NCP.  

**procedure** is either LOAD or DUMP.

If **procedure** is LOAD, the value of **type** will be NONDISRUPTIVE. A nondisruptive load is in progress because a MODIFY LOAD,ACTION=ADD or MODIFY LOAD,ACTION=REPLACE command was entered for an NCP and the operation is not yet complete.

If **procedure** is DUMP, **type** can be one of the following:

<table>
<thead>
<tr>
<th><strong>type</strong></th>
<th><strong>Description</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>DYNA</td>
<td>A dynamic dump of NCP storage is in progress. The NCP remains active.</td>
</tr>
<tr>
<td>MOSS</td>
<td>The maintenance operator subsystem dump contained on the MOSS disk in the 3725 or 3745 Communication Controller is being transferred to the host and stored in a host data set.</td>
</tr>
<tr>
<td>CSP</td>
<td>The communication-scanner processor (CSP) dump contained on the MOSS disk is being transferred to the host and stored in a host data set.</td>
</tr>
<tr>
<td>TRANSFER OF NCP</td>
<td>The NCP is being dumped to its external disk storage and then transferred to a host data set.</td>
</tr>
<tr>
<td>PURGE OF MOSS</td>
<td>The maintenance operator subsystem dump is being purged from the MOSS disk in the 3725 or 3745 Communication Controller.</td>
</tr>
<tr>
<td>PURGE OF CSP</td>
<td>The communication-scanner processor dump is being purged from the MOSS disk in the 3725 or 3745 Communication Controller.</td>
</tr>
<tr>
<td>PURGE OF NCP</td>
<td>The NCP is being purged from the NCP’s external disk storage.</td>
</tr>
</tbody>
</table>
System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 8
Descriptor code: 5
Chapter 7. IST messages for VTAM network operators IST800I – IST1199I

This chapter lists the VTAM messages beginning with IST in the range of IST800I through IST1199I. These messages can appear on a network operator’s console.

See Appendix E, “Message text for VTAM operator messages,” on page 1177 for a list of the text of all VTAM operator messages.

Note: Messages that begin with the prefix ISTF are issued by the VTAM dump analysis tool and the VTAM internal trace (VIT) analysis tool. Help information is available as a part of each tool by pressing F1. Therefore, ISTF messages ist973 are not documented in z/OS Communications Server: SNA Messages. See z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures for additional information.

**IST803I VTAM TERMINATION TASK TERMINATED-OPEN FAILED**

**Explanation:** Because the ACB for the VTAM termination subtask ISTATM00 could not be opened successfully, the VTAM termination subtask could not be initialized.

**System action:** If the user’s application program abnormally terminates or terminates without issuing a CLOSE ACB, VTAM cannot close that application’s ACB. Since VTAM cannot terminate until all application programs have closed their ACB, VTAM could probably never terminate when a HALT command is entered. Other VTAM processing continues.

**Operator response:** Halt VTAM immediately. If a dump was taken as indicated by message IST413I, print the dump. Save the system log and network logs for problem determination.

**System programmer response:** See z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures for more information on termination problems.

**Routing code:** 2

**Descriptor code:** 5

**IST804I CLOSE IN PROGRESS FOR applname OPENED BY jobname**

**Explanation:** VTAM is closing the ACB of VTAM application program applname that has terminated normally or abnormally and that was opened by jobname.

*jobname* is the name of a related program commonly executed by a series of steps in a job. If *jobname* is not known, ***NA*** is displayed.

**System action:** VTAM closes the ACB of the VTAM application program. The application program might terminate before its resources are freed in VTAM.

**Operator response:** Since the ACB for the application program cannot be successfully opened again before it is successfully closed, the job must not be restarted before message IST805I is issued to indicate that the close has been completed. If you do not See IST805I, save the system log for problem determination.

**System programmer response:** Determine why the close did not complete and correct the problem. See z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures for more information on diagnosing application program problems.

**Routing code:** 2

**Descriptor code:** 5
IST805I VTAM CLOSE COMPLETE FOR applname

Explanation: VTAM has successfully completed processing to close the ACB of VTAM application program applname.

System action: Processing continues. VTAM resources can no longer start a session with application program applname.

Operator response: None.

System programmer response: None.

Routing code: 2

Descriptor code: 5

IST807I command FOR ID = puname FAILED — NODE IS IN TEST MODE

Explanation: The command failed because a MODIFY LL2 command is being processed for PU puname, which is being added or moved by dynamic reconfiguration.

System action: VTAM stops processing the command.

Operator response:
- If MODIFY LL2,OPTION=CONT was specified, enter MODIFY LL2,OPTION=CANCEL and reenter command.
- Otherwise, wait for the MODIFY LL2 command to complete, and reenter command.

System programmer response: If a MODIFY LL2,OPTION=CONT command caused VTAM to issue this message terminate the command by issuing MODIFY LL2,OPTION=CANCEL.

Routing code: 2

Descriptor code: 5

IST808I ORIGIN PU = originpu DEST PU = destpu NETID = netid

Explanation: VTAM issues this message as part of a group of messages. The first message of the group is IST535I. See the explanation of that message for a complete description.

Routing code: 8

Descriptor code: 5

IST809I XRF SESSIONS — PRIMARY = primarycount BACKUP = backupcount

Explanation: VTAM issues this message in response to a DISPLAY ID command. primarycount is the current count of primary extended recovery facility (XRF) sessions, and backupcount is the current count of backup XRF sessions established with this node. This message appears only if the logical unit displayed has at least one primary or backup XRF session. The primarycount and backupcount values both include sessions with unknown partners.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 8

Descriptor code: 5

IST812I command COMMAND NOT ACCEPTED

Explanation: VTAM did not accept the command because of one of the following:
- VTAM is abending
- VTAM is not active
- VTAM is not accepting commands, for example, during processing of HALT
- command exceeds the maximum command length.
IST813I • IST816I

**System action:** VTAM ignores the command and processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 8

**Descriptor code:** 5

### IST813I

**USERVAR uservar CHANGED FROM value1 TO value2**

**Explanation:** This message is part of a group of messages that VTAM issues when a MODIFY USERVAR command is used to change the value of a USERVAR. The first message in the group is IST1283I. See that message for a complete description of the group.

**Note:** This message is percolated. See “Message rerouting and percolation” on page 1106 for additional information.

**Routing code:** 8

**Descriptor code:** 5

### IST814I

**USERVAR uservar DELETED**

**Explanation:** The USERVAR uservar was deleted by a MODIFY USERVAR command. Any attempt to start a session by specifying uservar will fail.

**Note:** This message is percolated. See “Message rerouting and percolation” on page 1106 for additional information.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 8

**Descriptor code:** 5

### IST815I

**AUTOMATIC RECOVERY IS SUPPORTED**

**Explanation:** VTAM issues this message in response to a DISPLAY ID command for a cross-domain resource manager (CDRM) when automatic recovery (RECOVERY=YES) is specified on the CDRM definition statement. The CDRM will automatically attempt a recovery of the SSCP-SSCP session if an outage occurs.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 4,5,9

**Descriptor code:** 5

### IST816I

**rejsubarea tg2 rejadjsubarea ermask**

**Explanation:** VTAM issues this message as part of a message group. The first message in the group is IST533I. See the explanation of that message for a full description.

**Routing code:** 2

**Descriptor code:** 5
IST819I  CDRM cdrmname COMMUNICATION LOST — RECOVERY IN PROGRESS

Explanation: The SSCP-SSCP session with CDRM cdrmname has been disrupted.

System action: Because the CDRM definition statement for this host, cdrmname, or both CDRMs specified RECOVERY=YES, VTAM will try to re-establish the SSCP-SSCP session.

Operator response: None.

System programmer response: None.

Routing code: 8

Descriptor code: 4

IST820I  [ACTLU|ACTPU] RSP DATA DISCARDED FOR ID = nodename — INSUFF STORAGE

Explanation: VTAM did not have sufficient storage to receive the response data included on ACTLU or ACTPU sent by node nodename. The data was discarded.

System action: Node nodename is deactivated.

Operator response: Enter a DISPLAY BFRUSE or DISPLAY STORUSE command to check the availability of storage. Wait and try the activation of nodename again when storage is available.

If the problem persists, save the system log and dump for problem determination.

System programmer response: Verify that the operator entered the buffer pool or CSA start options as specified in the start procedures.

Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA limits. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

• See the z/OS Communications Server: New Function Summary to determine the storage requirements for VTAM.
• See the z/OS Communications Server: SNA Resource Definition Reference for a description of VTAM start options.
• See z/OS Communications Server: SNA Operation for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
• See the z/OS Communications Server: SNA Network Implementation Guide for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
• See the z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

Routing code: 8

Descriptor code: 4

IST822I  CDRM cdrmname RECOVERY FAILED – INSUFFICIENT STORAGE

Explanation: VTAM issues this message when an attempt to re-establish the SSCP-SSCP session with cdrmname failed because of a lack of available storage.

System action: VTAM tries to re-establish the SSCP-SSCP session because the CDRM definition statement for this host, cdrmname, or both CDRMs specified RECOVERY=YES. However, VTAM could not re-establish the SSCP-SSCP session because there was not enough storage to process the request.

Operator response: Enter a DISPLAY BFRUSE command to check the availability of storage. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and dump for problem determination.

System programmer response: Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA limits. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

• See the z/OS Communications Server: SNA Resource Definition Reference for a description of VTAM start options.
• See z/OS Communications Server: SNA Operation for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
IST825I • IST831I

- See the z/OS Communications Server: SNA Network Implementation Guide for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
- See the z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

Routing code: 8
Descriptor code: 4

IST825I USERVAR DEFINED — NAME = uservar, VALUE = value

Explanation: This message is the first in a group of messages that VTAM issues when a MODIFY USERVAR command is used to define a USERVAR. A complete description of the message group follows.

IST825I USERVAR DEFINED — NAME = uservar, VALUE = value
[IST1030I USERVAR EXIT IS exitname]
IST314I END

Note: This message group is percolated. See “Message rerouting and percolation” on page 1106 for additional information.

IST825I uservar is the name of the USERVAR, and the value of uservar has been initialized to value. Any subsequent session requests to uservar are routed to the application named in value.

IST1030I exitname is the name of the USERVAR exit. If no USERVAR exit is defined, VTAM does not issue this message.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 8
Descriptor code: 5

IST826I VTAM START REJECTED– START COMMAND NOT USED FOR VTAM INITIALIZATION

Explanation: Something other than a START command was entered to initialize VTAM. For example, a batch JCL or TSO submit might have been used.

System action: VTAM initialization is rejected.
Operator response: Enter a START command to start VTAM successfully.
System programmer response: Use only the START command to start VTAM successfully.
Routing code: 2
Descriptor code: 5

IST830I ORIGINATING SSCP NAME = sscpname, NETID = netid

Explanation: This message is part of a message group. The first message in the group is IST732I. See the explanation of that message for a complete description.

Routing code: 8
Descriptor code: 4

IST831I DUPLICATE ADJCDRM NAME adjcdrmname IN configname

Explanation: This message is the first in a group of messages. A full description of possible message groups follows. A duplicate label adjcdrmname was found on two ADJCDRM statements in a series of consecutive ADJCDRM
IST832I

Statements in adjacent SSCP table definition **configname**. Messages IST708I and IST1333I identify the affected adjacent SSCP table in **configname**.

- If an adjacent SSCP table is activated with entries identified with CDRM or NETID definition statements, the following message group is displayed.

  IST831I  DUPLICATE ADJCDRM NAME adjcdrmname IN configname
  IST708I  {{[NETID = netid][NETWORK = macrolabel][CDRM = sscpname][DEFAULT TABLE]}|DEFAULT TABLE FOR ALL NETWORKS}

- If an adjacent SSCP table is activated with entries identified with an ADJLIST definition statement, the following message group is displayed.

  IST831I  DUPLICATE ADJCDRM NAME adjcdrmname IN configname
  IST1333I  ADJLIST = listname

IST708I

**netid** comes from the NETID value specified on the NETWORK statement preceding the series of ADJCDRM statements. If a NETID value is not specified on the NETWORK statement or if there is no NETWORK statement preceding the series of ADJCDRM statements, **NETID = netid** will not appear in message IST708I.

**macrolabel** is the label of the NETWORK definition statement preceding the series of ADJCDRM statements. If the NETWORK statement does not have a label or if no NETWORK statement precedes the series of ADJCDRM statements, **NETWORK = macrolabel** will not appear in message IST708I.

**sscpname** is the label of the CDRM statement immediately preceding the series of ADJCDRM statements. (Note that a CDRM statement must have a label.) If no CDRM statement immediately precedes the series of ADJCDRM statements, **CDRM = sscpname** will not appear in the message. Instead, **DEFAULT TABLE** will appear, indicating that the series of ADJCDRM statements is the default ADJSSCP table for the **netid** specified (or the default ADJSSCP table for all networks if **NETID = netid** does not appear).

VTAM issues **DEFAULT TABLE FOR ALL NETWORKS** when the table being activated has a default adjacent SSCP list for all networks.

IST831I

**adjcdrmname** is the duplicate label which was found on two ADJCDRM statements.

**configname** identifies the adjacent SSCP table definition.

IST1333I

**listname** is the name of an adjacent SSCP table as defined by an ADJLIST definition statement.

See the descriptions of the ADJLIST definition statement in the [z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com/support/docview扶?rs=402&uid=swg21333613) for more information on adjacent SSCP tables.

**System action**: VTAM ignores the duplicate ADJCDRM statement. Processing of the ADJSSCP definition continues.

**Operator response**: Save the system log for problem determination.

**System programmer response**: Remove the duplicate ADJCDRM statement.

**Routing code**: 2

**Descriptor code**: 4

---

**IST832I**  UNLABELED statement_type STMT IN configname

**Explanation**: This message is the first of a group of messages. A complete description of the message group follows.

**IST832I**  UNLABELED statement_type STMT IN configname
**IST833I**  SKIPPING TO NEXT text

**statement_type** identifies the unlabeled statement that was found in **configname**. Values for **statement_type** can be ADJCDRM, CDRM, or ADJLIST.

**text** can be:

- **STMT**
  - CDRM, NETWORK, OR ADJLIST STMT OR EOF

**System action**: If an unlabeled CDRM statement was found, that statement and all statements in the ADJSSCP
definition following the unlabeled CDRM statement are ignored until a NETWORK statement or CDRM statement or end of file (EOF) is encountered. If a NETWORK statement or CDRM statement is encountered, normal ADJSSCP definition processing resumes with that statement.

If an unlabeled ADJLIST statement was found, that statement is ignored. If this statement was not preceded by a valid ADJLIST statement, then all ADJCDRMs immediately following the unlabeled ADJLIST are also ignored.

If an unlabeled ADJCDRM statement was found, only that statement is ignored. Processing resumes with the following statement, if one exists.

Operator response: Save the system log for problem determination.

System programmer response: Put labels on all CDRM, ADJCDRM, and ADJLIST statements in adjacent SSCP table definitions.

Routing code: 2
Descriptor code: 4

IST833I (NCPPATH STMT, VPATH STMT, OR EOF) SKIPPING TO NEXT text

Explanation: VTAM issues this message when it detects a syntax error during the processing of a dynamic path update deck. Dynamic path update processing will resume with the next NCPPATH or VPATH statement.

VTAM displays NCPPATH STMT, VPATH STMT, OR EOF for one of the following reasons:
- A NCPPATH or VPATH is unlabeled
- NETID is missing in an NCPPATH or VPATH statement.

VTAM displays SKIPPING TO NEXT text when IST833I is preceded by message IST832I. See the explanation of that message for a complete description.

System action: Processing continues.

Operator response: None.

System programmer response: Correct the dynamic path update deck.

Routing code: 2
Descriptor code: 4

IST834I num BACKUP SESSION(S) EXIST(S) WITH UNKNOWN PARTNERS

Explanation: VTAM issues this message in response to a DISPLAY ID command. num is the number of backup extended recovery facility (XRF) sessions whose session partner is unknown.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 8
Descriptor code: 5

IST838I TRACE STATUS DISPLAY FOR ID = nodename

Explanation: This message is the first in a group of messages that VTAM issues in response to a DISPLAY TRACES command for nodename. A complete description of the message group follows.

IST838I TRACE STATUS DISPLAY FOR ID = nodename
IST839I PU NAME LINE NAME
IST840I puname linename...

IST314I END

This message group displays a list of resources that are being traced by the 3710 physical unit node. IST840I displays the name of the resource, puname, and its line, linename, and is repeated for each resource being traced.
**IST839I • IST841I**

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 7

**IST839I**

**Explanation:** VTAM issues this message as part of a group of messages and it is a header for message IST840I. See the explanation of message IST838I for a full description.

**Routing code:** 2

**Descriptor code:** 7

**IST840I**

**Explanation:** VTAM issues this message as part of a group of messages. The first message in the group is IST838I. See the explanation of that message for a full description.

**Routing code:** 2

**Descriptor code:** 7

**IST841I**

**Explanation:** A DISPLAY TRACES command has been entered for a 3710 physical unit nodename and there are no resources being traced for that physical unit.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 7

**IST842I**

**Explanation:** While attempting to allocate storage from buffer pool poolid, VTAM found that storage perceived to be free is actually in use.

**System action:** A dump is being taken to help identify the source of this problem.

If VTAM can continue, it will discard some existing free buffers in pool poolid and schedule the pool for eventual expansion. Otherwise, VTAM must be restarted.

**Operator response:** Save the system log and dump for problem determination.

**System programmer response:** Use the dump to determine the cause of the problem.

**Routing code:** 2

**Descriptor code:** 2

**IST844I**

**Explanation:** VTAM attempted to define a resource during initialization but encountered a duplicate entry, name.

**System action:** VTAM is terminated.

**Operator response:** Verify that the start options were entered correctly, particularly the HOSTPU, NETID, and SSCPNAME options. If not, restart VTAM with the correct options; otherwise, save the system log for problem determination.

**System programmer response:** Check for invalid start option values (such as HOSTPU=VTAM) that could lead to duplicate entries, especially with VTAM-reserved resource names. See the z/OS Communications Server: SNA Resource Definition Reference for a description of the VTAM start options.
Routing code: 2
Descriptor code: 5

IST849I operation1 INCONSISTENT WITH USE OF operation2 IN statementname

Explanation: This message is the first of a group of messages. The message group follows.

IST849I operation1 INCONSISTENT WITH USE OF operation2 IN statementname
IST770I CONFIG configname LABEL = labelname STMT TYPE = statementname

An inconsistent connection has been made between operation1 and operation2. VTAM issues message IST849I for the following combinations of operation1 and operation2:

AUTODL and SHOLD
  AUTODL=NO is coded in the GROUP or LINE definition statement.

DIALNO and SHOLD
  DIALNO is not coded in the GROUP definition statement.

CPNAME and PUTYPE
  CPNAME is coded for a PU type other than PU type 2.

LOADFROM and SAVEMOD
  LOADFROM=EXT was specified on the VARY ACT command, and SAVEMOD=YES was specified on the PCCU definition statement. This combination is not valid.

RESSCB and LOCADDR
  RESSCB is specified for a dependent LU.

SAVEMOD and DUMPLD
  SAVEMOD=YES was specified on the VARY ACT command, and DUMPLD=YES was specified on the PCCU definition statement. This combination is not valid.

The definition statement statementname is in the node configname and has the label labelname.

System action: The system action depends on the value of operation1 and operation2:

AUTODL and SHOLD
  VTAM does one of the following:
  • If AUTODL=NO is coded on the GROUP definition statement, VTAM ignores the entire GROUP definition statement and all definition statements under it.
  • If AUTODL=NO is coded on the LINE definition statement, VTAM treats all lines in that group as ordinary X.21 switched lines, and the group is no longer a short hold mode/multiple port sharing (SHM/MPS) group.

DIALNO and SHOLD
  VTAM ignores the entire GROUP definition statement and all definition statements under it.

CPNAME and PUTYPE
  PU and subnodes are unavailable.

LOCADDR and EAS
  VTAM ignores EAS.

LOADFROM and SAVEMOD
  VTAM does not use SAVEMOD=YES, coded on the PCCU definition statement, during the initial load, but it is saved for future reloads. The automatic dump and load switches are not changed in the NCP.

RESSCB and LOCADDR
  VTAM ignores RESSCB.

SAVEMOD and DUMPLD
  VTAM does not use DUMPLD=YES, coded on the PCCU definition statement, during the initial load, but it is saved for future reloads. The automatic dump and load switches are not changed in the NCP.
**IST860I • IST861I**

**SAVEMOD and LOADFROM**

VTAM does not use the LOADFROM=EXT, coded on the PCCU definition statement, during the initial load, but it is saved for future reloads.

**Operator response:** Save the system log for problem determination.

**System programmer response:** Check and correct the definition statement statementname.

**Routing code:** 2

**Descriptor code:** 5

---

**IST860I**

**DEACTIVATION OF nodename INCOMPLETE — INSUFFICIENT STORAGE**

**Explanation:** VTAM issues this message in response to either a VARY INACT command to deactivate a major or minor node or a termination request that was received. The command cannot be completed because VTAM could not obtain sufficient storage to process the command.

nodename is the name of the resource and is always a CDRM.

**System action:** VARY deactivate processing for nodename is not completed, and the node is not available to VTAM. LU-LU sessions are not disrupted.

**Operator response:** Reenter the VARY INACT command when more storage is available. If VTAM continues to issue this message, enter the DISPLAY BFRUSE command. Issue the DISPLAY STORUSE command to display storage usages for storage pools. Save the system log and request a dump for problem determination.

**System programmer response:** Verify that the operator entered the buffer pool or CSA start options as specified in the start procedures.

Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA start options. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

- See the z/OS Communications Server: New Function Summary to determine the storage requirements for VTAM.
- See the z/OS Communications Server: SNA Resource Definition Reference for a description of VTAM start options.
- See z/OS Communications Server: SNA Operation for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- See the z/OS Communications Server: SNA Network Implementation Guide for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
- See the z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

**Routing code:** 2

**Descriptor code:** 5

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**IST861I**

**MODETAB=modetab USSTAB=ussttab LOGTAB=logtab**

**Explanation:** This message is part of a group of messages that VTAM issues in response to a DISPLAY ID command for an application minor node or an LU. The tables that will be displayed are:

modetab Logon mode table

usstab Unformatted system services (USS)

logtab Interpret table

If no table of the particular type was defined for the resource, or the table type does not apply, for example, interpret tables for applications, ***NA*** is displayed.

If no alternative value was specified when the resource was defined, the following IBM-supplied tables will be used if they are loaded:

Logon mode table

ISTINCLM
IST862I  NETID = netid  COSTABLE = costable1 [, costable2]

Explanation: VTAM issues this message in response to a DISPLAY COS command. It displays the name of the class of service (CoS) table associated with a specific network and PU type 4. To determine which COS table will be used in subsequent session initiation requests involving this PU type 4, see the z/OS Communications Server: SNA Network Implementation Guide.

netid, obtained from the NETID operand, is the name of the network whose Class of Service information is being displayed.

- If NETID is omitted, netid is the host network identifier.
- If NETID is not * (NETID=netid or NETID=*NETWORK), message IST862I is displayed only if the COSTAB keyword is coded on the BUILD or NETWORK definition statement. If COSTAB is not coded, VTAM issues message IST887I.
- If DISPLAY COS,NETID=* is entered, message IST862I is displayed for each network identified in a BUILD or NETWORK definition statement, and for any dynamic networks that have been created.
- If DISPLAY COS,NETID=*NETWORK is entered, message IST862I displays information for a model network.

costable1 identifies which COS tables might be used during Class of Service resolution. costable1 will be one of the following:

name  The name of the COS table identified using the COSTAB keyword in the BUILD or NETWORK definition statement for network netid.

ISTSDCOS  The name of the default COS table. ISTSDCOS is displayed only when it has been loaded and when no COS name was specified on a BUILD or NETWORK definition statement.

ALGORITHM  The default routing algorithm used during COS resolution. ALGORITHM is displayed when a COS name was not specified in a BUILD or NETWORK definition statement, and the default COS table, ISTSDCOS, has not been loaded.

costable2 is present only when netid is the same as the host network and the value of costable came from the BUILD or NETWORK definition statements. Either costable1 or costable2 will be used during session initiation involving the PU type 4, based on the COS resolution algorithm explained in the z/OS Communications Server: SNA Network Implementation Guide.

costable2 will be one of the following:

ISTSDCOS  The name of the default COS table.

ALGORITHM  The default routing algorithm. Note that ISTSDCOS cannot be used since it has not been loaded.

System action: Processing continues.
IST863I

Operator response: None.

System programmer response: None. If there is a need to change the COS table associated with a particular resource, the MODIFY TABLE command should be used. MODIFY TABLE can also be used to load ISTSDCOS.

Routing code: 2

Descriptor code: 5

IST863I MODIFY TABLE COMMAND FAILED—reason

Explanation: This message is the first in a group of messages that VTAM issues in response to a MODIFY TABLE command. A complete description of the message group follows.

IST863I MODIFY TABLE COMMAND FAILED=reason
IST863I NEWTAB=newtable, OLDTAB=oldtable, OPT=option,
TYPE=tabletype
[IST935I ORIGIN=ncpname, NETID=netid, ID=resourcename]

The value of newtable, oldtable, ncpname, netid, and resourcename will be ***NA*** when the following operands are not specified on the command:

newtable
   NEWTAB operand
oldtable
   OLDTAB operand
ncpname
   ORIGIN operand
netid
   NETID operand
resourcename
   ID operand

IST863I

reason indicates the cause of the failure and can be one of the following:

ABEND DURING TABLE PROCESSING
   An abend occurred and the MODIFY TABLE command was not processed.

BOTH FILTER TABLES IN USE
   A MODIFY TABLE,TYPE=FILTER,OPTION=LOAD command has been entered, but a previous MODIFY TABLE,TYPE=FILTER has not completed its processing. VTAM cannot execute the MODIFY TABLE,TYPE=FILTER command until the previous command is completed.

CMIP SERVICES IS INACTIVE
   CMIP services must be active to issue the MODIFY TABLE,OPTION=LOAD,TYPE=CMIPDDF command.

CURRENT TABLE WILL BE USED
   An error was detected when attempting to load the directory definition file using the MODIFY TABLE command. A prior message will indicate the specific failure detected. The current version of the directory definition file will continue to be used by CMIP services security.

ERROR BUILDING TABLE
   The table specified by tabletype was not successfully built.

INSUFFICIENT STORAGE
   Not enough storage was available to process the MODIFY TABLE command.

I/O ERROR LOADING newtable
   An error was detected with table newtable during a load operation.

   This message might be received if the table being loaded from VTAMLIB starts in an extent that was known when VTAMLIB was opened, but ends in a new extent that was not known when VTAMLIB was opened. Since VTAMLIB is opened only once during VTAM initialization, the new extents cannot be accessed until VTAM is halted, restarted, and VTAMLIB is opened again. For information on allocating space in the data set or information on extents, see your operating system documentation.
I/O TIMEOUT LOADING newtable

An attempt was made to load table newtable, but a system or hardware problem has caused the table load facility to time out while waiting for I/O to complete.

LOADER INOPERATIVE

This can occur for one of the following reasons:

- A previous table load never completed
- The VTAM-directed load subtask, ISTINMLS, abnormally ended during a load request
- The VTAM-directed load subtask, ISTINMLS, has not completed its initialization.

name NOT FOUND

The resource identified by name does not exist. name might be the new table name newtable, or a node name identified by either the ID (resourcename) or ORIGIN (ncpname) operands of the MODIFY TABLE command.

If name is newtable, this message indicates that the table could not be loaded from storage.

This message might be received if the table being loaded from VTAMLIB is entirely contained in extents that were not known when VTAMLIB was first opened. Since VTAMLIB is opened only once during VTAM initialization, the new extents cannot be accessed until VTAM is halted, restarted, and VTAMLIB is opened again. For information on allocating space in the data set or information on extents, see your operating system documentation.

ncpname HAS NO COS FOR netid

The ncpname NETWORK definition statement for network netid did not have a COSTAB keyword. As such, there was no Class of Service table association to delete for this network.

netid NOT DEFINED FOR ncpname

There was no NETWORK definition statement defining netid in the major node definition for PU type 4 ncpname or the host is a non-gateway SSCP and the network definition statements are ignored. Therefore, the COS association could not be deleted or changed.

NEW TABLE ALREADY IN USE

For OPTION=LOAD, the table indicated by newtable is already in use by another resource. A new version of newtable cannot be loaded (to replace the existing version) until all existing references to the old newtable table have been deleted.

NO APPL/LU/CDRSC BELOW RESOURCE

The major node identified by resourcename had no minor nodes. Therefore, there were no associations to change or delete.

OLD TABLE WAS NOT IN USE

An attempt was made to delete or change the association between oldtable and the resources identified by resourcename in the MODIFY TABLE command or to replace oldtable with newtable. However, no matches were found with oldtable for the specified table type.

OLD & NEW TABLE NAMES IDENTICAL

For the resource specified by resourcename and all of its subordinate nodes, the old table name, oldtable, and the new table name, newtable, were identical. Use MODIFY TABLE,OPTION=LOAD if you want to load a new copy of oldtable.

OPERATION INVALID FOR resourcename

This can occur for the following reasons:

For **TYPE=[USSTAB|LOGTAB|MODETAB|MDLTAB| ASLTAB|FLDTAB]**

An attempt was made to modify or delete a table associated with a resource. resourcename was specified on the ID parameter. The specified resource was either an invalid resource against which to perform a MODIFY TABLE command or was not eligible for the type of operation requested, for example, TYPE=LOGTAB for an application.

For **OPTION=LOAD**

An attempt was made to reload old table ISTCFCMM. This table might not be loaded.

For **OPTION=DELETE,TYPE=COSTAB**

An attempt was made to delete a COS table association for a resource that was not a PU type 4 or PU type 5, or an attempt was made to delete the association between ISTSDCOS and the host PU.
For **OPTION=ASSOCIATE, TYPE=COSTAB**

An attempt was made to change a COS table association for a resource that was not a PU type 4 or PU type 5.

**TABLE name IS FORMAT=OLD**

Table name is a USS table that was assembled using FORMAT=OLD or the table is back-level. A back-level table can be either a USS table or an interpret table that was assembled using pre-VTAM V3R2 macros.

**TABLE TYPE CONFLICT**

New table newtable has a table type that differs from that specified using the TYPE keyword (tabletype). For example, newtable is a USS table but TYPE=LOGTAB was specified on the MODIFY TABLE command.

**IST864I**

*option* is one of the following values:

- **ASSOCIATE**  
  Change table association with resources
- **DELETE**  
  Delete table association with resources
- **LOAD**  
  Load or refresh a table, change associations

*tabletype* is one of the following values. When *tabletype* is not applicable, for example, specifying OPT=LOAD, ***NA*** will be displayed.

- **ASLTAB**  
  Associated LU table
- **COSTAB**  
  Class-of-service table
- **CMIPDDF**  
  CMIP directory definition file
- **FILTER**  
  Session awareness data filter
- **FLDTAB**  
  Message flooding table
- **LOGTAB**  
  Interpret table
- **MDLTAB**  
  Model name table
- **MODETAB**  
  Logon mode table
- **USSTAB**  
  USS table

**IST935I**

This message contains additional identification information for certain types of tables.

- *ncpname* is the name of the PU type 4 or PU type 5 specified on the ORIGIN operand.
- *netid* identifies the network specified on the NETID operand.
- *resourcename* is the name of the resource specified on the ID operand.

**System action:** No table associations were changed except for the following *reasons*:

- If *reason* is **BOTH FILTER TABLES IN USE**, the previous command will complete eventually.
- If *reason* is **LOADER INOPERATIVE**, all subsequent MODIFY TABLE commands that require the loader will fail.
  If the I/O load operation eventually succeeds, load operations will again be enabled.

**Operator response:**
When reason is ABEND DURING TABLE PROCESSING, save the system log and dump for problem determination.

When reason is BOTH FILTER TABLES IN USE, try the command again when the previous command has completed.

When reason is CMIP SERVICES IS INACTIVE, restart CMIP services. The new definitions will be loaded.

When reason is INSUFFICIENT STORAGE, reenter the MODIFY TABLE command when more storage is available. If problems persist, enter a DISPLAY BFRUSE command. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and request a dump for problem determination.

For the following values of reason, save the system log for problem determination:
- CURRENT TABLE WILL BE USED
- ERROR BUILDING TABLE
- I/O ERROR LOADING newtable
- I/O TIMEOUT LOADING newtable
- LOADER INOPERATIVE
- TABLE name IS FORMAT=OLD

For the following values of reason, verify that the MODIFY TABLE operands were entered correctly:
- name NOT FOUND
- ncpname HAS NO COS FOR netid
- netid NOT DEFINED FOR ncpname
- NEW TABLE ALREADY IN USE
- NO APPL/LU/CDRSC BELOW RESOURCE
- OLD TABLE WAS NOT IN USE
- OLD & NEW TABLE NAMES IDENTICAL
- OPERATION INVALID FOR resourcename
- TABLE TYPE CONFLICT

See z/OS Communications Server: SNA Operation for a description of command operands. The DISPLAY COS, DISPLAY ID, and DISPLAY TABLE commands can be used to obtain the current table associations for the specified resources.

System programmer response:
- When reason is ABEND DURING TABLE PROCESSING review the contents of the system dump to determine the correct problem determination action. See the z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures for information on the abend procedure.
- When reason is CURRENT TABLE WILL BE USED, correct the error indicated by message IST1444I.
- When reason is ERROR LOADING TABLE, this message is preceded by message IST979I. See the explanation of that message for additional information.
- When reason is INSUFFICIENT STORAGE, review the output from the operator to determine the cause of the problem.
  If the MODIFY TABLE operation is critical, have the operator cancel other jobs or deactivate some major nodes in order to free up storage for the command, and then reenter the MODIFY TABLE command.
  - See z/OS Communications Server: SNA Operation for information about the DISPLAY BFRUSE command, and the DISPLAY STORUSE command.
  - See the z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.
- When reason is I/O ERROR LOADING newtable or I/O TIMEOUT LOADING newtable, examine the definition library to make sure the requirements for the VTAM system are correct for your system. Enter a DISPLAY BFRUSE command to determine storage utilization.
- When reason is LOADER INOPERATIVE, review the contents of the system dump to determine the correct problem determination action. See the z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures for information on the abend procedure.
- When reason is TABLE name IS FORMAT=OLD, you need to code FORMAT=DYNAMIC on the USSTAB macro and reassemble the table using the current VTAM macro libraries.
IST864I • IST865I

• For all other values of reason, no response is required.
Routing code: 2
Descriptor code: 5

IST864I  NEWTAB=newtable, OLDTAB=oldtable, OPT=option, TYPE=tabletype

Explanation: VTAM issues this message as part of a message group. The first message in the group is either IST863I or IST865I. See the explanation of those messages for a complete description.
Routing code: 2
Descriptor code: 5

IST865I  MODIFY TABLE COMMAND COMPLETE—text

Explanation: This message is the first in a message group. A complete description of the message group follows.

IST865I  MODIFY TABLE COMMAND COMPLETE—text
[IST864I  NEWTAB=newtable, OLDTAB=oldtable, OPT=option, TYPE=tabletype]
[IST935I  ORIGIN=ncpname, NETID=netid, ID=resourcename]

A MODIFY TABLE command was processed successfully.

IST864I
• option is one of the following values:
  ASSOCIATE
   Change table association with resources
  DELETE
   Delete table association with resources
  LOAD
   Load or refresh a table, change associations.
• tabletype is one of the following values. When tabletype is not applicable, for example, specifying OPT=LOAD, **NA** will be displayed.
  ASLTAB
   Associated LU table
  CMIPDDF
   CMIP directory definition file
  COSTAB
   Class-of-service table
  FILTER
   Session awareness data filter
  FLDTAB
   Message flooding table
  LOGTAB
   Interpret table
  MDLTAB
   Model name table
  MODETAB
   Logon mode table
  USSTAB
   USS table.

IST865I
• text is one of the following:
num ASSOCIATION(S) CHANGED
This is displayed when the value of option is ASSOCIATE. num is determined as follows:
- If the value of tabletype is USSTAB, LOGTAB, MODETAB, MDLTAB, FLDTAB, or ASLTAB, num table associations were changed from oldtable to newtable for the resource and all of its subordinate nodes specified by the ID parameter (resourcename).
- If the value of tabletype is COSTAB, num table associations were changed for the PU type 4 or PU type 5 identified by the ORIGIN parameter (ncpname), to use newtable for the network specified by the NETID parameter (netid). Because ORIGIN and NETID are required in MODIFY TABLE, num will always be 1.

num FILTER TABLE(S) DELETED
The current session awareness data filter has been deleted. Trace data for all sessions will be passed over the CNM interface.

NEW TABLE ALREADY ASSOCIATED
New table newtable was already associated with the specified resources. For TYPE=COSTAB, the resource is a PU type 4 or PU type 5 and was identified by ncpname and netid ORIGIN parameters. Otherwise, the resource was identified by resourcename, and includes all of its subordinate nodes. To cause a new version of newtable to be loaded, MODIFY TABLE,OPTION=LOAD must be entered.

TABLE newtable LOADED
This is displayed when the value of option is LOAD. The text indicates that the new table newtable was successfully loaded. All associations with oldtable were changed to newtable. No count is provided for the number of associations changed.

If the OLDTAB parameter is omitted, oldtable will be the same as newtable. tabletype will always be **NA**.

num ASSOCIATION(S) DELETED
This is displayed when the value of option is DELETE. num is determined as follows:
- If the value of tabletype is USSTAB, LOGTAB, MODETAB, MDLTAB, or ASLTAB, num references to oldtable have been deleted for the resource and all of its subordinate nodes specified by the ID parameter. The IBM-supplied default table might be used for future session-initiation requests.
- If the value of tabletype is COSTAB, the association between the PU type 4 or PU type 5 COS table, identified by the ORIGIN parameter, and the network specified by the NETID parameter has been terminated. The value of num will always be 1 and oldtable will always be **NA**.
  newtable will always be ***NA*** because NEWTAB is not allowed in the MODIFY TABLE command for OPTION=DELETE.

IST935I
- This message contains additional identification information for certain types of tables.
  - ncpname is the name of the PU type 4 or PU type 5 specified on the ORIGIN operand.
  - netid identifies the network specified on the NETID operand.
  - resourcename is the name of the resource specified on the ID operand.

System action: Processing continues.
Operator response: No action is required. DISPLAY ID or DISPLAY COS might be entered to determine which table associations have changed.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST866I command HAD NO EFFECT — reason
Explanation: VTAM issues this message in response to the following commands:
- MODIFY ALSLIST
- MODIFY CDRM
- MODIFY DIRECTRY
- MODIFY TRACE
- VARY LOGON.
Possible values are:

- **MODIFY ALSLIST command**

  `alsname NOT VALID FOR cdrscname`

  `alsname` is not valid. If `alsname` was specified in the NEWALS field in a MODIFY ALSLIST,ACTION=ADD or ACTION=REPLACE command, ensure that the ALS name specified in the NEWALS field is valid. If `alsname` was specified in the OLDALS field in a MODIFY ALSLIST,ACTION=DELETE or ACTION=REPLACE command, ensure that the ALS name specified in the OLDALS field is valid.

- **ISTAPNPU VALID ONLY FOR APPN NODE**

  ISTAPNPU was specified on the NEWALS operand of the command, but ISTAPNPU is valid only for an APPN node.

- **NO CDRSCS EXIST**

  The explanation is determined by the value of ID in the MODIFY ALSLIST command:

  ```
  ID=*  
  No CDRSC major nodes have been activated.
  ID=cdrsc major node  
  No cross-domain resources are defined in the major node.
  ```

- **STORAGE NOT AVAILABLE**

  There was not enough storage to add an entry to the adjacent link station table.

- **MODIFY CDRM command**

  `cdrmname NOT FOUND`

  The CDRM is not currently assigned to any cross-domain resource.

  `cdrmname NOT FOUND FOR cdrscname`

  One of the following is true:

  - `cdrscname` is a CDRSC major node. The CDRM is not currently assigned to any cross-domain resource in `cdrmname`.
  - `cdrscname` is a single cross-domain resource. The CDRM currently associated with the `cdrscname` does not match `cdrmname`.

- **NO CDRSCS EXIST**

  The explanation is determined by the value of ID in the MODIFY CDRM command:

  ```
  ID=*  
  No CDRSC major nodes have been activated.
  ID=cdrsc major node  
  No cross-domain resources are defined in the major node.
  ```

- **MODIFY DIRECTRY command**

  `oldcpname NOT FOUND`

  The MODIFY DIRECTRY,UPDATE, ID=resourcename, CPNAME=(newcpname,oldcpname) command was entered and one of the following is true:

  - The resource named on the ID operand, `resourcename`, is a CDRSC major node. `oldcpname` is not currently the owning control point (CP) of any APPN resource subordinate to `resourcename`.
  - The resource named on the ID operand, `resourcename` is a single APPN resource. The owning CP currently associated with `resourcename` does not match `oldcpname`.

- **NO APPN CDRSC EXISTS**

  The MODIFY DIRECTRY command was issued for a CDRSC major node, but no subordinate APPN resources were found. Note that an APPN CDRSC is identified by the presence of the CPNAME operand on the CDRSC macro definition.

- **MODIFY TRACE command**

  `reason` is **VIT TABLE CHANGE IS IN PROGRESS**. The VTAM internal trace (VIT) table change is in progress. Wait a short time, and try the command again.

- **VARY LOGON command**

  `reason` is **NO LOGICAL UNITS EXIST**. The logon mode could not be updated because no LUs exist.
**System action:** Processing continues. If this message is issued in response to a MODIFY DIRECTORY command, the APPN directory is not modified.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

---

**IST867I SIT TRACE FOR linename FAILED TO ACTIVATE**

**Explanation:** A MODIFY TRACE, TYPE=SIT command failed for linename because of a problem in the scanner. The problem could possibly be caused by unavailable scanner resources or a scanner hardware error.

**System action:** Processing continues.

**Operator response:** Reenter the command when scanner resources become available. If the command fails, save the system log for problem determination.

**System programmer response:** If you cannot determine the cause of the hardware problem, contact the IBM hardware support center.

**Routing code:** 2

**Descriptor code:** 5

---

**IST869I USERID = userid**

**Explanation:** This message is part of a group of messages that VTAM issues in response to a DISPLAY ID command for an application program. The userid listed represents the job controlling the application program at the time of the request. If the userid is *****NA***, the name was not available to VTAM or the application ACB was not opened.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

---

**IST870I NETWORK ADDRESS RECEIVED FOR nodename IN USE BY resourcename**

**Explanation:** During SSCP takeover processing, an address mismatch was detected. This mismatch occurs when the operator in the takeover host does not issue the DR deletes for these system generated resources.

**System action:** VTAM will do one of the following:
- Request another address for nodename.
- Delete system generated resource resourcename. See IST871I for more information.

**Operator response:** Verify that all required DR deletes are completed.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

---

**IST871I RESOURCE resourcename {DELETED | NOT DELETED}**

**Explanation:** VTAM detected an address mismatch error, and attempted to delete resource resourcename. Message IST871I indicates whether the attempted deletion was successful. For Dynamic created PUs such as HPR and Connection Network, VTAM deletes the resource (PU) as normal disconnect processing, so the delete portion of this message is for information only.
**IST872I • IST873I**

**System action:** The system-generated resource `resourcename` is deleted. If the system-generated resource `resourcename` is a PU, the attached LUs are deleted.

**Operator response:** If the deletion failed, delete `resourcename` using MODIFY DR.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

---

**IST872I** DR MOVE MISMATCH DETECTED FOR `puname`

**Explanation:** This message is the first in a group of messages that VTAM issues in response to one of the following:
- VARY DRDS command
- MODIFY DR,TYPE=MOVE command
- When a CONTACT has failed with a sense code indicating a DR mismatch. In this case, an internal MODIFY DR,TYPE=MOVE was sent to move the PU from the generated line to the line that last attached the NCP to the PU.

Possible message groups follow:

IST872I DR MOVE MISMATCH DETECTED FOR `puname`
IST523I REASON = RESOURCE WAS MOVED FROM line1, NOT line2
IST314I END

IST872I DR MOVE MISMATCH DETECTED FOR `puname`
IST523I REASON = `puname` IS ON line1 IN NCP
IST401I F DR,TYPE=MOVE INITIATED FOR `puname`
IST314I END

IST401I

`puname` is the name of the physical unit that has been moved.

IST523I

`puname` is the name of the physical unit that has been moved.

`line1` is the name of the line from which the NCP actually moved `puname`.

`line2` is the name of the line from which VTAM thought `puname` was to be moved.

IST872I

`puname` is the name of the physical unit that has been moved.

**System action:** Processing continues with activation if a MODIFY DR,TYPE=MOVE or VARY DRDS command was issued by the operator.

If the group with the IST401I is issued, an internal MODIFY DR,TYPE=MOVE has been initiated to move the PU to the line that last attached the NCP to the PU. The PU and LUs will be reactivated.

**Operator response:** If the message group with message IST401I is issued, save the system log for problem determination. Otherwise, activate the resource immediately, if possible.

**System programmer response:** Determine whether the PU is on the correct line in VTAMLST or whether a MODIFY DR,TYPE=MOVE or ADD needs to be issued to put the PU on the correct line.

**Routing code:** 2

**Descriptor code:** 5

---

**IST873I** PLU SLU SID STATUS

**Explanation:** This message is part of a group of messages that VTAM issues in the following situations:
- When duplicate session information is received during SSCP takeover processing

   The first message in this message group is IST1419I. See the explanation of that message for a complete description.
In response to a DISPLAY SESSIONS command when LIST=ALL, SCOPE=ALL is specified.
A complete description of the message group follows.

IST350I  DISPLAY TYPE = SESSIONS
IST873I  PLU   SLU   SID   STATUS
IST874I  netid.pluname netid.sluname sessionid status
IST875I  {ADJSSCP|ALSNAME} TOWARDS adjacent_resource_type = resource_name [text]

IST878I  NUMBER OF PENDING SESSIONS = count
IST1237I state = number [state = number]
IST878I  NUMBER OF ACTIVE SESSIONS = count
IST1162I LU-LU = count
IST1162I CP-CP CONWINNER = count
IST1162I CP-CP CONLOSER = count
IST878I  NUMBER OF QUEUED SESSIONS = count
IST1237I state = number [state = number]
IST878I  NUMBER OF TOTAL SESSIONS = count
IST1161I SSCP SESSIONS
IST1162I SSCP-LU = count
IST1162I SSCP-PU = count
IST1162I SSCP-SSCP = count
IST314I END

Notes:
• Information about sessions with unknown partners is not provided by the DISPLAY SESSIONS command. If this
  information is needed, enter a DISPLAY ID command for the known session partners.
• Messages IST1161I and IST1162I are only displayed when information about all active sessions is requested. If
  specific sessions are requested using the PLU, SLU, LU1, LU2, or SID operand on the command, messages IST1161I
  and IST1162I are not displayed.
• See z/OS Communications Server: SNA Operation for a description of the DISPLAY SESSIONS command.

IST350I
This message identifies the type of information shown in the display. For this message group, the display type is
always SESSIONS.

IST873I
This message is a header message for the information displayed in message IST874I.

IST874I

pluname is the network-qualified primary session partner name.
sluname is the network-qualified secondary session partner name.
sessionid is the session identifier. For additional information on the session, enter a
DISPLAY SESSIONS,SID=sessionid command.
status is the session status. See the z/OS Communications Server: IP and SNA Codes for a description of possible
session initiation and termination states.

Note: If the display shows the same session twice with two different values of status, both LOCATE and BIND
processing for the session might be occurring simultaneously. This situation should last for only a short time. Try the
DISPLAY SESSIONS command again. If the session still appears twice, there might be a hung session.

IST875I
This message displays information about an adjacent SSCP (ADJSSCP) or adjacent link station (ALSNAME).
VTAM might issue this message twice if the issuing SSCP is an intermediate host.

adjacent_resource_type is one of the following:

DLU
The adjacent SSCP is in the direction of the destination logical unit (DLU), and a CDINIT or DSRLST is pending
for the session. DLU applies only to adjacent SSCPs.
IST873I

PLU
The adjacent SSCP or adjacent link station is in the direction of the primary logical unit (PLU).

RTP
The ALSNAME or APPNCOS is used in the direction of other endpoint of the RTP pipe.

SLU
The adjacent SSCP or adjacent link station is in the direction of the secondary logical unit (SLU).

resource_name is the name of the adjacent SSCP toward the indicated adjacent_resource_type.

text is not displayed when:
- The resource described in this message is an adjacent link station.
- The SSCP is not gateway capable.
- The SSCP-SSCP session is a cross-domain session.

Possible values are:

GWNCP NAME NOT AVAILABLE
The gateway NCP name is not known to VTAM(r).

GWNCP TOWARDS gateway_type = gwncp
The gateway NCP name is known to VTAM(r).
Possible values are:

DLU
The gateway NCP is toward the DLU. VTAM(r) issues DLU only if adjacent_resource_type is DLU.

PLU
The gateway NCP is toward the PLU.

SLU
The gateway NCP is toward the SLU.

gwncp is the gateway NCP toward the pluname or sluname in message IST874I.

IST878I
This message displays the number of PENDING, ACTIVE, QUEUED, and TOTAL sessions.

count is the number of sessions of a specified type.

Notes:
1. If the value of the MAX operand is exceeded, count displays **********.
2. If LOCATE and BIND processing for a session is occurring simultaneously, count includes both sessions.

IST1154I
This message is displayed when name in message IST1364I is a generic resource name.

resourcename is a logical unit or an application in the form netid.name.

IST1161I
This message is a header message for IST1162I. The IST1161I and IST1162I subgroup is displayed when active SSCP-LU and SSCP-PU sessions and active and pending active SSCP-SSCP sessions exist.

IST1162I
- This message is issued when active or pending active sessions exist.
  - If all active sessions are requested, this message follows message IST878I and displays the number of active LU-LU and CP-CP sessions (CONWINNER and CONLOSER).
Note: If the value of the MAX operand is exceeded, count for the LU-LU sessions displays **********. Count for CP-CP CONWINNER and CP-CP CONLOSER is usually the same. If these numbers are different, VTAM(r) is in the process of bringing up the session or taking it down. No user action is needed.

- If all active sessions are requested, this message follows header message IST1161I and displays active SSCP-LU and SSCP-PU sessions and active and pending active SSCP-SSCP sessions. count for SSCP-SSCP sessions also includes pending sessions. count in message IST878I for ACTIVE and TOTAL sessions does not include these sessions.
  - The value of count for active SSCP-LU sessions includes two VTAM-initiated sessions with the ISTNOP and ISTPDCLU applications.
  - The value of count for SSCP-SSCP sessions includes both pending and active sessions.

- If specific sessions are requested using the PLU, SLU, LU1, LU2, or SID operand on the command, this message is not displayed.

IST1237I
This message is issued for PENDING and QUEUED sessions only, and displays status information. If count is 0, message IST1237I is not displayed.

  state is the state of the session. See the z/OS Communications Server: IP and SNA Codes for a description of possible session initiation and termination states.

  number is the number of sessions in the specified state.

IST1364I
This message is displayed when name is a generic resource name. It serves as the header message for message IST1154I.

  name is the generic resource name for the group of resources displayed.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST874I  netid.pluname netid.sluname sessionid status

Explanation: VTAM issues this message as part of a group of messages.

  • If the message group is headed by IST1419I, see the explanation of that message for a complete description of the message group.

  • Otherwise, see the explanation of IST873I for a complete description of the message group.

Routing code: 2
Descriptor code: 5

IST875I  {ADJSSCP | ALSNAME | APPNCOS} TOWARDS adjacent_resource_type = resource_name [text]

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY SESSIONS, DISPLAY APING, or DISPLAY ID=rt箐pu command. See the explanations of IST873I, IST878I, IST879I, IST1476I, and IST1489I for a complete description of possible message groups.

This message displays information about an adjacent SSCP (ADJSSCP), adjacent link station (ALSNAME), or APPN Class of Service (APPNCOS).

VTAM(r) might issue this message twice if the issuing SSCP is an intermediate host.

  adjacent_resource_type is one of the following:

  DLU

  The adjacent SSCP is in the direction of the destination logical unit (DLU), and a CDINIT or DSRLST is pending for the session. DLU applies only to adjacent SSCPs.
IST876I

PLU
The adjacent SSCP or adjacent link station is in the direction of the primary logical unit (PLU).

RTP
The ALSNAME or APPNCOS is used in the direction of other endpoint of the RTP pipe.

SLU
The adjacent SSCP or adjacent link station is in the direction of the secondary logical unit (SLU).

resource_name is one of the following:

- If ADJSSCP or ALSNAME display in this message, resource_name is the name of the adjacent SSCP toward the indicated adjacent_resource_type.
- If APPNCOS displays in this message, resource_name is the APPN class of service (CoS) name.

text is not displayed when:

- The resource described in this message is an adjacent link station.
- The SSCP is not gateway capable.
- The SSCP-SSCP session is a cross-domain session.
- An APPN Class of Service name is displayed.

Possible values are:

GWNCP NAME NOT AVAILABLE
The gateway NCP name is not known to VTAM(r).

GWNCP TOWARDS gateway_type = gwncp
The gateway NCP name is known to VTAM(r).

Possible values are:

DLU
The gateway NCP is toward the DLU. VTAM(r) issues DLU only if adjacent_resource_type is DLU.

PLU
The gateway NCP is toward the PLU.

SLU
The gateway NCP is toward the SLU.

gwncp is the gateway NCP toward the pluname or sluname in message IST874I.

System action: Processing continues.

Operator response:

- If this message is preceded by message IST873I and IST874I, see the explanation of IST873I for a description of the group.
- If this message is preceded by message IST879I, see the explanation of that message for a description of the group.
- If this message is preceded by message IST1476I, see the explanation of that message for a description of the group.

System programmer response: None.

Routing code: 2
Descriptor code: 5

IST876I SIGNALS NEEDED TO COMPLETE SESSION [SETUP|TAKEDOWN]

Explanation: VTAM issues this message as part of a group of messages. The first message of the group is IST879I. See the explanation of that message for a complete description. IST876I is the header for message IST877I, and is issued only if the session state is pending session start or pending session end.

Routing code: 2
Descriptor code: 5

z/OS V2R1.0 Communications Server: SNA Messages
**Explanation:** VTAM issues this message as part of a group of messages. The first message of the group is IST879I. See the explanation of that message for a complete description. IST877I is issued only if the session state is pending session start or pending session end.

**Routing code:** 2

**Descriptor code:** 5

**IST878I**

**NUMBER OF type SESSIONS = count**

**Explanation:** This message is part of a group of messages that VTAM issues in response to a DISPLAY SESSIONS command.

Possible message groups follow.

- **LIST=COUNT (default)**
  
  IST350I DISPLAY TYPE = SESSIONS
  
  [IST875I {ADJSSCP|ALSNAME} TOWARDS adjacent_resource_type = resource_name [text]]
  
  :.
  
  IST871I NUMBER OF PENDING SESSIONS = count
  
  IST871I NUMBER OF ACTIVE SESSIONS = count
  
  IST871I NUMBER OF QUEUED SESSIONS = count
  
  IST871I NUMBER OF TOTAL SESSIONS = count
  
  [IST1161I SSCP SESSIONS
  
  IST1162I SSCP-LU = count
  
  IST1162I SSCP-PU = count
  
  IST1162I SSCP-SSCP = count]
  
  IST314I END

- **LIST=SUMMARY**
  
  IST350I DISPLAY TYPE = SESSIONS
  
  [IST875I {ADJSSCP|ALSNAME} TOWARDS adjacent_resource_type = resource_name [text]]
  
  :.
  
  IST871I NUMBER OF PENDING SESSIONS = count
  
  [IST1237I state = number [state = number]]
  
  IST871I NUMBER OF ACTIVE SESSIONS = count
  
  [IST1162I LU-LU = count
  
  IST1162I CP-CP CONWINNER = count
  
  IST1162I CP-CP CONLOSER = count]
  
  IST871I NUMBER OF QUEUED SESSIONS = count
  
  [IST1237I state = number [state = number]]
  
  IST871I NUMBER OF TOTAL SESSIONS = count
  
  [IST1161I SSCP SESSIONS
  
  IST1162I SSCP-LU = count
  
  IST1162I SSCP-PU = count
  
  IST1162I SSCP-SSCP = count]
  
  IST314I END

- **LIST=ALL**

  See the explanation of message IST873I for a complete description of this group.

**Notes:**

1. Information about sessions with unknown partners is not provided by the DISPLAY SESSIONS command. If this information is needed, enter a DISPLAY ID command for the known session partners.

2. Messages IST1161I and IST1162I are only displayed when information about all active sessions is requested. If specific sessions are requested using the PLU, SLU, LU1, LU2, or SID operand on the command, messages IST1161I and IST1162I are not displayed.

3. See [z/OS Communications Server: SNA Operation](https://www.ibm.com) for a description of the DISPLAY SESSIONS command.

**IST350I**

This message identifies the type of information shown in the display. For this message group, the display type is always **SESSIONS**.
IST878I

IST875I
This message displays information about an adjacent SSCP (ADJSSCP) or adjacent link station (ALSNAME). VTAM(r) might issue this message twice if the issuing SSCP is an intermediate host.

adjacent_resource_type is one of the following:

**DLU**
The adjacent SSCP is in the direction of the destination logical unit (DLU), and a CDINIT or DSRLST is pending for the session. DLU applies only to adjacent SSCPs.

**PLU**
The adjacent SSCP or adjacent link station is in the direction of the primary logical unit (PLU).

**RTP**
The ALSNAME or APPNCOS is used in the direction of other endpoint of the RTP pipe.

**SLU**
The adjacent SSCP or adjacent link station is in the direction of the secondary logical unit (SLU).

resource_name is the name of the adjacent SSCP toward the indicated adjacent_resource_type.

text is not displayed when:
- The resource described in this message is an adjacent link station.
- The SSCP is not gateway capable.
- The SSCP-SSCP session is a cross-domain session.

Possible values are:

**GWNCP NAME NOT AVAILABLE**
The gateway NCP name is not known to VTAM(r).

**GWNCP TOWARDS gateway_type = gwncp**
The gateway NCP name is known to VTAM(r).

Possible values are:

**DLU**
The gateway NCP is toward the DLU. VTAM(r) issues DLU only if adjacent_resource_type is DLU.

**PLU**
The gateway NCP is toward the PLU.

**SLU**
The gateway NCP is toward the SLU.

gwncp is the gateway NCP toward the pluname or sluname in message IST874I.

IST878I
This message displays the number of PENDING, ACTIVE, QUEUED, and TOTAL sessions.

count is the number of sessions of a specified type.

Notes:
1. If the value of the MAX operand is exceeded, count displays **********.
2. If LOCATE and BIND processing for a session is occurring simultaneously, count includes both sessions.

IST1161I
This message is a header message for IST1162I. The IST1161I and IST1162I subgroup is displayed when active SSCP-LU and SSCP-PU sessions and active and pending active SSCP-SSCP sessions exist.

IST1162I
• This message is issued when active or pending active sessions exist.

  – If all active sessions are requested, this message follows message IST878I and displays the number of active LU-LU and CP-CP sessions (CONWINNER and CONLOSER).

  Note: If the value of the MAX operand is exceeded, count for the LU-LU sessions displays **********.

  count for CP-CP CONWINNER and CP-CP CONLOSER is usually the same. If these numbers are different, VTAM(r) is in the process of bringing up the session or taking it down. No user action is needed.

  – If all active sessions are requested, this message follows header message IST1161I and displays active SSCP-LU and SSCP-PU sessions and active and pending active SSCP-SSCP sessions. count for SSCP-SSCP sessions also includes pending sessions. count in message IST878I for ACTIVE and TOTAL sessions does not include these sessions.

  - The value of count for active SSCP-LU sessions includes two VTAM-initiated sessions with the ISTNOP and ISTPDCCLU applications.

  - The value of count for SSCP-SSCP sessions includes both pending and active sessions.

• If specific sessions are requested using the PLU, SLU, LU1, LU2, or SID operand on the command, this message is not displayed.

IST1237I

This message is issued for PENDING and QUEUED sessions only, and displays status information. If count is 0, message IST1237I is not displayed.

  state is the state of the session. See the z/OS Communications Server: IP and SNA Codes for a description of possible session initiation and termination states.

  number is the number of sessions in the specified state.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2

Descriptor code: 5

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IST879I {PLU{lutype}|SLU{lutype}} REAL = realname ALIAS = aliasname

Explanation: This message is the first in a group of messages that VTAM issues in response to a DISPLAY SESSIONS,SID command. A complete description of the message group follows the example.

IST350I DISPLAY TYPE = SESSIONS
IST879I PLU{lutype} REAL = realname ALIAS = aliasname
IST879I SLU{lutype} REAL = realname ALIAS = aliasname
IST880I SETUP STATUS = status [TAKEDOWN STATUS = takedownstatus ]
[IST875I {ADJSSCP|ALSNME} TOWARDS adjacent_resource_type = resource_name [text]]
[IST1048I LOGMODE=logmode, COS=cosentry [(FROM OLU)]
[IST1049I LOGMODE logmode UNKNOWN IN THIS DOMAIN, DEFAULT IS ISTCOSDF]
[IST875I APPNCOS TOWARDS adjacent_resource_type = resource_name [text]]
[IST1635I {PLU|SLU} HSCB TYPE: hscbtype LOCATED AT ADDRESS X’hscbaddr’]
[IST1636I PACING STAGE(S) AND VALUES:
IST1637I PLU--STAGE 1--SLU
IST1644I PLU--STAGE 1-----|-----STAGE 2--SLU
IST1645I PLU--STAGE 1-----|-----STAGE 2-----|-----STAGE 3--SLU
IST1638I stage: PRIMARY TO SECONDARY DIRECTION - pacingtype
IST1639I PRIMARY SEND: CURRENT = pscur NEXT = psnext]
IST1640I SECONDARY RECEIVE = srcvcnt]
IST879I

IST1641I stage: SECONDARY TO PRIMARY DIRECTION - pacingtype
[IST1642I SECONDARY SEND: CURRENT = sscur NEXT = ssnext]
[IST1643I PRIMARY RECEIVE = prcvnt]

[IST1710I RSCV FROM PLU SAVED AT SESSION ACTIVATION]
[IST1460I TGN CPNAME TG TYPE HPR]
[IST1713I RTP RSCV IN THE DIRECTION OF THE session_partner]
[IST1460I TGN CPNAME TG TYPE HPR]
[IST1461I tgn cpname tgytype hpr]
[IST1711I RSCV FROM SLU SAVED AT SESSION ACTIVATION]
[IST1460I TGN CPNAME TG TYPE HPR]
[IST1461I tgn cpname tgytype hpr]
[IST1713I RTP RSCV IN THE DIRECTION OF THE session_partner]
[IST1460I TGN CPNAME TG TYPE HPR]
[IST1461I tgn cpname tgytype hpr]
[IST1758I RSCV TOWARDS DLUR SAVED AT SESSION ACTIVATION]
[IST1460I TGN CPNAME TG TYPE HPR]
[IST1461I tgn cpname tgytype hpr]
[IST1759I RTP RSCV FROM THE DIRECTION OF THE DLUR]
[IST1460I TGN CPNAME TG TYPE HPR]
[IST1461I tgn cpname tgytype hpr]
[IST1714I NO PATH INFORMATION EXISTS]
IST314I END

IST350I

This message identifies the type of information shown in the display. For this message group, the display type is always SESSIONS.

IST875I

This message displays information about an adjacent SSCP (ADJSSCP), adjacent link station (ALSNAME), or APPN Class of Service (APPNCOS).

VTAM(r) might issue this message twice if the issuing SSCP is an intermediate host.

adjacent_resource_type is one of the following:

DLU
The adjacent SSCP is in the direction of the destination logical unit (DLU), and a CDINIT or DSRLST is pending for the session. DLU applies only to adjacent SSCPs.

PLU
The adjacent SSCP or adjacent link station is in the direction of the primary logical unit (PLU).

RTP
The ALSNAME or APPNCOS is used in the direction of other endpoint of the RTP pipe.

SLU
The adjacent SSCP or adjacent link station is in the direction of the secondary logical unit (SLU).

resource_name is one of the following:

• If ADJSSCP or ALSNAME display in this message, resource_name is the name of the adjacent SSCP toward the indicated adjacent_resource_type.
• If APPNCOS displays in this message, resource_name is the APPN class of service (CoS) name.

text is not displayed when:

• The resource described in this message is an adjacent link station.
• The SSCP is not gateway capable.
• The SSCP-SSCP session is a cross-domain session.
• An APPN Class of Service name is displayed.
Possible values are:

**GWNCP NAME NOT AVAILABLE**
The gateway NCP name is not known to VTAM(r).

**GWNCP TOWARDS gateway_type = gwncp**
The gateway NCP name is known to VTAM(r).
Possible values are:

**DLU**
The gateway NCP is toward the DLU. VTAM(r) issues DLU only if adjacent_resource_type is DLU.

**PLU**
The gateway NCP is toward the PLU.

**SLU**
The gateway NCP is toward the SLU.

gwncp is the gateway NCP toward the pluname or sluname in message IST874I.

**IST876I**
This message is a header message for IST877I.

**IST877I**
- signal1–signal4 are signals. They are displayed only if the session is pending session start or session end.
The meaning of the signals is described below:

**BFSESSST-SLU**
A BFSESSST is expected from the NCP of the SLU.

**CDSESSST-PLU**
A cross-domain session start request is expected from the direction of the PLU.

**CDSESSST-SLU**
A cross-domain session start request is expected from the direction of the SLU.

**SESSST-PLU**
A session start request is expected from the boundary function of the PLU.

**SESSST-SLU**
A session start request is expected from the boundary function of the SLU.

**NTFYST-GWN-PLU**
Notification of a session start is expected from the gateway node in the PLU direction.

**NTFYST-GWN-SLU**
Notification of a session start is expected from the gateway node in the SLU direction.

The following signals are displayed only if the session is pending session end (PSESEND):

**BFSESSEND-SLU**
A BFSESSEND is expected from the NCP of the SLU.

**CDSESSEND-PLU**
A cross-domain session end request is expected from the direction of the PLU.

**CDSESSEND-SLU**
A cross-domain session end request is expected from the direction of the SLU.

**SESSSEND-PLU**
A session end request is expected from the boundary function of the PLU.

**SESSSEND-SLU**
A session end request is expected from the boundary function of the SLU.

**NTFYSE-GWN-PLU**
Notification of a session end is expected from the gateway node in the PLU direction.
Notification of a session end is expected from the gateway node in the SLU direction.

luname is OLU, DLU, or blank.

- OLU is displayed if the LU is the origin session partner.
- DLU is displayed if the LU is the destination session partner.
- A blank is displayed in this field if OLU and DLU are not known because SSCP takeover has occurred. For information on takeover of resources, see the z/OS Communications Server: SNA Network Implementation Guide.

realname is the network-qualified real name of the primary or secondary session partner.

aliasname is the network-qualified alias name of the primary or secondary session partner. If aliasname is not used to locate the primary or secondary session partner, VTAM displays ***NA***.

status is the session status. See the z/OS Communications Server: IP and SNA Codes for a description of possible session initiation and termination statuses.

takedownstatus is the session status during session termination. If session termination is not in progress, takedownstatus is blank. See the z/OS Communications Server: IP and SNA Codes for a description of takedownstatus.

logmode is the name of the entry in the logon mode table used to set up certain session parameters. These entries are rules governing how a session is to be conducted. The name specified is that known in this domain.

- LOGMODE=***NA***
  - LOGMODE is unknown in this domain and cannot be determined.
- LOGMODE=logmode
  - LOGMODE can be determined in this domain.
- LOGMODE=*BLANK*
  - LOGMODE can be determined in this domain and is blank. This is a valid LOGMODE entry.

cosentry is the name of an entry in the subarea Class of Service table containing a list of routes allowed for a session. The COS name can be displayed in the following formats:

- COS=***NA***
  - The subarea COS name is unknown in this domain and cannot be determined.
  - There is no subarea COS name to display because APPNCOS is displayed in message IST875I. If APPN session setup is not completed, the APPN COS name might not display in message IST875I. This is a temporary situation.
- COS=cosname
  - The subarea COS name can be determined in this domain.
- COS=*BLANK*
  - The subarea COS name can be determined in this domain and is blank. This is a valid COS name entry.
- COS=cosname (FROM OLU)
  - The subarea COS name can be determined but is known as in the OLU domain.

This message is issued only if data compression is being used for this session.

input_level is the compression level used for input session traffic.

output_level is the compression level used for output session traffic.

This message is issued only if data compression is being used for this session.

input_percent is the percent by which input session traffic is compressed.
output_percent is the percent by which output session traffic is compressed.

If no new data has flowed since the last time you did a display, VTAM issues *NA* for input_percent and output_percent.

IST1438I

- This message is issued only if logmode is unknown in this domain and ISTCOSDF can be used as a default. See the z/OS Communications Server: SNA Resource Definition Reference and z/OS Communications Server: SNA Network Implementation Guide for more information on ISTCOSDF.
  - logmode is the LOGMODE displayed in message IST933I.

IST1460I

This message is a header message for information displayed in message IST1461I.

IST1461I

- The route selection control vector (RSCV) is displayed for the route to the destination node of the partner transaction program. Multiple IST1461I messages might be needed to display the full route.
- tgn is the transmission group number.
- cpname is the destination CP name for the transmission group.

Note: The cpname for a composite network node might not be correct. When an SSCP takeover occurs for an NCP in a composite network node and the cpname was changed, the new cpname is not reflected in the display of the RTP end-to-end route.
- tgtype is the transmission group type. The values for tgtype can be:
  - APPN Indicates that this TG is an APPN-based TG.
  - INTERCHANGE Indicates that this TG represents a TG from an interchange node to a subarea node.
  - VRTG Indicates that this TG is a virtual-route-based TG.
  - ISL Indicates that this TG is an intersubnet TG.
- hpr is the level of HPR support provided by this node for this TG. The value displayed here depends on the HPR start option and the HPR operand on the corresponding PU definition (which can be used to override the HPR start option). The values for hpr can be:
  - RTP indicates that this node provides RTP-level HPR support.
  - ANR indicates that this node provides ANR-level HPR support.
  - *NA* indicates that this node provides no HPR support.

IST1635I

- hscbtype is the half-session control block type and can be one of the following:
  - FMCB Function management control block. The PLU or SLU is an application on this host.
  - BSB Boundary session block. The PLU or SLU is connected through an SNA channel-attached device.
  - LUST Logical unit status table. The PLU is in session with a local non-SNA device on this host.

IST1635I might be displayed multiple times, depending on the configuration. IST1635I is not displayed if the PLU or SLU is a cross-domain resource (CDRSC).
- hscbaddr is the hexadecimal address of the half session control block (HSCB).

IST1636I

IST1636I is a header message for the pacing messages that follow. Messages IST1638I through IST1643I might be repeated for multiple stages.

IST1637I

This message is the header message for pacing messages between the session partners when there is only one stage.
This message describes the pacing stages and types that exist when transmitting data from the PLU to the SLU.
The host can display up to three pacing stages. More stages might exist if the session traverses many hosts.

*stage* indicates the pacing stage being described. For more information on pacing stages, see the [z/OS Communications Server: SNA Network Implementation Guide](https://www.ibm.com/support/docview Gad868267).

*pacingtype* can be one of the following:

**ADAPTIVE**
Adaptive pacing allows the pacing windows to expand and contract, depending on storage availability at
the pacing stage boundaries.

**FIXED**
Fixed pacing allows a pre-negotiated number of PIUs to flow on this pacing stage before an isolated
pacing response (IPR) is required to reset the window. The fixed window does not expand or contract.
This pacing always uses the fixed value.

**NO PACING**
VTAM does no pacing for this stage between the SLU and the PLU. This value is only displayed for local
non-SNA devices.

pscur represents the current pacing window between the PLU and the SLU.
psnext represents the next pacing window VTAM will use when transmitting data between the PLU and the SLU.

srcvcnt represents the number of PIUs the SLU can receive from the PLU.

This message describes the pacing stages and types that exist when transmitting data from the SLU to the PLU.
The host can display up to three pacing stages. More stages might exist if the session traverses many hosts.

*stage* indicates the pacing stage being described. For more information on pacing stages, see the [z/OS Communications Server: SNA Network Implementation Guide](https://www.ibm.com/support/docview Gad868267).

*pacingtype* can be one of the following:

**ADAPTIVE**
Adaptive pacing allows the pacing windows to expand and contract, depending on storage availability at
the pacing stage boundaries.

**FIXED**
Fixed pacing allows a pre-negotiated number of PIUs to flow on this pacing stage before an isolated
pacing response (IPR) is required to reset the window. The fixed window does not expand or contract.
This pacing always uses the fixed value.

**NO PACING**
VTAM does no pacing for this stage between the PLU and the SLU. This value is only displayed for local
non-SNA devices.

sscur represents the current pacing window between the SLU and the PLU.
ssnext represents the next pacing window VTAM will use when transmitting data between the SLU and the PLU.

prcvcnt represents the number of PIUs the PLU can receive from the SLU.

This message is the header message for pacing messages between the session partners when there are two stages.

This message is the header message for pacing messages between the session partners when there are three stages.
IST1710I

This message informs users that the messages that follow describe part or all of the session path for this session as it was calculated during session activation. The session path information describes the portion of the route originating at the CP(PLU) and extending toward this node. This message group will be displayed only if session data was saved during session activation.

IST1711I

This message informs users that the messages that follow describe part or all of the session path for this session as it was calculated during session activation. The session path information describes the portion of the route originating at this node and extending toward the CP(SLU). This message group will be displayed only if session data was saved during session activation.

IST1713I

• This message informs users that the messages that follow describe the current end-to-end path of an RTP route. The route represents the portion of the total session route that uses an RTP pipe with this node as one endpoint and extending in the direction of session_partner. The RTP route may be different from any session route displayed in the IST1710I or IST1711I message group if RTP pathswitching has occurred since session activation; in that case, the information in message IST1713I is the more accurate information. This message group is displayed only if the session uses an RTP pipe in the direction of session_partner.

• session_partner can be one of the following:
  - PLU Displays when the RTP path extends in the direction of the primary logical unit for the session.
  - SLU Displays when the RTP path extends in the direction of the secondary logical unit for the session.

IST1714I

This message informs users that no session or RTP path information is available to display for this session.

IST1758I

• This message informs users that the messages that follow describe part or all of the session path for this session as it was calculated during session activation. The session path information represents a view of the session from the dependent LU requester (DLUR) node which is acting as CP(SLU). This message group will be displayed only if the following conditions are true:
  - The session involves a DLUR-owned dependent SLU.
  - The DLUR node reports the session path information for the section.
  - Session data is being saved during session activation or dependent LU activation.

IST1759I

• This message informs users that the messages that follow describe the current end-to-end path of an RTP route. The route represents the portion of the total session route that uses an RTP pipe with the Dependent LU Requester (DLUR) serving as one endpoint and extending in the direction of the CP(PLU). The RTP route may be different from the session route displayed in the IST1758I message group if RTP pathswitching has occurred since session activation; in that case, the information in message IST1759I is the more accurate information. This message group is displayed only if the following conditions are true:
  - The session involves a DLUR-owned dependent LU.
  - The session uses an RTP pipe ending at the DLUR node.
  - The DLUR node reports RTP route information for the session.
  - RTP data is being saved during session activation or dependent LU activation.

IST2064I

This message is issued only on the application owning host. Message IST1635I will display a HSCB TYPE of FMCB for the PLU, the SLU, or both, when this display is issued at the application owning host.

plu_to_slu_rusize is the RU size being used for this session from the primary logical unit (PLU) to the secondary logical unit (SLU).

slu_to_plu_rusize is the RU size being used for this session from the secondary logical unit (SLU) to the primary logical unit (PLU).
If either RU size is defaulted to or coded as 0, this indicates that there is no limit to the RU size. For this case, the message will actually display a value of 65535 because this is the largest supported RU size.

System action: Processing continues.

Operator response: If message IST1438I is displayed and the default logmode is not desired, collect the system log for problem determination.

System programmer response:
If message IST1438I is not displayed, no action is necessary.
If message IST1438I is displayed, and logmode (instead of ISTCOSDF) should have been known in this domain, verify that logmode is in the LOGMODE table associated with the SLU or in the default LOGMODE table ISTINCLM.

IST880I SETUP STATUS = status [TAKEDOWN STATUS = takedownstatus]

Explanation: This message is part of a message group. The first message of the group is IST879I. See the explanation of that message for a complete description.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2
Descriptor code: 5

IST881I text LINK STATION linkstation

Explanation: This message is part of a group of messages that VTAM issues when CONTACT is unexpectedly lost with a channel-attached controller. VTAM may issue this message group in response to a VARY ACT,LOAD=YES or LOAD=U command from another host. The complete message group follows:
IST881I text LINK STATION linkstation
IST882I WAITING FOR DEVICE END FROM DEVICE

If the controller is online and was activated with DUMPLOAD=YES, SAVEMOD=YES, and LOADFROM=EXT, there is a high probability that it is dumping or loading.

VTAM might issue IST881I twice; message IST259I might appear between the two.

text can be one of the following:

• LOST CONTACT TO
• UNABLE TO CONTACT

linkstation is the ID of the affected link station.

System action: If text is LOST CONTACT TO, VTAM suspends CONTACT processing until Device End is received, indicating that the controller is now available.

If text is UNABLE TO CONTACT, a channel program ended indicating an error condition that should not occur. VTAM will attempt error recovery and will issue messages to report the results.

Operator response: Normally, no operator action is necessary. When the controller becomes available (signaled by Device End), VTAM resumes CONTACT processing. VTAM issues messages to indicate that the controller has been able.

To terminate CONTACT processing before the device becomes available, enter a VARY INACT,FORCE command to deactivate the controller.

Note: If the controller does not respond with Device End, some other action has terminated the load, dump, or recovery action. Ensure that the device is online.

System programmer response: None.
Routing code: 2
Descriptor code: 5

IST882I  WAITING FOR DEVICE END FROM DEVICE

Explanation: VTAM issues this message as part of a group of messages. The first message of the group is IST881I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST883I  percentage OF SAW BUFFERS USED [— SAW AND PIU TRACE HALTED]

Explanation: percentage indicates the percentage of session awareness (SAW) buffers used relative to the specified limit.

System action: The following amounts indicate the action:

ABOVE percent
percent of the user-specified limit for SAW buffers has been used. (percent will be issued for 80 or 90 percent.) Processing continues.

BELOW 80%
Indicates the percentage of use has dropped from 80% or more to below 80%. Processing continues.

OVER 100%
Over 100% of the user-specified limit has been reached. SAW and PIU trace processing is terminated.

Operator response: If the user-specified limit is reached and SAW processing and PIU trace processing are terminated, the network management application (for example, the NetView program) must be canceled and should be recycled.

System programmer response: If VTAM issues this message frequently, re-evaluate the buffer-use limit specified when SAW or PIU trace processing was initiated.

Routing code: 2
Descriptor code: 5

IST886I  commandinfo [statename] action resource [TO toname] [FROM fromname] FAILED

Explanation: This message is the first in a group of messages that VTAM issues to indicate that a dynamic reconfiguration or dynamic change failed. The failure resulted from a MODIFY DR, a VARY DRDS, or a VARY ACT command.

Possible message groups follow:

• MODIFY DR command

 IST886I MODIFY DR action resource [TO toname] FROM fromname FAILED
 IST523I REASON = reason

– IST886I
  - commandinfo is always MODIFY DR for this message group.
  - action is the command type:
    • DELETE to delete a physical or logical unit
    • MOVE to move a physical unit and its associated LUs.
  - resource is the name of the physical unit or logical unit affected by the command.
  - toname is the name of the line to which the PU is being moved, and is only displayed when action is MOVE.
  - fromname is the name of the line from which the PU is being moved or deleted, or the name of the PU from which the LU is being deleted.

– IST523I
This message explains the reason for the failure. Possible values of reason are explained later in this message explanation.
• **VARY DRDS command**

```
IST886I DR drname [statementname] action resource [TO toname] [FROM fromname] FAILED
IST523I REASON = reason
IST368I FUNCTION GROUP functiongroup FAILED
```

- **IST886I**
  - `commandinfo` is always `DR drname` for this message group.
  - `drname` is the name of the dynamic reconfiguration data set containing the reconfiguration definition statements.
  - `statementname`, if specified, is the name of the specific definition statement that failed.
  - `action` is the definition statement:
    - ADD to add a physical or logical unit
    - DELETE to delete a physical or logical unit
    - MOVE to move a physical unit and its associated LUs.
  - `resource` is the name of the physical unit or logical unit affected by the definition statement.
  - `toname` is the name of the line to which the PU is being moved or added, or the name of the PU to which the LU is to be added. `toname` is only displayed when `action` is `MOVE` or `ADD`.
  - `fromname` is the name of the line from which the PU is being moved or deleted, or the name of the PU from which the LU is being deleted. `fromname` is only displayed when `action` is `MOVE` or `DELETE`.

- **IST523I**
  This message explains the reason for the failure. Possible values of `reason` are explained later in this message explanation.

- **IST368I**
  This message names the specific definition statement in the dynamic reconfiguration data set that failed.
  `functiongroup` is the name on the ADD, DELETE, or MOVE definition statement in the VARY DRDS deck of the specific definition statement that failed.

• **VARY ACT command**

```
IST886I VARY ACT [statementname] action resource [TO toname] [FROM fromname] FAILED
IST523I REASON = reason
```

- **IST886I**
  - `commandinfo` is always `VARY ACT` for this message group.
  - `statementname` is the major node name which was specified on the ID operand of the VARY ACT command.
  - `action` is the action being performed when the failure occurred:
    - ADD to add a resource
    - CHANGE to change an operand value
    - DELETE to delete a resource
    - MOVE to move a physical unit and its associated LUs or to move a logical unit
  - `resource` is the name of the resource affected by the command.
  - `toname` is the name of the higher level resource to which the resource is being moved or added. `toname` is only displayed when `action` is `MOVE` or `ADD`.
  - `fromname` is the name of the higher level resource from which the resource is being moved or deleted. `fromname` is only displayed when `action` is `MOVE` or `DELETE`.

- **IST523I**
  This message explains the reason for the failure. Possible values are:

The second message in each message group is IST523I, and this message explains the reason for the failure. `reason` can be one of the following:

**DUPLICATE STATION ID**

An attempt was made to perform a DR CHANGE of IDBLK or IDNUM for a switched PU, but the resulting station ID was not unique in the network.

**DR DELETE INVALID FOR INDEPENDENT LU**

An attempt was made to perform a DR DELETE on an independent LU which is not associated to the adjacent link station specified on the FROM operand. This is not a valid request.
DR NOT SUPPORTED
An attempt was made to perform a DR function for a resource that does not support DR or this function of DR.

INSUFFICIENT STORAGE
VTAM was unable to allocate storage during a DR operation.

INVALID MACRO
A definition statement was read that is not a valid member in this type of definition deck. For example, a GROUP definition statement is not a valid member in a DR deck.

INVALID NAME
functiongroup is invalid for the PU or LU definition statement.

INVALID PARAMETER
An operand was found in a definition statement that is not valid or allowed.

INVALID RESOURCE CURRENT STATE
An attempt was made to move, delete, or change a resource whose current state will not allow it. This error occurs because the resource is not in an inactive, reset, release, or defined state. Also, a model CDRSC must not have clone CDRSCs associated with it.

Note: This reason can be issued for an active minor node when a VARY ACT,UPDATE=ALL command is entered for that resource's major node. This is probably not a definition error and usually requires no action. The most frequent cause is that an operand on a definition statement for the minor node resource in message IST886I was changed using a VTAM command such as VARY LOGON, VARY NOLOGON, or MODIFY DEFAULTS before the VARY ACT,UPDATE=ALL command was entered for the major node. This occurs only when action in message IST886I is CHANGE. See z/OS Communications Server: SNA Operation for additional information about these commands.

INVALID RESOURCE TYPE
An attempt was made to move or delete a resource for which dynamic reconfiguration is not allowed. DR ADD, DELETE and MOVE may be performed for SNA type 1, 2, or 2.1 PUs and their subordinate LUs, as well as for dependent LUs and some independent LUs.

INVALID TO/FROM RESOURCE TYPE
An attempt was made to add, delete, or move a resource to or from a target resource that does not allow dynamic reconfiguration. DR ADD is allowed to lines and PUs. DR DELETE is allowed from lines and PUs. DR MOVE is allowed both to and from lines and PUs.

INVALID VALUE
An operand on a definition statement was found to have a coded value that is invalid for this operand.

INVALID VALUE FOR ADDR
The value coded in a PU definition statement for the ADDR operand was found to be a duplicate of a PU ADDR already under the target line.

LUGROUP CANNOT BE ADDED DYNAMICALLY
An attempt was made to dynamically add the LUGROUP operand to a PU definition statement. However, VTAM cannot add this operand using dynamic change. If you need to add this operand, use dynamic reconfiguration to delete the PU and then add it back with LUGROUP in the definition.

MACRO SEQUENCE ERROR
A DR definition deck contained definition statements that were out of sequence. Line targets must be followed by PUs; PU definition statements must be followed by LUs. PU definition statements must follow additions to lines, moves to lines, moves from lines, and deletions from lines. LU definition statements must follow additions to PUs, moves to PUs, and deletions from PUs.

MISSING MACRO
A DR definition deck was missing a definition statement. VBUILD definition statements are required. Null definition decks are invalid (a VBUILD definition statement with nothing following). Null function groups are invalid (a function group with no PU or LU definition statements).

MISSING NAME ON PU OR LU MACRO
A PU or LU definition statement in a DR definition deck did not have a name coded. The name is required on all PU and LU resources being added, deleted, or moved.
MISSING PARAMETER
A definition statement in a DR definition deck did not contain a required operand.

NO RESOURCES FOUND UNDER FROM LINE/PU
The line or PU resource for which a DR DELETE or DR MOVE function was requested had no resources under it.

OPERANDS COULD NOT BE ADDED DYNAMICALLY
An attempt was made to dynamically add APPN operands to a PU, but these APPN operands cannot be added dynamically to this PU. Instead, use dynamic reconfiguration to delete the PU and then add it back with the desired APPN operands in the definition.

PUDR=NO OR LUDR=NO CODED ON RESOURCE DEFINITION
An attempt was made to dynamically delete or move a resource that had either PUDR=NO or LUDR=NO coded on its definition statement. PUDR=NO or LUDR=NO indicates that no dynamic reconfiguration can be performed on the resource.

PUTYPE CANNOT BE CHANGED DYNAMICALLY
An attempt was made to change the value of PUTYPE on the specified resource.

RESOURCE NOT FOUND WHERE SPECIFIED
An attempt was made to delete or move a resource that does not exist under the specified target fromname.

SYNTAX ERROR
There is a syntax error in the DR definition deck.

TO/FROM RESOURCE NOT IN SAME NCP
An attempt was made to DR move a PU or LU from a line in an NCP to a line in a different NCP.

TO/FROM RESOURCE UNKNOWN
An attempt was made to add or move a resource to a target that does not exist or to delete or move a resource from a target that does not exist.

UPDATE=ALL REQUIRED - UPDATE=ADD VIOLATES HIERARCHY
An attempt was made to update an Enterprise Extender XCA major node with a VARY ACT,UPDATE=ADD command after one of the following changes was made to the definitions:
• A second PU was added under a LINE
• A PU name was changed
• The PU prefix was added or changed on the AUTOGEN keyword on a GROUP definition statement.

System action:
• For MODIFY DR, processing of that command is terminated.
• For VARY DRDS, the functiongroup specified in message IST368I is not processed. Any other function groups in the DR data set drname are processed.
• For VARY ACT, this resource and its subordinate resources are skipped, but the remaining definition statements are processed.

Operator response: Enter a DISPLAY command for resource in message IST886I. Save the system log for problem determination.

If reason is INSUFFICIENT STORAGE, enter the DISPLAY BFRUSE or DISPLAY STORUSE command. Save the system log and request a dump for problem determination.

If reason is UPDATE=ALL REQUIRED - UPDATE=ADD VIOLATES HIERARCHY, do the following:
• If a second PU was added under a LINE, remove the second PU from the definitions. There can only be one PU defined per LINE.
• If a PU name was changed, re-enter the VARY ACT command with UPDATE=ALL instead of UPDATE=ADD.
• If the PU prefix was added or changed on the AUTOGEN keyword on a GROUP definition statement, re-enter the VARY ACT command with UPDATE=ALL instead of UPDATE=ADD.

System programmer response: Use the output from the operator to correct the command issued and the definition statements (if appropriate).

If reason is INSUFFICIENT STORAGE, increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA start options. If the start option cannot be modified using the
MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

- See the z/OS Communications Server: New Function Summary to determine the storage requirements for VTAM.
- See the z/OS Communications Server: SNA Resource Definition Reference for a description of VTAM start options.
- See z/OS Communications Server: SNA Operation for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- See z/OS Communications Server: SNA Network Implementation Guide for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
- See z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

Routing code: 2
Descriptor code: 5

---

**IST887I • NO COS TABLE FOR netid — text MAY BE USED**

**Explanation:** In response to a DISPLAY COS command for a PU type 4 or PU type 5 (identified in a previous message), VTAM attempted to display the class of service (CoS) table for network netid. For a PU type 4, the CoS table for netid was never defined on either a BUILD or NETWORK definition statement for the PU.

IF DISPLAY COS,NETID=*NETWORK is entered, this message is issued for the model network if no COSTAB keyword was coded on the model network statement. If COSTAB was coded on the model network statement, VTAM issues message IST882I.

text can be one of the following:

**ISTSDCOS**
ISTSDCOS, the default Class of Service table, may be used to identify the virtual routes to be used in network netid.

**DEFAULT ALGORITHM**
The default Class of Service table, ISTSDCOS, was not loaded either during VTAM initialization or by a subsequent MODIFY TABLE command. The default algorithm may be used to identify the virtual routes for use in network netid.

See the z/OS Communications Server: SNA Network Implementation Guide for information about the default routing algorithm, defining Class of Service tables, and Class of Service resolution. See the z/OS Communications Server SNA Resource Definition Reference for an explanation of the COSTAB operand on the BUILD and NETWORK definition statements.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

Routing code: 2
Descriptor code: 5

---

**IST888I • ADDR + LENGTH VALUES EXCEED STORAGE — LENGTH SET TO n**

**Explanation:** VTAM issues this message in response to a DISPLAY NCPSTOR,TYPE=DUMPVEC command. The requested area of NCP storage is greater than can be displayed. The length of the display has been modified to n.

**System action:** The command will be executed with the modified length.

**Operator response:** None.

**System programmer response:** None.

Routing code: 2
Descriptor code: 5
IST889I • IST891I

**IST889I**

**SID = sessionid**

**Explanation:** This message is part of a message group. The first message in the group is either IST663I or IST1774I. See the explanation of that message for a complete description.

**Routing code:** 8  
**Descriptor code:** 4

**IST890I**

**AUTOLOGON SESSION SETUP FAILED**

**Explanation:** VTAM issues this message as part of a group of messages. The first message in the group is IST663I. See the explanation of that message for a complete description.

**Routing code:** 2  
**Descriptor code:** 5

**IST891I**

`netid.nodename1[nodename2]` **GENERATED FAILURE NOTIFICATION**

**Explanation:** VTAM issues this message as part of a subgroup of messages to provide extended sense data when a session initiation or session termination failure occurs. This message subgroup is displayed in a message group headed by IST663I.

A complete description of the message subgroup follows.

IST891I `netid.nodename1[nodename2]` GENERATED FAILURE NOTIFICATION  
IST892I [resourcename ORIGINATED FAILURE NOTIFICATION]  
IST893I ORIGINAL FAILING REQUEST IS `request`

- `netid.nodename1` is the network-qualified name of the NCP, CP, or SSCP that detected the error.
- `nodename2`, if displayed, is the name of the NCP or physical unit that generated extended-sense data in one of the following situations:
  - When a failure request/response was received from an adjacent migration SSCP.
  - After collecting failure notification from one or more adjacent SSCPs during trial and error routing.

**IST892I**

If displayed, this message identifies a related resource (`resourcename`) used to identify the source of the error.

For example, if a gateway NCP rejected an RNAA or SETCV request, the gateway NCP name originated the failure notification. The SSCP that received the negative response is the one that generated the failure notification; therefore, it originated the termination procedure.

**IST893I**

If displayed, this message identifies the request that was failed by the source of the error.

`request` identifies the original request that failed. For example, if a gateway NCP rejected an RNAA or SETCV request as part of CDINIT processing, `request` would be `RNAA`.

**System action:** Session setup processing fails.

**Operator response:** Save the system log for problem determination.

**System programmer response:** Coordinate the debugging of the problem with the system programmer responsible for the originating termination procedure.

See IST663I for additional information. See *SNA Network Product Formats* for a description of the extended sense data (`X'35'`) control vector.

**Routing code:** 8  
**Descriptor code:** 4
IST892I  resourcename ORIGINATED FAILURE NOTIFICATION

Explanation: This message is part of a message subgroup. The first message of the subgroup is IST891I. See the explanation of that message for a complete description.

Routing code: 8
Descriptor code: 4

IST893I  ORIGINAL FAILING REQUEST IS request

Explanation: This message is part of the message subgroup. The first message of the subgroup is IST891I. See the explanation of that message for a complete description.

Routing code: 8
Descriptor code: 4

IST894I  ADJSSCPs TRIED FAILURE SENSE ADJSSCPs TRIED FAILURE SENSE

Explanation: VTAM issues this message as part of a subgroup of messages to provide adjacent SSCP table information in response to a DISPLAY SSCPREF,SID command or when a session initiation fails for either of the following reasons:

- Trial and error routing using an adjacent SSCP table has failed. The destination LU was found by an SSCP, but that sscpname rejected the session initiation with sense.
- Trial and error routing using an adjacent SSCP table has exhausted the table. All adjacent SSCPs were tried, but the destination LU was not known to any of the SSCPs.

This message subgroup is displayed in a message group headed by IST663I or IST1531I. A complete description of the message subgroup follows.

IST894I  ADJSSCPs TRIED FAILURE SENSE ADJSSCPs TRIED FAILURE SENSE

IST895I  sscpname sense  [sscpname sense]

IST894I  This message is a header message for information displayed in message IST895I.

IST895I  This message lists the names of the adjacent SSCPs through which trial and error routing was attempted. The SSCP names appear in the order in which they were tried.

sscpname is the name of the adjacent SSCP.

If sscpname is ISTAPNCP, this is an entry specified in the ADJSSCP table and represents a search of the APPN network. See the z/OS Communications Server: SNA Network Implementation Guide for more information.

sense is the sense code and indicates the cause of the failure. See the z/OS Communications Server: IP and SNA Codes for a description of sense.

System action: The session setup failed.

Operator response: Save the system log for problem determination and provide the files used for system definition.

System programmer response: Use the output and system definition files provided to assist in determining the cause of the problem. (You may need to work with system programmers in other networks to determine the adjacent SSCP tables used in another network to define the system.)

Routing code: 8
Descriptor code: 4
IST895I • IST899I

IST895I  sscpname sense [sscpname sense]

Explanation: This message is part of a message subgroup. The first message of the subgroup is IST894I. See the explanation of that message for a complete description.

Routing code: 8
Descriptor code: 4

IST896I  AUTOLOGON WILL BE RETRIED WHEN CONTROLLING PLU IS AVAILABLE

Explanation: VTAM issues this message when an automatic logon (autologon) session initiation fails because the controlling PLU is not available. The initiate request generated by an autologon has requested notification when the specified resource becomes available. When the resource becomes available, notification will occur (see message IST899I), and the autologons will be re-attempted.

System action: The session setup fails.

Operator response: If the problem is with the SSCP-controlling PLU session, start the controlling PLU (SETLOGON START). You may need to work with a network operator in another domain or network when the controlling PLU does not reside in your domain.

System programmer response: None.

Routing code: 2
Descriptor code: 5

IST897I  [NONDISRUPTIVE] LOAD OF ncpname [WITH loadmodname] STARTED

Explanation: VTAM is initiating a load or nondisruptive load of communications controller ncpname with NCP load module loadmodname. loadmodname is included in the message when the load module name differs from ncpname.

System action: The communication controller is being loaded.

Operator response: None.

System programmer response: None.

Routing code: 2
Descriptor code: 5

IST898I  GWSELECT = {YES | NO}

Explanation: VTAM issues this message in response to a DISPLAY ID command for a cross network CDRM. This message indicates whether the host CDRM will perform gateway NCP selection when processing an LU-LU session request to or from the displayed CDRM.

A value of YES indicates that gateway NCP selection will be performed by the host CDRM.
A value of NO indicates that gateway NCP selection will not be performed by the host CDRM.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 8
Descriptor code: 5

IST899I  RETRY OF AUTOLOGON(S) TO pluname {action}

Explanation: VTAM issues this message when a previous automatic logon (autologon) attempt failed because a resource required for an autologon session setup was not available. IST896I is issued prior to this message and indicates that the autologon will be tried again when the resource becomes available.

pluname is the network-qualified name of the resource.
**IST919I • IST920I**

*action* indicates how the system will handle the autologon attempt.

**IN PROGRESS**
Indicates that the retry of autologons to *pluname* is in progress. Either a controlling PLU was started or an SSCP-SSCP or CP-CP session has become available. Autologons that previously failed because a resource was not available are being tried again.

**WILL NOT OCCUR**
Indicates that the retry of autologons will not occur if notification was received for the deactivation of the CDRM.

**FOR AUTOTI**
A retry will be attempted for a controlling PLU whose timer, set by START option AUTOTI, has expired.

**System action:**  Processing continues.

**Operator response:**  None.

**System programmer response:**  None.

**Routing code:**  2

**Descriptor code:**  5

**IST919I**

**NODE nodename NO LONGER HAS CONTROLLING LU [luname]**

**Explanation:**  Processing of the VARY NOLOGON command has been completed. Node *nodename* will no longer be automatically logged on to *luname* when *nodename* is not in session with or queued for a session with another PLU. *luname* may or may not be included depending on how the LU is specified in the NOLOGON command.

**System action:**  Processing continues.

**Operator response:**  None.

**System programmer response:**  None.

**Routing code:**  2

**Descriptor code:**  5

**IST920I**

**bpid [Q] [F] BUFF SIZE bufsize EXP INCREMENT increment**

**Explanation:**  This message is the first in a subgroup of messages that VTAM issues in response to a DISPLAY BFRUSE command. A complete description of the message subgroup follows.

**IST350I**  **DISPLAY TYPE = BUFFER POOL DATA**
**IST920I**  **bpid [Q] [F] BUFF SIZE bufsize EXP INCREMENT increment**
**IST921I**  **TIMES EXP times EXP/CONT THRESH exp/contthresh**
**IST922I**  **CURR TOTAL curtot CURR AVAILABLE curavail**
**IST923I**  **MAX TOTAL maxtot MAX USED maxused**
**[IST989I]  **EXP LIMIT explimit BUFFS REQUESTED buffers**
**[IST924I]  **---------------------------------------------------------------

This message subgroup is repeated for each of the VTAM buffer pools specified with the BUFFER option.

**IST920I**

- *bpid* is the name of the buffer pool. See the [z/OS Communications Server: SNA Network Implementation Guide](http://www.ibm.com/support/docview.wss?uid=swg21288838) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
  - *Q*, if present, indicates a request is queued for the pool. This field is usually blank.
  - *F*, if present, indicates dynamic buffering has failed. This field is usually blank.

- *bufsize* is a decimal value that indicates the number of bytes in each buffer.
  - For IOBUF an overhead value has been added to the *bufsize* value in this message. See the [z/OS Communications Server: SNA Resource Definition Reference](http://www.ibm.com/support/docview.wss?uid=swg21288838) for more information about buffer pool sizes.

- *increment* indicates the number of buffers to be added to the pool during dynamic expansion.
Buffers are added in full pages; therefore, the number may be larger than the number (\textit{xpanno}) used to define the buffer pool in the buffer pool's start option. This field will contain \textit{*NA*} if dynamic buffering is suppressed.

\textbf{IST921I}

- \textit{times} indicates the number of times the pool has been expanded since the last buffer pool trace record was written.
- \textit{exp} indicates when to trigger expansion, and is derived from the buffer pool start option's \textit{xpanlim} parameter.
  
  If the number of buffers available falls below \textit{xpnt}, VTAM adds buffers. This field will contain \textit{*NA*} if dynamic buffering is suppressed. Note that this may have happened because the pool expansion limit (\textit{xpanlim}) is less than or equal to the base number of buffers (the \textit{baseno} specified in the buffer pool's start option).

- \textit{contthresh} is a value that indicates when to trigger contractions.
  
  If the number of available buffers in the pool (\textit{curavl}) becomes larger than \textit{contthresh} and some of the buffers have been dynamically obtained via pool expansion, VTAM will return available dynamically obtained buffers to the operating system. For an available buffer to be released, all buffers on the page must be available, since buffers are released by page. If there are no dynamically obtained buffers, this field will contain \textit{*NA*}.

\textbf{IST922I}

\textit{curtot} indicates the total number of buffers in the pool.

\textit{curavail} indicates the available buffers in the pool that are not in use.

\textbf{IST923I}

\textit{maxtot} indicates the maximum number of buffers contained in the pool at any one time since the last buffer pool trace record was written.

\textit{maxused} indicates the maximum number of buffers that have been in use at one time since the last buffer pool trace record was written.

\textbf{IST989I}

- This message is issued if the expansion failed or requests are queued. Message IST989I is always issued for the IO00 pool. It is only issued for the other pools if \textit{Q} is present.
- \textit{explimit} indicates the maximum number of buffers allowed for this buffer pool.
  
  It is derived from the \textit{xpanlim} value specified on the buffer pool's start option when VTAM was started. If the \textit{xpanlim} value is not specified, VTAM will use the maximum number of buffers in available storage. The value displayed is the maximum addressable storage of 2147483647. This field will contain \textit{*NA*} if dynamic buffering is suppressed.

- \textit{buffers} indicates the total number of buffers requested for all outstanding queued requests. This field will be zero if no queued requests exist.

\textbf{Note:} VTAM may issue an additional message subgroup with this group of messages. See the explanation of message IST449I for a complete description of this subgroup.

\textbf{System action:} Processing continues.

\textbf{Operator response:} None.

\textbf{System programmer response:} None.

\textbf{Routing code:} 2

\textbf{Descriptor code:} 5

\textbf{IST921I TIMES EXP \textit{times} EXP/CONT THRESH \textit{exp/contthresh}}

\textbf{Explanation:} VTAM issues this message as part of a message group. The first message in the group is IST920I. See the explanation of that message for a complete description.

\textbf{Routing code:} 2

\textbf{Descriptor code:} 5
IST922I  CURR TOTAL curtot CURR AVAILABLE curavail

Explanation: This message is part of a message group. The first message in the group is IST920I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST923I  MAX TOTAL maxtot MAX USED maxused

Explanation: This message is part of a message group. The first message in the group is IST920I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST924I  -------------------------------------------------------------

Explanation: This message is a line separator and is part of several different message groups. It is used to improve readability or to separate types of information. See the explanation of the first message in the group for an example of how this message is used in each group.

Routing code: 2
Descriptor code: 5

IST925I  DYNAMIC PATH DEFINITION pathname STATUS = status

Explanation: VTAM issues this message in response to a DISPLAY ID command for an NCP, for which a dynamic path definition exists, or for a host PU, for which a normal PATH deck or a dynamic path definition exists. Message IST925I is issued once for each path name in the dynamic path definition showing the path name pathname and its status.

status can be any of the following:

RESET The initial state
DEFND The path information has been processed by the system
PLOAD The dynamic path update member (NCPPATH) is being loaded
ACTIV The path table or dynamic path update member is active, that is, loaded.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST926I  PATH FOR pathname IGNORED — NODE nodename NOT FOUND/INVALID

Explanation: VTAM issues this message in response to an error during the processing of one of the following commands:
- VARY ACT,ID=ncpname where a NEWPATH operand is found during processing of the PCCU definition statement
- VARY ACT,ID=ncpname,NEWPATH=pathname
- VARY ACT,ID=pathname

During activation of the dynamic path update set that includes pathname, the resource nodename either could not be found or was not valid.
IST927I

System action: The dynamic path update of pathname is ignored. Processing of the dynamic path update set that includes pathname continues.

Operator response: None.

System programmer response: None.

Routing code: 2

Descriptor code: 5

IST927I  ERROR FOR ncpname.pathname  DSA  destsubarea  text  CODE  code

Explanation: VTAM issues this message in response to an error during the processing of one of the following commands:

- VARY ACT,ID=ncpname where a NEWPATH operand is found during processing of the PCCU definition statement
- VARY ACT,ID=ncpname,NEWPATH=pathname
- VARY ACT,ID=pathname

During activation of the dynamic path update set that includes pathname, a negative response was received from the SETCV RU request to NCP ncpname.

The destination subarea (DSA) is indicated by destsubarea.

The combination of text and code indicates the cause of the error.

- If text is ERN ern, possible codes include:
  
  **CODE 2**
  Control block allocation failed for explicit route number ern.
  You probably need to increase one of the following:
  - TGBXTRA, PATHEXT, or VRPOOL rows value in the NCP BUILD.
  - TGBXTRA or PATHEXT or both on the NETWORK definition statement.

  See NCP, SSP, and EP Resource Definition Reference SC31-6224 for guidelines on coding TGBXTRA, PATHEXT, and VRPOOL in the BUILD definition statement, or TGBXTRA and PATHEXT in the NETWORK definition statement.

  **CODE 3**
  Explicit route number ern is currently operative.

  **CODE 10**
  Adjacent subarea specified for explicit route number ern is larger than SALIMIT.

  **CODE 11**
  Explicit route number ern conflicts with ERLIMIT.

- If text is NETID netid, possible codes include:

  **CODE 1**
  Network ID netid is invalid.

  **CODE 2**
  Control block allocation failed for network ID netid.
  You probably need to increase one of the following:
  - TGBXTRA, PATHEXT, or VRPOOL rows value in the NCP BUILD.
  - TGBXTRA or PATHEXT, or both, on the NETWORK definition statement.

  See NCP, SSP, and EP Resource Definition Reference SC31-6224 for guidelines on coding TGBXTRA, PATHEXT, and VRPOOL in the BUILD definition statement, or TGBXTRA and PATHEXT in the NETWORK definition statement.

  **CODE 8**
  Messages for the rejected ER, VR or VRPWS subfields in network ID netid follow.
DESTINATION SUBAREA IS LARGER THAN SALIMIT SPECIFIED FOR THE NETWORK ID netid.

- If text is VRN/ERN vrn/ern, possible codes include:

  CODE 4
  Virtual route number vrn is mapped to an undefined explicit route number ern.

  CODE 5
  Virtual route number vrn is mapped to a different explicit route (not ern).

  CODE 11
  Virtual route number vrn is mapped to an explicit route number ern that conflicts with ERLIMIT.

- If text is VRN/TPF vrn/tpf, possible codes include:

  CODE 2
  Control block allocation failed for virtual route number/transmission priority field vrn/tpf.
  You probably need to increase one of the following:
  - TGBXTRA, PATHEXT, or VRPOOL rows value in the NCP BUILD.
  - TGBXTRA or PATHEXT or both on the NETWORK definition statement.

  See NCP, SSP, and EP Resource Definition Reference SC31-6224 for guidelines on coding TGBXTRA, PATHEXT, and VRPOOL in the BUILD definition statement, or TGBXTRA and PATHEXT in the NETWORK definition statement.

  CODE 6
  No corresponding virtual route (VR) exists in that path definition for virtual route number/transmission priority field vrn/tpf.

  CODE 7
  Virtual route number/transmission priority field vrn/tpf is already active.

See the z/OS Communications Server: SNA Resource Definition Reference for the correct use of VTAM operands on NCP definition statements. See the z/OS Communications Server: SNA Network Implementation Guide for an explanation of dynamic path update.

System action: The dynamic path update of pathname is ignored. Processing of the dynamic path update set that includes pathname continues.

Operator response: Save the system log for problem determination.

System programmer response: Correct the dynamic path update set and try the failed command again.

Routing code: 2
Descriptor code: 5

IST928I DELETER KEYWORD FOR pathname IGNORED

Explanation: This message is the first in a group of messages that VTAM issues in response to the following commands:
- VARY ACT,ID=ncpname where a NEWPATH operand is found during processing of the PCCU definition statement
- VARY ACT,ID=ncpname,NEWPATH=pathname
- VARY ACT,ID=pathname

A complete description of the group follows.
IST928I DELETER KEYWORD FOR pathname IGNORED
IST523I REASON = reason

During processing of the VARY command, a DELETER=ern operand was encountered in the dynamic path update set that includes pathname.

pathname refers to the label that is in error in the PATH definition statement (***NA*** if no label exists).

reason is one of the following:
DEST SUBAREA destsa INVALID
   The dynamic path update set that includes pathname is ignored because the destsa name is not valid.

ER ern IS OPERATIVE
   Explicit route ern is currently operative and cannot be deleted.

ER ern NOT FOUND
   The explicit route ern is not found and cannot be deleted.

System action: The dynamic path update of pathname is ignored. Processing of the dynamic path update set that includes pathname continues.

Operator response:

ER IS OPERATIVE
   The ER route definition in VTAM/NCP can be replaced or deleted only if the explicit route is inoperative (a status of INOP).

Deactivate the physical elements and links in the route.

System programmer response:  None.

Routing code: 2

Descriptor code: 5

IST929I  LOAD OF DYNAMIC PATH DEFINITION ncpname.pathname COMPLETE

Explanation: VTAM issues this message in response to one of the following commands:

- VARY ACT,ID=ncpname where a NEWPATH operand is found during processing of the PCCU definition statement
- VARY ACT,ID=ncpname,NEWPATH=pathname
- VARY ACT,ID=pathname,

The load of NCP ncpname with the dynamic path update set that includes pathname is complete.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2

Descriptor code: 5

IST930I  nodename1 — nodename2 SESSION USING percentage OF bpBUF

Explanation: VTAM detected that the session indicated is using 10 percent or greater of the bpBUF buffer pool.

Note: This message is percolated. See "Message rerouting and percolation" on page 1106 for additional information. nodename1 and nodename2 are the session partners for the session using the indicated percentage of the pool. If VTAM does not know a node name, the node ID is presented in the form subarea\element, where subarea is the subarea portion of the network address and \element is the element portion of the network address. Both subarea and \element addresses are given in decimal form.

bpBUF is the name of the buffer pool.

percentage is the percentage of this buffer pool used by this session.

If the session between nodename1 and nodename2 is using a large percentage of the buffer pool, one of the following conditions probably exists:

- Either nodename1 or nodename2 is malfunctioning. This could be a hardware, microcode, or application program error that causes VTAM to be flooded with data.
- Neither nodename1 nor nodename2 is malfunctioning, but a large amount of data is being transmitted on this session with no pacing in effect.
A resource with many sub-resources is being activated or deactivated. This requires a large concurrent number of I/O buffers.

The maximum size of the I/O buffer pool has been defined too small or the maximum amount of CSA that VTAM is allowed to obtain is too small. These are the expansion limit parameters on the IOBUF start option and the CSALIMIT start option.

System action: Message IST154I, IST1098I, or IST1099I is displayed with this message.

- If message IST154I is displayed, the buffer pool is not expanded at this time. When more storage becomes available, VTAM may try again to expand the buffer pool. VTAM may be adversely affected by this failure to obtain more buffers.
- If message IST1098I or IST1099I is displayed, processing continues.
  - If the session is an SSCP-LU session, then the LU is deactivated, and message IST1098I is displayed.
  - If the session is an SSCP-PU session and the PU is a PU other than an NCP, then the PU is deactivated and message IST1098I is displayed. Since activation or deactivation of large NCPs can cause situations where large number of I/O buffers are properly in use and NCPs are not known to cause HOT I/O situations, NCP PUs will not be automatically activated.
  - If the session is an LU-LU session (including CP-CP) then the session is terminated, and message IST1099I is displayed.

Once VTAM has determined that a session is using greater than 10 percent of the buffer pool, a determination is made whether to automatically terminate the session or deactivate the LU. If the percentage is greater than or equal to the HOTIOTRM start option value, and the session type is LU-LU, VTAM initiates termination of all the sessions between nodename1 and nodename2. VTAM issues message IST1099I when sessions are automatically terminated. If the percentage is greater than or equal to the HOTIOTRM start option value, and the session type is SSCP-LU or SSCP-PU (and the PU is not an NCP), VTAM initiates inactivation of the LU or PU. VTAM issues message IST1098I when automatic inactivation has been initiated.

Operator response:

- If it appears that the problem is caused by a malfunctioning device LU, try to deactivate the device using the VARY INACT command. In extreme cases, you might have to physically disconnect or power off the device.
- If it appears that the problem is caused by a malfunctioning PU and that PU was not automatically deactivated (HOTIOTRM was not specified), try to deactivate the device using the VARY INACT command. In extreme cases, you might have to physically disconnect or power off the device.
- If it appears that the problem is caused by an activation or deactivation of an NCP or other PU, an attempt can be made to reactivate the PU SCOPE=ONLY. Once the PU is active, each line can then be VARYed ACTive. Activating resources in this order, will lesson the peak demand for I/O buffers.
- If VTAM continues to issue this message, enter the DISPLAY BFRUSE command. Save the system log and request a dump for problem determination.

System programmer response:

- Ensure that session pacing is in effect for the session using the largest percentage of the buffer pool. The BIND request unit contains the values used for each session. See the z/OS Communications Server: SNA Network Implementation Guide for more information about session pacing.
- If message IST154I is displayed before this message, and the session between nodename1 and nodename2 is not using a large percentage of the buffer pool, the size of the buffer pool was probably underestimated.
- If message IST154I was issued, use the explanation of code in that message to determine which buffer pool you need to modify.
- You might want to redefine your buffer pool or CSA start options. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.
- If you want VTAM to automatically terminate these sessions, specify the HOTIOTRM start option with a value that is less than or equal to percentage. This start option can be modified using the MODIFY VTAMOPTS command.
- For additional information, see:
  - The z/OS Communications Server: SNA Network Implementation Guide for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
  - The z/OS Communications Server: SNA Resource Definition Reference for more information on the HOTIOTRM start option and other VTAM start options.
**IST931I • IST932E**

- The [z/OS Communications Server: SNA Operation](https://www.ibm.com) for information about the DISPLAY BFRUSE command, the
  DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- The [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](https://www.ibm.com) for information about
  analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

**Routing code:** 2  
**Descriptor code:** 5

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**IST931I**  
**SYMPTOM STRING = symptomstring**

**Explanation:** VTAM issues this message to display a symptom string when VTAM recovers from an ABEND. VTAM
repeats this message until the entire `symptomstring` is displayed and then issues message IST314I to end the message

`symptomstring` is the result of a VTAM ABEND and describes the ABEND in question. `symptomstring` contains
`AB/xxxxx` and `RIDS/xxxxxxxx#R` or `#L`.
- If the RIDS element contains a #R, this is the name of the recovery module.
- #L identifies the failing load module.

**System action:** Processing continues.

**Operator response:** Message IST413I may also be displayed and can provide additional information. Save the
system log for problem determination. For more information on interpreting symptom strings, see the ABEND
Procedure in [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](https://www.ibm.com)

**System programmer response:** Use the information in the system string and message IST413I, if displayed, to assist
you in determining the cause of the problem.

**Routing code:** 8  
**Descriptor code:** 4

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**IST932E**  
**FAILURE OCCURRED DURING TAKEOVER OF luname, SENSE= sense**

**Explanation:** While processing a BFSESSINFO RU during SSCP takeover of LU luname, VTAM was unable to record
the addresses associated with a session.

See the [z/OS Communications Server: IP and SNA Codes](https://www.ibm.com) for a description of `sense`.

**System action:** Sessions associated with LU `luname` are terminated.

**Operator response:**
- Deactivate and reactivate the PU.
- If insufficient storage is a frequent problem, enter a DISPLAY BFRUSE or DISPLAY STORUSE command. Save the
  system log and request a dump for problem determination.

**System programmer response:** Verify that the operator entered the buffer pool or CSA start options as specified in
the start procedures.

Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA
limits. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM
start options file (ATCSTRxx) and restart VTAM to use the start option.
- See the [z/OS Communications Server: New Function Summary](https://www.ibm.com) to determine the storage requirements for VTAM.
- See the [z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com) for a description of VTAM start options.
- See [z/OS Communications Server: SNA Operation](https://www.ibm.com) for information about the DISPLAY BFRUSE command, the
  DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- See the [z/OS Communications Server: SNA Network Implementation Guide](https://www.ibm.com) for an explanation and description of
  buffer pools and for general information on buffer pool specification and allocation.
- See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](https://www.ibm.com) for information about
  analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

**Routing code:** 2  
**Descriptor code:** 3
IST933I  LOGMODE=logmode, COS=cosentry [(FROM OLU)]

Explanation: This message is part of a message group. See the explanation of message IST879I or IST1489I for a complete description of the message group.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2

Descriptor code: 5

IST934I  DLOGMOD=dlogmode USS LANGTAB=langtab

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY ID command for an application minor node or LU.

dlogmode is the default logon mode to be used by the resource if a logon mode name is not provided for a session initiation request. If no default logon mode was specified, VTAM issues ***NA*** for dlogmode.

langtab is the name of the language table defined for this LU. If no value was specified for langtab or if the DISPLAY ID command was not entered for an LU, VTAM issues ***NA*** for langtab.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2

Descriptor code: 5

IST935I  ORIGIN=ncpname, NETID=netid, ID=resourcename

Explanation: VTAM issues this message as part of a group of messages. The first message in the group is IST863I. See the explanation of that message for a complete description.

Routing code: 2

Descriptor code: 5

IST936I  ANSWER MODE = answermode

Explanation: This message displays the direction (or state) of a line.

answermode can be one of the following:

RESET
  Initial state (for example, the line is not active).

ENABLED
  The specified line is accepting incoming calls.

DISABLED
  The specified line is not accepting incoming calls.

PENDING DACTCONNIN RESPONSE
  A response for a DACTCONNIN RU to disable the specified line from accepting incoming calls is pending.

NEGATIVE DACTCONNIN RESPONSE
  A negative response for a DACTCONNIN RU to disable the specified line from accepting incoming calls was received.

PENDING ACTCONNIN RESPONSE
  A response for an ACTCONNIN RU to enable the specified line to accept incoming calls is pending.
NEGATIVE ACTCONNIN RESPONSE
A negative response for an ACTCONNIN RU to enable the specified line to accept incoming calls was received.

System action: Processing continues.
Operator response: If `answermode` is NEGATIVE ACTCONNIN RESPONSE, save the system log for problem determination.
For all other values of `answermode`, no response is necessary.
System programmer response: If `answermode` is NEGATIVE ACTCONNIN RESPONSE, verify that the configuration is valid and that the NCP responded correctly. This can be determined by referring to the NCP generation and matching the line name with what was generated.

Routing code: 2
Descriptor code: 5

IST937A loadmodname CORRELATOR MISMATCH correlator1 — correlator2 REPLY ‘RELOAD’, ‘INACT’, OR ‘IGNORE’

Explanation: During the activation of NCP load module `loadmodname`, the generated correlator `correlator1` did not match the correlator `correlator2` loaded in the communication controller.
VFYC=YES was specified in the NCP’s PCCU definition statement. The operator may, therefore, reload the communication controller, terminate the activation, or ignore the mismatch.
System action: Processing continues. Message IST937A is reissued until a correct response is entered.
Operator response: Reply ‘RELOAD’ to reload the communication controller. Other VTAMs sharing the communication controller will be affected when it is reloaded.
Reply ‘INACT’ to terminate the activation of the communication controller. This will result in a load module mismatch between the load module that is active for this VTAM and the load module that is active for another VTAM that is sharing the same communication controller.
Reply ‘IGNORE’ to ignore the mismatch and continue activation. However, the mismatch may be a user error and ignoring it could lead to potential problems.
System programmer response: None.

Note: For additional information on how to respond to this message, see “Responding to a VTAM message” on page 2.
Routing code: 2
Descriptor code: 2

IST938I OPEN ACB REJECTED, CANNOT LOAD phasename

Explanation: During an OPEN ACB procedure, the ALOAD routine could not dynamically load phase `phasename`.
System action: The OPEN ACB procedure fails. This message will follow IST025I.
Operator response: See IST025I for additional information and recommended actions.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST939I VARY NOLOGON HAD NO EFFECT — applname NOT FOUND FOR nodename

Explanation: VTAM issues this message in response to a VARY NOLOGON command. The command failed because a controlling relationship existed for `nodename` with a different application than the specified `applname`.
System action: Processing continues.
Operator response: Enter a DISPLAY ID command for `nodename` to verify that a controlling relationship exists.
Reenter the VARY NOLOGON command with the indicated applname.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

---

**IST940I**

**verid**

**Explanation:** This message is part of a message group. The first message in the group is IST680I. See the explanation of that message for a complete description.

**Routing code:** 8

**Descriptor code:** 4

---

**IST946I**

**BASENO n GREATER OR EQUAL TO XSPANLIM limit BUFFERS**

**Explanation:** This message is the first in a group of messages. A complete description of the message group follows.

IST946I BASENO n GREATER OR EQUAL TO XSPANLIM limit BUFFERS
IST947I STATIC BUFFERING ASSUMED FOR bpBUF

While processing the start option for buffer pool bp and converting the input expansion limit to buffers, VTAM determined that the expansion limit was less than the base number of buffers in the pool. Although the initial number of buffers will be allocated to the pool, the pool will not be able to expand because any expansion would force the pool above its expansion limit. As a result, the values for xpanpt and xpanno entered for buffer pool bp will be ignored and the buffer pool will operate without dynamic expansion.

n is the base number of buffers allocated to the buffer pool. This is the value of the baseno operand in the start option for the buffer pool.

limit is the maximum number of buffers that will fit in the storage specified by the xspanlim operand in the start option for the buffer pool. See the [z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com/support/docview.zhtml?c=283052&d=2419578&qpath=) for a description of the buffer pool start options.

bp is the name of the buffer pool. See the [z/OS Communications Server: SNA Network Implementation Guide](https://www.ibm.com/support/docview.zhtml?c=283052&d=2417621&qpath=) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.

**System action:** Processing continues. The buffer pool will operate with no dynamic buffering. ***NA*** will be displayed for the expansion threshold if DISPLAY BFRUSE commands are entered for the buffer pool.

**Operator response:** Save the system log for problem determination. You might have to restart VTAM.

**System programmer response:** Determine whether dynamic buffering is desired for buffer pool bp. If so, restart VTAM with appropriate values for baseno and xspanlim for the bp buffer pool. Otherwise, no action is necessary.

**Routing code:** 2

**Descriptor code:** 5

---

**IST947I**

**STATIC BUFFERING ASSUMED FOR bpBUF**

**Explanation:** This message is part of a group of messages. The first message in the group is IST946I. See the explanation of that message for a complete description.

**Routing code:** 2

**Descriptor code:** 5

---

**IST949I**

**ISTMGC10 IN VTAMLIB reason - VTAM PROCESSING CONTINUES**

**Explanation:** VTAM could not load the default filter table because of reason.

reason can be one of the following:
NOT FOUND
The table could not be located in the VTAMLIB.

NOT LOADED
There was not enough storage available to load the table.

NOT VALID
ISTMGC10 did not have a valid type ID.

System action: VTAM ignores the load request and continues the initialization.
Operator response: Save the system log for problem determination.
System programmer response: Verify if the table was intentionally left empty or was intentionally not loaded into the system library. If it was not, follow the procedure outlined below for reason.

If reason is NOT FOUND, halt VTAM, load the table into the system library, and restart VTAM.
If reason is NOT LOADED, increase storage as required and reload the table.
If reason is NOT VALID, verify that ISTMGC10 was created with the correct macros and that the table type is correct. If not, halt VTAM and then restart it with a valid version of the table in the system library.

Routing code: 2
Descriptor code: 5

IST950I • VCNS=YES

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY ID command for an application program. This message identifies that this application is a VTAM Common Network Services (VCNS) user.
System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2,8
Descriptor code: 5

IST951I • DISPLAY DISK INFORMATION FOR ncpname

Explanation: This message is the first in a group of messages that VTAM issues in response to a DISPLAY DISK command. A complete description of the message group follows.

IST951I DISPLAY DISK INFORMATION FOR ncpname
[IST957I NO NCP LOAD MODULE OR DUMP ON DISK]
[IST952I DUMP NAME DATE TIME
  ISTR953I dumpname date time]
...;
[IST954I LOAD MODULE DATE TIME STORE STATUS [ACTIVE]
  ISTR955I loadmodname date time status [YES|NO]]
...;
[IST924I -----------------------------------------------]
[IST1065I LOAD MODULE REQUESTED IPL ESTIMATED IPL
  ISTR1066I load_module requested_time estimated_time]
...;
IST965I AUTO DUMP/LD: {YES|NO}
IST314I END

IST951I
This message serves as a header line for the display and identifies the NCP ncpname for which the information is displayed.
If there is no information on the disk to display, this message follows IST951I.

**IST952I and IST953I subgroup**

If there is information on the disk to display, VTAM issues this subgroup if dump information is available. IST953I is repeated for each dump on the disk. See the explanation of message IST952I for additional information on this subgroup.

**IST954I and IST955I subgroup**

If there is information on the disk to display, VTAM issues this subgroup if load module information is available. IST955I is repeated for each load module on the disk. See the explanation of message IST954I for additional information on this subgroup.

**IST924I**

VTAM issues this message to improve the readability of the display.

**IST1065I and IST1066I**

If there is information on the disk to display, VTAM issues this subgroup if an IPL has been scheduled for at least one load module on the disk. IST1066I is repeated for each load module on the disk. See the explanation of IST1065I for additional information on this subgroup.

**IST965I**

This message is issued to indicate whether the 3720 or 3745 Communication Controller will accept an automatic re-IPL if the NCP abends. If IST965I indicates that an automatic dump and load will occur, the load module that is active in the communication controller will be reloaded.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

**IST952I DUMP NAME DATE TIME**

**Explanation:** VTAM issues this message as part of a subgroup of messages in response to a DISPLAY DISK command.

This message subgroup is displayed in a message group headed by IST951I. See the explanation of that message for additional information.

If there is information on the disk to display, VTAM issues this subgroup if dump information is available. A complete description of the message subgroup follows.

IST952I  DUMP NAME  DATE  TIME
IST953I  dumpname  date  time

VTAM issues message IST953I for each NCP dump on disk. This message contains the following information:

dumpname
  The name of the NCP dump on the disk.
date
  The date the dump was loaded onto the disk.
time
  The time the dump was dumped onto the disk.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5
IST953I • IST954I

IST953I  dumpname date time

Explanation: VTAM issues this message as part of a message subgroup. The first message in the subgroup is IST952I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST954I  LOAD MODULE DATE TIME STORE STATUS [ACTIVE]

Explanation: VTAM issues this message as part of a subgroup of messages in response to a DISPLAY DISK command.

This message subgroup is displayed in a message group headed by IST951I. See the explanation of that message for additional information.

If there is information on the disk to display, VTAM issues this subgroup if load module information is available. A complete description of the message subgroup follows.

IST954I  LOAD MODULE DATE TIME STORE STATUS [ACTIVE]
IST955I  loadmodname date time status [YES|NO]

VTAM issues message IST955I for each load module that is displayed. It contains the following information:

loadmodname
- The name of the load module on the disk.

date
- The date the load module was stored on the disk.

time
- The time the load module was stored on the disk.

status
- The store status of the load module. status will be one of the following:

  STORED
  - The load module is completely stored.

  STORING
  - The load module is currently in the process of being stored.

  SUSPENDED
  - The load module is currently in the process of being stored; however, no information has been received by MOSS in the last five minutes.

[YES|NO]
- ACTIVE is YES when loadmodname is the load module currently active on the disk. This means the load module is next to load on the disk.

- ACTIVE is NO when loadmodname is not the load module currently active in the disk.

[YES|NO] is displayed only when at least one load module on the disk is active.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5
IST955I  loadmodname date time status [YES|NO]

Explanation: VTAM issues this message as part of a message subgroup. The first message in the subgroup is IST954I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST956I {PORT SAP=sapaddress MAC=macaddress MAXDATA=n MAXSTN=maxstations I PU SAP=sapaddress MAC=macaddress [MAXDATA=n]}

Explanation: VTAM issues this message in response to a DISPLAY ID command for a LAN major node, a switched PU (station) connected to the LAN, or a dynamic switched PU defined in an XCA major node.

VTAM will also issue this message when IST690I is issued for a connection failure during Request Contact (REQCONT) RU processing. The message will provide the PU LAN address information of the PU with which the connection is refused.

PORT is indicated when a LAN major node is being displayed. The information provided is derived from similarly named keywords on the PORT definition statement in the major node.

sapaddress is the service access point (SAP) address for the LAN connection that the major node defines.
macaddress is the 12-digit hexadecimal medium access control (MAC) address for the LAN connection that the major node defines. If no macaddress was defined, zeroes are displayed.
n is the maximum number of bytes in the information field of an LPDU that can be transmitted on the LAN.

maxstations is the maximum number of stations that can be connected on the LAN. maxstations is listed only when this message results from a DISPLAY ID command specifying the name of a LAN major node.

PU is issued when a switched PU (station) attached to the LAN is being displayed. The information provided is derived from similarly named operands on the PU definition statement in either a LAN, a switched major node, the service access point (SAP) that is in use, or the medium access control (MAC) that is in use.

sapaddress is the service access point (SAP) address of the physical unit that is on the LAN.
macaddress is the 12-digit hexadecimal medium access control (MAC) address for the station on the LAN represented by the PU.
n is the maximum amount of data in bytes, including the transmission header (TH) and request/response header (RH), that the physical unit can receive in one segment of a path information unit (PIU).

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST957I NO NCP LOAD MODULE OR DUMP ON DISK

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY DISK command. The first message in the group is IST951I. Message IST957I is issued when there is no information on the disk to display.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5
IST958I INBND=inbound OUTBND=outbound PENDING=pending ATTN=attntot CUA=device_address

Explanation: VTAM issues this message in response to a DISPLAY ID command for a LAN major node.

*inbound* is the total number of inbound messages.

*outbound* is the total number of outbound messages.

*pending* is the current number of pending output messages.

*attntot* is the total number of attention interrupts counted.

*device_address* is the hexadecimal channel address of the interrupt port.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

IST959I INVALID PIU RECEIVED FROM nodename—VARY INACT SCHEDULED

Explanation: VTAM issues this message when the resource *nodename* issued a path information unit (PIU) with a request/response header that violates SNA architecture rules.

**Note:** This message is percolated. See “Message rerouting and percolation” on page 1106 for additional information.

**System action:** VTAM generates a VARY INACT,TYPE=FORCE command and issues it internally to resource *nodename*.

**Operator response:** This is probably a hardware error. Save the system log and request a buffer trace on the device for problem determination.

**System programmer response:** Use the buffer trace to identify the PIUs that are not valid.

**Routing code:** 2

**Descriptor code:** 5

IST960I DISPLAY TABLE FAILED—tablename NOT FOUND

Explanation: VTAM issues this command in response to a DISPLAY TABLE command when VTAM did not find *tablename*. The table is not currently in use by any resource as a COS, logon mode, interpret, USS, model name, or associated LU table, or the table does not exist.

**System action:** VTAM rejects the command.

**Operator response:** Ensure that you entered *tablename* correctly.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

IST961I [NONDISRUPTIVE] LOAD OF ncpname [WITH loadmodname] FAILED

Explanation: This message is the first in a group of messages that VTAM issues when a load fails for NCP *ncpname*.

IST961I [NONDISRUPTIVE] LOAD OF ncpname [WITH loadmodname] FAILED

IST523I REASON = reason

**loadmodname** is included in the message when the load module name differs from *ncpname*.

**reason** in message IST523I indicates why the load failed and is one of the following:

**PERMANENT I/O ERROR [–REQ: runame SENSE: sense]**
**Explanation:** During an attempt to load the communication controller, VTAM detected a permanent I/O error. This may have been caused by one of the following:
- Hardware error
- VTAM detected channel contention in a multiple-channel attached communication controller that was being loaded from another domain.
- If a MODIFY LOAD command was issued for a local or remote NCP, the size of MAXDATA on the PCCU macro must be at least 2,048 plus the size of the TH and RH.

`runame` is the name of the request unit that failed. See Chapter 16, “Command and RU types in VTAM messages,” on page 1083 for a description of `runame`.

`sense` is the SNA sense code for the failed request unit. See the z/OS Communications Server: IP and SNA Codes for a description of `sense`. If `sense` is set by NCP, see NCP, SSP, and EP Messages and Codes for a complete description.

The values of `runame` and `sense` are issued only for remote NCP loads.

**System Action:** VTAM rejects the command. The communication controller remains inactive and unavailable to VTAM.

**Operator Response:** Save the system log and obtain an NCP dump with the NCP dump utilities for problem determination.

Run your operating system service aid program to determine whether MDR/OBR information has been recorded. See the EREP User’s Guide and Reference for more information on using EREP.

If you use a network management application such as NetView, check to determine whether an alert was recorded for this problem.

**Programmer Response:** Verify that the CUA operand (on the PCCU definition statement of the NCP source statements) matches the actual channel address that is connected to the controller. If the controller is multiple-channel attached and the failure was caused by a load from another domain, wait for the completion of that load operation.

Make the necessary changes to the NCP generation. If problems persist, take the following actions:
- If you have access to IBMLink, search for known problems with similar symptoms. If no applicable matches are found, report the problem to IBM by using the Electronic Technical Report (ETR) option on IBMLink.
- If you do not have access to IBMLink, report the problem to the IBM software support center. If available, provide the MDR/OBR information from your operating system service aid program or the alert information recorded by your network management application.

**INITIAL TEST HARDSTOP**

**Explanation:** VTAM detected an error condition that caused the initial test program of the load utility for the NCP to hardstop the communication controller.

**System Action:** VTAM rejects the command. The communication controller remains inactive.

**Operator Response:** Save the system log for problem determination.

**Programmer Response:** If you cannot determine the cause of the problem from the output provided or need additional assistance, contact the IBM software support center.

**LOADER FAILURE**

**Explanation:** An error occurred during an attempt to load an NCP into a communication controller.

**System Action:** VTAM deactivates the communication controller.

**Operator Response:** Save the system log for problem determination. Message IST155I or other system messages may provide additional information about the cause of the loader failure.
ddname BLDL ERROR

Explanation: VTAM tried to load a communication controller.

The operation failed because a BLDL (the load of a core resident table with track addresses of frequently used modules on a link library) issued for that library defined by DD statement ddname failed.

System Action: The communication controller is not activated. Other VTAM processing continues.

Operator Response: VTAM operations can be continued with other nodes in the network. Save the system log for problem determination.

Programmer Response: Inspect the directory of the partitioned data set defined by the DD statement ddname.

- If it is the NCP module library, ensure that the NCP being loaded into the communication controller is a member of that library (the NCP name is defined by the NEWNAME operand on the NCP BUILD definition statement).
- If ddname defines the initial test library, make sure modules IFL3705D and IFL3705B are members of the library.

INVALID DEVICE TYPE DEFINITION

Explanation: VTAM tried to load a communication controller, but failed after checking the communication controller unit control block (UCB) and determining that the operating system generation did not specify a valid channel adapter type for this NCP.

System Action: The communication controller is deactivated.

Operator Response: Save the system log for problem determination.

Programmer Response: Check the channel unit address of the specified communication controller to make sure that it is the correct address. If it is, the communication controller might have been incorrectly specified during the operating system generation.

UNEXPECTED END OF FILE ON DATA SET

Explanation: While trying to load an NCP into a communication controller, the load program encountered an unexpected end-of-file condition either on the NCP load module data set or on the initial test data set.

System Action: The communication controller is deactivated. Other processing continues.

Operator Response: Save the system log for problem determination.

Programmer Response: Ensure that the DD statements for the NCP load module and initial test data sets specify the correct data sets. Make sure these data sets contain the correct NCP load module and test routines for the communication controller hardware.

UNEXPECTED CODE code FROM loadmod

Explanation: VTAM tried to load an NCP into a communication controller. The load failed when VTAM received an unrecognizable return code code, in decimal, from the NCP load utility program loadmod.

loadmod is IFLOADRN.

System Action: The communication controller is deactivated.

Operator Response: Attempt to load the communication controller offline to VTAM using the NCP utility program. See the NCP, SSP, and EP Generation and Loading Guide for information on using the utility program.

Save the system log and obtain an NCP dump with the NCP dump utilities for problem determination.

Programmer Response: Make the necessary changes to the NCP generation. See the z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures for more information on NCP problems.

LOAD MODULE TOO LARGE

Explanation: An attempt to load an NCP into a communication controller failed because the NCP load module was too large for the particular communication controller.

System Action: VTAM deactivates the communication controller. Other VTAM processing continues.
**Operator Response:** Save the system log for problem determination.

**Programmer Response:** Check the NCP generation for errors or unnecessary use of storage. The NCP needs to be regenerated.

**PERMANENT I/O ERROR ON** `libname`

**Explanation:** VTAM tried to load a communication controller with an NCP. It failed because a permanent I/O error occurred on the data set defined by the DD statement `libname` (the NCP library).

**System Action:** VTAM deactivates the communication controller.

**Operator Response:** If the error persists, save the system log for problem determination.

Message IOS000I or other related messages may be issued and can provide additional information.

This is probably a hardware error. Run your operating system service aid program to determine whether MDR/OBR information has been recorded. See the *EREP User’s Guide and Reference* for more information on using EREP.

If you use a network management application such as NetView, check to determine whether an alert was recorded for this problem.

**Programmer Response:** Create the NCP library on a different disk pack if possible.

If you cannot determine the cause of the problem from the output provided or need additional assistance, contact the IBM hardware support center.

If available, provide the MDR/OBR information from your operating system service aid program or the alert information recorded by your network management application.

**ddname COULD NOT BE OPENED**

**Explanation:** VTAM tried to load a communication controller. It failed because the data set defined by the DD statement `ddname` (the NCP load library) could not be opened.

**System Action:** VTAM deactivates the communication controller.

**Operator Response:** Save the system log for problem determination.

**Programmer Response:** Make sure the specified DD statement in the VTAM procedure is included and correctly specified.

Check the definition library to ensure that all requirements for VTAM are correct for your system.

Routing code: 2

Descriptor code: 3

**IST962I** INOP X'code' RECEIVED FOR PU UNDER SWITCHED LINE `linename`

**Explanation:** An inoperative RU has been received that contains the SNA network address of a PUX, a skeleton PU defined under a line that represents a switched connection. This situation occurs when the switched line is active, but the switched connection has not yet been established. The switched line has been conditioned to accept incoming calls (ACTCONNIN sent). A call has been accepted on the line and an attempt was made to contact the calling station. An error is detected during the contact process at the line protocol level. The switched connection fails. The INOP RU is the method of notifying the SSCP of the error.

A RECMS or NMVT RU should always accompany this error. VTAM passes this data to NETVIEW/NPDA or records it on the system error recording data set.

`linename` is the name of the switched line.

`code` (expressed in hexadecimal) provides the INOP reason code, and can be one of the following:

**01** Station INOP: There was a loss of contact, unexpected loss of connection, or a connection establishment failure.

**03** Station INOP: SDLC Disconnect request received.

**04** Station INOP: SDLC Request Disconnect response received.

**05** Station INOP: SDLC Disconnect Mode received.
IST963I • IST967I

06 Station INOP: IPL or dump is in progress.
07 Station INOP: Remote Power Off (RPO) in progress.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 8
Descriptor code: 4

IST963I

LOAD MODULE = loadmodname

Explanation: This message is issued as a result of the DISPLAY ID command for an NCP. It is displayed only when the name of the load module currently loaded is different than that of the NCP PU.

loadmodname is the name of the load module currently loaded.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 3

IST965I

AUTO DUMP/LOAD: {YES | NO}

Explanation: This message is part of a message group. IST951I is the first message in the group. See the explanation of that message for a complete description.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 3

IST966I

USER=VCNS

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY ID command for a line. This message identifies this line as the anchor for all virtual calls used by VTAM Common Network Services (VCNS) application programs for an XCA major node.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 3

IST967I

operation FAILED FOR dataspace; RC return_code RS reason_code

Explanation: A macro (operation) was issued by VTAM for the data space dataspace, and an error return code was returned without successful completion of the request.

dspname is the name of a data space created by VTAM. The data space name is generated automatically when the data space is created by VTAM and is in one of the following formats:

ISTNMSDS

Session awareness
**ISTNMPDS**

Problem determination trace

**ACYcccc**

CMIP services applications

**ISTxxxxx**

TSO or VTAM applications

**cccccIST**

CMIP, TSO, or VTAM applications

where **cccc** is in the range of 1–99999 and **xxxx** is in the range of 0–FFFFC.

**System action:** If the **dataspace** is ISTNMDS or ISTNMPDS, and **operation** is DSPSERV CREATE or ALESERV ADD, only the LU0 interface is available for communication between VTAM and the NetView program’s session monitor.

If **dataspace** is ISTxxxxx or cccccIST, **operation** is DSPSERV CREATE, **return_code** is 08 and **reason_code** is 6B000911, there was a conflict with the dataspace name supplied by VTAM. Since VTAM tries four times to create a unique data space name, the occurrence of IST967I may only be informational. VTAM may have succeeded in creating the dataspace with another name. The DISPLAY STORUSE,DSPNAME=* can be used to confirm whether the ACB was opened with another name.

If **operation** is DSPSERV RELEASE, the data space interface will continue to function without releasing unused storage to virtual storage management.

**Operator response:** Save the system log for problem determination.

**System programmer response:** See the z/OS MVS Programming: Authorized Assembler Services Reference [ALE-DYN] for a description of **return_code** and **reason_code**.

**Routing code:** 2

**Descriptor code:** 4

---

**IST968I** INTERFACE INITIALIZATION FAILED – REASON **reasoncode**

**Explanation:** Data space interface initialization failed, and the LU0 interface will be used.

**reason_code**

**Meaning**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>04</td>
<td>The data space could not be created.</td>
</tr>
<tr>
<td>08</td>
<td>Request for CSA storage has failed during VTAM initialization.</td>
</tr>
</tbody>
</table>

**System action:**

- For reason code 04, VTAM will only use the LU0 interface for the session awareness (SAW) and path information unit (PIU) data interfaces.
- For reason code 08, VTAM initialization fails.

**Operator response:** Save the system log for problem determination.

**System programmer response:** See the z/OS MVS Programming: Authorized Assembler Services Reference [ALE-DYN] for definitions of **reasoncode** for data space services.

**Routing code:** 2

**Descriptor code:** 4

---

**IST970I** LU-LU VERIFICATION ERROR **code** FOR **profilename**

**Explanation:** This message is issued when an LU 6.2 application program requests that a session be established, but a session level LU-LU verification violation or error occurred.

**profilename** is the name of the security manager profile defined for the LU pair. The format of **profilename** is local_netid.local_name.partner_name where:

- local_netid is the local network ID
IST971I

local_name is the ACB name of the local application program
partner_name is the LU name of the session partner.

code is the type of security violation that occurred.

03 The security manager locked the profile.
04 The profile contains an invalid session key.
05 partner_name rejected the session due to a security related error.
06 local_name was defined with REQUIRED session level LU-LU verification, but one of the following occurred:
   • local_name is the PLU, but no password was defined for profilename.
   • partner_name is the PLU requesting a session without using session level LU-LU verification.
07 Session level LU-LU verification data for the session between local_name and partner_name matched the data for an outstanding session activation request.
08 local_name was defined with optional verification, and a password was defined for profilename, indicating that session level LU-LU verification is necessary. partner_name requested a session without verification.
09 local_name was defined with optional verification, and no password was defined for profilename, indicating that session level LU-LU verification should not be used. partner_name requested a session with verification.
08 The profile was changed during session activation.
0C The password for the profile has expired.
00 local_name was defined to use only the enhanced protocol (SECLVL=LEVEL2 is specified on the APPL definition statement). partner_name does not support the enhanced protocol.
20 The security manager component is either not available or overloaded (received a large number of requests in a short period of time).
3C The security manager component failed.

System action: Session activation failed.

Operator response: For codes 03, 04, 08, and 0C, enter the MODIFY PROFILES command for the local LU. If VTAM issues this message repeatedly, notify the security administrator of code and profilename.

For code 05, consult message IST970I issued to the partner LU for specific actions.

For codes 06, 08, and 09, enter the MODIFY PROFILES command for the local LU. If VTAM issues this message repeatedly, save the system log for problem determination.

For codes 07 and 0D, notify the security administrator of code and profilename.

For codes 20 and 3C, save the system log for problem determination.

System programmer response: For code 05, consult message IST970I issued to the partner LU for specific actions.

For codes 06, 08, and 09, check the VERIFY operand specified on the APPL statements to identify the correct level for the two LUs.

For code 20, verify that the security manager is installed and resource class APPCLU is active.

If the security manager is installed and resource class APPCLU is active, the problem may be that the security manager is overloaded. Lowering the value of AUTOSES on the LU definition statements may solve the problem.

For code 3C, verify that the security manager is installed and resource class APPCLU is active.

Routing code: 2
Descriptor code: 4

IST971I   ADJ LINK STATION linkstation USING linkname IN netid

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY ID command entered for an NCP major node. This message indicates that the adjacent link station has contacted a cross-network NCP major node.
linkstation is the adjacent link station.

linkname is the connecting link station.

netid is the network ID of the cross-network NCP major node.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 8

**Descriptor code:** 5

---

IST972I  
**SIT TRACE FOR linename TERMINATED – reason**

**Explanation:** A scanner interface trace (SIT) for linename has terminated.

Reason may be one of the following:

**HARDWARE ERROR**  
Either an adapter I/O error occurred, or the SIT backup timer expired.

**RESOURCES UNAVAILABLE**  
Either VTAM needed NCP buffers but could not obtain them, or a problem other than an adapter I/O error occurred.

**System action:** Processing continues.

**Operator response:**

- If reason is HARDWARE ERROR, save the system log for problem determination.
- If reason is RESOURCES UNAVAILABLE, try the command again when scanner resources become available. If the command continues to fail, save the system log for problem determination.

Run your operating system service aid program to determine whether MDR/OBR information has been recorded. See the EREP User's Guide and the EREP Reference for more information on using EREP.

If you use a network management application such as NetView, check to determine whether an alert was recorded for this problem.

**System programmer response:** If you cannot determine the cause of the problem from the output provided or need additional assistance, contact the IBM hardware support center.

If available, provide the MDR/OBR information from your operating system service aid program or the alert information recorded by your network management application.

**Routing code:** 2

**Descriptor code:** 5

---

IST973I  
**USERVAR uservar [CLASS HAS BEEN CHANGED FROM AUTO TO USER] TYPE HAS BEEN CHANGED FROM type TO type**

**Explanation:** VTAM issues this message as part of a message group in response to a MODIFY USERVAR command. The first message in the group is IST1283I. See that message for a complete description of the group.

uservar is the name of the USERVAR.

This message is issued when one or both of the following has occurred:

- **CLASS HAS BEEN CHANGED FROM AUTO TO USER**  
The MODIFY command was entered for a USERVAR that was being managed automatically by VTAM, thereby changing the class to user-managed.

  **Note:** VTAM no longer manages the updating or deletion of this USERVAR.

- **TYPE HAS BEEN CHANGED FROM type TO type**  
The type of a user-managed USERVAR has been changed.
**IST976I • IST977I**

- **type** can be **STATIC, DYNAMIC, or VOLATILE**.

**Note:** This message is percolated. See ["Message rerouting and percolation" on page 1106](#) for additional information.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

---

**IST976I  ENTRY entryname DEFINED BUT NO tabletype DEFINED FOR resourcename**

**Explanation:** VTAM issues this message during major node activation or during session initiation. A `tabletype` table entry `entryname` was specified on the `resourcename` definition statement, but no `tabletype` table is defined.

- `entryname` is the entry that was specified on the LU, LOCAL, TERMINAL, or APPL definition statement.
- `tabletype` is **MDLTAB** (model name table) or **ASLTAB** (associated LU table).
- `resourcename` is the 1–8 character name of the LU, LOCAL, TERMINAL, or APPL for which the `entryname` is defined.

**System action:** Processing continues during major node activation.

- If `tabletype` is **MDLTAB**, session establishment continues during session initiation with no model name provided to the PLU.
- If `tabletype` is **ASLTAB**, session establishment continues during session initiation with no associated LU names provided to the PLU.

**Operator response:** Save the system log for problem determination.

**System programmer response:** You need to associate a table with the LU. You can do this by either specifying a table in the LU definition, or issuing a `MODIFY TABLE` command to associate a table with the LU.

- If you have specified a table in the LU definition, verify that the table is specified correctly. If it is not, correct the `tablename` and reactivate the LU. If the table specified in the LU definition is correct, the operator may have deleted the association with a `MODIFY TABLE` command. Enter another `MODIFY TABLE` command to reestablish the association.

**Routing code:** 2

**Descriptor code:** 5

---

**IST977I  MDLTAB=mdlname ASLTAB=aslname**

**Explanation:** This message is part of a subgroup of messages that VTAM issues in response to a `DISPLAY ID` command for an application minor node or LU. A description of the message subgroup follows the example.

IST977I  MDLTAB=mdlname ASLTAB=aslname
[IST1395I FLDTAB = flidname  FILTER = filtername]
[IST1333I ADJLIST = listname]

**IST977I**

- `mdlname` is the name of the model name table.
- `aslname` is the name of the associated LU table.

If a model name table or associated LU table was not defined for the resource, ***NA*** is displayed.

**IST1333I**

This message is displayed only when the `DISPLAY ID=CDRSC` command is issued.

- `listname` is the name of an adjacent SSCP table as defined by an ADJLIST definition statement.

If an adjacent SSCP table was not specified for the CDRSC, then ***NA*** is displayed.

See the descriptions of the ADJLIST definition statement in the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information on adjacent SSCP tables.

---

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IST979I

This message is the first in a group of messages that VTAM issues in response to a major node activation or a MODIFY TABLE command when the activation of table tablename failed.

IST979I BUILD FAILED FOR TABLE tablename

**Explanation:** This message is the first in a group of messages that VTAM issues in response to a major node activation or a MODIFY TABLE command when the activation of table tablename failed.

IST979I BUILD FAILED FOR TABLE tablename
IST523I REASON = reason
[IST323I LABEL = labelname – MACRO = macrotype – KEYWORD = keyword]

IST979I

tablename is the name of the table that failed and is a model name table, an associated LU table, or a message flooding table.

IST523I

- reason indicates the cause of the failure.
  - Most of the reasons involve macro coding errors, which may show up at this time because the tables are not pre-assembled.
  - Other errors such as insufficient storage and open failures cause activation to fail even though there are no errors in the table definition.

reason can be one of the following:

**DUPLICATE ENTRY LABEL**

The same label appears on more than one table entry macro (MDLENT or ASLENT) in the table.

**DUPLICATE PARAMETER**

A valid keyword has been coded multiple times on a single macro.

**DUPLICATE PLU VALUE**

The same PLU name appears on more than one PLU subentry macro (MDLPLU or ASLPLU) following a single entry macro (MDLENT or ASLENT).

**EXTRA VALUE**

Multiple values were coded on a keyword that does not allow multiple values.

**INSUFFICIENT STORAGE**

VTAM was unable to allocate storage for the table.

**INVALID LABEL**

The label on the macro is invalid or a MDLENT or ASLENT macro was coded without a label.

**INVALID MACRO**

The resource definition contains an invalid macro or multiple MDLTAB or ASLTAB macros.

**INVALID PARAMETER**

The macro has an invalid keyword.
IST981I

INVALID VALUE
The keyword has an invalid value coded.

LIST VALUE **** IS IN CIRCULAR LIST OR MULTIPLE LISTS
The LIST keyword on a FLDENT macro in the message flooding table referred to a message that was in more
than one list.

LIST VALUE **** WAS NOT FOUND
The LIST keyword on a FLDENT macro in the message flooding table referenced a message that was not also
in the table.

MACRO SEQUENCE ERROR
The second macro in the resource definition is either MDLPLU or ASLPLU. These macros must be preceded
by a table entry macro (MDLENT or ASLENT).

MISSING PLU PARAMETER
A MDLPLU or ASLPLU macro has been coded without the PLU keyword.

OPEN FOR VTAM DATA SET SYS1.VTAMLST FAILED
VTAM could not open the member of the data set containing the table.

SYNTAX ERROR
A keyword on a macro has a syntax error.

TABLE CONTAINS NO USEFUL INFORMATION
The table is logically empty.
 – For a model name table, VTAM could not find a MDLENT or MDLPLU macro with a valid MODEL
   keyword value.
 – For an associated LU table, VTAM could not find an ASLENT or ASLPLU macro with a valid PRINTER1 or
   PRINTER2 keyword value.
 – For a message flooding table, VTAM could not find a FLDENT macro with a valid MESSAGE keyword
   value.

TABLE SIZE OF X’xxxxxx’ IS INVALID
The table has exceeded the limitation of 16 megabytes (hexadecimal 00FFFFFF).

IST323I
If this message is displayed, it identifies the location of the error in tablename.

System action: Processing continues, but tablename cannot be used to supply model terminal support information.

Operator response: Issue the DISPLAY BFRUSE command to display information about the common service area
(CSA). Save the system log for problem determination.

System programmer response:
• If reason is INSUFFICIENT STORAGE, increase storage as required. You might want to redefine your CSA start
  options using the MODIFY VTAMOPTS command.
  See z/OS Communications Server: SNA Operation for more information on the DISPLAY BFRUSE and
  DISPLAY VTAMOPTS commands. The z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and
  Procedures provides additional information.
• If reason is OPEN FOR VTAM DATA SET SYS1.VTAMLST FAILED, review system definition and VTAM data set
  and allocation. When the error condition has been corrected, reactivate the table.
• For all other reasons, correct the resource definition error indicated by message IST323I.

Routing code: 2
Descriptor code: 5

IST981I VTAM PRIVATE: CURRENT = currentk, MAXIMUM USED = maximumk

Explanation: This message is part of a subgroup of messages that VTAM issues in response to a DISPLAY BFRUSE
or a DISPLAY STORUSE command. For a DISPLAY BFRUSE command, the first message in the subgroup is IST449I.
For a DISPLAY STORUSE command, the first message in the group is IST1242I. See the explanation of those
messages for a complete description.
IST982I  •  IST983E

Routing code: 2
Descriptor code: 5

IST982I  n [runame|OTHER] REQUEST(S) PENDING TO SUBAREA subarea

Explanation: If runame is indicated, the number n of request units (RU) have been pending to subarea subarea for a period of time without receipt of a corresponding response unit. If the request units remain outstanding for subsequent intervals, this message will be repeated at such intervals until the request units are received or purged.

VTAM displays OTHER when the request unit type is not known.

Message IST982I indicates that a problem may exist; the longer a request unit remains outstanding (that is, the more often this message reappears for the same request unit), the more probable it is that a problem exists.

See Chapter 16, “Command and RU types in VTAM messages,” on page 1083 for a list of request units and their descriptions.

System action: Processing continues, awaiting the corresponding response unit.

Operator response: If a particular request unit remains outstanding for an extended period of time, save the system log for problem determination.

System programmer response: For a discussion of pending I/O problems, see the wait procedures in z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures

Routing code: 8
Descriptor code: 4

IST983E  poaname MESSAGE QUEUE EXCEEDED—FURTHER MESSAGES WILL BE DISCARDED

Explanation: The POA poaname message queue would reach the limit (POAQLIM) specified on the APPL definition statement with the message or message group destined for the POA. This can occur when the POA is not issuing RCVCMD macros quickly enough to clear the VTAM message queue for this application. It can also occur when POAQLIM is too small to allow for very large message groups, such as output from a VTAM DISPLAY command.

poaname is the name of the POA that has reached the specified message queue limit.

System action: All further messages destined for poaname are discarded until the message queue is cleared.

Operator response:
1. Issue DISPLAY ID=poaname and save the system log. Message IST271I will provide the jobname related to the poaname.
2. Save the system log and request a dump of the application program (jobname) and VTAM for problem determination.

System programmer response:
• If the POA is not issuing RCVCMD macros quickly enough, you can clear the message queue for poaname by issuing RCVCMD macros with OPTCD=NQ until the queue is empty.
• If RCVCMD macros are being issued quickly enough, examine the dump and the VTAM internal trace (if available) to determine why the messages are not being received quickly enough. Check to ensure that the RCVCMD macros are being received by VTAM.
• You might need to change the POA RCVCMD processing so that RCVCMDs are issued more frequently.
• You can also change the dispatching priority of the POA. See your operating system documentation for information on dispatching priority.
• You can cancel the job related to poaname. This will clear the VTAM message queue for poaname.
• If you determine that the POAQLIM value is too low, you can increase POAQLIM on the APPL statement for poaname, enter a VARY NET,ACT,UPDATE=ALL command for the application major node, and recycle the application.

See the z/OS Communications Server: SNA Programming for information on program operator coding requirements in program operator applications and the RCVCMD macro.

Routing code: 2
IST984I • IST985I

Descriptor code: 11

**IST984I** USER EXIT exitname IS status

**Explanation:** VTAM issues this message when an installation-wide exit is successfully activated, deactivated, or replaced.

- *exitname* is displayed in the form routine_name.instance_name where:
  - *routine_name* is the name of the installation-wide exit routine.
  - *instance_name* is the instance name of the exit routine. When issued for the base exit, *instance_name* is blank.
- *status* is one of the following:
  - **ACTIVE**
    - The exit *exitname* was successfully loaded, either during initialization or by a MODIFY EXIT,OPTION=ACT command. The exit will now be invoked when requested by VTAM code.
  - **INACTIVE**
    - The exit *exitname* was deactivated by a MODIFY EXIT,OPTION=INACT command or when a MODIFY EXIT,OPTION=REPL command failed. The exit will not be invoked when requested by VTAM code.
  - **REPLACED**
    - The exit *exitname* was replaced by a MODIFY EXIT,OPTION=REPL command. The new version of the exit will now be invoked when requested by VTAM code.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 8

**Descriptor code:** 4

**IST985I** USER EXIT exitname action FAILED–CODE code

**Explanation:** VTAM issues this message when an unsuccessful operation was performed on an installation-wide exit.

If message IST1183I is issued with message IST985I and a failure code is received that is not documented in this message, see the appropriate exit’s documentation.

*exitname* is displayed in the form routine_name.instance_name where:

- *routine_name* is the name of the installation-wide exit routine.
- *instance_name* is the instance name of the exit routine. When issued for the base exit, *instance_name* is blank.

*action* indicates the operation that failed for exit *exitname* and is one of the following:

- **ACTIVATION**
  - The activation of user exit *exitname* failed during initialization or during processing of a MODIFY EXIT,OPTION=ACT command.
- **FORCE**
  - The forced inactivation of the exit *exitname* failed during processing of a MODIFY EXIT,OPTION=FORCE command.
- **INACTIVATION**
  - The deactivation of user exit *exitname* failed during processing of a MODIFY EXIT,OPTION=INACT command.
- **INITIALIZATION**
  - The initialization of the VTAM exit facility failed. The exit function of VTAM is not available. The *exitname* will not be present in this case.
- **INVOCATION**
  - The invocation of user exit *exitname* failed. The invocation was performed internally in VTAM code and cannot be affected by the operator.
REPLACEMENT
The replacement of user exit exitname failed during processing of a MODIFY EXIT,OPTION=REPL command. The exit exitname is now inactive. Message IST984I follows this message and provides additional information.

RETRY
The retry of exit activation for user exit exitname failed during initialization. The exit exitname is now inactive.

code, in hexadecimal format, indicates the type of failure:

04 The exit function of VTAM could not be initialized.
06 An error occurred during the retry of exit activation for user exit exitname during initialization because the exit status was not valid for retry.
08 The exit exitname is not known to VTAM.
0A An error occurred during the loading of ISTIECDF. The exit function of VTAM is not available.
0C An error occurred during the loading of ISTIECRT. The exit function of VTAM is not available.
0E An error occurred during the loading of ISTIECVR. The exit function of VTAM is not available.
10 The exit exitname is already in the desired state.
14 There is not enough storage to perform this action on the user defined exit exitname.
18 You are not authorized to modify the exit exitname. OPTION=FORCE is not valid for a program operator application (POA) program.
1C An abend occurred during the activation, deactivation, invocation, or replacement of the exit exitname.
1E The exit exitname is being deactivated.
20 An error occurred while loading the exit exitname module.
24 An error occurred while loading the initialization module for exit exitname.
26 The exit exitname module or the initialization module for exit exitname cannot be loaded because the asynchronous load subtask is not available.
28 Activation of the exit exitname is already in progress.
2A The exit exitname is not supported for a subarea node.
2C The exit exitname is being deactivated in response to a request to replace this exit with one that has less function.
2E The exit activation has failed because the subtask is detached after abending five times.
30 The exit function of VTAM is not available.
40 The exit function of VTAM has terminated.
F0 The exit exitname is not active.
F1 Deactivation of the exit exitname is already in progress.
F2 An abend occurred during processing in the exit exitname.
F3 Replacement of the exit exitname is already in progress.

System action: For codes 04 and 06 processing continues; user exit exitname will not be available.
For codes 08, 10, and 40 processing continues.
For codes 0A, 0C, 0E, and 30 VTAM initialization fails.
For codes 14, 18, 1C, 1E, 2A, 2E, and F0 the command is not executed.
For codes 20 and 24 the exit exitname cannot be found and will not be invoked.
IST985I

For code 26 the exit exitname cannot be loaded and will not be invoked.
For code 28 activation of exit exitname will continue.
For code 2C and F1 deactivation of exit exitname will continue.
For code F2 the exit exitname will be disabled and will not be invoked during further requests.
For code F3 replacement of the exit exitname will continue.

Operator response: For codes 04, 08, 0A, 0C, 0E, 1C, 30, 40, and F2 save the system log for problem determination.
For code 06 after VTAM has been initialized, save the system log and request a dump for problem determination.
After the dump is complete, wait a short time and attempt to activate exit exitname with the MODIFY EXIT command.
For codes 10 and 2A no further action is required.
For code 14 if VTAM has been initialized, wait a short time and reenter the command. If VTAM continues to issue this message, enter the DISPLAY BFRUSE command. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and request a dump for problem determination.
If VTAM initialization failed, save the system log for problem determination.
For code 18 verify that exit exitname is correct and reenter the command. Save the system log for problem determination if the failure reoccurs. If action is FORCE, you must issue the MODIFY,EXIT,OPTION=FORCE from a system console.
For codes 20, 24, and F0 verify that exit exitname is correct and reenter the command. Save the system log for problem determination if the failure reoccurs.
For code 26, if the code is received at VTAM initialization, enter the MODIFY EXIT command to activate the exit. Save the system log and request a dump for problem determination if the failure occurs when the command is entered.
For code 1E and F1 wait for deactivation of exit exitname to complete and reenter the command.
For code 28 wait for the activation of exit exitname to complete and reenter the command.
For code 2C verify that you want to activate a new exit with less function than the old exit. Reenter the MODIFY EXIT command specifying OPT=ACT to activate the correct exit.
In the future to replace an exit with one that has less function, enter a MODIFY EXIT command specifying OPT=INACT to deactivate the old exit. Then enter a MODIFY EXIT command specifying OPT=ACT to activate the new exit.
For code F3 wait for the replacement of exit exitname to complete and reenter the command.
For code 2E save the console log for problem determination. Notify the system programmer to restart VTAM to reattach the subtask.

System programmer response: For codes 04, 08, 0A, 0C, and 0E determine whether modules are loaded correctly by VTAM.
If you cannot determine the cause of the problem from the output provided, take the following actions:
• If you have access to IBMLink, search for known problems with similar symptoms. If no applicable matches are found, report the problem to IBM by using the Electronic Technical Report (ETR) option on IBMLink.
• If you do not have access to IBMLink, report the problem to the IBM Support Center.
For codes 06, 1C, 26, 30, and 40, if you cannot determine the cause of the problem from the output provided, take the following actions:
• If you have access to IBMLink, search for known problems with similar symptoms. If no applicable matches are found, report the problem to IBM by using the Electronic Technical Report (ETR) option on IBMLink.
• If you do not have access to IBMLink, report the problem to the IBM Support Center.
For codes 10, 1E, 28, 2A, 2C, F1, and F3 no further action is required.
For code 14 you might want to redefine your buffer pool or CSA start options. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM options file (ATCSTRxx) and restart VTAM to use the start option.


See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](https://www.ibm.com/support/knowledgecenter/en/SS1QG6_7.2.0/com.ibm.zos.v1r12.doc/zos_op_sw.html) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

For code 18, verify that the correct exit name was used and that the exit resides in the correct load library.

For codes 20, 24, and F0, verify that the correct exit name was used and that the exit resides in the correct load library. See [z/OS Communications Server: SNA Customization](https://www.ibm.com/support/knowledgecenter/en/SS1QG6_7.2.0/com.ibm.zos.v1r12.doc/zos_op_sw.html) for more information about these exit routines.

For code F2, the abend was caused by a failure in the exit code. Verify that the exit exitname is functioning properly.

For code 2E, restart VTAM to reattach the subtask.

**Routing code:** 8

**Descriptor code:** 4

---

**IST986I**

TABLE=tablename TYPE=tabletype USE COUNT=usecount

**Explanation:** This message is part of a group of messages that VTAM issues in response to a DISPLAY TABLE command. Possible message groups follow.

- If MSGLVL=V4R1 or above is specified, the following message group is displayed:
  
  IST986I TABLE=tablename TYPE=tabletype USE COUNT=usecount
  
  IST987I THE RESOURCES THAT USE THE TABLE ARE:
  
  IST1154I resourcename_1 ... resourcename_n
  
  IST1454I count RESOURCE(S) DISPLAYED
  
  IST314I END

- If MSGLVL=BASE is specified or taken as the default, the following message group is displayed:
  
  IST986I TABLE=tablename TYPE=tabletype USE COUNT=usecount
  
  IST987I THE RESOURCES THAT USE THE TABLE ARE:
  
  IST988I resourcename_1 ... resourcename_n
  
  IST1454I count RESOURCE(S) DISPLAYED
  
  IST314I END


** IST986I**

- `tablename` is the name of the table entered on the DISPLAY command.
- `tabletype` is the type of table that `tablename` represents and can be one of the following:
  
  **ASLTAB**
  
  Associated LU table
  
  **COSTAB**
  
  Class-of-service table
  
  **FLDTAB**
  
  Message flooding table
  
  **LOGTAB**
  
  Interpret table
**MDLTAB**
Model name table

**MODETAB**
Logon mode table

**USSTAB**
Unformatted system services table

**NA**
Name not available. The USS or interpret table was either assembled with pre-V3R2 macros or did not have FORMAT=DYNAMIC coded on the USSTAB macro.

`usecount` is the number of resources that use the table.

**Note:** If `tabletype` is COSTAB, `usecount` can be higher than the number of user resource names displayed. This will occur if PU type 4 or PU type 5 uses the `tablename` for multiple network IDs. Enter a DISPLAY COS,ID=resource_name,NETID=netid command to determine which network IDs use the specified table for the PU type 4 or PU type 5 resource.

**IST987I**
This message is a header message for the information displayed in message IST988I and IST1154I.

If `tabletype` is not COSTAB, you might not be able to display all of the resources listed in message IST988I or message IST1154I. Examples of resources that cannot be displayed are model logical units and reset logical units defined under a shared NCP.

**IST988I**
If network-qualified names are not displayed, VTAM issues this message.

`resource_name` is a PU type 4 or PU type 5 if `tabletype` is COSTAB. For other table types, `resource_name` is a logical unit or an application.

**IST1154I**
If network-qualified names are displayed, VTAM issues this message.

`resource_name` is a PU type 4 or PU type 5 if `tabletype` is COSTAB. For other table types, `resource_name` is a logical unit or an application in the form `netid.name`.

**IST1454I**
`count` is the total number of resources using this table.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

**IST987I**
THE RESOURCES THAT USE THE TABLE ARE:

**Explanation:** This message is part of a group of messages that VTAM issues in response to a DISPLAY TABLE command. See IST986I for a complete description of the message group.

**Routing code:** 2

**Descriptor code:** 5
IST988I  

resourcename_1 ... resourcename_n

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY TABLE command. See IST986I for a complete description of the message group.

This message is also part of a group of messages that VTAM issues in response to a DISPLAY LMTBL,TYPE=LUNAME or DISPLAY LMTBL,TYPE=LOGMODE command. See IST1006I for a complete description of the message group.

Routing code: 2
Descriptor code: 5

IST989I  

EXP LIMIT explimit BUFFS REQUESTED buffers

Explanation: This message is part of a message group. The first message in the group is IST920I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST990E  

CORRELATOR MISMATCH FOR loadmodname IGNORED — ACTIVATION CONTINUES

Explanation: During the activation of NCP load module loadmodname, VTAM detected a correlator mismatch between the generated correlator and the correlator loaded in the communication controller. VTAM ignores the mismatch because VFYC=IGNORE was specified on the NCP’s PCCU definition statement, or ‘IGNORE’ was the reply to message IST937A. However, the mismatch might be a user error and ignoring it could lead to potential problems.

System action: Activation continues.

Operator response: If the correlator mismatch was unintentional, deactivate and reload the NCP.
If the correlator mismatch was intentional, none.

System programmer response: If the correlator mismatch was unintentional, either generate the NCP again or change the value of VFYC on the PCCU definition statement.
If the correlator mismatch was intentional, none.

Routing code: 2
Descriptor code: 3

IST991I  

CORRELATOR MISMATCH FOR loadmodname FOUND—RELOAD SCHEDULED

Explanation: During the activation of NCP load module loadmodname, VTAM detected a correlator mismatch between the generated correlator and the correlator loaded in the communication controller.

This message indicates that a reload of the NCP has been scheduled and will occur for one of the following reasons:
• VFYC=NO is specified or defaulted on the NCP’s PCCU definition statement.
  When there is a mismatch between the NCP load module and the resource resolution table (RRT), a repeated reload of the NCP occurs until an operator deactivates the NCP.
• ‘RELOAD’ was the reply to message IST937A.

System action: The NCP is reloaded.

Operator response:
• If the correlator mismatch was not intentional, save the system log for problem determination.
  If the NCP is in a continuous loop, enter a VARY INACT command to deactivate the NCP.
• If the correlator mismatch was intentional, no action is required.

System programmer response:
• If the correlator mismatch was not intentional, either generate the NCP again or change the value of VFYC on the PCCU definition statement.
IST998E • IST1001I

• If the correlator mismatch was intentional, no action is required.

Routing code: 2
Descriptor code: 5

IST998E  VTAM MESSAGE messageid ISSUED BUT DOES NOT EXIST

Explanation: VTAM could not locate messageid in any of the VTAM message tables associated with the destination of the message (a VTAM operator or a program operator application).

System action: Processing for message messageid is complete.

Operator response: Save the system log for problem determination.

System programmer response: Determine whether a valid VTAM message ID is missing from one of the following message modules:
• ISTINCNO, the IBM-supplied default operation-level USS table
• ISTCFCMM, the IBM-supplied default message table
• The USS table specified by the USSTAB start option
• The USS table specified by the USSTAB operand on the APPL definition statement for a program operator application
• The USS table specified for an application program using the MODIFY TABLE command.

If messageid is a valid VTAM message ID, it should always be found in ISTINCNO, the IBM-supplied default operation-level USS table. This message is evidence that the USS tables have been improperly modified or installed.

If messageid is not a valid VTAM message ID, take the following actions:
• If you have access to IBMLink, search for known problems with similar symptoms. If no applicable matches are found, report the problem to IBM by using the Electronic Technical Report (ETR) option on IBMLink.
• If you do not have access to IBMLink, report the problem to the IBM Software Support Center.

Routing code: 2
Descriptor code: 3

IST999E  VTAM MESSAGE LOST — INSUFFICIENT STORAGE

Explanation: VTAM tried to issue a message, but sufficient storage was not available. Any text issued by VTAM after INSUFFICIENT STORAGE should be ignored.

System action: Processing continues.

Operator response: If the message can be related to a command, and it is necessary that you see the full message, release storage by deactivating unused major nodes or canceling the job, and reenter the command that caused the message.

If the storage problem persists, enter a DISPLAY BFRUSE command. Save the system log and dump for problem determination.

System programmer response: You might have underestimated storage requirements for the common service area (CSA). Increase storage as required. See z/OS Communications Server: SNA Operation for more information on the DISPLAY BFRUSE command. The z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures provides additional information.

Routing code: 2
Descriptor code: 3

IST1001I  ID= applname [LUNAME= luname] [LOGMODE= logmode]

Explanation: This message is the first in a group of messages that VTAM issues in response to a MODIFY CNOS, MODIFY DEFINE, or DISPLAY CNOS command. A complete description of the message group follows the example.
If `rcpri` and `rcsec` in message IST1002I indicate that the command did not execute successfully, VTAM issues only messages IST1001I and IST1002I. If the command executed successfully, VTAM issues the complete message group.

**IST1001I**

- `applname` is the name of the LU 6.2 application program specified in the operator command.
- `luname` is the name of the partner LU for this application program.
- `logmode` is the name of the logon mode for this application program.

**IST1002I**

- `rcpri` is the value of the primary return code issued by VTAM.
- `rcsec` is the value of the secondary return code issued by VTAM. See the [z/OS Communications Server: IP and SNA Codes](https://www.ibm.com/support/knowledgecenter/SSEPEW_8.2.1/ integration/comm/snsa_codes.html) for a detailed explanation of `rcpri` and `rcsec`.

**IST1003I**

- This message is issued only if the command executed successfully.
- `varname` can be one of the following:
  - **MINWINL**
    - The minimum number of parallel sessions for which the application program is guaranteed to be the contention winner for the mode name specified in the LOGMODE operand.
  - **MINWINR**
    - The minimum number of parallel sessions for which the partner LU is guaranteed to be the contention winner for the mode name specified in the LOGMODE operand.
  - **SESSLIM**
    - The maximum number of LU-LU sessions allowed between the application program and the partner LU for the mode name specified in the LOGMODE operand.
    - `cnosvalue` is the value of `varname` for CNOS. This is the value accepted by both partner LUs.
    - `definedvalue` is the value of `varname` for DEFINE. VTAM uses this value internally when negotiating CNOS origination from the partner LU.

**IST1005I**

- This message is issued only if the command executed successfully.
- The following describes the Field names and their values:
  - **AUTOSES**
    - The number of contention winner sessions that will be automatically started following a successful CNOS command.
  - **CONVCAP**
    - CONVCAP indicates whether sessions with the partner logical unit (LU) can support half-duplex conversations or both full-duplex and half-duplex conversations.
      - **Value** | **Meaning**
        | | |
        | FDX | The partner LU can support both full-duplex and half-duplex conversations. |
        | HDX | The partner LU can support only half-duplex conversations. |
    - VTAM cannot display the value of CONVCAP until the first session with the partner LU has been established. If the first session has not been established, VTAM displays ***NA***.
CONVSECL
CONVSECL indicates the security level supported by the application program.

<table>
<thead>
<tr>
<th>Value</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>NONE</td>
<td>The application program does not accept FMH-5s that include security subfields.</td>
</tr>
<tr>
<td>CONV</td>
<td>The application program accepts FMH-5s that include security subfields.</td>
</tr>
</tbody>
</table>

ALREADYV
The application program accepts FMH-5s that include security subfields and accepts the already verified indicator in place of the password subfield.

PERSISTV
The application program supports conversation-level security and accepts the persistent verification indicator in the conversation requests it receives.

AVPV
The application program supports conversation-level security and accepts both the persistent verification indicator and the already verified indicator in the conversation requests it receives.

VTAM cannot display the value of CONVSECL until the first session has been established with the partner LU. If the first session with the partner LU has not been established, VTAM displays ***NA***.

CONVSECP
CONVSECP indicates the security level supported by the partner LU.

<table>
<thead>
<tr>
<th>Value</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>NONE</td>
<td>The partner LU does not accept FMH-5s that include security subfields.</td>
</tr>
<tr>
<td>CONV</td>
<td>The partner LU accepts FMH-5s that include security subfields.</td>
</tr>
</tbody>
</table>

ALREADYV
The partner LU accepts FMH-5s that include security subfields and accepts the already verified indicator in place of the password subfield.

PERSISTV
The partner LU supports conversation-level security and accepts the persistent verification indicator in the conversation requests it receives.

AVPV
The partner LU supports conversation-level security and accepts both the persistent verification indicator and the already verified indicator in the conversation requests it receives.

VTAM cannot display the value of CONVSECP until the first session has been established with the partner LU. If the first session with the partner LU has not been established, VTAM displays ***NA***.

DDRAINL
DDRAINL indicates whether VTAM accepts a CNOS request that allows an application program to drain its allocation requests.

<table>
<thead>
<tr>
<th>Value</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALLOW</td>
<td>VTAM accepts a CNOS request that allows an application program to drain its allocation requests.</td>
</tr>
<tr>
<td>NALLOW</td>
<td>VTAM does not accept a CNOS request that allows an application program to drain its allocation requests.</td>
</tr>
</tbody>
</table>

DELETE
DELETE specifies whether the mode name can be deleted from the LU-mode table.

<table>
<thead>
<tr>
<th>Value</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALLOW</td>
<td>The mode name can be deleted from the LU-mode table.</td>
</tr>
<tr>
<td>NALLOW</td>
<td>The mode name cannot be deleted from the LU-mode table.</td>
</tr>
</tbody>
</table>
DRAINL  
DRAINL indicates whether the application program can drain its allocation requests.

<table>
<thead>
<tr>
<th>Value</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES</td>
<td>The application program can drain its allocation requests.</td>
</tr>
<tr>
<td>NO</td>
<td>The application program cannot drain its allocation requests.</td>
</tr>
</tbody>
</table>

DRAINR  
DRAINR indicates whether the partner LU can drain its allocation requests.

<table>
<thead>
<tr>
<th>Value</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES</td>
<td>The partner LU can drain its allocation requests.</td>
</tr>
<tr>
<td>NO</td>
<td>The partner LU cannot drain its allocation requests.</td>
</tr>
</tbody>
</table>

DRESPL  
DRESPL specifies whether VTAM accepts a CNOS request specifying that the application program is responsible for deactivating sessions.

<table>
<thead>
<tr>
<th>Value</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALLOW</td>
<td>VTAM accepts a CNOS request specifying that the application program is responsible for deactivating sessions.</td>
</tr>
<tr>
<td>NALLOW</td>
<td>VTAM does not accept a CNOS request specifying that the application program is responsible for deactivating sessions.</td>
</tr>
</tbody>
</table>

ETYPE  
ETYPE indicates the type of LU entry that contains the specified LUNAME.

<table>
<thead>
<tr>
<th>Value</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>DISASSOC</td>
<td>LUNAME was found in a DISASSOC_NAME entry. The LU entry was previously a VARIANT_NAME entry, but is no longer associated with any other entry.</td>
</tr>
<tr>
<td>RCVD</td>
<td>LUNAME was found in a RCVD_NAME entry. This LU entry is created due to a session initiation request from the partner LU.</td>
</tr>
<tr>
<td>SUPPLIED</td>
<td>LUNAME was found in a SUPPLIED_NAME entry. This LU entry is created using the LU name specified on the APPCCMD macro or an OPERATOR command.</td>
</tr>
<tr>
<td>UNUSABLE</td>
<td>LUNAME was found in an UNUSABLE_NAME entry. The LU entry was marked unusable due to inappropriate name translations.</td>
</tr>
<tr>
<td>VARIANT</td>
<td>LUNAME was found in a VARIANT_NAME entry. This LU entry is created when the LUNAME, found in the Network-Qualified SLU Network Name Structured User Data subfield in the BIND response, is different than the LUNAME specified in the BIND request.</td>
</tr>
</tbody>
</table>

FREECNT  
The number of active sessions with the partner LU that are free for use by a conversation.

QALLOC  
The number of allocation requests waiting for a session to become free.

RESP  
RESP specifies whether the application program is responsible for deactivating sessions.

<table>
<thead>
<tr>
<th>Value</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOCAL</td>
<td>The application program is responsible for deactivating sessions.</td>
</tr>
<tr>
<td>REMOTE</td>
<td>The partner LU is responsible for deactivating sessions.</td>
</tr>
</tbody>
</table>
VTAM displays a value for RESP only in response to a MODIFY CNOS command. VTAM displays ***NA*** instead of a value when the MODIFY DEFINE or DISPLAY CNOS commands are entered.

SESSCAP
SESSCAP indicates the session capability of the partner LU.

<table>
<thead>
<tr>
<th>Value</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSINGLE</td>
<td>The session capability of the partner LU has not been determined; the preliminary indication is that the partner LU cannot support parallel sessions.</td>
</tr>
<tr>
<td>SINGLE</td>
<td>The partner LU cannot support parallel sessions.</td>
</tr>
<tr>
<td>PPARALLEL</td>
<td>The session capability of the partner LU has not been determined; the preliminary indication is that the partner LU can support parallel sessions.</td>
</tr>
<tr>
<td>PARALLEL</td>
<td>The partner LU can support parallel sessions.</td>
</tr>
</tbody>
</table>

SESSCNT
The number of active sessions with the partner LU that have the specified mode name.

SYNCLVL
SYNCLVL specifies the synchronization level supported by the conversation.

<table>
<thead>
<tr>
<th>Value</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>NONE</td>
<td>No synchronization level is supported.</td>
</tr>
<tr>
<td>CONFIRM</td>
<td>The CONFIRM synchronization level is supported.</td>
</tr>
<tr>
<td>SYNCPT</td>
<td>The SYNCPT and CONFIRM synchronization levels are supported.</td>
</tr>
</tbody>
</table>

WINLCNT
The number of active sessions for which the application program is the contention winner.

WINRCNT
The number of active sessions for which the partner LU is the contention winner.

See the z/OS Communications Server: SNA Programmer's LU 6.2 Guide for a more detailed explanation of these field names and their values.

System action: Processing continues.

Operator response: If messages IST1005I and IST1003I are not in this group, save the system log for problem determination.

Otherwise, no action is required.

System programmer response: Use the system log and return code values in message IST1002I to assist you in solving the problem.

Routing code: 8
Descriptor code: 5

IST1002I RCPRI= rcpri RCSEC= rsec

Explanation: VTAM issues this message as part of a group of messages. The first message in the group is either IST1001I, IST1110I or IST1472I. See the explanation of the first message in the group for a complete description.

rcpri is the value of the primary return code issued by VTAM.

rsec is the value of the secondary return code issued by VTAM.

See the z/OS Communications Server: IP and SNA Codes for a detailed explanation of rcpri and rsec.
IST1003I • IST1004I

Routing code: 8
Descriptor code: 5

IST1003I  varname CNOS=cnosvalue DEFINE=definedvalue
Explanation: VTAM issues this message as part of a group of messages. The first message in this group is IST1001I. See the explanation of that message for a complete description.
Routing code: 8
Descriptor code: 5

IST1004I  command FOR nodename FAILED – reason
Explanation: VTAM issues this message when one of the following commands fails:
• DISPLAY CNOS
• DISPLAY CONVID
• DISPLAY LMTBL,TYPE=LUNAME
• DISPLAY LMTBL,TYPE=LOGMODE
• DISPLAY STORUSE
• MODIFY CNOS
• MODIFY DEFINE

nodename is the name of the local application program that was specified on the command. The network ID of nodename is the same as the host network ID.

reason can be one of the following:

APPLICATION JOB NOT FOUND
The requested job name is not found.

APPLICATION NOT ACTIVE
The application has not opened its ACB.

APPLICATION NOT FOUND
The requested application is not found.

DATA SPACE NOT FOUND
The requested data space is not found.

DEACTIVATION IN PROGRESS
The application program issued a CLOSE that has not yet completed, a VARY INACT command has been issued for the application program, or VTAM has become inactive.

INSUFFICIENT STORAGE
There is not enough storage available to complete the request.

NO APPLICATION ACTIVE
No VTAM application has opened its ACB.

NO APPLICATION DATA SPACE
The application does not have a VTAM data space.

NODE ACB IS CLOSED
The application program closed its application control block (ACB).

NODE NOT ACTIVE
The application program has not opened its ACB.

NODE NOT APPC CAPABLE
Either nodename is not the name of an application program, or nodename is the name of an application program but APPC=YES was not specified on the APPL definition statement.
IST1004I

OPERATOR COMMAND NOT ALLOWED
The application program is APPC capable, but OPERCNOS=ALLOW was not specified on the APPL definition statement.

POOL NOT FOUND
The requested pool is not found.

VTAM ERROR
VTAM abended while processing the command.

System action: VTAM rejects the command. Processing continues.
Operator response: The value of reason determines the response:

APPLICATION JOB NOT FOUND
Try the command again with the correct job name.

APPLICATION NOT ACTIVE
Activate the application program with a VARY ACT command. If this does not solve the problem, save the system log for problem determination.

APPLICATION NOT FOUND
Try the command again with the correct application name.

DATA SPACE NOT FOUND
Try the command again with the correct data space name.

DEACTIVATION IN PROGRESS
Take the appropriate action:
- If a CLOSE ACB or VARY INACT command has been issued, enter a VARY ACT command to restart the application program.
- If VTAM has become inactive, save the system log for problem determination.

INSUFFICIENT STORAGE
Wait a short time and reenter the command. If VTAM continues to issue this message, enter the DISPLAY BFRUSE or DISPLAY STORUSE command. Save the system log and dump for problem determination.

NO APPLICATION ACTIVE
Try the command again when an application has opened its ACB.

NO APPLICATION DATA SPACE
If nodename is ISTPDCLU, no action is necessary. If any other application is specified, save the system log for problem determination.

NODE ACB IS CLOSED
Activate the application program with a VARY ACT command. If this does not solve the problem, save the system log for problem determination.

NODE NOT ACTIVE
Activate the application program with a VARY ACT command. If this does not solve the problem, save the system log for problem determination.

NODE NOT APPC CAPABLE
Determine if the specified nodename is correct.
- If nodename is not correct, try the command again by specifying the correct nodename.
- If nodename is correct, save the system log for problem determination.

OPERATOR COMMAND NOT ALLOWED
Save the system log for problem determination.

POOL NOT FOUND
Try the command again with the correct pool name.

VTAM ERROR
Save the system log and dump for problem determination.

System programmer response: The value of reason determines the response:
APPLICATION JOB NOT FOUND
None.

APPLICATION NOT FOUND
None.

APPLICATION NOT ACTIVE
If the operator entered a VARY ACT command to activate the application program and the problem persists, the application program must open its ACB.

DATA SPACE NOT FOUND
None.

DEACTIVATION IN PROGRESS
If VTAM has become inactive, reactivate VTAM.

INSUFFICIENT STORAGE
You might want to redefine your buffer pool or CSA start options. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

- See the Z/OS Communications Server: New Function Summary to determine the storage requirements for VTAM.
- See the Z/OS Communications Server: SNA Resource Definition Reference for a description of VTAM start options.
- See Z/OS Communications Server: SNA Operation for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- See the Z/OS Communications Server: SNA Network Implementation Guide for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
- See the Z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

NO APPLICATION ACTIVE
None.

NO APPLICATION DATA SPACE
If an application other than ISTPDCLU is specified, take the following actions:

- If you have access to IBMLink, search for known problems with similar symptoms. If no applicable matches are found, report the problem to IBM by using the Electronic Technical Report (ETR) option on IBMLink.
- If you do not have access to IBMLink, report the problem to the IBM software support center.

NODE ACB IS CLOSED
If the operator entered a VARY ACT command to activate the application program and the problem persists, the application program must open its ACB.

NODE NOT ACTIVE
If the operator entered a VARY ACT command to activate the application program and the problem persists, the application program must open its ACB.

NODE NOT APPC CAPABLE
Enter a VARY INACT command to deactivate the major node. Enter a DISPLAY ID command for the associated minor node to ensure that the major node is an application program. Examine the APPL definition statement to ensure that APPC=YES was specified. You may need to modify the APPL definition statement, specifying APPC=YES, restart the application program, and try the command again.

OPERATOR COMMAND NOT ALLOWED
Enter a VARY INACT command to deactivate the application program. Modify the APPL definition statement, specifying OPERCNOS=ALLOW, restart the application program, and try the command again.

POOL NOT FOUND
None.

VTAM ERROR
VTAM has abended while processing a DISPLAY CNOS; DISPLAY LMTBL,TYPE=LUNAME; DISPLAY
IST1005I • IST1006I

LMTBL,TYPE=LOGMODE; DISPLAY CONVID; MODIFY CNOS; or MODIFY DEFINE command. See the z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures for information on the abend procedure.

If you cannot determine the cause of the problem from the output provided or need additional assistance, contact the IBM Software Support Center.

Routing code: 8
Descriptor code: 5

---

IST1005I  fieldname=value [fieldname=value] [fieldname=value]

Explanation: VTAM issues this message as part of a group of messages. The first message in this group is IST1001I. See the explanation of that message for a complete description.

Routing code: 8
Descriptor code: 5

---

IST1006I  nametype NAMES DEFINED [IN LU luname] FOR applname

Explanation: This message is the first of a group of messages that VTAM issues in response to a DISPLAY LMTBL command. Possible message groups follow.

If MSGLEVEL=BASE is specified:

- For a DISPLAY LMTBL,TYPE=LUNAME command, the message group is as follows:
  IST1006I nametype NAMES DEFINED FOR applname
  IST908I resourcename_1...resourcename_n
  :                       
  IST314I END

  For a DISPLAY LMTBL,TYPE=LOGMODE command, the message group is as follows:
  IST1006I nametype NAMES DEFINED IN LU luname FOR applname
  IST908I resourcename_1...resourcename_n
  :                       
  IST314I END

If MSGLEVEL=V4R1 or above is specified:

- For a DISPLAY LMTBL,TYPE=LUNAME command, the message group is as follows:
  IST1006I nametype NAMES DEFINED FOR applname
  IST1154I resourcename_1...resourcename_n
  :                       
  IST314I END

  For a DISPLAY LMTBL,TYPE=LOGMODE command, the message group is as follows:
  IST1006I nametype NAMES DEFINED IN LU luname FOR applname
  IST908I resourcename_1...resourcename_n
  :                       
  IST314I END

  For a DISPLAY LMTBL,TYPE=LUNAME,SCOPE=ALL command, the message group is as follows:
  IST1006I nametype NAMES DEFINED FOR applname
  IST1409I luname ASSOC = associatedlu ETYPE = entrytype
  :                       
  IST314I END

See the z/OS Communications Server: SNA Resource Definition Reference for a description of the MSGLEVEL start option and the MSGLEVEL operand on the USSMSG macro.

IST1006I
Message IST1006I is a header for messages IST988I, IST1154I, and IST1409I, which lists all LU or logon mode names defined for the partner LU in the LU-mode table.

*nametype* is either **LU** or **LOGMODE**, depending on the value of the **TYPE** operand in the **DISPLAY LMTBL** command.

**luname** is the name of the partner LU for this application program.

**applname** is the name of the LU 6.2 application program for which DISPLAY information was requested.

**IST988I**

If network-qualified names are not displayed, VTAM issues this message.

**resourcename** is the LU or logon mode name.

**IST1154I**

If network-qualified names are displayed, VTAM issues this message.

**resourcename** is the LU name.

**IST1409I**

- **luname** is the LU name.
- **associatedlu** is the associated LU name. If the **associatedlu** differs from **luname** then **associatedlu** is used to associate this LU entry to another LU entry created for the same partner LU.
- **entrytype** is the type of LU entry that contains the LUNAME specified by **luname**, and can be one of the following.

<table>
<thead>
<tr>
<th>Value</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUPPLIED</td>
<td>LUNAME was found in a SUPPLIED_NAME entry. This LU entry is created using the LU name specified on the APPCCMD macro or an OPERATOR command.</td>
</tr>
<tr>
<td>VARIANT</td>
<td>LUNAME was found in a VARIANT_NAME entry. This LU entry is created when the LUNAME, found in the Network-Qualified SLU Network Name Structured User Data subfield in the BIND response, is different than the LUNAME specified in the BIND request.</td>
</tr>
<tr>
<td>RCVD</td>
<td>LUNAME was found in a RCVD_NAME entry. This LU entry is created due to a session initiation request from the partner LU.</td>
</tr>
<tr>
<td>UNUSABLE</td>
<td>LUNAME was found in an UNUSABLE_NAME entry. The LU entry was marked unusable due to inappropriate name translations.</td>
</tr>
<tr>
<td>DISASSOC</td>
<td>LUNAME was found in a DISASSOC_NAME entry. The LU entry contains a name that is not being used as a generic or uservar name for the partner LU.</td>
</tr>
</tbody>
</table>

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

Routing code: 8

Descriptor code: 5

---

**IST1007I**

**PARTNER = luname, LOGMODE = logmode**

**Explanation:** VTAM issues this message as part of a group of messages. The first message in this group is IST1040I. See the explanation of that message for a complete description.

Routing code: 8

Descriptor code: 5
IST1008I • IST1011I

IST1008I  CONVID = convid, STATUS = status, ETIME = etime

Explanation: VTAM issues this message as part of a group of messages. The first message in this group is IST1040I. See the explanation of that message for a complete description.

Routing code: 8
Descriptor code: 5

IST1009I  SID = sid, HPDT = hpdtvalue

Explanation: VTAM issues this message as part of a group of messages. The first message in this group is IST1040I. See the explanation of that message for a complete description.

Routing code: 8
Descriptor code: 5

IST1010I  NO CONVERSATION(S) FOUND FOR applname

Explanation: VTAM issues this message in response to a DISPLAY CONVID command when no conversations for application program applname are found based on the specified operands.
applname is the name of the LU 6.2 application program for which DISPLAY information was requested.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 8
Descriptor code: 5

IST1011I  ENTRY entryname NOT FOUND IN tabletype tablename FOR resourcename

Explanation: VTAM issues this message during session initiation if it cannot find a table entry for a resource. No entryname entry exists in the tabletype table tablename that is defined for the resource resourcename.
entryname is the entry that was specified on the LU, LOCAL, TERMINAL, or APPL definition statement.
tabletype is MDLTAB (model name table) or ASLTAB (associated LU table).
tablename is the name of the table.
resourcename is the 1–8 character resource name specified on the LU, LOCAL, TERMINAL, or APPL definition statement. entryname is defined for this resource.

System action: If tabletype is MDLTAB, session establishment continues with no model name provided to the PLU.
If tabletype is ASLTAB, session establishment continues with no associated LU names provided to the PLU.

Operator response: Save the system log for problem determination. Provide the entryname and tablename.

System programmer response: Verify that tablename is the correct table for resourcename. If it is not, do one of the following:
• Change the tablename in the logical unit definition and reactivate the logical unit.
• Enter a MODIFY TABLE command to associate the correct table with the logical unit.

If tablename is correct, verify that the entryname specified in the logical unit definition matches the entryname in the table. If the entrynames do not match, do one of the following:
• Change the entryname in the logical unit definition and reactivate the logical unit.
• Add, replace, or correct the entryname in the table and enter MODIFY TABLE to use the updated table.

Routing code: 2
Descriptor code: 5
IST1012I  NO PARTNER LU(S) DEFINED FOR applname

Explanation: VTAM issues this message in response to a DISPLAY LMTBL, TYPE=LUNAME command when there are no LU entries defined in the LU-mode table of application program applname.

applname is the name of the LU 6.2 application program for which DISPLAY information was requested.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 8

Descriptor code: 5

IST1013I  NO LOGMODE(S) DEFINED IN LU luname FOR applname

Explanation: VTAM issues this message in response to a DISPLAY LMTBL, TYPE=LOGMODE command when there are no logon mode entries defined for luname in the LU-mode table of application program applname.

luname is the name of the specified LU.
applname is the name of the LU 6.2 application program for which DISPLAY information was requested.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 8

Descriptor code: 5

IST1015I  APPLICATION SUPPLIED parameter_name = parameter_value

Explanation: This message is part of a message group. The first message in the group is IST663I. See the explanation of that message for a description of the entire message group.

This message is the first of a subgroup of messages in the IST663I group of messages. A complete description of the message subgroup follows.

IST1015I APPLICATION SUPPLIED parameter_name = parameter_value

This message subgroup is issued only to the operator of the host of the secondary logical unit.

parameter_name is the name of the parameter displayed in the message subgroup, and is one of the following:

CPNAME

parameter_value displays the control point (CP) name of the type 2.1 peripheral node supplied by the application program for the switched connection.

GROUP NAME

parameter_value displays the name of a GROUP definition statement in the NCP or channel attachment major node that defines a group of SDLC switched links.

DIAL NUMBER

parameter_value displays the line number supplied by the application program for the switched connection. If parameter_value contains unprintable characters, the message will appear as follows:

IST1015I APPLICATION SUPPLIED DIAL NUMBER=X'parameter_value'

If the message contains any unprintable characters, the dial number is preceded by an “X”. If the message contains only printable characters, the dial number is not preceded by an “X”.

Chapter 7. IST messages for VTAM network operators IST800I – IST1199I  359
DLCADDR SUBFIELD

`parameter_value` displays the DLCADDR subfield supplied by the application program for the switched connection. If `parameter_value` contains unprintable characters, the message will appear as follows:

IST1015I APPLICATION SUPPLIED DLCADDR SUBFIELD=yy,X'parameter_value'

If the message contains any unprintable characters, the DLCADDR subfield is preceded by an “X”. If the message contains only printable characters, the DLCADDR subfield is not preceded by an “X”.

`yy` is the subfield ID.

DIRECT CALL LINE

`parameter_value` displays the name of the line supplied by the application program for the switched connection.

IDBLK/IDNUM

`parameter_value` displays the identification block (IDBLK) and identification number (IDNUM) supplied by the application program for the switched connection. IDBLK identifies the device type and IDNUM identifies the specific device or connection for the switched connection.

For IDBLK/IDNUM, `parameter_value` is 64 characters long; there are no spaces between the values of IDBLK and IDNUM. This field is always displayed in hex. VTAM displays the first portion of `parameter_value` in message IST1015I and the remainder in message IST1028I. The message subgroup will appear as follows:

IST1015I APPLICATION SUPPLIED IDBLK/IDNUM=X'parameter_value'
IST1028I parameter_value'

See the z/OS Communications Server: SNA Resource Definition Reference for more information on the IDBLK, IDNUM, and CPNAME operands for switched major nodes.

System action: The session initiation attempt fails.

Operator response: Save the system log for problem determination.

System programmer response: Use the information in messages IST663I, IST664I, and IST889I to determine the cause of the error. Possibilities include dial numbers not in the correct form or an XID failure. This is not necessarily a system programmer error. If it is not, notify the application programmer.

Routing code: 8

Descriptor code: 4

IST1016I DYNAMIC DEFINITION OF nodename FAILED

Explanation: This message is the first in a group of messages that VTAM issues when an error is detected while building a dynamic switched physical unit, logical unit, or transport resource list entry (TRLE). A complete description of the message group follows.

IST1016I DYNAMIC DEFINITION OF nodename FAILED
[IST1061I FAILURE OCCURRED ON puname AT locaddr]
IST523I REASON = reason
IST314I END

IST1016I

`nodename` is the name of the PU, LU, or TRLE that cannot be built. `nodename` can be *NA* if the name contains non-printable characters.

IST1061I

VTAM issues message IST1061I when the SDDLU dynamic definition of an LU fails.

`puname` is the name of the PU for which a dynamic LU could not be built.

`locaddr` is the address of the LU that could not be built.

IST523I

- `reason` indicates the reason for the failure and is one of the following:
ERROR IN SDDLU EXIT OR EXIT NOT AVAILABLE
Either the selection of definitions for dependent LUs (SDDLU) exit routine has not been activated, or there
was an error in SDDLU exit processing. Errors that the SDDLU exit routine can detect include:
– The SDDLU exit routine could not generate an LU name.
– The SDDLU exit routine could not determine which model LU name to use.

INSUFFICIENT DEVICE ADDRESSES
There were not enough device addresses to create the TRLE identified by nodename.

INSUFFICIENT STORAGE
Storage could not be obtained for the dynamic resource.

INVALID NAME
Either the node name or the model name returned by the configuration services XID exit routine or the
SDDLU exit routine is not valid. Resource definition fails for the node with the name that is not valid.

INVALID RESOURCE TYPE
The definition for the independent LU was attempted. This is not a valid resource type.

MODEL LU GROUP lugroup NOT FOUND
The model LU group specified on the PU definition statement of puname is not active, or the LU group name
entered on the VARY ACT command is not a valid VTAM name.

MODEL modelname NOT FOUND
The model PU or LU could not be found.

MODEL modelname TYPE DOES NOT MATCH NODE TYPE
The type of the model is incorrect. A PU model was specified when describing an LU node, or an LU model
was specified when describing a PU node. modelname is the name of a model PU or LU.

NO MODEL MATCHES modelname
The model name of the powering on device does not match any of the model LUs in the LUGROUP specified
on the PU. modelname is the machine type and model number.

puname DOES NOT SUPPORT DEPENDENT LOGICAL UNITS
Switched PU puname does not support dependent LUs because the link from the remote PU is not configured
to support dependent LUs (ACTPU is suppressed).

VALUE FOR LOCADDR NOT VALID
An address override of LOCADDR was requested but the new value was not valid.

System action:
INSUFFICIENT DEVICE ADDRESSES
The definition of the TRLE cannot be completed. The TRLE cannot be used by any TCP/IP stack. If
nodename is IUTIQCx or IUTIQ6xx, the OSX interface for CHPID xx and its associated TRLE remain active,
but will have no associated IQDX interface or IQDX TRLE. Other active dynamic IQDX interfaces and
TRLEs are not affected. Without taking an action to make more device addresses available, all subsequent
dynamic definitions of IQDX TRLEs will fail.

All other reasons
The definition of this resource cannot be completed. If resource definition fails for an LU, VTAM attempts to
define any remaining LUs. If resource definition fails for a PU, VTAM does not attempt to define any LUs
associated with the failed PU.

Operator response:
INSUFFICIENT STORAGE
Enter a DISPLAY BFRUSE or DISPLAY STORUSE command. Save the system log and request a dump for
problem determination.

MODEL LU GROUP lugroup NOT FOUND
Enter a VARY ACT command to activate the LUGROUP definition that contains the lugroup model LU group.
Save the system log for problem determination.

MODEL modelname NOT FOUND
Enter a DISPLAY MODELS command to list all defined models. Either the model major node has not been
activated or the name requested by the exit is incorrect.
• Activate the model major node if it has not been activated. After the model major node has been activated, dial in can be attempted again.

  Note: The dial in must be done by the remote device; the operator generally cannot perform the dial in.
• If the model major node name is incorrect, save the system log for problem determination.

**pname**  **DOES NOT SUPPORT DEPENDENT LOGICAL UNITS**

No action is necessary unless this host should be identified as the owner of dependent LUs off of the remote PU. If this is the case, the remote PU must be reconfigured so it will indicate to this host that ACTPU should not be suppressed.

**All other reasons**

Save the system log for problem determination.

**System programmer response:**

**ERROR IN SDDLU EXIT OR EXIT NOT AVAILABLE**

Verify that the exit is in the VTAMLIB and that the exit has been activated. If the exit is active, there is an error in the exit that must be corrected. See [z/OS Communications Server: SNA Customization](https://www.ibm.com/support/knowledgecenter/SSD748_2.2.0/com.ibm.zos.zos.messages/ztext/ist1016i.html) for more information on the SDDLU exit routine.

**INSUFFICIENT DEVICE ADDRESSES**

Increase the number of subchannel addresses for the channel path ID (CHPID) associated with the TRLE identified by **nodename**. If **nodename** is IUTIQxx or IUTIQ6x, see [Steps for enabling HiperSockets™ access to the intraensemble data network](https://www.ibm.com/support/knowledgecenter/SSD748_2.2.0/com.ibm.zos.zos.messages/ztext/ist1016i.html) in [z/OS Communications Server: IP Configuration Guide](https://www.ibm.com/support/knowledgecenter/SSD748_2.2.0/com.ibm.zos.zos.messages/ztext/ist1016i.html) to determine the number of subchannel addresses required and how to define them.

**INSUFFICIENT STORAGE**

Increase storage as required.

• See the [z/OS Communications Server: New Function Summary](https://www.ibm.com/support/knowledgecenter/SSD748_2.2.0/com.ibm.zos.zos.messages/ztext/ist1016i.html) to determine the storage requirements for VTAM.
• See the [z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com/support/knowledgecenter/SSD748_2.2.0/com.ibm.zos.zos.messages/ztext/ist1016i.html) for a description of VTAM start options.
• See [z/OS Communications Server: SNA Operation](https://www.ibm.com/support/knowledgecenter/SSD748_2.2.0/com.ibm.zos.zos.messages/ztext/ist1016i.html) for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
• See the [z/OS Communications Server: SNA Network Implementation Guide](https://www.ibm.com/support/knowledgecenter/SSD748_2.2.0/com.ibm.zos.zos.messages/ztext/ist1016i.html) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
• See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](https://www.ibm.com/support/knowledgecenter/SSD748_2.2.0/com.ibm.zos.zos.messages/ztext/ist1016i.html) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

**INVALID NAME**

Correct the name returned by the exit routine. After the exit routine has been corrected, dial in can be attempted again.

**INVALID RESOURCE TYPE**

Ensure that the exit routine does not specify an LU model with a LOCADDR of 0 or an address override of 0.

**MODEL LU GROUP lugroup NOT FOUND**

Activate the LUGROUP definition that contains the model LU group **lugroup**. Specify an active LU group on the LUGROUP keyword in the PU definition statement for **pname**.

**MODEL modelname NOT FOUND**

The switched connection installation exit routine, ISTEXCCS, incorrectly specified the model name. Ensure that the exit routine specifies a valid model name. After the exit routine has been corrected, dial in can be attempted again.

**MODEL modelname RESOURCE TYPE DOES NOT MATCH NODE TYPE**

Ensure that the exit routine specifies a PU model when defining a PU, and an LU model when defining an LU. After the exit routine has been corrected, dial in can be attempted again.

**NO MODEL MATCHES modelname**

Add a model LU definition statement under the appropriate LUGROUP that will match the model acronym in question.
VALUE FOR LOCADDR NOT VALID
   Correct the exit routine. After the exit routine has been corrected, dial in can be attempted again.

Routing code:  2
Descriptor code:  5

IST1017I MODELS:

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY ID command for a model major node. Following this message, VTAM issues message IST089I once for each resource defined in the model major node. See the explanations of the other messages in this group for more information.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST1018I MODEL MAJOR NODE = major_node_name

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY MODELS command. See the explanations of the other messages in this group for more information.

major node name is the name of the model major node.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST1019I USERVAR VALUE CLASS TYPE EXIT APPC

Explanation: This message is the first of a group of messages that VTAM issues in response to a DISPLAY USERVAR command. A complete description of the message group follows.

IST1019I USERVAR VALUE CLASS TYPE EXIT APPC
IST1029I uservar value class type exit {YES|NO}...

[IST1315I DISPLAY TRUNCATED AT MAX = number]
IST1454I count USERVAR(S) DISPLAYED
IST314I END

IST1019I
   This message is a header message for information displayed in message IST1029I.

IST1029I
   • VTAM issues message IST1029I once for each USERVAR being displayed.
   • uservar is the name of the USERVAR.
   • value is the value of the USERVAR. value is a network qualified name in the form of netid.name.
   • exit can be YES or NO, indicating whether the USERVAR exit is used for this USERVAR.
   • class can be either USER or AUTO. If class is AUTO, VTAM maintains this USERVAR. If class is USER, the user maintains this USERVAR.
   • The values of type are as follows:

   STATIC
   The USERVAR needs to be queried by other SSCP's only once.
IST1020I • IST1021I

**DYNAMIC**
- The USERVAR needs to be queried by other SSCP s after an abnormal termination of a session using the USERVAR.

**VOLATILE**
- The USERVAR needs to be queried by other SSCP s when a session is initiated using the USERVAR.
- APPC is either **YES** or **NO**, and indicates whether this USERVAR supports advanced program-to-program communications (APPC).

IST1315I

- _number_ is the value specified for the MAX operand.

IST1454I

- _count_ is the total number of USERVARs displayed.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 8

**Descriptor code:** 5

---

**IST1020I** INSUFFICIENT STORAGE—DATA SPACE _dspname_ FULL

**Explanation:** VTAM issues this message when data space _dspname_ is full.

_dspname_ is the name of the data space created by VTAM. The data space name is generated automatically when the data space is created by VTAM and is in one of the following formats:

ISTcccc

- _cccc_ is **0-FFFC**

IST________

- _cccc_ is **1-99999**

**System action:** Processing continues. The action depends on why the requested storage was needed. Other messages may follow identifying the effect this storage condition has on VTAM.

**Operator response:** Enter a DISPLAY STORUSE command for _dspname_. Save the system log for problem determination.

**System programmer response:** Usually this problem occurs when data is either coming in faster than the application can receive it or the application is not issuing RECEIVEs.
- Ensure that sessions with this application have proper pacing counts.
- Verify that the application is not having a problem that is preventing it from issuing RECEIVEs.
- If you cannot determine the cause of the problem from the output provided, take the following actions:
  - If you have access to IBMLink, search for known problems with similar symptoms. If no applicable matches are found, report the problem to IBM by using the Electronic Technical Report (ETR) option on IBMLink.
  - If you do not have access to IBMLink, report the problem to the IBM software support center. Provide the information in the output from the DISPLAY STORUSE command.

**Routing code:** 2

**Descriptor code:** 5

---

**IST1021I** MEDIUM = _medium_, ADAPNO = _adapno_, CUA = _device_address_, SNA SAP = _snasap_

**Explanation:** VTAM issues this message when a DISPLAY ID command is entered for an external communication adapter (XCA) major node.

_medium_ is the type of LAN represented by this XCA major node. The type is specified on the MEDIUM operand of the PORT definition statement. _medium_ can be one of the following:
IST1022I WRBUF = wrbuf

Explanation: VTAM issues this message as part of a message group. The first message in the group is IST577I. See the explanation of the first message in the group for a complete description.

Routing code: 2
Descriptor code: 4

IST1023E START I/O TIMEOUT OCCURRED FOR CUA=device_address

Explanation: VTAM initiated an I/O operation with a LAN channel station, and start I/O timeout occurred for one of the following reasons:
- An interrupt was not received in the time specified for that I/O operation.
- Certain asynchronous events did not occur in the time specified for that I/O operation.
- The LAN channel station did not respond to a channel request from VTAM.

device_address is the hexadecimal address of the subchannel used to communicate with the LAN channel station.

System action: Processing continues.

Operator response:
- If the LAN channel station was stopped, normal operation will resume when you restart the LAN channel station.
- If the LAN channel station has failed, take the following actions:
  1. Deactivate all lines using this subchannel because the lines cannot be used.
  2. Check for a hardware problem:

IST1022I • IST1023E
- Run your operating system service aid program to determine whether MDR/OBR information has been recorded. See the EREP User’s Guide and Reference for more information on using EREP. If you use a network management application such as the NetView program, check to see whether an alert was recorded for this problem.
- If you cannot determine the cause of the problem from the output provided or need additional assistance, contact the IBM hardware support center. If available, provide the MDR/OBR information from your operating system service aid program or the alert information recorded by your network management application.

Otherwise, no action is required.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 3

---

**IST1024I**

**I/O ERROR ON READ FOR CUA = device_address—BYTE COUNT MISMATCH**

**Explanation:** VTAM detected an input buffer error during a READ operation for a LAN channel station at device_address. The length of the buffer containing data units does not match the total length of all data units. device_address is the hexadecimal address of the channel used to communicate with the hardware adapter.

**System action:** The device is deactivated. Data will be lost and all lines using this device will become inoperative.

**Operator response:** This is probably a hardware error. Save the system log for problem determination. Run your operating system service aid program to determine whether MDR/OBR information has been recorded. See the EREP User’s Guide and Reference for more information on using EREP.

If you use a network management application such as NetView, check to determine whether an alert was recorded for this problem.

If the failure continues, run a CCW trace to trace data from this device.

**System programmer response:** If the output does not indicate a hardware problem, and you cannot determine the cause of the problem, take the following actions:
- If you have access to IBMLink, search for known problems with similar symptoms. If no applicable matches are found, report the problem to IBM by using the Electronic Technical Report (ETR) option on IBMLink.
- If you do not have access to IBMLink, report the problem to the IBM software support center.

If available, provide the MDR/OBR information from your operating system service aid program or the alert information recorded by your network management application.

**Routing code:** 4

**Descriptor code:** 2

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**IST1028I** parameter_value

**Explanation:** VTAM issues this message as part of a group of messages. See the explanation of message IST1015I for a full description.

**Routing code:** 8

**Descriptor code:** 4

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**IST1029I** uservar value class type exit {YES NO}

**Explanation:** VTAM issues this message as part of a group of messages. The first message in this group is IST1019I. See the explanation of that message for a full description.

**Routing code:** 8

**Descriptor code:** 5
**IST1030I** USERVAR EXIT IS `exitname`

**Explanation:** VTAM issues this message as part of a group of messages in response to a MODIFY USERVAR command. The first message in the group is either IST825I or IST1283I. See the explanation of the first message for a complete description of the group.

**Note:** This message is percolated. See "Message rerouting and percolation" on page 1106 for additional information.

**Routing code:** 8

**Descriptor code:** 5

---

**IST1031I** MODIFY COMMAND FAILED — `uservar`: EXIT FAILURE, CODE `code`

**Explanation:** VTAM issues this message when a MODIFY USERVAR command invokes a USERVAR exit and a failure occurs.

Possible values are:

- **X'0008'**
  The exit is not defined.

- **X'0010'**
  VTAM is already in the desired state.

- **X'0014'**
  There is not enough storage to activate the USERVAR exit.

- **X'0018'**
  Activation is not permitted by the requester.

- **X'001C'**
  An error occurred during activation or deactivation.

- **X'001E'**
  The exit is being deactivated.

- **X'0020'**
  A storage failure occurred. This is the code issued by the default USERVAR exit for this situation. If another code is issued, save the system log for problem determination.

- **X'0028'**
  Activation of the exit is already in progress.

- **X'003A'**
  The invocation flag is not valid. This is the code issued by the default USERVAR exit for this situation. If another code is issued, save the system log for problem determination.

- **X'003C'**
  The entry code is not valid. This is the code issued by the default USERVAR exit for this situation. If another code is issued, save the system log for problem determination.

- **X'00F0'**
  The exit is not active.

- **X'00F1'**
  The exit is pending deactivation.

- **X'00F2'**
  The exit abended.

**System action:** VTAM rejects the command. If `uservar` was previously defined, it retains its previous value. Otherwise, it will remain undefined until the reason for the failure is corrected. Other processing continues.

**Operator response:**

- **X'0008'**
  Ensure that you entered the name of the exit correctly. If problems persist, save the system log for problem determination.
IST1031I

X'0010'
None.

X'0014'
Ensure that you entered the name of the exit correctly. If problems persist, enter a DISPLAY BFRUSE or
DISPLAY STORUSE command to verify that there is sufficient storage to activate the USERVAR exit. Save the
system log and request a dump for problem determination.

X'0018'
Ensure that you entered the name of the exit correctly.

X'001C'
Ensure that you entered the name of the exit correctly. If problems persist, save the system log for problem
determination.

X'001E'
Reactivate the exit if desired.

X'0020'
Ensure that you entered the name of the exit correctly. If problems persist, save the system log for problem
determination.

X'0024'
None.

X'0028'
None.

X'002C'
Ensure that you entered the name of the exit correctly. If problems persist, save the system log for problem
determination.

X'0030'
Ensure that you entered the name of the exit correctly. If problems persist, save the system log for problem
determination.

X'0034'
None.

X'0038'
Ensure that you entered the name of the exit correctly. If problems persist, save the system log for problem
determination.

X'003C'
Ensure that you entered the name of the exit correctly. If problems persist, save the system log for problem
determination.

X'0040'
Activate the exit if desired.

X'0044'
None.

X'0048'
Save the system log for problem determination.

System programmer response:

X'0050'
Ensure that the exit is correctly defined. Messages issued at VTAM initialization may provide additional
information about the cause of the problem.

X'0054'
None.

X'0058'
Ensure that the operator entered the buffer pool or CSA start options as specified in the start procedures. You
might want to redefine your buffer pool or CSA start options. If the start option cannot be modified using the
MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM
to use the start option.

- See the z/OS Communications Server: New Function Summary to determine the storage requirements for
  VTAM.
- See the z/OS Communications Server: SNA Resource Definition Reference for a description of VTAM start
  options.
- See z/OS Communications Server: SNA Operation for information about the DISPLAY BFRUSE command, the
  DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- See the z/OS Communications Server: SNA Network Implementation Guide for an explanation and
description of buffer pools and for general information on buffer pool specification and allocation.
- See the z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT for information about
  analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.
IST1032I poolname BUFFER SIZE TOO SMALL-SIZE MUST BE AT LEAST minsize

Explanation: VTAM issues this message in response to a VARY ACT command when the buffers are too small. The buffer size of buffer pool poolname must be at least minsize for VTAM to activate a line.

poolname is the name of the buffer pool. See the z/OS Communications Server: SNA Network Implementation Guide for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.

minsize is the minimum buffer size for the type of line you tried to activate.


Operator response: Save the system log for problem determination.

System programmer response: Change the buffer size for poolname in the VTAM start list ATCSTRxx. After the VTAM start list is corrected, restart VTAM and enter a VARY ACT command for the line.

Routing code: 8
Descriptor code: 5

IST1033I uservar ALREADY DEFINED FOR APPC SESSIONS OF applname

Explanation: VTAM issues this message in response to a MODIFY USERVAR command when APPC=YES is specified and uservar has already been defined for applname. Another USERVAR with APPC=YES cannot be defined for this application program.

uservar is the name of the USERVAR which is currently defined for this application program.

applname is the name of the application program specified in the MODIFY USERVAR command.

System action: VTAM rejects the command and no changes are made to the USERVAR table. Processing continues.

Operator response: Determine which USERVAR should be defined for the application program.
If the currently defined USERVAR is incorrect, you must delete the currently defined USERVAR with a MODIFY USERVAR,OPTION=DELETE command. After deleting the incorrect USERVAR, issue a MODIFY USERVAR command to define the correct USERVAR for the application program.

If applname’s ACB was open while the incorrect USERVAR was defined, then the incorrect information was copied to the application program’s control blocks. In this situation, VTAM issues message IST1034I when the MODIFY USERVAR command is entered for the correct USERVAR.

If the currently defined USERVAR is correct, no action is required.

System programmer response: If the MODIFY USERVAR command was issued through the program operator interface, determine which USERVAR should be defined for the application program and correct the mechanism that established the incorrect USERVAR definition.

Routing code: 2
Descriptor code: 5

IST1034I applname ALREADY USING uservar FOR APPC SESSIONS

Explanation: VTAM issues this message in response to a MODIFY USERVAR command when APPC=YES is specified and applname is already using uservar. Another USERVAR cannot be defined with APPC=YES for this application program.

applname is the name of the application program specified in the MODIFY USERVAR command.

uservar is the name of the USERVAR the application program is already using.

System action: VTAM rejects the command and no changes are made to the USERVAR table. Processing continues.

Operator response: Determine which USERVAR the application program should be using.

• If the application program is currently using an incorrect USERVAR, then the application program will need to terminate (CLOSE ACB) its connection to VTAM, which will remove all knowledge of the incorrect USERVAR.
  Once the application program’s connection to VTAM has terminated, then the MODIFY USERVAR command can be issued to define the correct USERVAR and the application program can re-establish (OPEN ACB) its connection to VTAM.

• If the application program is currently using the correct USERVAR and is:
  – The active supplier of the services represented by the USERVAR, redefine the USERVAR with the MODIFY USERVAR,APPC=YES command.
  – Not the active supplier of the services represented by the USERVAR, no action is required.

System programmer response: If the MODIFY USERVAR command was issued through the program operator interface, determine which USERVAR should be defined for the application program and correct the mechanism that established the incorrect USERVAR definition.

Routing code: 2
Descriptor code: 5

IST1035I ERROR WHILE {ADDING | DELETING} NETWORK netid {TO | FROM} GWN gatewaynode

Explanation: This message is the first in a group of messages that VTAM issues when the COS table name (defined by the COSTAB operand) or the maximum subarea value (defined by the MAXSUBA operand) on the BUILD or NETWORK definition statement could not be defined to VTAM. A complete description of the message group follows.

IST1035I ERROR WHILE {ADDING | DELETING} NETWORK netid {TO | FROM} GWN gatewaynode
IST523I REASON = reason

IST1035I

• netid is the dynamic network to which a connection was attempted. When gatewaynode is activated, this statement is processed. For gateway nodes, this is a model network statement.

• gatewaynode is the gateway node for which network netid could not be added or deleted.

IST523I

• reason indicates the reason for the failure, and is one of the following:
COSTAB NOT FOUND
The COS table name associated with a model network could not be found when VTAM attempted to add network netid.

COSTAB USE COUNT OVERFLOW
VTAM has exceeded its ability to record gatewaynode’s sharing of the COS table coded on the COSTAB operand.

DUPLICATE COSTAB
The COS table for netid and for gatewaynode has already been defined on a BUILD or NETWORK definition statement for gatewaynode.

DUPLICATE MAXSUBA
The maximum subarea value (MAXSUBA) has already been defined on a BUILD or NETWORK definition statement for gatewaynode or another gateway node.

DUPLICATE SUBAREA
The subarea value has already been defined on a BUILD or NETWORK definition statement for another gateway node.

INSUFFICIENT STORAGE
Network netid cannot be added or deleted because of insufficient storage.

INSUFFICIENT STORAGE TO DEFINE COSTAB
The COS table name (COSTAB) cannot be defined because of insufficient storage.

INSUFFICIENT STORAGE TO DEFINE MAXSUBA
The maximum subarea value (MAXSUBA) cannot be defined because of insufficient storage.

INSUFFICIENT STORAGE TO DEFINE SUBAREA
The subarea cannot be defined because of insufficient storage.

MAXSUBA USE COUNT OVERFLOW
VTAM has exceeded its ability to record gatewaynode’s sharing of the maximum subarea value coded on the MAXSUBA operand.

MODEL NETWORK NOT FOUND
The model network coded on the NETWORK definition statement with COPIES= was not defined for gatewaynode.

UNEXPECTED RETURN CODE
An unexpected return code was found while adding or deleting network netid.

UNEXPECTED RETURN CODE DEFINING COSTAB
An unexpected return code was found while defining the COS table.

UNEXPECTED RETURN CODE DEFINING MAXSUBA
An unexpected return code was found while defining the maximum subarea value.

UNEXPECTED RETURN CODE DEFINING SUBAREA
An unexpected return code was found while defining the subarea value.

UNEXPECTED RETURN CODE DELETING COSTAB
An unexpected return code was found while deleting the COS table.

UNEXPECTED RETURN CODE DELETING MAXSUBA
An unexpected return code was found while deleting the maximum subarea value.

UNEXPECTED RETURN CODE DELETING SUBAREA
An unexpected return code was found while deleting the subarea value.

System action: If this message was issued because network netid could not be added, all cross-network sessions destined to network netid will fail except for SSCP-SSCP sessions and for LU-LU sessions that use the default blank COS entry.

The system action depends on the value of reason:

COSTAB NOT FOUND
Network netid is ignored for gatewaynode.
COSTAB USE COUNT OVERFLOW
The COS table name is ignored. Even though the Class of Service table is defined for other active NCPs, it still cannot be used for this NCP definition, since its usage cannot be recorded to VTAM.

DUPLICATE COSTAB
The COS table name is ignored. The original COS table name for the NETID defined in this NCP definition is used.

DUPLICATE MAXSUBA
The maximum subarea value is ignored. A different value has already been defined successfully to this host, and cannot be changed or redefined for the network identified by the coded NETID until all networks that depend on this maximum subarea value are deactivated.

DUPLICATE SUBAREA
The subarea name is ignored. The original subarea name for the NETID defined in this NCP definition is used.

INSUFFICIENT STORAGE
Network netid cannot be added or deleted because of insufficient storage. Processing continues.

INSUFFICIENT STORAGE TO DEFINE COSTAB
The COS table name is ignored.

INSUFFICIENT STORAGE TO DEFINE MAXSUBA
The maximum subarea value is ignored. If this host resides in the gateway NCP’s native network, and will own links or link stations in the network identified by the NETID operand, it will be impossible to activate those links or link stations without knowledge of that network’s maximum subarea value. However, if the definition of another NCP has successfully defined the maximum subarea for the network, such link and link station activations will be possible, as long as that other NCP is not deactivated.

INSUFFICIENT STORAGE TO DEFINE SUBAREA
The subarea name is ignored.

MAXSUBA USE COUNT OVERFLOW
The maximum subarea value is ignored.

MODEL NETWORK NOT FOUND
The definition of network netid fails.

UNEXPECTED RETURN CODE
The definition of network netid fails.

UNEXPECTED RETURN CODE DEFINING COSTAB
The COS table name is not defined.

UNEXPECTED RETURN CODE DEFINING MAXSUBA
The maximum subarea value is not defined.

UNEXPECTED RETURN CODE DEFINING SUBAREA
The subarea value is not defined.

UNEXPECTED RETURN CODE DELETING COSTAB
The COS table name is not deleted.

UNEXPECTED RETURN CODE DELETING MAXSUBA
The maximum subarea value is not deleted.

UNEXPECTED RETURN CODE DELETING SUBAREA
The subarea value is not deleted.

Operator response:
- If text is COSTAB NOT FOUND, DUPLICATE COSTAB, or COSTAB USE COUNT OVERFLOW, enter a DISPLAY COS,ORIGIN=gatewaynode,NETID=*, and save the system log for problem determination.
- If text is INSUFFICIENT STORAGE..., deactivate all links to network netid, then reactivate those links later when more storage is available. Enter a DISPLAY BFRUSE command. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and request a dump for problem determination.
- For all other reasons, save the system log for problem determination.

System programmer response:
COSTAB NOT FOUND
Review the output from the DISPLAY COS command and contact the IBM software support center.

COSTAB USE COUNT OVERFLOW
Review the output from the DISPLAY COS command. Restrict the usage of the COSTAB name for each network and NCP to less than 256. If many NCPs need to be active simultaneously, use different COSTAB names, each defining COSTABs for many other networks. Use the MODIFY TABLE command to correct problems.

DUPLICATE COSTAB
Identify the COSTAB name coded for the same NETID by reviewing all the BUILD and NETWORK definition statements preceding the definition statement specified for the indicated network, netid. Code only a single COSTAB name for any one network in this NCP definition. Use the MODIFY TABLE command to correct problems.

DUPLICATE MAXSUBA
Check to determine whether the maximum subarea value specified on the MAXSUBA keyword for the BUILD or NETWORK definition statement for the indicated NETID start option, netid is valid. This value must also be identical to the maximum subarea values on all other BUILD or NETWORK definition statements in this or another NCP definition that have ever been activated.

DUPLICATE SUBAREA
Check all the BUILD and NETWORK definition statements preceding the definition statement specified for the indicated network to identify the subarea value coded for the same NETID. Code only a single subarea value for any one network in this NCP definition. Be sure to check all definition statements that are active.

INSUFFICIENT STORAGE...
It may be necessary to cancel nonessential jobs or deactivate an unused part of the network to prevent further losses. You might have to halt and restart VTAM if there are too many failures.

You might want to redefine your buffer pool or CSA limits. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

• See z/OS Communications Server: SNA Operation for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
• See the z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

MAXSUBA USE COUNT OVERFLOW
Contact the IBM software support center.

MODEL NETWORK NOT FOUND
This error can be caused in one of two ways:
• The NCP was generated with a definition statement that included a model network, but the model network was removed before the definition was activated by VTAM. If this is the case, restore the model network and activate the corrected definition statement.
• There is an error in the NCP that is causing it to generate requests for no reason. Contact the IBM software support center.

UNEXPECTED RETURN CODE
Contact the IBM software support center.

UNEXPECTED RETURN CODE DEFINING COSTAB
Contact the IBM software support center.

UNEXPECTED RETURN CODE DEFINING MAXSUBA
Contact the IBM software support center.

UNEXPECTED RETURN CODE DEFINING SUBAREA
Contact the IBM software support center.

UNEXPECTED RETURN CODE DELETING COSTAB
Contact the IBM software support center.

UNEXPECTED RETURN CODE DELETING MAXSUBA
Contact the IBM software support center.
IST1036I • IST1037I

**UNEXPECTED RETURN CODE DELETING SUBAREA**
Contact the IBM software support center.

**Routing code:** 8
**Descriptor code:** 4

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**IST1036I NODE ABEND–UNUSABLE RESOURCE IS** `resource`

**Explanation:** VTAM issues this message when a resource defined in an external communication adapter (XCA) major node cannot recover from an abend.

`resource` contains the type and name of the abended resource. Possible values are:

**LINE `linename`**
Line `linename` in an XCA major node is unusable. All other lines in this major node are unaffected.

**SAP `sapnum IN NODE `nodename`**
Service access point (SAP) `sapnum` in XCA major node `nodename` is unusable.

- If `sapnum` is an SNA SAP, all lines associated with this SAP are unusable. Any VCNS line in this major node is unaffected.
- If `sapnum` is a VCNS SAP, the specified SAP is unusable. All other SAPs associated with the VCNS line are unaffected. All SNA lines are unaffected.

**NODE `nodename`**
XCA major node `nodename` is unusable. All SNA and VCNS lines in this major node are unusable. Other VTAM major nodes are unaffected.

**System action:** The resource identified in the message and all resources using it are marked unusable. Processing continues unchanged for all other resources.

**Operator response:** Save the system log and dump for problem determination.

**System programmer response:** Use the system log and dump to assist you in determining the reason for the abend.
To use the failed resource, you must halt and restart VTAM. If you need additional assistance, contact the IBM software support center.

**Routing code:** 2
**Descriptor code:** 2

---

**IST1037I NODE ABEND–INOP REPORTED FOR** `resource`

**Explanation:** VTAM issues this message when a resource defined in an XCA major node abends and recovers by processing an inoperative condition. The line or lines in the scope of the failing resource will eventually become inoperative.

`resource` contains the type and name of the abended resource. Possible values are:

**LINE `linename`**
Line `linename` in an XCA major node is processed as inoperative. All other lines in this major node are unaffected.

**SAP `sapnum IN NODE `nodename`**
Service access point (SAP) `sapnum` in XCA major node `nodename` is processed as inoperative.

- If `sapnum` is an SNA SAP, all lines associated with this SAP are processed as inoperative. Any VCNS line in this major node is unaffected.
- If `sapnum` is a VCNS SAP, the specified SAP is processed as inoperative. All other SAPs associated with the VCNS line are processed as inoperative. All SNA lines are unaffected.

**NODE `nodename`**
XCA major node `nodename` is processed as inoperative. All SNA and VCNS lines in this major node are processed as inoperative. Other VTAM major nodes are unaffected.

**System action:** The resource identified in the message and all resources using the identified resource are processed as inoperative.
**Operator response:** When inoperative processing is complete, VTAM issues message IST259I. Restart the inoperative resources. If only a few resources are inoperative, you can restart them individually; otherwise, restart the XCA major node. Save the system log and dump for problem determination.

**System programmer response:** Use the system log and dump to assist you in determining the reason for the abend. If you need additional assistance, contact the IBM software support center. See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](https://www.ibm.com) for information on the abend procedure and dumps.

**Routing code:** 2

**Descriptor code:** 2

---

**IST1038I** MODIFY NOTRACE REJECTED-VIT IS NOT WAITING TO TERMINATE

**Explanation:** VTAM issues this message in response to a MODIFY NOTRACE,TYPE=VTAM,OPTION=FORCE command when the VTAM internal trace (VIT) is not waiting to terminate. OPTION=FORCE is only valid when you previously tried (unsuccessfully) to stop the VIT using OPTION=END.

**System action:** The MODIFY NOTRACE command is rejected. Processing continues.

**Operator response:** Enter a MODIFY NOTRACE,TYPE=VTAM,OPTION=END command to stop the VTAM internal trace. This should terminate the VIT. If it does not, reenter the MODIFY NOTRACE,TYPE=VTAM,OPTION=FORCE command.

See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](https://www.ibm.com) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

---

**IST1039I** SSCP TKOVR FOR ID = nodename FAILED-INACT GVBK SCHEDULED

**Explanation:** VTAM issues this message when a takeover for nodename failed and was overridden by a VARY INACT,TYPE=GIVEBACK command. If an error occurred during takeover processing, this message informs the operator that an internal VARY INACT,TYPE=GIVEBACK command was entered.

**System action:** Nondisruptive deactivation of nodename and attached nodes continues.

**Operator response:** Save the system log for problem determination.

**System programmer response:** Check the system log to determine the cause of the problem.

**Routing code:** 2

**Descriptor code:** 5

---

**IST1040I** CONVERSATION(S) FOUND FOR applname

**Explanation:** This message is part of a group of messages that VTAM issues in response to a DISPLAY CONVID command. A complete description of the message group follows.

```plaintext
IST1040I CONVERSATION(S) FOUND FOR applname
IST1007I PARTNER = partner, LOGMODE = logmode
IST1008I CONVID = convid, STATUS = status, ETIME = etime
IST2161I BLOCKED TIME = btime
IST1009I SID = sid, HPDT = hpdtvalue
IST924I -------------------------------------------------------------
IST1007I PARTNER = partner, LOGMODE = logmode
IST1008I CONVID = convid, STATUS = status, ETIME = etime
IST2161I BLOCKED TIME = btime
IST1009I SID = sid, HPDT = hpdtvalue
IST924I -------------------------------------------------------------
```

---

Chapter 7. IST messages for VTAM network operators IST800I – IST1199I  375
Message IST1040I provides the name of the LU 6.2 application program, applname, specified on the operator command. Messages IST1007I, IST1008I, IST2161I, and IST1009I provide information concerning an individual conversation with the LU 6.2 application program. Message IST924I is used as a line separator to separate the different individual conversations found for the LU 6.2 application program.

applname is the name of the LU 6.2 application program specified in the operator command.

partner is the name of the partner LU for which DISPLAY information was requested.

logmode is the logon mode name for which DISPLAY information was requested.

convid is the conversation identifier for the specified application program and its partner LU.

status is the status of the conversation. Possible values are: If the status value ends with /D, deallocation is pending for the conversation. The /D modifier applies to persistent sessions only. If the status value ends with /B, the conversation is blocked due to session level pacing. If the status value ends with /V, the conversation is blocked due to virtual route pacing. If the status ends with /H, the conversation is blocked due to HPR backpressure.

Status

<table>
<thead>
<tr>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>E_CONV</td>
</tr>
<tr>
<td>Half-duplex end conversation; the conversation is being deallocated.</td>
</tr>
<tr>
<td>F_SR</td>
</tr>
<tr>
<td>Full-duplex send/receive; the application program is capable of sending data to and receiving data from the partner LU.</td>
</tr>
<tr>
<td>F_SO</td>
</tr>
<tr>
<td>Full-duplex send only; the application program has received a deallocation request from the partner LU. The application program can send data to the partner LU and is expected to send a deallocation request to end the conversation.</td>
</tr>
<tr>
<td>F_RO</td>
</tr>
<tr>
<td>Full-duplex receive only; the application program has sent a deallocation request to the partner LU. The application program can receive data from the partner LU and is expecting to receive a deallocation request to end the conversation.</td>
</tr>
<tr>
<td>FP_SR_L</td>
</tr>
<tr>
<td>Full-duplex pending send/receive log; the application program has received an error notification accompanied by error log data. After the application receives the data, the conversation will return to a SEND/RECEIVE state.</td>
</tr>
<tr>
<td>FP_RO_L</td>
</tr>
<tr>
<td>Full-duplex pending receive only log; the application program has received an error notification accompanied by error log data. After the application receives the data, the conversation will return to a RECEIVE_ONLY state.</td>
</tr>
<tr>
<td>FP_RS_L</td>
</tr>
<tr>
<td>Full-duplex pending reset log; the end of the conversation is pending receipt of error log data. After the application program receives the error log data, the conversation will enter a RESET state.</td>
</tr>
<tr>
<td>F_R_FMS</td>
</tr>
<tr>
<td>Full-duplex receive FMH-5; the conversation is in a SEND/RECEIVE state, but there is an FMH-5 waiting to be received. After the application program receives the FMH-5, the conversation becomes usable.</td>
</tr>
<tr>
<td>P_ALOC</td>
</tr>
<tr>
<td>Pending allocation state; the application has reserved a session and conversation, but an FMH-5 has not been processed on the conversation.</td>
</tr>
<tr>
<td>P_DEAL</td>
</tr>
<tr>
<td>Half-duplex pending deallocation; the application program is waiting for the partner LU to confirm the receipt of data.</td>
</tr>
<tr>
<td>P_E_LOG</td>
</tr>
<tr>
<td>Half-duplex pending end conversation log; the end of the conversation is pending the receipt of error log data.</td>
</tr>
</tbody>
</table>
**P_R_LOG**
Half-duplex pending receive log; the application program can receive error log data that does not precede the end of the conversation.

**P_SEND**
Half-duplex pending send; the application program has received data and the change direction command. The conversation will be placed in SEND state following the acceptance of data and a subsequent SEND operation.

**R_CFM**
Half-duplex receive confirmation; the application program is expected to reply to a confirmation request.

**R_CFM_D**
Half-duplex receive confirmation deallocate; the application program is expected to reply to a confirmation request that will also change the state to deallocate.

**R_CFM_S**
Half-duplex receive confirmation send; the application program is expected to reply to a confirmation request and has also received a change direction command, implying that the application program will be placed in a SEND state after the confirmation.

**R_FMH5**
Half-duplex receive FMH-5; the conversation is in a RECEIVE state, but there is an FMH-5 waiting to be received. After the application program receives the FMH-5, the conversation will become usable.

**RECEIVE**
Half-duplex receive; the application program is expecting information from the partner LU.

**RESET**
Full-duplex or half-duplex reset; the conversation has been deallocated.

**SEND**
Half-duplex send; the application program is capable of sending data to or requesting confirmation from the partner LU.

`etime` is the elapsed time, in minutes, since the last API operation was performed on the conversation. If the elapsed time is greater than 99999, the value of `etime` is 99999.

`btime` is the elapsed time, in minutes, since the conversation went into a blocked state due to session level pacing, virtual route pacing, or HPR backpressure. If the elapsed time is greater than 99999, the value of `btime` is 99999.

`sid` is the session identifier for the conversation.

`hpdtvalue` will be either YES or NO indicating whether high performance data transfer (HPDT) services were available on the session, used by the conversation, at the time the session was established.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 8

**Descriptor code:** 5

IST1041I

```
IST1041I  nodename nodetype
Explanation: This message is part of a group of messages that VTAM issues in response to the following commands:
- DISPLAY TRACES,TYPE=NODES,ID=(nodename1, nodename2,...,nodenamen)
- DISPLAY TRACES,TYPE=NODES,ID=*  
- DISPLAY TRACES,TYPE=ALL
```

A complete description of the message group follows.

**IST350I** DISPLAY TYPE = type
**IST075I** NAME = nodename, TYPE = nodetype
**IST1041I** nodename nodetype

Chapter 7. IST messages for VTAM network operators IST800I – IST1199I 377
IST1041I

[IST752I GPT TRACE STATUS = status [ALSNAME = alsname]]

[IST1042I tracetype = status [- AMOUNT = value] [- SAVED = {YES|NO}]]
        IST2183I QDIOSYNC = armstate - SYNCID = syncid - SAVED = saved_state
[IST924I ----------------------------]

IST1422I SAVED TRACE REQUESTS FOR value
        IST1041I nодename nodetype
[IST1042I tracetype = status [- AMOUNT = value] [- SAVED = {YES|NO}]]
        IST2183I QDIOSYNC = armstate - SYNCID = syncid - SAVED = saved_state

IST314I END

If ID identifies multiple resources to be displayed or ID=*, the IST1041I subgroup is repeated for each resource that has active traces. Line separator message IST924I is issued to separate information for each major node.

IST075I

- nодename is the name of the major or minor node that is associated with the trace data displayed in this message subgroup. If ID=* was entered on the DISPLAY TRACES command, nодename is a major node containing subordinate nodes with active traces.

- nodetype is the resource type of the major or minor node. See Chapter 17, “Node and ID types in VTAM messages,” on page 1097 for a description of nodetype.
  - If nodetype is CP, RESOURCE, or SSCP, nодename is a resource that may not yet be defined to VTAM. In this case, nodetype is the IDTYPE specified on the MODIFY TRACE command, and status in message IST1042I is always SAVED.

IST350I

- This message identifies the type of information shown in the display. Possible values are:
  
  TRACES, TYPE=NODES
  The display contains the status of the BUF, GPT, IO, LINE, SIT, and TG trace for a particular resource and its subordinate nodes.

  TRACES, TYPE=SMS
  The display contains the status of the SMS buffer trace.

  TRACES, TYPE=VTAM
  The display contains the status of the VTAM internal trace.

IST752I

This message is displayed when the generalized PIU trace (GPT) is displayed for an independent LU. VTAM issues this message once for each adjacent link station (ALS) that the independent LU is using. VTAM issues this message only for adjacent link stations that exist in an NCP major node (or, for a switched connection, link stations that are connected through a link in an NCP major node).

status is the trace status code. See the z/OS Communications Server: IP and SNA Codes for more information on resource status codes.

alsname is the name of the adjacent link station that the independent LU is using.

IST1041I

- nодename can be one of the following:
  - The major or minor node displayed in message IST075I.
  - The name of a resource subordinate to the major or minor node displayed in message IST075I, if there is an active trace for that resource.

- nodetype is the resource type of nодename. See Chapter 17, “Node and ID types in VTAM messages,” on page 1097 for a description of nodetype.

IST1042I

- This message is always issued in this group except in the case when the GPT trace status is displayed for an independent LU. Then message IST752I is displayed.

- tracetype is the name of an active trace and can be one of the following:
BUF
Buffer contents trace

GPT
Generalized PIU trace (GPT)

IO
Input/output trace

LINE
Line trace

SIT
Scanner interface trace (SIT)

STATE
Resource state trace

TG
Transmission group (TG) trace

• status is the status of the displayed trace and can be one of the following:

ON  tracetype is BUF, IO, or STATE, and the trace is active for this resource.

SAVED  tracetype is BUF or IO, and the trace command is saved for this resource. This status is displayed when SAVE=YES was specified on the MODIFY TRACE command, and the resource has not yet been defined to VTAM.

TRACT  tracetype is GPT, LINE, SIT, or TG, and the trace is active for this resource.

TRPAR  tracetype is GPT, LINE, SIT, or TG, and the trace is in the process of being activated.

For additional status information, see the z/OS Communications Server: IP and SNA Codes.

TRPDR  tracetype is GPT, LINE, SIT, or TG, and the trace is in the process of being deactivated.

For additional status information, see the z/OS Communications Server: IP and SNA Codes.

AMOUNT = value is displayed only if the buffer contents trace is active (tracetype is BUF) and indicates how much of the buffer's contents are traceable.

– value represents the AMOUNT operand value specified on the TRACE start option or the MODIFY TRACE command, and can be one of the following:

PARTIAL
The trace record has a maximum size of 256 bytes including header information.

FULL
All of the buffer's contents are traceable.

Note: If AMOUNT is not specified when the buffer contents trace is activated, the default value PARTIAL is displayed.
See the z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures

SAVE = [YES|NO] indicates the value that was specified on the SAVE operand of the MODIFY TRACE command and is displayed only if the buffer contents, I/O, or resource state trace is active.

IST1422I
This message is displayed if there are traces saved for resources that are not active. Messages IST1041I and IST1042I are displayed following this message for each resource.

value is the value specified on the ID operand of the DISPLAY TRACES command. If TYPE=ALL was specified on the command, value is *.*.
This message will only appear for a TRLE representing an OSA-Express2 or later Adapter and only when the OSA-Express2 or later adapter is armed for QDIOSYNC. See QDIOSYNC trace in z/OS Communications Server SNA Diagnosis Vol 1, Techniques and Procedures for a description of the QDIOSYNC trace function.

Tip: The OSA might be collecting more than what is specified here while OSA merges the options for all Armed data devices. Valid values are:

- **ALLIN** OSA is collecting inbound diagnostic data for all devices.
- **ALLINOUT** OSA is collecting inbound and outbound diagnostic data for all devices.
- **ALLOUT** OSA is collecting outbound diagnostic data for all devices.
- **IN** OSA is collecting inbound diagnostic data for devices defined to this VTAM.
- **INOUT** OSA is collecting inbound and outbound diagnostic data for devices defined to this VTAM.
- **OUT** OSA is collecting outbound diagnostic data for devices defined to this VTAM.

syncid is the SYNCID operand value from the MODIFY TRACE command or TRACE start option. This value is to be used as part of a correlator when the OSA-Express2 or later diagnostic data is captured.

saved_state is the SAVE operand value from the MODIFY TRACE command or TRACE start option. Valid values are YES or NO.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2

Descriptor code: 5

IST1042I  tracetype = status [– AMOUNT = value] [– SAVED = {YES|NO}]

Explanation: VTAM issues this message as part of a message group. See the explanation of message IST1041I for a complete description of the group.

Routing code: 2

Descriptor code: 5

IST1043I  CP NAME = cpname, CP NETID = netid, DYNAMIC LU = {YES|NO}

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1.

cpname is the name of the CP associated with the PU.

The meaning of netid is determined by the XNETALS start option and the NETID value specified on the PU definition statement. See the z/OS Communications Server: SNA Resource Definition Reference for information about the XNETALS start option.

If cpname or netid is not known, VTAM issues ***NA***.

DYNAMIC LU indicates whether the PU supports dynamic independent LUs. This corresponds to the value of the DYNLU operand on the PU definition statement.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2

Descriptor code: 5
IST1044I  ALSLIST = alsname alsname alsname alsname

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for an independent LU.

The alsnames are the names of all adjacent link stations defined for the independent LU specified in the DISPLAY ID command. VTAM issues this message until all adjacent link station names are displayed.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2

Descriptor code: 5

IST1045I  NODE TYPE = nodetype

Explanation: VTAM issues this message as part of several different message groups. See the explanation of the first message in the group for a complete description.

See Chapter 17, "Node and ID types in VTAM messages," on page 1097 for a description of nodetype.

Routing code: 2

Descriptor code: 5

IST1046I  nodetype nodename ALSO EXISTS

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY ID=name command or a DISPLAY VTAMSTOR,RESOURCE command and indicates that more than one resource has the same name.

nodetype is one of the following:

CP   Control point nodename exists, in addition to the SSCP (or CDRM) displayed in message IST075I.

SHADOW
   A shadow for nodename exists, in addition to the resource displayed in message IST075I.

SSCP
   SSCP (or CDRM) nodename exists, in addition to the CP displayed in message IST075I.

nodename is the network-qualified name of the resource in the form netid.name.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2

Descriptor code: 5

IST1048I  COMPRESSION LEVEL – INPUT = input_level, OUTPUT = output_level

Explanation: VTAM issues this message as part of a group of messages. The first message in this group is IST879I. See the explanation of that message for a complete description.

Routing code: 2

Descriptor code: 5
IST1049I PERCENT REDUCTION – INPUT = input_percent, OUTPUT = output_percent

Explanation: VTAM issues this message as part of a group of messages. The first message in this group is IST879I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST1050I MAXIMUM COMPRESSION LEVEL – INPUT = input_level, OUTPUT = output_level

Explanation: VTAM issues this message in response to a DISPLAY ID command entered for an application. The message displays the maximum compression level for the application when the application is the primary logical unit (PLU).

input_level is the maximum compression level for input session traffic that is specified on the CMPAPPLI operand on the APPL definition statement.

output_level is the maximum compression level for output session traffic that is specified on the CMPAPPLO operand on the APPL definition statement.

See the z/OS Communications Server: SNA Resource Definition Reference for more information on the APPL definition statement. See the z/OS Communications Server: SNA Network Implementation Guide for more information on compression limits and compression levels.

System action: Processing continues.

Operator response: To change the maximum compression levels, use the MODIFY COMPRESS command. Otherwise, no action is necessary. See z/OS Communications Server: SNA Operation for more information.

System programmer response: None.
Routing code: 2
Descriptor code: 5

IST1051I EVENT CODE = code

Explanation: VTAM issues this message as part of a message group. The first message in the group is either IST330I or IST1436I. See the first message in the group for a complete description.

See the z/OS Communications Server: IP and SNA Codes for a description of code.

Routing code: 8
Descriptor code: 4

IST1052I SYNTAX ERROR AFTER option–ALL FURTHER OPTIONS IGNORED

Explanation: VTAM issues this message when the start option after option contains a syntax error.

System action: VTAM ignores any start options after option. VTAM will issue message IST1311A to prompt you for the correct start options.

Operator response: Enter all start options after the last valid start option in response to IST1311A. You can also enter a blank if you want to accept the default values for all further start options.

System programmer response: If option is coded in an ATCSTRxx file, correct the syntax of the options following option in that file. For more information about VTAM start options, see the z/OS Communications Server: SNA Resource Definition Reference

Routing code: 2
Descriptor code: 5
IST1053I  VALUE FOR option MUST BE 'YES' OR 'NO'

Explanation:  VTAM issues this message during START processing or in response to a MODIFY VTAMOPTS command when option contains a value other than YES or NO.

System action:  VTAM ignores option.

- If the error occurred during START processing, VTAM will issue message IST1311A to prompt you for the correct value of option.
- If the error occurred in response to a MODIFY VTAMOPTS command, processing continues.

Operator response:

- If the error occurred during START processing, enter a value of YES or NO for option in response to IST1311A. You can also enter a blank if you want to accept the default value for option.
- If the error occurred in response to a MODIFY VTAMOPTS command, ensure that you entered option correctly.

System programmer response:

- If the error occurred during START processing, correct the value for option if option is coded in an ATCSTRxx file.
- If the error occurred in response to a MODIFY VTAMOPTS command, no further action is required.

For more information about VTAM start options, see the z/OS Communications Server: SNA Resource Definition Reference.

Routing code:  2
Descriptor code:  5

IST1054I  VALUE FOR option MUST BE BETWEEN min AND max

Explanation:  VTAM issues this message during START processing or in response to a MODIFY VTAMOPTS command when the value of option is out of range. The value of option must be between min and max.

System action:  VTAM ignores the option specified by the option value.

- If the error occurred during START processing, VTAM might issue message IST1311A to prompt you for the correct value of option.
- If the error occurred in response to a MODIFY VTAMOPTS command, processing continues.

Operator response:

- If the error occurred during START processing and you were prompted to enter a value for the option, specify a value between the min value and the max value, in response to message IST1311A. You can also enter a blank if you want to accept the default value for option.
- If the error occurred in response to a MODIFY VTAMOPTS command, ensure that you entered the option value correctly.

System programmer response:

- If the error occurred during START processing, correct the option value if the value that is coded represents an ATCSTRxx file.
- If the error occurred in response to a MODIFY VTAMOPTS command, no further action is required.

For more information about VTAM start options, see the z/OS Communications Server: SNA Resource Definition Reference.

Routing code:  2
Descriptor code:  5

IST1055I  VALUE FOR option MUST BE type

Explanation:  VTAM issues this message during START processing or in response to a MODIFY VTAMOPTS command when the value of option is not the correct type. Possible values are:

NUMERIC  The value for option must be an integer.

TIMER  The value for option must be in the form xxI, where xx is a numeric value and I is a character designation of
IST1056I • IST1057I

a time interval (S = seconds, M = minutes, H = hours, D = days). Individual start options that use TIMER notation have different valid ranges. See the z/OS Communications Server: SNA Resource Definition Reference for more information.

System action: VTAM ignores option.

- If the error occurred during START processing, VTAM will issue message IST1311A to prompt you for the correct value of option.
- If the error occurred in response to a MODIFY VTAMOPTS command, processing continues.

Operator response:

- If the error occurred during START processing, enter a valid value for option in response to IST1311A. You can also enter a blank if you want to accept the default value for option.
- If the error occurred in response to a MODIFY VTAMOPTS command, ensure that you entered option correctly.

System programmer response:

- If the error occurred during START processing, correct the value for option if option is coded in an ATCSTRxx file.
- If the error occurred in response to a MODIFY VTAMOPTS command, no further action is required.

For more information about VTAM start options, see the z/OS Communications Server: SNA Resource Definition Reference.

Routing code: 2
Descriptor code: 5

IST1056I  option PARAMETER n MUST BE BETWEEN min AND max

Explanation: VTAM issues this message during START processing or in response to a MODIFY VTAMOPTS command when the nth parameter specified for option is out of range. The value of this parameter must be between min and max.

System action: VTAM ignores option.

- If the error occurred during START processing, VTAM will issue message IST1311A to prompt you for the correct value of option.
- If the error occurred in response to a MODIFY VTAMOPTS command, processing continues.

Operator response:

- If the error occurred during START processing, enter a value between min and max for parameter n in response to IST1311A. You can also enter a blank if you want to accept the default value for option.
- If the error occurred in response to a MODIFY VTAMOPTS command, ensure that you entered option correctly.

System programmer response:

- If the error occurred during START processing, correct the value for option if option is coded in an ATCSTRxx file.
- If the error occurred in response to a MODIFY VTAMOPTS command, no further action is required.

For more information about VTAM start options, see the z/OS Communications Server: SNA Resource Definition Reference.

Routing code: 2
Descriptor code: 5

IST1057I  resourcename IS ALSO A REAL RESOURCE

Explanation: VTAM issues this message in response to the following commands:

- DISPLAY SESSIONS
  VTAM displays information about sessions for the active network resource resourcename. This message follows IST113I or IST1156I and indicates that a USERVAR and an active network resource have the same name.
  resourcename is the network-qualified name of the resource in the form netid.name.
- DISPLAY ID=displayname,IDTYPE=LUALIAS or IDTYPE=USERVAR
  This message is part of a group of messages headed by IST075I. The name specified on the command identifies both an LUALIAS or USERVAR name and a network resource.
– If IDTYPE=USERVAR was specified, resourcename is the name of the resource. If a network-qualified name was entered on the command for displayname, resourcename is issued as a network-qualified name in the form netid.name.
– If IDTYPE=LUALIAS was specified, resourcename is not network-qualified.

DISPLAY VTAMSTOR,RESOURCE command

**System action:** Processing continues.

**Operator response:**

- DISPLAY SESSIONS
  
  For session information about the value of the USERVAR, enter a DISPLAY SESSIONS command for the USERVAR value in message IST113I or IST1156I. You can enter a DISPLAY USERVAR command to list the current active USERVARS defined in this network.
  
  For information about additional sessions with the active network resource resourcename, rename your USERVAR.

- DISPLAY ID=displayname,IDTYPE=LUALIAS or IDTYPE=USERVAR
  
  You can display information about the network resource by entering the DISPLAY ID=displayname,IDTYPE=RESOURCE command, where displayname is the name of the resource.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

---

**IST1058I**  
**MODEL LU GROUP =** lugroup, **LUSEED =** pattern

**Explanation:** VTAM issues this message as part of a group of messages in response to a DISPLAY ID command entered for a PU that supports dynamic LU definitions.

lugroup is the model LU group used to define dynamic LUs for this PU. The value of lugroup corresponds to the LUGROUP keyword on the PU definition statement.

pattern is the character pattern passed to the selection of definitions for dependent LUs (SDDLU) exit. This pattern can be used to generate names for dynamically defined LUs. The value of pattern corresponds to the LUSEED keyword on the PU definition statement. See the [z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com/docs/en/zos) for more information.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

---

**IST1059I**  
**MODEL NAME = modelname**

**Explanation:** VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a dynamically defined resource. modelname is the name of the model that was used to build the resource.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

---
IST1060I • IST1064I

IST1060I   LUGROUP MAJOR NODE = lugroupnode
Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY LUGROUPS command. lugroupnode is the name of the LUGROUP major node being displayed.
System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST1061I   FAILURE OCCURRED ON pname AT locaddr
Explanation: VTAM issues this message as part of a group of messages. The first message in this group is IST1016I. See the explanation of that message for a complete description.
Routing code: 2
Descriptor code: 5

IST1062I   EVENT ID = eventid
Explanation: VTAM issues this message as part of a message group. The first message in the group is either IST530I or IST1436I. See the first message in the group for a complete description.
See the z/OS Communications Server: IP and SNA Codes for a description of eventid.
Routing code: 8
Descriptor code: 4

IST1063I   MODELS AFTER THE 255TH MODEL IN LUGROUP lugroup IGNORED
Explanation: VTAM issues this message during the activation of LUGROUP lugroup when lugroup contains more than 255 model LU definitions. An LUGROUP cannot have more than 255 models.
System action: Only the first 255 models in lugroup are defined; all models after the 255th model are ignored. Processing continues.
Operator response: Save the system log for problem determination.
System programmer response: Correct the definition of lugroup. An LUGROUP major node cannot contain more than 255 model LUs. See the z/OS Communications Server: SNA Resource Definition Reference for more information.
Routing code: 2
Descriptor code: 5

IST1064I   TRACE IGNORED, nodename – STORAGE SHORTAGE
Explanation: This message is the first in a group of messages that VTAM issues when sufficient storage is not available to start the requested trace. A complete description of the message group follows.
IST1064I   TRACE IGNORED, nodename – STORAGE SHORTAGE
IST1045I   NODE TYPE = nodetype
IST1436I   END

If a network-qualified name was entered on the start option or the MODIFY TRACE command, VTAM issues nodename in the form netid.name.
nodetype is the resource type of nodename. See Chapter 17, “Node and ID types in VTAM messages,” on page 1097 for possible values.
System action:
If nodename is VTAM and you are trying to start an internal trace (for example, type=VTAM), initialization continues without a VTAM internal trace table.

If nodename is anything other than VTAM, VTAM issues message IST1311A which prompts you to reenter any start option overrides.

**Operator response:** Wait a short time and reenter the command. If VTAM continues to issue this message, enter the DISPLAY BFRUSE command. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and dump for problem determination.

For a VTAM internal trace, enter a MODIFY TRACE command, specifying a smaller buffer size.

**System programmer response:** Verify that the operator entered the buffer pool or CSA start options as specified in the start procedures.

Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA limits. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

- See the [z/OS Communications Server: SNA Resource Definition Reference](http://www-03.ibm.com/support/docview.wss?rs=130&id=redbookQA2345) for a description of VTAM start options.
- See [z/OS Communications Server: SNA Operation](http://www-03.ibm.com/support/docview.wss?rs=130&id=redbookQA2345) for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- See the [z/OS Communications Server: SNA Network Implementation Guide](http://www-03.ibm.com/support/docview.wss?rs=130&id=redbookQA2345) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
- See the [z/OS Communications Server: SNA Diagnosis Vol 2, FST Dumps and the VIT](http://www-03.ibm.com/support/docview.wss?rs=130&id=redbookQA2345) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

**Routing code:** 2

**Descriptor code:** 5

### IST1065I LOAD MODULE REQUESTED IPL ESTIMATED IPL

**Explanation:** VTAM issues this message as part of a subgroup of messages in response to a DISPLAY DISK command.

This message subgroup is displayed in a message group headed by IST951I. See the explanation of that message for additional information.

A complete description of this message subgroup follows.

IST1065I LOAD MODULE REQUESTED IPL ESTIMATED IPL

IST1066I load_module requested_time estimated_time

This subgroup is issued when an IPL has been scheduled for at least one load module on the disk. IST1066I is repeated for each load module.

- If there is only one load module with a scheduled IPL, VTAM issues message IST1066I for this load module. In addition, IST1066I is repeated for all load modules even if they do not have a scheduled IPL. An example follows:

  IST1065I LOAD MODULE REQUESTED IPL ESTIMATED IPL
  IST1066I load_module requested_time estimated_time
  IST1066I load_module ***NA*** ***NA***
  IST1066I load_module ***NA*** ***NA***

- If there are no load modules with a scheduled IPL, VTAM does not issue the subgroup.

**IST1066I**

*load_module* is the name of the load module on the disk.

*requested_time* is the time for which an IPL was scheduled as entered in a MODIFY LOAD command. This time reflects the time zone where MODIFY LOAD was entered, not the time zone where DISPLAY DISK was entered.

*estimated_time* is the time the IPL will take place as calculated by VTAM. This time reflects the time zone where DISPLAY DISK was entered. Differences between *requested_time* and *estimated_time* can be caused by the following:

- The MODIFY LOAD and DISPLAY DISK commands were entered in different time zones.
IST1066I • IST1068I

• There was a network delay between VTAM and NCP when the MODIFY LOAD was entered. In this case, 
estimated_time is the actual IPL time.
• There is a network delay between VTAM and NCP when the DISPLAY DISK is entered. In this case, the actual IPL time will be earlier than 
estimated_time.
• The host system clock was adjusted between the time MODIFY LOAD was entered and the time DISPLAY DISK was entered.

The requested_time and estimated_time values specify when an IPL was scheduled. See “DATE and TIME formats” on page 6 for information about the date and time values.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

---

IST1066I load_module requested_time estimated_time

Explanation: VTAM issues this message as part of a message subgroup. The first message in this subgroup is IST1065I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

---

IST1067I LOGICAL LINES:

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU that is the physical resource for one or more groups of logical lines. VTAM issues message IST080I to indicate the name and status of the logical lines associated with the preceding PU.

VTAM also issues this message as part of a group of messages in response to a DISPLAY ID command for a switched frame relay physical line whose switched PU is the physical resource for one or more groups of logical lines. VTAM issues message IST080I to indicate the name and status of the logical lines associated with the preceding physical line.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

---

IST1068I PHYSICAL RESOURCE (PHYSRSC) = puname

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a line or a line group.

puname is the name of the physical resource associated with the resource (a logical line or line group containing logical lines or a transport resource list element) that is being displayed.

If the physical unit, defined in the NCP definition, whose name is specified by the PHYSRSC keyword is a switched PU that is not currently connected, then highernode is the physical line.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

**IST1069I**  
PARAMETER n FOR option MUST BE type

**Explanation:** VTAM issues this message during START processing or in response to a MODIFY VTAMOPTS command when the nth parameter specified for start option option is not the correct type. Possible values are:

**NUMERIC**  
The value for option must be a numeric value.

**TIMER**  
The value for option must be in the form xxI, where xx is a numeric value and I is a character designation of a time interval (S = seconds, M = minutes, H = hours, D = days). Individual start options that use TIMER notation have different valid ranges. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information.

**System action:** VTAM ignores option.

- If the error occurred during START processing, VTAM will issue message IST1311A to prompt you for the correct value of option.
- If the error occurred in response to a MODIFY VTAMOPTS command, processing continues.

**Operator response:**
- If the error occurred during START processing, enter a valid value for parameter n of option in response to IST1311A. You can also enter a blank if you want to accept the default value for option.
- If the error occurred in response to a MODIFY VTAMOPTS command, ensure that you entered option correctly.

**System programmer response:**
- If the error occurred during START processing, correct the value for option if option is coded in an ATCSTRxx file.
- If the error occurred in response to a MODIFY VTAMOPTS command, no further action is required.

For more information about VTAM start options, see the [z/OS Communications Server: SNA Resource Definition Reference](#).

Routing code: 2

Descriptor code: 5

**IST1070I**  
value FOR option NOT VALID – START CONTINUES

**Explanation:** VTAM issues this message when the value specified for start option option is not valid.

**System action:** VTAM ignores option. VTAM will issue message IST1311A to prompt you for the correct value of option.

**Operator response:** Enter a valid value for option in response to message IST1311A. You can also enter a blank if you want to accept the default value for option.

For the NNSPREF start option, a prompt might be issued, depending on the type of error. If no prompt is issued, enter a MODIFY VTAMOPTS,NNSPREF command with the correct value following the completion of VTAM initialization.

For the DISABLED value of the HPRSESLM start option, a prompt is not issued and the HPRSESLM start option is set to NOLIMIT. To change this value, enter a MODIFY VTAMOPTS,HPRSESLM command with the correct value following the completion of VTAM initialization.

**System programmer response:** If option is coded in an ATCSTRxx file, correct the value for option in that file. For more information about VTAM start options, see the [z/OS Communications Server: SNA Resource Definition Reference](#).

Routing code: 2

Descriptor code: 5
**IST1071I • IST1073I**

**IST1071I  SONLIM OPTION PARAMETER 1 MUST BE GREATER THAN PARAMETER 2**

**Explanation:** VTAM issues this message when the second parameter for the SONLIM start option is greater than the first parameter.

**System action:** VTAM ignores the values coded for SONLIM. VTAM will issue message IST1311A to prompt you for the correct value of SONLIM.

**Operator response:** Enter the correct parameters for SONLIM in response to message IST1311A. You can also enter a blank if you want to accept the default value for SONLIM.

**System programmer response:** If SONLIM is coded in an ATCSTRxx file, correct the value for SONLIM in that file. For more information about VTAM start options, see the [z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com/support/knowledgecenter/SSSLTM_2.2.0/com.ibm.vtamsafe.doc/zos/aist1071.html).

**Routing code:** 2

**Descriptor code:** 5

**IST1072I  option HAS TOO MANY PARAMETERS–START OPTION IGNORED**

**Explanation:** VTAM issues this message during START processing or in response to a MODIFY VTAMOPTS command when too many parameters are specified for start option `option`.

**System action:** VTAM ignores `option`.

- If the error occurred during START processing, VTAM will issue message IST1311A to prompt you for the correct value of `option`.
- If the error occurred in response to a MODIFY VTAMOPTS command, processing continues.

**Operator response:**

- If the error occurred during START processing, enter the correct parameters for `option` in response to IST1311A. You can also enter a blank if you want to accept the default value for `option`.
- If the error occurred in response to a MODIFY VTAMOPTS command, ensure that you entered `option` correctly.

**System programmer response:**

- If the error occurred during START processing, correct the value for `option` if `option` is coded in an ATCSTRxx file.
- If the error occurred in response to a MODIFY VTAMOPTS command, no further action is required.

For more information about VTAM start options, see the [z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com/support/knowledgecenter/SSSLTM_2.2.0/com.ibm.vtamsafe.doc/zos/aist1072.html).

**Routing code:** 2

**Descriptor code:** 5

**IST1073I  option2 CAN ONLY BE SPECIFIED AFTER OPTION option1**

**Explanation:** VTAM issues this message when start option `option2` for TRACE, NOTRACE, TNSTAT, or NOTNSTAT is out of sequence. Start option `option1` is TRACE, NOTRACE, TNSTAT, or NOTNSTAT. `option2` must be specified after `option1`.

**System action:** VTAM ignores `option2`. VTAM will issue message IST1311A to prompt you for the correct value of `option1`.

**Operator response:** Enter `option2` after a TRACE, NOTRACE, TNSTAT, or NOTNSTAT start option. You can also enter a blank if you want to accept the default value for `option1`.

**System programmer response:** If `option2` is coded in an ATCSTRxx file, move the value for `option2` after the value for `option1` in that file. For more information about VTAM start options, see the [z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com/support/knowledgecenter/SSSLTM_2.2.0/com.ibm.vtamsafe.doc/zos/aist1073.html).

**Routing code:** 2

**Descriptor code:** 5
IST1074I  PARAMETERS FOR option ARE NOT in THRESHOLD LIMITS

Explanation: This message is issued when one of the following occurs while processing buffer pool start options:
- The base number (baseno) is less than or equal to the slow point (slowpt) or expansion point (xpanpt).
- The expansion point is not 0 and is less than or equal to the slow point. For SPBUF and LPBUF, the difference
  between the base number and the expansion point or between the base number and the slow point is less than or
  equal to five.

System action: VTAM ignores option. VTAM will issue message IST1311A to prompt you for the correct value of
option.

Operator response: Enter the correct values for option in response to message IST1311A. You can also enter a blank
if you want to accept the default values for option.

System programmer response: If option is coded in an ATCSTRxx file, correct the value for option in that file. For
more information about VTAM start options, see the z/OS Communications Server: SNA Resource Definition
Reference

Routing code: 2
Descriptor code: 5

IST1075I  PARAMETER n FOR option IS NOT VALID

Explanation: VTAM issues this message during START processing or in response to a MODIFY VTAMOPTS
command when the nth parameter specified for start option option contains a value that is not valid.

System action: VTAM ignores option.
- If the error occurred during START processing, VTAM will issue message IST1311A to prompt you for the correct
  value of option.
- If the error occurred in response to a MODIFY VTAMOPTS command, processing continues.

Operator response:
- If the error occurred during START processing, reenter all values for option in response to IST1311A. You can also
  enter a blank if you want to accept the default value for option.
- If the error occurred in response to a MODIFY VTAMOPTS command, ensure that you entered option correctly.

System programmer response:
- If the error occurred during START processing, correct the value for option if option is coded in an ATCSTRxx file.
- If the error occurred in response to a MODIFY VTAMOPTS command, no further action is required.

For more information about VTAM start options, see the z/OS Communications Server: SNA Resource Definition
Reference

Routing code: 2
Descriptor code: 5

IST1076I  VALUE DEFINED FOR HOSTPU, value, IS A RESERVED KEYWORD

Explanation: VTAM issues this message when the host subarea PU name defined on the HOSTPU start option is
one of the following reserved words: VTAMSEG, VTAMSG2, VTAM, ISTNOP, ISTPDCLU, ISTGROUP, or ISTATA00.
value is the value defined for HOSTPU.

System action: VTAM ignores the value of HOSTPU. VTAM will issue message IST1311A to prompt you for the
correct value of HOSTPU.

Operator response: Enter a valid value for HOSTPU in response to message IST1311A. You can also enter a blank if
you want to accept the default value for HOSTPU.

System programmer response: If HOSTPU is coded in an ATCSTRxx file, correct the value for HOSTPU in that file.
For more information about VTAM start options, see the z/OS Communications Server: SNA Resource Definition
Reference

Routing code: 2
IST1077I • IST1079I

Descriptor code: 5

**IST1077I** OPTION option AFTER type keyword IS NOT VALID

Explanation: VTAM issues this message when an option specified after a certain type of TRACE/NOTRACE is not valid. option is a VTAM start option. type is the type of trace that is not valid. Keyword will be TRACE or NOTRACE.

System action: VTAM ignores the TRACE or NOTRACE start option. VTAM will issue message IST1311A to prompt you for the correct value of the TRACE or NOTRACE option.

Operator response: Enter the TRACE or NOTRACE again with all options in response to message IST1311A. You can also enter a blank if you want to accept the default values for the TRACE or NOTRACE.

System programmer response: If these start options are coded in an ATCSTRxx file, correct the option value for the TRACE or NOTRACE in that file. For more information about VTAM start options, see the z/OS Communications Server: SNA Resource Definition Reference.

Routing code: 2

Descriptor code: 5

**IST1078I** LIST START OPTION CANNOT BE IN START FILE–OPTION IGNORED

Explanation: VTAM issues this message when the LIST start option is found in an ATCSTRxx file. This start option can be entered only when prompted on the VTAM START command. See the [z/OS Communications Server: SNA Resource Definition Reference](https://publib.boulder.ibm.com/infocenter/zos/v2r1/topic/com.ibm.zos.r1.5.0/istg392.htm#ch07s01s04) for more information on the LIST start option.

System action: VTAM ignores the specified start option. Processing continues.

Operator response: Save the system log for problem determination.

System programmer response: Remove LIST=xx statements from any ATCSTRxx files.

Routing code: 2

Descriptor code: 5

**IST1079I** ncpname ACTIVATION CONTINUES–CANNOT ASSOCIATE groupname

Explanation: This message is the first in a subgroup of messages that VTAM issues during the activation of NCP ncpname. A complete description of the message subgroup follows.

IST1079I ncpname ACTIVATION CONTINUES–CANNOT ASSOCIATE groupname
IST1117I PHYSICAL RESOURCE (PHYSRSC) puname (IS NOT KNOWN | IS NOT A PU)

ncpname is the name of the NCP that is being activated.

grouname is the name of the line group that is defined to have an association with physical resource puname in message IST1117I.

IST1117I

puname is the resource defined on the PHYSRSC operand of the GROUP definition statement.

This message describes the reason VTAM cannot associate groupname in message IST1079I and puname.

System action: VTAM does not associate line group groupname or its subordinate resources with puname. groupname is activated as an independent line group.

Operator response: Save the system log for problem determination.

System programmer response: Ensure that the PHYSRSC operand on the GROUP statement for groupname specifies a PU statement in the same NCP definition and that the PU is owned by the host activating the NCP.

Routing code: 2
Descriptor code: 5

IST1080I  [DUMP|LOAD] STATION NAME = station_name

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 4.

station_name is the DUMP or LOAD station name for an NCP. If the DUMP or LOAD station name is not available when the DISPLAY command is issued, VTAM displays ***NA*** in this field.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2

Descriptor code: 5

IST1081I  ADJACENT LINK STATION = alsname

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for an LU.

alsname is the name of the adjacent link station associated with the LU specified in the DISPLAY ID command.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2

Descriptor code: 5

IST1082I  GENERATED ADDRESS FOR cdrscname DELETED FROM alsname

Explanation: VTAM issues this message in response to an address mismatch error. VTAM attempts to delete cross domain resource cdrscname that was generated under adjacent link station alsname. This message indicates that cdrscname was deleted.

If the PU for alsname is not found, VTAM issues ***NA***.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2

Descriptor code: 5

IST1083I  ERROR ACTIVATING ADJCP adjcpname SENSE = code

Explanation: VTAM issues this message when it encounters an error during the dynamic allocation of an adjacent control point.

adjcpname is the name of the adjacent control point. If the network where the resource resides is known to VTAM, adjcpname is issued as a network-qualified name in the form netid.name.

code indicates the reason for the error. See the z/OS Communications Server: IP and SNA Codes for a description of code.

System action: Processing continues.

Operator response: Save the system log for problem determination.
**IST1084I • IST1085I**

**System programmer response:** Use the information in the system log and the explanation of code to resolve the problem.

**Routing code:** 2

**Descriptor code:** 5

---

**IST1084I**  
**START LIST IGNORED – name WILL BE USED**

**Explanation:** VTAM issues this message when an error occurs while processing the start list in message IST1215I and LISTBKUP=backup_list or LISTBKUP=DEFAULTS has been specified.

name can be one of the following:

- If backup_list is specified on the LISTBKUP start option, name is the name of the backup start list that will be processed in the place of the start list in error.
- If DEFAULTS is specified on the LISTBKUP start option, name is either VTAM DEFAULTS or ATCSTR00.
  - If name is VTAM DEFAULTS, the error occurred while processing ATCSTR00, and start option values are reset to the IBM defaults.
  - If name is ATCSTR00, the error occurred while processing ATCSTRxx, and start option values are reset to their values prior to processing ATCSTRxx.

See the [z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com/support/docview่วหน้าข้อมูลวิชาการ/zos-support) for information about the LISTBKUP start option. See the [z/OS Communications Server: SNA Network Implementation Guide](https://www.ibm.com/support/docview่วหน้าข้อมูลวิชาการ/zos-support) for more information.

**System action:** VTAM ignores the start list in error and uses name. Other processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

---

**IST1085I**  
**type ACTIVATION ERROR resource SENSE = code**

**Explanation:** VTAM issues this message when an error is encountered during the activation of a boundary function-based connection or a virtual route-based connection.

type indicates the type of transmission group connection that failed and is one of the following:

- **BF-TG**  
  Boundary function-based connection

- **VR-TG**  
  Virtual route-based connection

resource is the name of the adjacent control point. If the network where the resource resides is known to VTAM, resource is issued as a network-qualified name in the form CP netid.name.

code indicates the reason for the error. See the [z/OS Communications Server: IP and SNA Codes](https://www.ibm.com/support/docviewровหน้าข้อมูลวิชาการ/zos-support) for a description of code.

**Tip:** If the PU name in the preceding IST590I message is an Enterprise Extender (EE) PU, this transmission group connection traverses EE. If code is 1016000B and the transmission group traverses EE, a duplicate CP name might be in the network. Issue a D NET,EE,CPNAME=resource command to obtain more information about the CP with the active EE connection.

**System action:** Processing continues.

**Operator response:** Save the system log for problem determination.

**System programmer response:** Use the information in the system log and the explanation of code to resolve the problem.

**Routing code:** 2
IST1086I • IST1090I

Descriptor code:  5

IST1086I       APPN CONNECTION FOR  adjcpname  IS ACTIVE–TGN= tgn
Explanation:    VTAM issues this message when an APPN connection for an adjacent control point becomes active.
adjcpname is the name of the adjacent control point. If the network where the resource resides is known to VTAM, 
adjcpname is issued as a network-qualified name in the form netid.name.
tgn is the transmission group number.
System action:  Processing continues.
Operator response:  None.
System programmer response:  None.
Routing code:  2
Descriptor code:  5

IST1088I       ADJCP  adjcpname  HAS BEEN DEACTIVATED
Explanation:    VTAM issues this message when the deactivation of an adjacent control point major node is 
completed.
adjcpname is the name of the adjacent control point. If the network where the resource resides is known to VTAM, 
adjcpname is issued as a network-qualified name in the form netid.name.
System action:  Processing continues.
Operator response:  None.
System programmer response:  None.
Routing code:  2
Descriptor code:  5

IST1089I       MODIFY FAILED–TGP  tgpname  DOES NOT EXIST
Explanation:    VTAM issues this message in response to a MODIFY TGP command.
tgpname is the name of the transmission group profile that was entered on the command.
System action:  Processing continues.
Operator response:  Ensure that you entered tgpname correctly. If the command fails again, save the system log for problem determination.
System programmer response:  Verify that tgpname is correct, and that the resource is defined to VTAM. If not, update the TGP definition.
Routing code:  2
Descriptor code:  5

IST1090I       TGP FOR  type  resource IS SET TO  tgpname
Explanation:    VTAM issues this message in response to a MODIFY TGP command.
Possible values are:
Type        Resource
CDRM        cdrmname

cdrmname is the name of a CDRM capable of requesting a VR-based (virtual route-based) TG connection.
cdrmname can be a network-qualified name in the form netid.name.
type is CDRM when TGN=255 is specified on the MODIFY TGP command.
IST1091I

CP  cpname(tgn)
    cpname is the name of the adjacent control point. If cpname is session-capable, VTAM issues cpname as a
    network-qualified name in the form netid.name.
    tgn is the transmission group number.
    type is CP when TGN is specified as anything other than 255 on the MODIFY TGP command.

LINE  linename
    linename is the name of an active line (NCP/Token-Ring Interconnection [NTRI]) that has the connection
    network function defined.

PORT  portname
    portname is the name of an active port (external communication adapter [XCA]) that has the connection
    network function defined.

PU  puname
    puname is the name of an active type 2.1 physical unit.

tg pname is the name of the transmission group profile.

System action:  Processing continues.

Operator response:  None.

System programmer response:  None.

Routing code:  2

Descriptor code:  5

IST1091I  MODIFY TGP FAILED – type resource IS UNKNOWN

Explanation:  VTAM issues this message in response to a MODIFY TGP command when type resource is not known
to VTAM.

Possible values are:

Type  Resource

CDRM  cdrmname
    cdrmname is the name of a CDRM capable of requesting a VR-based (virtual route-based) TG connection.
    cdrmname can be a network-qualified name in the form netid.name.
    type is CDRM when TGN=255 is specified on the MODIFY TGP command.

CP  cpname(tgn)
    cpname is the name of the adjacent control point. If cpname is session-capable, VTAM issues cpname as a
    network-qualified name in the form netid.name.
    tgn is the transmission group number.
    type is CP when TGN is specified as anything other than 255 on the MODIFY TGP command.

ID  resourcename
    resourcename is the name of the resource. The type of resource is not known to VTAM.
    type is ID when TGN is not specified on the MODIFY TGP command.

LINE  linename
    linename is the name of an active line (NCP/Token-Ring Interconnection [NTRI]) that has the connection
    network function defined.

PORT  portname
    portname is the name of an active port (external communication adapter [XCA]) that has the connection
    network function defined.
**PU**  
`puiname`  
`puiname` is the name of an active type 2.1 physical unit.

**System action:**  Processing continues.

**Operator response:**  Ensure that you entered `resource` correctly. If VTAM continues to issue this message, save the system log for problem determination.

**System programmer response:**  Verify that `type resource` is correct and, if not, update the TGP definition. See the [z/OS Communications Server: SNA Resource Definition Reference](#).

**Routing code:**  2  
**Descriptor code:**  5

---

**IST1092I**  
MODIFY TGP FAILED, INSUFFICIENT STORAGE

**Explanation:**  VTAM issues this message in response to a MODIFY TGP command when there is insufficient storage.

**System action:**  Processing continues.

**Operator response:**  Try the MODIFY TGP command again. If VTAM continues to issue this message, enter the DISPLAY STORUSE command to display storage usage for storage pools. Message IST981I displays total VTAM private storage information. If this message does not appear in the display, you may need to reissue the DISPLAY STORUSE command, specifying a higher value for the NUM operand. See [z/OS Communications Server: SNA Operation](#) for additional information.

Save the system log and request a dump for problem determination.

**System programmer response:**  Increase storage as required.

See [z/OS Communications Server: SNA Operation](#) for more information on the DISPLAY STORUSE command. The [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) provides additional information.

See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

**Routing code:**  2  
**Descriptor code:**  5

---

**IST1093I**  
`start_option1` IS IGNORED—ONLY VALID WHEN `start_option2` IS SPECIFIED

**Explanation:**  VTAM issues this message when `start_option2`, which is required with `start_option1`, is not specified. `start_option2` is the name of the start option or the name of the start option with its required value.

**System action:**  `start_option1` is ignored. Other processing continues.

**Operator response:**  Save the system log for problem determination.

**System programmer response:**  Examine the VTAM start options contained in ATCSTR:xx and verify that the correct options are specified. `start_option2` needs to be specified in order to specify `start_option1`. See the [z/OS Communications Server: SNA Resource Definition Reference](#)

**Routing code:**  2  
**Descriptor code:**  5

---

**IST1094I**  
GWSSCP VALUE FORCED TO NO—NODETYPE IS EN

**Explanation:**  VTAM issues this message when both GWSSCP=YES and NODETYPE=EN are specified as start options. An end node (EN) cannot be used for intermediate routing. This message is also issued when the default value for GWSSCP is used and NODETYPE=EN is specified.

**System action:**  The GWSSCP start option is changed to NO. Processing continues.

**Operator response:**  Save the system log for problem determination.
IST1095I • IST1096I

System programmer response: Examine the VTAM start options contained in ATCSTR:xx and verify that the correct options are specified.

Determine whether this node is to be used for intermediate routing.

- If it is, specify NODETYPE=NN.
- If not, use GWSSCP=NO.

See the z/OS Communications Server: SNA Resource Definition Reference for more information on the GWSSCP and NODETYPE start options.

Routing code: 2
Descriptor code: 5

IST1095I INITIATION FAILED FOR cpname – NO LINK TO ADJCP

Explanation: VTAM issues this message in response to a VARY ACT,ID=cpname command.

Session initiation failed because no usable link exists for a control point service manager (CPSVMG) session to the adjacent CP. The cross-domain resource (CDRSC) representing the adjacent CP remains active because the adjacent CP can send a BIND to the host.

cpname is the name of the adjacent control point. VTAM issues cpname as a network-qualified name in the form netid.name.

Note: If this message is displayed as the result of a VARY ACT command for a CDRM on a VRTG connection, ignore this message. CP-CP sessions will become active once the SSCP-SSCP session becomes active.

System action: Processing continues.

Operator response: Verify that the link supports CP-CP sessions by entering the DISPLAY ID=cpname command.

If your node does not support CP-CP sessions, reactivate the link and initiate the desired session by entering the VARY ACT,ID=puname;CP=CP;YES command. This command will override your PU definition. If this is not successful, the other node does not support CP-CP sessions.

System programmer response: If the other node does not support CP-CP sessions, the following steps are required:
1. Deactivate the other node
2. Change the PU definitions for the other node
3. Reactivate the other node.

Routing code: 2
Descriptor code: 5

IST1096I CP-CP SESSIONS WITH adjcpname ACTIVATED

Explanation: This message is part of a group of messages that VTAM issues when CP-CP sessions with an adjacent control point (CP) have been activated and are usable. A complete description of the message group follows.

IST1096I CP-CP SESSIONS WITH adjcpname ACTIVATED
IST1673I SWITCH TO PREFERRED NETWORK NODE SERVER IS COMPLETE
IST314I END

IST1096I

This message identifies the adjacent control point (CP) with which this node has successfully activated CP-CP sessions. This message may be issued in response to a command.

Note: CP-CP sessions see the contention winner and contention loser sessions of the CP-CP session pair.
adjcpname is the name of the adjacent control point. If the network where the resource resides is known to VTAM, adjcpname is issued as a network-qualified name in the form netid.name

IST1673I
VTAM issues this message when this end node has deactivated CP-CP sessions with its current network node server and then successfully activated CP-CP sessions with its preferred network node server, which is identified in message IST1096I. This message may be issued in response to a MODIFY VTAMOPTS,NNSPREF command.

**System action:** Processing continues.

**Operator response:** None

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

---

**IST1097I**  
**CP-CP SESSION WITH cpname TERMINATED**

**Explanation:** This message is the first in a group of messages that VTAM issues when a CP-CP session with an adjacent control point has been terminated. This message may be issued in response to a command. A complete description of the message group follows.

IST1097I CP-CP SESSION WITH cpname TERMINATED
IST1280I SESSION TYPE = sessiontype – SENSE = code
IST314I END

IST1097I

`cpname` is the name of the adjacent control point. If `cpname` is session-capable, VTAM issues `cpname` as a network-qualified name in the form `netid.name`.

IST1280I

`sessiontype` indicates the session type of the CP-CP session that is terminating and is either CONWINNER (contention winner) or CONLOSER (contention loser).

`code` is the sense code associated with the termination. See the [z/OS Communications Server: IP and SNA Codes](https://www.ibm.com/support/knowledgecenter/en/SSLVMB_7.3.0/com.ibm.zos.v7r3.cics.interphase.doc/cics_interphase00000.html) for an explanation of `code`.

**System action:** Processing continues.

**Operator response:** You can take the following actions:

- If this is a nonswitched connection, display the status of the resources.
- Attempt to reactivate the CP-CP sessions by issuing a VARY ACT,ID=`cpname` command.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

---

**IST1098I**  
**resource DEACTIVATED, DEPLETING IO BUFFER POOL**

**Explanation:** VTAM deactivates the logical unit in an SSCP-LU session or physical unit in an SSCP-PU session because the session is depleting the I/O buffer pool. This happens when VTAM detects a session using more of the buffer pool than allowed.

`resource` is the name of the LU or PU that is deactivated.

Message IST930I or IST1153I is displayed before this message and identifies the two session partners.

**System action:** Processing continues.

**Operator response:** Reactivate the session after you find and correct the reason for the depletion. For additional information, see IST930I or IST1153I.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5
IST1099I • IST1100I

IST1099I  SESSION TERMINATED, DEPLETING bp BUFFER POOL

Explanation:  VTAM terminates the LU-LU session because the session is depleting the bp buffer pool.

bp is the name of the buffer pool and is LF. This can be an LU-LU or a CP-CP session.

This occurs when VTAM detects a session using a percentage of the I/O buffer pool that is greater than or equal to the value specified on the HOTIOTRM start option.

Message IST930I or IST1153I is displayed before this message and identifies the two LU-LU session partners.

System action:  Processing continues.

Operator response:  Reactivate the session after you find and correct the reason for the depletion. For additional information, see IST930I or IST1153I.

System programmer response:  None.

Routing code:  2

Descriptor code:  5

IST1100I  ADJACENT CONTROL POINTS FROM MAJOR NODE majornode

Explanation:  This message is the first in a group of messages that VTAM issues in response to a DISPLAY command for an adjacent control point major node. A complete description of the message group follows the example.

IST1100I ADJACENT CONTROL POINTS FROM MAJOR NODE majornode
IST1102I NODENAME   NODETYPE CONNECTIONS CP CONNECTIONS NATIVE
IST1103I nodename   nodetype connections cp_connections native
IST2157I ALIASRCH = searchoption
[IST2251I AUTHORIZED NETID LIST FOR BORDER NODE SEARCHING:]
[IST2252I netid [netid] [netid] [netid] [netid] [netid]
...
IST314I END

IST1100I

majornode is the name of the adjacent control point major node.

IST1102I

This message is a header message for the information displayed in message IST1103I.

IST1103I

• nodename is the network-qualified name of the minor node in the form netid.name.
• nodetype is the type of node and can be EN (end node), NN (network node), or VN (virtual node). *NA* is displayed in either of the following situations:
  – The device is connected and is a LEN node.
  – The node type has not been predefined for the adjacent CP. The correct node type will be displayed when a connection to the node is made.
• connections is the number of active connections to the node.
• cp_connections is the number of active connections that show support for CP-CP sessions.
• native indicates whether nodename is in the same APPN topology subnetwork as the node issuing the DISPLAY command. Possible values are:
  YES  If nodetype is NN and nodename shares APPN topology information with the node issuing the DISPLAY command.
  NO   If nodetype is NN and nodename does not share APPN topology information with the node issuing the DISPLAY command.
  *NA*  If nodetype is EN or VN.

See the z/OS Communications Server: SNA Network Implementation Guide for more information on nodetypes and APPN connections.
IST2157I

- The searchoptiion value indicates which ALIASRCH operand has been coded on the adjacent CP major node specified in message IST1100I. Possible values are:
  - YES  ALIAS searches entering this non-native entry border node are permitted. This is also the default value.
  - NO ALIAS searches entering this non-native entry border node are not permitted.
  - *NA* This value is displayed if this node is not an entry border node (BN).

IST2251I

This message is a header message for the information displayed in message IST2252I.

IST2252I

The netid value is a NETID specified on the AUTHNETS operand of the adjacent CP minor node that is specified in message IST1103I. If the netid value is *NONE*, then the AUTHNETS operand was specified without any NETID values.

IST2252I is repeated until all NETIDs are displayed.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

**Example:**

```
D NET,ID=ADJCP1,SCOPE=ALL
IST097I DISPLAY ACCEPTED
IST075I NAME = ADJCP1, TYPE = ADJCP MAJOR NODE
IST486I STATUS= ACTIV, DESIRED STATE= ACTIV
IST1100I ADJACENT CONTROL POINTS FROM MAJOR NODE ADJCP1
IST1102I NODENAME NODETYPE CONNECTIONS CP CONNECTIONS NATIVE
IST1103I NETA.CP2A NN 1 1 NO
IST2157I ALIASRCH = YES
IST2251I AUTHORIZED NETID LIST FOR BORDER NODE SEARCHING:
IST2252I NETA NETB NETC
IST1103I NETB.CPAA NN 1 1 NO
IST2157I ALIASRCH = YES
IST2251I AUTHORIZED NETID LIST FOR BORDER NODE SEARCHING:
IST2252I NETA NETB NETC
IST1103I NETB.CPBA NN 0 0 *NA*
IST2157I ALIASRCH = YES
IST2251I AUTHORIZED NETID LIST FOR BORDER NODE SEARCHING:
IST2252I NETA NETB NETC
IST1103I NETC.CPCA EN 1 1 *NA*
IST2157I ALIASRCH = *NA
IST1493I RTP SUMMARY FOR NETA.CP2A COUNT = 2 RTPONLY = NO
IST1493I RTP SUMMARY FOR NETB.CPAA COUNT = 2 RTPONLY = NO
IST1493I RTP SUMMARY FOR NETC.CPCA COUNT = 1 RTPONLY = NA
IST314I END
```

**IST1101I**  **ADJCP DISPLAY SUMMARY FOR adjcpname**

**Explanation:** This message is the first of a subgroup of messages that VTAM issues in response to a DISPLAY ADJCP command for an adjacent control point.

Possible message groups follow.

- If there are active TG connections, VTAM issues the following messages:

  
  - IST350I  **DISPLAY TYPE = ADJACENT CONTROL POINT**
  - IST486I  **STATUS= ACTIV, DESIRED STATE= ACTIV**
  - IST1197I  **ADJCP MAJOR NODE = majornode**
  - IST1101I  **ADJCP DISPLAY SUMMARY FOR adjcpname**
  - IST1102I  **NODENAME NODETYPE CONNECTIONS CP CONNECTIONS NATIVE**
  - IST1103I  **nodename nodetype connections cp_connections native**

**Chapter 7. IST messages for VTAM network operators IST800I – IST1199I  401**
IST1101I

adjcpname is the name of the adjacent control point. If the network where the resource resides is known to VTAM, adjcpname is issued as a network-qualified name in the form netid.name.

IST1102I

This message is a header message for the information displayed in message IST1103I.

IST1103I

- nodename is the name of the adjacent control point. If the network where the resource resides is known to VTAM, nodename is issued as a network-qualified name in the form netid.name.
- nodetype is the type of node and can be EN (end node), NN (network node), or VN (virtual node). *NA* is displayed in either of the following situations:
  - The device is connected and is a LEN node.
  - The node type has not been predefined for the adjacent CP. The correct node type will be displayed when a connection to the node is made.
- connections is the number of active connections to the node.
- cp_connections is the number of active connections that show support for CP-to-CP sessions.
- native indicates whether nodename is in the same APPN topology subnetwork as the node issuing the DISPLAY command. Possible values are:
  - YES If nodetype is NN and nodename shares APPN topology information with the node issuing the DISPLAY command.
  - NO If nodetype is NN and nodename does not share APPN topology information with the node issuing the DISPLAY command.
  - *NA* If nodetype is EN or VN.

See the z/OS Communications Server: SNA Network Implementation Guide for more information on APPN connections and nodetypes.

IST1104I

adjcpname is the name of the adjacent control point. If the network where the resource resides is known to VTAM, adjcpname is issued as a network-qualified name in the form netid.name.
This message is a header message for the information displayed in message IST1106I.

**IST1106I**

- *resource* is the name of the PU, CDRM, PORT, or LINE associated with the transmission group number.
- *status* is the connection status and can be one of the following:
  - **AC/N**
    - Active, but not reported to APPN topology and routing services
  - **AC/R**
    - Active and reported to APPN topology and routing services
  - **AO/N**
    - Active with override but not reported to APPN topology and routing services
  - **AO/R**
    - Active with override and reported to APPN topology and routing services
  - **AP/N**
    - APPN connection pending, but not reported to APPN topology and routing services
  - **AQ/N**
    - Quiesced, but not reported to APPN topology and routing services
  - **AQ/R**
    - Quiesced and reported to APPN topology and routing services
  - **IN/N**
    - Inactive, but not reported to APPN topology and routing services
  - **IN/R**
    - Inactive and reported to APPN topology and routing services
  - **NEV**
    - Never reported to APPN topology and routing services

- *tgn* is the transmission group number.
- *cp-cp* is a user-defined value that can be specified on the GROUP, LINE, or PU definition statements or on the VARY ACT command. This value indicates whether the connection is capable of supporting CP-CP sessions.
  - Possible values are: **YES** or **NO**.
  - For additional information on the CPCP operand, see the [z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com/support/knowledgecenter/STUQQU_7.4.1/com.ibm.zos.zos/isc/isc參考資料/zos參考資料.htm).

- *tg_characteristics* is a 16-byte hexadecimal string representing the transmission group characteristics for *puname*. **** NA **** is displayed if *puname* is a low entry networking (LEN) node. LEN PUs do not have transmission groups associated with them.

<table>
<thead>
<tr>
<th>Byte</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>TG status and CP-CP session support.</td>
</tr>
<tr>
<td>Bit</td>
<td>Description</td>
</tr>
<tr>
<td>1</td>
<td>TG status</td>
</tr>
<tr>
<td>0</td>
<td>TG is not operational</td>
</tr>
<tr>
<td>1</td>
<td>TG is operational</td>
</tr>
<tr>
<td>2</td>
<td>Reserved (zero)</td>
</tr>
<tr>
<td>3</td>
<td>TG status</td>
</tr>
<tr>
<td>0</td>
<td>TG is not quiescing</td>
</tr>
<tr>
<td>1</td>
<td>TG is quiescing</td>
</tr>
<tr>
<td>4–8</td>
<td>Reserved (not always zero)</td>
</tr>
</tbody>
</table>

2 Capacity. This value corresponds to the CAPACITY value coded in the TGP definition statement. The displayed value is an internal representation of the coded value. For more information on how the
IST1101I

CAPACITY value coded in the TG profile is mapped to the internal representation used by VTAM, see the z/OS Communications Server: SNA Resource Definition Reference.

3–7 Reserved (zero).

8 Cost per unit time. This value corresponds to the COSTTIME value coded in the TGP definition statement.

9 Cost per byte. This value corresponds to the COSTBYTE value coded in the TGP definition statement.

10 Reserved (zero).

11 Security. This value corresponds to the SECURITY value coded in the TGP definition statement as follows:

- X'01' UNSECURE
- X'20' PUBLIC
- X'40' UNDERGRO
- X'60' SECURE
- X'80' GUARDED
- X'A0' ENCRYPT
- X'C0' SHIELDED

12 Propagation delay. This value corresponds to the PDELAY value coded in the TGP definition statement as follows:

- X'4C' NEGLIGIB
- X'71' TERRESTR
- X'91' PACKET
- X'99' LONG

13 Reserved (zero).

14–16 User-defined. These values correspond to the values coded for UPARM1, UPARM2, and UPARM3 respectively in the TGP definition statement.

IST2157I

- The searchoption value indicates which ALIASRCH operand has been coded on the adjacent CP major node specified in message IST1101I. Possible values are:
  - YES ALIAS searches entering this non-native entry border node are permitted. This is also the default value.
  - NO ALIAS searches entering this non-native entry border node are not permitted.
  - *NA This value is displayed if this node is not an entry border node (BN).

IST2251I

This message is a header message for the information displayed in message IST2252I.

IST2252I

The netid value is a NETID specified on the AUTHNETS operand of the adjacent CP minor node that is specified in message IST1103I. If the netid value is *NONE*, then the AUTHNETS operand was specified without any NETID values.

IST2252I is repeated until all NETIDs are displayed.

System action: Processing continues.

Operator response: Save the system log for problem determination.

System programmer response: If there are transmission group characteristics (contained in \texttt{tg\_characteristics}) that you do not want, recode the resource definition statements.

See the z/OS Communications Server: SNA Resource Definition Reference for more information.
Routing code: 2
Descriptor code: 5

Example:
D NET, ADJCP, ID=NETA.CP2A, SCOPE=ALL
IST097I DISPLAY ACCEPTED
IST350I DISPLAY TYPE = ADJACENT CONTROL POINT
IST486I STATUS = ACTIV, DESIRED STATE = ACTIV
IST1197I ADJCP MAJOR NODE = ADJCP1
IST1101I ADJCP DISPLAY SUMMARY FOR NETA.CP2A
IST1102I NODENAME NODETYPE CONNECTIONS CP CONNECTIONS NATIVE
IST1103I NETA.CP2A   NN  1  1  NO
IST2157I ALIASRCH = YES
IST2251I AUTHORIZED NETID LIST FOR BORDER NODE SEARCHING:
IST2252I NETA NETB NETC
IST1105I CONNECTION SUMMARY FOR NETA.CP2A
IST1106I RESOURCE STATUS TGN CP-CP TG CHARACTERISTICS
IST1107I AHHCPU5 AC/R  21 YES  9871000000000100014C0080808080808080
IST1500I STATE TRACE = OFF
IST1493I RTP SUMMARY FOR NETA.CP2A COUNT = 2 RTPONLY = NO
IST1486I RTP NAME STATE DESTINATION CP MNPS TYPE
IST1487I CNR00002 CONNECTED NETA.CP2A NO CPCP
IST1488I CNR0001 CONNECTED NETA.CP2A NO CPCP
IST314I END

IST1104I CONNECTION SUMMARY FOR adicpname

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY ADJCP command. See the explanations of message IST1101I and message IST1197I for a complete description of possible message groups.

Routing code: 2
Descriptor code: 5
**IST1105I**

RESOURCE STATUS TGN CP-CP TG CHARACTERISTICS

**Explanation:** VTAM issues this message as part of a group of messages in response to the following commands:

- DISPLAY ID command for a type 2.1 PU, a CDRM with a virtual route-based transmission group, an external communication adapter (XCA) port that is part of a connection network, or a NCP/Token-Ring interconnected (NTRI) line that is part of a connection network. A complete description of this message group follows.

- DISPLAY ADJCP command for an adjacent control point

  See the explanations of message IST1101I and message IST1197I for a complete description of possible message groups.

*resource* is the name of the PU, CDRM, PORT, or LINE associated with the transmission group or connection network virtual routing node.

*status* displays the connection status and can be one of the following:

- **AC/N**
  - Active, but not reported to APPN topology and routing services.

- **AC/R**
  - Active and reported to APPN topology and routing services.

- **AO/N**
  - Active with override but not reported to APPN topology and routing services.

- **AO/R**
  - Active with override and reported to APPN topology and routing services.

- **AP/N**
  - APPN connection pending and not reported to APPN topology and routing services.

- **AQ/N**
  - Quiesced, but not reported to APPN topology and routing services.

- **AQ/R**
  - Quiesced and reported to APPN topology and routing services.

- **IN/N**
  - Inactive, but not reported to APPN topology and routing services.

- **IN/R**
  - Inactive and reported to APPN topology and routing services.

- **NEV**
  - Never reported to APPN topology and routing services.

*tgn* is the transmission group number. *NA* is displayed if there is no TG number assigned to *puname*.

*cp-cp* is a user-defined value that can be specified on the GROUP, LINE, or PU definition statements or on the VARY ACT command. This value indicates whether the connection is capable of supporting CP-CP sessions.

- Possible values are: **YES** or **NO**.

  For additional information on the CPCP operand, see the [z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com/support/knowledgecenter/en/SS7S77_2.4.0/com.ibm.mvs.sna.doc/IOSNA_Help.html).

*tg_characteristics* is a 16-byte hexadecimal string representing the transmission group characteristics for *puname*. *NA* is displayed if *puname* is a low entry networking (LEN) node. LEN PUs do not have transmission groups associated with them.

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| 2   | Capacity. This value corresponds to the CAPACITY value coded in the TGP definition statement. The displayed value is an internal representation of the coded value. For more information on how the CAPACITY value coded in the TG profile is mapped to the internal representation used by VTAM, see the [z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com/jp/commserver/rdf/)
| 3–7 | Reserved (zero). |
| 8   | Cost per unit time. This value corresponds to the COSTTIME value coded in the TGP definition statement. |
| 9   | Cost per byte. This value corresponds to the COSTBYTE value coded in the TGP definition statement. |
| 10  | Reserved (zero). |
| 11  | Security. This value corresponds to the SECURITY value coded in the TGP definition statement as follows: |
| X'01' | UNSECURE |
| X'20' | PUBLIC |
| X'40' | UNDERGRO |
| X'60' | SECURE |
| X'80' | GUARDED |
| X'A0' | ENCRYPT |
| X'C0' | SHIELDED |
| 12  | Propagation delay. This value corresponds to the PDELAY value coded in the TGP definition statement as follows: |
| X'4C' | NEGLIGIB |
| X'71' | TERRESTR |
| X'91' | PACKET |
| X'99' | LONG |
| 13  | Reserved (zero). |
| 14–16 | User-defined. These values correspond to the values coded for UPM1, UPM2, and UPM3 respectively in the TGP definition statement. |

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** If there are transmission group characteristics (contained in `tg_characteristics`) that you do not want, change the TGP definitions.

See the [z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com/jp/commserver/rdf/) for more information on defining TGP definitions.

**Routing code:** 2

**Descriptor code:** 5
IST1106I • IST1107I

IST1106I  resource status tgn cp-cp tg_characteristics

Explanation:  This message is part of a group of messages that VTAM issues in response to a DISPLAY ID command for a type 2.1 PU, a VRTG-capable CDRM, a GROUP (XCA) that is part of a connection network, or a LINE (NTRI) that is part of a connection network, or DISPLAY ADJCP command. The first message in the group is IST1105I. See the explanation of that message for a complete description.

Routing code:  2
Descriptor code:  5

IST1107I  TGP NAME TG CHARACTERISTICS

Explanation:  This message is the first in a group of messages that VTAM issues in response to a DISPLAY TGPS command. A complete description of the message group follows.

IST1107I  TGP NAME TG CHARACTERISTICS
IST1108I  tgpname  tg_characteristics
;
[IST1315I DISPLAY TRUNCATED AT MAX = number]
IST1454I  count TGP(S) DISPLAYEDIST314I  END

IST1107I

This message is a header message for information displayed in message IST1108I.

IST1108I

•  tgpname  is the transmission group profile name.
•  tg_characteristics  is a 16-byte hexadecimal string representing the transmission group characteristics for the PU associated with tgpname. **** NA **** is displayed if the PU is a low entry networking (LEN) node. LEN PUs do not have transmission groups associated with them.

Byte  Description
1 This byte is zero when you display a TG profile, but other values may appear when you display the TG characteristics for an active resource. (for example, the output of the DISPLAY ADJCP command).
2 Capacity. This value corresponds to the CAPACITY value coded in the TGP definition statement. The displayed value is an internal representation of the coded value. For more information on how the CAPACITY value coded in the TG profile is mapped to the internal representation used by VTAM, see the z/OS Communications Server: SNA Resource Definition Reference.
3–7  Reserved (zero).
8 Cost per unit time. This value corresponds to the COSTTIME value coded in the TGP definition statement.
9 Cost per byte. This value corresponds to the COSTBYTE value coded in the TGP definition statement.
10 Reserved (zero).
11 Security. This value corresponds to the SECURITY value coded in the TGP definition statement as follows:
   X'01'  UNSECURE
   X'20'  PUBLIC
   X'40'  UNDERGRO
   X'60'  SECURE
   X'80'  GUARDED
   X'A0'  ENCRYPT
   X'C0'  SHIELDED
12 Propagation delay. This value corresponds to the PDELAY value coded in the TGP definition statement as follows:
   X'4C'  NEGLIGIB
IST1108I • IST1110I

X'71'    TERRESTR
X'91'    PACKET
X'99'    LONG

13    Reserved (zero).
14–16    User-defined. These values correspond to the values coded for UPARM1, UPARM2, and UPARM3 respectively in the TGP definition statement.

IST1315I

*number* is the value specified for the MAX operand.

IST1454I

*count* is the total number of transmission group profiles displayed.

System action:    Processing continues.
Operator response:    None.
System programmer response:    None.
Routing code:    2
Descriptor code:    5

IST1108I    *tgpname* *tg_characteristics*

Explanation:    This message is part of a message group that VTAM issues in response to a DISPLAY TGPS command. The first message in the group is IST1107I. See the explanation of that message for a complete description.
Routing code:    2
Descriptor code:    5

IST1110I    ACTIVATION OF CP-CP SESSION WITH *cpname* FAILED

Explanation:    This message is the first in a group of messages that VTAM issues when a CP-CP session with *cpname* cannot be activated. A complete description of the message group follows.

IST1110I ACTIVATION OF CP-CP SESSION WITH *cpname* FAILED
[IST1002I RCPRI=rcpri RCSEC=rcsec]
[IST1111I ADJACENT NODE DOES NOT SUPPORT UNSOLICITED BINDS]
[IST1112I CP ALREADY HAS A CP-CP SESSION WITH current_NN]
[IST1113I EN-EN SESSION IS NOT VALID]
[IST1119I FAILURE REASON - INSUFFICIENT STORAGE]
[IST1246I ADJACENT CP NOT DEFINED IN CURRENT NETWORK NODE SERVER LIST]
[IST1247I ALL ATTEMPTS TO ESTABLISH A SESSION WERE UNSUCCESSFUL]
[IST1280I SESSION TYPE = sessiontype - SENSE = code]
[IST1356I NETWORK NODE DOES NOT PROVIDE REQUIRED SERVER FUNCTION]
[IST1507I VR-BASED TG NOT SUPPORTED]
[IST1508I CP-CP SESSIONS ON VR-BASED TG NOT SUPPORTED]
[IST1676I SWITCH TO PREFERRED NETWORK NODE SERVER FAILED - CODE = code]
[IST1765I ADJACENT CP WINNER LOSER STATE NODE ANDC]
[IST1766I adjacent_cp cw_state cl_state state node address]

IST1110I

*cpname* is the name of the adjacent control point. If *cpname* is session-capable, VTAM issues *cpname* as a network-qualified name in the form *netid.name*.

Subsequent messages in the group indicate the reason that VTAM cannot activate the CP-CP session.

IST1002I

• This message is issued when there is a nonzero value in either or both of the RCPRI or RCSEC return code fields.
    *rcpri* is the value of the primary return code issued by VTAM.
    *rcsec* is the value of the secondary return code issued by VTAM.
IST1110I

- See the [z/OS Communications Server: IP and SNA Codes](https://www-03.ibm.com/support/docview.wss?rs=777&context=CSX00863&lang=en) for a detailed explanation of `rcpri` and `rcsec`.

IST1111I

This message is issued in response to a VARY ACT,ID=`cpname` command. The adjacent node does not support receipt of unsolicited binds. It will not accept another node sending a bind to it for CP-CP sessions, unless the bind flows as the result of link activation. The adjacent node will only allow itself to start CP-CP sessions, not another node.

IST1112I

This message is issued in response to a VARY ACT,ID=`cpname` command when an attempt is made to establish a CP-CP session for an end node (EN) that already has a CP-CP session with a network node (NN). An EN can have a CP-CP session with only one NN at a time.

current_NN is the name of the NN with which VTAM currently has a CP-CP session.

IST1113I

This message is issued in response to a VARY ACT,ID=`cpname` command when an EN-EN session was attempted. CP-CP sessions between ENs are not permitted.

IST1119I

This message is issued in response to a VARY ACT,ID=`cpname` command when an EN-EN session was attempted. VTAM could not allocate storage for internal signals needed to establish CP-CP sessions.

IST1246I

This message is issued at an end node when a network node attempts to establish CP-CP sessions and the network node cannot be used as a network node server according to the contents of the network node server list.

IST1247I

This message is issued in response to a VARY ACT,ID=`cpname`,IDTYPE=CP command. VTAM at an end node attempted to establish a CP-CP session with the network node specified on the command, but all attempts were unsuccessful.

IST1280I

- This message is issued when the CP-CP session activation failed for one of the following reasons:
  - An unrecoverable error occurred during session activation.
  - An error occurred during contention winner session activation, and the error remained after the maximum number of retries was attempted.
- This message might be preceded by IST1356I. See the explanation of IST1356I that follows for more information.
- `sessiontype` is either CONWINNER (contention winner) or CONLOSER (contention loser).
- `code` is the sense code associated with the error. See the [z/OS Communications Server: IP and SNA Codes](https://www-03.ibm.com/support/docview.wss?rs=777&context=CSX00863&lang=en) for a description of `code`.

IST1356I

- This message is issued at an end node when that end node has attempted to activate a CP-CP session with network node `cpname` and the following is true:
  - The end node's network node server list specifies that `cpname` must provide SLU-initiated session capability as one of the requirements of becoming its network node server. However, `cpname` has informed the end node that it does not support SLU-initiated sessions.

IST1507I

This message is issued when an attempt has been made to establish a CP-CP session over a virtual route-based transmission group (VR-based TG) and the adjacent SSCP does not support the VR-based TG function. This may be because the adjacent SSCP has coded VRTG=NO in the CDRM major node for the SSCP that is attempting the VR-based TG connection or the adjacent SSCP may be pre-VTAM V4R2, which does not support the VR-based TG function.

IST1508I
This message is issued when an attempt has been made to establish a CP-CP session over a virtual route-based transmission group (VR-based TG) and the adjacent SSCP supports the VR-based TG function but does not allow CP-CP sessions to use the VR-based TG. The adjacent node has specified VRTGCPCP=NO as a start option or the start option has been modified with the MODIFY VTAMOPTS command.

IST1676I

• This message is issued when this end node has attempted but failed to switch CP-CP sessions from its current network node server to its preferred network node server.
• code is the code associated with the failure:
  4—There is no active CP-capable link to the preferred server.
  8—See the sense code in message IST1280I to determine the reason for the failure.
  12—The switch to the preferred network node server specified by the MODIFY VTAMOPTS,NNSPREF command currently being processed has been terminated because a later MODIFY VTAMOPTS,NNSPREF command has superseded it.
  16—The switch of CP-CP sessions to the adjacent CP specified on the NNSPREF start option failed because the adjacent CP is actually an end node. CP-CP sessions between adjacent end nodes (EN) are not allowed.

IST1765I

This message is a header message for the information displayed in message IST1766I.

IST1766I

• One IST1766I will be issued for the network node displayed in the IST1112I message.
• adjacent_cp is the network-qualified CP name of the adjacent control point.
• cw_state is the status of the contention winner CP-CP session. Valid values are:
  ACT  active
  INACT inactive
  PACT  pending active
  PINACT pending inactive
• cl_state is the status of the contention loser CP-CP session. Valid values are:
  ACT  active
  INACT inactive
  PACT  pending active
  PINACT pending inactive
• state is the state of the CP-CP sessions to the adjacent node being displayed. Valid values are:
  UP    One or more of the contention winner and contention loser sessions are active or pending-active.
  DOWN  Both contention winner and contention loser sessions are coming down but are not completely inactive.
  BOTH DOWN Both contention winner and contention loser sessions are inactive.
• node is the APPN node type of the adjacent control point. The only valid value for this message group is NN (network node).
• address is the hexadecimal storage address for the adjacent node control block where the CP-CP session information is saved.

System action: Processing continues.

Operator response:

IST1002I

Save the system log for problem determination.
Deactivate the link with the adjacent node which supports CP-CP sessions and then reactivate it. This will allow the other node to start the bind processing. This may cause CP-CP sessions to be activated.

This CP is an EN. Verify that the EN has a CP-CP session established with the correct NN.

None.

Issue the DISPLAY BFRUSE command to display information about the common service area (CSA). Total VTAM private storage information is also displayed in message IST981I. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and request a dump for problem determination.

Enter the VARY ACT,ID=cpname command and specify the desired server. VTAM will attempt to establish a CP-CP session with cpname even if cpname is not allowed by the current network node server list.

The network node server list should be modified. If the network node server list is left unchanged, then VTAM may not be able to acquire a new server if the current server fails. After the list has been modified, issue a VARY ACT,ID=member_name command where member_name is the member in the definition library that contains the edited network node server list.

You should determine that the adjacent nodes are working properly and check for any connection problems between the nodes.

Then enter the VARY ACT,ID=cpname command and specify the desired server.

The network node server list should be modified to allow more network nodes to act as servers. After the list has been modified, issue a VARY ACT,ID=member_name command where member_name is the member in the definition library that contains the edited network node server list.

Save the system log for problem determination.

Save the system log for problem determination.

The command that initiated CDRM-CDRM session activation implicitly or explicitly attempted activation of a CP-CP session over the virtual route used by the CDRM-CDRM session.

If the VR-based TG is not desired, no response is necessary. However, explicitly specifying VRTG=NO on the V ACT,ID=cdrm name command prevents VTAM from attempting VR-based TG activation.

If the CP-CP session is desired, this message indicates that the adjacent SSCP is not capable of performing the VR-based TG function. Save the system log for problem determination.

The command that initiated CDRM-CDRM session activation implicitly or explicitly attempted activation of a CP-CP session over the virtual route used by the CDRM-CDRM session.

If the CP-CP session is not desired, no response is necessary. However, explicitly specifying VRTGCPCP=NO on the V ACT,ID=cdrm name command prevents VTAM from attempting CP-CP session activation.

If the CP-CP session is desired, this message indicates that the adjacent SSCP does not allow CP-CP sessions over VR-based TGs. Save the system log for problem determination.

Operator response is determined by the error code:

- **4**: Activate a CP-capable link from the EN to the preferred network node server.
- **8**: Save the console output and contact system programmer to determine causes for failure of CP-CP session activation attempt.
- **12**: No action is necessary.
- **16**: Contact the system programmer to help determine the correct value for the NNSPREF start option.
System programmer response:

**IST1002I**
Use the explanations of rcpri and rsec to assist you in solving the problem.

**IST1111I, IST1112I, IST1113I, IST1765I, and IST1766I**
None.

**IST1119I**
Increase storage as required. You might want to redefine your CSA start options using the MODIFY VTAMOPTS command. After the storage shortage problem is corrected, enter a VARY ACT,ID=cpname command and specify the desired server.

See [z/OS Communications Server: SNA Operation](#) for more information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.

See the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps and about analyzing storage using the VIT analysis tool.

**IST1246I and IST1247I**
Additional network nodes can be defined as acceptable servers by modifying the network node server list. Add new NETSRVR definition statements for individual network nodes or add a NETSRVR definition statement that allows any known network node to act as the network node server.

For information on the NETSRVR definition statement, see the [z/OS Communications Server: SNA Resource Definition Reference](#).

**IST1280I**
Use the explanation of the sense code to assist you in solving the problem.

**IST1356I**
The network node server list must be modified. Specify SLUNIT=OPT on the NETSRVR definition statement for either the network node server entry for cpname or the nameless entry.

Ask the operator to reactivate the modified network node server list before trying to activate the session again.

**IST1507I**
If CP-CP sessions are desired or required using virtual route-based transmission groups (VR-based TGs), both S SCPs must allow the function by having VRTG=YES coded on the CDMR statement in the CDMR major node for the adjacent SSCP.

**IST1508I**
If CP-CP sessions are desired using virtual route-based transmission groups (VR-based TGs), both S SCPs must allow the function by specifying VRTG=YES on the CDMR definition statement in the CDMR major node for the adjacent SSCP. In addition, VRTGCPCP=YES must be specified in both hosts as the start option value or modified with the MODIFY VTAMOPTS command to allow CP-CP sessions to use a VR-based TG.

**IST1676I**
If the switchover fails with reason code 8, determine reason for failure from sense code displayed in message IST1280I.

Routing code: 2
Descriptor code: 5

**IST1111I** ADJACENT NODE DOES NOT SUPPORT UNSOLICITED BINDS

Explanation: VTAM issues this message as part of a group of messages. The first message in the group is IST1110I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5
IST1112I • IST1115I

IST1112I  CP ALREADY HAS A CP-CP SESSION WITH current NN

Explanation: VTAM issues this message as part of a group of messages. The first message in the group is IST1110I. See the explanation of that message for a complete description.
Routing code: 2
Descriptor code: 5

IST1113I  EN-EN SESSION IS NOT VALID

Explanation: VTAM issues this message as part of a group of messages. The first message in the group is IST1110I. See the explanation of that message for a complete description.
Routing code: 2
Descriptor code: 5

IST1114I  option START OPTION IGNORED – NOT VALID FOR value

Explanation: VTAM issues this message when option is not valid for the specified value. option is the start option that is ignored.
value is one of the following:
• A specified node type that is not valid for option
• A specified start option and its value that conflict with option.
System action: option is ignored. Other processing continues.
Operator response: Save the system log for problem determination.
System programmer response: Examine the VTAM start options contained in ATCSTRxx and verify that the correct options are specified. See the z/OS Communications Server: SNA Resource Definition Reference for more information on VTAM start options.
Routing code: 2
Descriptor code: 5

IST1115I  CDRM NAME cdrmname IS DIFFERENT THAN SSCPNAME START OPTION

Explanation: This message is the first in a subgroup of messages that VTAM issues in response to an attempt to activate the host cross-domain resource manager (CDRM) major node with a name different than the host system services control point (SSCP) name specified in the start options.

A complete description of the message subgroup follows.
IST1115I  CDRM NAME cdrmname IS DIFFERENT THAN SSCPNAME START OPTION
IST1116I  SSCP NAME sscpname IS USED

IST1115I  cdrmname is the name specified in the CDRM major node definition.

IST1116I  sscpname is the name specified on the SSCPNAME start option.
System action: The name specified for the host CDRM major node is ignored, and the SSCP name is used for the host CDRM name.
Operator response: Save the system log for problem determination.
System programmer response: Change either the name in the host CDRM definition or the SSCP name specified in the START options so that the names match. If the START option is changed, VTAM must be restarted. If the name in the host CDRM definition is changed, you must deactivate and reactivate the major node to use the new definition.
Routing code: 2
IST1116I  SSCP NAME sscpname IS USED

Explanation: VTAM issues this message as part of a subgroup of messages. The first message in the subgroup is IST1115I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 6

IST1117I  PHYSICAL RESOURCE (PHYSRSC) puname {IS NOT KNOWN | IS NOT A PU}

Explanation: VTAM issues this message as part of a group of messages. The first message in this group is IST1079I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 6

IST1118I  LINK DEFINITION FAILURE, CP = cpname TGN = tgn

Explanation: This message is the first in a group of messages that VTAM issues when an attempt to define the link to topology and routing services failed. The second message in the group gives the reason for the failure. Possible message groups follow.

IST1118I  LINK DEFINITION FAILURE, CP = cpname TGN = tgn
IST1119I  FAILURE REASON - INSUFFICIENT STORAGE
IST314I   END

IST1118I  LINK DEFINITION FAILURE, CP = cpname TGN = tgn
IST1261I  ABEND OCCURRED DURING LINK DEFINITION
IST314I   END

IST1118I

- cpname is the name of the control point to which this link is attached. If cpname is session-capable, VTAM issues cpname as a network-qualified name in the form netid.name.
- tgn is the transmission group number associated with this link.

IST1119I

There was not enough storage to define the link to topology and routing services.

IST1261I

An abend occurred before the link was defined to topology and routing services.

System action: No sessions will be assigned to the link. Other processing continues.

Operator response:
1. Issue the DISPLAY ADJCP,ID=cpname,E command and use the information displayed in messages IST1105I and IST1106I to identify the PU associated with the link specified by cpname and tgn.
2. Enter the VARY INACT command to deactivate the link. The link must be deactivated before another attempt at link definition is made. When the VARY INACT command has completed, enter a VARY ACT command to activate the link.
3. If VTAM continues to issue this message group, see the operator response for the second message.

IST1119I

- Issue the DISPLAY STORUSE command to display storage usage for storage pools. Message IST981I displays total VTAM private storage information. If this message does not appear in the display, you may need to reissue the DISPLAY STORUSE command, specifying a higher value for the NUM operand. See z/OS Communications Server: SNA Operation for additional information.
- Save the system log and dump for problem determination.
IST1119I • IST1121I

IST1261I
Save the system log for problem determination.

System programmer response: IST1119I
Increase storage as required.

IST1261I
Review the contents of the system dump to determine the correct problem determination action.

Routing code: 2
Descriptor code: 3

IST1119I  FAILURE REASON - INSUFFICIENT STORAGE
Explanation: VTAM issues this message as part of several different message groups. See the explanation of the first message in the group for a complete description.

Routing code: 2
Descriptor code: 3

IST1120I  macroname APPNCOS DEFINITION FAILED–INSUFFICIENT STORAGE
Explanation: VTAM issues this message in response to an APPN class of service (CoS) definition failure. The definition statement failed because there was not enough private storage to process the request.

macroname is the name of the Class of Service being defined in the definition statement.

System action: Processing continues.

Operator response: Issue the DISPLAY STORUSE command to display storage usage for storage pools. Message IST981I displays total VTAM private storage information. If this message does not appear in the display, you may need to reissue the DISPLAY STORUSE command, specifying a higher value for the NUM operand. See z/OS Communications Server: SNA Operation for additional information.

Save the system log and request a dump for problem determination.

System programmer response: Increase storage as required.

See z/OS Communications Server: SNA Operation for more information on the DISPLAY BFRUSE and DISPLAY STORUSE commands. The z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures provides additional information.

See the z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

Routing code: 2
Descriptor code: 5

IST1121I  COSAPPN IN library errortype — PROCESSING CONTINUES
Explanation: VTAM issues this message when the library member COSAPPN was empty, not found, or contained a syntax error.

library is the data definition name (DDNAME) specified for the definition library.

errortype indicates the type of error and can be IS EMPTY, NOT FOUND, or IN ERROR (contains a syntax error).

System action: VTAM initialization continues. However, the IBM-supplied classes of service may not be available for APPN route selection.

Operator response: If the APPN classes of service have been defined under a different member name and are activated by configuration list processing or by a VARY ACT command, then no action is necessary.

Otherwise, save the system log for problem determination.

System programmer response:
If IS EMPTY or NOT FOUND is displayed, verify that COSAPPN was either intentionally left empty or not found.

If IN ERROR is displayed, see the z/OS Communications Server: SNA Resource Definition Reference for additional information.

Note: If an alternate set of appropriate classes of service is not defined through another configuration file specified in the start options, attempting to activate APPN sessions will yield unpredictable results.

Routing code: 2
Descriptor code: 5

IST1122I CHKPT TO DATASET datasetname WAS NOT SUCCESSFUL, CODE = code

Explanation: VTAM issues this message in response to one of the following commands:

- MODIFY CHKPT
- MODIFY CHKPT,ALL
- MODIFY CHKPT,DIR
- MODIFY CHKPT,TOPO
- Z NET
- Z NET,QUICK

This message confirms that VTAM was unable to write either the APPN directory database or the APPN topology database to the specified datasetname.

code indicates the reason for the error and is one of following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Insufficient storage.</td>
</tr>
<tr>
<td>2</td>
<td>The disk file is undefined.</td>
</tr>
<tr>
<td>3</td>
<td>A MODIFY CHKPT command was attempted before the initial database load was complete.</td>
</tr>
<tr>
<td>4</td>
<td>Disk I/O errors occurred. These errors may be reported in a separate messages issued prior to this message.</td>
</tr>
<tr>
<td>5</td>
<td>A Z NET or Z NET,QUICK command may have been entered before the initial database load was complete. Or, the disk I/O subtask is unavailable due to a previous abend or initialization error and termination processing has begun.</td>
</tr>
<tr>
<td>6</td>
<td>The MODIFY CHKPT command was not entered at a network node.</td>
</tr>
<tr>
<td>7</td>
<td>The APPN directory contains no resources to checkpoint.</td>
</tr>
<tr>
<td>10</td>
<td>The topology and routing services task abended while attempting to process the MODIFY CHKPT command.</td>
</tr>
</tbody>
</table>

System action: Processing continues.

Operator response:

<table>
<thead>
<tr>
<th>Code</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Issue the DISPLAY STORUSE command to display storage usage for storage pools. Message IST981I displays total VTAM private storage information. If this message does not appear in the display, you may need to reissue the DISPLAY STORUSE command, specifying a higher value for the NUM operand. See z/OS Communications Server: SNA Operation for additional information. Save the system log and dump for problem determination.</td>
</tr>
<tr>
<td>2</td>
<td>Save the system log for problem determination.</td>
</tr>
<tr>
<td>3</td>
<td>If you entered a MODIFY CHKPT command, wait a short time and reenter the command.</td>
</tr>
<tr>
<td>4</td>
<td>Save the system log and dump for problem determination.</td>
</tr>
</tbody>
</table>
Regardless of how termination processing began, do not attempt another checkpoint. If you did not enter a
termination command, save the system log and dump for problem determination.

VTAM ignores the MODIFY CHKPT command because it was not entered at a network node. Ensure that
you are working with a network node and reenter the command.

None.

Save the system log and dump for problem determination.

System programmer response:

Code  Response
1  Increase storage as required.
   See z/OS Communications Server: SNA Operation for more information on the DISPLAY BFRUSE and
   DISPLAY STORUSE commands. See the z/OS Communications Server: SNA Diagnosis Vol 1, Techniques
   and Procedures for additional information.
   See the z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT for information about
   analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.
2  You must define the missing disk file. See the applicable sequential access method documentation and the
3  None.
4  See the applicable sequential access method documentation for more information.
5  Use the messages issued prior to this message to determine the cause of the failure. This message is only
   informing you that the directory services or topology routing services database was not written to
   datasetname. VTAM can continue without the disk I/O subtask, but the checkpoint function will not be
   available.
6  None.
7  None.
10 Review the contents of the system dump to determine the correct problem determination action. See the
    z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures for information on the
    abend procedure.

Routing code:  2
Descriptor code:  5

IST1123I   MODIFY CHKPT TO DATASET datasetname WAS SUCCESSFUL

Explanation:  VTAM issues this message in response to any one of the following commands:
   MODIY CHKPT
   MODIY CHKPT, DIR
   MODIY CHKPT, ALL
   MODIY CHKPT, TOPO
   Z NET
   Z NET, QUICK

This message indicates that either directory services or topology and routing services has completed writing out its
database to the specified datasetname.

System action:  Processing continues.

Operator response:  None.

System programmer response:  None.

Routing code:  2
Descriptor code:  5
IST1124I UNABLE TO REGISTER RESOURCES WITH nodename

Explanation: This message is the first in a group of messages that VTAM issues when VTAM at this end node is unable to register resources with its network node server.

nodename is the network-qualified name of the network node server control point in the form netid.name.

The second message in the group indicates the reason that the end node is unable to register resources and can be one of the following:

IST1125I END NODE IS NOT AUTHORIZED
The end node is unable to register resources because the end node is not authorized at the network node server.

IST1126I END NODE NETID REJECTED
The network node server rejected the network ID of the end node because the network node exceeded the maximum number of network IDs allowed.

IST1127I UNRECOGNIZED REGISTRATION REQUEST
The network node nodename has repeatedly reported that it is unable to interpret registration requests from this end node. This is due to one of the following software errors:
• The end node software is failing and sending incorrect requests.
• The network node software is failing and unable to recognize the requests from the end node.

System action:

IST1125I or IST1126I
VTAM stops registering resources until CP-CP sessions with network node server nodename are deactivated. CP-CP sessions with this server or any other network node are then activated.

IST1127I
CP-CP sessions with nodename are deactivated. Either VTAM or the operator may activate CP-CP sessions with another network node and VTAM will resume resource registration.

Operator response:

IST1125I or IST1126I
Save the system log for problem determination.

IST1127I
Enter the MODIFY TRACE,TYPE=BUF,ID=nodename command. Save the system log for problem determination.

System programmer response:

IST1125I
If CP-CP sessions are desired between the end node and network node nodename, modify the network node server list to define the end node as authorized at that network node. If necessary, include a NETSRVR definition statement for the selected network node in the network node server list, or include a NETSRVR definition statement that allows any known network node to act as the network node server for the end node.

After the list has been edited, issue VARY ACT,ID=member_name, where member_name is the name of the definition list member that contains the edited network node server list. Then, enter the VARY TERM,ID=nodename command to deactivate CP-CP sessions between this end node and network node nodename. VTAM will automatically reactivate CP-CP sessions, using the new network node server list.

IST1126I
Select a network node server that can accommodate the network ID. If necessary, include a NETSRVR definition statement for the selected network node in the network node server list, or include a NETSRVR definition statement that allows any known network node to act as the network node server for the end node.

IST1127I
Examine the system log and trace output. Verify the REGISTR and DELETE GDS variables against the published formats.
• See SNA Formats or SNA Network Product Formats for a description of the REGISTR and DELETE GDS variables and an explanation of GDS variable formats.
• See the z/OS Communications Server: SNA Diagnosis Vol I, Techniques and Procedures for more information about analyzing traces.
Alternatively, select a new network node to act as the server for this end node. If necessary, include a NETSRVR definition statement for the selected network node in the network node server list, or include a NETSRVR definition statement that allows any known network node to act as the network node server for the end node.

After the list has been modified, issue VARY ACT,ID=member_name, where member_name is the name of the definition list member that contains the edited network node server list.

Routing code: 2
Descriptor code: 3

IST1125I  END NODE IS NOT AUTHORIZED

Explanation: VTAM issues this message as part of a group of messages when VTAM at this end node is unable to register resources with its network node server. The first message in the group is IST1124I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 3

IST1126I  END NODE NETID REJECTED

Explanation: VTAM issues this message as part of a group of messages when VTAM at this end node is unable to register resources with its network node server. The first message in the group is IST1124I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 3

IST1127I  UNRECOGNIZED REGISTRATION REQUEST

Explanation: VTAM issues this message as part of a group of messages when VTAM at this end node is unable to register resources with its network node server. The first message in the group is IST1124I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 3

IST1128I  PATH pathname IGNORED, nodename – STORAGE SHORTAGE

Explanation: This message is the first in a group of messages that VTAM issues when sufficient storage is not available to update the dynamic path update set pathname for node nodename. A complete description of the message group follows.

IST1128I  PATH pathname IGNORED, nodename – STORAGE SHORTAGE
IST1045I  NODE TYPE = nodetype
IST314I  END

VTAM issues nodename as a network-qualified name in the form netid.name.

nodetype is the resource type of nodename. See Chapter 17, “Node and ID types in VTAM messages,” on page 1097 for possible values.

System action: VTAM does not update the dynamic path update set pathname.

Operator response: Wait a short time and reenter the command. If VTAM continues to issue this message, enter the DISPLAY BFRUSE command. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and dump for problem determination.

System programmer response: Verify that the operator entered the buffer pool or CSA start options as specified in the start procedures.

Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA limits. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM
start options file (ATCSTRxx) and restart VTAM to use the start option.

- See the z/OS Communications Server: New Function Summary for determination of the storage requirements for VTAM.
- See the z/OS Communications Server: SNA Resource Definition Reference for a description of VTAM start options.
- See z/OS Communications Server: SNA Operation for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- See the z/OS Communications Server: SNA Network Implementation Guide for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
- See the z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

**Routing code:** 2  
**Descriptor code:** 5

---

**IST1129I** command FAILED, nodename – DEACTIVATE PENDING

**Explanation:** This message is the first in a group of messages that VTAM issues when the resource nodename that the operator specified on command has a deactivation request pending. A complete description of the message group follows.

IST1129I command FAILED, nodename – DEACTIVATE PENDING  
IST1045I NODE TYPE = nodetype  
IST314I END

If the command that failed was a VARY INACT command, the pending deactivation is of a stronger type (Immediate or Force).

If a network-qualified name was entered on the command line, VTAM issues nodename in the form netid.name.

nodetype is the resource type of nodename. See Chapter 17, “Node and ID types in VTAM messages,” on page 1097 for possible values.

**System action:** VTAM rejects the command. Other processing continues.

**Operator response:** Monitor the progress of the deactivation by using the DISPLAY command. When nodename is deactivated, reenter the VARY command.

**System programmer response:** None.

**Routing code:** 2  
**Descriptor code:** 5

---

**IST1130I** command FOR nodename FAILED – STORAGE SHORTAGE

**Explanation:** This message is the first in a group of messages that VTAM issues when command for resource nodename failed because VTAM could not obtain enough storage to process the request. A complete description of the message group follows.

IST1130I command FOR nodename FAILED – STORAGE SHORTAGE  
IST1045I NODE TYPE = nodetype  
IST314I END

If a network-qualified name was entered on the command line, VTAM issues nodename in the form netid.name.

nodetype is the resource type of nodename. See Chapter 17, “Node and ID types in VTAM messages,” on page 1097 for possible values.

**System action:** VTAM rejects the command. Processing continues.

**Operator response:** Messages IST561I, IST562I, IST563I, IST564I, IST565I or IST566I may be issued prior to this message to indicate the type of storage affected.

Issue the DISPLAY BFRUSE command to display storage used by VTAM buffer pools and information about the common service area (CSA). Total VTAM private storage information is also displayed in message IST981I. Issue the
DISPLAY STORUSE command to display storage usage for storage pools.

Save the system log and request a dump for problem determination.

If $nodename$ is an independent logical unit that is being converted to a definition for a resource in another domain, then the NCP major node for $nodename$ must be deactivated. Activate the NCP major node when the storage shortage no longer exists.

**System programmer response:** Verify that the operator entered the buffer pool or CSA start options as specified in the start procedures.

Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA limits. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

- See the [z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com/support/docview.wss?uid=swg27005250) for a description of VTAM start options.
- See [z/OS Communications Server: SNA Operation](https://www.ibm.com/support/docview.wss?uid=swg27005250) for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- See the [z/OS Communications Server: SNA Network Implementation Guide](https://www.ibm.com/support/docview.wss?uid=swg27005250) for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
- See [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](https://www.ibm.com/support/docview.wss?uid=swg27005250) for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

**Routing code:** 2

**Descriptor code:** 5

IST1131I 

DEVICE = $devicetype$ [- CONTROLLING LU = $luname$]

**Explanation:** This message is part of a group of messages that VTAM issues in response to a DISPLAY ID command.

$devicetype$ is the device type. If $devicetype$ is ILU/CDRSC, the node is an independent LU that is represented by a CDRSC.

$luname$ is the name of the controlling LU that was previously specified on the LOGAPPL operand of the definition statement or on the LOGON operand of the VARY LOGON command.

- If a network-qualified name was entered on the command line, VTAM issues $luname$ in the form netid.name.
- If there is no controlling application program, VTAM does not display CONTROLLING LU = $luname$.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

IST1132I 

$nodename$ IS ACTIVE, TYPE = $nodetype$

**Explanation:** VTAM issues this message when $nodename$ has been successfully activated in response to a VARY command.

$nodename$ is the name of the node that has been activated. If the node $nodename$ is a resource such as an APPL or an LU, with a network-qualified name, then $nodename$ will be in the form netid.name. If the node $nodename$ is a resource that is known only by this network, such as a PU or a line, then $nodename$ will be in the form name.

$nodetype$ is the type of node that is displayed. See Chapter 17, “Node and ID types in VTAM messages,” on page 1097 for a description of $nodetype$.

**Note:** If you are expecting this message to confirm activation of a resource and it is not issued, this can occur if the VARY command was overridden by other VTAM processing. For example, if an NCP INOPS prior to completion of a VARY ACT command and recovery is attempted, then VTAM activates the resource rather than the operator command. In this situation, message IST493I or IST1141I would be displayed indicating that the VARY ACT command was overridden.
IST1133I  nodename IS NOW INACTIVE, TYPE = nodetype

Explanation: VTAM issues this message when nodename has been successfully deactivated. In most cases, this is the result of a VARY INACT command. If nodename is a cross-domain resource manager (CDRM) in another domain, then deactivation could be the result of a deactivation request from the domain of nodename.

nodename is the name of the node that has been deactivated. If the node nodename is a resource such as an APPL or an LU, with a network-qualified name, then nodename will be in the form netid.name. If the node nodename is a resource that is only known by this network, such as a PU or a line, then nodename will be in the form name.

nodetype is the type of node that is displayed. See [Chapter 17, “Node and ID types in VTAM messages,” on page 1097](#) for a description of nodetype.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST1134I  nodename NOW HAS CONTROLLING LU luname

Explanation: VTAM issues this message when processing of the LOGON operand of either a VARY ACT or VARY LOGON command has been completed.

When logical unit nodename, or the logical units associated with nodename, are not in session with another application program, VTAM will automatically log them on to application program luname. Resources must be active in order for the logon to complete. This does not mean that a session with the application program has been initiated.

If a network-qualified name was entered on the ID operand of the command, VTAM issues nodename in the form netid.name.

If a network-qualified name was entered on the LOGON operand of the command, VTAM issues luname in the form netid.name.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST1135I  FORCED VARY INACT SCHEDULED FOR nodename

Explanation: VTAM issues this message in response to a VARY INACT,TYPE=FORCE command to deactivate node nodename.

If a network-qualified name was entered on the command line, VTAM issues nodename in the form netid.name.

System action: VTAM issues a VARY INACT command for node nodename.
Operator response: None.
System programmer response: None.
Routing code: 2,8,1
IST1136I • IST1137I

Descriptor code: 5

IST1136I  VARY INACT nodename SCHEDULED – UNRECOVERABLE ERROR

Explanation: VTAM issues this message when a VARY INACT command for resource nodename has been scheduled because one of the following occurred:

- An unrecoverable error occurred in a communication controller, physical unit, logical unit, link, or link station.
- VTAM scheduled an internal VARY INACT, TYPE=FORCE command because the maximum RU size was exceeded on the SSCP-LU session or the SSCP-PU session.

VTAM issues nodename as a network-qualified name in the form netid.name.

System action: VTAM automatically issues a VARY INACT command for resource nodename.

Operator response: Save the system log for problem determination.

System programmer response: Run your operating system service aid program, and contact IBM for service. See the EREP User’s Guide and Reference for more information on using EREP.

Routing code: 2,8,1
Descriptor code: 5

IST1137I  command FAILED, nodename – reason

Explanation: VTAM issues this message when the command failed for the specified reason.

If a network-qualified name was entered on the command line, VTAM issues nodename in the form netid.name.

reason indicates the cause of the failure and can be one of the following:

- ALSNAME NOT GIVEN
  A MODIFY TRACE, TYPE=GPT command was entered for nodename. No ALSNAME was specified, and a default ALSNAME could not be determined because of one of the following:
  - The adjacent link station list for nodename contains no entries.
  - The adjacent link station list for nodename contains two or more entries (other than ISTAPNPU).

- ALSNAME NOT VALID
  A MODIFY TRACE, TYPE=GPT command was entered for nodename. The adjacent link station name (ALSNAME) that was either specified or used by default was not in a valid state when the command was entered. If ISTAPNPU was used by default because it was the only entry in the adjacent link station list, then this is the reason the command failed. ISTAPNPU is the name of the generic APPN adjacent link station. A real adjacent link station name must be specified for the command to succeed.

- ARM REJECTED
  A MODIFY TRACE command or TRACE start option was specified with the value TYPE=QDIOSYNC. An Arm request was initiated and the reply indicates that the OSA-Express2 or later adapter supports the QDIOSYNC function, but an error occurred while attempting to arm the OSA-Express2 or later adapter.

- CDRSC IS DYNAMIC
  nodename is a dynamic cross-domain resource; this is not valid for the TRACE command you entered.

- CDRSC NOT ACTIVE
  Giveback processing or internal delete for node nodename failed. VTAM found a predefined CDRSC to be not active, and VTAM was not able to transfer the active sessions from the LU to the CDRSC.

- CDRSC NOT ALLOCATED
  Giveback processing or internal delete for node nodename failed. VTAM has insufficient resources to allocate a cross-domain resource or does not support a dynamic CDRSC and was not able to transfer the active sessions from the LU to a CDRSC.

- DEACTIVATE PENDING
  VTAM rejected a VARY INACT, TYPE=GIVEBACK or VARY REL, TYPE=GIVEBACK command because a logical unit subordinate to nodename has LU-LU sessions and is pending deactivation.

- EXIT IS NOT FOUND
  The operator entered a DISPLAY EXIT command for a VTAM installation-wide exit which could not be located.
INSTALL EXIT REJECT
The operator entered a MODIFY ENCR command for nodename, and VTAM rejected the MODIFY ENCR command because of user-written routines related to the GENKEY function.

INSTALL PROGRAM
A MODIFY ENCR command was entered for nodename and the cryptographic facility is not supported by this host.

ISTLSXCF NOT ACTIVE
Another node in the sysplex attempts to establish a connection with an XCF node, but the connection is not established because the dynamic local SNA major node, ISTLSXCF, is not in an active state.

ISTLSXCF NOT FOUND
Another node in the sysplex attempts to establish a connection with an XCF node, but the connection is not established because the dynamic local SNA major node, ISTLSXCF, does not exist.

ISTTRL NOT FOUND
Another node in the sysplex attempts to establish a connection with an XCF node, but the connection is not established because the TRL major node, ISTTRL, does not exist.

MACLNTH NOT VALID
The operator entered a MODIFY SECURITY command with a MACLNTH value that is not valid. The MACLNTH value is dependent on the most recent specification of MACTYPE. The MACTYPE value might have been specified on a MODIFY SECURITY command or on the APPL definition statement.

MACTYPE NOT VALID
The operator entered a MODIFY SECURITY command with a MACTYPE value that is not valid with the most recent specification of MACLNTH. The MACLNTH value might have been specified on a previous MODIFY SECURITY command or on the APPL definition statement.

MODEL LU NOT VALID
The operator entered a DISPLAY LUGROUPS command for nodename. Model LU nodename was not found in the LUGROUP specified on the GROUP operand of the DISPLAY LUGROUPS command.

MODULE LOAD FAILED
Attempt to load XCF modules fails.

MUST BE APPLICATION
The operator entered a MODIFY ENCR command or MODIFY SECURITY command for nodename for one of the following purposes:

- To set the encryption level to CONDITIONAL
- To set the values of MACLNTH or MACTYPE.

MACLNTH, MACTYPE, and the CONDITIONAL encryption level are valid only if nodename is an application program.

MUST BE MORE SECURE
The operator entered a MODIFY ENCR command or MODIFY SECURITY command for nodename to lower (make less secure) the level of cryptographic session for the logical unit or application program indicated by nodename. The level of cryptographic session for a logical unit or application program can only be raised (made more secure). For example, if you have defined an LU as selective, you cannot modify it to optional. You can modify it to required.

NODE KEY UNDEFINED
The operator entered a MODIFY ENCR command or a MODIFY SECURITY command for nodename, and the node nodename does not have a properly defined cryptographic key in the cryptographic key data set.

NOT SUPPORTED
A MODIFY TRACE command or TRACE start option was specified with the value TYPE=QDIOSYNC. When the OSA-Express2 or later adapter was contacted, it was discovered that it does not support the QDIOSYNC function.

PROGRAM NOT ACTIVE
The Cryptographic Facility is not available to process a MODIFY ENCR command.
**IST1137I**

**RESOURCE NOT VALID**
The operator entered a MODIFY SECURITY command with the CKEY operand for nodename, but nodename is not a device type LU.

**RESOURCES NOT FOUND**
The operator entered a VARY ACQ or a VARY REL command, but it had no effect on the NCP.

Either all the resources were acquired or released already, or the OWNER specified on the command did not match any of the owner names specified on the NCP’s resources. Two different networks cannot share the same native resources.

**RTP PU NOT VALID**
A VARY ACT command for an RTP PU is issued. This is a dynamic PU and activates automatically if RTP is supported. A VARY ACT of a RTP PU is invalid.

**SECURITY DATA ERROR**
VTAM detected a mismatch of the encrypted security data fields during the XID exchange. This mismatch may be caused by one of the following:
- An unauthorized subarea dial physical unit attempted to establish a connection over a switched line.
- The PRTCT operand was absent.
- The correct password was not coded for both the caller and receiver.
- One of the subarea nodes is of a level that does not support call security verification.

**SECURITY ERROR**
A security error occurred while VTAM was processing the command command.

**STORAGE SHORTAGE**
The operator entered a MODIFY ENCR command for nodename and the VTAM address space has insufficient storage.

**SUPPORT UNAVAILABLE**
The security manager is not available or the resource class APPCLU is not active.

**SYSPLEX JOIN FAILED**
VTAM is attempting to join the sysplex, but a nonzero return code is sent from MVS.

**SYSPLEX UNAVAILABLE**
VTAM is attempting to join the sysplex, but the sysplex is not active.

**VTAM ABEND**
One of the following occurred:
- VTAM abended while processing a MODIFY PROFILES command.
- VTAM abended while processing a MODIFY ENCR command for nodename. The error may be due to the improper cleanup of the cryptographic facility (that is, the operator cancelled the cryptographic facility via the CANCEL command).

**XCF BUILD FAILED**
A VARY ACT command fails for a dynamic local SNA major node.

**XCF PU NOT FOUND**
A D TRL,XCFCP=cp_name command was issued for nodename. The nodename is the CP name specified in the display command. The associated dynamic PU for that CP was not located.

**XCF TRLE NOT FOUND**
One of the following occurred:
- A D,TRL,XCFCP=cpname command was issued for nodename. The nodename is the CP name specified in the display command. The associated dynamic TRLE for that CP was not located.
- A V,NET,ACT,ID=ISTLSXCF command was issued. An XCF connection is in the process of being deactivated and an activation request is received. The dynamic TRLE which is required for activation does not exist.

**System action:** The command is not completed. Processing continues.

**CDRSC IS DYNAMIC or CDRSC NOT ALLOCATED**
LU nodename remains known to VTAM in an inactive state with active sessions.
FUNCTION NOT OPERATIONAL, NOT SUPPORTED, or ARM REJECTED
The command is not executed.

INSTALL PROGRAM
Install Cryptographic Facility.

SECURITY DATA ERROR
VTAM terminates the switched connection and deactivates the PU.

SECURITY ERROR or SUPPORT UNAVAILABLE
VTAM does not refresh the profiles and continues to use the profiles that are in storage.

Operator response: The reason determines the response:

ALSNAME NOT GIVEN
Enter a DISPLAY ID command for nodename to determine the correct adjacent link station, and reenter the command.

ALSNAME NOT VALID
Enter a DISPLAY ID command for nodename to determine the correct adjacent link station, and reenter the command.

The state (active or inactive) of the PU with which the independent LU is associated must be as follows:
• Active if it has been dynamically reconfigured in the NCP
• Active if it is on an NCP switched line
• Active or inactive if it is on an NCP nonswitched line.

CDRSC IS DYNAMIC or CDRSC NOT ALLOCATED
Activate a CDRSC major node that defines a CDRSC with nodename.

DEACTIVATE PENDING
Wait until all subordinate nodes have completed deactivation and try the command again.

ISTLSXCF NOT ACTIVE
Enter a VARY,ACT,ID=ISTLSXCF to activate ISTLSXCF.

MACLNTH NOT VALID
Try the command again with a valid value for MACLNTH.

MACTYPE NOT VALID
Try the command again with a valid value for MACTYPE.

MODEL LU NOT VALID
Check that nodename is correct and try the command again. If problems persist, save the system log for problem determination.

NOT SUPPORTED
Issue the DISPLAY NET,TRL,TRLE=trlename command to display the active OSA-Express2 or later TRLE. Look for message IST1716l or message IST2263I in the response. The OSA CODE LEVEL field is at the end of these messages. Record this value for the system programmer.

PROGRAM NOT ACTIVE
Make sure the Cryptographic Facility is installed and operational.

RESOURCE NOT VALID
Check that nodename is correct and try the command again. If problems persist, save the system log for problem determination.

RESOURCES NOT FOUND
Verify that all of the NCP resources have been acquired or released or that the OWNER specified on the command matches the owner name specified on the resources to be acted upon.

SECURITY DATA ERROR
Monitor the console for further occurrences of this message. If VTAM continues to issue this message, use the VARY ANS command to take the line out of answer mode.

SECURITY ERROR
Try the command again. If VTAM continues to issue this message, contact the security administrator.
STORAGE SHORTAGE
If VTAM continues to issue this message, enter the DISPLAY BFRUSE command. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and request a dump for problem determination.

VTAM ABEND
Save the system log and dump for problem determination.
If the error was due to the improper cleanup of the cryptographic facility, enter the STOP command to stop the cryptographic facility, and save the system log for problem determination.

XCF PU NOT FOUND
Check the CP name specified on the parameter XCFCP to ensure it is correct and try the command again. Issue a DISPLAY TRL,CONTROL=XCF to determine whether any XCF TRLEs exist. Issue a DISPLAY ID=ISTLSXCF to determine whether an associated dynamic PU exists for the connection.

XCF TRLE NOT FOUND
Check the CP name specified on the parameter XCFCP to ensure it is correct and try the command again. Issue a DISPLAY TRL,CONTROL=XCF to determine whether any XCF TRLEs exist.

All other reasons
Save the system log for problem determination.

System programmer response: The reason determines the response:

ARM REJECTED
Perform the following traces to help you determine the cause of the rejection:
- A CCW trace of the TRLE read and write control channels taken at the time of the first attempt to arm the adapter. This trace will show the Arm request being written and the Arm reply being read. Use a CCW trace data length of 256 bytes.
- A CTRACE using the VTAM and VTAMDATA options.
- A VTAM internal trace using the CIA and CIO options.

CDRSC IS DYNAMIC
Reenter the TRACE command with a resource that is not a dynamic cross-domain resource. You cannot trace a dynamic cross-domain resource.

CDRSC NOT ALLOCATED
Take VTAM down, and restart it so that it supports dynamic CDRSCs.

EXIT IS NOT FOUND
Make sure the VTAM installation-wide exit that could not be found has been installed on your system.

INSTALL EXIT REJECT
GENKEY failed with RETURN CODE 16 from the common cryptographic architecture product (CCA) or the IBM Cryptographic Unit Support product (CUSP).
For further information, see the documentation for the cryptographic facility that you are using.

MODEL LU NOT VALID
Check the definition of nodename to ensure that it is correct.

MUST BE APPLICATION
Make sure nodename is the correct node name. If nodename is the correct name, see z/OS Communications Server: SNA Operation for more information on valid encryption levels. Otherwise, reenter the MODIFY ENCR command with the correct value for nodename.

MUST BE MORE SECURE
If you want to lower the cryptographic session level of a node, you must redefine the system definition cryptographic option in SYS1.VTAMLST and reactivate the major node that contains nodename.

NODE KEY UNDEFINED
Define the cryptographic key for node nodename in the cryptographic key data set. For information about defining cryptographic keys, see z/OS Cryptographic Services ICSF System Programmer's Guide and the z/OS Communications Server: SNA Network Implementation Guide.

NOT SUPPORTED
The OSA code level determined by the operator indicates the OSA processor code level of the OSA-Express2 or

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later adapter. That value will show that the OSA-Express2 or later processor code level is insufficient. You must upgrade to a level that supports QDIOSYNC to use the function.

SECURITY DATA ERROR
Verify that all nodes involved in the dial process are at a level that supports call security verification. The passwords used to verify the identity of the caller and the receiver must match. See the PRTCT keyword on the PU statement in the switched major node definition.

STORAGE SHORTAGE
If this error occurs often, review the VTAM storage allocation. Increase storage as required.
- See the z/OS Communications Server: New Function Summary to determine the storage requirements for VTAM.
- See the z/OS Communications Server: SNA Resource Definition Reference for a description of VTAM start options.
- See z/OS Communications Server: SNA Operation for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- See the z/OS Communications Server: SNA Network Implementation Guide for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
- See the z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

SYSPLEX JOIN FAILED
Trace the return code from MVS. Verify that the sysplex environment exists and restart VTAM.

VTAM ABEND
See the z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures for information on the abend procedure. If you cannot determine the cause of the problem from the output provided or need additional assistance, contact the IBM software support center.

If the error was due to the improper cleanup of the cryptographic facility, start the cryptographic facility if it is not already started.

XCF BUILD FAILED
Restart VTAM with full XCF support.

XCF PU NOT FOUND
Verify that XCF support is active for this VTAM.

XCF TRLE NOT FOUND
Verify that XCF support is active for this VTAM.

For all other reasons, no further action is recommended.

Routing code: 2
Descriptor code: 5

IST1138I REQUIRED resource [luname] reason

Explanation: VTAM issues this message as part of a group of messages when a resource requests a session, and the session initiation request fails for one of the reasons listed below. The first message in the group is IST663I.

Message IST664I, which is part of the IST663I message group, shows the names of the partners for which a session could not be established.

The combination of resource and reason may be any of the following:

- ADJSSCP TABLE UNDEFINED
- COS NAME cosname UNDEFINED
- LOGMODE NAME logmode UNDEFINED
IST1138I

RESOURCE luname
   UNDEFINED

RESOURCE luname
   NOT ACTIVE

RESOURCE luname
   UNSTABLE (device-type LUs only)

RESOURCE luname
   DISABLED

RESOURCE luname
   QUIESCING

RESOURCE luname
   BLOCKING LOGONS (for application PLUs only)

STORAGE
   NOT AVAILABLE

*luname* is displayed when resource is **RESOURCE**. *luname* is the real name of the LU or application that was in error. If the SLU is not known, ***NA*** is displayed for *luname*.

- If a network-qualified name was entered on the command line, VTAM issues *luname* as a network-qualified name in the form **netid.name**.
- If *luname* is the SLU, the resource is undefined, not active, disabled, or quiescing.
- If *luname* is the PLU, the resource is undefined, not active, disabled, quiescing, or blocking logons.
- For *cosname*, no COS (Class of Service) entry with that name has been defined. *cosname* is blank if the default Class of Service was used.
- For *logmode*, the logon mode is not valid for the SLU because:
  - The logon mode is not in the logon mode table for the SLU in the VTAM definition statements.
  - No logon mode table is associated with the SLU, and the logon mode is not included in the default logon mode table.
  - No valid logon mode table is associated with the SLU, and no default logon mode table exists.
- If *logmode* is not provided or contains blanks, IST264I is still issued. ***NA*** is displayed for *logmode*.

**System action:** VTAM rejects the session initialization request. The session setup fails.

**Operator response:** Follow the appropriate action:

- If the required resource is **UNDEFINED**, enter a VARY ACT command to activate the resource major node in which the resource is defined.
- If the required resource is **NOT ACTIVE**, enter a VARY ACT command to activate the resource. If the resource is an application program, start it.
- If the required resource is **UNSTABLE**, it may be going through some type of error recovery process. This can be due to ERP, an INOP, or session termination. Display the resource and try the request again after it has recovered.
- If the required resource is **DISABLED** and it is a device type LU, check to determine whether it is powered on.
- If the required resource is **DISABLED** and it is an application program, start the application program or ensure that the application has issued SETLOGON START.
- If the required resource is an application program and is **QUIESCING**, SETLOGON QUIESCE is in effect. The application program is shutting down and cannot accept new sessions unless VTAM closes and reopens the ACB.
- If the required resource is an application program, and the ACB was opened with MACRF=NLOGON, it is **BLOCKING LOGONS**. The only LU-LU sessions allowed for the application program are those initiated by the application program itself using OPNDST OPTCD=ACQUIRE.
- For a **LOGMODE** problem, verify that the resource specified the correct logon mode on the request. You can use the DISPLAY ID command to determine the table identified for the resource. You can use the MODIFY TABLE command to change the logon mode table name associated with a resource.
- If **STORAGE** is **NOT AVAILABLE**, wait a short time and reenter the command. If VTAM continues to issue this message, enter the DISPLAY BFRUSE command. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and dump for problem determination.
IST1139I

System programmer response:

- For a **COS** problem, verify that you have defined the Class of Service.
- For a **LOGMODE** problem, either correct the logon mode table currently assigned to the SLU or assign a different logon mode table that does contain the correct mode.
- For a **STORAGE** problem, allocate more storage to the pageable system queue area (SQA). For insufficient storage errors, you might want to redefine your buffer pool or CSA limits. If the start option cannot be modified using the `MODIFY VTAMOPTS` command, you must modify the VTAM start options file (ATCSTR.xxx) and restart VTAM to use the start option.

  - See [z/OS Communications Server: SNA Operation](https://www.ibm.com/support/knowledgecenter/SSECG2_6.3.0/com.ibm.zos.V2R12.doc/disp_csenclu.htm) for information about the `DISPLAY BFRUSE` command, the `DISPLAY STORUSE` command, and the `MODIFY VTAMOPTS` command.

Routing code: 8
Descriptor code: 4

<table>
<thead>
<tr>
<th>IST1139I</th>
<th><strong>runame FOR nodename FAILED – SENSE: code</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Explanation:</strong> This message is the first in a group of messages that VTAM issues when the request <strong>runame</strong> for node <strong>nodename</strong> failed with sense code <strong>code</strong>. A complete description of the message group follows.</td>
<td></td>
</tr>
<tr>
<td>IST1139I</td>
<td><strong>runame</strong> FOR <strong>nodename</strong> FAILED – SENSE: code</td>
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<tr>
<td>IST1045I</td>
<td>NODE TYPE = <strong>nodetype</strong></td>
</tr>
<tr>
<td>IST1840I</td>
<td>DLUR = <strong>dlurname</strong></td>
</tr>
<tr>
<td>IST314I</td>
<td>END</td>
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</tbody>
</table>

**IST1139I**

**runame** is the request that was entered for **nodename**. See [Chapter 16, “Command and RU types in VTAM messages,” on page 1083](https://www.ibm.com/support/knowledgecenter/SSECG2_6.3.0/com.ibm.zos.V2R12.doc/disp_csenclu.htm) for a description of **runame**.

If the network where the resource resides is known to VTAM, **nodename** is issued as a network-qualified name in the form **netid.name**.

**code** is the sense code and indicates the reason for the error. See [z/OS Communications Server: IP and SNA Codes](https://www.ibm.com/support/knowledgecenter/SSECG2_6.3.0/com.ibm.zos.V2R12.doc/disp_snacodes.htm) for a description of **code**.

**IST1045I**

**nodetype** is the resource type of **nodename**. See [Chapter 17, “Node and ID types in VTAM messages,” on page 1097](https://www.ibm.com/support/knowledgecenter/SSECG2_6.3.0/com.ibm.zos.V2R12.doc/disp_csenclu.htm) for possible values.

**IST1840I**

**dlurname** is the network-qualified CP name of the dependent LU requester (DLUR) in the form **netid.name**. It is the DLUR associated with **nodename** in message IST1139I.

**System action:** VTAM does not perform the request **runame**.

When VTAM receives a failing activation request for RUs such as ACTLINK, CONTACT, ACTLU, or ACTPU, VTAM usually deactivates the resource and all subordinate resources, regardless of whether the resource was being activated or deactivated.

**Operator response:**

- Attempt to activate or trace the node again.
- If a failure still occurs, save the system log for problem determination.
- If VTAM issues this message repeatedly, disable the line. Save the system log for problem determination.
- If **code** indicates a storage problem, wait a short time and reenter the command. If VTAM continues to issue this message, enter the `DISPLAY BFRUSE` command to display storage used by VTAM buffer pools and information about the common service area (CSA). Message IST981I displays total VTAM private storage information. Issue the `DISPLAY STORUSE` command to display storage usage for storage pools.
  
  Save the system log and request a dump for problem determination.
- **Sense Code 081C**

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Correct the cause indicated by the user portion of the sense code (nnnn), and try the command again.

**System programmer response:**
- If code indicates a storage problem, increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA start options. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.
  - See the z/OS Communications Server: New Function Summary to determine the storage requirements for VTAM.
  - See the z/OS Communications Server: SNA Resource Definition Reference for a description of VTAM start options.
  - See z/OS Communications Server: SNA Operation for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
  - See the z/OS Communications Server: SNA Network Implementation Guide for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
  - See the z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

**Sense Code 081Cnnnn**
If an ACTLINK request failed on a VARY ACT request with the sense code of 081Cnnnn, check the CUADDR operand of the PU (local SNA) or PCCU definition statement to make sure that the correct channel unit address (CUA) was specified for the node nodename.

If sense code 081C0010 is received and message IST1386I is issued, see the return code and reason code in message IST1386I to determine the cause of the failure.

**Sense Code 08A30001**
If VTAM issues sense code 08A30001 repeatedly, determine the subarea node that is attempting to establish a switched connection. If the SSCP is authorized to request that connection, verify that both SSCPs have identical PRTCT operands coded for their PU statements on the switched major nodes. Also verify that both nodes and their SSCPs are of a level that supports call security verification.

VTAM might issue this message with sense code 08A30001 because an unauthorized subarea node is attempting to establish a switched connection to the host that received the message.

- You might need to include the LUDRPOOL macro in the NCP generation.
- Make sure that the device is available to the system and that there are no hardware problems.

**Routing code:** 2

**Descriptor code:** 5

IST1140I  command FAILED nodename – STATE state NOT VALID

**Explanation:** This message is the first in a group of messages that VTAM issues when the command is rejected because the resource nodename was not in a state that is valid for the request. A complete description of the message group follows.

IST1140I  command FAILED nodename – STATE state NOT VALID
IST1045I  NODE TYPE = nodetype
IST314I  END

IST1140I
See Chapter 16, "Command and RU types in VTAM messages," on page 1083 for a description of command.

If a network-qualified name was entered on the command line, VTAM issues nodename in the form netid.name.

state is the status of nodename at the time of the request. See the z/OS Communications Server: IP and SNA Codes for a description of state.

IST1045I

nodetype is the resource type of nodename. See Chapter 17, "Node and ID types in VTAM messages," on page 1097 for possible values.

**System action:** VTAM rejects the command.
Operator response: Use the DISPLAY ID command to monitor the progress of the node. When processing is completed, enter the commands required to obtain the network configuration or device state required.

System programmer response: Check the system log to determine the series of events that caused the problem.

Routing code: 2
Descriptor code: 5

IST1141I      command1 FOR nodename OVERWRITTEN BY command2

Explanation: VTAM issues this message when command2 overrides command1, even though command1 was entered first.

VTAM might have issued command2 when it could not complete command1. For example, a VARY INACT,TYPE=IMMED command for a physical unit causes VTAM to reject a VARY REL command for the same device. The VARY INACT,TYPE=IMMED command is processed, and the VARY REL command is not executed, because the release processing is part of the deactivation processing.

See Chapter 16, “Command and RU types in VTAM messages,” on page 1083 for a description of command1 and command2.

If a network-qualified name was entered on the command line, VTAM issues nodename in the form netid.name.

System action: VTAM rejects command1. Processing of command2 continues.

Operator response: VTAM cannot process command1 and command2 concurrently. command1 is always rejected. Check the system log to determine the reason for the sequence in which the two commands were entered.

System programmer response: None.
Routing code: 2
Descriptor code: 5

IST1142I      TRACE REQUEST FAILED – nodename NOT VALID

Explanation: This message is the first in a group of messages that VTAM issues in response to a MODIFY TRACE command or TRACE start option. The trace for resource nodename failed because:

- nodename does not exist.
- nodename is not valid for the type of trace requested.
- if SCOPE=ALL was specified, no subnodes of the resource nodename were found which were valid for the type of trace requested.

A complete description of the message group follows.

IST1142I TRACE REQUEST FAILED – nodename NOT VALID
IST1045I NODE TYPE = nodetype
IST314I END

If a network-qualified name was entered on the command line or start option, VTAM issues nodename in the form netid.name.

nodetype is the resource type of nodename. See Chapter 17, “Node and ID types in VTAM messages,” on page 1097 for possible values.

System action: VTAM rejects the command.

Operator response: Ensure that you entered nodename correctly. If problems persist, verify that nodename is valid for the type of trace requested or, if SCOPE=ALL was specified, verify that at least one subnode exists that is valid for the type of trace requested.

For more information on the MODIFY TRACE command or TRACE start option, see z/OS Communications Server: SNA Operation.

System programmer response: None.
Routing code: 2
IST1143I • IST1144I

Descriptor code: 5

---

**IST1143I** TRACING TERMINATED FOR *nodename* [ALSNAME = *alsname*]

**Explanation:** This message is the first in a group of messages that VTAM issues in response to a MODIFY NOTRACE command when the trace activity on resource *nodename* has stopped. A complete description of the message group follows.

**IST1143I** TRACING TERMINATED FOR *nodename* [ALSNAME = *alsname*]
**IST1045I** NODE TYPE = *nodetype*
**IST314I** END

If a network-qualified name was entered on the command line, VTAM issues *nodename* in the form *netid.name*.

*alsname* is the name of the adjacent link station (ALS) over which the LU is traced. *alsname* is displayed if the traced node is an independent LU.

*nodetype* is the resource type of *nodename*. See Chapter 17, “Node and ID types in VTAM messages,” on page 1097 for possible values.

**System action:** VTAM stops tracing *nodename*. Processing continues.

**Note:** If MODIFY NOTRACE is entered with the SCOPE=ALL operand, VTAM also stops all traces on subordinate nodes to *nodename*.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

---

**IST1144I** TRACING INITIATED FOR *nodename* [ALSNAME = *alsname*]

**Explanation:** This message is the first in a group of messages that VTAM issues in response to a MODIFY TRACE command when trace activity for the node *nodename* has successfully started. A complete description of the message group follows.

**IST1144I** TRACING INITIATED FOR *nodename* [ALSNAME = *alsname*]
**IST1045I** NODE TYPE = *nodetype*
**IST314I** END

If a network-qualified name was entered on the command line, VTAM issues *nodename* in the form *netid.name*.

*alsname* is the name of the adjacent link station (ALS) over which the LU is traced. *alsname* is displayed if the traced node is an independent LU.

*nodetype* is the resource type of *nodename*. See Chapter 17, “Node and ID types in VTAM messages,” on page 1097 for possible values.

**System action:** VTAM starts tracing *nodename*.

**Note:** If you coded the SCOPE=ALL operand on the MODIFY TRACE command, VTAM initiates traces on all subordinate nodes as well.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5
IST1145I  TRACE REQUEST FAILED, nodename – STORAGE SHORTAGE

Explanation: This message is the first in a group of messages that VTAM issues when a MODIFY TRACE command, MODIFY NOTRACE command, TRACE start option, or NOTRACE start option is entered to activate or deactivate a VTAM trace for resource nodename, but sufficient storage is not available to build a parameter list. A complete description of the message group follows.

IST1145I  TRACE REQUEST FAILED, nodename – STORAGE SHORTAGE
IST1045I  NODE TYPE = nodetype
IST314I  END

If a network-qualified name was entered on the command line or start option, VTAM issues nodename in the form netid.name.
	nodetype is the resource type of nodename. See Chapter 17, “Node and ID types in VTAM messages,” on page 1097 for possible values.

System action: VTAM rejects the command or start option. Processing continues.

Operator response:
- If VTAM issues this message in response to a command, wait a few minutes, and reenter the command. If the error persists, enter a DISPLAY BFRUSE command. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and dump for problem determination.
- If VTAM issues this message during startup, wait until VTAM is initialized, and enter a DISPLAY BFRUSE command. Save the system log and dump for problem determination.

System programmer response: Verify that the operator entered the buffer pool or CSA start options as specified in the start procedures.

Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA start options. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

- See the z/OS Communications Server: New Function Summary to determine the storage requirements for VTAM.
- See the z/OS Communications Server: SNA Resource Definition Reference for a description of VTAM start options.
- See z/OS Communications Server: SNA Operation for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- See the z/OS Communications Server: SNA Network Implementation Guide for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
- See the z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

Routing code: 2
Descriptor code: 5

IST1146I  nodename command U = operand FAILED

Explanation: VTAM issues this message when command failed for nodename because an unacceptable operand was entered.

- If operand is ₁ (blank), a line in a channel attachment major node or a local SNA PU was defined without a channel unit address, and the channel unit address was not specified with the U operand on the VARY ACT command.
- If operand is cua, a VARY ACT command specifying U=cua was entered for a line in a channel attached major node or a local SNA PU that was not active. This error occurs when cua does not match the channel unit address currently in use.

If a network-qualified name was entered on the command line, VTAM issues nodename in the form netid.name.

System action: VTAM rejects the command.

Operator response: If operand is (blank), reenter the VARY ACT command specifying the channel unit address on the U operand.

If operand is cua, and cua is the correct channel unit address, deactivate the line or PU and reenter the command.
IST1147I  •  IST1149I

System programmer response: If operand is (blank), you may want to specify a default channel unit address for the line or PU.
If operand is cua, no action is required.
Routing code: 2
Descriptor code: 5

IST1147I nodename command LOGON= operand FAILED
Explanation: VTAM issues this message in response to a VARY ACT or VARY LOGON command. command failed for nodename because an unacceptable operand was entered.
If operand is a controlling LU, a controlling LU name was specified on the LOGON operand of a VARY ACT command for an application. Controlling LUs are only valid for logical units.
If a network-qualified name was entered on the ID operand of the command, VTAM issues nodename in the form netid.name.
If a network-qualified name was entered on the LOGON operand of the command, VTAM issues operand in the form netid.name.
System action: VTAM rejects the command.
Operator response: If operand is a controlling LU, see z/OS Communications Server: SNA Operation for information on the correct syntax of the VARY ACT command.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST1148I nodename command RNAME = operand FAILED
Explanation: VTAM issues this message when command failed for nodename because an unacceptable operand was entered.
The command failed for one of the following reasons:
• RNAME = nodename was specified during activation of a communication controller where nodename is the name of a logical unit and therefore is not valid.
• The value specified in the RNAME operand is not a valid link station name.
• RNAME = backup was specified, but VTAM was not able to process backup link station backup.
• The value specified in the RNAME operand does not match the Network Control Program (NCP) definition.
If a network-qualified name was entered on the command line, VTAM issues nodename in the form netid.name.
System action: VTAM rejects the command.
Operator response: Reenter the command specifying a valid nodename or value for operand.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST1149I VARY command PROCESSING FOR NODE nodename COMPLETE
Explanation: VTAM issues this message when the specified VARY command processing has completed for resource nodename.
If a network-qualified name was entered on the command line, VTAM issues nodename in the form netid.name.
System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 8
Descriptor code: 4

IST1150I  uservar CHANGED: value1 TO value2

Explanation: This message is part of a group of messages that VTAM issues when a MODIFY USERVAR command is used to change the value of a USERVAR. The first message in the group is IST1283I. See that message for a complete description of the group.

Note: This message is percolated. See “Message rerouting and percolation” on page 1106 for additional information.

value1 is the original value of uservar. If a network-qualified name was entered on the previous MODIFY command, VTAM issues value1 in the form netid.name.

value2 is the new value of uservar. If a network-qualified name was entered on the current MODIFY command, VTAM issues value2 in the form netid.name.

Any subsequent session requests to uservar are routed to the application named in value2.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 8
Descriptor code: 5

IST1151I  USERVAR uservar DEFINED: VALUE = value

Explanation: This message is the first in a group of messages that VTAM issues when a MODIFY USERVAR command is used to define a USERVAR. A complete description of the message group follows.

IST1151I USERVAR uservar DEFINED: VALUE = value
[IST1030I USERVAR EXIT IS exitname]
IST314I END

Note: This message group is percolated. See “Message rerouting and percolation” on page 1106 for additional information.

IST1151I

uservar is the name of the USERVAR.

The value of uservar has been initialized to value. If a network-qualified name was entered on the command line, VTAM issues value in the form netid.name.

Any subsequent session requests to uservar are routed to the resource named in value.

IST1030I

exitname is the name of the USERVAR exit. If no USERVAR exit is defined, VTAM does not issue this message.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 8
Descriptor code: 5
IST1152I • IST1153I

IST1152I  nodename CONTROLLING LU [luname] REMOVED

Explanation: VTAM issues this message when processing of the VARY NOLOGON command has been completed. Resource nodename will no longer be automatically logged on to luname when nodename is not in session with or queued for a session with another PLU. luname may or may not be included depending on how the LU is specified in the NOLOGON command.

If a network-qualified name was entered on the ID operand of the command, VTAM issues nodename in the form netid.name.

If a network-qualified name was entered on the NOLOGON operand of the command, VTAM issues luname in the form netid.name.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2

Descriptor code: 5

IST1153I  nodename1 nodename2 SESSION bplib USE percentage

Explanation: VTAM detected that the session indicated is using 10 percent or greater of the bplib buffer pool.

Note: This message is percolated. See “Message rerouting and percolation” on page 1106 for additional information. nodename1 and nodename2 are the session partners for the session using the largest percentage of the pool. VTAM issues nodename1 and nodename2 as network-qualified names in the form netid.name. If VTAM does not know a node name, the node ID is presented in the form subarea/element, where subarea is the subarea and element is the element portion of the network address.

bplib, the name of the buffer pool, will always be IO.

percentage is the percentage of this buffer pool used by this session.

If the session between nodename1 and nodename2 is not using a large percentage of the buffer pool, the size of the buffer pool was probably underestimated.

If the session between nodename1 and nodename2 is using a large percentage of the buffer pool, one of the following conditions probably exists:

• Either nodename1 or nodename2 is malfunctioning. This could be a hardware, microcode, or application program error that causes VTAM to be flooded with data.
• Neither nodename1 nor nodename2 is malfunctioning, but a large amount of data is being transmitted on this session with no pacing in effect.

System action: Message IST154I, IST1098I, or IST1099I is displayed with this message.

• If message IST154I is displayed, the buffer pool is not expanded at this time. When more storage becomes available, VTAM may try again to expand the buffer pool. VTAM may be adversely affected by this failure to obtain more buffers.
• If message IST1098I or IST1099I is displayed, processing continues.
  – If the session is an SSCP-LU session, then the LU is deactivated, and message IST1098I is displayed.
  – If the session is an LU-LU session (including CP-CP) then the session is terminated, and message IST1099I is displayed.

Once VTAM has determined that a session is using greater than 10 percent of the buffer pool, a determination is made whether to automatically terminate the session. If the percentage is greater than or equal to the HOTIOTRM start option value, VTAM initiates termination of all the sessions between nodename1 and nodename2. VTAM issues message IST1099I when sessions are automatically terminated.

Operator response:
• If it appears that the problem is caused by a malfunctioning device LU, try to deactivate the device using the VARY INACT command. In extreme cases, you may have to physically disconnect or power off the device.

• If it appears that the problem is caused by a VTAM application program, take a dump of that program and terminate it. Save the system log for problem determination.

• If VTAM continues to issue this message, enter the DISPLAY BFRUSE command. Save the system log and request a dump for problem determination.

System programmer response:
• Ensure that session pacing is in effect for the session using the largest percentage of the buffer pool. The BIND request unit contains the values used for each session. See the z/OS Communications Server: SNA Network Implementation Guide for more information about session pacing.

• If message IST154I is displayed before this message, and the session between nodename1 and nodename2 is not using a large percentage of the buffer pool, the size of the buffer pool was probably underestimated.

• If message IST154I was issued, use the explanation of code in that message to determine which buffer pool you need to modify.

• You might want to redefine your buffer pool or CSA start options. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

• If you want VTAM to automatically terminate these sessions, specify the HOTIOTRM start option with a value that is less than or equal to percentage. This start option can be modified using the MODIFY VTAMOPTS command.

• For additional information, see:
  – The z/OS Communications Server: SNA Network Implementation Guide for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
  – The z/OS Communications Server: SNA Resource Definition Reference for more information on the HOTIOTRM start option and other VTAM start options.
  – The z/OS Communications Server: SNA Operation for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
  – The z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

Routing code: 2
Descriptor code: 5

IST1154I  resourcename_1 ... resourcename_n

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY LMTBL, TYPE=LUNAME command. The first message in the group is either IST986I or IST1006I. See the explanation of those messages for a complete description.

Routing code: 2
Descriptor code: 5

IST1155I  nodename VARY NOLOGON = applname FAILED

Explanation: VTAM issues this message in response to a VARY NOLOGON command. The command failed because a controlling relationship existed for nodename with a different application than the specified applname.

If a network-qualified name was entered on the ID operand of the command, VTAM issues nodename in the form netid.name.

If a network-qualified name was entered on the NOLOGON operand of the command, VTAM issues applname in the form netid.name.

System action: Processing continues.

Operator response: Enter a DISPLAY ID command for nodename to verify that a controlling relationship exists. Reenter the VARY NOLOGON command with the indicated applname.

System programmer response: None.

Routing code: 2
IST1156I • IST1157I

Descriptor code: 5

**IST1156I**

**USERVAR** uservar IN netid HAS VALUE value

**Explanation:** VTAM issues this message in response to one of the following commands:

- **DISPLAY SESSIONS**
  
  This message is part of a group of messages that VTAM issues in response to a DISPLAY SESSIONS command when the resource name specified on the command is the name of a USERVAR.

- **DISPLAY ID**
  
  This message is part of a group of messages that VTAM issues in response to a DISPLAY ID command when the resource name specified on the ID operand is the name of a USERVAR. The first message in the group is IST075I.

uservar is a user-defined name for a network resource in network netid with the value of value. If uservar has a network-qualified USERVAR value, VTAM issues value as a network-qualified name in the form netid.name.

If uservar is both a user variable and a network resource, VTAM will display the resource and ignore the user variable value. Otherwise, VTAM will display the resource represented by the value of the USERVAR, value. If this message is issued in response to a DISPLAY ID command, message IST075I contains the name of the resource being displayed.

**Note:** If IDTYPE=USERVAR is entered on the command, VTAM displays the USERVAR value in message IST075I and not the real resource.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

**IST1157I**

**DUPLICATE REGISTRATION** endnode1 endnode2

**Explanation:** This message is the first in a group of messages that VTAM issues when it receives registration requests for the same resource from different end nodes endnode1 and endnode2. This happens when one of the following conditions occurs:

- The resource has been moved from one end node to another, and the first end node has failed to delete the resource from the network node server. This is not an error condition.

- Both end nodes have a definition for the same resource, and have specified that the resource should be registered. This is an error condition.

A complete description of the message group follows the example.

IST1157I DUPLICATE REGISTRATION endnode1 endnode2
IST1194I DUPLICATE RESOURCE IS resourcename
IST314I END

**IST1157I**

endnode1 and endnode2 are the network-qualified names of the two end node control points, in the form netid.name.

**IST1194I**

This message identifies the resource that has been registered twice.

resourcename is the network-qualified name of the resource, in the form netid.name.

**System action:** The information in the second registration request replaces the information from the first registration request. Processing continues.

**Operator response:** Save the system log for problem determination.

**System programmer response:** Ensure that duplicate resource definition has not taken place.
IST1158I  MODIFY TOPO COMMAND FAILED, ID = nodename [TGN = tgnnumber]

Explanation: This message is the first in a group of messages that VTAM issues when a MODIFY TOPO command fails. A complete description of the message group follows the example.

IST1158I  MODIFY TOPO COMMAND FAILED, ID = nodename
IST1159I  HOST NODE DATABASE ENTRY CANNOT BE DELETED
IST1160I  TYPE=FORCE MUST BE SPECIFIED FOR LOCAL TG OR ADJACENT NODE
IST1248I  DEACTIVATE LOCAL LINK BEFORE DELETING
IST1308I  RESOURCE WAS NOT FOUND IN THE TOPOLOGY DATABASE

IST1158I

nodename is the name of the resource specified on the ID operand of the command. If a network-qualified name was entered on the command, VTAM issues nodename as a network-qualified name in the form netid.name.

tgnnumber, if specified, is the transmission group (TG) number on the TGN operand of the command.

TGN = tgnnumber is not displayed if the second message in the group is IST1159I.

IST1159I

This message is issued when nodename is the same node from which the command is entered. In this message group, nodename in message IST1158I is the same node as HOST NODE in message IST1159I. You cannot delete the topology database entry representing the host node.

IST1160I

This message is issued when TYPE=FORCE was not specified on the command, and the resource is a locally attached TG or an adjacent node. TYPE=FORCE is required to delete the topology database entry for a locally attached TG or an adjacent node.

IST1248I

This message is issued when you attempt to delete locally attached TG tgnnumber, and it is active. VTAM does not allow you to delete an active locally attached TG.

IST1308I

This message is issued when nodename or tgnnumber cannot be found in the topology database.

System action: The topology database is not changed. Other processing continues.

Operator response: IST1159I

Verify that nodename was entered correctly. If nodename is the same node from which the command is entered, you cannot delete the topology database entry for this resource.

IST1160I

To delete the local TG tgnnumber or the adjacent node nodename, enter the command again specifying TYPE=FORCE.

IST1248I

To delete TG tgnnumber, enter a VARY INACT command to deactivate the link first, and then reenter the MODIFY TOPO,FUNCTION=DELETE command.

IST1308I

Verify that nodename and tgnnumber, if applicable, were entered correctly.

System programmer response: None.
IST1159I • IST1166I

IST1159I  HOST NODE DATABASE ENTRY CANNOT BE DELETED

Explanation: VTAM issues this message as part of a group of messages. The first message in the group is IST1158I. See the explanation of that message for a complete description.
Routing code: 2
Descriptor code: 5

IST1160I  TYPE=FORCE MUST BE SPECIFIED FOR LOCAL TG OR ADJACENT NODE

Explanation: VTAM issues this message as part of a group of messages. The first message in the group is IST1158I. See the explanation of that message for a complete description.
Routing code: 2
Descriptor code: 5

IST1161I  SSCP SESSIONS

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY SESSIONS command. The first message in the group is either IST873I or IST878I. See the explanation of the first message in the group for a complete description.
Routing code: 2
Descriptor code: 5

IST1162I  sessiontype = count

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY SESSIONS command. The first message in the group is either IST873I or IST878I. See the explanation of the first message in the group for a complete description.
Routing code: 2
Descriptor code: 5

IST1163I  RSN HPR LEFT WEIGHT

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO,ORIG=orig_cp_name,DEST=dest_cp_name or DISPLAY TOPO,ORIG=orig_cp_name,TGN=tgn command. See IST1299I for a complete description of this message group.
Routing code: 2
Descriptor code: 5

IST1164I  rsn hpr time isl_wgt

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO,ORIG=orig_cp_name,DEST=dest_cp_name or DISPLAY TOPO,ORIG=orig_cp_name,TGN=tgn command. See IST1299I for a complete description of this message group.
Routing code: 2
Descriptor code: 5

IST1166I  VIRTUAL NODE nodename CONNECTION ACTIVATION FAILED

Explanation: This message is the first in a group of messages that VTAM issues in response to a VARY ACT for a line when the activation of the logical connection with the virtual node fails. Possible message groups follow:
IST1166I  VIRTUAL NODE nodename CONNECTION ACTIVATION FAILED
IST1226I  TOPOLOGY UPDATE FAILED, INSUFFICIENT STORAGE
IST314I  END
IST1166I VIRTUAL NODE nodename CONNECTION ACTIVATION FAILED
IST1334I TGN NOT AVAILABLE
IST314I END

IST1166I VIRTUAL NODE nodename CONNECTION ACTIVATION FAILED
IST1346I NCP DOES NOT SUPPORT CONNECTION NETWORK FUNCTION
IST314I END

IST1166I VIRTUAL NODE nodename CONNECTION ACTIVATION FAILED
IST134I GROUP = groupname, MAJOR NODE = nodename

[IST1622I DLCADDR SUBFIELD subfield_id NOT VALID - subfield_description]
[IST1623I DUPLICATE DLCADDR SUBFIELD subfield_id - subfield_description]
[IST1624I DLCADDR SUBFIELD 7 NOT SPECIFIED - TRAFFIC DESCRIPTOR]
IST314I END

This message group is issued when one of the following has occurred:

- A transmission group (TG) number could not be assigned because all of the TG numbers for the connection network are being used.
- The topology update for the active logical connection failed due to insufficient storage.
- The NCP does not support the connection network function because it is running on a version prior to Version 6 Release 3.
- The activation of an ATM native connection network failed because of an improperly coded set of DLCADDR operands on the GROUP definition statement in the external communication adapter (XCA) major node.

IST134I

groupname is the symbolic name of the line group in which the connection network is defined.
nodename is the name of the major node in which the line group is defined.

This message is followed by message IST1622I, IST1623I, or IST1624I.

IST1622I

- This message indicates that a particular DLCADDR operand in a set of DLCADDR operands is coded incorrectly.
- subfield_id and subfield_description can be one of the following combinations:
  
  subfield_id
  
  subfield_description
  
  7    TRAFFIC DESCRIPTOR
  8    QUALITY OF SERVICE (QoS)
  9    TRANSIT NETWORK SELECTION
  21   ATM ADDRESS
  51   ATM BEARER CAPABILITIES
  61   ATM ADAPTATION LAYER (AAL)

IST1623I

- This message indicates that two DLCADDR operands in a set of DLCADDR operands are coded with the same subfield ID.
- subfield_id and subfield_description can be one of the following combinations:
  
  subfield_id
  
  subfield_description
  
  7    TRAFFIC DESCRIPTOR
  8    QUALITY OF SERVICE (QoS)
  9    TRANSIT NETWORK SELECTION
  21   ATM ADDRESS
  51   ATM BEARER CAPABILITIES

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IST1624I
This message indicates that a DLCADDR operand with subfield 7 is not coded in a set of DLCADDR operands. A DLCADDR operand with subfield 7 is required for ATM native connections.

System action: Processing continues.

Operator response: IST1226I
Issue the DISPLAY BFRUSE command to display information about the common service area (CSA). Total VTAM private storage information is also displayed in message IST981I.
Issue the DISPLAY STORUSE command to display storage usage for storage pools.
Save the system log and request a dump for problem determination.

IST1334I
Save the system log for problem determination.

IST1346I
Save the system log and request a dump for problem determination.

IST1622I
Save the system log for problem determination.

IST1623I
Save the system log for problem determination.

IST1624I
Save the system log for problem determination.

System programmer response: IST1226I
Increase storage as required.
See [z/OS Communications Server: SNA Operation](#) for more information.

IST1334I
- Make additional TG numbers available using one of the following methods:
  - Deactivate one or more lines in order to free up TG numbers.
  - Define a new virtual node by specifying a new VNNAME on one or more of the lines and reactivate the line.
    Each virtual node must be defined on both sides of the line.

IST1346I
Verify that the NCP is at a level that supports the connection network function (Version 6 Release 3 or higher). See the appropriate NCP manual for more information.

IST1622I
Correct the DLCADDR operand that is in error in the set of DLCADDR operands on the GROUP definition statement in the XCA major node indicated in message IST134I. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for information about how to code the DLCADDR operand on the GROUP definition statement in the XCA major node.

IST1623I
Delete all but one DLCADDR operand with the same subfield identifier in the set of DLCADDR operands on the GROUP definition statement in the XCA major node indicated in message IST134I. See the [z/OS Communications Server: SNA Resource Definition Reference](#) for information about how to code the DLCADDR operand on the GROUP definition statement in the XCA major node.

IST1624I
Code a DLCADDR operand with subfield 7 to define traffic management options in the set of DLCADDR operands on the GROUP definition statement in the XCA major node indicated in message IST134I. See the z/OS Communications Server: SNA Resource Definition Reference for information about how to code the DLCADDR operand on the GROUP definition statement in the XCA major node.

Routing code: 2
Descriptor code: 5

IST1167I VN nodename CONNECTION DEACTIVATION FAILED

Explanation: This message is the first in a group of messages VTAM issues when the deactivation of the logical connection with the virtual node fails because the topology update for the inactive logical connection did not complete successfully. A complete description of the message group follows.

IST1167I VN nodename CONNECTION DEACTIVATION FAILED
IST1226I TOPOLOGY UPDATE FAILED, INSUFFICIENT STORAGE
IST314I END

donename is the name of the virtual node.

System action: Processing continues.

Operator response: Issue the DISPLAY BFRUSE command to display information about the common service area (CSA). Total VTAM private storage information is also displayed in message IST981I.
Issue the DISPLAY STORUSE command to display storage usage for storage pools.
Save the system log and request a dump for problem determination.

System programmer response: Increase storage.
For more information see the z/OS Communications Server: SNA Operation and z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures

Routing code: 2
Descriptor code: 5

IST1168I VIRTUAL NODE nodename CONNECTION ACTIVE

Explanation: VTAM issues this message in response to a VARY ACT command for a line when the logical connection with the virtual node becomes active.

nodename is the name of the virtual node.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2
Descriptor code: 5

IST1169E poaname REPLY ID FOR MESSAGE msgid NOT AVAILABLE

Explanation: VTAM has a write-to-operator with reply (WTOR) message msgid to send to the program operator application (POA) poaname, but a reply ID is not available for this poaname. This can occur for either of the following reasons:
• The POA is not issuing RCVCMD macros quickly enough to receive outstanding WTOR messages.
• The outstanding WTOR messages have been received by the POA, but replies have not been received by VTAM.

poaname is the name of the POA that is to receive the VTAM message.

msgid is the ID of the failing message.
IST1176I • IST1183I

**System action:** Message msgid and all subsequent WTOR messages will be rerouted to the system console until a reply ID becomes available for this poaname.

**Operator response:**
1. Issue DISPLAY ID=poaname and save the system log for problem determination. Message IST271I will provide the jobname related to the poaname.
2. Request a dump of the application program (jobname) and VTAM for problem determination.

**System programmer response:**
- If the POA is not issuing RCVCMD macros quickly enough, you can clear the VTAM message queue for poaname by issuing RCVCMD macros with OPTCD=NQ until the queue is empty.
- If RCVCMD macros are being issued quickly enough, examine the dump and the VTAM internal trace (if available) to determine why the messages are not being received or responded to quickly enough.
- The POA must issue a SENDCMD macro to send a REPLY command to VTAM for each of the outstanding WTOR messages. Check to ensure that the RCVCMD and SENDCMD macros are being received by VTAM.
- You might need to change the POA RCVCMD processing so that RCVCMDs are issued more frequently.
- You can also change the dispatching priority of the POA. See your operating system documentation for information on dispatching priority.
- You can cancel the job related to poaname. This will clear the VTAM message queue for poaname.

See program operator coding requirements in z/OS Communications Server: SNA Programming for information on program operator applications, RCVCMD and SENDCMD macros, and VTAM reply IDs.

**Routing code:** 2
**Descriptor code:** 11

IST1176I  BASIC FROZEN

**Explanation:** This message is part of a group of messages that VTAM issues in response to a DISPLAY STATS command when TYPE=COMPRESS is specified. See the explanation of message IST1435I for a complete description of the group.

**Routing code:** 2
**Descriptor code:** 5

IST1177I  level input basic frozen

**Explanation:** VTAM issues this message as part of a message group in response to a DISPLAY STATS command when TYPE=COMPRESS is specified. See the explanation of message IST1435I for a complete description of the group.

**Routing code:** 2
**Descriptor code:** 5

IST1183I  exitname EXIT RETURNED A CODE OF usercode [label diagcode]

**Explanation:** This message is issued by VTAM in response to a condition identified in an installation-wide exit.
- For base exits, this message is issued as a stand-alone message.
- For multiple exits, this message is issued in a message group. A complete description of the message group follows the example.

IST1183I  exitname EXIT RETURNED A CODE OF usercode [label diagcode]  
IST314I  END

**exitname** is the name of the installation-wide routine.
- **usercode** is the hexadecimal return code in register 15 passed by the exit routine.
- **label and diagcode** are not issued for all exits.
**IST1184I**

*label* is message text specific to *exitname* that labels the VTAM diagnosis code *diagcode*.

*diagcode* is a VTAM-generated code for the exit *exitname*.

**System action:** The system action depends on the hexadecimal *usercode* for *exitname* in message IST1183I. If *diagcode* is displayed, the system action might depend on this code.

**Operator response:** Save the system log for problem determination.

**System programmer response:** Use *exitname*, the exit return code *usercode*, *label*, and *diagcode* in message IST1183I when referring to [z/OS Communications Server: SNA Customization](https://www.ibm.com/support/knowledgecenter/SSG5G2_6.2.0/com.ibm.zos.v6r2.sna.adm.pdf) to determine the meaning of the codes and to ensure that the proper codes are defined in the exit routine.

If you are using the IBM-supplied USRVAR exit routine specific to the Transaction Processing Facility (TPF) environment, see the [z/OS Communications Server: SNA Customization](https://www.ibm.com/support/knowledgecenter/SSG5G2_6.2.0/com.ibm.zos.v6r2.sna.adm.pdf) for return codes.

If [z/OS Communications Server: SNA Customization](https://www.ibm.com/support/knowledgecenter/SSG5G2_6.2.0/com.ibm.zos.v6r2.sna.adm.pdf) requires no specific exit return code from the exit, check with the author of the exit routine for a description of the user-written codes.

**Routing code:** 2

**Descriptor code:** 5

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**IST1184I**  
**CPNAME = cpname – NETSRVR = network_node_server**

**Explanation:** This message is part of several groups of messages that VTAM issues in response to a DISPLAY DIRECTRY or DISPLAY ID=cdrsc command.

- If DISPLAY DIRECTRY is issued, the first message in the group is IST1186I. See the description of IST1186I for more information.
- If DISPLAY ID=cdrsc is issued, IST1184I may be issued alone or in a message subgroup or both.
  - IST1184I may be issued with other messages displaying CDRSC information:
    - IST1184I CPNAME = cpname – NETSRVR = ***NA***
  - IST1184I may be issued in the following subgroup:
    - IST075I NAME = nodename, TYPE = nodetype
    - IST1186I DIRECTORY ENTRY = entrytype resourcetype
    - IST1184I CPNAME = cpname – NETSRVR = network_node_server
    - IST1402I SRTIMER = srtimer SRCOUNT = srcount
    - IST1401I RESOURCE NOT FOUND-RETRY IN time SEC(S) OR number REQUEST(S)
    - IST314I END

**Note:** If the IDTYPE operand was specified on the DISPLAY ID command, information about subarea resources might precede the IST1186I subgroup. See [z/OS Communications Server: SNA Operation](https://www.ibm.com/support/knowledgecenter/SSG5G2_6.2.0/com.ibm.zos.v6r2.sna.adm.pdf) for more information.

**IST075I**

This message is only displayed for a DISPLAY ID command.

*nodename* is the resource name specified on the ID operand of the command.

*nodetype* is the resource type of *nodename*. See [Chapter 17, “Node and ID types in VTAM messages,” on page 1097](https://www.ibm.com/support/knowledgecenter/SSG5G2_6.2.0/com.ibm.zos.v6r2.sna.adm.pdf) for a description of *nodetype*.

**IST1184I**

- *cpname* is the network-qualified name of the owning control point in the form netid.name.

In the combined APPN and subarea network, the owning CP might be an SSCP or a network node in a different APPN subnetwork. All owning CPs found in or through a subarea network are represented to the origin CP as an end node being served by the interchange node through which the resource was found.

- *network_node_server* is the network-qualified name of the network node server in the form netid.name.

*network_node_server* represents the network node in the host's APPN subnetwork that should be contacted to locate the target resource. If DISPLAY ID=cdrsc is issued, *network_node_server* might be ***NA***, indicating that this information is not applicable.

**Note:** If the CPNAME displayed is actually a CDRM name and the subject resource has a different NETID than its owning CDRM, then the NETID displayed might be that of the resource (rather than the CDRM), if this is the only information available.
This message indicates that the resource has been found in the directory database and displays information about the resource.

**entrytype** is one of the following:

**DEFINED**
- The resource was pre-defined to the directory database. A DEFINED directory entry might become a DYNAMIC directory entry if a search request learns new information about the resource, such as the NETID or the name of the owning CP.

**DYNAMIC**
- The resource was learned of as the result of a dynamic search request and was stored.

**REGISTERED**
- The resource was registered to the directory database through end node resource registration.

**resourcetype** represents the resource type known by the host APPN directory and may be different from the actual type of the resource. **resourcetype** is one of the following:

- **EN**: Represents an end node, which is also known as the owning control point (CP) of a resource.
- **LU**: Represents a logical unit.
- **NN**: Represents the network node in the host's APPN subnetwork.

**cpname** is the network-qualified name of the owning control point in the form `netid.name`.
- In the combined APPN and subarea network, the owning CP might be an SSCP or a network node in a different APPN subnetwork. All owning CPs found in or through a subarea network are represented to the origin CP as an end node being served by the interchange node through which the resource was found.

**network_node_server** is the network-qualified name of the network node server in the form `netid.name`.
- **network_node_server** represents the network node in the host's APPN subnetwork that should be contacted to locate the target resource. If DISPLAY ID=cdrss is issued, **network_node_server** might be ***NA***, indicating that this information is not applicable.

**Note:** If the CPNAME displayed is actually a CDRM name and the subject resource has a different NETID than its owning CDRM, then the NETID displayed might be that of the resource (rather than the CDRM), if this is the only information available.

**srtimer** is the amount of time in seconds that VTAM will limit searching for a resource that it previously was unable to locate.

**srcount** is the number of requests that VTAM limit searching for the resource that it was previously unable to locate.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

**IST1185I NAME = resourcename – DIRECTORY ENTRY = entrytype resourcetype**

**Explanation:** VTAM issues this message as part of a subgroup of messages in response to a DISPLAY DIRECTRY command. The first message in the subgroup is IST1184I. See the explanation of that message for a complete description.

**Routing code:** 2
IST1186I

**Directory Entry**: entrytype resourcetype

**Explanation**: This message is part of a group of messages that VTAM issues in response to a DISPLAY ID command or a DISPLAY DIRECTRY command.

- If DISPLAY DIRECTRY is issued, the following message group is displayed:

  - `IST350I DISPLAY TYPE = DIRECTORY`
  - `IST1186I DIRECTORY ENTRY = entrytype resourcetype`
  - `IST1184I CPNAME = cpname – NETSRVR = network_node_server`
  - `IST484I SUBAREA = subarea`
  - `IST1703I DESIRED LOCATE SIZE = desiredlocatesize, LAS LOCATE SIZE = lastlocatesize`
  - `IST1402I SRTIMER = srtimer SRCOUNT = srcount`
  - `IST1401I RESOURCE NOT FOUND-RETRY IN time SEC(S) OR number REQUEST(S)`
  - `IST1185I NAME = resourcename – DIRECTORY ENTRY = entrytype resourcetype`
  - `IST314I END`

- If DISPLAY ID is issued, the following message group may be displayed:

  - `IST075I NAME = nodename, TYPE = nodetype`
  - `IST1186I DIRECTORY ENTRY = entrytype resourcetype`
  - `IST1184I CPNAME = cpname – NETSRVR = network_node_server`
  - `IST484I SUBAREA = subarea`
  - `IST1703I DESIRED LOCATE SIZE = desiredlocatesize, LAS LOCATE SIZE = lastlocatesize`
  - `IST1402I SRTIMER = srtimer SRCOUNT = srcount`
  - `IST1401I RESOURCE NOT FOUND-RETRY IN time SEC(S) OR number REQUEST(S)`
  - `IST314I END`

**Note**: If the IDTYPE operand was specified on the DISPLAY ID command, information about subarea resources might precede the IST1186I subgroup. See [z/OS Communications Server: SNA Operation](https://www.ibm.com/support/knowledgecenter/S5TXF5_5.4.0/com.ibm.zos.v5r4.doc/library/ongopiv11s0.htm#p_ongopiv11s0_11968) for more information.

**IST075I**

This message is only displayed for a DISPLAY ID command.

`nodename` is the resource name specified on the ID operand of the command.

`nodetype` is the resource type of `nodename`. See Chapter 17, “Node and ID types in VTAM messages,” on page 1097 for a description of `nodetype`.

**IST350I**

This message is only displayed for a DISPLAY DIRECTRY command and is always **DIRECTORY**.

**IST484I**

`subarea` is the subarea number of the logical unit.

**IST1184I**

- `cpname` is the network-qualified name of the owning control point in the form `netid.name`.

  In the combined APPN and subarea network, the owning CP might be an SSCP or a network node in a different APPN subnetwork. All owning CPs found in or through a subarea network are represented to the origin CP as an end node being served by the interchange node through which the resource was found.

- `network_node_server` is the network-qualified name of the network node server in the form `netid.name`.

  `network_node_server` represents the network node in the host's APPN subnetwork that should be contacted to locate the target resource. If DISPLAY ID=cdrsc is issued, `network_node_server` might be ***NA***, indicating that this information is not applicable.

**Note**: If the CPNAME displayed is actually a CDRM name and the subject resource has a different NETID than its owning CDRM, then the NETID displayed might be that of the resource (rather than the CDRM), if this is the only information available.

**IST1185I**

- This message is issued only when there are resources subordinate to `cpname` in message IST1184I, and is repeated for each subordinate resource.

- `resourcename` is the network-qualified name of a resource that is subordinate to `cpname` in message IST1184I. VTAM issues `resourcename` in the form `netid.name`.

- `entrytype` is one of the following:
**IST1186I**

**DEFINED**
The resource was pre-defined to the directory database. A DEFINED directory entry might become a DYNAMIC directory entry if a search request learns new information about the resource, such as the NETID or the name of the owning CP.

**DYNAMIC**
The resource was found as the result of a dynamic search request and was stored.

**REGISTERED**
The resource was registered to the directory database through end node resource registration.

- resource represents the resource type known by the host APPN directory and may be different from the actual type of the resource. resource is one of the following:
  - **EN** Represents the owning control point (CP) of a resource.
    - In a combined APPN and subarea network, the owning CP may actually be an SSCP or a network node in a different APPN subnetwork. All owning CPs found in or through a subarea network are represented to the origin CP as an end node being served by the interchange node through which the resource was found.
  - **LU** Represents a logical unit.
  - **NN** Represents the network node in the host's APPN subnetwork that should be contacted to locate the target resource.

See [z/OS Communications Server: SNA Operation](https://www.ibm.com/docs/en/zos) for more information.

**IST1186I**

- This message indicates that the resource has been found in the directory database and displays information about the resource.

- entrytype is one of the following:

  **DEFINED**
The resource was pre-defined to the directory database. A DEFINED directory entry might become a DYNAMIC directory entry if a search request learns new information about the resource, such as the NETID or the name of the owning CP.

  **DYNAMIC**
The resource was found as the result of a dynamic search request and was stored.

  **REGISTERED**
The resource either was registered to the directory database through end node resource registration, or resource represents the host CP.

  **resource** represents the resource type known by the host APPN directory and may be different from the actual type of the resource. resource is one of the following:

  - **EN** Represents an end node, which is also known as the owning control point (CP) of a resource.
  - **LU** Represents a logical unit.
  - **NN** Represents the network node in the host's APPN subnetwork.

**IST1401I**

- VTAM issues this message when the SRCHRED start option is ON, and the resource being displayed represents a search reduction entry. Searches will be limited for this resource as indicated by the time and number fields. See the [z/OS Communications Server: SNA Network Implementation Guide](https://www.ibm.com/docs/en/zos) for more information on the processing of a search reduction entry.

  - time is the remaining number of seconds that VTAM will limit searches for the resource it previously was unable to locate. Once the specified number of seconds expire, subsequent searches for the resource will not be limited.
  - number indicates the amount of requests necessary before VTAM will search for the resource with no search reduction limitations.

  - If NEXT is displayed, VTAM will not limit the next search request for the resource.
  - Otherwise, VTAM will limit the search until number requests have been received. For example, if number is 2, VTAM will limit the first request received, but will not limit the second request received.
– A value of "NA" for time or number means Not applicable. This value will appear when the timer or counter has been set to 0.
– The SRTIMER and SRCOUNT threshold values being used for this resource are displayed in message IST1402I.

**IST1402I**

- VTAM issues this message when the SRCHRD start option is ON. The SRCOUNT and SRTIMER values that are being used for the displayed resource are shown.
  - *srtimer* is the amount of time in seconds that VTAM will limit searching for a resource that it previously was unable to locate.
  - *srcount* is the number of requests that VTAM limit searching for the resource that it was previously unable to locate.

**IST1703I**

*desiredlocatesize* is the size of the APPN locate message required to retrieve the complete routing information for the target LU. The valid range is 1-128 kilobytes.

*lastlocatesize* is the size of the APPN locate message last used to retrieve the routing information for the target LU. The valid range is 1-128 kilobytes.

The node that initiates the APPN search will attempt to find a route on which every APPN network node supports the *desiredlocatesize* required by the target LU. If such a route is not available, a route that supports a smaller locate message size will be used to gather routing information for the target LU. In this case, the *desiredlocatesize* will be greater than the *lastlocatesize*. This implies that the origin node that initiated the search does not have all the routing information for the target LU and this could result in the selection of a non-optimal session route to the target LU, or a session setup failure in the worst case.

*lastlocatesize* refers to only the locate path between network nodes and does not include the path between a network node server and served end nodes. If the destination LU is on an end node that does not support locate sizes larger than 1K, the *lastlocatesize* may be larger than 1K. To display the locate size supported by served end nodes, issue the command D NET,TOPO,LIST=EN,LOCSIZE=* at the network node server.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

**IST1187I**  
value NOT VALID–APPN NOT SUPPORTED BY resourcename

**Explanation:** VTAM issues this message when the specified command or operand is not valid because *resourcename* does not support advanced peer-to-peer networking (APPN).

*value* is one of the following:

- The name of the command that failed. For a description of *value*, see Chapter 16, “Command and RU types in VTAM messages,” on page 1083.
- The name of the operand that caused the command to fail.

For more information on *value*, see z/OS Communications Server: SNA Operation

*resourcename* is the name of the resource.

- If ID=*resourcename* was specified, *resourcename* is the network-qualified name of the resource that was specified on the command.
- If ID=*resourcename* was not specified, *resourcename* is the network-qualified name of the host where the command was entered.

VTAM issues *resourcename* in the form netid.name.

**System action:** VTAM rejects the command.

**Operator response:** Ensure that you entered the command correctly. If problems persist, save the system log for problem determination.
**IST1188I**

If ID=resourcename was specified, print the major node definition for resourcename.

**System programmer response:** If ID=resourcename was specified, verify that resourcename supports APPN.

**Routing code:** 2

**Descriptor code:** 5

---

**IST1188I** VTAM level STARTED AT time ON date

**Explanation:** This message is the first in a group of messages that VTAM issues in response to a DISPLAY VTAMOPTS command.

Possible message groups follow.

- This message group is issued in response to a DISPLAY VTAMOPTS command when FORMAT=CURRENT is specified or defaulted on the command.

  IST1188I VTAM level STARTED AT time ON date
  IST1349I COMPONENT ID IS dddd-ddddd-ddd
  IST1348I VTAM STARTED AS nodetype
  IST1189I option = current_value [option = current_value]
    ...
  IST1904I option = current_value
  IST1911I value
  ...
  IST314I END

- This message group is issued in response to a DISPLAY VTAMOPTS command when FORMAT=MODIFIED or FORMAT=COMPLETE is specified on the command.
  - If FORMAT=MODIFIED is entered, VTAM displays information about start options that have been modified since VTAM initialization.
  - If FORMAT=COMPLETE is entered, VTAM displays information about all specified options.

  IST1188I VTAM level STARTED AT time ON date
  IST1349I COMPONENT ID IS dddd-ddddd-ddd
  IST1348I VTAM STARTED AS nodetype
  IST1309I START OPTION CURRENT VALUE ORIGINAL VALUE ORIGIN
  IST1310I option current_value original_value origin...
  ...
  IST924I -------------------------------------------------------------
  IST1905I START OPTION = option
  IST1906I CURRENT VALUE = current_value
  [IST1911I value]
  IST1907I ORIGINAL VALUE = original_value
  [IST1911I value]
  IST1908I ORIGIN = origin...
  ...
  IST314I END

See [z/OS Communications Server: SNA Operation](#) for more information.

**IST1188I**

_level_ is the version (x) and release (y) of VTAM for z/OS Communications Server that is being run. For example, CSVxRy is displayed for VTAM for z/OS Communications Server Version x Release y.

The _date_ and _time_ values specify when VTAM was started. See "DATE and TIME formats" on page 4 for information about the _date_ and _time_ values.

**IST1189I**

- _option_ is the name of a VTAM start option.
  - This message, and optionally IST1904I, are repeated to display all options specified on the command.
  - If OPTION=* is specified, VTAM displays the value of all start options.
- See the [z/OS Communications Server: SNA Resource Definition Reference](#) for the names of possible _options_.
- _current_value_ is the current value of _option_.

---

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- If current_value represents time, this message displays this value in seconds. For example, if a value of 1 minute is specified for the CDRSCTI start option, VTAM displays current_value as 60S.
- If current_value is ***NA***, this indicates that option is not applicable for the host configuration. For example, if the host is configured as a subarea node without any APPN function, an APPN option cannot be specified.
- If current_value is *BLANKS*, this indicates that no value was entered, and the default is blanks.
- If current_value represents a character string that can be longer than 17 characters, then IST1904I is used to display option.

IST1309I and IST1310I

- option is the name of the VTAM start option.
- IST1309I, IST1310I, and IST1905I are issued as many times as necessary to display all the options specified on the command.
- If OPTION=* is specified, VTAM displays the value of all start options.

• current_value is the current value of option.
• original_value is the original value that was specified for option.

- If current_value and original_value represent time, this message displays those values in seconds. For example, if a value of 1 minute is specified for the CDRSCTI start option during start processing, VTAM displays current_value as nS and original_value as 60S.
- If current_value and original_value are ***NA***, this indicates that option is not applicable for the host configuration. For example, if the host is configured as a subarea node without any APPN function, an APPN option cannot be specified.
- If current_value and original_value are *BLANKS*, this indicates that no value was entered, and the default is blanks.
- If current_value or original_value represents a character string that can be longer than 17 characters, then the message group starting with IST1905I is used to display option.

origin indicates where original_value was specified. Possible values are:

ATCSTRxx
The start list

DEFAULT
The IBM-supplied default start options

OPERATOR
The start options entered by the operator

***NA***
current_value and original_value are ***NA***

IST1348I

nodetype indicates the node type of this host and is determined by start options that are specified or defaulted. Possible values are:

• END NODE
• INTERCHANGE NODE
• MIGRATION DATA HOST
• NETWORK NODE
• SUBAREA NODE

IST1349I

dddddd-ddddd-ddd is the component identifier assigned by VTAM. This identifier is used by IBM for VTAM program maintenance. See the [z/OS Communications Server: SNA Programming](https://publib.boulder.ibm.com/infocenter/zos/v2r12/index.jsp?topic=/com.ibm.zos.doc_zoscommz/index.html) for a description of vector lists and more information about the component identifier.
**IST1188I**

- `option` is the name of a VTAM start option.
  - Messages IST1189I, IST1904I, or IST1911I are repeated to display all options specified on the command.
  - If OPTION=* is specified, VTAM displays the value of all start options.

  See the [z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com/support/docview.wss?uid=swg21385230) for the names of possible options.

- `current_value` is the current value, or up to the first 49 characters of the current value, of `option`.

  IST1904I is displayed only if `current_value` is longer than 17 characters. If `current_value` is longer than 49 characters, the first 49 characters are displayed as `current_value` and the remaining characters are displayed using one or more IST1911I messages.

**IST1905I**

- `option` is the name of the start option being displayed.
  - The message group beginning with IST1905I is used instead of IST1309I and IST1310I when the value of the start option is a character string that can exceed 17 characters.
  - See the [z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com/support/docview.wss?uid=swg21385230) for the names of possible options.

**IST1906I**

`current_value` is the current setting of the start option identified as `option` in message IST1905I.

If `current_value` is *BLANKS*, then no value was entered, and the default is blanks.

IST1906I is used only if either `current_value` represents a character string that is longer than 17 characters, or `original_value` on IST1907I represents a character string that is longer than 17 characters. If `current_value` is greater than 43 characters, the first 43 characters are displayed as `current_value` and the remaining characters are displayed using one or more IST1911I messages.

**IST1907I**

`original_value` is the original value that was specified for the start option identified as `option` in message IST1905I.

If `original_value` is *BLANKS*, then no value was entered, and the default is blanks.

IST1907I is used only if either `original_value` represents a character string that is longer than 17 characters, or `current_value` on IST1906I represents a character string that is longer than 17 characters. If `original_value` is greater than 43 characters, the first 43 characters are displayed as `original_value` and the remaining characters are displayed using one or more IST1911I messages.

**IST1908I**

- `origin` indicates where `original_value`, as displayed in message IST1907I, was initially specified for the start option identified as `option` in message IST1905I. Possible values are:
  - **ATCSTRxx**
    - The start list.
  - **DEFAULT**
    - The IBM-supplied default start options.
  - **OPERATOR**
    - The start options entered by the operator.

**IST1911I**

`value` is the continuation of `current_value` on IST1904I or IST1906I, or the continuation of `original_value` on IST1907I. IST1911I is repeated as often as necessary to display the entire `current_value` or `original_value`.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5
IST1189I  

**option = current_value [option = current_value]**

**Explanation:** VTAM issues this message as part of a group of messages in response to a DISPLAY VTAMOPTS command. The first message in the group is IST1188I. See the explanation of that message for a complete description.

**Routing code:** 2

**Descriptor code:** 5

IST1190I  

**OPEN FAILED FOR datasetname ABEND = abendcode RC = returncode**

**Explanation:** The sequential access method OPEN function failed for the specified data set.

*datasetname* is the DDNAME for the data set.

*abendcode* is the abend code associated with the OPEN failure. The values for *abendcode* are found in the applicable operating system documentation.

*returncode* is the return code associated with the abend code. The values for *returncode* are found in the applicable operating system documentation.

**System action:** VTAM processing continues. *datasetname* is not available for use.

**Operator response:** Save the system log for problem determination.

**System programmer response:** Ensure that *datasetname* is defined in the VTAM start procedure and is available for use. The data set characteristics should be compatible with those specified in the [z/OS Communications Server: New Function Summary](https://www.ibm.com/support/docview.wss?uid=swg21404615) For further responses, consult the applicable sequential access method documentation.

**Routing code:** 2

**Descriptor code:** 3

IST1191I  

**I/O ERROR ON datasetname {ERROR = description | ABEND = abendcode RC = returncode}**

**Explanation:** An I/O error occurred for the specified data set.

*datasetname* is the DDNAME for the data set.

*description* is the error description portion of the message generated by the sequential access method SYNADAF macro.

*abendcode* is the abend code associated with the I/O failure. The values for *abendcode* are found in the applicable operating system documentation.

*returncode* provides the return code associated with the abend code. The values for *returncode* are found in the applicable operating system documentation.

**System action:** Processing continues.

**Operator response:** Save the system log for problem determination.

**System programmer response:** If an abend code and a return code are provided, see your operating system documentation for an explanation of the codes. Use the codes in conjunction with your applicable sequential access method documentation to resolve the problem.

If the error description portion of the message generated by the SYNADAF macro is provided, see the applicable sequential access method documentation for more information.

**Routing code:** 2

**Descriptor code:** 3

IST1192I  

**CLOSE FAILED FOR datasetname ABEND = abendcode RC = returncode**

**Explanation:** The sequential access method CLOSE function failed for the specified data set.

*datasetname* is the DDNAME for the data set.

*abendcode* is the abend code associated with the CLOSE failure. The values for *abendcode* are found in the applicable operating system documentation.
**IST1193I  •  IST1196I**

$returncode$ is the return code associated with the abend code. The values for $returncode$ are found in the applicable operating system documentation.

**System action:** Processing continues.

**Operator response:** Save the system log for problem determination.

**System programmer response:** Consult the applicable sequential access method documentation for appropriate responses.

Routing code: 2

Descriptor code: 3

---

**IST1193I  •  SESSION DEACTIVATION FAILURE FOR resource**

**Explanation:** VTAM issues this message when it is unable to complete the sessiontype session deactivation.

- If sessiontype is CP-CP, resource is the name of the adjacent control point. If the network where the resource resides is known to VTAM, resource is issued as a network-qualified name in the form netid.name. The CP-CP session deactivation failure is due to a lack of storage.
- If sessiontype is CP-SVR, resource is the name of the CDRSC representing the dependent LU requester (DLUR). If the network where the resource resides is known to VTAM, resource is issued as a network-qualified name in the form netid.name. The CP-SVR session deactivation failure is due to either a lack of storage or a failure to find the DLUR element control block.

**System action:** Processing continues.

**Operator response:**
- If sessiontype is CP-CP, issue a DISPLAY ID=resource,CPNODE=YES,E command to determine whether CP-CP sessions are still active with resource. If they are, issue a VARY INACT,ID=resource,CPNODE=YES command to bring the CP-CP sessions down. When the CP-CP sessions are successfully deactivated, message IST1097I will appear.
- If sessiontype is CP-SVR, issue a DISPLAY ID=resource command to determine whether CP-SVR sessions are still active with resource. If they are, issue a VARY INACT,ID=resource command to bring the CP-SVR sessions down. When the CP-SVR sessions are successfully deactivated, message IST1133I will appear.

**System programmer response:** None.

Routing code: 2

Descriptor code: 3

---

**IST1194I  •  DUPPLICATE RESOURCE IS resourcename**

**Explanation:** VTAM issues this message as part of a group of messages when VTAM has received registration requests for the same resource from two different end nodes. The first message in the group is IST1157I. See the explanation of that message for a complete description.

**Routing code:** 2

**Descriptor code:** 3

---

**IST1196I  •  APPN CONNECTION FOR resourcename INACTIVE – TGN = tgn**

**Explanation:** VTAM issues this message when an APPN connection for an adjacent control point becomes inactive. The major node to which the adjacent control point was attached has been deactivated.

resourcename is the network-qualified name of the adjacent control point in the form netid.name.

tgn is the transmission group number. If the APPN connection fails before it is fully established, the TGN might be this host's view of the TGN before it has been fully negotiated.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.
Routing code: 2
Descriptor code: 5

**IST1197I**

**ADJCP MAJOR NODE = majornode**

**Explanation:** VTAM issues this message as part of a group of messages in response to a DISPLAY ADJCP command for an adjacent control point. Possible message groups follow.

- If SCOPE=ALL was specified on the command, VTAM issues the following message group:
  
  IST350I DISPLAY TYPE = ADJACENT CONTROL POINT
  IST486I STATUS= ACTIV, DESIRED STATE= ACTIV
  IST1197I ADJCP MAJOR NODE = majornode
  IST1101I ADJACENT CP DISPLAY SUMMARY FOR adjcpname
  IST1102I NODENAME NODETYPE CONNECTIONS CP CONNECTIONS NATIVE
  IST1103I nodename nodetype connections cp_connections native
  IST2157I ALIASRCH = value
  [IST2251I AUTHORIZED NETID LIST FOR BORDER NODE SEARCHING:]
  [IST2252I netid [netid] [netid] [netid] [netid] [netid] ...]
  IST1104I CONNECTION SUMMARY FOR adjcpname
  IST1105I RESOURCE STATUS TGN CP-CP TG CHARACTERISTICS
  IST1106I resource status tgn cp-cp tg_characteristics
  IST314I END

- If SCOPE=ALL was not specified on the command, VTAM issues the following message group:

  IST350I DISPLAY TYPE = ADJACENT CONTROL POINT
  IST486I STATUS= ACTIV, DESIRED STATE= ACTIV
  IST1197I ADJCP MAJOR NODE = majornode
  IST314I END

**IST1197I**

*majornode* is the name of the major node that contains the resources. VTAM issues *majornode* in the form `netid.name`.

**IST1101I – IST1106I, IST2157I, IST2251I, IST2252I**

For a description of this message subgroup, see the explanation of message IST1101I.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

Routing code: 2
Descriptor code: 5

**Example:**

```plaintext
D NET,ADJCP,ID=NETA.CP2A,SCOPE=ALL
IST097I DISPLAY ACCEPTED
IST350I DISPLAY TYPE = ADJACENT CONTROL POINT
IST486I STATUS= ACTIV, DESIRED STATE= ACTIV
IST1197I ADJCP MAJOR NODE = ADJCP1
IST1101I ADJCP DISPLAY SUMMARY FOR NETA.CP2A
IST1102I NODENAME NODETYPE CONNECTIONS CP CONNECTIONS NATIVE
IST1103I NETA.CP2A NN 1 1 NO
IST2157I ALIASRCH = YES
IST2251I AUTHORIZED NETID LIST FOR BORDER NODE SEARCHING:
IST2252I NETA NETB NETC
IST1104I CONNECTION SUMMARY FOR NETA.CP2A
IST1105I RESOURCE STATUS TGN CP-CP TG CHARACTERISTICS
IST1106I AHHCPU5 AC/R 21 YES 98710000000000000100014C00808080
IST1500I STATE TRACE = OFF
IST1493I RTP SUMMARY FOR NETA.CP2A COUNT = 2 RTPONLY = NO
```

Chapter 7. IST messages for VTAM network operators IST800I – IST1199I 457
IST1198I • IST1199I

resourcename DELETED FROM DIRECTORY

Explanation: VTAM issues this message when the MODIFY DIRECTRY,ID=name command changed the owning CP’s name (CPNAME) for resourcename to this host’s CP name.

Resources owned by this host are not duplicated in the APPN resource directory so resourcename has been deleted from the APPN resource directory.

resourcename is the network-qualified name of the resource in the form netid.name.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2

Descriptor code: 5

IST1199I command FOR resourcename FAILED, UNKNOWN RESOURCE

Explanation: VTAM issues this message in response to one of the following commands:

- MODIFY DIRECTRY,UPDATE which attempted to change the owning CP or the network node server for resourcename. The name specified on either the CPNAME, ID or NETSRVR operand is unknown to the APPN directory and cannot be modified.
- MODIFY DIRECTRY,DELETE which attempted to delete resource resourcename. The name specified on the ID operand is not known to the APPN directory and cannot be modified.

command is always F DIRECTRY which refers to the MODIFY DIRECTRY,UPDATE or MODIFY DIRECTRY,DELETE commands.

resourcename is the network-qualified name of the resource in the form netid.name. resourcename can be the same resource that was specified on the ID operand of the MODIFY DIRECTRY command or a resource that is subordinate to the resource named on the command.

- If resourcename is the same as the name specified on the ID operand, then resourcename is not known to the APPN directory.
- If resourcename is not the same as the name specified on the ID operand, then the name specified on the ID operand is a CDRSC major node. VTAM is in the process of changing the owning CP or network node server for all the minor nodes subordinate to the CDRSC major node. The resourcename minor node is no longer known to the APPN directory.

System action: Processing continues.

Operator response:

- If resourcename is the same as the name specified on the ID operand of the MODIFY DIRECTRY command, ensure that you entered resourcename correctly.
- If resourcename is not the same as the name specified on the ID operand of the MODIFY DIRECTRY command, then no further action is needed.

System programmer response: None.

Routing code: 2

Descriptor code: 5
Chapter 8. IST messages for VTAM network operators
IST1200I – IST1599I

This chapter lists the VTAM messages beginning with IST in the range of IST1200I through IST1599I. These messages can appear on a network operator’s console.

See [Appendix E, “Message text for VTAM operator messages,” on page 1177](#) for a list of the text of all VTAM operator messages.

**Note:** Messages that begin with the prefix ISTF are issued by the VTAM dump analysis tool and the VTAM internal trace (VIT) analysis tool. Help information is available as a part of each tool by pressing F1. Therefore, ISTF messages are not documented in [z/OS Communications Server: SNA Messages](#). See [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) for additional information.

**IST1200I tsouserid TSO USERID, TRACE = {ON|OFF}**

**Explanation:** VTAM issues this message as part of a message group in response to one of the following commands:
- DISPLAY TRACES, TYPE=TSO,ID=tsouserid
- DISPLAY TRACES, TYPE=TSO,ID=*  
- DISPLAY TRACES, TYPE=ALL

This message indicates whether the TSO trace for tsouserid is active or inactive.

- For DISPLAY TRACES, TYPE=TSO,ID=tsouserid and DISPLAY TRACES, TYPE=TSO,ID=*, the following message group is displayed:
  
  IST350I DISPLAY TYPE = TRACES,TYPE=TSO
  IST1200I tsouserid TSO USERID, TRACE = {ON|OFF}
  IST3114I END
  
- For DISPLAY TRACES, TYPE=ALL, VTAM issues additional messages displaying the output for TYPE=NODES, TYPE=TSO, and TYPE=VTAM.

  For additional information and examples of command displays, see the [z/OS Communications Server: SNA Operation](#).

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

**IST1201I COMMAND REJECTED BY ISTCMMND EXIT**

**Explanation:** The user command verification exit (ISTCMMND) rejected the operator command. This message always refers to the command last entered. See [z/OS Communications Server: SNA Customization](#) for more information on the user command verification exit.

**System action:** Processing continues.

**Operator response:** Save the system log for problem determination.

**System programmer response:** Ensure that the command issued was supposed to fail.
If the command was programmed to fail, there is no action; the command and verification exit is working as designed.
If the command was not programmed to fail, review the command and verification exit to ensure proper execution.

Routing code: 2
Descriptor code: 5

IST1202I • IST1203I

**Value** resourcename **FOR** operand **IS NOT A VALID NAME**

**Explanation:** VTAM issues this message when the value resourcename of operand is not a valid resource name because it is syntactically incorrect. This message is issued in response to the following commands:
- DISPLAY APPLS
- DISPLAY CDRMS
- DISPLAY CDRSCS
- DISPLAY CLSTRS
- DISPLAY EE
- DISPLAY EEDIAG
- DISPLAY GROUPS
- DISPLAY LINES
- DISPLAY PENDING
- DISPLAY RSCLIST
- DISPLAY STATIONS
- DISPLAY STORUSE
- DISPLAY TERMS

**System action:** If operand is ID, and at least one valid resource name has been specified, processing of the DISPLAY command will continue.

**Operator response:** Ensure that you entered the command correctly. If problems persist, see [z/OS Communications Server: SNA Operation](#) for information on the correct syntax of DISPLAY commands.

**System programmer response:** None.

Routing code: 2
Descriptor code: 5

IST1203I • Value resourcename **FOR** operand **IS UNKNOWN RESOURCE**

**Explanation:** VTAM issues this message when the value resourcename of operand is a resource that is syntactically correct, but is not defined to VTAM. This message is issued in response to the following commands:
- DISPLAY APPLS
- DISPLAY CDRMS
- DISPLAY CDRSCS
- DISPLAY CLSTRS
- DISPLAY EE
- DISPLAY EEDIAG
- DISPLAY GROUPS
- DISPLAY LINES
- DISPLAY PENDING
- DISPLAY RSCLIST
- DISPLAY STATIONS
- DISPLAY TERMS
- MODIFY RTP
**IST1204I • IST1205I**

**System action:** If operand is ID, and at least one valid resource name has been specified, processing of the DISPLAY or MODIFY command will continue.

**Operator response:** Ensure that you entered the command correctly. If problems persist, save the system log and print the major node definition for problem determination.

**System programmer response:** Add a definition statement for the major node of the resource. To use the new definition, you must deactivate and reactivate the major node. See the [z/OS Communications Server: SNA Resource Definition Reference](https://publib.boulder.ibm.com/infocenter/zos/v1r13/topic/com.ibm.zos.doc_1.13.0/com.ibm.zos.doc_1.13.0/ist12110.html) for more information on definition statements.

**Routing code:** 2

**Descriptor code:** 5

---

**IST1204I**  
**VALUE resourcename FOR operand NOT VALID FOR REQUEST**

**Explanation:** VTAM issues this message when the value `resourcename` for `operand` is a resource that is defined to VTAM, but cannot be specified for this particular command, operand, or configuration. This message is issued in response to the following commands:

- DISPLAY APPLS
- DISPLAY CDRMS
- DISPLAY CDRSCS
- DISPLAY CLSTRS
- DISPLAY EE
- DISPLAY EEDIAG
- DISPLAY ID=physical_unit
- DISPLAY GROUPS
- DISPLAY LINES
- DISPLAY PENDING
- DISPLAY STATIONS
- DISPLAY TERMS
- MODIFY RTP

**System action:** If operand is ID, and at least one valid resource name has been specified, processing of the DISPLAY or MODIFY command will continue.

**Operator response:** Ensure that you entered the command correctly. If problems persist, see [z/OS Communications Server: SNA Operation](https://publib.boulder.ibm.com/infocenter/zos/v1r13/topic/com.ibm.zos.doc_1.13.0/com.ibm.zos.doc_1.13.0/ist12110.html) for a description of the type of resources that are valid for the ID operand of the DISPLAY command you are using.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

---

**IST1205I**  
**MANAGEMENT SERVICES TRANSPORT UNAVAILABLE**

**Explanation:** This message is the first in a group of messages that VTAM issues when the management services transport is not available.

The second message in the group indicates the reason that the management services transport is not available and can be one of the following:

**IST1206I LOAD FAILED FOR THE PROGRAM-TO-PROGRAM INTERFACE**

VTAM is unable to load the program-to-program interface module (CNMCNETV). This module is needed to send management services transport data to network management.

**IST1207I NETWORK MANAGEMENT IS INACTIVE**

VTAM is unable to use the management services transport because a network management application, such as the NetView program, is inactive.
IST1208I • IST1209I

IST1208I PROGRAM-TO-PROGRAM INTERFACE MODULE IS INACTIVE
VTAM is not able to send management services transport data to network management because the program-to-program interface module is not initialized.

IST1209I PROGRAM-TO-PROGRAM INTERFACE MODULE STORAGE SHORTAGE
VTAM is unable to send management services transport data to network management because the program-to-program interface module is out of storage.

System action: Processing continues.

Operator response:

IST1206I
Save the system log for problem determination.

IST1207I
Ensure that network management has been started. When network management connects to the network management interface module, then VTAM continues initialization for the Management Services Transport. See your network management documentation for details on how to start network management.

IST1208I
Ensure that the program-to-program interface module has been initialized. VTAM will continue trying to connect to the program-to-program interface module repeatedly for the first hour, and then once every hour. See your program-to-program interface documentation for details on how to initialize the interface module.

IST1209I
Save the system log for problem determination.

System programmer response:

IST1206I
Ensure that the program-to-program interface module CNMCNETV resides in LPALIB. You must restart VTAM to use the management services transport.

IST1207I
None.

IST1208I
None.

IST1209I
You might need to increase the buffer queue limit for the program-to-program interface module. See your program-to-program interface documentation for more details.

Routing code: 2
Descriptor code: 5

 IST1206I  LOAD FAILED FOR THE PROGRAM-TO-PROGRAM INTERFACE

Explanation: VTAM issues this message as part of a group of messages when the management services transport is not available. The first message in the group is IST1205I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

 IST1207I  NETWORK MANAGEMENT IS INACTIVE

Explanation: VTAM issues this message as part of a group of messages when the management services transport is not available. The first message in the group is IST1205I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5
IST1208I  PROGRAM-TO-PROGRAM INTERFACE MODULE IS INACTIVE

Explanation: VTAM issues this message as part of a group of messages when the management services transport is not available. The first message in the group is IST1205I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST1209I  PROGRAM-TO-PROGRAM INTERFACE MODULE STORAGE SHORTAGE

Explanation: VTAM issues this message as part of a group of messages when the management services transport is not available. The first message in the group is IST1205I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST1211I  I/O ERROR terminalname command ncp_response[ bsc_status]

Explanation: VTAM issues this message when an I/O error occurred on a BSC 3270 terminal or control unit. This is probably a hardware error.

terminalnum is the name of a terminal or control unit. If the network where the resource resides is known to VTAM, terminalnum is issued as a network-qualified name in the form netid.name.

command is the basic transmission unit (BTU) command and modifier. It represents the command that the NCP received when the I/O error occurred. For more information, see NCP and EP Reference Summary and Data Areas for the 3725 and 3745.

ncp_response is the system and extended response that the NCP sends upon receiving the command. For more information, see NCP and EP Reference Summary and Data Areas for the 3725 and 3745.

bsc_status is the BSC status information. For more information, see the 3174 Functional Description

System action:
- For an I/O error on a BSC 3270 terminal, VTAM sends an error indication to the application program.
- For an I/O error on a BSC 3270 control unit, VTAM may resume polling for the data from the control unit.

Operator response: If the problem persists, save the system log for problem determination.

System programmer response: Correct the problem as determined by the problem determination output.

Routing code: 2,8,1
Descriptor code: 4

IST1212I  [ACBNAME|LUNAME] = nodename STATUS = status

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY TSOUSER command. A complete description of the message group follows the example.

IST075I  NAME = nodename, TYPE = TSO USERID
IST486I  STATUS = currentstatus, DESIRED STATE = desiredstate
IST576I  TSO TRACE = {ON|OFF}
IST1212I  ACBNAME = nodename STATUS = status
IST1212I  LUNAME = nodename STATUS = status
IST314I  END

IST075I  This message displays the name of the TSO user ID associated with the application and the logical unit (LU).

IST486I  This message indicates the current status of the TSO user ID and the state that is desired. If VTAM cannot determine the desired state, desiredstate will be ***NA***.
IST1213I

IST576I
This message indicates whether the TSO trace is on or off for a particular TSO user.

IST1212I
• This message appears twice in the group:
  – With ACBNAME displaying the application status status of the application name nodename with which the TSO user ID is associated
  – With LUNAME displaying the status status of the logical unit nodename.

If the network where the resource resides is known to VTAM, nodename is issued as a network-qualified name in the form netid.name.

• See the z/OS Communications Server: IP and SNA Codes for a description of status.
• If the TSO user ID has been disconnected from the LU, the LU status will still be ACT/S (active and in session) if it is in session with another application. To find the LU’s session partner, enter a DISPLAY ID command for the logical unit nodename.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2,8
Descriptor code: 5

IST1213I profilename LU-LU VERIFY ERROR code

Explanation: VTAM issues this message when an LU 6.2 application program requests that a session be established, but a session level LU-LU verification violation or error occurred.

profilename is the name of the security manager profile defined for the LU pair. The format of profilename is local_netid.local_name.partner_netid.partner_name where:
local_netid is the local network ID
local_name is the ACB name of the local application program
partner_netid is the network ID of the session partner
partner_name is the LU name of the session partner.

code is the type of security violation that occurred.

03 The security manager locked the profile.
04 The profile contains an invalid session key.
05 partner_name rejected the session due to a security related error.
06 local_name was defined with REQUIRED session level LU-LU verification, but one of the following occurred:
  • local_name is the PLU, but no password was defined for profilename.
  • partner_name is the PLU requesting a session without using session level LU-LU verification.
07 Session level LU-LU verification data for the session between local_name and partner_name matched the data for an outstanding session activation request.
08 local_name was defined with optional verification, and a password was defined for profilename, indicating that session level LU-LU verification is necessary. partner_name requested a session without verification.
09 local_name was defined with optional verification, and no password was defined for profilename, indicating that session level LU-LU verification should not be used. partner_name requested a session with verification.
08 The profile was changed during session activation.
0C The password for the profile has expired.
00 local_name was defined to use only the enhanced protocol (SECLVL=LEVEL2 is specified on the APPL definition statement). partner_name does not support the enhanced protocol.
20  The security manager component is either not available or overloaded (received a large number of requests in a short period of time).

3C  The security manager component failed.

System action:  Session activation failed.

Operator response:  For codes 03, 04, 0B, and 0C, enter the MODIFY PROFILES command for the local LU. If VTAM issues this message repeatedly, notify the security administrator of code and profilename.

For code 05, consult message IST970I or message IST1213I issued to the partner LU for specific actions.

For codes 06, 08, and 09, enter the MODIFY PROFILES command for the local LU. If VTAM issues this message repeatedly, save the system log for problem determination.

For codes 07 and 0D, notify the security administrator of code and profilename.

For codes 20 and 3C, save the system log for problem determination.

System programmer response:  For code 05, consult message IST970I or message IST1213I issued to the partner LU for specific actions.

For codes 06, 08, and 09, check the VERIFY operand specified on the APPL statements to identify the correct level for the two LUs.

For code 20, verify that the security manager is installed and resource class APPCLU is active.

If the security manager is installed and resource class APPCLU is active, the problem may be that the security manager is overloaded. Lowering the value of AUTOSES on the LU definition statements may solve the problem.

For code 3C, verify that the security manager is installed and resource class APPCLU is active.

Routing code:  2

Descriptor code:  5

---

IST1214I  FFST  text

Explanation:  VTAM attempted to establish an interface to and was unsuccessful. The failure is related to the FFST™ installation on the operating system.

text is one of the following:

SUBSYSTEM IS NOT INSTALLED
The FFST Subsystem is not installed on your operating system. VTAM can be initialized without it.

INITIALIZATION MODULE IS NOT FOUND
The FFST initialization module, EPWINIT, could not be found in an accessible library. The FFST subsystem may or may not be installed on your system. VTAM initializes without it.

INTERFACE MODULE IS NOT FOUND
The FFST Subsystem is installed but the interface module cannot be found.

VTAM CONFIGURATION MODULE IS NOT FOUND
The FFST Subsystem is installed but the VTAM configuration module cannot be found.

System action:  VTAM initialization continues, but FFST will not be available to support VTAM diagnostics.

Operator response:  Save the system log for problem determination.

System programmer response:  Determine whether FFST support is desired for VTAM. If so, then verify that ISTRACZF was installed during VTAM installation.

You must restart VTAM if FFST support is desired for diagnosis.

Routing code:  2

Descriptor code:  5
IST1215I • IST1216A

IST1215I  ERROR IN START LIST list – reason

Explanation: VTAM issues this message when an error occurs while processing the start list list.

list is the start option list that contains the error.

reason can be one of the following:

I/O ERROR
An error occurred while reading the start list list.

MEMBER NOT FOUND
The start list list could not be found in the VTAM definition library.

START OPTION NOT VALID
There is an error in a start option.

SYNTAX ERROR
The start list list contains invalid syntax.

System action: This message is followed by either message IST1216A or message IST1084I.
- Message IST1216A prompts you for a response, and VTAM will wait for a reply.
- Message IST1084I indicates whether VTAM defaults, ATCSTR00, or a specific start list will be used. Processing continues.

Operator response: If prompted by message IST1216A, enter 1, 2, or 3. Otherwise, no response is needed.

System programmer response:

I/O ERROR
See the applicable sequential access method documentation for more information.

MEMBER NOT FOUND
Message IST116I is issued prior to this message. See the explanation of that message for additional information.

START OPTION NOT VALID
There are several messages that may be issued prior to this message depending on the reason for the problem. Possible messages include IST057I, IST058I, IST059I, IST092I, IST176I, IST652I, IST1052-1056I, IST1064I, and IST1069I-1078I. See the explanation of the appropriate messages for additional information.

SYNTAX ERROR
Message IST052I, IST115I or IST1249I is issued prior to this message. See the explanation of the appropriate message for additional information.

Routing code: 2
Descriptor code: 5

IST1216A  ENTER 1 TO CONTINUE–2 TO REENTER LIST–3 TO TERMINATE VTAM

Explanation: VTAM issues this message when an error occurs in a start list. Message IST1215I is issued prior to this message and indicates the name of the start list and the reason for the failure. See that message for additional information.

System action: VTAM waits for a response.
- If 1 is entered, VTAM will continue processing. The reason in message IST1215I determines the action.

I/O ERROR
The start list is not processed.

MEMBER NOT FOUND
All start options in the list are ignored.

START OPTION NOT VALID
Valid start options in the list are processed, and message IST1311A is issued to prompt for new start options.

SYNTAX ERROR
All start options processed before the syntax error is encountered are processed. Message IST1311A is issued to prompt for new start options.
If 2 is entered, VTAM issues message IST015A to prompt for a new start list ID.
If 3 is entered, all processing is stopped and VTAM is terminated.

**Operator response:** Enter 1, 2, or 3.

- 1 to continue
- 2 to reenter a new start list ID when prompted by IST015A
- 3 to terminate VTAM.

**System programmer response:** None.

**Routing code:** 1

**Descriptor code:** 2

---

**IST1217A  RESPONSE NOT VALID: REENTER 1, 2, OR 3**

**Explanation:** VTAM issues this message when 1, 2, or 3 is not entered in response to message IST1216A. See the explanation of that message for additional information.

**Routing code:** 1

**Descriptor code:** 2

---

**IST1218I  ACB ERROR FIELD = acberflg**

**Explanation:** VTAM issues this message as part of a group of messages when VTAM is terminated because an access method control block (ACB) macro failed. The first message in the group is IST049I. See the explanation of that message for a complete description.

**Routing code:** 2

**Descriptor code:** 5

---

**IST1219I  RTNCD = rtncd, FDB2 = fdb2**

**Explanation:** VTAM issues this message as part of a group of messages when an APING transaction failed or VTAM is terminated because a SETLOGON macro failed. The first message in the group is IST049I or IST1472I. See the explanation of those messages for a complete description.

**Routing code:** 2

**Descriptor code:** 5

---

**IST1220I  SSCPNAME NETID CURRENT STATE ROUTING STATUS**

**Explanation:** VTAM issues this message as part of a message subgroup. The first message in the subgroup is IST611I. See the explanation of that message for a complete description.

**Routing code:** 8

**Descriptor code:** 5

---

**IST1221I  chtyp DEV = device_address STATUS = status STATE = system_state**

**Explanation:** VTAM issues this message as part of a message group in response to:
- A DISPLAY ID command to identify the operational status of all READ and WRITE subchannels.
- A DISPLAY ID command for an MPC line or a transport resource list entry (TRLE).
- A DISPLAY TRL command for an active TRLE.

The message group varies if the TRLE is using the Queued Direct I/O (QDIO) interface to either an IBM OSA-Express Adapter or a HiperSockets device. If the message group is for a TRLE that is not using QDIO, the message group will look as follows:

This message group displays a TRLE that does not represent an OSA-Express adapter or HiperSockets interface.
Note: VTAM displays all WRITE subchannel addresses for nodename value, followed by all READ subchannel addresses for nodename. For TCP/IP channel DLC connections, there is only one R/W subchannel.

The following is an example of the message group if it is for a TRLE that uses QDIO:

```
IST075I NAME = nodename, TYPE = LINE
IST486I STATUS = currentstatus, DESIRED STATE = desiredstate
IST087I TYPE = line_type, CONTROL = line_control, HPDT = hpdtvalue
IST1954I TRL MAJOR NODE = trl_major_node_name
IST1715I MPCLEVEL = mpc_level MPCUSAGE = mpc_usage
IST1716I PORTNAME = port_name PORTNUM = port_num OSA CODE LEVEL = code_level
IST2263I PORTNAME = port_name PORTNUM = port_num OSA CODE LEVEL = code_level
IST2337I CHPID TYPE = ch_type CHPID = chpid_num PNETID = network_id
IST2184I QDIOSYNC = ALLINOUT - SYNCID = TRAP01 - SAVED = YES
IST1577I HEADER SIZE = hpsize DATA SIZE = dsize STORAGE = storage
IST1221I chtyp DEV = device_address STATUS = status STATE = system_state
IST1577I HEADER SIZE = hpsize DATA SIZE = dsize STORAGE = storage
IST1221I chtyp DEV = device_address STATUS = status STATE = system_state

IST924I -------------------------------------------------------------
IST1221I DATA DEV = device_address STATUS = status STATE = system_state
IST1724I I/O TRACE = iotrc TRACE LENGTH = length
IST1717I ULPID = ulp_id ULP INTERFACE = ulp_interface
IST2309I ACCELERATED ROUTING ENABLED
IST2310I ACCELERATED ROUTING DISABLED
IST2333I qid qtype storage_amount qstat
IST2305I NUMBER OF DISCARDED INBOUND READ BUFFERS = sbalcnt
IST2386I NUMBER OF DISCARDED OUTBOUND WRITE BUFFERS = wbufcnt
IST1757I PRIORITYx: congstate PRIORITYx: congstate
IST1791I DEVICEID PARAMETER FOR OSAENTA TRACE COMMAND = deviceid
IST1801I UNITS OF WORK FOR NCB AT ADDRESS stor_addr
IST1802I pn CURRENT = cur AVERAGE = avg MAXIMUM = max
IST924I -------------------------------------------------------------
IST1221I TRACE DEV = device_address STATUS = status STATE = system_state
IST1724I I/O TRACE = iotrc TRACE LENGTH = length
IST1717I ULPID = ulp_id ULP INTERFACE = ulp_interface
IST2319I IQD NETWORK ID = netid
IST2309I ACCELERATED ROUTING ENABLED
IST2310I ACCELERATED ROUTING DISABLED
IST2333I qid qtype storage_amount qstat
```
Note: VTAM displays all WRITE subchannel addresses for the node specified by the nodename value, followed by all READ subchannel addresses for that node, followed by all DATA subchannel addresses, followed by all TRACE subchannel addresses. DATA subchannel addresses and TRACE subchannel addresses are displayed only for an OSA-Express TRLE. For each DATA and TRACE subchannel address that is currently being used by an upper-layer protocol (ULP), the name of the z/OS Communications Server ULP (for example, the TCP/IP procedure name) using that data subchannel is displayed.

IST075I

In the message text:

nodename
The name of the resource that was entered on the DISPLAY ID command.

nodetype
The resource type of the major or minor node. The nodetype value is always LINE for this message group.

IST087I

In the message text:

line_type
The type of line. The line_type value is always LEASED for this message group.

line_control
The line_control value is always MPC (multipath channel) for this message group.

hpdvalue
The hpdvalue can be one of the following:

YES
Indicates the connection is capable of performing channel I/O directly to or from communications storage manager (CSM) buffers.

NO
Indicates the connection is not capable of performing channel I/O directly to or from communications storage manager (CSM) buffers.

*NA*
Is displayed when the connection is not active.

IST486I

In the message text:

currentstatus
The current status of the node. See the z/OS Communications Server: IP and SNA Codes for status information.

desiredstate
The node state that is desired. See the z/OS Communications Server: IP and SNA Codes for status information. If VTAM cannot determine the desired state, desiredstate is ***NA***.

IST1221I

In the message text:

chtyp
The type of subchannel. Possible values are READ, WRITE, R/W, DATA, or TRACE
**device_address**

The hexadecimal address of the subchannel that is displayed.

**status**

The condition or state of the subchannel that is displayed. Possible values are:

- **ACTIVE**
  - Subchannel is active.
- **INOP**
  - Subchannel path is inoperative.
- **RESET**
  - Subchannel path is not ready.
- **SLOWDN**
  - Subchannel path is in slowdown mode.
- **ACTPEND**
  - DLC is in the process of activating.
- **OPEN.PEND**
  - DLC is in the process of opening a connection.
- **IDX.PEND**
  - DLC is in the process of IDXINIT transmission for a DATA channel.
- **START.PEND**
  - DLC is in the process of starting data flow for a connection.
- **INACT.PEND**
  - DLC is in the process of deactivating.

**system_state**

The `system_state` value can be one of the following:

- **ONLINE**
  - An MVS VARY ONLINE command for the subchannel has completed successfully and the channel is now available for use.
- **OFFLINE**
  - An MVS VARY OFFLINE command has been issued for the subchannel and the command has completed successfully. The subchannel is no longer available for use.
- **PEND_OFFLINE**
  - An MVS VARY OFFLINE command has been issued for the subchannel and the subchannel is in the process of completing the command.
- **N/A**
  - The system state cannot be determined for DATA subchannel addresses. This state is also displayed in cases where VTAM has not allocated or could not allocate the UCB for the subchannel.

**Tip:** If the MVS status of the subchannel is required, you can use the `D U,xxxx` command, where `xxxx` is the subchannel address.

**IST1577I**

This message is displayed only when HPDT=YES in message IST087I. This message is not displayed if the TRLE is IUTSAMEH, which is the TRLE for same-host communication.

In the message text:

- **hsize**
  - The MPC header segment size, in bytes.
- **dsize**
  - The maximum MPC data segment size, in kilobytes.
- **storage**
  - The storage medium that is used for inbound data (on READ subchannels). Possible values are:
    - **ECSA**
      - An extended common service area buffer provided by the communications storage manager (CSM).
DATASPACE
A data space buffer provided by the communications storage manager (CSM).

***NA***
Not applicable. This value is issued for WRITE subchannels.

IST1715I
In the message text:

mpc_level
The level of MPC connection. Possible values are:

HPDT
Indicates that the connection is capable of performing channel I/O directly to or from communications storage manager (CSM) buffers.

NOHPDT
Indicates that the connection is not capable of performing channel I/O directly to or from communications storage manager (CSM) buffers.

QDIO
(Queued Direct I/O) Indicates that the connection performs channel I/O operations using direct IO instead of CCW channel operations. The connection is also HPDT capable, and can therefore perform the direct IO to or from communications storage manager (CSM) buffers.

mpc_usage
Indicates whether the MPC connection can be used exclusively by only one ULP, or shared by multiple ULPs. Possible values are:

SHARE
Indicates that the connection can be shared by multiple ULPs.

EXCLUSIVE
Indicates that the connection can only be used by the first ULP that requests usage of the MPC connection.

IST1716I
This message is displayed only for TRLEs representing an IBM OSA-Express Adapter or an IBM Open Systems Adapter used for native access to an ATM network.

In the message text:

port_name
The port name to be assigned to the port on the IBM Open Systems Adapter. Each IBM Open Systems Adapter has one port_name that is represented by one TRLE.

link_num
The relative adapter number of the OSA-Express Adapter port represented by this TRLE. For an IBM Open Systems Adapter used for native access to an ATM network, the link_num value is N/A.

code_level
The OSA processor code level of the OSA-Express. For some versions of OSA-Express, the code_level value is N/A. For detailed instructions about setting up an OSA-Express feature, see the z10 OSA-Express Customer’s Guide and Reference.

IST1717I
This message is displayed for all TRLEs that are currently being used by at least one ULP. A separate IST1717I message will be displayed for each ULP using this TRLE. For a dynamic TCP TRLE, or an exclusively owned TRLE, only one message with ULPID will be issued, because there can only be one ULP using each of these TRLEs. For an OSA-Express Adapter, one message with ULPID will be issued for each Datapath channel address in use by a ULP. For other TRLEs, more than one ULPID message might be issued, depending on how many upper-layer protocols are using the TRLE.
IST1221I

In the message text:

ulp_id
   The name of a z/OS Communications Server upper-layer protocol (ULP) that is using the TRLE or using one of
   the datapath channels of an OSA-Express TRLE.
   • For TCP/IP ULPs, the ulp_id value is the TCPIP job name.
   • For ANNC ULPs, the ulp_id value is the SNA PU name.
   • For ATM or EE ULPs, the ulp_id value is the XCA major node name.

For all TRLEs with MPCLEVEL = QDIO, IST1717I will also display the interface dedicated to this datapath
channel address. For all TRLEs whose MPCLEVEL is not QDIO, the ulp_interface will be "NA".

ulp_interface
   The name of either the interface or the device that is using one of the datapath channels of an OSA-Express
   TRLE.

IST1724I

This message is issued in response to DISPLAY ID or DISPLAY TRL commands. This message appears for a TRLE
representing an OSA-Express adapter.

In the message text:

iotrc
   Specifies whether I/O Trace is active for this OSA-Express data device (ON or OFF).

length
   Specifies the number of bytes being recorded for I/O Trace for this OSA-Express data device.

For information about setting up an OSA-Express feature, see z/Enterprise System and System z10 OSA-Express

IST1757I

This message is issued in response to DISPLAY ID or DISPLAY TRL commands. This message will appear for a TRLE
representing an OSA-Express Adapter.

In the message text:

x
   The write priority level.

congstate
   The congestion state of that priority level. The congstate value is CONGESTED when, at least once in the last
   congestion reporting window, all 128 writes for the priority level were unavailable. Otherwise congstate will be
   UNCONGESTED.

IST1954I

In the message text:

trl_major_node_name
   The name of the TRL major node defining the TRLE.

IST2184I

This message is displayed for only a TRLE that represents an OSA-Express2 or later adapter and only when the
OSA-Express2 or later adapter is armed for QDIOSYNC. See QDIOSYNC trace in z/OS Communications Server:
SNA Diagnosis Vol 1, Techniques and Procedures for a description of the QDIOSYNC trace function.

In the message text:

armstate
   The OPTION operand value from the MODIFY TRACE command or TRACE start option.
Tip: The OSA might be collecting more than what is specified by the `armstate` value while OSA merges the options for all Armed data devices.

Possible values are:

- **ALLIN**
  - OSA is collecting inbound diagnostic data for all devices.

- **ALLINOUT**
  - OSA is collecting inbound and outbound diagnostic data for all devices.

- **ALLOUT**
  - OSA is collecting outbound diagnostic data for all devices.

- **IN**
  - OSA is collecting inbound diagnostic data for devices defined to this VTAM.

- **INOUT**
  - OSA is collecting inbound and outbound diagnostic data for devices defined to this VTAM.

- **OUT**
  - OSA is collecting outbound diagnostic data for devices defined to this VTAM.

**syncid**

The `SYNCID` operand value from the MODIFY TRACE command or TRACE start option. This value is to be used as part of a correlator when the OSA-Express2 or later diagnostic data is captured.

**saved_state**

The `SAVE` operand value from the MODIFY TRACE command or TRACE start option. Valid values are YES or NO.

**IST2190I**

This message is issued in response to DISPLAY ID or DISPLAY TRL commands for a TRLE configured with an MPCLEVEL parameter value of QDIO representing an OSA-Express adapter. This message appears for each active datapath channel if the OSA supports the OSA-Express network traffic analyzer (OSAENTA) trace function. The message displays the `DEVICEID` parameter, a number that uniquely identifies this datapath channel to the OSA-Express adapter. When a TCP/IP stack is performing the OSAENTA trace function for this OSA, this DEVICEID parameter can be specified on a TCP/IP OSAENTA profile configuration statement or a VARY TCPIP,OSAENTA command to limit the tracing to just the user of this data device. See [OSA-Express network traffic analyzer trace](z/OS Communications Server: IP Configuration Guide) for more information about the OSAENTA trace function.

In the message text:

**deviceid**

The form `cs-mf-cl-us`, where

- `cs` is the Channel subsystem ID for this data path device.
- `mf` is the LPAR multiple image facility ID for the LPAR using this datapath device.
- `cl` is the control unit logical identifier for this datapath device.
- `ua` is the unit address for this data path device.

Each identifier is a 2 digit hexadecimal value in the range 00-FF.

**IST2219I**

This message is issued if the `resource` value defines an MPC channel-to-channel group, the activation of which is presently suspended waiting for the minimum required number of read and write devices to become available.

In the message text:

**resource**

The name of the TRLE or MPC subarea line that defines the MPC group.

**IST2263I**

This message is displayed if either of the following scenarios is true:
PORTNUM is specified on the QDIO TRLE definition statement.
VTAM detected it is connected to an IBM OSA-Express3 or later feature in QDIO mode.

In the message text:

port_name
The port name to be assigned to the port on the IBM Open Systems Adapter. Each IBM Open Systems Adapter has one port name that is represented by one TRLE.

port_num
The OSA-Express3 or later physical port number to be used for this QDIO MPC group. For OSA-Express2 and earlier or later adapters, only one physical port is available, so the port_num value will be 0.

code_level
The OSA processor code level of the OSA-Express. For some versions of OSA-Express, the code_level value will be N/A.

IST2305I
This is issued in response to DISPLAY NET,ID=trlename or DISPLAY NET,TRL,TRLE=trlename commands when the TRLE represents HiperSockets or an OSA-Express adapter.

In the message text:

sbalcnt
The number of storage block address lists (SBAL) that have been discarded since the activation of the device.

IST2309I
This message indicates that the upper-layer protocol (ULP) that is using the datapath channel of the OSA-Express or HiperSockets TRLE is using accelerated routing. If the ULP is a TCP/IP stack, then you can display the accelerator routing table by issuing the Netstat ROUTe/-r command with the QDIOACCEL modifier for a particular TCP/IP stack. For details about how to display the accelerator routing table, see the Netstat ROUTe/-r report in z/OS Communications Server: IP System Administrator's Commands.

IST2310I
This message indicates that the upper-layer protocol (ULP) that is using the datapath channel of the OSA-Express or HiperSockets TRLE is not using accelerated routing.

IST2319I
This message is issued if the TRLE that is displayed represents an IBM iQDIO Adapter (CHPID).

In the message text:

netid
The internal QDIO (IQD) Network ID is an internal system generated identifier that represents the internal logical network. The ID is associated with the IQD CHPID and can span the entire central processor complex (CPC), based on the system configuration of the IQD CHPID. Operating Systems that are running on this CPC, which are connected to the same IQD Network ID, are using the same internal logical network and therefore have network connectivity. The ID is subject to change during a power-on reset of the CPC, or with dynamic I/O updates for the IQD CHPID.

IST2331I
This message is the first of two header messages for the information displayed in message IST2333I.

IST2332I
This message is the second of two header messages for the information displayed in message IST2333I.
When OSA Express supports QDIO inbound workload queueing, z/OS Communications Server can initialize multiple input queues. IST2333I is displayed once for each initialized read queue.

In the message text:

**qid**

The queue identifier of the read queue. The qid value is in the form RD/qid. RD/1 represents the primary read queue and RD/2 through RD/8 represent any initialized ancillary read queues.

**qtype**

The queue type for this read queue. Possible values are PRIMARY, BULKDATA, EE, IPSEC, or SYSDIST.

**storage_amount**

The amount of storage defined by the VTAM start option QDIOSTG (or IQDIOSTG for iQDIO data devices). The VTAM start option value can be overridden on an individual device basis when READSTORAGE is configured on the LINK or INTERFACE statement in the TCP/IP profile.

A storage_amount value of ***NA*** appears if the qstat value is not ACTIVE. The queue has no read buffers and cannot be used by OSA Express to present inbound data.

The storage_amount value is displayed both in megabytes and in the number of QDIO read buffers that are storage block access lists (SBALs) that VTAM will use for this data device for inbound (read) processing. The storage_amount value is in the following format:

\[ n.nM(nnn \text{ SBALs}) \]

where \( n.n \) is the amount of storage in megabytes and \( nnn \) is the number of SBALs.

For an OSA-Express in QDIO mode, the size of an SBAL is fixed at 64 KB. For an iQDIO (HiperSockets) device, the SBAL size is variable. The iQDIO SBAL size is configured in a hardware configuration definition (HCD) when the maximum frame size (MFS) is specified. The default MFS is 16 KB, and the values 24 KB, 40 KB, and 64 KB are also supported. For an iQDIO device, both the VTAM start option IQDIOSTG and TCP/IP profile LINK or INTERFACE statement parameter READSTORAGE have an effect only when an MFS of 64 KB was configured.

**qstat**

The status of this read queue. Possible values are:

**ACTIVE**

The queue type is initialized and currently in use by the TCP/IP stack.

**INITIALIZATION FAILURE**

The queue type failed to initialize and will not be used by the TCP/IP stack.

**NOT IN USE**

The queue type is not currently in use by the TCP/IP stack.

**NOT SUPPORTED BY OSA**

The queue type is not supported by the OSA-Express adapter and will not be used by the TCP/IP stack.

IST2337I

This message is issued in response to DISPLAY NET,ID=trlename or DISPLAY NET,TRL,TRLE=trlename commands when the TRLE represents HiperSockets or an OSA-Express adapter.

In the message text:

**chpid_type**

The type of channel path identifier (CHPID) used by this TRLE:

**050**

Channel type for an OSA-Express CHPID configured in QDIO mode.

**05M**

Channel type for an OSA-Express CHPID configured for attachment to the intranode management network.
**IST1222I**

0SX
Channel type for an OSA-Express CHPID configured for attachment to the intraensemble data network.

IQD
Channel type for HiperSockets (Internal Queued Direct I/O) communications.

*chpid_num*
The hexadecimal channel path identifier (CHPID) for the OSA adapter or HiperSockets device.

*network_id*
The physical network identifier.

- When *chpid_type* is OSX, *network_id* is always IEDN.
- When *chpid_type* is OSD, *network_id* is either the configured network identifier of the adapter, or **NA** if no network identifier was configured for the adapter.
- For all other *chpid_type* values, *network_id* is **NA**.

**IST2386I**

This message is issued in response to DISPLAY NET,ID=trlename or DISPLAY NET,TRL,TRL=trlename commands when the TRLE represents HiperSockets or an OSA-Express adapter.

In the message text:

*wbucfnt*
The number of outbound write buffers that have been discarded since the activation of the device.

**System action:** Processing continues.

**Operator response:** For MPC or TRLE configurations defined with multiple READ and multiple WRITE devices, MPC dynamics enables an operator to dynamically add and remove subchannels to and from the MPC/TRLE group.

- If a READ or WRITE MPC or TRLE subchannel displays as OFFLINE, issue an MVS ONLINE command (for example, VARY cua,ONLINE) to dynamically add the device back to the MPC or TRLE group.
- If a READ or WRITE MPC or TRLE subchannel displays as ONLINE, and you want to remove the subchannel from the group, issue the MVS OFFLINE command (for example, VARY cua,OFFLINE) to dynamically remove the device from the MPC or TRLE group.

**Restriction:** For subarea MPC connections, the MPCDYN=YES operand must be coded on the MPC GROUP or LINE definition to enable MPC dynamics.

**System programmer response:** For message IST2333I, use the *storage_amount* value to confirm the system storage use and to tune the performance of a specific data device.

**Routing code:** 2

**Descriptor code:** 5

**IST1222I** *WRITE|READ|DATA|TRACE* DEVICE *device_address* IS INOPERATIVE, NAME IS *resource_name*

**Explanation:** VTAM issues this message when a WRITE, READ, DATA, or TRACE path to or from an adjacent node is no longer active. It provides information about potential problems and may be issued prior to the deactivation of a line.

*device_address* is the hexadecimal address of the WRITE, READ, DATA, or TRACE subchannel that is displayed.

*resource_name* is either:

- The name of a leased line defined for a type 5 physical unit.
- The name of an element in the active transport resource list, also called a TRLE name.

**System action:** Processing continues.

**Operator response:**
If `resource_name` is a transport resource list element (TRLE) name, you might want to deactivate the resource that is using this TRLE, and then activate the resource again. If `resource_name` is a line, you might want to take the line down and restart the line. If `resource_name` is neither a TRLE name or a line, no action is necessary. Note that the efficiency of data transfer might be affected.

- If the inoperative subchannel path is critical to your network, save the system log for problem determination.
  - Message IOS0001 or other related messages may be issued and can provide additional information.
  - If there are no available paths and the line is deactivated, VTAM issues additional error messages. Also check for messages on the console log of the VTAM on the other side of the multipath channel.
- Check for any FFST probe output. See the `z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT` for information about FFST and for a description of FFST probes.
- Run your operating system service aid program to determine whether MDR/OBR information has been recorded. See the `EREP User’s Guide and Reference` for more information on using EREP.
- If you use a network management application such as the NetView program, check to see whether an alert was recorded for this problem.

**System programmer response:** If the output does not indicate a hardware problem, and you cannot determine the cause of the problem, take the following actions:
- If you have access to IBMLink, search for known problems with similar symptoms. If no applicable matches are found, report the problem to IBM by using the Electronic Technical Report (ETR) option on IBMLink.
- If you do not have access to IBMLink, report the problem to the IBM software support center.
  - If available, provide the MDR/OBR information from your operating system service aid program or the alert information recorded by your network management application.

**Routing code:** 2

**Descriptor code:** 4

---

**IST1223I**  
**BN NATIVE TIME LEFT LOCATE SIZE**

**Explanation:** VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO command. See [IST1295I](#) for a complete description of possible message groups.

**Routing code:** 2

**Descriptor code:** 5

---

**IST1224I**  
**bn native time_left locate_size**

**Explanation:** VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO command. See [IST1295I](#) for a complete description of possible message groups.

**Routing code:** 2

**Descriptor code:** 5

---

**IST1225I**  
**VIRTUAL NODE nodename CONNECTION INACTIVE**

**Explanation:** VTAM issues this message in response to a VARY INACT for a line when the logical connection with the virtual node becomes inactive.

`nodename` is the name of the virtual node.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5
IST1226I • IST1229I

IST1226I  TOPOLOGY UPDATE FAILED, INSUFFICIENT STORAGE

Explanation: This message is part of a group messages that VTAM issues in response to a VARY ACT for a line when the activation of the logical connection to the virtual node fails. The failure occurred because the topology update for the active logical connection failed due to insufficient storage. The first message in the group is IST1166I or IST1167I. See the explanation of those messages for a complete description.

Routing code: 2
Descriptor code: 5

IST1227I  id value = description

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY STATS command. See the explanation of IST1345I for a complete description of the message group.

Routing code: 2
Descriptor code: 5

IST1228I  command FOR resourcename FAILED, CODE = code

Explanation: VTAM issues this message in response to a MODIFY DIRECTRY,UPDATE command which attempted to change the owning CP or the network node server for resourcename. The name specified for either the CPNAME or NETSRVR operand is not consistent with the information found in the APPN directory.

command is always F DIRECTRY which refers to the MODIFY DIRECTRY,UPDATE command.

resourcename is the network-qualified name of the resource in the form netid.name. resourcename can be the same resource that you entered on the ID operand of the MODIFY DIRECTRY,UPDATE command or a resource that is subordinate to the resource named on the command.

The following list of values for code describes the failure:

<table>
<thead>
<tr>
<th>Code</th>
<th>Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>resourcename was identified in the APPN directory as a network node. Attempting to change the owning CP or network node server of a network node is not valid.</td>
</tr>
<tr>
<td>2</td>
<td>resourcename was identified in the APPN directory as an end node and the CPNAME operand was specified on the MODIFY DIRECTRY,UPDATE command. Attempting to change the owning CP of an end node is not valid.</td>
</tr>
<tr>
<td>3</td>
<td>resourcename was identified as a non-control point in the APPN directory and the CPNAME operand was not specified on the MODIFY DIRECTRY,UPDATE command. When resourcename is a non-control point, the CPNAME operand is required to identify the resource's owning control point (CP).</td>
</tr>
</tbody>
</table>

System action: The hierarchy for resourcename is not updated. Other processing continues.

Operator response: Use the DISPLAY ID command to obtain the current type of resourcename. Then, reenter the MODIFY DIRECTRY,UPDATE command with the proper operands specified. See the [z/OS Communications Server: SNA Operations] for more information on the MODIFY DIRECTRY command.

System programmer response: None.

Routing code: 2
Descriptor code: 5

IST1229I  command FAILED, resourcename IS NOT A {CP|EN|NN}

Explanation: VTAM issues this message in response to a MODIFY DIRECTRY,UPDATE command for one of the following reasons:

- The MODIFY DIRECTRY,UPDATE command included the operand CPNAME=resourcename which attempted to specify resourcename as a CP (control point). resourcename is not identified as a CP in the APPN directory.
- The MODIFY DIRECTRY,UPDATE command included the operands CPNAME=resourcename and NETSRVR=name which indicates that resourcename is a EN (end node). resourcename is not identified as a EN in the APPN directory.
The MODIFY DIRECTRY,UPDATE command included the operand NETSRVR=resourcename which attempted to specify resourcename as a NN (network node). resourcename is not identified as a NN in the APPN directory.

command is always F DIRECTRY which refers to the MODIFY DIRECTRY,UPDATE command.

resourcename is the network-qualified name specified on either the CPNAME operand or the NETSRVR operand, in the form netid.name.

System action: VTAM ignores the MODIFY DIRECTRY,UPDATE command. Other processing continues.

Operator response: Verify that resourcename is spelled correctly, and reenter the command.

Issue the DISPLAY ID command to verify the current type of resourcename. If resourcename is expected to be either a control point or a network node, save the system log for problem determination.

System programmer response: You can change the type of resourcename in the APPN directory with the following actions:

- Enter the MODIFY DIRECTRY,DELETE,ID=resourcename command.
- Change the type of the resourcename specified in the definition list and activate the list.
- Reenter the MODIFY DIRECTRY,UPDATE command with either the CPNAME or NETSRVR operand, depending upon the desired result.

Routing code: 2
Descriptor code: 5

IST1230I TIME = time DATE = date ID = id

Explanation: This message is the first in a group of messages that displays tuning statistics.

If message IST1503I appears in the display, see that message for a complete description of the message group for XCF connections.

If message IST1613I appears in the display, see that message for a complete description of the message group for TCP/IP resources.

If message IST2366I appears in the display, see that message for a complete description of the message group for 10GbE RoCE Express resources.

A complete description of the message groups for other connections follows.

This message group displays tuning statistics for a multipath channel-to-channel adapter. Messages IST924I - IST1570I are repeated for each subchannel address.

IST1230I TIME = time DATE = date ID = id
IST1231I IPDU = ipdu OPDU = opdu
IST1569I INLP = inlp ONLP = onlp
IST1232I TSWEET = tsweep QSWEET = qsweep
IST924I ----------------------------------------------------------
IST1233I DEV = dev DIR = dir
IST1234I BSIZE = bsize MAXBYTES = maxbytes
IST1235I S10 = sio SLOWDOWN = slowdown
IST1236I BYTECETO = byteceto BYTECNT = bytecnt
IST1570I NBYTECETO = nbyteceto NBYTECNT = nbytecnt
IST314I END

This message group displays tuning statistics for a queued direct I/O (QDIO) or a HiperSockets (iQDIO) adapter. Message subgroup IST924I - IST1570I is repeated for each subchannel address. Message subgroup IST924I - IST1811I is repeated for each direct I/O READ or WRITE queue.

The IST924I - IST1811I message subgroup for a direct I/O READ queue contains different messages than the message subgroup that is displayed for a direct I/O WRITE queue. In this example, each direct I/O queue subgroup contains an actual value in the dir field in message IST1233I, so each subgroup can be identified clearly.
Many of the messages in this group contain both a count and an overflow. Both the count and overflow are maintained in unsigned 32-bit variables (unless otherwise indicated). Since an unsigned 32-bit variable can only contain a value up to and including 4294967295 ('FFFFFFFF'X), the variable will wrap through 0 if an increment results in exceeding this value. When such a wrap occurs, the overflow is incremented by 1. Therefore, the total count is determined as follows:

Total = (overflow * 4294967296) + count

Note: in the context of the QDIO (Queued Direct IO) interface, a single DATAPATH subchannel address represents both read and write DMA (Direct Memory Access) based data transfer points. In addition, the write transfer point is comprised of multiple priority levels (sometimes referred to as queues). For QDIO DATAPATH subchannel addresses, this sequence of messages is repeated for each data transfer point or priority level.

In the message text:

date and time

The date and time values specify when the record was reported. See "DATE and TIME formats" on page 6 for information about the date and time values.

id

The name of the link for which tuning statistics are being recorded. The link name is from one of the following sources:

• The name specified on the LINE definition statement in the associated channel-attached major node.
• The name specified on the TRLE definition statement in the TRL definition deck.
• An internally generated TRLE name.
In the message text:

- **ipdu**: The total number of inbound PDUs received.
- **opdu**: The total number of outbound PDUs transmitted.

**IST1232I**

In the message text:

- **tsweep**: The number of sweeps initiated as a result of a timeout. A sweep is a special data block that is exchanged with the adjacent host to verify that data has not been lost. Only the host with the highest subarea number will initiate timer sweeps.
- **qsweep**: The number of sweeps initiated as a result of excessive receive queue depth. Receive queue depth represents the number of bytes of data waiting to be passed to the next layer. Excessive receive queue depth usually indicates a problem with reserialization of the data segment. Possible causes are a mismatch in the speed of the read subchannels or a lack of available I/O buffers.

**IST1233I**

In the message text:

- **dev**: The hexadecimal subchannel address of the device for which tuning statistics are being recorded. It corresponds to one of the addresses coded on the READ, WRITE, or DATAPATH statement on the LINE or TRLE definition statement.
- **dir**: The direction of this resource. Possible values are:
  - **READ**
  - **WRITE**
  - **RD/x (queue_type)**
    - The x value is the QDIO read input queue number for this QDIO data device.
    - The queue_type value is the queue type. The queue_type value can be a maximum of 8 characters. Possible values include PRIMARY, BULKDATA, SYSDIST or N/A. The N/A value indicates that the queue is initialized but is not currently in use by the TCP/IP stack.
  - **WR/x**
    - The x value is the QDIO write priority level.

**IST1234I**

In the message text:

- **bsize**: The maximum buffer size supported by this device.
- **maxbytes**: The number of bytes used in the largest channel program. This field provides information about the utilization or packing of data into the transmit or receive buffer. As this number approaches bsize, this indicates that maximum instantaneous utilization of the device’s buffer has occurred.

**IST1235I**

In the message text:

- **sio**: The number of start I/O operations counted for the subchannel. This number is reset each time VTAM reports
tuning statistics and is expressed in decimal. The value of \texttt{sio} is never larger than 65535. If \texttt{sio} is 65535, its value is reset to 0 when the next start I/O operation takes place.

\textbf{slowdown}

The number of times slowdown mode has been entered. If \texttt{slowdown} is incrementing, this indicates a lack of available I/O buffers.

- If \texttt{DIR = READ} in message IST1233I, \texttt{slowdown} is incremented every time the channel program cannot be reinitiated immediately because of a lack of I/O buffers to unpack the inbound data.
- If \texttt{DIR = WRITE} in message IST1233I, \texttt{slowdown} is **N/A**.

\textbf{IST1236I}

In the message text:

\textit{bytecnto}

The PDU byte count overflow.

\textit{bytecnt}

The byte count. This value represents the accumulated number of bytes of PDUs transmitted on the \texttt{WRITE} subchannel or received on the \texttt{READ} subchannel.

\textbf{IST1569I}

In the message text:

\textit{inlp}

The total number of inbound NLPs received.

\textit{onlp}

The total number of outbound NLPs transmitted.

\textbf{IST1570I}

In the message text:

\textit{nbytecto}

The NLP byte count overflow.

\textit{nbytect}

The NLP byte count. This value represents the accumulated number of bytes of NLPs transmitted on the \texttt{WRITE} subchannel or received on the \texttt{READ} subchannel.

\textbf{IST1719I}

In the message text:

\textit{pcirealo}

The real PCI (Program Controlled Interrupt) overflow.

\textit{pcireal}

The real PCI count. This value represents the accumulated number of real PCI interrupts fielded by the QDIO Program-Controlled Interrupt Exit for the QDIO \texttt{READ} data transfer point.

A real PCI is an execution of the QDIO Program-Controlled Interrupt Exit as a result of a call from the system interrupt handler. The higher the ratio of real PCI to virtual PCI, the less successful QDIO is at avoiding the overhead of the system interrupt handler.

\textbf{IST1720I}

In the message text:

\textit{pcivirto}

The virtual PCI overflow.
The virtual PCI count. This value represents the accumulated number of virtual PCI interrupts fielded by the QDIO Program-Controlled Interrupt Exit for the QDIO READ data transfer point.

A virtual PCI is an execution of the QDIO Program-Controlled Interrupt Exit as a result of a call from the QDIO device driver. The higher the ratio of virtual PCI to real PCI, the more successful QDIO is at avoiding the overhead of the system interrupt handler.

**IST1721I**

- `sbalcnto` is the storage block address list (SBAL) count overflow.
- `sbalcnt` is the SBAL count. This value represents the accumulated number of SBALs used for I/O on the QDIO WRITE priority level or the QDIO READ data transfer point.
  
  An SBAL serves a similar function in QDIO that an indirect-data-address word (IDAW) list serves in traditional I/O.

**IST1722I**

- `packcnto` is packet count overflow.
- `packcnt` is packet count. This value represents the accumulated number of packets transmitted on the QDIO WRITE priority level or received on the QDIO READ data transfer point.
  
  A packet is a single unit of data as presented to the QDIO device driver (for example, a datagram or TCP packet).

**IST1723I**

- `sigacnto` is SIGA (Signal Adapter) count overflow.
- `sigacnt` is SIGA count. This value represents the accumulated number of SIGA instructions issued for the QDIO WRITE priority level.
  
  SIGA tells the QDIO adapter that data is ready to be written. This count will not directly correlate with the data rate as QDIO employs a tack-in mechanism similar to Seldom Ending Channel Program.

**IST1750I**

- `pcithrso` is threshold PCI overflow.
- `pcithrsh` is threshold PCI count. This value represents the accumulated number of threshold PCI interrupts fielded by the QDIO Program-Controlled Interrupt Exit for the QDIO READ data transfer point.
  
  A threshold PCI is a real PCI generated by the adapter because one of the threshold conditions which controls the PCI processing was met.
  
  A count of zero indicates that the QDIO device driver is providing sufficient resources to keep pace with the inbound data stream from the adapter.

**IST1751I**

- `pciunpro` is unproductive PCI overflow.
- `pciunprd` is unproductive PCI count. This value represents the accumulated number of unproductive PCI interrupts fielded by the QDIO Program-Controlled Interrupt Exit for the QDIO READ data transfer point.
  
  An unproductive PCI is a real PCI where the QDIO Program-Controlled Interrupt Exit failed to find any completed reads. An unproductive PCI will occur when a virtual PCI causes the processing of read completions for which a real PCI is pending. An unproductive PCI indicates that the system interrupt handler overhead was incurred unnecessarily.

**IST1752I**

- `rprodeo` is read processing deferral overflow.
- `rprodef` is read processing deferral count. This value represents the accumulated number of read processing deferrals by the QDIO Program-Controlled Interrupt Exit for the QDIO READ data transfer point.
  
  A read processing deferral occurs when the QDIO Program-Controlled Interrupt Exit must defer a read completion because a control block cannot be obtained to represent the inbound data. Read processing deferrals (along with read replenishment deferrals) might cause the NOREADS count to be nonzero.
**IST1230I**

- `rrpdeo` is read replenishment deferral overflow.
- `rrpdef` is read replenishment deferral count. This value represents the accumulated number of read replenishment deferrals by the QDIO Program-Controlled Interrupt Exit for the QDIO READ data transfer point.

A read replenishment deferral occurs when the QDIO Program-Controlled Interrupt Exit does not have enough available read buffers to tack-in a new read. Read replenishment deferrals (along with read processing deferrals) might cause the NOREADS count to be nonzero.

**IST1754I**

- `noreado` is reads exhausted overflow.
- `noreads` is reads exhausted count. This value represents the accumulated number of times reads were exhausted on entry to the QDIO Program-Controlled Interrupt Exit for the QDIO READ data transfer point.

This value is incremented by 1 each time the QDIO Program-Controlled Interrupt Exit is invoked and it detects that all the read buffers are full (the adapter has no place to move additional inbound data). A zero total is preferred because lack of read buffers might result in the adapter discarding inbound data. Examination of the read processing and read replenishment deferral counts might indicate the reason the QDIO device driver is not providing sufficient resources to accept the inbound data from the adapter.

**IST1755I**

`sbalmax` is the maximum number of active SBALs at the completion of the write initiation process for the QDIO WRITE priority level. This value will be in the range 0-128 (0 meaning the priority level had no outbound activity in the interval and 128 meaning that at one point in the interval ALL the SBALs for the priority level were active).

`sbalavg` is the average number of active SBALs at the completion of the write initiation process for the QDIO WRITE priority level. This value will be in the range 0-128 (0 meaning the priority level had no outbound activity in the interval and 128 meaning that every time the QDIO write initiator completed, all 128 SBALs were active).

**IST1756I**

- `qdpthmax` is the maximum number of work elements left on the outbound work queue at the completion of the write initiation process for the QDIO WRITE priority level. This value will be a number in the range 0–54 or a character constant >254.
- `qdpthavg` is the average number of work elements left on the outbound work queue at the completion of the write initiation process of the QDIO WRITE priority level. This value will be a number in the range 0–254 or a character constant >254.

A nonzero value for either of these fields suggests the adapter is not accepting outbound data as fast as the device driver is presenting it.

**IST1810I**

`pktiqdo` is the IQDIO packet count overflow.

`pktiqd` is the IQDIO packet count. If this message is for a QDIO or IQDIO DATAPATH device with a direction of read, the value represents the accumulated number of packets received on this particular QDIO or IQDIO READ data transfer point and subsequently routed outbound using IQDIO routing or QDIO Accelerator. If this message is for a QDIO or IQDIO DATAPATH device with a direction of WR, the value represents the accumulated number of packets transmitted on the write priority level for this device after being received inbound and subsequently routed outbound using IQDIO routing or QDIO Accelerator.

A packet is a single unit of data as presented to the QDIO device driver (for example, a datagram or TCP packet).

**IST1811I**

`bytiqdo` is the IQDIO byte count overflow.

`bytiqd` is the IQDIO byte count. If this message is for a QDIO or IQDIO DATAPATH device with a direction of read, the value represents the accumulated number of bytes received on this particular QDIO or IQDIO READ data transfer point and subsequently routed outbound using IQDIO routing or QDIO Accelerator. If this message is for a QDIO or IQDIO DATAPATH device with a direction of WR, the value represents the accumulated number of bytes transmitted on the write priority level for this device after being received inbound and subsequently routed outbound using IQDIO routing or QDIO Accelerator.

**IST2185I**

`frinvcto` is the frame invalidation error count overflow.
frinvct is the frame invalidation error count. This message applies to inbound data received on a QDIO
DATAPATH device. The value represents the accumulated number of frame invalidation packets that were
received and discarded. A frame invalidation packet is an inbound packet marked as invalid by OSA-Express3 or
later.

**Result:** These fields are 0 for OSA-Express, OSA-Express2 or later, and iQDIO ports.

For detailed instructions about setting up an OSA-Express feature, see the zEnterprise System and System z10
OSA-Express Customer’s Guide and Reference

**IST2242I**

sigmcto is the iQDIO (HiperSockets) multiple write SIGA count overflow.

sigmcnt is the iQDIO (HiperSockets) multiple write SIGA count. This value is the accumulated number of signal
adapter (SIGA) multiple write instructions issued for the iQDIO WRITE priority level.

SIGA multiple write tells the iQDIO device that multiple storage block address lists (SBALs) with data are ready
to be written. This count does not directly correlate with the data rate because the number of SBALs represented
by each SIGA multiple write might vary.

**IST2316I**

earlyino is the early interrupt count overflow.

earlyint is the early interrupt count. This message applies to inbound data that is received on a QDIO DATAPATH
device. The value represents the number of times that an OSA-Express feature that is operating in optimized
latency mode signaled the host with an interrupt that indicates that no data was currently available to process,
but that data that is destined to this host was received.

**Result:** These fields are both 0 for any QDIO DATAPATH device that is not operating in optimized latency mode.

**IST2317I**

ulpretuo is the Upper-Layer Protocol (ULP) return with no data available count overflow.

ulpretu is the ULP return with no data available count. This message applies to inbound data received on a QDIO
DATAPATH device. The value represents the number of times that VTAM presented data to the ULP from an
OSA-Express feature that is operating in optimized latency mode, and when VTAM received the ULP return, it
found that there was no more data to process.

**Result:** These fields are both 0 for any QDIO DATAPATH device that is not operating in optimized latency mode.

**System action:** Processing continues.

**Operator response:** To discontinue statistics recording, enter the MODIFY NOTNSTAT command.

**System programmer response:** For additional information on tuning and analyzing tuning statistics, see the z/OS
Communications Server: SNA Network Implementation Guide

**Routing code:** 2

**Descriptor code:** 4

**Example:** This message group displays tuning statistics for a Multi Path Channel Adapter with the following TRLE
definitions:

```
TRLE1C TRLE LNCTL=MPC,
       READ=(0408,02F0),
       WRITE=(0508,03F0)
```

```
IST1230I TIME = 07570625 DATE = 08102 ID = TRLE1C
IST1231I IPDU = 53987 OPDU = 52031
IST15691 INLP = 0 ONLP = 0
IST1232I TSWEEP = 0 QSWEEP = 0
IST924I -------------------------------------------------------------
IST1233I DEV = 0508 DIR = WRITE
IST1234I BSIZE = 4095 MAXBYTES = 3930
IST1235I SIO = 8203 SLOWDOWN = ****NA****
IST1236I BYTECNTO = 0 BYTECNT = 157031499
IST1570I NBYTECTO = 0 NBYTECT = 0
IST924I -------------------------------------------------------------
IST1233I DEV = 03F0 DIR = WRITE
IST1234I BSIZE = 4095 MAXBYTES = 3930
```
IST1230I

IST1235I SIO = 21988 SLOWDOWN = ****NA****
IST1236I BYTECNT = 0 BYTECNT = 7705685
IST1570I NBYTECTO = 0 NBYTECT = 0

IST924I -------------------------------------------------------------
IST1233I DEV = 0408 DIR = READ
IST1234I BSIZE = 4095 MAXBYTES = 341
IST1235I SIO = 53032 SLOWDOWN = 0
IST1236I BYTECNT = 0 BYTECNT = 8199621
IST1570I NBYTECTO = 0 NBYTECT = 0

IST924I -------------------------------------------------------------
IST1233I DEV = 02F0 DIR = READ
IST1234I BSIZE = 4095 MAXBYTES = 301
IST1235I SIO = 35 SLOWDOWN = 0
IST1236I BYTECNT = 0 BYTECNT = 7719
IST1570I NBYTECTO = 0 NBYTECT = 0

IST314I END

This message group displays tuning statistics for a QDIO or an iQDIO Adapter with the following TRLE definitions:

NSQDIO1 TRLE LNCTL=MPC,
MPCLEVEL=QDIO,
READ=(0E28),
WRITE=(0E29),
DATAPATH=(0E2A,0E2B),
PORTNAME=(NSQDIO1,0)

IST1230I TIME = 18051835 DATE = 09182 ID = QDIO101
IST1231I IPDU = 0 OPDU = 0
IST1569I INLP = 0 ONLP = 0
IST1232I TSWEEP = 0 QSWEEP = 0

IST924I -------------------------------------------------------------
IST1233I DEV = 0E29 DIR = WRITE
IST1234I BSIZE = 4096 MAXBYTES = 0
IST1235I SIO = 0 SLOWDOWN = ****NA****
IST1236I BYTECNT = 0 BYTECNT = 0
IST1570I NBYTECTO = 0 NBYTECT = 0

IST924I -------------------------------------------------------------
IST1233I DEV = 0E28 DIR = READ
IST1234I BSIZE = 4092 MAXBYTES = 0
IST1235I SIO = 0 SLOWDOWN = 0
IST1236I BYTECNT = 0 BYTECNT = 0
IST1570I NBYTECTO = 0 NBYTECT = 0

IST924I -------------------------------------------------------------
IST1233I DEV = 0E2A DIR = RD/1 (PRIMARY)
IST1719I PCIREALO = 0 PCIREAL = 12
IST1720I PCIVIRTO = 0 PCIVIRT = 0
IST1750I PCITHRSO = 0 PCITHRSH = 0
IST1751I PCIPRINTO = 0 PCIPRINT = 0
IST2316I EARLYINO = 0 EARLYINT = 0
IST2317I ULPRETUO = 0 ULPRETC = 0
IST1752I RPROCDEO = 0 RPROCDDEF = 0
IST1753I RRELPLDEO = 0 RREPLDEDEF = 0
IST1754I NREADSO = 0 NREADS = 0
IST1721I SBALCNTO = 0 SBALCNT = 6
IST1722I PACKCTO = 0 PACKCNT = 6
IST12185I FRINVC = 0 FRINVCTO = 0
IST1236I BYTECNT = 0 BYTECNT = 52B
IST1810I PKTIQDO = 0 PKTIQD = 5
IST1811I SYTIQDO = 0 SYTIQD = 444

IST924I -------------------------------------------------------------
IST1233I DEV = 0E2A DIR = RD/2 (SYSDIST)
IST1754I NREADSO = 0 NREADS = 0
IST1721I SBALCNTO = 0 SBALCNT = 6
IST1722I PACKCTNTO = 0 PACKCNT = 6
IST12185I FRINVC = 0 FRINVCTO = 0
IST1236I BYTECNT = 0 BYTECNT = 52B
IST1810I PKTIQDO = 0 PKTIQD = 6

z/OS V2R1.0 Communications Server: SNA Messages
**IST1231** • **IST1232**

<table>
<thead>
<tr>
<th>Message</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>IST1231</td>
<td>DEV = 0E2A DIR = WR/1</td>
</tr>
<tr>
<td>IST1232</td>
<td>DEV = 0E2A DIR = WR/2</td>
</tr>
<tr>
<td>IST1233</td>
<td>DEV = 0E2A DIR = WR/3</td>
</tr>
<tr>
<td>IST1234</td>
<td>DEV = 0E2A DIR = WR/4</td>
</tr>
<tr>
<td>IST1755</td>
<td>SBALMAX = 0 SBALAVG = 0</td>
</tr>
<tr>
<td>IST1756</td>
<td>QDPTHMAX = 0 QDPTHAVG = 0</td>
</tr>
<tr>
<td>IST1721</td>
<td>SIGACNT = 0 SIGACNT = 0</td>
</tr>
<tr>
<td>IST1722</td>
<td>SBALCNT = 0 SBALCNT = 0</td>
</tr>
<tr>
<td>IST1723</td>
<td>PACKCNT = 0 PACKCNT = 0</td>
</tr>
<tr>
<td>IST2242</td>
<td>SIGMCNT = 0 SIGMCNT = 0</td>
</tr>
<tr>
<td>IST1236</td>
<td>BYTECNT = 0 BYTECNT = 0</td>
</tr>
<tr>
<td>IST1810</td>
<td>PKTIQDO = 0 PKTIQD = 0</td>
</tr>
<tr>
<td>IST1811</td>
<td>BYTIQDO = 0 BYTIQD = 0</td>
</tr>
</tbody>
</table>

**Explanation:** VTAM issues this message as part of a group of messages that displays tuning statistics for multipath channel (MPC) attached resources. The first message in the group is IST1230I. See that message for a complete description.

**Routing code:** 2

**Descriptor code:** 4

---

**IST1232** • **IST1232**

<table>
<thead>
<tr>
<th>Message</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>IST1231</td>
<td>TSWEEP = tsweep QSWEEP = qsweep</td>
</tr>
<tr>
<td>IST1232</td>
<td>TSWEEP = tsweep QSWEEP = qsweep</td>
</tr>
<tr>
<td>IST1755</td>
<td>SBALMAX = 0 SBALAVG = 0</td>
</tr>
<tr>
<td>IST1756</td>
<td>QDPTHMAX = 0 QDPTHAVG = 0</td>
</tr>
<tr>
<td>IST1721</td>
<td>SIGACNT = 0 SIGACNT = 0</td>
</tr>
<tr>
<td>IST1722</td>
<td>SBALCNT = 0 SBALCNT = 0</td>
</tr>
<tr>
<td>IST1723</td>
<td>PACKCNT = 0 PACKCNT = 0</td>
</tr>
<tr>
<td>IST2242</td>
<td>SIGMCNT = 0 SIGMCNT = 0</td>
</tr>
<tr>
<td>IST1236</td>
<td>BYTECNT = 0 BYTECNT = 0</td>
</tr>
<tr>
<td>IST1810</td>
<td>PKTIQDO = 0 PKTIQD = 0</td>
</tr>
<tr>
<td>IST1811</td>
<td>BYTIQDO = 0 BYTIQD = 0</td>
</tr>
</tbody>
</table>

**Explanation:** VTAM issues this message as part of a group of messages that displays tuning statistics for multipath channel (MPC) attached resources. The first message in the group is IST1230I. See that message for a complete description.

**Routing code:** 2

**Descriptor code:** 4
**IST1233I • IST1238I**

<table>
<thead>
<tr>
<th>IST1233I</th>
<th>DEV = dev  DIR = dir</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Explanation:</strong> VTAM issues this message as part of a group of messages that displays tuning statistics for multipath channel (MPC) attached resources. The first message in the group is IST1230I. See that message for a complete description.</td>
<td></td>
</tr>
<tr>
<td><strong>Routing code:</strong> 2</td>
<td></td>
</tr>
<tr>
<td><strong>Descriptor code:</strong> 4</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IST1234I</th>
<th>BSIZE = bsize  MAXBYTES = maxbytes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Explanation:</strong> VTAM issues this message as part of a group of messages that displays tuning statistics for multipath channel (MPC) attached resources. The first message in the group is IST1230I. See that message for a complete description.</td>
<td></td>
</tr>
<tr>
<td><strong>Routing code:</strong> 2</td>
<td></td>
</tr>
<tr>
<td><strong>Descriptor code:</strong> 4</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IST1235I</th>
<th>SIO = sio  SLOWDOWN = slowdown</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Explanation:</strong> VTAM issues this message as part of a group of messages that displays tuning statistics for multipath channel (MPC) attached resources. The first message in the group is IST1230I. See that message for a complete description.</td>
<td></td>
</tr>
<tr>
<td><strong>Routing code:</strong> 2</td>
<td></td>
</tr>
<tr>
<td><strong>Descriptor code:</strong> 4</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IST1236I</th>
<th>BYTECNGO = bytecngo  BYTECNT = bytecnt [DIR = direction]</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Explanation:</strong> VTAM issues this message as part of a group of messages that displays tuning statistics for multipath channel (MPC) attached resources. The first message in the group is IST1230I. See that message for a complete description.</td>
<td></td>
</tr>
<tr>
<td><strong>Routing code:</strong> 2</td>
<td></td>
</tr>
<tr>
<td><strong>Descriptor code:</strong> 5</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IST1237I</th>
<th>state = number [ state = number]</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Explanation:</strong> VTAM issues this message as part of a message group in response to a DISPLAY SESSIONS,LIST=SUMMARY command. The first message in the group is IST873I. See the explanation of that message for a complete description.</td>
<td></td>
</tr>
<tr>
<td><strong>Routing code:</strong> 2</td>
<td></td>
</tr>
<tr>
<td><strong>Descriptor code:</strong> 5</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IST1238I</th>
<th>DSPNAME CURRENT MAXIMUM QUEUED</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Explanation:</strong> VTAM issues this message as part of a subgroup of messages in response to a DISPLAY STORUSE,DSPNAME=dspname command requesting information for a specific network management application.</td>
<td></td>
</tr>
<tr>
<td>A complete description of the message group follows.</td>
<td></td>
</tr>
<tr>
<td>IST350I</td>
<td>DISPLAY TYPE = STORAGE USAGE</td>
</tr>
<tr>
<td>IST1238I</td>
<td>DSPNAME CURRENT MAXIMUM QUEUED</td>
</tr>
<tr>
<td>IST1239I</td>
<td>dspname current maximum queued</td>
</tr>
<tr>
<td>IST3141I</td>
<td>END</td>
</tr>
</tbody>
</table>

**Note:** If DISPLAY STORUSE,DSPNAME=* is entered, VTAM displays storage usage for all network management applications and all other data spaces.

IST350I

---

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This message identifies the type of information in the display and is always STORAGUSAGE for this message group.

IST1238I
This message is a header message for the information displayed in message IST1239I.

IST1239I
- *ds pname* is the name of a data space created by VTAM and is the network management data space specified on the DISPLAY STORUSE command. The data space name is generated automatically when the data space is created by VTAM and is in one of the following formats:
  - ISTcccc
    - cccc is 0-FFFFC
  - cccciST
    - cccc is 1-99999

current is the current storage usage, and is expressed in kilobytes.

maximum is the maximum storage usage since the data space was created, and is expressed in kilobytes.

queued is the current storage usage of requests queued for processing, and is expressed in kilobytes.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST1239I  *ds pname* current maximum queued

Explanation: VTAM issues this message as part of a message subgroup. The first message in the subgroup is IST1238I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST1240I  DSPNAME CURRENT MAXIMUM JOBNAME APPL COUNT

Explanation: VTAM issues this message as part of a subgroup of messages in response to a DISPLAY STORUSE command. A complete description of the message group follows.

This message group is issued for the following commands:

DISPLAY STORUSE,DSPNAME=*ds pname*
- Displays storage usage for a specific data space.

DISPLAY STORUSE,JOBNAM=jobname
- Displays storage usage for a specific VTAM application job.

DISPLAY STORUSE,APPL=applname
- Displays storage usage for a specific application.

DISPLAY STORUSE,APPL=**
- Displays storage usage for all applications.

IST350I DISPLAY TYPE = STORAGE USAGE
IST1240I DSPNAME CURRENT MAXIMUM JOBNAME APPL COUNT
IST1241I *ds pname* current maximum jobname appl applcount
IST1240I

: [IST1315I DISPLAY TRUNCATED AT keyword = number]
IST1454I count type DISPLAYED
IST314I END

DISPLAY STORUSE,DSPNAME=* Displays storage usage for all data spaces.

DISPLAY STORUSE,JOBNAME=* Displays storage usage for all VTAM application jobs.

IST350I This message identifies the type of information in the display and is always STORAGE USAGE for this message group.

IST1240I This message is a header message for the information displayed in message IST1241I.

IST1241I

dspname is the name of a data space created by VTAM. The data space name is generated automatically when the data space is created by VTAM and is in one of the following formats:

ISTcccc
    cccc is 0-FFFFC
ISTccccIST
    cccc is 1-99999

current is the current storage usage, and is expressed in kilobytes.

maximum is the maximum storage usage since the data space was created, and is expressed in kilobytes.

jobname is the name of one of the VTAM application jobs that can store information in the data space dspname.

applname is the name of one of the VTAM applications that can store information in the data space dspname.

applcount is the number of active VTAM applications that can store information in the data space dspname.

IST1315I

VTAM issues this message when the number of resources to be displayed exceeds the value specified for the MAX or NUM operand.

keyword is either MAX or NUM.

number is the value specified for either the MAX or NUM operand.

IST1454I

This message gives the number of resources displayed.

count is the number of resources displayed.

type is the type of resource for which storage information is displayed.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2

Descriptor code: 5

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**IST1241I**

**dspname current maximum jobname applname applcount**

**Explanation:** VTAM issues this message as part of a message subgroup. The first message in the subgroup is IST1240I. See the explanation of that message for a complete description.

**Routing code:** 2

**Descriptor code:** 5

**IST1242I**

**POOL CURRENT MAXIMUM [POOL CURRENT MAXIMUM]**

**Explanation:** This message is the first message in a group of messages that VTAM issues in response to a DISPLAY STORUSE command.

Examples of possible message groups follow.

- **DISPLAY STORUSE,POOL=poolname**
  This message group displays information for a specific storage pool.

  IST350I DISPLAY TYPE = STORAGE USAGE
  IST1242I POOL CURRENT MAXIMUM
  IST1243I poolname current maximum
  [IST1315I DISPLAY TRUNCATED AT keyword = number]
  IST1454I 1 POOL(S) Displayed
  IST314I END

- **DISPLAY STORUSE,POOL=* command.**
  This message group displays storage usage for all storage pools, including summary information for storage pools and modules.

  IST350I DISPLAY TYPE = STORAGE USAGE
  IST1242I POOL CURRENT MAXIMUM [POOL CURRENT MAXIMUM]
  IST1243I poolname current maximum [poolname current maximum]
  [IST1315I DISPLAY TRUNCATED AT keyword = number]
  IST1454I 1 POOL(S) DISPLAYED
  IST924I -------------------------------------------------------------
  IST1244I TOTAL storage_type POOL STORAGE USAGE: current maximum
  IST1244I TOTAL storage_type POOL STORAGE USAGE: current maximum
  IST924I -------------------------------------------------------------
  [IST981I VTAM PRIVATE: CURRENT = currentK, MAXIMUM USED = maximumK]
  IST924I -------------------------------------------------------------
  IST1565I type MODULES = currentK
  IST1565I type MODULES = currentK
  IST1565I type MODULES = currentK
  IST314I END

**IST350I**

This message identifies the type of information in the display and is always **STORAGE USAGE** for this message group.

**IST981I**

$currentK$ is the amount of VTAM private storage currently in use. This does not include the amount of private storage required to load the VTAM modules.

$maximumK$ is the maximum amount of VTAM private storage ever in use since VTAM was started.

See the [z/OS Communications Server: SNA Network Implementation Guide](https://www.ibm.com) for more information about storage pools.

If this message does not appear in the display, you may need to reissue the DISPLAY STORUSE command, specifying a higher value for the MAX operand. See the [z/OS Communications Server: SNA Operation](https://www.ibm.com) for additional information.

**IST1242I**

This message is a header message for the information displayed in message IST1243I.

**IST1243I**
IST1243I • IST1244I

*poolname* is the name of the storage pool specified on the DISPLAY STORUSE command.

*current* is the total current storage usage, in kilobytes, for storage pools.

*maximum* is the total maximum storage usage, in kilobytes, for storage pools since VTAM was initialized.

IST1244I

*storage_type* is either **PRIVATE** (private storage) or **COMMON** (common storage).

*current* is the total current storage usage for storage pools and is expressed in kilobytes.

*maximum* is the total maximum storage usage for storage pools since VTAM was initialized and is expressed in kilobytes.

IST1315I

VTAM issues this message when the number of pools to be displayed exceeds the value specified for the MAX or NUM operand.

*keyword* is either **MAX** or **NUM**.

*number* is the value specified for either the MAX or NUM operand.

IST1454I

This message shows the total number of storage pools for which storage usage information is displayed.

IST1565I

• *type* can be one of the following:
  
  **CSA** 31-bit and 24-bit addressable common storage acquired for VTAM modules
  
  **CSA24** 24-bit addressable common storage acquired for VTAM modules
  
  **PRIVATE** Private storage used to load VTAM modules
  
  • *currentK* is the current VTAM CSA allocation for modules.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2

Descriptor code: 5

IST1243I  *poolname* *current* *maximum* [ *poolname* *current* *maximum* ]

Explanation: VTAM issues this message as part of a message subgroup. The first message in the subgroup is IST1242I. See the explanation of that message for a complete description.

Routing code: 2

Descriptor code: 5

IST1244I  TOTAL *storage_type* POOL STORAGE USAGE: *current* *maximum*

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY STORUSE,POOL=* command requesting storage usage for all private and common storage pools. See IST1242I for a complete description of this message group.

*storage_type* is either **PRIVATE** (private storage) or **COMMON** (common storage).

*current* is the total current storage usage, and is expressed in kilobytes.

*maximum* is the total maximum storage usage since VTAM was initialized, and is expressed in kilobytes.

System action: Processing continues.

Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST1245I NO NETWORK NODE SERVER IS AVAILABLE FOR CP-CP SESSIONS

Explanation: VTAM issues this message when an active CP-CP session with a network node was lost, and VTAM could not find another suitable network node server. In this situation, the original CP-CP session could have been activated by an operator command.

This message is also issued when no CP-CP session with a network node exists, and VTAM could not find a suitable network node server when one of the following events occurred:

• Activation of a new network node server list
• Operator modification of the NNSPREF start option to specify a new preferred network node server
• Completion of VTAM initialization when the NNSPREF start option has been specified with the name of a network node

Note: If this message appears when VTAM is initializing, it might indicate a temporary condition that will be resolved when the pending link activations initiated by the VTAM configuration list are completed.

System action: Processing continues.

Operator response: Enter the VARY ACT,ID=adjcpname command and specify the desired server. VTAM will attempt to establish a CP-CP session with adjcpname even if adjcpname is not allowed by the current network node server list.

System programmer response: You should modify the network node server list to define additional network nodes as acceptable servers. Either add new NETSRVR definition statements for individual network nodes or add a nameless NETSRVR definition statement that allows any known network node to act as the network node server.

After the list has been modified, issue a VARY ACT,ID=member_name command where member_name is the member in the definition library that contains the edited network node server list.

If the network node server list is left unchanged, VTAM may not be able to acquire a new server if the current server fails.

Routing code: 2
Descriptor code: 5

IST1246I ADJACENT CP NOT DEFINED IN CURRENT NETWORK NODE SERVER LIST

Explanation: VTAM issues this message as part of a group of messages when this end node is unable to establish a session with a network node. The first message in the group is IST1110I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST1247I ALL ATTEMPTS TO ESTABLISH A SESSION WERE UNSUCCESSFUL

Explanation: VTAM issues this message as part of a group of messages when this end node is unable to establish a session with a network node. The first message in the group is IST1110I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5
**IST1248I** • **IST1250I**

**IST1248I**  DEACTIVATE LOCAL LINK BEFORE DELETING

**Explanation:** VTAM issues this message as part of a group of messages. The first message in the group is IST1158I. See the explanation of that message for a complete description.

**Routing code:** 2  
**Descriptor code:** 5

**IST1249I**  SYNTAX ERROR AT RECORD record_number IN MEMBER member

**Explanation:** This message is the first in a group of messages that VTAM issues when a syntax error is detected in a statement in the definition library. A complete description of the message group follows.

**IST1249I**  SYNTAX ERROR AT RECORD record_number IN MEMBER member  
**IST258I**  STMT IN ERROR = text  
**IST314I**  END

`record_number` is the number of logical records of `member` that had been processed when the error was detected. This number is equivalent to the line or record number seen for that record when `member` is viewed in an editor.

`member` is the member of the definition library containing the statement that is in error.

`text` is the text of the statement containing the syntax error. The error could be any assembler coding error, such as a non-blank character in column 72 followed by a blank in column 16 of the continuation line. A common error is a comma missing before a continuation symbol in column 72.

**System action:** Processing continues.

**Operator response:** Save the system log for problem determination.

**System programmer response:** Correct the statement in error. See the [z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com/support/knowledgecenter/SSDZV8_2.2.0/com.ibm.zos.zos.messages/zosz22r_d408681_22150146_red helped ise.html) for more information on correct syntax for definition statements.

**Routing code:** 2  
**Descriptor code:** 5

**IST1250I**  NAME LEVEL MODULE STATUS

**Explanation:** VTAM issues this message as part of a message group in response to a DISPLAY EXIT,ID=exitname or DISPLAY EXIT,ID=* command. A complete description of the message group follows.

**IST350I**  DISPLAY TYPE = EXIT  
**IST1250I**  NAME LEVEL MODULE STATUS  
**IST1251I**  exitname exitlevel module status  
**IST1315I**  DISPLAY TRUNCATED AT MAX = number  
**IST199I**  OPTIONS = {NONE|optionlist}  
**IST1454I**  count EXIT(S) DISPLAYED  
**IST314I**  END

**Note:** If the command specifies ID=*, IST1251I is repeated to display the status of all exits. If the command specifies ID=ISTEXCAA, and the exit is active, IST199I is repeated to display all functions supported by this exit.

**IST199I**

- `optionlist` can include the following options:
  - **ACCTING**  
    Initial and final accounting  
  - **ADJ_DSRL**  
    Adjacent SSCP selection for DSRLST processing  
  - **ADJSSCP**  
    Adjacent SSCP selection
**ALIAS**  Alias translation
**ALL**  All functions of the exit are traced
**ALS**  Adjacent link station selection
**ALS_CDRS**  Adjacent link station selection for CDRSCs
**ALS_DSRL**  Adjacent link station selection for DSRLST processing
**BEGIN**  Begin function
**END**  End function
**GWPATH**  Gateway path selection
**INITA IO**  Initial authorization for INIT OTHER CD
**INITAUTH**  Initial authorization
**REPL**  Exit replacement and replaced function
**SECAUTH**  Secondary authorization
**VRSEL**  Virtual route selection
**XRF**  XRF session switch

**IST350I**
This message identifies the type of information shown in the display. For this message group, the display type is always **EXIT**.

**IST1250I and IST1251I subgroup**
- **exitname** is the name of a user-written exit routine.
- **exitlevel** is the internal exit version identifier. See [z/OS Communications Server: SNA Customization](https://www.ibm.com) for the explanation of **exitlevel** for **exitname**. If **exitlevel** is not coded, *****NA***** is displayed.
- **module** is the module name of a user-written exit routine.
- **status** is the state of **exitname** when the DISPLAY EXIT command was issued, and can be one of the following:
  - **ACTIVE**  The exit is operational.
  - **INACTIVE**  The exit is not available for use.
  - **PENDING ACTIVE**  The exit is in the process of being activated.
  - **PENDING ACTIVE REPLACE**  The exit is in the activation phase of a **MODIFY EXIT,ID=exitname,OPT=REPL** command.
  - **PENDING INACTIVE**  The exit is in the process of being deactivated and is available only for termination activity.
  - **PENDING INACTIVE REPLACE**  The exit is in the deactivation phase of a **MODIFY EXIT,ID=exitname,OPT=REPL** command.

**IST1315I**
VTAM issues this message when the number of exits to be displayed exceeds the value specified on the MAX operand.
- **number** is the value specified for the MAX operand.
IST1251I • IST1252I

IST1454I

count is the number of exits displayed.

System action: Processing continues.

Operator response:

ACTIVE

None.

INACTIVE

This value of status is displayed in two situations:

- The exit is installed but is not available for use.
  Use the MODIFY EXIT command to activate exitname. See the z/OS Communications Server: SNA Operation for information on the MODIFY EXIT command.
- The exit is not installed.
  Save the system log for problem determination.

PENDING ACTIVE, PENDING ACTIVE REPLACE, PENDING INACTIVE, and PENDING INACTIVE REPLACE

If exitname remains in a pending state, there may be a problem. Save the system log for problem determination.

System programmer response: If the exit is necessary for your operation, you may have to halt VTAM and fix the problem with the user-written exit before continuing. See z/OS Communications Server: SNA Customization for additional information.

Routing code: 2

Descriptor code: 5

IST1251I  exitname exitlevel module status

Explanation: VTAM issues this message as part of a message subgroup. The first message in the subgroup is IST1250I. See the explanation of that message for a complete description.

Routing code: 2

Descriptor code: 5

IST1252I  DEFINED NETWORK NODE SERVER LIST, NAME = nnslist

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY NETSRVR command. A complete description of the message group follows.

IST350I  DISPLAY TYPE = NETWORK NODE SERVER LIST
IST1252I  DEFINED NETWORK NODE SERVER LIST, NAME = nnslist
IST1253I  nodename [sluinit] [enbcast]

;
IST924I  ..............................................................

[IST1254I  SERVER LIST PROCESSED ORDER = {FIRST|NEXT}
IST924I  ..............................................................]

[IST1255I  OTHER NETWORK NODES ALLOWED AS SERVERS
IST1253I  nodename [sluinit] [enbcast]]

;
IST924I  ..............................................................

IST1256I  CURRENT NETWORK NODE SERVER
IST1252I  nodename [sluinit] [enbcast]

[IST924I  ..............................................................]

[IST1672I  CURRENT NETWORK NODE SERVER NOT FOUND IN ACTIVE NETSRVR LIST]
IST1677I  PREFERRED NETWORK NODE SERVER
IST1253I  nodename [sluinit] [enbcast]
IST314I  END

IST350I

This message identifies the type of information in the display and is always NETWORK NODE SERVER LIST for this message group.
IST1252I and IST1253I subgroup: List of Network Nodes Defined as Servers
- This message subgroup displays all network nodes that are explicitly defined in the network node server list nnslist.
- nodename can be one of the following:
  - The network-qualified name of an adjacent network node in the form netid.name.
  - ****NAMELESS**** is displayed if the network node server list contains a nameless entry.
  - NONE is displayed if no network nodes have been explicitly defined as potential servers, and the network node server list does not contain a nameless entry.
- sluinit is displayed for a nodename, and is the value specified on the NETSRVR definition statement, or the default value. The values can be either SLUINIT=REQ or SLUINIT=OPT.
- enbcast is displayed for a nodename, and is the value specified on the NETSRVR definition statement, or the default value. The values can be either ENBCAST=NO or ENBCAST=YES.

IST1254I: Order for Processing the Network Node Server List
- This message is displayed when one or more network nodes have been explicitly defined to act as a server for this end node. It indicates the order in which the network node server list is processed.
  - FIRST indicates that the search for a server begins with the first network node specified on the list.
  - NEXT indicates that the search for a server begins with the network node on the list that follows the last entry that was successfully or unsuccessfully tried.

IST1255I and IST1253I subgroup: List of Other Network Nodes Allowed as Servers
- This message subgroup is only displayed if SCOPE=ALL was specified on the command. It displays all the network nodes that can act as a network node server for this end node but are not explicitly defined in the network node server list.
- nodename is the network-qualified name of an adjacent network node in the form netid.name.
  - NONE is displayed in either of the following situations:
    - The network node server list does not contain a nameless entry.
    - The network node service list contains a nameless entry, but there are no other known adjacent network nodes that support CP-CP sessions.
  - sluinit is displayed for a nodename, and is the value specified on the NETSRVR definition statement, or the default value. The values can be either SLUINIT=REQ or SLUINIT=OPT.
  - enbcast is displayed for a nodename, and is the value specified on the NETSRVR definition statement, or the default value. The values can be either ENBCAST=NO or ENBCAST=YES.

IST1256I and IST1253I subgroup: Network Node Currently Selected as Server
- This message subgroup displays the name of the network node currently selected as this end node’s network node server. The name displayed here is the name of an adjacent network node that this end node has most recently determined to be a suitable network node server and with which this end node has either established CP-CP sessions or is in the process of establishing CP-CP sessions. At the time the DISPLAY NETSRVR command displays this name, CP-CP sessions with this network node might not yet be fully active.
- nodename is the network-qualified name of an adjacent network node in the form netid.name.
  - NONE is displayed if this end node could not find a suitable network node server or could not successfully establish CP-CP sessions with any of the network nodes it found suitable as network node servers.
  - sluinit is displayed for a nodename, and is the value specified on the NETSRVR definition statement, or the default value. The values can be either SLUINIT=REQ or SLUINIT=OPT.
  - enbcast is displayed for a nodename, and is the value specified on the NETSRVR definition statement, or the default value. The values can be either ENBCAST=NO or ENBCAST=YES.

IST1672I
- This message is displayed in response to a DISPLAY NETSRVR command. VTAM displays the message when the active network node server list does not contain either an explicit entry for the current network node server or a nameless entry.

IST1677I and IST1253I subgroup: Network Node Specified as the Preferred Network Node Server
This message subgroup displays the name of the network node specified as the preferred network node server for this end node. The preferred network node server is specified by the NNSPREF start option.

nodename is the network-qualified name of an adjacent network node in the form netid.name.

NONE is displayed if this end node does not have a preferred network node server.

sluinit is displayed for a nodename, and is the value specified on the NETSRVR definition statement, or the default value. The values can be either SLUINIT=REQ or SLUINIT=OPT.

enbcast is displayed for a nodename, and is the value specified on the NETSRVR definition statement, or the default value. The values can be either ENBCAST=NO or ENBCAST=YES.

**System action:** Processing continues.

**Operator response:** If this message group displays the network node server list as expected, no response is necessary.

If the message group displays unexpected results, save the system log for problem determination.

**IST1256I** and **IST1253I subgroup:**

If nodename is not the desired server but the network node server list is correct, then deactivate the session to the current server and reactivate the list.

**IST1672I**

- If the current network node server is the one desired, activate a network node server list that includes the current network node server. If no network node server list member includes the current network node server, contact the system programmer to code the current network node server in a network node server list member. Then activate that list.

  If the current network node server is not the one desired, deactivate the CP-CP session with the current network node server. The new network node server will be selected from the candidates specified in the active network node server list.

**System programmer response:** If the message group displays unexpected results:

1. Correct the network node server list.
2. Ask the operator to reactivate the modified list by entering the VARY ACT,ID=member_name command where member_name is the name of the definition list member that contains the network node server list.

**IST1252I** and **IST1253I subgroup:**

- If a specific node is missing from the list, add a NETSRVR definition statement that explicitly adds that node to the group of network node server list definition statements.

**Note:** List all NETSRVR definition statements that explicitly name a network node before a NETSRVR definition statement that allows any network node to act as server.

**IST1254I:**

If ORDER does not display the desired value, then change the VBUILD,TYPE=NETSRVR definition statement to specify the correct order of server selection.

**IST1251I** and **IST1253I subgroup:**

- By default, when no network nodes are explicitly defined as servers, any network node can be used as long as SLUINIT=OPT is defined on the nameless entry.

  Also, if a NETSRVR definition statement without a specific network node name is included at the end of the definition statements, then any network node is allowed to act as server as long as SLUINIT=OPT is defined on the nameless entry.

  To use only explicitly defined network nodes as servers, build the network node server list with the VBUILD,TYPE=NETSRVR definition statement and explicitly name each network node on an individual NETSRVR definition statement.

**IST1256I** and **IST1253I subgroup:**

- If nodename is not the desired server and the network node server list is not correct, then modify the network node server list with the VBUILD,TYPE=NETSRVR definition statement and explicitly name each network node on an individual NETSRVR definition statement.
For information on building the network node server list, see the Z/OS Communications Server: SNA Resource Definition Reference.

IST1672I
- If requested by the operator, code the name of the current network node server in a network node server list member.

IST1677I and IST1253I subgroup
- If nodename is not the network node you want as the preferred network node server for this end node, have the operator change the NNSPREF start option value to the network node that you want.

Routing code: 2
Descriptor code: 5

IST1253I nodename [sluinit] [enbcast]
Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY NETSRVR command. The first message in the group is IST1252I. See the explanation of that message for a complete description.
Routing code: 2
Descriptor code: 5

IST1254I SERVER LIST PROCESSED ORDER = (FIRST|NEXT)
Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY NETSRVR command. The first message in the group is IST1252I. See the explanation of that message for a complete description.
Routing code: 2
Descriptor code: 5

IST1255I OTHER NETWORK NODES ALLOWED AS SERVERS
Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY NETSRVR command. The first message in the group is IST1252I. See the explanation of that message for a complete description.
Routing code: 2
Descriptor code: 5

IST1256I CURRENT NETWORK NODE SERVER
Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY NETSRVR command. The first message in the group is IST1252I. See the explanation of that message for a complete description.
Routing code: 2
Descriptor code: 5

IST1257I SEQUENCE NOT VALID, STATEMENT IGNORED, SKIPPING TO EOF
Explanation: This message is the first in a group of messages that VTAM issues when the network node server list contains NETSRVR statements that are out of order. All NETSRVR statements that explicitly name a network node to act as server must precede a NETSRVR statement that does not explicitly name a network node.

A complete description of the message group follows the example.

IST1257I SEQUENCE NOT VALID, STATEMENT IGNORED, SKIPPING TO EOF
IST701I CONFIG configname LABEL = labelname
IST314I END
IST701I

configname is the name assigned to the VBUILD statement.
**IST1258I • IST1259I**

*labelname* is the name of the network node specified on the NETSRVR statement.

*statementname* is the NETSRVR statement.

**System action:** Any NETSRVR statements following the NETSTVR statement that does not explicitly name a network node are ignored. Processing continues.

**Operator response:** The system programmer should modify the network node server list. After the list has been modified, issue VARY ACT,ID=*member_name*, where *member_name* is the name of the definition list member that contains the edited network node server list.

**System programmer response:** Correct the ordering of the NETSRVR definition statements that comprise the network node server list. See the [z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com/support/knowledgecenter/SSXK3U_2.2.0/com.ibm.zos.v2r2.snm.rsrc_defr/rsrc_defr.html) for information on building the network node server list.

**Routing code:** 2

**Descriptor code:** 5

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**IST1258I** *value* IS NOT VALID FOR *nodetype*

**Explanation:** VTAM issues this message when the command or operand is not valid for the node.

*value* is one of the following:

- The name of the command that failed. For a description of *value*, see Chapter 16, “Command and RU types in VTAM messages,” on page 1083.
- The name or value of the operand that caused the command to fail.

For more information on *value*, see [z/OS Communications Server: SNA Operation](https://www.ibm.com/support/knowledgecenter/SSXK3U_2.2.0/com.ibm.zos.v2r2.snm.sna_op/rsrc_rep/jshreqf005.html)

**System action:** VTAM rejects the command.

**Operator response:** Ensure that you entered the command correctly. If problems persist, save the system log for problem determination.

**System programmer response:** If necessary, correct the NODETYPE start option for this end node or network node. Then, reactivate the system. For information on the NODETYPE start option, see the [z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com/support/knowledgecenter/SSXK3U_2.2.0/com.ibm.zos.v2r2.snm.rsrc_defr/rsrc_defr.html)

**Routing code:** 2

**Descriptor code:** 5

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**IST1259I** VBUILD TYPE = *type1* IS ONLY VALID FOR *type2*

**Explanation:** VTAM issues this message in the following situations:

- If the *type1* value is NETSRVR, VTAM issues this message at this network node when an attempt is made to build a network node server list. Network nodes function as their own servers. In this case, the *type2* value is EN.
- If the *type1* value is ADJCLUST or BNCOSMAP, VTAM issues this message when a VBUILD statement is defined for a node that is not a border node. In this case, the *type2* value is B.
- If the *type1* value is GRPREFS, VTAM issues this message when a VBUILD statement is defined for a node that is not in a sysplex. In this case, the *type2* value is SYSPLEX.

**System action:** The VBUILD statement is ignored. Processing continues.

**Operator response:** Save the system log for problem determination.

**System programmer response:** If the *type1* value is NETSRVR:

- To define this node as a network node, delete the network node server list definition from the network node system definitions.
- To define this node as an end node, correct the start options to define this node as an end node. See the [z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com/support/knowledgecenter/SSXK3U_2.2.0/com.ibm.zos.v2r2.snm.rsrc_defr/rsrc_defr.html)

If the *type1* value is ADJCLUST:

- To define this node as a border node, modify the start options as needed.
If you do not want to define this node as a border node, delete the appropriate ADJCLUST or COSMAP definition statements.

If the type value is GRPREFS or BNCOSMAP:
- To define this node in a sysplex, modify MVS to be a sysplex host.
- If you do not want to define this node in a sysplex, delete the GRPFREFS definition statement.

Routing code: 2
Descriptor code: 5

IST1260I type TRUNCATED-INSUFFICIENT STORAGE

Explanation: This message is the first in a group of messages that VTAM issues when a lack of storage prevents VTAM from creating a complete internal representation of the specified resource type. It is also issued as a stand-alone message when a lack of storage prevents VTAM from allocating a larger trace table for TRS topology or route traces.

The message is issued alone when one 40 KB buffer of storage for the TRStopology table or route trace table is full and an attempt is made to allocate an additional buffer of storage for TRS trace table entries.

A complete description of the message group follows the example.

IST1260I type TRUNCATED-INSUFFICIENT STORAGE
IST701I CONFIG configname LABEL = labelname STMT TYPE = statementname
IST314I END

type indicates the specified resource and can be one of the following:

NETWORK NODE SERVER LIST
ADJACENT CLUSTER TABLE
COSMAP TABLE
TRS TOPOLOGY TRACE TABLE
APPN ROUTE TRACE TABLE

IST701I

This message identifies where in the resource the truncation occurred.

- If type is NETWORK NODE SERVER LIST:
  - configname is the name assigned to the VBUILD definition statement.
  - labelname is the name of the network node specified on the NETSRVR definition statement.
  - statementname is the NETSRVR definition statement.

- If type is ADJACENT CLUSTER TABLE or COSMAP TABLE:
  - configname is the name assigned to the VBUILD definition statement.
  - labelname is the name specified by NETID on the NETWORK definition statement.
  - statementname is the NETWORK definition statement.

The VTAM definition statements and tables are described in the z/OS Communications Server: SNA Resource Definition Reference.

System action: VTAM uses as many of the entries as it is able to process successfully and ignores the rest.

If type is TRS TOPOLOGY TRACE TABLE or APPN ROUTE TRACE TABLE, the table will be truncated at the end of the already allocated buffer of storage and additional entries in the table will wrap back to the beginning of the table. If storage is available the next time the end of the trace table is reached, another attempt will be made to allocate an additional buffer of storage for the table.

If type is NETWORK NODE SERVER LIST, an entry indicating that any known network node can act as the network node server is added at the end of the truncated list.

Processing continues.
Operator response: Issue the DISPLAY BFRUSE command to display information about the common storage area (CSA). Total VTAM private storage information is also displayed in message IST981I. Issue the DISPLAY STORUSE command to display storage usage for storage pools.

If type is ADJACENT CLUSTER TABLE or COSMAP TABLE, enter a DISPLAY ADJCLUST command or a DISPLAY COSMAP command to determine which entries were recorded.

Save the system log and request a dump for problem determination.

System programmer response: Increase storage as required.

If type is NETWORK NODE SERVER LIST, after the storage shortage problem is corrected:

- Ask the operator to enter the VARY ACT,ID=member_name command where member_name is the name of the definition list member that contains the network node server list.

See the z/OS Communications Server: SNA Operation for more information.

See the z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

Routing code: 2
Descriptor code: 5

IST1261I ABEND OCCURRED DURING LINK DEFINITION

Explanation: VTAM issues this message as part of a message group when an attempt to define the link to APPN Topology and Routing Services has failed. The first message in the group is IST1118I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 3

IST1262I MODULE modulename LOAD FAILED – reason

Explanation: VTAM issues this message in response to a MODIFY EXIT command when the module modulename fails to load.

modulename is the name of the module that failed to load.

reason provides information about the cause of the load failure and can be one of the following:

DEFINED AS ALIAS IN CSLOD
   Either the alias module modulename could not be located in the vector list of its load module or the alias module was loaded before the vector list.

INSUFFICIENT STORAGE
   Not enough storage was available to process the load request.

I/O ERROR LOADING MODULE
   An I/O error occurred when loading modulename.

I/O TIMEOUT LOADING MODULE
   An attempt was made to load modulename, but a system or hardware problem has caused the module load facility to time out while waiting for I/O to complete.

LOADER INOPERATIVE
   This can occur for one of the following reasons:
   • A previous module load never completed.
   • The VTAM-directed load subtask, ISTINMLS, abnormally ended during a load request.
   • The VTAM-directed load subtask, ISTINMLS, has not completed its initialization.

LOCK PROTOCOL VIOLATION
   A locking protocol violation occurred while VTAM was trying to satisfy the load request.
MODULE NOT IN ISTCSLOD

modulename is not in ISTCSLOD.

MODULE NOT FOUND

The resource identified by modulename does not exist.

System action:

• If reason is LOADER INOPERATIVE, all subsequent commands that require the loader will fail. If the I/O load operation eventually succeeds, load operations are again enabled.
• If reason is MODULE NOT IN ISTCSLOD or DEFINED AS ALIAS IN CSLOD, VTAM initialization or an activation request might fail.
• For all other reasons, the MODIFY EXIT command is ignored, and VTAM uses the old exit.

Operator response:

• If reason is INSUFFICIENT STORAGE, enter the DISPLAY BFRUSE command. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and request a dump for problem determination. When more storage is available, reenter the command.
• If reason is MODULE NOT FOUND, ensure that you entered the command correctly. See the z/OS Communications Server: SNA Operation for more information.
• For the following values of reason, save the system log for problem determination.
  – DEFINED AS ALIAS IN CSLOD
  – I/O ERROR LOADING MODULE
  – I/O TIMEOUT LOADING MODULE
  – LOADER INOPERATIVE
  – LOCK PROTOCOL VIOLATION
  – MODULE NOT IN ISTCSLOD

System programmer response:

• If reason is INSUFFICIENT STORAGE, use the z/OS Communications Server: New Function Summary to review VTAM storage requirements. See the z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

  If the operation is critical, deactivate some major nodes in order to free up storage for the command, and then reenter the command.
• If reason is I/O ERROR LOADING MODULE or I/O TIMEOUT LOADING MODULE, examine your VTAMLST file to make sure the requirements for the VTAM system are correct for your system.
• If reason is LOADER INOPERATIVE or LOCK PROTOCOL VIOLATION, contact the IBM Support Center.
• If reason is MODULE NOT IN ISTCSLOD or DEFINED AS ALIAS IN CSLOD, contact the IBM Support Center.
IST1264I • IST1265I

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST1264I command FOR nodename FAILED DURING DEFINITION

Explanation: VTAM issues this message when the command entered to activate or acquire the major node nodename failed during network definition.

command is the command that failed. Possible values are:

VARY ACT or VARY ACQ
   The VARY ACT or VARY ACQ command for a major node definition is in error.

VARY DRDS
   Processing of a VARY DRDS (dynamic reconfiguration data set) command failed, and the entire definition was rejected.

MODIFY DR
   A MODIFY DR command failed.

nodename is the name of the major node that was specified on the command. If nodename is session-capable, VTAM issues nodename as a network-qualified name in the form netid.name.

System action: The command fails. The major node or DRDS definition and its resources remain inactive, and VTAM cannot use them.
Operator response: Save the system log and print the major node definition for problem determination.
System programmer response: Previous messages provide information about the cause of the failure.
   • If this is a definition error, correct the major node definition or DRDS definition to resolve the problem before the operator reenters the command.
   • If this is not a definition error, tell the operator to reenter the command using the correct major node name. See z/OS Communications Server: SNA Operation for more information about command.

Routing code: 2
Descriptor code: 5

IST1265I command FOR nodename FAILED – reason

Explanation: The operator entered a VARY ACT command command with the WARM operand for the node nodename.

command is the command that failed.

nodename is the name of the node specified on the command. If nodename is session-capable, VTAM issues nodename as a network-qualified name in the form netid.name.

VTAM rejected the command for one of the following reasons:

cpdsname EMPTY
   Configuration-restart data set (checkpoint data set) cpdsname contained no records. (An empty configuration-restart data set generally indicates that the node has not been previously activated with checkpointing. You cannot reactivate a node to a warm status if the node was not previously activated.)

cpdsname ERROR
   VTAM encountered an error while processing the configuration-restart data set (checkpoint data set) cpdsname. A previous message provides an explanation of the error.

NO DATA SET
   The checkpoint data set does not exist.
**System action:** The command fails. Other processing continues.

**Operator response:** To activate the node to initial (cold) status, reenter the VARY ACT command without the WARM operand.

**System programmer response:** None.

**Routing code:** 2  
**Descriptor code:** 5

---

**IST1266I**  
**command** FOR **nodename** AFFECTS NEW SESSIONS ONLY

**Explanation:** The operator entered the MODIFY ENCR **command** and changed the cryptographic session level of **nodename**. However, node **nodename** is in session or has queued sessions. The change will not affect the current or queued sessions, but will affect future sessions for **nodename**.

**nodename** is the name of the node specified on the command. If **nodename** is session-capable, VTAM issues **nodename** as a network-qualified name in the form netid.name.

**System action:** VTAM retains the new cryptographic session level specified in the MODIFY ENCR command and uses it when processing subsequent session-establishment requests.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2  
**Descriptor code:** 5

---

**IST1267I**  
**command** FAILED – CANNOT DEFINE **nodename**

**Explanation:** VTAM stopped processing the **command**. VTAM could not define the resource **nodename** for one of the following reasons:

- **nodename** has the same name as another resource in this domain.
- **nodename** has the same network address as another resource in this domain.
- The value for VNNAME for **nodename** matches the value for CPNAME on a PU in this domain.
- The value for VNNAME for **nodename** refers to an ADJCP for which VN=YES is not specified.

**command** is the command that failed. See Chapter 16, “Command and RU types in VTAM messages,” on page 1083 for a description of **command**.

**nodename** is the name of the resource specified on the command. If **nodename** is session-capable, VTAM issues **nodename** as a network-qualified name in the form netid.name.

**System action:** VTAM rejects the command.

**Operator response:** Display **nodename**:

- If the resource already exists, **command** failed because the resource was already defined.
- If **nodename** is a communication controller, enter a DISPLAY STATIONS command.
- If the subarea of **nodename** is listed as an adjacent subarea in the display, another communication controller has been defined for that subarea. The communication controller might still exist if the link to that subarea is still active. To correct the problem, enter a VARY INACT command for the link to the adjacent subarea.
- If the resource does not exist, display VNNAME. If VNNAME already exists, **command** failed because the VNNAME was already defined with a different nodetype.

Save the system log for problem determination.

**System programmer response:** Ensure that **nodename** has a unique name, unique network address, or unique VNNAME. See the [z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com/support/knowledgecenter/SSLVMB_7.2.0/com.ibm.zos.v2r13/ist0006a/r/ist0006a_33a8.html) for more information on VNNAME definitions.

**Routing code:** 2
Descriptor code: 5

IST1268I  nodename DEACTIVATION request FAILED: code

Explanation: VTAM cannot complete deactivation of nodename because request has failed with a sense code of code.

For a description of request, see Chapter 16, “Command and RU types in VTAM messages,” on page 1083.

code is the sense code. See the z/OS Communications Server: IP and SNA Codes for a description of code.

If nodename is session-capable, VTAM issues nodename as a network-qualified name in the form netid.name.

System action: VARY deactivate processing for nodename is pending. The node is not available to VTAM.

Operator response: Enter a VARY INACT,TYPE=FORCE command to deactivate the node. If the problem persists, save the system log for problem determination.

System programmer response: Use the system log and code to assist you in determining the cause of the problem.

Routing code: 2
Descriptor code: 5

IST1269I  command FOR nodename FAILED

Explanation: VTAM issues this message when processing of the command for nodename failed. For example, a deactivate command failed because no storage was available to continue.

nodename is the name of the resource and is either an NCP or logical unit (LU). If the resource is an LU, VTAM issues nodename as a network-qualified name in the form netid.name.

System action: VTAM rejects the command.

Operator response:

• If message IST383I or IST1268I precedes this message, enter a VARY INACT,TYPE=FORCE command to deactivate the resource.

• If this is a storage problem, messages IST561I, IST562I, IST563I, IST564I, IST565I or IST566I may be issued prior to this message to indicate the type of storage affected.

If message IST467I is displayed with contacted error type 5, see the programmer response of that message for additional information.

Issue the DISPLAY BFRUSE command to display storage used by VTAM buffer pools and information about the common service area (CSA). Total VTAM private storage information is also displayed in message IST981I. Issue the DISPLAY STORUSE command to display storage usage for storage pools.

Save the system log and request a dump for problem determination.

System programmer response: For a storage problem, verify that the operator entered the buffer pool or CSA start options as specified in the start procedures.

Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA start options. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx), and restart VTAM to use the start option.

See the z/OS Communications Server: SNA Operation for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command. See the z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures for additional information.

See the z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

Routing code: 2
Descriptor code: 5
IST1270I  command FAILED – nodename NOT ACTIVE

Explanation: VTAM issues this message when the command failed because nodename is not active.

See Chapter 16, “Command and RU types in VTAM messages,” on page 1083 for a description of command.

Either of the following conditions may have occurred.

• A forced deactivate command was entered for nodename, and the resource is already inactive.
• A forced reactivate command was entered for nodename. The resource is being activated, but the activate processing has not proceeded far enough.

If nodename is session-capable, VTAM issues nodename as a network-qualified name in the form netid.name.

System action: VTAM stops processing command.

Operator response: Ensure that you entered the command for the correct node. If so, save the system log for problem determination.

System programmer response: Use the system log to assist you in correcting the problem. When you have corrected the error condition, ask the operator to reenter the command.

Routing code: 2
Descriptor code: 5

IST1271I  command2 FOR nodename SCHEDULED BY command1

Explanation: VTAM issues this message when command2 has been scheduled for nodename. command1 is responsible for scheduling command2. For example, explicit deactivation of a peripheral node causes implicit deactivation of that node’s LUs.

See Chapter 16, “Command and RU types in VTAM messages,” on page 1083 for a description of command1 and command2.

If nodename is session-capable, VTAM issues nodename as a network-qualified name in the form netid.name.

System action: Processing of command2 continues.

Operator response: None.

System programmer response: None.

Routing code: 2
Descriptor code: 5

IST1272I  command nodename CONTINUES – name UNDEFINED

Explanation: During processing of the command, VTAM determined that it cannot define name as a part of nodename for one of the following reasons:

• Adjacent control point name is not a valid node type.
• NCP frame relay switching equipment set (FRSESET) name has the same name as another FRSESET in this domain.
• Resource name contains one of the following errors:
  – name has the same name as another resource in this domain.
  – name has the same network address as another resource in this domain.
  – name has the same value for CPNAME as another resource in this domain.
  – name has the same value for LUALIAS as another resource in this domain.
  – name has the same values for IDBLK and IDNUM as another resource in this domain.
  – name is in an NCP major node definition, and there is a CDRM definition with the same SUBAREA address as the NCP major node definition.
  – name has a value for VNNAME that matches the value for CPNAME on a PU in this domain.
  – name has a value for VNNAME that refers to an ADJCP for which VN=YES is not specified.
  – name has the same transmission group number (TGN) as another resource in this domain.
Storage is not available to process the request.

See Chapter 16, “Command and RU types in VTAM messages,” on page 1083 for a description of command.

If name is session-capable, VTAM issues name as a network-qualified name in the form netid.name.

System action: Processing of command continues. However, VTAM cannot use name.

Operator response:
- This is usually a definition error. Enter a DISPLAY ID command for name to check for duplicate names. Save the system log for problem determination.
- If you cannot find a definition error, check for an insufficient storage problem by entering the DISPLAY BFRUSE command. Total VTAM private storage information is also displayed in message IST981I. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and request a dump for problem determination.

This message might be issued during session takeover processing. See the section on common APPN problems in the z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures for a description of session takeover problems.

This message might be issued while processing a VARY ACT command with the UPDATE=ALL option specified. The resource specified by name did not complete processing. Issue the command again to allow this resource to process completely.

System programmer response:
- If the definition failed because of a definition error, use the system log to assist you in correcting the problem. If there are duplicate operands on NCP and VTAM definition statements, you must change one or both of the duplicate statements if you want both resources to be defined at the same time. See the section on common APPN problems in z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures for more information about this problem. See the z/OS Communications Server: SNA Resource Definition Reference for more information on VNNAME definitions.
- If the definition failed because of insufficient storage, increase storage as required for the VTAM address space.

Routing code: 2
Descriptor code: 5

IST1273I command2 nodename FAILED: command1 PENDING

Explaination: Processing of command1 causes VTAM to reject command2 for nodename because command1 takes precedence over command2. For example, the VARY REL command causes any subsequent VARY INACT for the same node to fail.

See Chapter 16, “Command and RU types in VTAM messages,” on page 1083 for a description of command1 and command2.

If nodename is session-capable, VTAM issues nodename as a network-qualified name in the form netid.name.

System action: Processing of command1 continues, but VTAM rejects command2.

Operator response: Monitor the progress of command1 with DISPLAY commands. When command1 processing has completed, enter the command required to achieve the desired network configuration or device state.

In the above example, if you want nodename to be an active part of the network, enter a VARY ACQ command for nodename followed by a VARY ACT command for nodename.

Save the system log for problem determination.
IST1274I • IST1276I

System programmer response: Check the system log to determine the series of commands that caused the problem.
Routing code: 2
Descriptor code: 5

IST1274I command minornode FAILED: highernode NOT ACTIVE

Explanation: VTAM issues this message when a command was entered to activate node minornode (a logical unit, physical unit, physical unit type 4, or link). The command failed because its higher-level node highernode is not currently in a valid state.

See Chapter 16, “Command and RU types in VTAM messages,” on page 1083 for a description of command.

minornode is a logical unit, physical unit (device or communication controller), or link.
• If minornode is a logical unit, highernode is a physical unit. VTAM issues minornode as a network-qualified name in the form netid.name.
• If minornode is a physical unit (device or communication controller), highernode is its link.
• If minornode is a link, highernode is the physical unit specified on the PHYSRSC operand on the GROUP definition statement for the line group.

If the physical unit, defined in the NCP definition, whose name is specified by the PHYSRSC keyword is a switched PU that is not currently connected, then highernode is the physical line.

highernode must be active before minornode can be activated.

System action: VTAM rejects the command.
Operator response: Enter a VARY ACT command for highernode before activating minornode.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST1275I operand IGNORED ON command nodename

Explanation:

Explanation: VTAM issues this message when an operand was entered that is not valid for the resource nodename specified on the command.

See Chapter 16, “Command and RU types in VTAM messages,” on page 1083 for a description of command.

If nodename is session-capable, VTAM issues nodename as a network-qualified name in the form netid.name.

System action: Processing of command continues, but VTAM ignores operand.
Operator response: You do not need to reenter the command. For the next use of the command, check the valid operands for the command in z/OS Communications Server: SNA Operation
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST1276I cdrscname status CDRM = cdrmname

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY command for cross-domain resources. It results from one of the following:
• A DISPLAY ID command that specifies a CDRSC major node.
• A DISPLAY ID command that specifies a model CDRSC.
• A DISPLAY CDRSCS command requesting information about cross-domain resources defined to this domain.

The message lists the resource name, its status, and the name of the controlling CDRM.
VTAM repeats this message as many times as needed to list all the cross-domain resources in this major node, in this domain, or that were created from this model CDRSC.

cdrscname is the name of the resource. The name is network-qualified in the form netid.name if the resource is a real CDRSC. The name is not network-qualified if the resource is an alias CDRSC.

status is the status of the resource. See z/OS Communications Server: IP and SNA Codes for a description of status.

cdramname is the name of the controlling CDRM. If the CDRM is not available, then cdramname is ***NA***.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 8
Descriptor code: 5

IST1277I commandinfo [statementname] action resource [TO toname] [FROM fromname] FAILED

Explanation: This message is the first in a group of messages that VTAM issues to indicate that a dynamic reconfiguration or dynamic change failed. The failure resulted from one of the following commands:

• MODIFY DR command
• VARY ACT command
• VARY DRDS command

Possible message groups follow:

• MODIFY DR command

IST1277I MODIFY DR drname [statementname] action resource [TO toname] [FROM fromname] FAILED
IST523I REASON = reason
IST314I END

IST1277I
– commandinfo is always MODIFY DR for this message group.
– action is the command type:
  - DELETE to delete a physical or logical unit
  - MOVE to move a physical unit and its associated LUs.
– resource is the name of the physical unit or logical unit affected by the command. If the resource is a logical unit, VTAM issues resource as a network-qualified name in the form netid.name.
– toname is the name of the line to which the PU is being moved, and is only displayed when action is MOVE.
– fromname is the name of the line from which the PU is being moved or deleted, or the name of the PU from which the LU is being deleted.

IST523I
This message explains the reason for the failure. Possible values of reason are explained later in this message explanation.

• VARY DRDS command

IST1277I DR drname [statementname] action resource [TO toname]
[FROM fromname] FAILED
IST523I REASON = reason
IST368I FUNCTION GROUP functiongroup FAILED
IST314I END

IST1277I
– commandinfo is always DR drname for this message group. drname is the name of the dynamic reconfiguration data set containing the reconfiguration definition statements.
– statementname, if specified, is the name of the specific definition statement that failed.
- **action** is the definition statement:
  - ADD to add a physical or logical unit
  - DELETE to delete a physical or logical unit
  - MOVE to move a physical unit and its associated LUs.
- **resource** is the name of the physical unit or logical unit affected by the definition statement. If the resource is a logical unit, VTAM issues resource as a network-qualified name in the form netid.name.
- **toname** is the name of the line to which the PU is being moved or added, or the name of the PU to which the LU is to be added. toname is only displayed when action is MOVE or ADD.
- **fromname** is the name of the line from which the PU is being moved or deleted, or the name of the PU from which the LU is being deleted. fromname is only displayed when action is MOVE or DELETE.

**IST523I**

This message explains the reason for the failure. Possible values of reason are explained later in this message explanation.

**IST368I**

This message names the specific definition statement in the dynamic reconfiguration data set that failed.

*functiongroup* is the name on the ADD, DELETE, or MOVE definition statement in the VARY DRDS deck of the specific definition statement that failed.

- **VARY ACT command**

  IST1277I DR drname [statementname] action resource
  [TO toname] [FROM fromname] FAILED
  IST523I REASON = reason
  IST314I END

**IST1277I**

- **commandinfo** is always VARY ACT for this message group.
- **statementname** is the major node name which was specified on the ID operand of the VARY ACT command.
- **action** is the action being performed when the failure occurred:
  - ADD to add a resource
  - CHANGE to change an operand value
  - DELETE to delete a resource
  - MOVE to move a physical unit and its associated LUs or to move an logical unit
- **resource** is the name of the resource affected by the command. If the resource is a logical unit, VTAM issues resource as a network-qualified name in the form netid.name.
- **toname** is the name of the higher level resource to which the resource is being moved or added. toname is only displayed when action is MOVE or ADD.
- **fromname** is the name of the higher level resource from which the resource is being moved or deleted. fromname is only displayed when action is MOVE or DELETE.

**IST523I**

This message explains the reason for the failure. Possible values of reason follow.

The second message in each message group is IST523I, and this message explains the reason for the failure. reason can be one of the following:

**DUPLICATE STATION ID**

An attempt was made to perform a DR CHANGE of IDBLK or IDNUM for a switched PU, but the resulting station ID was not unique in the network.

**DR DELETE INVALID FOR INDEPENDENT LU**

An attempt was made to perform a DR DELETE on an independent LU which is not associated to the adjacent link station specified on the FROM operand. This is not a valid request.
DR NOT SUPPORTED
An attempt was made to perform a DR function for a resource that is not an NCP or is a level of NCP that does not support DR or this function of DR.

INSUFFICIENT STORAGE
VTAM was unable to allocate storage during a DR operation.

INVALID MACRO
A definition statement was read that is not a valid member in this type of definition deck. For example, a GROUP definition statement is not a valid member in a DR deck.

INVALID NAME
functiongroup is invalid for the PU or LU definition statement.

INVALID PARAMETER
An operand was found in a definition statement that is not valid or allowed.

INVALID RESOURCE CURRENT STATE
An attempt was made to move or delete a resource whose current state will not allow the change. The resource must be in an inactive, reset, release, or defined state. Also, a model CDRSC must not have clone CDRSCs associated with it.

INVALID RESOURCE TYPE
An attempt was made to move or delete a resource for which dynamic reconfiguration is not allowed. DR ADD, DELETE and MOVE may be performed for SNA type 1, 2, or 2.1 PUs and their subordinate LUs, as well as for dependent LUs and some independent LUs.

INVALID TO/FROM RESOURCE TYPE
An attempt was made to add, delete, or move a resource to or from a target resource that does not allow dynamic reconfiguration. DR ADD is allowed to lines and PUs. DR DELETE is allowed from lines and PUs. DR MOVE is allowed both to and from lines and PUs.

INVALID VALUE
An operand on a definition statement was found to have a coded value that is invalid for this operand.

INVALID VALUE FOR ADDR
The value coded in a PU definition statement for the ADDR operand was found to be a duplicate of a PU ADDR already under the target line.

MACRO SEQUENCE ERROR
A DR definition deck contained definition statements that were out of sequence. Line targets must be followed by PUs; PU definition statements must be followed by LUs. PU definition statements must follow additions to lines, moves to lines, moves from lines, and deletions from lines. LU definition statements must follow additions to PUs, moves to PUs, and deletions from PUs.

MISSING MACRO
A DR definition deck was missing a definition statement. VBUILD definition statements are required. Null definition decks are invalid (a VBUILD definition statement with nothing following). Null function groups are invalid (a function group with no PU or LU definition statements).

MISSING NAME ON PU OR LU MACRO
A PU or LU definition statement in a DR definition deck did not have a name coded. The name is required on all PU and LU resources being added, deleted, or moved.

MISSING PARAMETER
A definition statement in a DR definition deck did not contain a required operand.

NO RESOURCES FOUND UNDER FROM LINE/PU
The line or PU resource for which a DR DELETE or DR MOVE function was requested had no resources under it.

PUTYPE CANNOT BE CHANGED DYNAMICALLY
An attempt was made to change the value of PUTYPE on the specified resource.

RESOURCE NOT FOUND WHERE SPECIFIED
An attempt was made to delete or move a resource that does not exist under the specified target fromname.

SYNTAX ERROR
There is a syntax error in the DR definition deck.
TO/FROM RESOURCE NOT IN SAME NCP
An attempt was made to DR move a PU or LU from a line in an NCP to a line in a different NCP.

TO/FROM RESOURCE UNKNOWN
An attempt was made to add or move a resource to a target that does not exist or to delete or move a resource from a target that does not exist.

UPDATE=ALL REQUIRED - UPDATE=ADD VIOLATES HIERARCHY
An attempt was made to update an Enterprise Extender XCA major node with a VARY ACT, UPDATE=ADD command after one of the following changes was made to the definitions:
- A second PU was added under a LINE
- A PU name was changed
- The PU prefix was added or changed on the AUTOGEN keyword on a GROUP definition statement.

System action:
- For MODIFY DR, processing of that command is terminated.
- For VARY DRDS, the function group specified in message IST368I is not processed. Any other function groups in the DR data set dname are processed.
- For VARY ACT, the remaining definition statements are processed unless the resource is a PU. In that case, the LUs subordinate to resource are not processed.

Operator response: Enter a DISPLAY command for resource in message IST886I. Save the system log for problem determination.

If reason is INSUFFICIENT STORAGE, enter the DISPLAY BFRUSE or DISPLAY STORUSE command. Save the system log and request a dump for problem determination.

If reason is UPDATE=ALL REQUIRED - UPDATE=ADD VIOLATES HIERARCHY, do the following:
- If a second PU was added under a LINE, remove the second PU from the definitions. There can only be one PU defined per LINE.
- If a PU name was changed, re-enter the VARY ACT command with UPDATE=ALL instead of UPDATE=ADD.
- If the PU prefix was added or changed on the AUTOGEN keyword on a GROUP definition statement, re-enter the VARY ACT command with UPDATE=ALL instead of UPDATE=ADD.

System programmer response: Use the output from the operator to correct the command issued and the definition statements (if appropriate).

If reason is INSUFFICIENT STORAGE, increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA start options. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRcx) and restart VTAM to use the start option.
- See the z/OS Communications Server: New Function Summary to determine the storage requirements for VTAM.
- See the z/OS Communications Server: SNA Resource Definition Reference for a description of VTAM start options.
- See the z/OS Communications Server: SNA Operation for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- See the z/OS Communications Server: SNA Network Implementation Guide for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
- See the z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

Routing code: 2
Descriptor code: 5
IST1279I  resourcename NOT UPDATED, operand AND CDRSC CONFLICT

Explanation: VTAM issues this message when a MODIFY DIRECTRY,UPDATE command is processed for a CDRSC major node that contains a CDRSC with the same name as the resource specified on the CPNAME or NETSRVR operand.

The resource specified on either the CPNAME or NETSRVR operand cannot be the same name as the CDRSC that is being updated. Either an incorrect value was entered for the CPNAME or NETSRVR operand, or a CDRSC is incorrectly defined.

resourcename is the network-qualified name of the CDRSC being updated in the form netid.name.

operand is either CPNAME or NETSRVR and indicates the operand that was specified on the command.

System action: The CDRSC resourcename is not updated. Other processing continues.

Operator response: Verify that the resource specified on either the CPNAME or NETSRVR operand was correct and reenter the command. If problems persist, save the system log for problem determination.

System programmer response: Check the definition library to ensure that the CDRSC definition is correct. If necessary, change the CDRSC definition so that it can be defined as an owning CP or a network node server.

Routing code: 2
Descriptor code: 5

IST1280I  SESSION TYPE = sessiontype - SENSE = code

Explanation: VTAM issues this message as part of a group of messages. The first message in the group is either IST1110I or IST1097I. See the explanation of the appropriate message for a complete description.

Routing code: 2
Descriptor code: 5

IST1281I  luname ON command MUST BE NETWORK QUALIFIED

Explanation: VTAM issues this message in response to a MODIFY command. luname must be a network-qualified name because the application program that is in session with luname is using network-qualified names.

luname is the name of the logical unit that is specified on the MODIFY command.

command is the MODIFY command that is entered and is either F CNOS or F DEFINE.

System action: The command failed. Other processing continues.

Operator response:
• Reenter the MODIFY command with the required network-qualified name specified as netid.luname.
• If the network ID is not known, you can enter a DISPLAY,CNOS command or DISPLAY,CONVID command specifying luname on the LUNAME operand. VTAM displays all logical units with the specified name that are associated with the application program and the network ID of each logical unit.

System programmer response: None.

Routing code: 8
Descriptor code: 5

IST1282I  MESSAGE FROM exitname IN modulename

Explanation: VTAM issues this message as part of a message group when an exit (for example, the session management exit, ISTEXCAA) calls VTAM Exit Services to issue a message on the system console. A complete description of the message group follows.

Note: If VTAM detects an error in attempting to issue message IST1405I, message IST1455I may be issued. See the explanation of that message for a complete description.
**IST1282I**

IST1282I MESSAGE FROM exitname IN modulename

IST1405I data

[IST1405I data]

IST314I END

**IST1282I**
exitname is the CSECT name of the exit, for example, ISTEXCAA, that provided the text for the message.

modulename is the name of the load module that contains exit exitname.

**IST1405I**
data is up to 56 characters of text provided by exitname.

One or more IST1405I messages will be issued until all of the text provided by exitname has been displayed. The maximum amount of text displayed in one message group is 4096 characters (approximately seventy-four IST1405I messages).

**System action:** Processing continues.

**Operator response:** Save the complete text of the message group for problem determination.

**System programmer response:** If you have questions regarding data, contact the author of exitname. See z/OS Communications Server: SNA Customization for information on exitname.

Routing code: 2

Descriptor code: 4

**IST1283I** MODIFY USERVAR COMMAND COMPLETE

**Explanation:** This message is the first in a group of messages that VTAM issues in response to a MODIFY USERVAR command when the USERVAR has previously been defined. Possible message groups follow.

**Note:** The following messages are percolated. See “Message rerouting and percolation” on page 1106 for additional information.

- If MSGLEVEL=V4R1 or above is specified, the following message group is displayed:

  IST1283I MODIFY USERVAR COMMAND COMPLETE
  [IST1150I uservar CHANGED: value1 TO value2]
  [IST1030I USERVAR EXIT IS exitname]
  [IST973I USERVAR uservar {CLASS HAS BEEN CHANGED FROM AUTO TO USER |
  TYPE HAS BEEN CHANGED FROM type TO type}]
  IST314I END

- If MSGLEVEL=BASE is specified or taken as the default, the following message group is displayed:

  IST1283I MODIFY USERVAR COMMAND COMPLETE
  [IST813I USERVAR uservar CHANGED FROM value1 to value2]
  [IST1030I USERVAR EXIT IS exitname]
  [IST973I USERVAR uservar {CLASS HAS BEEN CHANGED FROM AUTO TO USER |
  TYPE HAS BEEN CHANGED FROM type TO type}]
  IST314I END

See the z/OS Communications Server: SNA Resource Definition Reference for a description of the MSGLEVEL start option and for a description of the MSGLEVEL operand on the USSMSG macro.

**IST813I**

If network-qualified names are not displayed, VTAM issues this message when the value of uservar has been changed.

value1 is the original value of uservar.

value2 is the new value of uservar.

Any subsequent session requests to uservar are routed to the application named in value2.

**IST973I**
IST1284I

VTAM issues this message when one or both of the following has occurred:

– **CLASS HAS BEEN CHANGED FROM AUTO TO USER**
  The MODIFY command was entered for a USERVAR that was being managed automatically by VTAM, thereby changing the class to user-managed.

  **Note:** VTAM no longer manages the updating or deletion of this USERVAR.

– **TYPE HAS BEEN CHANGED FROM type TO type**
  The type of a user-managed USERVAR has been changed.
  *type* can be **STATIC, DYNAMIC, or VOLATILE**.

**IST1030I**

VTAM issues this message if the USERVAR exit is associated with *uservar*.
*exitname* is the name of the USERVAR exit.
If no USERVAR exit is defined, VTAM does not issue this message.

**IST1150I**

If network-qualified names are displayed, VTAM issues this message when the value of *uservar* has been changed.
*value1* is the original value of *uservar*. If a network-qualified name was entered on the previous MODIFY command, VTAM issues value1 as a network-qualified name in the form *netid.name*.
*value2* is the new value of *uservar*. If a network-qualified name was entered on the current MODIFY command, VTAM issues value2 as a network-qualified name in the form *netid.name*.
Any subsequent session requests to *uservar* are routed to the application named in *value2*.

**IST1283I**

This message indicates that the MODIFY USERVAR command completed successfully.

**System action:** Processing continues.
**Operator response:** None.
**System programmer response:** None.
**Routing code:** 2
**Descriptor code:** 5

**IST1284I**

**LUALIAS lualias IS nodename FOR APPLICATIONS**

**Explanation:** This message is part of a group of messages that VTAM issues in response to the following commands:

• **DISPLAY ID command** when the resource name specified on the ID operand is the name of an LUALIAS.
• **DISPLAY SESSIONS command** when either or both of the LU names specified on the command has been defined as an LUALIAS.

The first message in the group is IST075I.

*lualias* is the LUALIAS name defined for the resource *nodename*.

*nodename* is the network-qualified name of the cross-domain resource (CDRSC) in the form *netid.name*.

If *nodename* does not identify the same resource as displayed in message IST075I, use of the name *lualias* will not always identify the same resource.

For example, application programs in this domain that use the name *lualias* will identify *nodename*. However, other logical units and operator commands that use the name *lualias* will not identify *nodename*, but they identify the resource displayed in message IST075I.

**System action:** Processing continues.
**Operator response:** If *nodename* (in this message) does not identify the same resource as displayed in message IST075I, save the system log for problem determination.
**System programmer response:**  If nodename (in this message) does not identify the same resource as displayed in message IST075I, rename the LUALIAS for nodename because this name is already the real name of a resource.

Routing code:  2  
Descriptor code:  5

IST1285I ADDRESS FOR cdrscname DELETED FROM alsname

**Explanation:** VTAM issues this message in response to an address mismatch error. VTAM attempts to delete cross-domain resource cdrscname that was generated under adjacent link station alsname. This message indicates that cdrscname was deleted.

If the PU for alsname is not found,

**System action:**  Processing continues.

**Operator response:**  None.

**System programmer response:**  None.

Routing code:  2  
Descriptor code:  5

IST1287I FAILURE REASON IS LUALIAS lualiasname ALREADY IN USE

**Explanation:**  VTAM issues this message as part of a message group. The first message in the group is IST1286I. See that message for a complete description.

Routing code:  2  
Descriptor code:  5

**System programmer response:**  Ensure that your LUALIAS names are unique. See the z/OS Communications Server: SNA Network Implementation Guide for a description of shadow resources.
IST1288I

IST1288I  TOPOLOGY DATASET RETRIEVAL WAS NOT SUCCESSFUL, CODE = code

Explanation: VTAM issues this message when topology data from a previously saved data set could not be read successfully.

This message is issued primarily for information and does not indicate a loss of processing ability. If you see this message every time you start VTAM, this indicates that it will take longer to set up your first few sessions.

code indicates the reason for the error and is one of following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Insufficient storage.</td>
</tr>
<tr>
<td>2</td>
<td>The disk file is undefined.</td>
</tr>
<tr>
<td>4</td>
<td>Disk I/O errors occurred. These errors are reported in separate messages issued prior to this message.</td>
</tr>
<tr>
<td>8</td>
<td>The data set recovery task abended. This message is issued with no further attempt at data set recovery.</td>
</tr>
<tr>
<td>9</td>
<td>The previously saved data set was incomplete.</td>
</tr>
<tr>
<td>10</td>
<td>The topology and routing services task abended while attempting to recover topology from the database.</td>
</tr>
<tr>
<td>11</td>
<td>The topology and routing services data set was found, but the data set will be ignored because there is a name conflict.</td>
</tr>
<tr>
<td>12</td>
<td>The topology and routing services data set will be ignored because the data set was saved in a format that is not supported by VTAM.</td>
</tr>
</tbody>
</table>

System action: Processing continues.

Operator response:

Code(s) Error
1 Issue the DISPLAY STORUSE command to display storage usage for storage pools. Message IST981I displays total VTAM private storage information. If this message does not appear in the display, you may need to reissue the DISPLAY STORUSE command, specifying a higher value for the NUM operand. See the z/OS Communications Server: SNA Operation for additional information.

Save the system log and request a dump for problem determination.

2, 9, 11, 12
Save the system log for problem determination.

4, 8, 10
Save the system log and request a dump for problem determination.

System programmer response:

Code Error
1 Increase storage as required.

See the z/OS Communications Server: SNA Operation and the z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures for additional information.

See the z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

2 You must define the missing disk file TRSDB. See the applicable sequential access method documentation and the z/OS Communications Server: New Function Summary for additional information.

4 See the applicable sequential access method documentation for more information.

8 See the applicable sequential access method documentation for more information.

9 This code indicates that no action was taken to correct an earlier problem identified in message IST1122I during a previous VTAM checkpoint. You may want to check the system log for the last time you issued the MODIFY CHKPT command to review the information in message IST1122I.

10 Review the contents of the system dump to determine the correct problem determination action.

11 This code indicates that the data set cannot be used because it was saved under a different control point.
name. VTAM will not read the data set, but will write to it. The next time a MODIFY CHKPT command is entered, the old data set will be replaced with the new one.

12 This code indicates that the data set cannot be used because it was saved in a format that is not supported by VTAM. The next time a MODIFY CHKPT command is entered, the data set will be reformatted and can be used.

Routing code: 2
Descriptor code: 5

IST1289I FRSESET frsesetname PHYSICAL UNITS:

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY ID command for an NCP frame relay switching equipment set (FRSESET) or an NCP frame relay physical unit. Possible message groups follow.

• If the FRSESET statement was coded, the following message group is issued.

  IST075I NAME = frsesetname, TYPE = STATIC FRSESET
  IST1289I FRSESET frsesetname PHYSICAL UNITS:
  IST080I primary_pu1 status primary_pu2 status
  [IST080I [backup_pu1 status] [backup_pu2 status]]
  IST314I END

• If the FRSESET statement was added dynamically using the VARY ACT,UPDATE=ALL command, the following message group is issued.

  The second message in this group is IST1290I, IST1291I, IST1292I, or IST1294I, and indicates whether the FRSESET has been sent to the NCP.

  IST075I NAME = frsesetname, TYPE = DYNAMIC FRSESET
  [IST1290I FRSESET HAS BEEN SUCCESSFULLY SENT TO NCP ncpname]
  [IST1291I FRSESET WILL BE SENT TO THE NCP DURING PU ACTIVATION]
  [IST1292I FRSESET WILL NOT BE SENT TO THE NCP DUE TO DEFINITION ERROR]
  [IST1294I FRSESET HAS BEEN SENT TO NCP ncpname BUT FAILURE OCCURRED]
  IST1289I FRSESET frsesetname PHYSICAL UNITS:
  IST080I primary_pu1 status primary_pu2 status
  [IST080I [backup_pu1 status] [backup_pu2 status]]
  IST314I END

• If the display is for an NCP frame relay physical unit, the following message group is issued.

  IST075I NAME = puname, TYPE = PU_T1
  IST486I STATUS = currentstatus, DESIRED STATE = desiredstate
  IST081I LINE NAME = linename, LINE GROUP = linegroup, MAJNOD = majnode
  IST1289I FRSESET frsesetname PHYSICAL UNITS:
  IST080I primary_pu1 status primary_pu2 status
  [IST080I [backup_pu1 status] [backup_pu2 status]]
  IST654I I/O TRACE = {ON|OFF}, BUFFER TRACE = {ON|OFF}
  IST355I LOGICAL UNITS:
  IST080I nodename1 status1 nodename2 status2 nodename3 status3
  IST314I END

IST075I

In message groups 1 and 2, frsesetname is the name of the NCP frame relay switching equipment set (FRSESET) specified on the ID operand of the command.

In message group 3, puname is the name of the physical unit specified on the ID operand of the command and is always a PU type 1.

IST080I

• If this message follows IST1289I, it displays the names of the primary and backup physical units defined for FRSESET frsesetname.

  Backup PUs are optional, and one or both backup PUs can be specified. If only one backup PU is specified, VTAM displays the name and status of the specified backup PU and leaves the other field blank. If no backup PUs are specified, the message is not displayed.

  primary_pu1 is the name of the first PU specified on the SUBPORTS operand of the FRSESET definition statement.
primary_pu2 is the name of the second PU specified on the SUBPORTS operand of the FRSESET definition statement.

backup_pu1, if specified, is the name of the third PU on the SUBPORTS operand of the FRSESET definition statement. backup_pu1 is the backup PU for primary_pu1.

backup_pu2, if specified, is the name of the fourth PU on the SUBPORTS operand of the FRSESET definition statement. backup_pu2 is the backup PU for primary_pu2.

• If this message follows IST355I, nodename is the name of a logical unit.

• status is the status of the resource that is displayed. See Resource Status Codes and Modifiers in z/OS Communications Server: IP and SNA Codes for a description of these status codes.

IST081I

linename is the line to which majnode is connected.
grouppname is the line group to which the line linename belongs.
majnode is the major node with which the line is associated.

IST355I

This message is a header message for IST080I when logical units and their status are displayed.

IST486I

currentstatus is the current status of the resource. See the z/OS Communications Server: New Function Summary for a description of currentstatus.
desiredstate is the resource state that is desired. See the z/OS Communications Server: New Function Summary for a description of desiredstate. if VTAM cannot determine the desired state.

IST654I

This message indicates whether the I/O trace facility is active or inactive for puname in message IST075I, and whether the buffer trace facility is active or inactive for puname.

IST1289I

frsesetname is the name of the FRSESET definition statement displayed in message IST075I.

IST1290I

This message confirms that FRSESET frsesetname has been successfully sent to NCP ncpname.

ncpname is the name of the NCP that received FRSESET frsesetname.

IST1291I

This message indicates that FRSESET frsesetname is valid and will be sent to the NCP when all PUs in the FRSESET have received positive RNAA responses.

IST1292I

This message indicates that FRSESET frsesetname will not be sent to the NCP. The FRSESET is not valid because of a definition error in the FRSESET or one of the PUs. Messages issued prior to this message group provide additional information about the error.

IST1294I

This message indicates that even though FRSESET frsesetname has been sent to NCP ncpname, a failure occurred that prevented successful completion.

ncpname is the name of the NCP that rejected FRSESET frsesetname.

Either message IST380I or message IST1139I will be issued prior to this message group to provide additional information about the cause of the failure.

System action: Processing continues.

• If IST1291I is displayed, the FRSESET will be sent to the NCP when all PUs in the FRSESET have received positive RNAA responses.
If IST1292I is displayed, the PUs may or may not become active. You can monitor this by checking the PU status in message IST080I.

If IST1294I is displayed, VTAM deactivates the PUs in frsesetname.

**Operator response:** None, except in the following situations:
- If IST1291I is displayed, ensure that all the PUs in the FRSESET have been activated.
- If IST1292I or IST1294I is displayed, save the system log for problem determination.

**System programmer response:** None, except in the following situations:
- If IST1292I is displayed, correct the definition errors in the FRSESET or the PUs. Then add new PUs to the FRSESET using dynamic reconfiguration.
- If IST1294I is displayed, correct the error indicated by the sense code in message IST380I or IST1139I. Then add new PUs to the FRSESET using dynamic reconfiguration.

For more information on the FRSESET definition statement, see the *NCP, SSP, and EP Resource Definition Reference*.

For information on dynamic reconfiguration, see the *z/OS Communications Server: SNA Network Implementation Guide*.

Routing code: 2
Descriptor code: 5

**IST1290I**  
FRSESET HAS BEEN SUCCESSFULLY SENT TO NCP *ncpname*

**Explanation:** VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for an NCP Frame Relay Switching Equipment Set (FRSESET). See the explanation of message IST1289I for a complete description of the group.

Routing code: 2
Descriptor code: 5

**IST1291I**  
FRSESET WILL BE SENT TO THE NCP DURING PU ACTIVATION

**Explanation:** VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for an NCP Frame Relay Switching Equipment Set (FRSESET). See the explanation of message IST1289I for a complete description of the group.

Routing code: 2
Descriptor code: 5

**IST1292I**  
FRSESET WILL NOT BE SENT TO THE NCP DUE TO DEFINITION ERROR

**Explanation:** VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for an NCP Frame Relay Switching Equipment Set (FRSESET). See the explanation of message IST1289I for a complete description of the group.

Routing code: 2
Descriptor code: 5

**IST1293I**  
CMIP SERVICES IS ACTIVE

**Explanation:** VTAM issues this message as the result of a start option or MODIFY VTAMOPTS,OSIMGMT=YES command when VTAM CMIP services has been initialized successfully.

This message could also be issued because CMIP services has recovered after an ABEND in CMIP services. In most cases when CMIP services ABENDs, it initiates recovery automatically, as if the user had issued the MODIFY command. The message appears at the end of a successful recovery.

**System action:** Processing continues with CMIP services available.

**Operator response:** None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST1294I  FRSESET HAS BEEN SENT TO NCP ncpname BUT FAILURE OCCURRED

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for an NCP Frame Relay Switching Equipment Set (FRSESET). See the explanation of message IST1289I for a complete description of the group.

Routing code: 2
Descriptor code: 5

IST1295I  CP NAME NODETYPE ROUTERES CONGESTION CP-CP WEIGHT

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO command. Possible message groups follow.

- This message group is issued in response to the following commands:
  - DISPLAY,TOPO,ID=cpname
  - DISPLAY,TOPO,ID=cpname,LIST=ADJ
  - DISPLAY,TOPO,LIST=CDSERVR
  - DISPLAY,TOPO,LIST=ICN
  - DISPLAY,TOPO,LIST=VN
  - DISPLAY,TOPO,LIST=EN
  - DISPLAY,TOPO,LIST=NN
  - DISPLAY,TOPO,ID=cpname,LIST=ALL when it is issued at an end node and the ID specified is not the local end node

IST350I  DISPLAY TYPE = TOPOLOGY
[IST1348I  VTAM STARTED AS nodetype]
[IST1805I  ONLY LOCAL TOPOLOGY INFORMATION IS AVAILABLE]
[IST1803I  parameter PARAMETER VALUE NOT VALID - DEFAULT default USED]
[IST1804I  parameter PARAMETER NOT VALID - IGNORED]
IST1295I  CP NAME NODETYPE ROUTERES CONGESTION CP-CP WEIGHT
IST1296I  cpname  nodetype routeres congestion cp-cp weight

- This message group is issued in response to a DISPLAY,TOPO,ID=cpname,LIST=ALL command when it is issued at a network node, or when it is issued at an end node and the ID that is specified is the local end node:

IST350I  DISPLAY TYPE = TOPOLOGY
IST1295I  CP NAME NODETYPE ROUTERES CONGESTION CP-CP WEIGHT
IST1296I  cpname  nodetype routeres congestion cp-cp weight
IST1579I  ------------------------------------------
IST1297I  ICN/MDH CDSERVR RSN HPR
IST1298I  icn/mdh cdserver rsn option
IST1579I  ------------------------------------------
IST1223I  BN NATIVE TIME LEFT LOCATE SIZE
IST1224I  bn  native  time_left  locate_size
IST924I  -------------------------------------------------------------
IST2356I  PLATFORM = platform
[IST2355I  TDUDIAG THRESHOLD REACHED ON date AT time]
[IST2307I  THIS NODE DOES NOT SUPPORT UNKNOWN TOPOLOGY VECTORS]
[IST2277I  POSSIBLE CORRUPTION OF TOPOLOGY CONTROL VECTORS DETECTED]
IST924I  -------------------------------------------------------------
IST2275I  TDU INFORMATION SINCE LAST RESET ON date AT time
[IST1769I  LAST TDU RECEIVED - date time FROM adjacent_cp]
[IST1784I  LAST TDU RECEIVED - NONE]
[IST2281I  LAST TDU SENT - date time]
[IST2315I  LAST TDU SENT - NONE]
IST2282I  TDU COUNTS:
This message identifies the type of information in the display and is always TOPOLOGY for this message group.

**IST1223I, IST1224I**

- This message subgroup displays the border node status, native status, time left, and locate size for this node. A description of the message subgroup follows:
  
  ![](image1)

- **IST1223I**
  - This message is a header message for the information that is displayed in message IST1224I.

- **IST1224I**
  - *bn* indicates whether the node is a border node. Possible values are:
    - **YES** The node has the border node function enabled and at least one active intersubnetwork link (ISL). For VTAM, the border node function is enabled by coding BN=YES as a VTAM start option.
    - **NO** The node does not have the border node function enabled, or the border node function is enabled but no intersubnetwork link is active.
  
  - The *native* value indicates whether the node is in the same subnetwork as the host node. Possible values are:
    - **YES** *bn* is **YES**, and this node and the node issuing the display are in a subnetwork sharing topology information.
    - **NO** *bn* is **YES**, and this node and the node issuing the display are not in a subnetwork sharing topology information.
    - ***NA*** *bn* is **NO**.
  
  - **time_left** is the number of days remaining until the node entry is removed from the topology database (garbage collected).
  
  - **locate_size** is the maximum APPN Locate message size supported by the node. Possible values are:
    - **nnnK** The valid range for **nnn** is 1–128 expressed in kilobytes.

**IST1295I, IST1296I**

- This message subgroup displays the CP name, node type, route resistance, congestion, CP-CP session support and weight for a node. A description of the message subgroup follows:
  
  ![](image2)

- **IST1295I**
  - This message is a header message for information displayed in message IST1296I.

- **IST1296I**
  - *cpname* is the network-qualified name of the control point (CP) specified on the command.
  
  - *nodetype* is the value that was specified on the NODETYPE start option and is the node type of *cpname*. Possible values are:
    - **EN** End node
    - **NN** Network node
    - **VN** Virtual node
GVRN  Global Virtual Routing Node

UNKNOWN
The topology database has received conflicting information about cpname and is in the process of determining the node type. This is a temporary situation, and the node type should be available in a short time.

If the node is quiescent, /Q is appended to the end of the nodetype value. If the node is ready for garbage collection, /G is appended to the end of the nodetype value.

- routeres is route resistance. This is a user-defined value specified on either the start command or in the start list and indicates the desirability of using cpname in intermediate routes.
  - Possible values are 0–255. A smaller value indicates higher desirability.
  - *NA* is displayed when
    - cpname is an end node. End nodes are not involved in intermediate routing.
    - cpname is a virtual node. The weight of a virtual node is always 0, so routeres is not involved in path weight calculation.
  - See the ROUTERES start option information in z/OS Communications Server: SNA Resource Definition Reference

- congestion provides session congestion information about cpname. Possible values are:
  - NONE Indicates that there is no session congestion for cpname.
  - NODE Indicates that cpname is at its session limit.
  - TDU Indicates that a large amount of topology database update (TDU) traffic is queued for the CP-CP session to cpname.
  - NODE/TDU Indicates that cpname is at its session limit and a large amount of TDU traffic is queued for the CP-CP session to cpname.
  - ***NA*** Indicates that cpname is a virtual node or cpname is the node that is issuing the command.
  - TDU and NODE/TDU are displayed only when both of the following are true:
    - LIST=ADJ is specified on the command.
    - The node specified on the ID operand of the command is the node at which the command is entered (the host node).

- cp-cp indicates whether a CP-CP session is active. Possible values are:
  - YES A CP-CP session is active to this node.
  - NO A CP-CP session is not active to this node.
  - *NA* cpname is a virtual node or cpname is the node that is issuing the command.
- weight represents the actual weight of cpname as calculated by VTAM using the node and Class of Service (CoS) definitions. The value of 32767 is displayed when a node is not operational or does not meet the CoS requirements specified by the APNPCOS parameter in the DISPLAY TOPO command.
  - The weight of cpname is a measure of the relative desirability of choosing that resource in the route selection process and is 0–255 or 32767.

IST1297I, IST1298I

IST1295I
IST1297I  ICN/MDH  CDSERV  RSN  HPR
IST1298I  icn/mdh  cdserver  rsn  option

• IST1297I
  This message is a header message for information displayed in message IST1298I.

• IST1298I
  – The information that is displayed for an end node might not be accurate if the node on which the command is
    executed is not the network node server (NNS) or dependent LU server (DLUS) of the end node, or if the end
    node does not support the registration of local topology information.
  – icn/mdh indicates whether cpname is an interchange node (ICN) or a migration data host (MDH). Possible values
    are:
    YES
    - If NN is specified on the NODETYPE start option and the HOSTSA start option is specified, cpname
      is an interchange node.
    - If EN is specified on the NODETYPE start option and the HOSTSA start option is specified, cpname
      is a migration data host.
    NO
    - If cpname is an NN, it is not an interchange node.
    - If cpname is an EN, it is not a migration data node.
  – cdserver indicates whether cpname is a central directory server. Possible values are:
    YES  cpname is a central directory server.
    NO  cpname is not a central directory server.
  – rsn is the resource sequence number (RSN) of cpname expressed in decimal.
    Displaying the RSN for a resource provides information about VTAM's current knowledge of that resource.
    For example, if a display of a resource from two different VTAMs indicates different RSNs for the same
    resource, one VTAM has backlevel information. This mismatch might indicate a problem.
  – option is the value that was coded for the HPR start option. Possible values are:
    NONE  This node has no HPR capabilities.
    ANR  This node provides ANR routing and can only function as an intermediate node in an HPR connection.
    RTP  This node has all the capabilities of an ANR node and it can function as endpoints for RTP connections.

  For additional information on the meaning of the values for HPR for VTAM nodes, see the description of
  message IST1482I.

IST1299I, IST1300I, IST1301I, IST1357I
• This message subgroup displays the TGs that originate at this node. A description of the message subgroup
  follows:
  IST1299I  TRANSMISSION GROUPS ORIGINATING AT CP cpname
  IST1357I  DESTINATION CP  TGN  STATUS  TGTYPE  VALUE  WEIGHT
  IST1300I  destcpname  tgn  status  tgtype  cpval  weight

• IST1299I
  This is a header message for the TGs that originate in the node that is displayed.
  cp_name is the network-qualified CP name of the origin node of the TGs.

• IST1300I, IST1357I
  These are header messages for the TGs displayed in message IST1301I.

• IST1301I
  – destcpname is the network-qualified CP name of the TG destination node.
  – tgn is the TG number. Possible values are 0–255.
  – status is the current state of the TG. Possible values are:
    OPER  The TG is operational.
The TG is not operational.

The TG is quiescent.

Tip: The status value for an intercluster TG or a TG to a branch extender will always be QUIES when it is displayed in a non-owning node. The owning node of a TG is the node where the TG originates (origin node).

If the TG is ready for garbage collection, /G is appended to the end of the status value.

- **tgtype** is the TG type. Possible values are:
  - **BRANCH**
    The TG is a branch extender. The BRANCH tgtype can be used by IBM Communications Server for Data Center Deployment on Linux. For more information about this function, see IBM Communications Server for Linux, Quick Beginnings, GC31-6768-04.
  - **ENDPT**
    The TG is an endpoint TG. If the origin node or destination node is an EN, then the TG is an endpoint TG.
  - **ENDPT VRTG**
    The TG is an endpoint VR-based TG (VRTG). A VRTG connects two APPN-capable VTAM nodes through a subarea network. A VRTG, although it creates the appearance of APPN, always represents underlying subarea connectivity. If the origin node or destination node is an EN, then the TG is an endpoint VRTG.
  - **INTERM**
    The TG is an intermediate routing TG. An intermediate routing TG represents an NN to NN or NN to virtual routing node (VRN) connection.
  - **INTERM VRTG**
    The TG is an intermediate routing VRTG. A VRTG connects two APPN-capable VTAM nodes through a subarea network. A VRTG, although it creates the appearance of APPN, always represents underlying subarea connectivity. An intermediate routing VRTG represents an NN to NN connection.
  - **INTERCLUST**
    The TG is an intercluster (ICL) or intersubnet link (ISL) TG. These TGs are connections between border nodes or non-native nodes.
  - **cpreal** indicates whether this connection supports CP-CP sessions. Possible values are:
    - **YES**
      The connection supports CP-CP sessions. This is not an indication that a CP-CP session is active across the TG.
    - **NO**
      The connection does not support CP-CP sessions.
  - **weight** represents the actual weight of the TG as calculated by VTAM using the TG, the TG profile, and the class of service (CoS) definitions. The value of 32767 is displayed when a TG is not operational or does not meet the CoS requirements specified by the APPNCS parameter in the DISPLAY TOPO command.
    - The weight of a TG is a measure of the relative desirability of choosing that resource in the route selection process. Valid values 0–255 or 32767.
    - See the [APPN transmission group profile](https://www.ibm.com/) and the [APPN Class of Service definitions](https://www.ibm.com/) in z/OS Communications Server: SNA Resource Definition Reference for more information about coding TG profiles and APPN Class of Service definitions.

- **nodetype** indicates the node type of this host and is determined by start options that are specified. Possible values are:
  - **END NODE**
    The host is a pure APPN end node.
  - **MIGRATION DATA HOST**
    The host is a migration data host (MDH). A node is an MDH if EN is specified on the NODETYPE start option, and the HOSTSA start option is specified.
The *date* and *time* values specify when the last TDU was received for this node. See "DATE and TIME formats" on page 6 for information about the *date* and *time* values.

The *adjacent_cp* value is the network-qualified CP name of the adjacent node that sent the last TDU that was received for this node.

**IST1784I**

This message is issued if no TDU about this resource was received.

**IST1803I**

This message is displayed when a DISPLAY TOPO command is issued at an end node and the parameter value displayed in this message is not valid.

*value* is the parameter value that is not valid and is ignored.

*default* is the default value used for the parameter. The default value shown in this message is used.

**IST1804I**

This message is displayed when a DISPLAY TOPO command is issued at an end node and the parameter displayed in this message is not valid. The parameter is ignored.

*parameter* is the parameter that is not valid.

**IST1805I**

This message is displayed when a DISPLAY TOPO command is issued at an end node. The information displayed from the local topology database might be a subset of the information displayed when the same command is issued at a network node.

**IST2275I**

- This message contains the date and time when all the TDU information and TDU counters were reset. The TDU information and TDU counters for a node are reset every 24 hours when garbage collection runs, or when one of the following commands is entered:
  - DISPLAY NET,TOPO,LIST=TDUINFO,CLEAR=YES
  - DISPLAY NET,TOPO,LIST=TDUDIAG,CLEAR=YES
  - DISPLAY NET,TOPO,LIST=TDUDIAG,ID=*cpname*,CLEAR=YES

  See "DATE and TIME formats" on page 6 for information about the *date* and *time* values.

**IST2277I**

This message indicates that possible topology control vector corruption was detected for the node. Because the topology control vectors contain the resource sequence number (RSN) for the node, which determines how a TDU is processed, it is possible that control vector corruption could cause a TDU war. A TDU war is the endless exchange of TDUs in contention over the same topology resource, resulting in continuous performance degradation of the APPN network. Possible corruption is detected when the topology control vectors saved in the topology database for the node being processed do not appear to be formatted correctly. The most probable cause of control vector corruption is a storage overlay.

**IST2281I**

This message identifies the *date* and *time* of the last topology database update (TDU) that was sent for this node. See "DATE and TIME formats" on page 6 for information about the *date* and *time* values.

**IST2282I, IST2352I, IST2353I, IST2354I**

- This message subgroup displays topology database update (TDU) counts for this node. A description of the message subgroup follows:
  - **IST2282I** TDU COUNTS:
    - **IST2352I** SENT = sent RECEIVED = received
    - **IST2353I** ACCEPTED = accepted REJECTED = rejected
    - **IST2354I** IGNORED = ignored

- **IST2282I**
  - This is a header message for topology database update (TDU) counts for this node.
This message displays counts of TDUs sent and received for this node.
The sent value is the number of TDUs about the node that were sent since the last time that the TDU counts were reset.
The received value is the number of TDUs about the node that were received since the last time that the TDU counts were reset.

This message displays the counts of the TDUs that were accepted and rejected for this node.
The accepted value is the number of TDUs about the node that were accepted since the last time that the TDU counts were reset. The TDUs contain new information about the node and the topology database was updated.
The rejected value is the number of TDUs about the node that were rejected since the last time that the TDU counts were reset. The TDUs were rejected because the TDUs contain outdated information about the node. TDUs that are built from the local topology database information for the node were sent as corrections.

This message displays counts of TDUs ignored for this node.
The ignored value is the number of TDUs about the node that were ignored since the last time that the TDU counts were reset. The TDUs were discarded because the TDUs contained no new information.

This message indicates that the node does not support the receipt of unknown topology vectors in TDUs. Network nodes adjacent to this node can send only the originally architected control vectors, CV44 and CV45, in TDUs to this node.

This message is issued if no TDU about this resource was sent.

This message contains the date and time when the TDUDIAG threshold was reached for this resource. See the TDUDIAG start option information in z/OS Communications Server: SNA Resource Definition Reference for more information about the TDUDIAG threshold. See "DATE and TIME formats" on page 6 for information about the date and time values.

platform is the platform identifier this node. Possible values are:

- ****NA**** Platform identifier is unknown
- CS/2 IBM Communications Server for OS/2
- CS/AIX IBM Communications Server for AIX®
- CS/LINUX Z IBM Communications Server for Linux on System Z
- CS/LINUX I IBM Communications Server for Linux on Intel
- CS/WINDOWS IBM Communications Server for Windows
- ISERIES IBM iSeries®
- SNAPLUS2 Hewlett-Packard SNplus2
- Z/OS VTAM IBM z/OS Communications Server (VTAM)
Z/VM VTAM
IBM z/VM® VTAM

Z/VSE VTAM
IBM z/VSE® VTAM

System action: Processing continues
Operator response: None
System programmer response: None
Routing code: 2
Descriptor code: 5

Example: The following is an example of the display output from a DISPLAY TOPO, ID=SSCP1A, LIST=ALL command:

```
IST350I DISPLAY TYPE = TOPOLOGY
IST1295I CP NAME NODETYPE ROUTERES CONGESTION CP-CP WEIGHT
IST1296I NETA.SSCP2A NN 1 NONE YES *NA*
IST1579I -------------------------------
IST1297I ICN/MDH CDSEVR RSN HPR
IST1298I NO NO 8 RTP
IST1579I -------------------------------
IST1223I BN NATIVE TIME LEFT LOCATE SIZE
IST1224I NO YES 12 16K
IST924I -------------------------------------------------------------
IST2356I PLATFORM = Z/OS VTAM
IST924I -------------------------------------------------------------
IST1296I cpname nodetype routeres congestion cp–cp weight
IST924I -------------------------------------------------------------
```

IST1299I TRANSMISSION GROUPS ORIGINATING AT CP NETA.SSCP2A
IST1357I CPCP
IST1300I DESTINATION CP TGN STATUS TGTYPE VALUE WEIGHT
IST1301I NETA.SSCP1A 255 OPER INTERM VRTG YES *NA*
IST314I END

IST1296I cpname nodetype routeres congestion cp–cp weight

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO command. See IST1295I for a complete description of possible message groups.
Routing code: 2
Descriptor code: 5

IST1297I ICN/MDH CDSEVR RSN HPR

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO command. See IST1295I for a complete description of possible message groups.
Routing code: 2
Descriptor code: 5

IST1298I icn/mdh cdsevr rsn option

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO command. See IST1295I for a complete description of possible message groups.
Routing code: 2
**IST1299I**

Descriptor code: 5

**IST1299I** TRANSMISSION GROUPS ORIGINATING AT CP `cpname`

**Explanation:** VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO command.

- If this message is followed by IST1308I, see the explanation of that message for a complete description of the message group.
- If this message is issued in response to a DISPLAY,TOPO,ID=cpname,LIST=ALL command, see message IST1295I for a complete description of the message group.
- If this message is issued in response to the following commands, a complete description of the message group follows:
  - `DISPLAY,TOPO,ORIG=cpname,DEST=cpname`
  - `DISPLAY,TOPO,ORIG=cpname,TGN=tgn`

**IST1350I** DISPLAY TYPE = TOPOLOGY

**IST1299I** TRANSMISSION GROUPS ORIGINATING AT CP `cpname`

<table>
<thead>
<tr>
<th>IST1357I</th>
<th>CPCP</th>
</tr>
</thead>
<tbody>
<tr>
<td>IST1300I</td>
<td>DESTINATION CP TGN STATUS TGTYPE VALUE WEIGHT</td>
</tr>
<tr>
<td>IST1301I</td>
<td>destcpname tgn status tgtype cpval weight</td>
</tr>
<tr>
<td>IST1579I</td>
<td>------------------------------------------</td>
</tr>
<tr>
<td>IST2241I</td>
<td>TIME ISL</td>
</tr>
<tr>
<td>IST2277I</td>
<td>POSSIBLE CORRUPTION OF TOPOLOGY CONTROL VECTORS DETECTED</td>
</tr>
<tr>
<td>IST2315I</td>
<td>LAST TDU SENT - NONE</td>
</tr>
<tr>
<td>IST2321I</td>
<td>TDU COUNTS:</td>
</tr>
<tr>
<td>IST2353I</td>
<td>ACCEPTED = accepted REJECTED = rejected</td>
</tr>
<tr>
<td>IST2352I</td>
<td>SENT = sent RECEIVED = received</td>
</tr>
<tr>
<td>IST2354I</td>
<td>IGNORED = ignored</td>
</tr>
<tr>
<td>IST314I</td>
<td>END</td>
</tr>
</tbody>
</table>

**IST1736I** PU NAME

**IST1737I** puname

[IST924I -------------------------------------------------------------]

### Transmission Group Summary

<table>
<thead>
<tr>
<th>IST2355I</th>
<th>TDUDIAG THRESHOLD REACHED ON date AT time</th>
</tr>
</thead>
<tbody>
<tr>
<td>IST2277I</td>
<td>POSSIBLE CORRUPTION OF TOPOLOGY CONTROL VECTORS DETECTED</td>
</tr>
<tr>
<td>IST2281I</td>
<td>LAST TDU SENT - date time</td>
</tr>
<tr>
<td>IST2352I</td>
<td>TDU SENT = NONE</td>
</tr>
</tbody>
</table>

**IST1736I** PU NAME

This message identifies the type of information in the display and is always TOPOLOGY for this message group.

**IST1299I, IST1357I, IST1300I, IST1301I**

- This message subgroup displays the origin CP name, destination CP name, TG number, status, type, CP-CP value and weight for this TG. A description of the message subgroup follows:

**IST1299I** TRANSMISSION GROUPS ORIGINATING AT CP `cpname`

<table>
<thead>
<tr>
<th>IST1357I</th>
<th>CPCP</th>
</tr>
</thead>
<tbody>
<tr>
<td>IST1300I</td>
<td>DESTINATION CP TGN STATUS TGTYPE VALUE WEIGHT</td>
</tr>
<tr>
<td>IST1301I</td>
<td>destcpname tgn status tgtype cpval weight</td>
</tr>
</tbody>
</table>

### Transmission Group Information

**IST1299I**

This is a header message for information about a TG that originates in `cp_name`.

The `cp_name` value is the network-qualified CP name of the origin node of the TG.

**IST1357I, IST1300I**
These are header messages for information displayed in message IST1301I.

**IST1301I**

- The `destcpname` value is the network-qualified CP name of the TG destination node.
- The `tgn` value is the TG number. Possible values are 0-255.
- The `status` value is the current state of the TG. Possible values are:
  - **OPER** The TG is operational.
  - **INOP** The TG is not operational.
  - **QUIES** The TG is quiescent.

  **Tip:** The `status` value for an intercluster TG or a TG to a branch extender will always be QUIES when displayed in a non-owning node. The owning node of a TG is the node where the TG originates (origin node).

If the TG is ready for garbage collection, `/G` is appended to the end of the `status` value.

- The `tgtype` value is the TG type. Possible values are:
  - **BRANCH** The TG is a branch extender. The BRANCH `tgtype` can be used by IBM Communications Server for Data Center Deployment on Linux. For more information about this function, see IBM Communications Server for Linux, Quick Beginnings, GC31-6768-04.
  - **ENDPT** The TG is an endpoint TG. If the origin node or destination node is an EN, then the TG is an endpoint TG.
  - **ENDPT VRTG** The TG is an endpoint VR-based TG (VRTX). A VRTG connects two APPN-capable VTAM nodes through a subarea network. A VRTG, although it creates the appearance of APPN, always represents underlying subarea connectivity. If the origin node or destination node is an EN, then the TG is an endpoint VRTG.
  - **INTERM** The TG is an intermediate routing TG. An intermediate routing TG represents an NN to NN or NN to virtual routing node (VRN) connection.
  - **INTERM VRTG** The TG is an intermediate routing VRTG. A VRTG connects two APPN-capable VTAM nodes through a subarea network. A VRTG, although it creates the appearance of APPN, always represents underlying subarea connectivity. An intermediate routing VRTG represents an NN to NN connection.
  - **INTERCLUST** The TG is an intercluster (ICL) or intersubnet link (ISL) TG. These TGs are connections between border nodes or non-native nodes.

- The `cpval` value indicates whether this connection supports CP-CP sessions. Possible values are:
  - **YES** The connection supports CP-CP sessions. This is not an indication that a CP-CP session is active across the TG.
  - **NO** The connection does not support CP-CP sessions.

- The `weight` value represents the actual weight of TG `tgn` as calculated by VTAM using the TG, the TG profile, and the class of service (CoS) definitions. The value of 32767 is displayed when a TG is not operational or does not meet the CoS requirements specified by the APPNCS parameter in the DISPLAY TOPO command.

See the [APPN transmission group profile](https://www.ibm.com) and the [APPN Class of Service definitions](https://www.ibm.com) in [z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com) for more information about coding TG profiles and APPN Class of Service definitions.
This message subgroup displays TG characteristics for this TG. A description of the message subgroup follows:

- **IST1302I**
  - This is a header message for information displayed in message IST1303I.

- **IST1303I**
  - The capacity value is a user-defined value that can be specified on the GROUP, LINE, PU, or TGP definition statements. This value represents the number of bits per second that the link will transmit. Possible values are:
    - **nnnnK** The valid range for nnnn is 1-1000 expressed in kilobits.
    - **nnnnM** The valid range for nnnn is 1-1000 expressed in megabits.
    - **nnnnG** The valid range for nnnn is 1-1000 expressed in gigabits.

  See the information about the CAPACITY operand in z/OS Communications Server: SNA Resource Definition Reference.

  - The pdelay value (propagation delay) is a user-defined value that can be specified on the GROUP, LINE, PU, or TGP definition statements. This value represents the time needed for a signal to travel from one end of the link to the other. Possible values are:
    - **NEGLIGIB** Less than .48 milliseconds.
    - **TERRESTR** Between .48 and 49.151 milliseconds.
    - **PACKET** Between 49.152 and 245.76 milliseconds.
    - **LONG** Greater than 245.76 milliseconds.

  See the information about the PDELAY operand in z/OS Communications Server: SNA Resource Definition Reference.

  - The costtime value is a user-defined value that can be specified on the GROUP, LINE, PU, or TGP definition statements. This value indicates the cost of the line or node per connect time.
    - Possible values are 0-255. Low values are less expensive than higher values.
    - See the information about the COSTTIME operand in z/OS Communications Server: SNA Resource Definition Reference.

  - The costbyte value is a user-defined value that can be specified on the GROUP, LINE, PU, or TGP definition statements. This value indicates the cost of the line or node per byte sent.
    - Possible values are 0-255. Low values are less expensive than higher values.
    - See the information about the COSTBYTE operand in z/OS Communications Server: SNA Resource Definition Reference.

- **IST1304I, IST1305I**
  - This message subgroup displays additional TG characteristics for this TG. A description of the message subgroup follows:

  - **IST1304I**
    - This is a header message for information displayed in message IST1305I.

  - **IST1305I**
    - The security value is the user-specified value that can be specified on the GROUP, LINE, PU, or TGP definition statements. This value indicates the security level of the transmission group. Possible values are:
      - **ENCRYPT** Link encryption used.
GUARDED
Guarded conduit, physical only.

PUBLIC
Public switched network.

SECURE
Secure conduit, not guarded.

SHIELDED
Guarded conduit, physical and radiation shielded.

UNSECURE
Not secure.

UNDERGRO
Underground cable, not guarded.

See the information about the `SECURITY operand` in [z/OS Communications Server: SNA Resource Definition Reference](#).

- The `uparm1`, `uparm2`, and `uparm3` values are user-defined parameter values. The user determines the meaning of these values, and the valid range is 0-255.

See the information about the `UPARM1 operand`, the `UPARM2 operand`, and the `UPARM3 operand` in [z/OS Communications Server: SNA Resource Definition Reference](#).

IST1736I, IST1737I
- This message subgroup displays the physical unit (PU) associated with this TG. A description of the message subgroup follows:

IST1736I

`PU NAME`

IST1737I

`puname`

- **IST1736I**
  
  This is a header message for information displayed in message IST1737I.

- **IST1737I**
  
  The `puname` value is the name of the physical unit.

IST1769I

This message identifies the date and time of the last topology database update (TDU) that was received for this node. See "DATE and TIME formats" on page 6 for information about the date and time values.

The `adjacent_node` value is the network-qualified CP name of the adjacent node that sent the last TDU that was received.

IST1784I

This message is issued if no TDU about this resource was received.

IST2241I, IST1163I, IST1164I

- This message subgroup displays the resource sequence number (RSN), HPR status, time left, and ISL weight for this TG. A description of the message subgroup follows:

IST2241I

`TIME ISL`

IST1163I

`RSN HPR LEFT WEIGHT`

IST1164I

`rsn hpr time isl_wgt`

- **IST1163I**
  
  This is a header message for information displayed in message IST1164I.

- **IST1164I**
  
  - The `rsn` value is the RSN of the transmission group (TG) `tgn` expressed in decimal. The `tgn` is displayed in message IST1301I.
  
  - Displaying the RSN for a resource provides information about VTAM's current knowledge of that resource.
  
  - For example, if a display of a resource from two different VTAMs indicates different RSNs for the same resource, one VTAM might have backlevel information. This mismatch might indicate a problem.
- The **hpr** value indicates whether the TG is allowed to use Rapid Transport Protocols (RTP). Possible values are:

  - **YES**  The TG is allowed to use RTP. This is not an indication that RTP is used across the TG.
  - **NO**  The TG is not allowed to use RTP.

  For more information about the **hpr** value, see the description of message [IST1482].

- The **time** value is the number of days remaining until the TG is removed from the topology database (garbage collected), if the TG is either inoperative or has an odd-numbered **rsn** value. An operational TG with an even-numbered **rsn** value will not be removed from the database until the origin node is removed from the database, or until a topology database update (TDU) is received with an indication that the TG should be removed.

- The **isl_wgt** value represents the actual weight used in route calculation of the TG **tgn** value when the TG originates in a border node and the destination is an Enterprise Extender (EE) global virtual routing node (GVRN). This is the weight of the TG when it is used in a session route calculation and the PLU node calculating the route is in another subnet. When the PLU node is in another subnet, this TG is being used as an intersubnet link (ISL). The weight is calculated by z/OS Communications Server using the TG, the TG characteristics, and the class of service (CoS) definitions.

  - When the TG is used this way, a COSTBYTE value of 0 is temporarily changed to 1 to increase the weight of the TG, so the weight that is displayed in message IST1301I might be different than the ISL weight that is displayed in message IST1164I. If the existing COSTBYTE value that is assigned to the TG is not 0, no change is made, and the weight that is displayed in message IST1301I is the same as the ISL weight that is displayed in message IST1164I. When the TG is being used for routes that are calculated in the subnet that contains the TG, it is not being used as an ISL and the weight that is displayed in IST1301I is used. See the Route calculation and selection information in [z/OS Communications Server: SNA Network Implementation Guide](https://www.ibm.com/support/knowledgecenter/S5GU7Q_2.2.1/com.ibm.zos.v2r1.0/cfgist_man.html) for more information about route calculation using EE global VRNs across network boundaries.

  - The weight of a TG is a measure of the relative desirability of choosing that resource in the route selection process. The **isl_wgt** value can be one of the following:
    - A value in the range of 0-255.
    - 32767 when a TG is not operational or does not meet the CoS requirements specified by the APPNCOS operand in the DISPLAY TOPO command.
    - *NA* when the APPNCOS operand is not specified on the DISPLAY TOPO command, or when the destination of the TG is not an EE GVRN.

  - See the [z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com/support/knowledgecenter/S5GU7Q_2.2.1/com.ibm.zos.v2r1.0/rdfist_man.html) for more information about coding TG profiles and APPN Class of Service definitions.

- This message contains the date and time when all the TDU information and TDU counters were reset. The TDU information and TDU counters for a TG are reset every 24 hours when garbage collection runs, or when one of the following commands is entered:

  - DISPLAY NET,TOPO,LIST=TDUINFO,CLEAR=YES
  - DISPLAY NET,TOPO,LIST=TDUDIAG,CLEAR=YES
  - DISPLAY NET,TOPO,LIST=TDUDIAG,ORIG=cpname,DEST=destcpname,TGN=tgn,CLEAR=YES

  See `DATE and TIME formats` on page 6 for information about the *date* and *time* values.

- This message indicates possible topology control vector corruption was detected for the TG. Because the topology control vectors contain the resource sequence number (RSN) for the TG, which determines how a TDU is processed, it is possible that control vector corruption could cause a TDU war. A TDU war is the endless exchange of TDUs in contention over the same topology resource, resulting in continuous performance degradation of the APPN network. Possible corruption is detected when the topology control vectors saved in the topology database for the TG being processed do not appear to be formatted correctly. The most probable cause of control vector corruption is a storage overlay.

IST2281I

This message identifies the date and time of the last topology database update (TDU) that was sent for this TG. See `DATE and TIME formats` on page 6 for information about the *date* and *time* values.
This message subgroup displays topology database update (TDU) counts for this TG. A description of the message subgroup follows:

**IST2282I TDU COUNTS:**

**IST2352I**
- **SENT** = sent
- **RECEIVED** = received

**IST2353I**
- **ACCEPTED** = accepted
- **REJECTED** = rejected

**IST2354I**
- **IGNORED** = ignored

**IST2282I**

This is a header message for topology database update (TDU) counts for this TG.

**IST2352I**

This message displays counts of TDUs sent and received for this TG.

The *sent* value is the number of TDUs about the TG that were sent since the last time that the TDU counts were reset.

The *received* value is the number of TDUs about the TG that were received since the last time that the TDU counts were reset.

**IST2353I**

This message displays counts of TDUs accepted and rejected for this TG.

The *accepted* value is the number of TDUs about the TG that were accepted since the last time TDU counts were reset. The TDUs contain new information about the node and the topology database was updated.

The *rejected* value is the number of TDUs about the TG that were rejected since the last time that the TDU counts were reset. The TDUs were rejected because the TDUs contain outdated information about the node. TDUs that were built from the local topology database information for the TG were sent as corrections.

**IST2354I**

This message displays counts of TDUs ignored for this TG.

The *ignored* value is the number of TDUs about the TG that were ignored since the last time that the TDU counts were reset. The TDUs were discarded because the TDUs contained no new information.

**IST2315I**

This message is issued if no TDU about this resource was sent.

**IST2355I**

This message contains the date and time when the TDUDIAG threshold was reached for this resource. See the [TDUDIAG start option](z/OS Communications Server: SNA Resource Definition Reference) for information about the TDUDIAG threshold. See “DATE and TIME formats” on page 6 for information about the *date* and *time* values.

**System action:** Processing continues

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

**Example:** The following is an example of the display output from a DISPLAY TOPO,ORIG=SSCP1A,DEST=SSCP2A,TGN=21 command:

```
IST350I DISPLAY TYPE = TOPOLOGY
IST1299I TRANSMISSION GROUPS ORIGINATING AT CP NETA.SSCP1A
IST1357I  CPCP
IST1300I DESTINATION CP   TGN  STATUS  TGTYPE  VALUE  WEIGHT
IST1301I  NETA.SSCP2A    21  OPER   INTERM  YES   *NA*
IST1579I  ------------------------------------------
IST2241I  TIME ISL
IST1163I  RSN  HPR  LEFT  WEIGHT
IST1164I  26  YES  12   *NA*
IST1579I  ------------------------------------------
IST1302I  CAPACITY  PDELAY  COSTTIME  COSTBYTE
IST1303I  32M  TERRESTR  0    0
```
IST1300I  •  IST1304I

IST1579I
IST1304I  SECURITY UPARM1 UPARM2 UPARM3
IST1305I  UNSECURE 128 128 128
IST1579I
IST1301I  PU NAME
IST1736I
IST1307I  P1234567
IST924I

IST2275I  TDU INFORMATION SINCE LAST RESET ON 02/11/10 AT 10:48:52
IST1769I  LAST TDU RECEIVED - 02/11/10 13:40:14 FROM NETA.SSCP1A
IST2281I  LAST TDU SENT - 02/11/10 13:40:20
IST2282I  TDU COUNTS:
IST2352I  SENT = 10  RECEIVED = 4
IST2353I  ACCEPTED = 0  REJECTED = 2
IST2354I  IGNORED = 2
IST314I  END

IST1300I  DESTINATION CP TGN STATUS TGTYPE VALUE WEIGHT

Explanation: VTAM issues this message as part of a group of messages in response to the following commands:

- DISPLAY TOPO,ID=cp_name,LIST=ALL. See message [IST1295I] for a complete description of this message group.
- DISPLAY TOPO,ORIG=orig_cp_name,DEST=dest_cp_name or DISPLAY TOPO,ORIG=orig_cp_name,TGN=tgn. See message [IST1299I] for a complete description of this message group.

Routing code: 2
Descriptor code: 5

IST1301I  destcpname tgn status tgtype cpvalue weight

Explanation: VTAM issues this message as part of a group of messages in response to the following commands:

- DISPLAY TOPO,ID=cp_name,LIST=ALL. See message [IST1295I] for a complete description of this message group.
- DISPLAY TOPO,ORIG=orig_cp_name,DEST=dest_cp_name or DISPLAY TOPO,ORIG=orig_cp_name,TGN=tgn. See message [IST1299I] for a complete description of this message group.

Routing code: 2
Descriptor code: 5

IST1302I  CAPACITY PDELAY COSTTIME COSTBYTE

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO,ORIG=orig_cp_name,DEST=dest_cp_name or DISPLAY TOPO,ORIG=orig_cp_name,TGN=tgn command. See [IST1299I] for a complete description of this message group.

Routing code: 2
Descriptor code: 5

IST1303I  capacity pdelay costtime costbyte

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO,ORIG=orig_cp_name,DEST=dest_cp_name or DISPLAY TOPO,ORIG=orig_cp_name,TGN=tgn command. See [IST1299I] for a complete description of this message group.

Routing code: 2
Descriptor code: 5

IST1304I  SECURITY UPARM1 UPARM2 UPARM3

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO,ORIG=orig_cp_name,DEST=dest_cp_name or DISPLAY TOPO,ORIG=orig_cp_name,TGN=tgn command. See [IST1299I] for a complete description of this message group.

Routing code: 2
Descriptor code: 5

IST1305I  security uparm1 uparm2 uparm3

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY
TOPO,ORIG=orig_cp_name,DEST=dest_cp_name or DISPLAY TOPO,ORIG=orig_cp_name,TGN=tgn command. See
IST1299I for a complete description of this message group.

Routing code: 2

Descriptor code: 5

IST1306I  LAST CHECKPOINT ADJ NN EN SERVED EN CDSERVR ICN BN

Explanation: VTAM issues this message as part of a group of messages in response to a
DISPLAY,TOPO,LIST=SUMMARY command. A complete description of the message group follows the example.

IST350I  DISPLAY TYPE = TOPOLOGY
IST1306I  LAST CHECKPOINT ADJ NN EN SERVED EN CDSERVR ICN BN
IST1307I  date time adj nn en served_en cdservr icn bn
IST1781I  INITDB CHECKPOINT DATASET LAST GARBAGE COLLECTION
IST1785I  initdb_date initdb_time garbage_collect_date garbage_collect_time
[IST2360I  ROUTING TREES LAST CLEARED AT clear_date clear_time BY clear_process]
IST314I  END

IST350I

This message identifies the type of information shown in the display and is always TOPOLOGY for this message
group.

IST1306I

This message is the header for information displayed in message IST1307I.

IST1307I

• date and time are displayed for LAST CHECKPOINT.

  The date and time values indicate the date and time of the last topology data base checkpoint. See “DATE and
  TIME formats” on page 6 for information about the date and time values.

  adj is the number of nodes adjacent to the node issuing the command.

  nn is the total number of network nodes known to the network.

  en is the total number of end nodes with a direct APPN connection to this node.

  served_en is the number of adjacent end nodes served by the node issuing the command.

  cdrserv is the total number of directory servers known to the network.

  icn is the total number of interchange nodes known to the network.

  bn is the total number of border nodes known to the network.

IST1781I

This message is the header for information displayed in message IST1785I.

IST1785I

initdb_date and initdb_time are the creation date and time of the topology checkpoint data set that was successfully
loaded when VTAM was started with start option INITDB=TOPO or INITDB=ALL. See “DATE and TIME
formats” on page 6 for information about the date and time values.

garbage_collect_date and garbage_collect_time are the date and time of the last topology data base garbage collection.
See “DATE and TIME formats” on page 6 for information about the date and time values.
**IST1307I • IST1308I**

**IST2360I**

- *clear_date* and *clear_time* are the date and time that the APPN routing trees were last cleared. See [DATE and TIME formats](#) on page 6 for information about the date and time values.
- *clear_process* is the process that cleared the routing trees. Possible values are:
  - **MODIFY**
    - The APPN routing trees were cleared with a MODIFY *procname*,TOPO,FUNCTION=CLRTREES command.
  - **VRR**
    - The APPN routing trees were cleared by the VTAM recovery routine for APPN route selection services. VTAM invokes this recovery routine when an abend occurs while APPN route selection services is calculating a session route.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

**Automation:** Not applicable.

---

**IST1307I**

\[
\text{date time adj un en served en dirsrv icn bn}
\]

**Explanation:** VTAM issues this message as part of a group of messages in response to a DISPLAY,TOPO,LIST=SUMMARY command. See IST1306I for a complete description of the group.

**Routing code:** 2

**Descriptor code:** 5

---

**IST1308I**

**RESOURCE WAS NOT FOUND IN THE TOPOLOGY DATABASE**

**Explanation:** VTAM issues this message as part of a group of messages when the resource specified or implied (NODE or TG) on the command cannot be found in the topology database.

If this message is the result of a MODIFY TOPO command, then the first message is IST1158. See the explanation of that message for a complete explanation.

If this message is the result of a DISPLAY TOPO command, a complete description of the message group follows the example.

```
IST350I  DISPLAY TYPE = TOPOLOGY
[IST1348I  VTAM STARTED AS nodetype]
[IST1805I  ONLY LOCAL TOPOLOGY INFORMATION IS AVAILABLE]
[IST1299I  TRANSMISSION GROUPS ORIGINATING AT CP cpname]
IST1308I  RESOURCE WAS NOT FOUND IN THE TOPOLOGY DATABASE
IST314I  END
```

**IST1299I**

- Message IST1299I is issued for the following commands:
  - DISPLAY,TOPO,ORIG=cpname,DEST=cpname
  - DISPLAY,TOPO,ORIG=cpname,TGN=tgn

  **Note:** If the origin *cpname* is not valid, message IST1299I is not issued.

  *cpname* is the name of the resource specified on the ORIG operand of the command. If a network-qualified name was entered on the command, VTAM issues *cpname* in the form netid.name.

**IST1308I**

This message is issued when *nodename* or *tgnumber* cannot be found in the topology database.

**IST1348I**

- Message IST1348I is issued for the following commands entered from an end node or a migration data host:
- DISPLAY,TOPO,LIST=NN | EN | BN | ICN | VN | CDSERV
- DISPLAY,TOPO,LIST=SUMMARY

**nodetype** indicates the node type of this host and is determined by start options that are specified. Possible values are:
- END NODE
- MIGRATION DATA HOST

**IST1805I**
This message is displayed when a DISPLAY TOPO command is issued at an end node and the requested information is not available.

**System action:** Processing continues.

**Operator response:** Ensure that you entered the command correctly.

**System programmer response:** None.

Routing code: 2
Descriptor code: 5

---

**IST1309I**
**START OPTION CURRENT VALUE ORIGINAL VALUE ORIGIN**

**Explanation:** VTAM issues this message as part of a group of messages in response to a DISPLAY VTAMOPTS command. The first message in the group is IST1188I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

---

**IST1310I**
**option current_value original_value origin**

**Explanation:** VTAM issues this message as part of a group of messages in response to a DISPLAY VTAMOPTS command. The first message in the group is IST1188I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

---

**IST1311A**
**ENTER START OPTION OVERRIDES OR ENTER HALT TO EXIT VTAM**

**Explanation:** VTAM issues this message in response to the following situations during start processing:
- VTAM encountered an error during processing of VTAM start options.
- The operator asked for additional prompting in response to message IST051A.

**System action:** VTAM waits for a reply to this message.
- If the LIST start option is entered, VTAM ignores it.
- If HALT is entered, start processing ends and VTAM is terminated.

**Operator response:**
- Enter start options to override current values, or enter a blank to indicate that you want default values. If you need another prompt for further overrides, follow the last option with a comma.
- Enter HALT to terminate VTAM.

**System programmer response:** None.

Routing code: 2
Descriptor code: 1
IST1312I • IST1314I

IST1312I NO START OPTIONS HAVE BEEN MODIFIED

Explanation: VTAM issues this message in response to a DISPLAY VTAMOPTS command when FORMAT=MODIFIED was specified and no start options have been modified since VTAM start.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST1313I NO TRACES ACTIVE FOR resourcename

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY TRACES command when there are no active traces for resourcename.
resourcename is the name of the resource specified on the ID operand of the command.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST1314I TRLE = trl_element STATUS = trle_status CONTROL = lnctl

Explanation: VTAM issues this message as part of a message group in response to any of the following commands:
• A DISPLAY ID command for a PU that supports an APPN host-to-host connection.
• A DISPLAY ID command for a PU that supports an XCF connection.
• A DISPLAY TRL command when the TRLE operand is not specified.

trl_element is the name of an element in the active transport resource list (TRL).

When lnctl is TCP, the name of the TRLE element (TRLE) given by trl_element is dynamically generated by VTAM. The first three characters of the name are always IUT and the fourth character of the name indicates the device type according to the following list:
C CDLC
H Hyperchannel
L LCS
S Samehost
W CLAW
X CTC

When lnctl is ROCE, the name of the TRLE given by trl_element is dynamically generated by VTAM. The first three characters of the name are always IUT, the fourth character represents the port number (1 or 2), and the last four characters represent the Peripheral Component Interconnect Express (PCIe) function ID (PFID) used by the IBM 10GbE RoCE Express feature represented by trl_element.

trle_status is the resource status code that indicates the current status of the TRL element. If trle_status is ****NA**** then the TRL major node with the TRLE named on the PU definition must be activated. See Resource Status Codes and Modifiers in z/OS Communications Server: IP and SNA Codes for a description of these status codes.

lnctl is the line control setting for trl_element, and can be one of the following:
MPC
  multipath channel

ROCE
  RDMA (Remote Direct Memory Access) over Converged Ethernet

TCP
  transmission control protocol

XCF
  cross-system coupling facility

System action:  Processing continues.

Operator response:  None.

System programmer response:  None.

Routing code:  2
Descriptor code:  5

IST1315I  DISPLAY TRUNCATED AT keyword = number

Explanation:  This message is part of several different message groups that VTAM issues in response to a DISPLAY command.

VTAM issues this message when the number of resources to be displayed exceeds the value specified for the MAX or NUM operand.

keyword is either MAX or NUM.

number is the value specified for the MAX or NUM operand.

This message can be issued for any of the following commands:
  • DISPLAY ADJSSCPs
  • DISPLAY APPLS
  • DISPLAY AUTOLOG
  • DISPLAY CDRMS
  • DISPLAY CDRSCS
  • DISPLAY CLSTRS
  • DISPLAY CPCP
  • DISPLAY DIRECTRY,ID=*.name
  • DISPLAY EEDIAG
  • DISPLAY EXIT
  • DISPLAY GROUPS
  • DISPLAY GRAFFIN
  • DISPLAY LINES
  • DISPLAY LUGROUPS,SCOPE=ALL
  • DISPLAY MAJNODES
  • DISPLAY PATHTAB
  • DISPLAY PENDING
  • DISPLAY RSCLIST
  • DISPLAY SRCHINFO
  • DISPLAY SESSIONS,LIST=ALL
  • DISPLAY STATIONS
  • DISPLAY STATS,TYPE=CFS
  • DISPLAY STATS,TYPE=VTAM
  • DISPLAY STORUSE
  • DISPLAY TABLE,SCOPE=ALL
IST1316I • IST1317I

- DISPLAY TERMS
- DISPLAY TGPS
- DISPLAY TRL
- DISPLAY TOPO, LIST=UNRCHTIM
- DISPLAY USERVAR.

Routing code: 2
Descriptor code: 5

<table>
<thead>
<tr>
<th>IST1316I</th>
<th>PU NAME = puname STATUS = status TRLE = trl_element</th>
</tr>
</thead>
</table>

Explanation: VTAM displays this message as part of a message group in response to a DISPLAY ID, SCOPE=ALL command for a local SNA major node which contains at least one PU that supports APPN host-to-host connections.

- **puname** is the name of a PU that supports an APPN host-to-host connection.
- **status** is the status of the PU. See the [z/OS Communications Server: New Function Summary](#) for status information.
- **trl_element** is the name of an element in the active transport resource list (TRL). It identifies which element defining a multipath channel (MPC) group will be used as the supporting data link control (DLC) for this APPN host-to-host connection.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

<table>
<thead>
<tr>
<th>IST1317I</th>
<th>DLCADDR SUBFIELDS FOR PID: pid [instance]</th>
</tr>
</thead>
</table>

Explanation: This message is the first in a subgroup of messages that VTAM issues in response to the DISPLAY PATHS command.

This message subgroup is displayed in a message group headed by IST148I. A complete description of the message subgroup follows.

<table>
<thead>
<tr>
<th>IST1317I</th>
<th>DLCADDR SUBFIELDS FOR PID: pid [instance]</th>
</tr>
</thead>
<tbody>
<tr>
<td>IST1318I</td>
<td>parameter_value</td>
</tr>
<tr>
<td>[IST1319I</td>
<td>parameter_value]</td>
</tr>
<tr>
<td>...</td>
<td></td>
</tr>
<tr>
<td>[IST1318I</td>
<td>parameter_value]</td>
</tr>
<tr>
<td>[IST1319I</td>
<td>parameter_value]</td>
</tr>
<tr>
<td>...</td>
<td></td>
</tr>
</tbody>
</table>

**pid** is the path identifier that was specified on the PATH definition statement.

- **instance** indicates that **parameter_value** in the group of IST1318I messages that follow correspond to the **instance** of the message IST168I with a **pid** of 000. You must count the group of IST168I messages to find the **instance** of message IST168I with a **pid** of 000. **instance** is only displayed when **pid** is 000.

**IST1318I**

- **parameter_value** is the DLCADDR value specified in the PATH definition statement. The message will appear as follows:

  - IST1318I yy,N'parameter_value' |
  - **N** is the value specified on the DLCADDR keyword.
  - yy is the subfield ID.
  - If the DLCADDR value was coded in hexadecimal or binary coded decimal (BCD), **parameter_value** is displayed with a blank separating every 8 characters of data. If an odd number of digits was coded for the DLCADDR value, **parameter_value** will be padded on the left with a 0.
IST1319I

This message is used to display overflow information from parameter_value in message IST1318I.

**System action:** Processing continues

**Operator response:** None.

**System programmer response:** None.

Routing code: 2

Descriptor code: 5

---

IST1318I  

**Explanation:** VTAM issues this message as part of a message group. The first message in the group is either IST149I, IST1317I, or IST1351I. See the explanation of those messages for a complete description of the message group.

Routing code: 2

Descriptor code: 5

---

IST1319I  

**Explanation:** VTAM issues this message as part of a message group. The first message in the group is either IST149I, IST1317I, or IST1351I. See the explanation of those messages for a complete description of the message group.

Routing code: 2

Descriptor code: 5

---

IST1320I  

**command IS ONLY VALID AT type**

**Explanation:** VTAM issues this message when command is not valid for the node.

*command* can be one of the following:
- D ADJCLUST
- D APPNTOSA
- D BNCOSMAP
- D GRPREFS
- D SAMAP
- D SATOAPPN

*type* can be one of the following:
- APPN NODE
- BORDER NODES
- NN
- SYSPLEX HOST

**System action:** Processing continues.

**Operator response:** Save the system log for problem determination.

**System programmer response:** To enter *command* from this node, define the node as a border node, an APPN node, a network node, or a sysplex host.

Routing code: 2

Descriptor code: 5
**IST1321**

**TABLE FOR** `tabletype` `[netid]`

**Explanation:** This message is part of a group of messages that VTAM issues in response to a DISPLAY BNCOSMAP, APPNTPSASA, SATOAPPN, or SNSFILTR command. Possible message groups follow.

- If the display type is **BNCOSMAP**, the following message group is displayed.

  
  ```
  IST350I  DISPLAY TYPE = BNCOSMAP
  IST1321I  TABLE FOR BNCOSMAP netid
  IST1322I  NON-NATIVE  NATIVE
  IST1323I  non-native  native
  ...
  IST314I  END
  ```

- If the display type is **APPNTOSA**, the following message group is displayed.

  
  ```
  IST350I  DISPLAY TYPE = APPNTOSA
  IST1321I  TABLE FOR APPNTOSA
  IST1431I  APPN COS  SUBAREA COS
  IST1323I  appn_cos  subarea_cos [DEFAULT]
  ...
  IST314I  END
  ```

- If the display type is **SATOAPPN**, the following message group is displayed.

  
  ```
  IST350I  DISPLAY TYPE = SATOAPPN
  IST1321I  TABLE FOR SATOAPPN
  IST1514I  SUBAREA COS  APPNCOS
  IST1323I  appn_cos  subarea_cos [DEFAULT]
  ...
  IST314I  END
  ```

- If the display type is **SNSFILTR**, the following message group is displayed.

  
  ```
  IST350I  DISPLAY TYPE = SNSFILTR
  IST1321I  TABLE FOR SNSFILTR
  IST1551I  sense_1  sense_2  sense_3  sense_4  sense_5
  ...
  IST314I  END
  ```

- If the display type is **SAMAP**, the following message group is displayed.

  
  ```
  IST350I  DISPLAY TYPE = SAMAP
  IST1321I  TABLE FOR SAMAP
  IST1671I  subarea_number MAPSTO subarea_number
  ...
  IST314I  END
  ```

**IST350I**

This message identifies the type of information shown in the display.

- `type` in this message group is either **BNCOSMAP, APPNTOSA, SATOAPPN, SNSFILTR, or SAMAP**. The display contains information about the specified user-defined tables that are active in VTAM.

**IST1321I**

- `tabletype` is either **BNCOSMAP, APPNTOSA, SATOAPPN, SAW SENSE FILTER, or SAMAP**.
- `netid` is displayed when `tabletype` is **BNCOSMAP** and represents the network ID that corresponds to the COS mappings.
  - `netid` is the name of the network that was specified on the NETWORK definition statement.
  - **DEFAULT_NETID** is displayed if no specific value for `netid` has been defined.

**IST1322I, IST1431I, IST1514I**

This message is a header for the information displayed in message IST1323I.

**IST1323I**

- If `tabletype` in message IST1321I is **BNCOSMAP**, this message shows the corresponding nonnative and native COS names.

  - `nonnative` is the name of the COS that is defined in an adjacent nonnative subnetwork.
native is the COS name to which the nonnative COS will map in the topology subnetwork of the issuing node.

- If tabletype in message IST1321I is APPNTOSA, this message shows the corresponding APPN and subarea COS mappings.
  - appn_cos is the COS name that is used for routing through the APPN network.
  - subarea_cos is the COS name that is used for routing through the subarea network.

DEFAULT is displayed if COSDEF=YES is specified on the MAPSTO entry of the VBUILD definition statement.

IST1431I
This message is a header for the information displayed in message IST1323I.

IST1514I
This message is issued in response to a DISPLAY SATOAPPN command.

IST1551I
sense is a user-specified sense code, used by VTAM to filter session awareness data concerning session setup failures for a CNM application.

IST1671I
subarea_number is the subarea number coded in the SAMAP table. The two subarea numbers represent the two subarea components in the composite network node (CNN) that are connected to each other.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST1322I NON-NATIVE NATIVE
Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY COSMAP command. See the explanation of message IST1321I for a complete description of the message group.

Routing code: 2
Descriptor code: 5

IST1323I non-native native
Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY COSMAP command. See the explanation of IST1321I for a complete description of the message group.

Routing code: 2
Descriptor code: 5

IST1324I VNNAME = vnname VNGROUP = vngroup vntype
Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command when one of the following resources was specified on the ID operand of the command:
- Name of a line definition statement for a NCP major node
- Name of a port definition statement for a XCA major node.

VTAM also issues this message as part of several message groups in response to a DISPLAY EE command. These message groups begin with message IST2000I or IST2002I. See the explanations of those messages for a complete description.

vnname is the fully qualified virtual routing node name.
IST1326I • IST1328I

vngroup is the GROUP associated with the connection network definition. If vngroup is not coded when vntype is GLOBAL, then the value in vngroup will be a string of periods.

vntype indicates the type of HPR/IP (Enterprise Extender) connection network. Possible values are:

(LOCAL)
The connection network is being defined as a LOCAL Virtual Routing Node (the connection network cannot traverse network or subnetwork boundaries.) Either VNTYPE was not specified, or VNTYPE was specified as LOCAL on the definition of the HPR/IP (Enterprise Extender) virtual node.

(GLOBAL)
The connection network is being defined as a GLOBAL Virtual Routing Node (the connection network can traverse network or subnetwork boundaries.) VNTYPE was specifies as GLOBAL on the definition of the HPR/IP (Enterprise Extender) virtual node.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST1326I CP NAME TYPE STATE STATUS SNVC

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY ADJCLUST command. The first message in the group is IST2207I. See the explanation of message IST2207I for a complete description.
Routing code: 2
Descriptor code: 5

IST1327I cpname type state status snvc

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY ADJCLUST command. The first message in the group is IST2207I. See the explanation of message IST2207I for a complete description.
Routing code: 2
Descriptor code: 5

IST1328I TRLE trl_element NOT FOUND

Explanation: VTAM issues this message in response to the following commands when the TRLE requested is not found in an active transport resource list (TRL):
• DISPLAY TRL,TRLE=trl_element
• MODIFY TNSTAT,TRLE=trl_element
• MODIFY NOTNSTAT,TRLE=trl_element
• MODIFY INOPDUMP=ON,TRLE=trl_element
• MODIFY INOPDUMP=OFF,TRLE=trl_element

trl_element is the name of an element that is not in an active TRL major node.

System action: Processing continues
Operator response: Activate the TRL major node definition that contains the TRLE and reissue the command. If the message is displayed again, save the system log for problem determination.
System programmer response: If necessary, add a TRLE statement for the trl_element to a TRL major node definition.
Routing code: 2

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IST1329I  command resource FAILED – VIRTUAL NODE NOT DEFINED

Explanation: VTAM issues this message in response to a MODIFY TGP command when a virtual node has not been defined for resource.

command is always MODIFY TGP.

resource is one of the following:

- The resource name that is specified on the ID operand of command
- The resource identified by the adjacent control point that is coded on the ID operand and the transmission group number that is coded on the TGN operand of command.

System action: Processing continues.

Operator response: Ensure that you entered resource correctly.

If VTAM continues to issue this message, save the system log for problem determination, and print the major node definition for resource.

System programmer response: Verify that resource has defined the virtual node by coding VNNAME and VNGROUP on:

- Port definition statement for an XCA major node
- Line or group definition statement for an NCP major node.

See to the z/OS Communications Server: SNA Resource Definition Reference for more information about these definition statements.

Routing code: 2

Descriptor code: 5

IST1330I  type CANNOT BE ACTIVATED FROM nodetype

Explanation: VTAM issues this message in response to a VARY ACT command when type cannot be activated from this nodetype.

type can be one of the following:

APPNCOS
    APPN Class of Service

ADJCP
    Adjacent control point

ADJSSCP
    Adjacent system services control point

CDRM
    Cross domain resource manager

NCP
    Network Control Program

NETSRVR
    Network node server list

PATH
    Path definition statement

PUTYPE4
    Physical unit type 4

PUTYPES
    Physical unit type 5

TGP
    Transmission group profile
nodetype represents the type of node from which the command was issued, and can be one of the following:

**APPN NODE**
- The node is an APPN network node or APPN end node.

**EN**
- The node is an APPN end node.

**MDH**
- The node is a migration data host and acts as both an APPN end node and a subarea node.

**NN**
- The node is an APPN network node.

**SUBAREA NODE**
- The node is a subarea node. It uses network addresses for routing and maintains routing tables that reflect the configuration of a network.

Message IST072I or IST1264I follows this message and displays the name of the resource that was specified on the ID operand of the VARY ACT command.

**System action:** Processing continues.

**Operator response:** Ensure that you entered the command correctly. If problems persist, save the system log for problem determination.

**System programmer response:** Check your network configuration to determine which value (type or nodetype) is not correct.

**Routing code:** 2

**Descriptor code:** 5

---

**IST1331** resource IS INACTIVE

**Explanation:** VTAM issues this message in response to a MODIFY VTAMOPTS,OSIMGMT=NO command when the command is completed successfully.

**resource** is always CMIP SERVICES.

**System action:** Processing continues.

**Operator response:** If you want to restart CMIP services, issue MODIFY VTAMOPTS,OSIMGMT=YES.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

---

**IST1332** CMIP SERVICES LOAD FAILED FOR module IN library

**Explanation:** VTAM issues this message when VTAM is unable to load the module from the library. This module is needed for CMIP services to be active.

**System action:** Processing continues. VTAM CMIP services is inactive.

**Operator response:** Collect the system log for problem determination.

**System programmer response:** This problem is most probably a LINKEDIT failure. Ensure that the load module module resides in the library library.

**Routing code:** 2

**Descriptor code:** 5

---

**IST1333** ADJLIST= listname

**Explanation:** This message is part of several groups of messages that VTAM issues in response to a DISPLAY ID command for a CDRSC when SCOPE=ALL and to a DISPLAY ADJSSCPS, ADJLIST=*listname command.

* If the first message is IST977I, IST831I, or IST611I, see the explanations of those messages for a complete description of the message group.
If the first message is IST350I, a complete description of the message group follows the example.

IST350I  DISPLAY TYPE = ADJACENT SSCP TABLE
IST1333I  ADJLIST = listname
IST624I  sscpname
;
IST314I  END

This message group is issued when an ADJLIST and an ADJSSCP were specified on the command.

IST350I
This message identifies the type of information shown in the display. DISPLAY TYPE is always ADJACENT SSCP TABLE for this message group.

IST624I
VTAM issues this message for each SSCP sscpname in the adjacent SSCP table being displayed.

IST1333I
This message is displayed for each ADJLIST defined and activated. It will be followed by an IST624I message for each member in the adjacent SSCP list.

An ADJLIST definition statement must be active for this message to be displayed. listname is the name of an adjacent SSCP table as defined by an ADJLIST definition statement.

If an adjacent SSCP table was not specified for the CDRSC, See the descriptions of the ADJLIST definition statement in the z/OS Communications Server: SNA Resource Definition Reference for more information on adjacent SSCP tables.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2
Descriptor code: 5

IST1334I  TGN NOT AVAILABLE

Explanation: This message is part of a group messages that VTAM issues in response to a VARY ACT for a line when the activation of the logical connection to the virtual node fails. The first message in the group is IST1166I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST1335I  statementname HAS NO ADJCDRM STATEMENT FOR ADJLIST listname

Explanation: This message is the first in a group of messages that VTAM issues during configuration when the VBUILD TYPE=ADJSSCP definition has one or more null ADJLIST lists. The null ADJLIST lists are ignored. A complete description of the message group follows.

IST1335I  statementname HAS NO ADJCDRM STATEMENT FOR ADJLIST listname
IST323I  LABEL = label name - MACRO TYPE = macrotype - KEYWORD = keyword

statementname is the ADJSSCP statement.

listname is the name of the adjacent SSCP table as defined by an ADJLIST definition statement.

System action: Adjsscp activation fails.

Operator response: Save the system log and notify the system programmer.

System programmer response: Correct the null ADJLIST situation by doing one of the following:

• If the ADJLIST list is not needed, remove it from the definition.
If the ADJLIST list is needed, add one or more ADJCDRM statements following the ADJLIST statements.

**Routing code:** 2  
**Descriptor code:** 5

---

**IST1336I**  
**puuname** ACTIVATION FAILED – CONFLICTING **operand** VALUES

**Explanation:** VTAM issues this message when a PU definition contains the NATIVE operand and the value conflicts with the value on the ADJCP definition.

`puuname` is the name of the PU for which the activation failed.  
`operand` is NATIVE.

**System action:** Processing continues.  
**Operator response:** Save the system log for problem determination.  
**System programmer response:** Make sure that the values of the operand are the same on the ADJCP and PU definitions.

**Routing code:** 2  
**Descriptor code:** 5

---

**IST1337I**  
**operand** ON `labelname` IGNORED – ONLY VALID FOR BN

**Explanation:** VTAM issues this message when

- The NATIVE operand was specified on a GROUP, LINE, PU, or ADJCP definition statement.  
- The ALIASRCH, AUTHNETS, or RTPONLY operand was specified on an ADJCP definition statement, but this node is not a border node.

The operand is ignored.

`operand` is NATIVE, ALIASRCH, AUTHNETS, or RTPONLY.  
`labelname` is the label of the definition statement specifying the operand.

**System action:** Processing continues.

**Operator response:** Save the system log for problem determination.

**System programmer response:** Remove the NATIVE, ALIASRCH, AUTHNETS, or RTPONLY operand if this node is not supposed to be a border node. Otherwise the node must be brought down and then brought back up as a border node.

**Routing code:** 2  
**Descriptor code:** 5

---

**IST1338I**  
**operand** VALUE ON `resourcename` IGNORED- VALUES CONFLICT

**Explanation:** VTAM issues this message when an ADJCP definition contains the NATIVE or NN operand and the value conflicts with the value in the existing ADJCP definition. The NATIVE/NN value specified is ignored in favor of the existing value.

`operand` is NATIVE or NN.  
`resourcename` is the network-qualified name on the ADJCP statement in error. `resourcename` is in the form `netid.label`.

**System action:** Processing continues.  
**Operator response:** Save the system log for problem determination.

**System programmer response:** Correct the value specified for NATIVE or NODETYPE in the dynamic ADJCP definition.

**Routing code:** 2
Descriptor code: 5

IST1342I DNSUFX = dnsufx

Explanation: This message is part of a group of messages which VTAM issues when a DISPLAY ID command is entered for a TCP/IP major node. A complete description of the message group follows.

IST075I NAME = nodename, TYPE = TCP/IP MAJOR NODE
IST486I STATUS= currentstatus, DESIRED STATE= desiredstate
IST1342I DNSUFX = dnsufx
IST1343I dnsufx_continuation
IST1692I TCB = taskno TCP PORT = portno
IST1400I DGTIMER = dgtimer EXTIMER = extimer
IST1406I CONTIMER = contimer IATIMER = iatimer
IST654I I/O TRACE = {ON|OFF}, BUFFER TRACE = {ON|OFF} [- AMOUNT = value]
IST170I LINES:
IST232I linename, status,[CUA = device address]
IST314I END

IST075I nodename is the name of the resource that was entered on the DISPLAY ID command.
Type is always TCP/IP MAJOR NODE for this display.

IST232I linename is the name of a leased line defined for a type 5 physical unit, a switched line defined for a type 2 physical unit, or a VCNS line.
status is the condition or state of the channel-to-channel adapter or the token-ring sub-system.
device address is the hexadecimal channel unit address of linename. device address is only displayed for a communication adapter.

IST486I currentstatus is the current status of the node.
desiredstate is the node state that is desired. If VTAM cannot determine the desired state, desiredstate

IST654I

• AMOUNT = value is displayed if BUFFER TRACE = ON. value represents the AMOUNT operand value specified on the TRACE start option or the MODIFY TRACE command, and indicates how much of the buffer's contents are traceable. value can be one of the following:
  
  PARTIAL
  The trace record has a maximum size of 256 bytes including header information.
  
  FULL
  All of the buffer's contents are traceable.

Note: If AMOUNT is not specified when the buffer contents trace is activated, the default value PARTIAL is displayed.
See the z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures for more information.

IST1342I dnsufx is the domain name suffix which is the 1 to 237 character value specified on the DNSUFX operand of the VBUILD definition statement.

IST1343I This message is used to display overflow information from dnsufx in message IST1342I. dnsufx_continuation is repeated until the complete domain name suffix is displayed.

IST1400I dgtimer is the value of the DGTIMER operand specified in the VBUILD definition statement. The value is in the range of 1 - 65535 seconds.

extimer is the value of the EXTIMER operand specified in the VBUILD definition statement. The value is in the range of 1 - 65535 seconds.
**IST1406I**

` CONTIMER` is the value of the CONTIMER operand specified in the VBUILD definition statement. The value is in the range of 1 - 65535 seconds.

`IATIMER` is the value of the IATIMER operand specified in the VBUILD definition statement. The value is in the range of 1 - 65535 seconds.

**IST1692I**

`TASKNO` is the number of MVS tasks specified on the TCB operand of the VBUILD definition statement.

`PORTNO` is the TCP port number specified on the PORT operand of the VBUILD definition statement.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 8

**Descriptor code:** 5

---

**IST1343I**  
`DNSUFFIX_CONTINUATION`

**Explanation:** VTAM issues this message as part of a group of messages. The first message in the group is IST1342I. See the explanation of that message for a complete description.

**Routing code:** 8

**Descriptor code:** 5

---

**IST1345I**  
**ID VALUE DESCRIPTION**

**Explanation:** VTAM issues this message as part of a group of messages in response to a `DISPLAY STATS,TYPE=VTAM` command.

**Notes:**
1. The information in this display may be used to calculate storage requirements for VTAM. See the [z/OS Communications Server: New Function Summary](https://www.ibm.com) for information about storage requirements for VTAM.
2. For a description of the `DISPLAY STATS` command, see the [z/OS Communications Server: SNA Operation](https://www.ibm.com).

A complete description of the message group follows the example.

```
IST350I DISPLAY TYPE = STATS,TYPE=VTAM  
IST1349I COMPONENT ID IS dddd-ddddd-ddd  
IST1345I ID VALUE DESCRIPTION  
IST1227I ddddd value = description  
[IST1315I DISPLAY TRUNCATED AT keyword = number]  
IST1454I count STATISTICS DISPLAYED  
IST314I END
```

**IST350I**

This message identifies the type of information in the display and is always `STATS,TYPE=VTAM` for this message group.

**IST1227I**

- `dddddd` is a storage estimates function ID number assigned by VTAM. It can be up to five digits in length and is displayed without leading zeros.
- Possible function ID numbers and their descriptions follow:

```
2 value = VIT TABLE SIZE  
value represents the number of megabytes allocated for the VTAM internal trace table.
```
5 \textit{value} = \textbf{CHANNEL-ATTACHED CONTROLLERS}  
\textit{value} represents the number of channel-attached communication controllers that are defined to and owned by this VTAM. \textit{value} includes one resource internally defined by VTAM.

6 \textit{value} = \textbf{MAXBFRU FOR CHANNEL-ATTACHED CONTROLLERS}  
\textit{value} represents the sum of the values coded for the MAXBFRU operands for all channel-attached communication controllers defined to this VTAM.

7 \textit{value} = \textbf{INTERCONNECT CONTROLLERS FOR } \textit{majornode}  
\textit{value} represents the number of IBM 3172 Interconnect Controllers defined in this VTAM for \textit{majornode}.

8 \textit{value} = \textbf{XCA MAJOR NODES } \textit{majornode}  
\textit{value} represents the number of external communication adapters defined in this VTAM with VBUILD, TYPE=XCA definition statements.

9 \textit{value} = \textbf{3172 CONNECTIONS FOR } \textit{majornode}  
\textit{value} represents the number of unique CUADDR operands specified on the PORT definition statements for external communication adapter (XCA) \textit{majornode}.

10 \textit{value} = \textbf{TOTAL LINE STATEMENTS FOR XCA MAJOR NODES}  
\textit{value} represents the number of LINE statements for all external communication adapter (XCA) major nodes.

11 \textit{value} = \textbf{CHANNEL-TO-CHANNEL ATTACHMENTS}  
\textit{value} represents the number of channel-to-channel (CTC) lines that are defined to VTAM with VBUILD,TYPE=CTA definition statements and GROUP definition statements that specify LNCTL=CTCA. Multipath channel attached resources are included under ID 120.

12 \textit{value} = \textbf{TOTAL MAXBFRU FOR CTC ATTACHMENTS}  
\textit{value} represents the sum of the values coded for all MAXBFRU operands for channel-to-channel (CTC) attachments defined in this VTAM.

13 \textit{value} = \textbf{CTC TOTAL MAXBFRU CROSS DOMAIN}  
\textit{value} represents the sum of the values coded for all MAXBFRU operands for channel-to-channel (CTC) attachments to this VTAM but defined in other VTAMs.

14 \textit{value} = \textbf{CA CLUSTER CONTROLLER TOTAL}  
\textit{value} represents the number of cluster controllers that are channel attached to this VTAM.

15 \textit{value} = \textbf{SNA PU TOTAL MAXBFRU}  
\textit{value} is the sum of the values coded for all MAXBFRU operands for channel attached SNA PUs activated from this VTAM.

16 \textit{value} = \textbf{LOCAL NON-SNA TERMINALS}  
\textit{value} represents the number of local non-SNA terminals that are defined on LOCAL definition statements that are part of local non-SNA major nodes.

17 \textit{value} = \textbf{NETVIEW PIU TRACE BUFFER SIZE}  
\textit{value} represents the size of the NetView PIU trace buffers.

18 \textit{value} = \textbf{NETVIEW PIU TRACE BUFFERS}  
\textit{value} represents the number of NetView PIU trace buffers.

19 \textit{value} = \textbf{NETVIEW SAW BUFFER SIZE}  
\textit{value} represents the size of all NetView session awareness (SAW) buffers.

20 \textit{value} = \textbf{NETVIEW SAW BUFFERS}  
\textit{value} represents the number of NetView session awareness (SAW) buffers.

21 \textit{value} = \textbf{ICA DEVICES}  
\textit{value} represents the number of integrated communication-adapter (ICA) devices.

22 \textit{value} = \textbf{DESTINATION SUBAREAS}  
\textit{value} represents the number of unique type 4 and 5 nodes with which this VTAM will communicate. \textit{value} always includes one resource internally defined by VTAM.

45 \textit{value} = \textbf{DEPENDENT LU TOTAL FOR } \textit{majornode}  
\textit{value} represents the total number of dependent LUs defined under \textit{majornode} with VBUILD, TYPE=LOCAL coded.
value = INDEPENDENT LU TOTAL
value represents the total number of independent LUs for which VTAM will provide boundary function services.

value = MAXIMUM SUBAREA
value represents the maximum subarea number allowed in this SSCP.

value = DEFINED PU TOTAL
value represents the total number of PUs that are defined in this VTAM.

value = ACTIVE PU TOTAL
value represents the total number of PUs that are active in VTAM.

value = DEFINED LU TOTAL
value represents the number of device type LUs defined in this VTAM.

value = ACTIVE LU TOTAL
value represents the total number of LUs that are active in VTAM.

value = ACTIVE DEPENDENT LU TOTAL
value represents the total number of dependent LUs that are active under a VBUILD TYPE=LOCAL major node.

value = LOCAL LU-LU SESSIONS
value represents the number of sessions with one or both session partners defined to this VTAM under VBUILD,TYPE=LOCAL major nodes.

value = PERSISTENT LU-LU SESSIONS
value represents the number of sessions that exist with persistent LU-LU session-capable applications owned by this VTAM.

value = LU TOTAL TSO SESSIONS
value represents the number of sessions with a time-sharing option (TSO) application program running on this VTAM. This includes local, cross-domain, and cross-network resources.

value = TOTAL APPL SESSIONS
value represents the number of sessions with application programs running on this VTAM. This includes local, cross-domain, and cross-network resources.

value = LU6.2 APPLICATIONS
value represents LU 6.2 applications that will open an application control block (ACB) in this VTAM. If the node being displayed supports APPN, value always includes one resource internally defined for APPN.

value = LU6.2 SESSIONS
value represents LU 6.2 sessions with application LUs that are owned by this VTAM.

value = ICSF ENCRYPTION SERVICES
value represents the total number of LU-LU sessions as well as sessions between an application and another LU that will use ICSF encryption services. The ENCR operand on the APPL definition statement must be specified as REQD, COND, SEL, or OPT. The ENCR operand on the LU definition statement must be specified as REQD or OPT for encryption to be used.

value = SNA DATA COMPRESSION SESSIONS
value represents the number of sessions that will use SNA data compression functions.

value = RECOVERABLE SESSIONS
value represents the number of sessions to be recovered during a network failure. value includes all SSCP-LU and LU-LU sessions.

value = CURRENT NUMBER OF SESSION PARTNERS
value represents the total number of LUs, applications, and cross-domain resources that are currently in session.

value = NUMBER OF LINES DEFINED
value represents the number of lines defined on LINE statements that are owned by this VTAM. value includes all NCP lines owned by this SSCP as well as all lines defined under VTAM major nodes.
66 value = SWNET STATEMENTS
value represents the number of VBUILD statements for this VTAM that have TYPE=SWNET specified. value always includes one statement internally defined by VTAM.

67 value = PU STATEMENTS UNDER SW LINES
value represents the number of PU statements under all group statements that have DIAL=YES specified.

68 value = MAXNO OPERAND
value represents the sum of values coded for the MAXNO operand on all VBUILD TYPE=SWNET definition statements.

69 value = MXGRP OPERAND
value represents the sum of values coded for the MXGRP operand on all VBUILD TYPE=SWNET definition statements. VTAM adds 1 to value for each group statement in the major node.

70 value = PATH STATEMENTS
value represents all PATH definition statements under all PUs defined for switched major nodes.

71 value = LU-APPL SESSIONS
value represents the number of LUs owned by this VTAM in session with an application program owned by this VTAM (for example, a terminal logged on to CICS®). value includes all dynamically defined LUs.

73 value = SAME NETWORK MULTI-NODE LU SESSIONS
value represents the number of non-LU 6.2 sessions in which one LU is owned by this VTAM and the other LU is owned by another node or VTAM in the same network.

74 value = CROSS NETWORK APPL SESSIONS
value represents the number of cross-network sessions between an application program in this VTAM and a resource owned by a VTAM in another network.

77 value = SAME DOMAIN LU 6.2 SESSIONS
value represents LU 6.2 sessions in which both LUs are owned by this VTAM.

78 value = SAME NETWORK MULTI-NODE LU 6.2 SESSIONS
value represents the number of LU 6.2 sessions in which one LU is owned by this VTAM and the other LU is owned by another node or VTAM in the same network.

79 value = CROSS NETWORK LU 6.2 SESSIONS
value represents the number of LU 6.2 sessions in which one LU is owned by this VTAM and the other LU is owned by a VTAM in another network.

80 value = NETWORK INDEPENDENT LU TOTAL
value represents the number of independent LUs either locally, remotely or CDRSC defined. All independent LUs will be represented as CDRSCs by VTAM.

81 value = DYNAMICALLY DEFINED LU TOTAL
value represents the number of dependent LUs which will be dynamically defined to PUs which are capable of receiving PSIDs (for example, 3174) when they are powered on.

99 value = VTAM CONFIGURATION
value represents the node type in the VTAM start parameters. If the node type has not been specified, value will be SUBAREA.

100 value = DYNAMIC DIRECTORY ENTRIES
value represents the number of different LUs and CPs this VTAM needs to locate or access for session establishment or network management. If this VTAM is a central directory server, value also includes all resources that have been centrally registered with this VTAM.

101 value = CENTRAL DIRECTORY SERVER SUPPORT
value represents the value specified for CDSERVR in the VTAM start parameters.
- If value represents CDSERVR=YES, this VTAM is a central directory server for the network.
- If value represents CDSERVR=NO, this VTAM is not a central directory server for the network.

102 value = REGISTERED DIRECTORY ENTRIES
value represents the number of different destination LUs and CPs of other nodes that are registered to this VTAM. If VTAM supports APPN, value always includes one resource internally defined for APPN.
103 \textbf{value} = \textit{SYSTEM DEFINED DIRECTORY ENTRIES} \\
\textit{value} represents the number of different destination LUs and CPs that are system defined in the VTAMLIST for this VTAM.

104 \textbf{value} = \textit{ADJACENT END NODES} \\
\textit{value} represents the number of end nodes that have established CP-CP sessions with this VTAM.

106 \textbf{value} = \textit{CENTRAL DIRECTORY SERVER} \\
\textit{value} represents the number of central directory servers which exist in this network.

107 \textbf{value} = \textit{ADJACENT NETWORK NODES} \\
\textit{value} represents the number of network nodes which have established CP-CP sessions with this VTAM.

108 \textbf{value} = \textit{APPN CLASS OF SERVICE} \\
\textit{value} represents the total number of APPN classes of service defined in this VTAM.

109 \textbf{value} = \textit{NETWORK NODES IN THE NETWORK} \\
\textit{value} represents the total number of network nodes known to this VTAM.

111 \textbf{value} = \textit{CONNECTION NETWORKS} \\
\textit{value} represents the total number of connection networks (virtual nodes) known to this VTAM.

112 \textbf{value} = \textit{SAME NETWORK MULTI-NODE APPL SESSIONS} \\
\textit{value} represents the number of non-LU 6.2 sessions between application programs in this VTAM and LUs owned by another node or VTAM in the same network (for example, CICS in session with a terminal owned by another VTAM).

113 \textbf{value} = \textit{PARALLEL SESSION PER LU} \\
\textit{value} represents the average number of sessions for each LU with applications owned by this VTAM.

116 \textbf{value} = \textit{INTERMEDIATE ROUTED SESSIONS} \\
\textit{value} represents the number of sessions that this VTAM handles or routes for which neither session partner is defined to this VTAM.

119 \textbf{value} = \textit{CROSS NETWORK LOGICAL UNIT SESSIONS} \\
\textit{value} represents the number of non-6.2 LUs owned by this VTAM in session with a resource owned by another node or VTAM in another network (for example, a terminal logged onto CICS in another network).

120 \textbf{value} = \textit{MULTIPATH CHANNEL MAJOR NODES} \\
\textit{value} represents the number of channel-attached major nodes with multipath channel (MPC) support. MPC major nodes contain VBUILD,TYPE=CA definition statements with GROUP, LNCTL=MPC in the definition statement.

121 \textbf{value} = \textit{MPC READ SUBCHANNEL ADDRESSES} \\
\textit{value} represents the number of subchannel addresses with READ= specified on the LINE definition statement defined for a channel-attached major node for MPC support.

122 \textbf{value} = \textit{MPC WRITE SUBCHANNEL ADDRESSES} \\
\textit{value} represents the number of subchannel addresses with WRITE= specified on the LINE definition statement defined for a channel-attached major node for MPC support.

123 \textbf{value} = \textit{MPC READ BUFFER} \\
\textit{value} represents MAXBFRU for all READ subchannels defined in this VTAM. The same MAXBFRU value should be used for all READ subchannels that are defined in the same MPC major node. The number entered indicates the number of pages VTAM allocates to receive data on the MPC CTC connection.

124 \textbf{value} = \textit{MPC WRITE BUFFER} \\
\textit{value} represents the sum of MAXBFRU for all WRITE subchannels defined in the adjacent VTAMs that are channel attached to this VTAM for MPC support. WRITE subchannel buffer size is dependent on the MAXBFRU value for READ subchannel on the other side of VTAM. The same MAXBFRU value should be used for all WRITE subchannels that are defined in the same MPC major node. The number entered indicates the number of pages VTAM allocates to send data on the MPC CTC connection.

125 \textbf{value} = \textit{APPLICATION SESSIONS} \\
\textit{value} represents the number of sessions in which both session partners are applications defined to this VTAM.

140 \textbf{value} = \textit{MAXIMUM DIRECTORY SIZE} \\
\textit{value} represents the value specified or defaulted for the DIRSIZE start option.
141 \textit{value} = \text{MAXIMUM TRS ROUTING TREES}\\
\textit{value} represents the value specified or defaulted for the NUMTREES start option.

142 \textit{value} = \text{END NODE TRANSMISSION GROUPS}\\
\textit{value} represents the number of APPN transmission groups between this node and attached end nodes.

143 \textit{value} = \text{NETWORK NODE TRANSMISSION GROUPS}\\
\textit{value} represents the number of APPN transmission groups between this node and attached network nodes.

144 \textit{value} = \text{VIRTUAL NODE TRANSMISSION GROUPS}\\
\textit{value} represents the number of APPN transmission groups between this node and attached virtual nodes.

151 \textit{value} = \text{DEPENDENT LU TOTAL FOR majornode}\text{ }\\
\textit{value} represents the total number of dependent LUs defined in a PU type 4 or 5 major node.

152 \textit{value} = \text{ACTIVE DEPENDENT LU REQUESTERS}\\
\textit{value} represents the number of dependent LU requesters currently being served by this VTAM dependent LU server.

153 \textit{value} = \text{ACTIVE DLUR SERVED PU TOTAL}\\
\textit{value} represents the total number of physical units owned by the dependent LU requesters served by this VTAM dependent LU server.

154 \textit{value} = \text{ACTIVE DLUR SERVED LU TOTAL}\\
\textit{value} represents the number of dependent logical units owned by the dependent LU requesters served by this VTAM dependent LU server.

155 \textit{value} = \text{VR-BASED TRANSMISSION GROUPS}\\
\textit{value} represents the number of virtual-route-based transmission groups between this node and other VTAM CDRMs.

156 \textit{value} = \text{CONNECTION NETWORK DYNAMIC TGS}\\
\textit{value} represents the number of dynamic transmission groups activated by this node for use with connection networks. VTAM will create these dynamic transmission groups when both of the following exist:
- A session is established between this VTAM and another node connected via the same virtual node.
- There is no existing predefined line to the other node.

157 \textit{value} = \text{TRANSPORT RESOURCE LIST ENTRIES}\\
\textit{value} represents the number of transport resource list entries (TRLEs) active in this VTAM.

159 \textit{value} = \text{ADJACENT CLUSTER TABLE CPNAME ENTRIES}\\
\textit{value} represents the number of predefined or dynamic entries in the active adjacent cluster table. The adjacent cluster table is used by APPN Directory Services to select the sequence of nodes to search during border node search logic.

160 \textit{value} = \text{CP-CP SESSIONS}\\
\textit{value} represents the number of CP-CP sessions between this node and other nodes.

161 \textit{value} = \text{HIGHEST ELEMENT ADDRESS ASSIGNED}\\
\textit{value} represents the highest network address element number that has been assigned by VTAM. \textit{value} is displayed in decimal. The maximum number of element addresses that can be assigned is 65,536 (X'0000' through X'FFFF').

162 \textit{value} = \text{HIGHEST EXTENDED ELEMENT ADDRESS ASSIGNED}\\
\textit{value} represents the highest extended network address element number that has been assigned by VTAM. \textit{value} is displayed in decimal. The maximum number of element addresses that can be assigned is 16,777,216. See the [ENHADDR start option information in z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com/support/knowledgecenter/en/SS7057_7.4.0/com.ibm.zos.v1r12.mixref_s/r_enhaddr.html) for more information.

164 \textit{value} = \text{NUMBER OF NON-EXTENDED ELEMENT ADDRESSES IN USE}\\
\textit{value} represents the number of network element addresses currently in use by VTAM. \textit{value} is displayed in decimal. The maximum number of element addresses that can be assigned is 65,536.

165 \textit{value} = \text{NUMBER OF EXTENDED ELEMENT ADDRESSES IN USE}\\
\textit{value} represents the number of extended network element addresses currently in use by VTAM. \textit{value} is displayed in decimal. The maximum number of element addresses that can be assigned is 16,777,216. See the [z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com/support/knowledgecenter/en/SS7057_7.4.0/com.ibm.zos.v1r12.mixref_s/r_enhaddr.html) for more information.
IST1315I
VTAM issues this message when the number of statistics to be displayed exceeds the value specified for the MAX or NUM operand.

keyword is either MAX or NUM.

number is the value specified for either the MAX or NUM operand.

IST1345I
This message is a header message for the information displayed in message IST1227I.

IST1349I

dddddd-ddddd-ddd is the component identifier assigned by VTAM. This identifier is used by IBM for VTAM program maintenance.

See the explanation of opening and closing an application program in z/OS Communications Server: SNA Programming for a description of vector lists and more information about the component identifier.

IST1454I

count is the number of statistics displayed.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2

Descriptor code: 5

IST1346I NCP DOES NOT SUPPORT CONNECTION NETWORK FUNCTION

Explanation: This message is part of a group of messages that VTAM issues in response to a VARY ACT for a line when the activation of the logical connection to the virtual node fails. The first message in the group is IST1166I. See the explanation of that message for a complete description.

Routing code: 2

Descriptor code: 5

IST1347I INSUFFICIENT STORAGE TO DELAY DISCONNECT OF puname

Explanation: VTAM issues this message when there is insufficient storage to delay the disconnection of a physical unit that was defined as DISCNT=DELAY.

puname is the name of the physical unit being disconnected.

System action: VTAM will attempt to disconnect the physical unit without delay.

- If message IST169I is issued for the same physical unit, the disconnection without delay was successful.
- If message IST348I is issued for the same physical unit, there was insufficient storage to disconnect the physical unit even without delay.

Operator response:

- If message IST169I follows this message, no action is required.
- If message IST348I follows IST1347I, enter a VARY INACT, TYPE=FORCE command for puname.
- If you have frequent command failures because of insufficient storage:
  - Issue the DISPLAY BFRUSE command. Message IST981I displays total VTAM private storage information. Issue the DISPLAY STORUSE command to display storage usage for storage pools.
  - Save the system log and request a console dump for problem determination.

System programmer response: If insufficient storage is a recurring problem, you may need to increase storage as required.
IST1348I • IST1349I

IST1348I  VTAM STARTED AS nodetype

Explanation: VTAM issues this message in the following situations:
• During VTAM initialization
• In response to the DISPLAY VTAMOPTS command
  When this message is issued in response to a DISPLAY VTAMOPTS command, it is part of a message group
  headed by message IST1188I. See that message for a complete description of the group.
• In response to the DISPLAY TOPO command
  This message is issued when the DISPLAY TOPO command is issued from an end node or a migration data host
  and a command keyword that is not valid because it does not specify a local topology database entry. The
  topology database entry specified must be the local node or a transmission group originated at the local node. See
  the z/OS Communications Server: SNA Operation for the limitations on the DISPLAY TOPO commands issued on
  end nodes and migration data hosts.

nodetype indicates the node type of this host and is determined by start options that are specified or defaulted.
Possible values are:
• END NODE
• INTERCHANGE NODE
• MIGRATION DATA HOST
• NETWORK NODE
• SUBAREA NODE

System action: Processing continues.
Operator response: None.
System programmer response: None.

Routing code: 2
Descriptor code: 5

IST1349I  COMPONENT ID IS dddi-dddd-ddd

Explanation: VTAM issues this message in the following situations:
• During VTAM initialization
  When this message is issued during VTAM initialization, it is preceded by message IST020I.
• In response to the DISPLAY VTAMOPTS command
  When this message is issued in response to a DISPLAY VTAMOPTS command, it is part of a message group
  headed by message IST1188I. See that message for a complete description of the group.
• In response to the DISPLAY TOPO command
  This message is issued when the DISPLAY TOPO command is issued from an end node or a migration data host
  and a command keyword that is not valid because it does not specify a local topology database entry. The
  topology database entry specified must be the local node or a transmission group originated at the local node. See
  the z/OS Communications Server: SNA Operation for the limitations on the DISPLAY TOPO commands issued on
  end nodes and migration data hosts.

ddd-dddd-ddd-d is the component identifier assigned by VTAM. This identifier is used by IBM for VTAM program
maintenance.
See the z/OS Communications Server: SNA Programming for more information about vector lists and the component
identifier.

System action: Processing continues.
IST1350I

Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST1350I DEFINITION ERROR: reason
Explanation: VTAM issues this message to provide additional information about definition errors that are displayed in messages IST322I and IST323I.

reason indicates the cause of the error and can be one of the following:

DATA LIMIT EXCEEDED AT DLCADDR ID id
The maximum number of bytes of data that can be specified for all the DLCADDrs on a PATH definition statement is 252 bytes. This includes two bytes of subvector headers for each DLCADDR that has been coded. The data limit was exceeded while VTAM was processing DLCADDR ID id. The entire definition statement containing this DLCADDR ID is not usable.

DELAY NOT VALID FOR PU OR VBUILD TYPE
DISCNT=DELAY was specified in the definition but the PU or VBUILD type is incorrect. When DELAY is specified, the PU type must be 2.0 or 2.1 and the VBUILD type must be MODEL or SWNET. The default value is used for the DISCNT parameter.

DLCADDR ID id – DATA IS NOT TYPE type
The data provided with DLCADDR subfield ID id is inconsistent with the specified data type. The entire definition statement containing this DLCADDR ID is not usable.

DLCADDR ID id – DATA TYPE IS NOT VALID
The DLCADDR data type must be D, C, X, A, or BCD. The entire definition statement containing this DLCADDR ID is not usable.

DLCADDR ID id IS NOT BETWEEN 1-96
The specified subfield ID must be a decimal in the range 1 - 96, inclusive. The entire definition statement containing this DLCADDR ID is not usable.

Note: If this message refers to the first DLCADDR coded in a PATH definition statement, the system will do a limited amount of checking on subsequent DLCADDrs encountered for the PATH.

DLCADDR [id] REQUIRES AT LEAST 3 VALUES
One DLCADDR on the PATH definition statement does not have all the required information specified. If the DLCADDR ID was specified, id is displayed. The entire definition statement containing this DLCADDR ID is not usable.

Note: If this message refers to the first DLCADDR coded in a PATH definition statement, the system will do a limited amount of checking on subsequent DLCADDrs encountered for the PATH.

DUPLICATE DLCADDR ID id IS IGNORED
Subfield ID id occurs more than once, and the specifications do not have a DLCADDR with a subfield ID of 1 between them. The second specification is ignored.

DYNTYPE VALID ONLY ON MODEL PU
DYNTYPE was specified on a PU definition but the VBUILD type is incorrect. When DYNTYPE is specified, the VBUILD type must be MODEL. The PU containing the DYNTYPE parameter and all subnodes associated with the PU are not usable.

FIRST DLCADDR ID MUST BE 1
The first DLCADDR on the definition statement does not have a subfield ID of 1. The entire definition statement containing this DLCADDR ID is not usable.

Note: Since this message refers to the first DLCADDR coded in a definition statement, the system will perform a limited amount of checking on subsequent DLCADDrs encountered.
HOSTNAME NOT VALID WITH IPADDR
When specified on a PATH statement as part of a switched major node definition, the HOSTNAME keyword is not valid if IPADDR is also specified on that PATH statement.

HPR NOT VALID WHEN HPR=NONE
The HPR keyword is not valid when the host node is configured as not HPR-capable (HPR=None, or HPR=(NONE,NONE)).

INVALID TO SPECIFY THIS HOST EN ON NETSRVR
It is not valid to specify the CP name of this host end node on a NETSRVR definition statement.

IPADDR NOT VALID WITH HOSTNAME
When specified on a GROUP statement as part of an XCA major node definition, the IPADDR keyword is not valid if HOSTNAME is also specified on that GROUP statement.

LINKNUM IGNORED DUE TO PORTNUM CONFLICT
The second operand, LINKNUM, specified on PORTNAME is only used for an OSA-Express port operating in QDIO mode customized for LAN emulation. The LINKNUM operand is mutually exclusive with the PORTNUM operand of the TRLE definition statement. The LINKNUM value is ignored.

LLERP NOT VALID FOR LOCAL SNA PUS
LLERP is not a valid keyword when coded on a PU statement in a local SNA definition deck.

LLERP NOT VALID WHEN HPR=NONE
LLERP is not a valid keyword for the GROUP, LINE, or PU statement if HPR=None was coded as a start option.

LLERP ONLY VALID WHEN HPR=YES
LLERP is not a valid keyword on the PU statement if HPR=NO was also coded on the PU statement.

LMI PU NOT VALID IN FRSESET
An attempt was made to use a local management interface (LMI) protocol PU in the FRSESET definition in message IST323I, and this is not valid. See the NCP, SSP, and EP Resource Definition Reference for information on the LMI keyword.

MNPS NOT SUPPORTED IN THIS ENVIRONMENT
PERSIST=MULTI is only valid if the VTAM on which it resides is running in an environment that supports multinode persistent sessions. The environmental requirements are:
• VTAM is running in a sysplex (non-local mode).
• The VTAM start parameter STRMNPS must specify a valid structure name, or the STRMNPS start option should not be specified.
• VTAM must be defined as an an APPN node (NODETYPE=EN or NODETYPE=NN start option) that is a rapid transit protocol (RTP) level node (HPR=RTP start option).

Note: If PERSIST=MULTI is specified on a non-modeled application deck at a Network Node (NN), it is not supported. See the z/OS Communications Server: SNA Network Implementation Guide. Change the application deck to be a modeled application. For example change the last character in the name of the application to an * and it would now be a modeled application.

MORE THAN ONE EE PU MODEL DEFINED
Only the first EE PU model activated is used. This EE PU model activation is ignored because it is not the first.

MORE THAN ONE RTP PU MODEL DEFINED
Only the first RTP PU model activated is used. This RTP PU model activation is ignored because it is not the first.

MORE THAN ONE VN PU MODEL DEFINED
Only the first VN PU model activated is used. This VN PU model activation is ignored because it is not the first.

MORE THAN ONE XCF PU MODEL DEFINED
Only the first XCF PU model activated is used. This XCF PU model activation is ignored because it is not the first.

puname ALREADY USED IN frsesetname
puname cannot be used in the FRSESET definition in message IST323I because it has already been either statically or dynamically defined in FRSESET frsesetname.
**IST1351I**

*puname* **DEFINED BUT NOT USED IN FRSESET**

*puname* is correctly defined in the NCP, but is not being used in the FRSESET definition in message IST323I.

*puname* **NOT PREVIOUSLY DEFINED IN NCP**

- *puname* has been used in the FRSESET definition in message IST323I, but is not defined in the NCP.
- The OWNER= value in the FRSESET is different than the physical resource pointed to by the PHYSRSC operand.
- The NETID on the NCP build macro is different than the NETID on VTAM.

**STATIC AND DYNAMIC NOT ALLOWED IN FRSESET**

The FRSESET definition in message IST323I contains both statically and dynamically defined PUs. All PUs in a FRSESET must be either static or dynamic.

**RTPONLY=YES REQUIRES START OPTION HPR=RTP**

RTPONLY=YES was specified for an adjacent CP definition on a border node that did not specify RTP as the first operand on the HPR= start option. The use of RTPONLY=YES requires that HPR=RTP or HPR=(RTP,RTP|ANR|NONE) be specified for the HPR start option.

**VRTG NOT VALID FOR CROSS-NET CDRM**

The VRTG keyword is not valid when specified on a CDRM statement where the corresponding NETWORK statement NETID is not the same network as this node.

**VRTG NOT VALID FOR HOST CDRM**

The VRTG keyword is not valid when specified on the host CDRM (SUBAREA specified equals the subarea number of this node).

**VRTG ONLY VALID FOR ICN OR MDH**

The VRTG keyword is not valid when the node is configured as an APPN or a subarea node. It is valid only when the node is configured as an interchange network node or a migration data host.

System action: Processing continues.

Operator response: Save the system log for problem determination.

System programmer response: Use the information in messages IST322I, IST323I, and this message to assist you in correcting the error.

See the [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about VTAM definition statements. See the [NCP, SSP, and EP Resource Definition Reference](#) for more information about NCP definition statements.

Routing code: 2

Descriptor code: 5

**IST1351I**

**DLURNAME DIAL NUMBER PID GID CNT**

Explanation: This message is the first in a group of messages that VTAM issues in response to a DISPLAY PATHS command. A complete description of the message group follows.

IST1351I DLURNAME DIAL NUMBER PID GID CNT
IST168I dlurname {phonenum|linename|blanks.} pid gid cnt {AVA|NAV} {MAN|AUT|DIR}
IST1575I DIALNO PID: pid[instance]
IST1318I parameter_value
IST1319I parameter_value

IST314I END

**IST1351I**

This message is a header message for the information displayed in message IST168I.

**DLURNAME** is the dependent LU requester (DLUR) name.

**IST168I**

*dlurname* is the dependent LU requester name.

*phonenum* is a telephone number (for non-X.21 lines).
linename is a line name (for X.21 lines).

pid is the path identifier (PID).

gid is the group identifier (GID) for a group of paths across all physical units.

cnt is the number of times the dial operation is to be tried again at the NCP.

AVA indicates that the path is available for use by VTAM.

NAV indicates that the path is not available for use by VTAM.

MAN indicates manual dial.

AUT indicates automatic dial for non-X.21 lines.

DIR indicates direct dial for X.21 lines.

IST1318I

parameter_value is the first 60 characters of the DIALNO value specified on the PATH definition statement, when the number of characters exceeds 32.

IST1319I

This message is used to display overflow information from parameter_value in message IST1318I.

IST1352I

DLUR NAME DLUS CONWINNER STATE DLUS CONLOSER STATE

Explanation: This message is the first in a group of messages that VTAM issues in response to a DISPLAY DLURS command. The display lists the dependent LU requesters (DLURs) that are supported by the dependent LU server (DLUS). It also displays the CPSVRMGR session pipe status. The CPSVRMGR pipe consists of two LU 6.2 sessions, a contention winner (conwinner) and a contention loser (conloser). The states of both sessions are displayed.

IST350I DISPLAY TYPE = DEPENDENT LU REQUESTER

IST1352I DLUR NAME DLUS CONWINNER STATE DLUS CONLOSER STATE

IST1353I dlurname conwinner_state conloser_state

IST314I END

IST1352I

This message is a header message for the information displayed in message IST1353I.

IST1353I

• dlurname is the network-qualified CP name of the dependent LU requester in the form netid.name.

• conwinner_state is the status of the DLUS contention winner session to the specified DLUR. The DLUS sends data on the DLUS contention winner session.

• conloser_state is the status of the DLUS contention loser session to the specified DLUR. The DLUS receives data on the DLUS contention loser session.

• Possible values of conwinner_state and conloser_state are:
  – ACTIVE
IST1353I • IST1355I

- INACTIVE
- PENDING ACTIVE
- PENDING INACTIVE
- RESET

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST1353I dlurname conwinner_state conloser_state

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY DLURS command. The first message in the group is IST1352I. See the explanation of that message for a complete description.
Routing code: 2
Descriptor code: 5

IST1355I PHYSICAL UNITS SUPPORTED BY DLUR dlurname

Explanation: This message is part of a subgroup of messages that VTAM issues:
• When a connection request for a DLUR served physical unit is rejected. The first message in that group is IST680I. See the explanation of that message for a complete description.
• In response to a DISPLAY ID=dlur_pu command.

dlurname is the network-qualified CP name of the dependent LU requester (DLUR) in the form netid.name. dlurname is the DLUR associated with the physical unit specified on the ID operand of the command.
majnode is the name of the switched major node of the physical unit specified on the ID operand of the command.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5
IST1356I • IST1358I

IST1356I  NETWORK NODE DOES NOT PROVIDE REQUIRED SERVER FUNCTION

Explanation: VTAM issues this message as part of a group of messages. The first message in the group is IST1110I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST1357I  CPCP

Explanation: VTAM issues this message as part of a group of messages in response to the following commands:
• DISPLAY TOPO,ID=cp_name,LIST=ALL. See message IST1295I for a complete description of this message group.
• DISPLAY TOPO,ORIG=orig_cp_name,DEST=dest_cp_name or DISPLAY TOPO,ORIG=orig_cp_name,TGN=tgn. See message IST1299I for a complete description of this message group.

Routing code: 2
Descriptor code: 5

IST1358I  NO QUALIFYING MATCHES for_name

Explanation: VTAM issues this message when there are no resource names found that match the wildcard name specified on the ID operand of the DISPLAY command and other restrictions identified by keywords on the command (e.g. SCOPE, IDTYPE). It is issued for the following commands:

DISPLAY APPLS
DISPLAY CDRMS
DISPLAY CDRSCS
DISPLAY CLSTRS
DISPLAY EE
DISPLAY EEDIAG
DISPLAY GROUPS
DISPLAY GRAFFIN
DISPLAY LINES
DISPLAY MAJNODES
DISPLAY PENDING
DISPLAY RSCLIST
DISPLAY STATIONS
DISPLAY STATS,TYPE=CFS
DISPLAY SRCHINFO
DISPLAY TERMS
DISPLAY TGPS

for_name is the name specified on the ID operand of the DISPLAY command.

System action: Processing continues.
Operator response: None.
System programmer response: None.
IST1359I

Routing code: 2
Descriptor code: 5

IST1359I MEMBER NAME OWNING CP SELECTABLE APPC

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID=generic_name command. A complete description of the message group follows.

IST075I NAME = generic_name, TYPE = GENERIC RESOURCE
IST1359I MEMBER NAME OWNING CP SELECTABLE APPC
IST1360I member_name owning_cp selectable appc
IST1360I member_name owning_cp selectable appc

IST1393I GENERIC RESOURCE NAME RESOLUTION EXIT IS exit_name
IST314I END

IST075I This message identifies the type of information in the display. The type is always GENERIC RESOURCE for this message group.

The generic_name value is the name of the resource that is displayed. See Chapter 17, “Node and ID types in VTAM messages,” on page 1097 for more information.

IST1360I The member_name value is the network-qualified name for the resource in the form netid.name. An application name registered under a generic name is called a member name.

The owning_cp value is the name of the control point (CP) that owns the resource. It is in the same network as the member_name value.

The selectable value can be one of the following:

YES Indicates that the resource is available to be selected for resolution.
NO Indicates that the resource is not available to be selected for resolution because owning_cp is an end node that does not have CP-CP sessions with its network node server.
DEL Indicates that the application was deleted as a generic resource. The application ACB might still be open and maintaining generic resource affinities. If you want to fully delete the generic resource from VTAM and the generic resource coupling facility structure, the application ACB must be closed and the MODIFY GR DELETE command must be issued at every host in the sysplex. See the information about removing a generic resource in z/OS Communications Server: SNA Network Implementation Guide for more information.

The appc value indicates whether the resource supports advanced program-to-program communication (APPC=YES on the APPL definition statement). Possible values are: YES and NO.

IST1393I If exit resolution is performed, the exit_name value is used. If the user has specified that the exit should no longer be used, the message will no longer be displayed once the session has been attempted with the generic resource. VTAM will resolve the generic resource names until the user specifies another exit.

The exit_name value is the name of the generic resource exit.

IST2202I This message lists the generic resource preferences for GREXIT, WLM, and LOCLU.

The grexit value indicates whether the Generic Resource exit is called during generic resource resolution. Valid values are:

YES The Generic Resource exit is called during generic resource resolution.
NO The Generic Resource exit is not called during generic resource resolution.
The `wlm` value indicates whether the MVS Workload Manager is called during generic resource resolution. Valid values are:

- **YES**: The MVS Workload Manager is called during generic resource resolution.
- **NO**: The MVS Workload Manager is not called during generic resource resolution.

The `loclu` value indicates whether generic resource resolution for sessions initiated from a local LU that is part of a local SNA or local non-SNA major node on this host prefers generic resource instances on this host. Valid values are:

- **YES**: Generic resource resolution for sessions initiated from a local LU that is part of a local SNA or local non-SNA major node on this host prefers generic resource instances on this host.
- **NO**: Generic resource resolution for sessions initiated from a local LU that is part of a local SNA or local non-SNA major node on this host does not prefer generic resource instances on this host.

The `locappl` value indicates whether generic resource resolution for sessions initiated from an application on this host prefers generic resource instances on this host. Valid values are:

- **YES**: Generic resource resolution for sessions initiated from an application on this host prefers generic resource instances on this host.
- **NO**: Generic resource resolution for sessions initiated from an application on this host does not prefer generic resource instances on this host.

The `passolu` value indicates whether generic resource resolution for third-party-initiated (CLSDST PASS) sessions prefers generic resource instances located on the OLU host. Valid values are:

- **YES**: Generic resource resolution for third-party-initiated (CLSDST PASS) sessions prefers generic resource instances located on the OLU host.
- **NO**: Generic resource resolution for third-party-initiated (CLSDST PASS) sessions does not prefer generic resource instances located on the OLU host.

**IST2204I**

- This message lists the generic resource preferences for LOCAPPL and PASSOLU.
- The `loclu` value indicates whether generic resource resolution for sessions initiated from a local LU that is part of a local SNA or local non-SNA major node on this host prefers generic resource instances on this host. Valid values are:
  - **YES**: Generic resource resolution for sessions initiated from a local LU that is part of a local SNA or local non-SNA major node on this host prefers generic resource instances on this host.
  - **NO**: Generic resource resolution for sessions initiated from a local LU that is part of a local SNA or local non-SNA major node on this host does not prefer generic resource instances on this host.

The `entryname` value is the name of the Generic Resource Preferences table entry that defines the subsequent GR preferences. Valid values are:

- **DEFAULT**: The VTAM default generic resource preferences.
- **NAMELESS**: The defined nameless Generic Resource Preferences table entry that identifies the default generic resource preferences.
- `entryname`: The defined name of the Generic Resource Preferences table entry. This name also corresponds to the generic resource to which the generic resource preferences apply.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5
IST1360I • IST1364I

IST1360I  member_name owning_cp selectable appc
Explanation: VTAM issues this message as part of a group of messages. The first message of this group is IST1359I. See the explanation of that message for a complete description.
System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST1361I  name FROM source IGNORED – NAME IS NOT VALID
Explanation: VTAM issues this message when a request to resolve a generic resource name to a real name was made, but the resolved name was not a valid name.
name is the name that was returned because it was not valid.
source indicates the function that returned the name. Possible values are:
ISTEXCGR
The generic resource name resolution exit returned name, which is not a valid resource name.
WORKLOAD MANAGER
The WORKLOAD MANAGER selection exit returned name, which is not valid.
System action: VTAM will resolve the generic name to the real name with the least number of active sessions. Processing continues.
Operator response: Save the system log for problem determination.
System programmer response: If source is ISTEXCGR, check the generic resource name resolution exit (ISTEXCGR) to ensure that it is passing back the correct information to VTAM. If message IST1366I is displayed, see "IST1366I" on page 569 for more information.
Routing code: 2
Descriptor code: 5

IST1363I  GENERIC RESOURCE NAME generic_name REPRESENTS resource
Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY ID=resource command. The first message in the group is IST075I.
resource is the network-qualified name of the resource specified in the command and in message IST075I.
generic_name is the generic resource name given to resource.
System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST1364I  name IS A GENERIC RESOURCE NAME FOR:
Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY SESSIONS command. The first message in the group is IST873I. See the explanation of that message for a complete description.
Routing code: 2
Descriptor code: 5
IST1365I CONNECTION ATTEMPT TO STRUCTURE structure_name FAILED

Explanation: This message is the first of a group of messages VTAM issues in response to a connection failure to the coupling facility structure. The second message in the group gives the reason for the failure. A complete description of the message group follows.

IST1365I CONNECTION ATTEMPT TO structure_name FAILED
IST1366I MVS MACRO macname FAILED – RTN CODE= returncode – REASON CODE= reasoncode
IST314I END

IST1365I

structure_name is the name of the coupling facility structure.

IST1366I

• The connection failure was the result of a MVS macro failure.
• macname is the name of the MVS macro that returned the nonzero return code.
• returncode is the return code sent by the MVS macro.
• reasoncode is the reason code sent by the MVS macro.
  See IST1366I for more information.

System action: See the description of message IST1366I.

Operator response: See the description of message IST1366I.

System programmer response: See the description of message IST1366I.

Routing code: 2
Descriptor code: 5

IST1366I MVS MACRO macroname FAILED – RTN CODE= returncode – REASON CODE= reasoncode

Explanation: VTAM issues this message in response to a nonzero return code from an MVS macro. It can be issued alone or in a group of messages. The first message in the group is IST085I or IST1365I. See the descriptions of those messages for more information.

macroname is the name of the MVS macro which returned the nonzero return code. Possible values are:

ASASYMBM
  The macro that performs symbolic substitution.

CSVDYNEX
  The macro that provides dynamic exit services. This macro is invoked during initialization as part of setting up the interface to IBM Health Checker for z/OS.

ENFREQ
  The macro that waits to connect to the coupling facility structure.

HSZCHECK
  The macro that interfaces to IBM Health Checker for z/OS to manage checks. This macro is invoked during initialization as part of setting up the interface to IBM Health Checker for z/OS.

IWMGRREG
  The macro that accepts information about a newly-registered instance of a generic resource.

IWMGRSEL
  The macro that selects a specific real instance of a generic resource.

IXCARM
  The macro that interfaces with the automatic restart manager.

IXCJOIN
  The macro that places a coupling facility member in the activity state.

IXCQUERY
  The macro that retrieves information about the coupling facility structure.
**IST1366I**

**IXLCONN**
The macro that makes the connection to the coupling facility structure.

**IXLMG**
The macro that collects statistics on the structure in response to a DISPLAY STATS command.

**IXLREBLD**
The macro that starts a rebuild for a coupling facility structure.

*reasoncode* and *returncode* provide additional information on the cause of the error. If *macroname* is **ENFREQ**, then *reasoncode* will always be "**NA**". See the appropriate MVS manual for more information about *reasoncode* and *returncode*.

**System action:**
- The system action depends on the value for *macroname*:
  - **ASASYMBM**
    VTAM initialization fails.
  - **CSVDYNEX**
    VTAM initialization continues. VTAM checks for IBM Health Checker for z/OS are not initialized.
  - **ENFREQ**
    VTAM initialization fails. In the case of APPN host-to-host channel dynamics, processing continues, but the APPN host-to-host channel dynamics function is not available for use.
  - **HZSCHECK**
    VTAM initialization continues. VTAM checks for IBM Health Checker for z/OS are not initialized.
  - **IWMGRREG**
    Processing continues.
  - **IWMGRSEL**
    Processing continues.
  - **IXCARM**
    Processing continues.
  - **IXQUERY**
    No connection to the structure is attempted.
  - **IXLCONN**
    If the problem is corrected, the system attempts to reconnect with the coupling facility structure. Message IST1370I indicates that the structure has been reconnected.
  - **IXLMG**
    Processing continues.
  - **IXLREBLD**
    A rebuild was not started, processing continues.

**Operator response:**
- The operator response depends on the value for *macroname*:
  - **ASASYMBM**
    Save the system log for problem determination.
  - **CSVDYNEX**
    Contact the system programmer.
  - **ENFREQ**
    Save the system log for problem determination.
  - **HZSCHECK**
    Contact the system programmer.
  - **IWMGRREG**
    None.
System programmer response:

- The programmer response depends on the value for \textit{macroname}:
  
  \begin{itemize}
    \item \textbf{ASASYMBM} \\
      Correct the problem and restart VTAM.
    \item \textbf{CSVDYNEX} \\
      If you want VTAM checks for IBM Health Checker for z/OS to be enabled, use the return and reason codes to determine the cause of the problem, correct the problem, and restart VTAM.
    \item \textbf{ENFREQ} \\
      Correct the problem and restart VTAM.
    \item \textbf{HZSCHECK} \\
      If you want VTAM checks for IBM Health Checker for z/OS to be enabled, use the return and reason codes to determine the cause of the problem, correct the problem, and restart VTAM.
  \end{itemize}

Note: If \textit{returncode} is 08 and \textit{reasoncode} is xxxx081F, the connection attempt failed because another node with the same SSCP name has connected to the same structure. A VTAM node uses its SSCP name to build a connection name which is specified on IXLCONN. Each connection to a given structure must have a unique connection name; therefore, each VTAM which connects to a given structure must have an SSCP name which is different from all other VTAM nodes connected to that structure.
IST1367I - IST1368I

**IST1367I COUPLING FACILITY STRUCTURE structure NOT AVAILABLE**

**Explanation:** This message is the first of a group of messages that VTAM issues in response to a DISPLAY STATS,TYPE=CFS when the coupling facility structure cannot be accessed. A complete description of the message group follows the example.

```
IST350I DISPLAY TYPE = STATS,TYPE=CFS
IST1367I COUPLING FACILITY STRUCTURE structure NOT AVAILABLE
[IST1368I CONNECTION IS PENDING]
[IST1368I CONNECTION IS PENDING DUE TO STORAGE SHORTAGE]
IST314I END
```

*structure* is the name of the coupling facility structure.

If IST1368I or IST1726I is displayed, VTAM is monitoring for changes in the coupling facility resources that would allow it to connect to *structure*. When a change occurs, VTAM will automatically attempt to connect to *structure*. If IST1368I is not displayed, VTAM is not monitoring for changes in coupling facility resources and the VARY NET,CFS,ACTION=CONNECT command will need to be issued to attempt a connection to *structure*.

**System action:** Processing continues.

**Operator response:** If IST1368I is not displayed, issue the VARY NET,CFS,ACTION=CONNECT command to attempt a connection to *structure*. Otherwise, save the system log for problem determination. See the z/OS Communications Server: SNA Operation for more information about the VARY CFS command.

**System programmer response:** If IST1368I or IST1726I is displayed, check the system log for previously issued messages IST1365I and IST1366I. In message IST1366I *returncode* and *reasoncode* will indicate why the connection could not be established. When the problem is corrected, VTAM will automatically attempt the connection again.

Routing code: 2
Descriptor code: 5

---

**IST1368I CONNECTION IS PENDING**

**Explanation:** This message is part of a message group VTAM issues to indicate that the connection to the coupling facility structure is defined and active in the coupling facility policy but VTAM currently does not have a connection. The first message in the group is IST1367I. See the explanation of that message for additional information.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.
Routing code: 2
Descriptor code: 5

IST1369I  activity IS IN PROGRESS

Explanation: This message is part of a message group VTAM issues in response to a DISPLAY STATS, TYPE=CF command. The first message in the group is IST1370I. See the explanation of that message for more information.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2
Descriptor code: 5

IST1370I  cpname IS CONNECTED TO STRUCTURE structure

Explanation: This message is issued when VTAM has successfully connected to the structure. It is also part of a group of messages that VTAM issues in response to a DISPLAY STATS, TYPE=CFS command. This message group displays the current statistics for the coupling facility structure. A complete description of the message group follows the example.

IST350I  DISPLAY TYPE = STATS, TYPE=CFS
IST1370I  cpname IS CONNECTED TO STRUCTURE structure
IST1797I  STRUCTURE TYPE = type
[IST1517I  LIST HEADERS = list_hdrs - LOCK HEADERS = lock_ents]
[IST1518I  BASE STRUCTURE IS strname]
[IST1372I  STRUCTURE structure IS BEING DUMPED]
[IST1369I  activity IS IN PROGRESS]
[IST1796I  SYSTEM-MANAGED DUPLEXING REBUILD IS IN PROGRESS]
IST1373I  STORAGE ELEMENT SIZE = element_size
IST924I  -----------------------------------------------------
IST1374I  CURRENT          MAXIMUM          PERCENT
IST1375I  STRUCTURE SIZE  curr_size  max_size  percent
IST1376I  STORAGE ELEMENTS curr_elements  max_elements  percent
IST1377I  LIST ENTRIES  curr_entries  max_entries  percent
[IST1519I  ALTERNATE STRUCTURES ARE:]
[IST1567I  alt_structure  alt_structure  alt_structure]
[IST924I  ----------------------------------------------------- ]
[IST2221I  EXPLICITBINDPORTRANGE - START: begin_port  END: end_port]
[IST1823I  LIST DVIPA SYSNAME TCPNAME  # ASSIGNED PORTS]
[IST1824I  list dvipa  totalports]
[IST1825I  sysname tcpname  numports]
[IST1826I  PORTS: port1 port2 port3 port4 port5 port6]
[IST1827I  port1 port2 port3 port4 port5 port6]
[IST1828I  LIST listnum IS UNCLAIMED]
[IST1829I  NO CLAIMED LISTS FOUND FOR THE SPECIFIED DVIPA]
[IST1830I  NO CLAIMED LISTS FOUND]
[IST1834I  LIST DVIPA SYSNAME TCPNAME  #ENTRIES TGCOUNT SEQNUMBER]
[IST1835I  list dvipa]
[IST1836I  sysname tcpname  #entries tcount]
[IST1837I  sysname tcpname  #entries seqnumber]
[IST1838I  LIST ENTRY KEYS:]
[IST1839I  list_entry_key]
[IST1315I  DISPLAY TRUNCATED AT keyword = number] IST314I  END

IST1315I

This message is issued when the number of lines of sysplexports or sysplex wide security associations (SWSA) structure information to be displayed equals the value specified for the MAX or NUM operand.

keyword is either MAX or NUM.

number is the value specified for either the MAX or NUM operand.
IST1369I

- activity is:

REBUILD

The coupling facility structure is currently being rebuilt. Message IST1382I will be displayed later if the rebuild was terminated before it was completed. Message IST1383I will be displayed later when the rebuild is completed successfully.

IST1370I

cpname is the network-qualified name of the CP in the form netid.name.
structure is the name of the coupling facility structure.

IST1371I

This message is displayed if the structure is currently being dumped as the result of an MVS operator command.
structure is the name of the coupling facility structure.

IST1373I

This message shows storage element size.
element_size is the size, in bytes, of each storage element.
***NA*** is displayed if element_size is temporarily unavailable.

IST1374I

This message is a header message for the information displayed in messages IST1375I, IST1376I, and IST1377I.

IST1375I

This message shows the structure size.
curr_size is the current size, in kilobytes, of the structure. This is the amount of storage currently allocated for the structure.
max_size is the maximum size, in kilobytes, of the structure. This is the value coded for the SIZE parameter on the structure definition in the CFRM policy.
percent — ***NA*** is displayed for this value.
***NA*** is displayed if these statistics are temporarily unavailable.

IST1376I

This message shows the number of storage elements allocated for the structure.
curr_elements is the current number of storage elements allocated for the structure.
max_elements is the maximum number of elements that can be allocated for the structure at its current size.
percent is the fraction of elements in use.
***NA*** is displayed if these statistics are temporarily unavailable.

IST1377I

This message shows the number of list entries allocated for the structure.
curr_entries is the current number of list entries allocated for the structure.
max_entries is the maximum number of list entries that can be allocated for the structure at its current size.
percent is the fraction of entries in use.
***NA*** is displayed if these statistics are temporarily unavailable.

IST1517I

list_hdrs is the number of list headers currently allocated in the coupling facility structure.
lock Ents is the number of entries in the coupling facility structure's lock table. A value of zero indicates no lock table is being used.
This message indicates that the coupling facility structure is an alternate structure for a VTAM function that uses multiple structures.

`strname` is the name of the alternate structure's base structure.

See [z/OS Communications Server: SNA Network Implementation Guide](http://www.ibm.com/servers/eserver/zseries/) for more information about base and alternate coupling facility structure.

**IST1519I**

This message indicates that the coupling facility structure is a base structure for a VTAM function that uses multiple structures and there are alternate structures defined. Message IST1567I follows listing all alternate structures associated with the base structure.

See [z/OS Communications Server: SNA Network Implementation Guide](http://www.ibm.com/servers/eserver/zseries/) for more information about base and alternate coupling facility structure.

**IST1567I**

This message is a list of all the alternate structures associated with the base structure identified in message IST1518I.

**IST1796I**

The coupling facility structure is currently undergoing a duplexing rebuild. Message IXC577I will be issued when the structure reaches the duplexing established phase. See the [z/OS MVS System Messages, Vol 10 (IXC-IZP)](http://www.ibm.com/servers/eserver/zseries/) for a complete explanation of IXC557I.

**IST1797I**

This message shows the type of coupling facility structure.

`type` is the type of coupling facility structure. Possible values are: CACHE, LIST, or LOCK.

**IST1823I**

This message is displayed if a D NET,STATS,TYPE=CFS command is issued with the STRNAME operand specifying a sysplexports structure name and either the LIST or DVIPA keyword is specified. This message is a heading for a table showing the contents of the sysplexports CFS structure. The contents are displayed in messages IST1824I, IST1825I, IST1826I, and IST1827I.

**IST1824I**

This message is displayed if a D NET,STATS,TYPE=CFS command is issued with the STRNAME operand specifying a sysplexports structure name and either the LIST or DVIPA keyword is specified. This message shows the list number, the dynamic virtual IP address (DVIPA) associated with the list, and the number of ephemeral ports currently assigned to SYSPLEXPORTS users of this DVIPA. If the list number is 0, this message displays `EXPLICITBINDPORTRANGE` in place of a DVIPA, and the number of ephemeral ports displayed is the number of ports from the explicit bind port range pool that have been allocated to TCP/IP stacks in the sysplex.

`list` is the list number in the sysplexports structure that contains the information described.

`dvipa` is the dynamic virtual IP address associated with this list number.

`totalports` is the number of ephemeral ports assigned to users of this DVIPA. The value is the total of all the values displayed in `numports` in the IST1825I messages for TCPIP stacks associated with this DVIPA.

**IST1825I**

This message is displayed if a D NET,STATS,TYPE=CFS command is issued with the STRNAME operand specifying a sysplexports structure name and either the LIST or DVIPA keyword is specified. This message shows the MVS system name and the TCPIP stack name for a TCPIP stack that is using the Coupling Facility to assign ephemeral ports for this DVIPA. It also shows the number of ephemeral ports currently assigned to that TCPIP stack.

`sysname` is the name of the MVS node on which the TCPIP stack is running.

`tcpname` is the job name of the TCPIP stack.

`numports` is the number of ephemeral ports assigned to users of this TCPIP stack for the DVIPA displayed in the preceding IST1824I message.
IST1370I

This message is displayed if a D NET,STATS,TYPE=CFS command is issued with the STRNAME operand specifying a sysplexports structure name, either the LIST or DVIPA keyword is specified, and SCOPE=ALL is specified. This message displays the first six ephemeral ports assigned to the users of the TCPIP stack displayed in the preceding IST1825I message. Any further assigned ports is displayed in message IST1827I.

IST1827I

This message is displayed if a D NET,STATS,TYPE=CFS command is issued with the STRNAME operand specifying a sysplexports structure name, either the LIST or DVIPA keyword is specified, and SCOPE=ALL is specified. This message displays the next six ephemeral ports assigned to the users of the TCPIP stack displayed in the preceding IST1825I message. This message is repeated as many times as necessary to display the remaining assigned ephemeral ports for this TCPIP stack.

IST1828I

This message is displayed if a D NET,STATS,TYPE=CFS command is issued with the STRNAME operand specifying a sysplexports structure name and the LIST keyword is specified. This message is displayed only if the list number specified on the LIST keyword is unclaimed. The term unclaimed means that no DVIPA is associated with that list number.

listnum is the input list number that was found to be unclaimed.

IST1829I

This message is displayed if a D NET,STATS,TYPE=CFS command is issued with the STRNAME operand specifying a sysplexports structure name and the DVIPA keyword is specified. This message is displayed only if no lists in the structure have been claimed for the specified DVIPA. The term claimed means that a DVIPA is associated with a list number.

IST1830I

This message is displayed if a D NET,STATS,TYPE=CFS command is issued with the STRNAME operand specifying a sysplexports structure name and LIST=ALL is specified. This message is displayed only if no claimed lists are found in the structure. The term claimed means that a DVIPA is associated with a list number.

IST1834I

This message is displayed if a D NET,STATS,TYPE=CFS command is issued with the STRNAME operand specifying a SWSA structure name and either the LIST or DVIPA keyword is specified. This message is a heading for a table showing the contents of the SWSA CFS structure. The contents are displayed in messages IST1835I, IST1836I, IST1837I, IST1838I, and IST1839I.

IST1835I

This message is displayed if a D NET,STATS,TYPE=CFS command is issued with the STRNAME operand specifying a SWSA structure name and either the LIST or DVIPA keyword is specified. This message shows the list number and the dynamic virtual IP address (DVIPA) associated with the list.

list is the list number in the SWSA structure containing the information described.

dvipa is the dynamic virtual IP address associated with this list number.

IST1836I

This message is displayed if a D NET,STATS,TYPE=CFS command is issued with the STRNAME operand specifying a SWSA structure name and either the LIST or DVIPA keyword is specified. This message shows the MVS system name and the TCPIP stack name for a TCPIP stack that is using the Coupling Facility to track security associations for this DVIPA. It also shows the number of security association entries currently associated with the DVIPA and the takeover/giveback count for the DVIPA.

sysname is the name of the MVS node on which the TCPIP stack is running.
tcname is the job name of the TCPIP stack.

#entries is the number of security association entries currently associated with the DVIPA displayed in the preceding IST1835 message.

tgcount is the takeover/giveback count. It indicates the number of times the DVIPA has been taken over by another TCPIP stack or given back to the original owning stack.

IST1837I
This message is displayed if a D NET,STATS,TYPE=CFS command is issued with the STRNAME operand specifying a SWSA structure name and either the LIST or DVIPA keyword is specified. This message is displayed only for a list used to trace the outbound cryptographic distribution sequence number for a DVIPA. The message shows the MVS system name and the TCPIP stack name for a TCPIP stack that is using the Coupling Facility to track security associations for this DVIPA. It also shows the number of sequence number entries associated with the DVIPA for this list and the sequence number used for outbound cryptographic distribution for a tunnel over the DVIPA.

sysname is the name of the MVS node on which the TCPIP stack is running.

tcpname is the job name of the TCPIP stack.

#entries is the number of sequence number entries currently associated with the DVIPA displayed in the preceding IST1835 message. The value will always be 1.

seqnumber is the outbound cryptographic distribution sequence number for a tunnel over this DVIPA.

IST1838
This message is displayed if a D NET,STATS,TYPE=CFS command is issued with the STRNAME operand specifying a SWSA structure name, SCOPE=ALL, and either the LIST or DVIPA keyword is specified. This message is a heading for a table showing the list entry keys of each entry on the list specified in the preceding IST1835 message. Each list entry key is displayed in an IST1839I message following this message.

IST1839I
This message is displayed if a D NET,STATS,TYPE=CFS command is issued with the STRNAME operand specifying a SWSA structure name, SCOPE=ALL, and either the LIST or DVIPA keyword is specified.

list_entry_key is the 32-byte list entry key (in hexadecimal format) of an entry on the list specified in the preceding IST1835I message.

IST2221I
This message is displayed if a D NET,STATS,TYPE=CFS command is issued with the STRNAME operand specifying a sysplexports structure name, and the structure has been initialized for explicit bind port range processing by a TCP/IP stack. It displays the explicit bind port range active for this structure.

The begin_port value is the first port in the explicit bind port range.

The end_port value is the last port in the explicit bind port range.

System action: Processing continues.

Operator response: ***NA*** is displayed for some statistics if the statistic is temporarily unavailable. This may occur when the structure is being dumped (IST1372I is issued) or during the rebuild process (IST1369I is issued). If the structure is being dumped, reissue the command after the dump is complete. If a rebuild is in progress, reissue the command after the rebuild has completed.

System programmer response: None.

Routing code: 2

Descriptor code: 5

IST1372I STRUCTURE structure IS BEING DUMPED

Explanation: This message is part of a group of messages VTAM issues in response to a DISPLAY STATS,TYPE=CFS command. It will only be displayed if the structure is currently being dumped as the result of an MVS operator command. The first message in the group is IST1370I. See the explanation of that message for a complete description.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2

Descriptor code: 5
IST1373I • IST1378I

IST1373I  STORAGE ELEMENT SIZE = elementsize

Explanation: This message is part of a group of messages VTAM issues in response to a DISPLAY STATS,TYPE=CFS command. The first message in the group is IST1370I. See the explanation of that message for a complete description.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2

Descriptor code: 5

IST1374I  CURRENT MAXIMUM PERCENT

Explanation: This message is part of a group of messages VTAM issues in response to a DISPLAY STATS,TYPE=CFS command. The first message in the group is IST1370I. See the explanation of that message for a complete description.

Routing code: 2

Descriptor code: 5

IST1375I  STRUCTURE SIZE curr_size max_size percent

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY STATS,TYPE=CFS command. This message describes the size attributes, in kilobytes, of the structure. The first message in the group is IST1370I. See the explanation of this message for a complete description.

Routing code: 2

Descriptor code: 5

IST1376I  STORAGE ELEMENTS current_elements maximum_elements percent

Explanation: This message is part of a group of messages VTAM issues in response to a DISPLAY STATS,TYPE=CFS command. The first message in the group is IST1370I. See the explanation of that message for a complete description.

Routing code: 2

Descriptor code: 5

IST1377I  LIST ENTRIES current_entries maximum_entries percent

Explanation: This message is part of a group of messages VTAM issues in response to a DISPLAY STATS,TYPE=CFS command. The first message in the group is IST1370I. See the explanation of that message for a complete description.

Routing code: 2

Descriptor code: 5

IST1378I  command FAILED FOR name – GENERIC RESOURCE NAME EXISTS

Explanation: VTAM issues this message when command failed because the value specified for ID is already known to this node as a generic resource name. USERVARs and generic resource names cannot have the same name.

command is always F USERVAR.

name is the name specified for ID that is also a generic resource name.

System action: VTAM rejects the command.

Operator response: Reenter the command with a different USERVAR name specified on ID.

System programmer response: None.

Routing code: 8

Descriptor code: 5
IST314I END

IST1119I
VTAM disconnected from the coupling facility structure because of insufficient storage in VTAM.

IST2167I
VTAM disconnected from the coupling facility structure in response to a VARY CFS operator command.

IST2168I
VTAM disconnected from the coupling facility structure because of a normal disconnect. VTAM no longer has any registered users of the coupling facility.

IST2169I
VTAM disconnected from the coupling facility structure because the connection subtask abended.

IST2170I
VTAM disconnected from the coupling facility structure because VTAM is terminating.

IST2171I
VTAM disconnected from the coupling facility structure because of a loss of connectivity.

IST2172I
VTAM disconnected from the coupling facility structure because a structure type was not valid.

IST2173I
VTAM disconnected from the coupling facility structure because of an internal CFS failure.

IST2174I
VTAM disconnected from the coupling facility structure because a connection name was not valid.

IST2175I
VTAM disconnected from the coupling facility structure because a process timed out.

IST2176I
VTAM disconnected from the coupling facility structure because of an MVS event.

IST2177I
VTAM disconnected from the coupling facility structure because of an unsupported coupling facility level.
IST1380I

IST1380I
structure is the name of the coupling facility structure.

System action: The system does not attempt to reconnect to the coupling facility structure.

Operator response:

Message
Operator Response

IST1119I
1. Issue the DISPLAY BFRUSE command to display the storage used by the VTAM buffer pools and
   information about the common storage area. The total VTAM private storage information is also
displayed.
2. Issue the DISPLAY STORUSE command to display storage usage for storage pools.
3. Save the system log and request a dump for problem determination.

See [VTAM Operator commands in z/OS Communications Server: SNA Operation](https://www.ibm.com) for a description of the
DISPLAY BFRUSE and the DISPLAY STORUSE command. If you cannot resolve the problem, contact the
system programmer.

IST2167I
None.

IST2168I
None.

IST2169I
Save the system log for problem determination. If you cannot resolve the problem, contact the system
programmer.

IST2170I
None.

IST2171I
Use the DISPLAY XCF,CF MVS command to determine this system's connectivity to the coupling facility
containing the structure. See [Displaying cross system coupling facility (XCF) information in z/OS MVS](https://www.ibm.com) for a description of the
DISPLAY XCF command.

Re-establish connectivity to the coupling facility. Use the VARY NET,CFS,ACTION=CONNECT command to
re-establish connectivity to the coupling facility. See [VTAM Operator commands in z/OS Communications Server: SNA Operation](https://www.ibm.com) for a description of the VARY NET,CFS command. Save the system log for problem
determination. If you cannot resolve the problem, contact the system programmer.

IST2172I
Save the system log for problem determination. If you cannot resolve the problem, contact the system
programmer.

IST2173I
Save the system log for problem determination. If you cannot resolve the problem, contact the system
programmer.

IST2174I
Save the system log for problem determination. If you cannot resolve the problem, contact the system
programmer.

IST2175I
Save the system log for problem determination. If you cannot resolve the problem, contact the system
programmer.

IST2176I
Save the system log for problem determination. If you cannot resolve the problem, contact the system
programmer.

IST2177I
Save the system log for problem determination. If you cannot resolve the problem, contact the system
programmer.
System programmer response:

Message

Programmer Response

IST1119I

Increase storage as required. Restart VTAM to reconnect to the coupling facility structure.

See VTAM Operator commands in z/OS Communications Server: SNA Operation for a description of the DISPLAY BFRUSE and the DISPLAY STORUSE command.

See storage problem procedure in z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures for more information about storage problems.

IST2167I

None.

IST2168I

None.

IST2169I

Review the system log to assist in problem determination. Contact the IBM software support center.

IST2170I

None.

IST2171I

Review the system log to assist in problem determination.

IST2172I

See Coupling facility structure attributes in z/OS Communications Server: SNA Network Implementation Guide for supported structure types. If FFST is enabled, a Probe dump ISTFSC0A will be produced.

IST2173I

Review the system log to assist in problem determination. Contact the IBM software support center.

IST2174I

Contact the IBM software support center. If FFST is enabled a Probe dump ISTFSC0B will be produced.

IST2175I

Contact the IBM software support center. If FFST is enabled a Probe dump ISTFSC11 will be produced.

IST2176I

Review the system log to assist in problem determination. Contact the IBM software support center.

IST2177I

See functions provided by VTAM in a sysplex in z/OS Communications Server: SNA Network Implementation Guide for the Coupling Facility Control Level (CFCC) needed for the VTAM function that is being implemented.

User response: Not applicable.

Problem determination: Not applicable.

Source: Not applicable.

Module: Not applicable.

Routing code: 2

Descriptor code: 5

Example: None.

IST1381I  REBUILD STARTED FOR STRUCTURE structure

Explanation: VTAM issues this message when a rebuild has been initiated for the coupling facility structure.

structure is the name of the coupling facility structure.

System action: Processing continues.
IST1382I • IST1385I

Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST1382I  REBUILD HAS BEEN STOPPED FOR STRUCTURE  structure

Explanation: VTAM issues this message to indicate that a rebuild has been stopped before it could complete. There are two reasons a rebuild will be stopped:

• The operator entered the MVS SETXCF STOP,REBUILD command.
• VTAM has determined that there is an insufficient number of connectors to the new structure to continue.
• A connector to the original structure may have a failed persistent connection and a connection may remain failed persistent if all affinities are not deleted.

structure is the name of the coupling facility structure.

System action: VTAM continues to use the old structure. Processing continues.
Operator response: If SETXCF STOP,REBUILD was not entered, save the system log for problem determination.
If the rebuild is stopped because of a failed persistent connection either reestablish the failed connection and allow the responsible application to purge the affinities or enter the MVS SETXCF FORCE, CONNECTION, CONNAME=conname, STRNAME=structure name command to force the failed persistent connection away.
System programmer response: If the operator did not enter the SETXCF STOP,REBUILD command, make sure all nodes in the sysplex have connectivity to the coupling facilities defined in the active coupling facility policy. A rebuild might be tried again by using the SETXCF START,REBUILD command.
Routing code: 2
Descriptor code: 5

IST1383I  REBUILD COMPLETE FOR STRUCTURE  structure

Explanation: VTAM issues this message to indicate that a rebuild has been completed.
structure is the name of the coupling facility structure that has been rebuilt.

System action: VTAM begins using the new structure. Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST1385I  ADJCLUST INFORMATION WAS IGNORED DUE TO INSUFFICIENT STORAGE

Explanation: VTAM issues this message when a border node receives adjacent cluster information, but insufficient storage was available to store the information. This is a private storage problem.

System action: Adjacent cluster routing will proceed as if the information had not been received.
Issue the DISPLAY STORUSE command to display storage usage for storage pools.
Save the system log and request a console dump for problem determination.
System programmer response: Increase storage as required. See the z/OS Communications Server: SNA Operation and the z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures for more information on storage-related problems.
Routing code: 2
Descriptor code: 5

IST1386I  DYNAMIC ALLOCATION FAILED FOR device_address CODE = return_code REASON = reason_code

Explanation: VTAM issues this message in response to a VARY ACT command for a channel-attached major node. device_address is the hexadecimal address of the link station that failed.

return_code is the return code received from dynamic allocation SVC 99 and indicates the contents of Register 15.

reason_code is the reason code in the parameter list and provides information about the cause of the failure.

System action: VTAM deactivates the link station device_address.

Operator response:
• Verify that device_address is correct. Then, attempt to activate the link station again.
• If the command continues to fail, save the system log for problem determination.

System programmer response: Use the output provided and the explanation of return_code and reason_code to assist you in correcting the problem.

See the [z/OS MVS Programming: Authorized Assembler Services Guide](https://publib.boulder.ibm.com/infocenter/pseries/v2r11m0/index.jsp) for a description of return_code and reason_code.

• If REASON = 0214, this indicates that the unit is not available because the device is already allocated.
• If REASON = 0238, this indicates that space is not available in the task input/output table (TIOT). Increase the size of the TIOT table.

If you cannot determine the reason for the failure, contact the IBM Software Support Center.

Routing code: 2
Descriptor code: 5

IST1391I  DELAYED DISCONNECT OF puname FAILED DUE TO ABEND

Explanation: VTAM issues this message when there is an abnormal termination while attempting a delayed disconnection of a physical unit that is defined as DISCNT=DELAY. Messages IST413I, IST416I or IST931I are issued if the abnormal termination produced a dump and the system dump data set is usable at this time.

puname is the name of the physical unit which was not disconnected.

System action: The attempt to disconnect the physical unit is discontinued but other processing continues.

Operator response: Save the dump and the system log for problem determination.

If you want to disconnect this PU, enter a VARY INACT, TYPE=FORCE command for puname.

System programmer response: Review the dump of the abnormal termination, if available, and console log for problem determination.

Routing code: 2
Descriptor code: 5

IST1392I  DISCNTIM = seconds DEFINED AT source FOR DISCONNECT

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY ID command for a PU type 2 or type 2.1. It is issued if the physical unit is defined as DISCNT= DELAY.

In the message text:

seconds
  The value, in seconds, defined for DISCNTIM. DISCNTIM defines the length of time VTAM will delay disconnection of the PU after the last LU-LU session is terminated.

source
  The source of the DISCNTIM definition. Values can be:
IST1393I • IST1396I

**PU**  The time of delay was specified in the PU definition. It can be changed using the MODIFY RESOURCE or MODIFY DEFAULTS command with the DISCNTIM keyword.

**HOST**  The time of delay was specified in the host at VTAM start time in the DISCNTIM start option or by allowing it to default. It can be changed by using the MODIFY VTAMOPTS command with the DISCNTIM keyword.

**System action:**  Processing continues.

**Operator response:**  None.

**System programmer response:**  None.

**Routing code:**  2

**Descriptor code:**  5

---

**IST1393I**  GENERIC RESOURCE NAME RESOLUTION EXIT IS *exit_name*

**Explanation:**  VTAM issues this message as part of a group of messages in response to a DISPLAY ID=*generic_name* command. See the explanation of IST1359I for a complete description of the message group.

**Routing code:**  2

**Descriptor code:**  5

---

**IST1394I**  CPNAME = *cpname* STATION ID = *stationid*

**Explanation:**  VTAM issues this message as part of a group of messages in the following situations:

- When a connection request for resource *nodename* in message IST680I has been rejected. Either message IST081I or IST352I follows this message with more information on resources.
- When a connection request for resource *puname* in message IST1452I has been successful.

See the description of IST680I for more information.

**Routing code:**  8

**Descriptor code:**  4

---

**IST1395I**  FLDTAB = *fldname* FILTER = *filtername*

**Explanation:**  VTAM issues this message as part of a subgroup of messages in response to a DISPLAY ID=ISTNOP command. Message IST977I is the first message in the subgroup. See the description of that message for more information.

**Routing code:**  2

**Descriptor code:**  5

---

**IST1396I**  DISK I/O INITIALIZATION FAILED FOR CMIP SERVICES

**Explanation:**  VTAM issues this message when the OSIMGMT=YES start option or the MODIFY VTAMOPTS command has been specified and one of the following error occurs:

- Physical disk I/O failed or data that was not valid was read during VTAM CMIP services initialization.
- CMIP services is recovering from an abend that occurred while processing datasets.
- The directory definition file might be incorrect. If this is the case, message IST1444I is also issued.

**System action:**  Processing continues. VTAM CMIP services is inactive.

**Operator response:**  To restart CMIP services, issue the MODIFY VTAMOPTS, OSIMGMT=YES command.

**System programmer response:**  The ASN.1 or GDMO files might not have been loaded correctly from the installation tape. Reinstall these files before restarting VTAM CMIP services.

If reloading the files from tape is unsuccessful, collect documentation for IBM service to use.

If message IST1444I is issued, see the programmer response for that message.
IST13971 INITIALIZATION FAILED FOR CMIP SERVICES

Explanation: VTAM issues this message when a subcomponent of VTAM CMIP services failed to initialize.

System action: Processing continues. VTAM CMIP services is inactive.

Operator response: Collect the system log and request a dump for problem determination. To restart CMIP services, issue the MODIFY VTAMOPTS, OSIMGMT=YES command. If the VIT trace was active, VIT records can be used to determine the cause.

System programmer response: Verify that the operator entered the buffer pool or CSA start options as specified in the start procedures.

Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA limits. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the new start option.

- See the z/OS Communications Server: New Function Summary to determine the storage requirements for VTAM.
- See the z/OS Communications Server: SNA Resource Definition Reference for a description of VTAM start options.
- See the z/OS Communications Server: SNA Operation for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- See the z/OS Communications Server: SNA Network Implementation Guide for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
- See the z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

Routing code: 2
Descriptor code: 5

IST1398I ALL ATTEMPTS TO RESTART CMIP SERVICES WERE UNSUCCESSFUL

Explanation: VTAM issues this message when CMIP services attempted to restart but was unsuccessful.

CMIP services did not restart after an ABEND because of the frequency of ABENDs. If CMIP services is experiencing frequent ABENDs, it no longer restarts automatically. You must specify OSIMGMT=YES on the MODIFY VTAMOPTS command to restart CMIP services.

System action: Processing continues. VTAM CMIP services is inactive. Data might have been lost.

Operator response: Collect the system log and request a dump for problem determination. To restart CMIP services, issue the MODIFY VTAMOPTS, OSIMGMT=YES command. If the VIT trace was active, VIT records can be used to determine the cause.

System programmer response: Verify that the operator entered the buffer pool or CSA start options as specified in the start procedures.

Increase storage as required. For insufficient storage errors, you might want to redefine your buffer pool or CSA limits. If the start option cannot be modified using the MODIFY VTAMOPTS command, you must modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the new start option.

- See the z/OS Communications Server: New Function Summary to determine the storage requirements for VTAM.
- See the z/OS Communications Server: SNA Resource Definition Reference for a description of VTAM start options.
- See the z/OS Communications Server: SNA Operation for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- See the z/OS Communications Server: SNA Network Implementation Guide for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
- See the z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.
IST1399I • IST1402I

IST1399I ATTEMPTING TO RESTART CMIP SERVICES

Explanation: VTAM issues this message when a subcomponent of VTAM CMIP services has abended, and VTAM is attempting to restart CMIP services.

System action: Processing continues. VTAM CMIP services is inactive.

Operator response: None.

System programmer response: None.

Routing code: 2

Descriptor code: 5

IST1400I DGTIMER = dgtimer EXTIMER = extimer

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a TCP/IP major node. The first message in the group is IST1342I. See the description of that message for more information.

Routing code: 8

Descriptor code: 5

IST1401I RESOURCE NOT FOUND-RETRY IN time SEC(S) OR number REQUEST(S)

Explanation: VTAM issues this message as part of a message group in response to a DISPLAY ID or DISPLAY DIRECTRY command.

• VTAM issues this message when the SRCHRED start option is ON, and the resource being displayed represents a search reduction entry. Searches will be limited for this resource as indicated by the time and number fields. See the z/OS Communications Server: SNA Network Implementation Guide for more information on the processing of a search reduction entry.
  
  – time is the remaining number of seconds that VTAM will limit searches for the resource it previously was unable to locate. Once the specified number of seconds expire, subsequent searches for the resource will not be limited.
  
  – number indicates the amount of requests necessary before VTAM will search for the resource with no search reduction limitations.
  
  - If NEXT is displayed, VTAM will not limit the next search request for the resource.
  
  - Otherwise, VTAM will limit the search until number requests have been received. For example, if number is 2, VTAM will limit the first request received, but will not limit the second request received.
  
  – A value of "NA" for time or number means Not applicable. This value will appear when the timer or counter has been set to 0.
  
  – The SRTIMER and SRCOUNT threshold values being used for this resource are displayed in message IST1402I.

For more information on the SRCHRED, SRCOUNT, and SRTIMER start options, see the z/OS Communications Server: SNA Resource Definition Reference.

Routing code: 2

Descriptor code: 5

IST1402I SRTIMER = srtimer SRCOUNT = srcount

Explanation: VTAM issues this message as part of a message group in response to a DISPLAY ID or DISPLAY DIRECTRY command.

• VTAM issues this message when the SRCHRED start option is ON. The SRCOUNT and SRTIMER values that are being used for the displayed resource are shown.

  srtimer is the amount of time in seconds that VTAM will limit searching for a resource that it previously was unable to locate.

  srcount is the number of requests that VTAM limit searching for the resource that it was previously unable to locate.
For more information on the SRCHRED, SRCOUNT, and SRTIMER start options, see the z/OS Communications Server: SNA Resource Definition Reference. You can change the value of start options with the MODIFY VTAMOPTS. See the z/OS Communications Server: SNA Operation for more information on that command.

The values of SRTIMER and SRCOUNT can be modified with the MODIFY RESOURCE command. See the z/OS Communications Server: SNA Operation for more information.

The values of SRTIMER and SRCOUNT may also be specified for a specific resource through the CDRSC and GROUP definition statements in a CDRSC major node. See the z/OS Communications Server: SNA Resource Definition Reference for more information.

Routing code: 2
Descriptor code: 5

IST1403I MODIFY QUERY REPLY FROM ncpname

Explanation: This message is the first in a group of messages that VTAM issues when a reply is received in response to a MODIFY QUERY command. A complete description of the message group follows.

IST1403I MODIFY QUERY REPLY FROM ncpname
IST1404I id data
;
[IST1405I data]
;
IST314I END

IST1403I
ncpname is the name of the NCP that was specified on the ID operand of the MODIFY QUERY command.

IST1404I
id is the subfield ID of the vector specified on the command.

data is the information that was requested from ncpname.

IST1405I
This message is used to display overflow data from IST1404I.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST1404I id data

Explanation: VTAM issues this message as part of a group of messages. The first message in the group is IST1403I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST1405I data

Explanation: VTAM issues this message as part of a group of messages. The first message in the group is either IST1282I or IST1403I. See the explanation of those messages for a complete description.

Routing code: 2
IST1406I CONTIMER = contimer  IATIMER = iatimer

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a TCP/IP major node. The first message in the group is IST1342I. See the description of that message for more information.

Routing code: 8
Descriptor code: 5

IST1407I instance_name IS A MULTIPLE INSTANCE OF EXIT exitname

Explanation: VTAM issues this message as part of a message group to indicate that instance_name is a multiple exit of exit routine exitname. The first message in the group is IST1183I. See the description of that message for more information.

Routing code: 8
Descriptor code: 4

IST1408I MODIFY TGP NOT APPLICABLE FOR resource_type resource_name

Explanation: VTAM issues this message when a MODIFY TGP command fails because both of the following conditions exist:
• The PU used in the connection was created dynamically.
• The topology reporting status for the connection is one of the following when the DISPLAY ADJCP command is issued:
  - AC/N Active, but not reported to APPN topology and routing services.
  - AO/N Active with override but not reported to APPN topology and routing services.
  - AQ/N Quiesced, but not reported to APPN topology and routing services.
  - IN/N Inactive, but not reported to APPN topology and routing services.
  - NEV Never reported to APPN topology and routing services.

resource_type indicates the type of resource and can be either CP or PU.

resource_name is the name of the resource.
• If resource_type is CP, then resource_name is the resource identified by the adjacent control point that is coded on the ID operand and the transmission group number that is coded on the TGN operand of MODIFY TGP.
• If resource_type is PU, then resource_name is the dynamic PU name that is specified on the ID operand of MODIFY TGP.

For more information about the MODIFY TGP command, see the z/OS Communications Server: SNA Operation.

System action: Processing continues.

Operator response: Issue a DISPLAY ADJCP command to check the status for the connection. For more information about the DISPLAY ADJCP command, see the z/OS Communications Server: SNA Operation.

System programmer response: None.
Routing code: 2
Descriptor code: 5
IST1409I  luname ASSOC = associatedlu  ETYPE = entrytype

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY
LMTBL,TYPE=LUNAME,SCOPE=ALL command. See the explanation of message IST1006I for a complete description
of the message group.

Routing code:  2
Descriptor code:  5

IST1410I  QUERY status resource

Explanation: VTAM issues this message to report the status of a MODIFY QUERY command.

resource is the target of the query.

status is the status of this command and can be one of the following:

SENT TO
This command or series of commands has been sent to resource as specified on the MODIFY QUERY
command.

QUEUED FOR
This command is part of a series of MODIFY QUERY commands. It will be queued for resource until the
complete series is received.

RESET FOR
This series of commands queued for resource will be purged. This occurs when the program operator
application (POA) specified CONTINUE=RESET on the MODIFY QUERY command or when an error
occurs in processing the command.

System action: The action taken by VTAM depends on the status reported:
• If status is RESET FOR, the series of MODIFY QUERY commands for this resource will be purged by VTAM.
• If status is SENT TO, this command or series of commands will be sent to the resource.
• If status is QUEUED FOR, this command will be queued for resource until all commands in the series have been
  received.

Operator response: None.

System programmer response: None.

Routing code:  2
Descriptor code:  5

IST1411I  INOP GENERATED FOR resourcename

Explanation: This message is the first in a group of messages that VTAM issues when an error condition has been
detected for external communications adapter (XCA) node resourcename.

Possible message groups follow:
• If the XCA resource is for a local area network (LAN), and the LAN operation has been identified, VTAM issues
  the following messages:

  IST1411I  INOP GENERATED FOR resourcename
  IST1412I  lan_operation action – RETURN CODE return_code
  IST1314I  END

• If the XCA resource is for a local area network (LAN) and the LAN operation is not identified, or if the XCA
  resource is for an Asynchronous Transfer Mode (ATM) or an Enterprise Extender (HPR/IP) resource, VTAM issues
  the following messages:

  IST1411I  INOP GENERATED FOR resourcename
  IST1430I  REASON FOR INOP IS reason
  IST1314I  END

resourcename is the name of the XCA resource where the INOP condition occurred.
IST1412I

- **lan_operation** is the name of the LAN operation that failed. This name is used by the IBM Software Support Center if additional problem determination assistance is needed.
- **action** is one of the following:

  **FAILED**
  
  *lan_operation* is a LAN operation for which a negative response was returned.

  **RECEIVED**
  
  *lan_operation* is a LAN operation that was received and reported a change in connectivity.

- **return_code**, if displayed, is a 4-digit hexadecimal code issued by *resourcename* and provides information about the cause of the problem. See the [LAN channel station error return codes](z/OS Communications Server: IP and SNA Codes) information in z/OS Communications Server: IP and SNA Codes for a description of **return_code**. If no return code is available, *NA* is displayed. This code is used by the IBM Software Support Center if additional problem determination assistance is needed.

IST1430I

- **reason** is one of the following:

  **APPN CONNECTION ENDED BY ACTIVATION XID**
  
  An APPN connection across an ATM network is being terminated because a new activation XID request has been received over a connection that has already been established.

  **APPN CONNECTION ENDED DUE TO INACTIVITY**
  
  An APPN connection over an ATM switched virtual circuit (SVC) or over Enterprise Extender (HPR/IP) is being terminated because no HPR session traffic has been detected for the DISCNT time period specified on the PU statement representing this connection.

  **APPN CONNECTION FAILED – LIVENESS TIMEOUT**
  
  An APPN connection is being terminated over an ATM PVC. The remote end of the PVC is not responding to liveness messages.

  **APPN CONNECTION FAILED – STORAGE FAILURE**
  
  An APPN connection across an ATM network is being terminated because a storage failure occurred during connection establishment or liveness processing.

  **EE HEALTH VERIFICATION FAILURE**
  
  During the activation of the EE Connection, VTAM sent Logical Data Link Control (LDLC) probes to the remote partner to determine if all five ports are accessible. VTAM did not receive a successful response to all of the LDLC probe requests. VTAM terminated the activation of the EE connection due to the failure of the EE health verification.

  **INBOUND PIU COULD NOT BE ROUTED**
  
  Possible causes for the INOP include:
  - An ABEND occurred while processing the PIU. Message IST1037I is also issued and provides additional information.
  - A PIU segment was received out of sequence.
  - A PIU was lost. A segment was received that did not complete a PIU before the start of a new PIU.
  - The segment size was too large. An inbound PIU was received and the segment size exceeded the maximum frame size or the maximum PIU size.
  - The PIU was not valid for one of the following reasons:
    - The PIU was not a FID4.
    - The inner PIU was not a FID0 or FID2.
    - The PIU length is too short to include an RH on a VR pacing response.
    - The data count field in the PIU exceeded the PIU size.
  
  **Note:** If the INOPDUMP start option is ON, then an SVC dump was requested by ISTTSCPD.

  **LDLC COMMAND ERROR**
  
  An LDLC command was received that is not recognized or was received out of order for an APPN connection across an ATM network.
MACADDR OR SAPADDR IN USE
The remote MACADDR or SAPADDR for this connection duplicates a remote MACADDR or SAPADDR that is in use.

TCP/IP JOB jobname IS NOT AVAILABLE
The TCP/IP job jobname is no longer available.

TIMEOUT OCCURRED – PORT TIMER EXPIRED
The time period specified on the PORT definition statement of the XCA major node expired, and no response to a request had been received.

UNRECOGNIZED OPERATION
The reason for the INOP could not be determined by the module issuing this message group.

XID ERROR
An XID received during the establishment of an APPN connection across an ATM network contained an error.

XID OR LDLC COMMAND TIMEOUT
An XID or LDLC COMMAND to establish an APPN connection across an ATM or Enterprise Extender (HPR/IP) network did not receive a response after transmission and multiple retries.

System action: Error recovery will be attempted for resourcename, and subsequent VTAM messages will indicate the results of the error recovery. Processing continues.

Operator response: Enter a DISPLAY ID=resource_name,SCOPE=ALL command to determine the status of the resource. Save the system log for problem determination. Also:
- If reason is XID OR LDLC COMMAND TIMEOUT, re-attempt the activation of the APPN connection.
- If reason is TCP/IP JOB jobname IS NOT AVAILABLE, issue the DISPLAY TCPIP command, which lists each TCP/IP job and its version. See z/OS Communications Server: IP User’s Guide and Commands for a complete description of the DISPLAY TCPIP command.

System programmer response:
- If message IST1412I is issued, use the system log and the description of return_code to assist you in correcting the problem.
  If lan_operation is CLOSE_STATION_INDICATION, action is RECEIVED, and return_code is *NA*, VTAM has been informed that the station, previously opened or in the process of being opened, has closed.
- If message IST1430I is issued, the value of reason determines the actions to be taken:

  APPN CONNECTION ENDED BY ACTIVATION XID
  An effort to activate a new APPN connection has been received over an already active connection. The existing APPN connection and ATM SVC or PVC will be terminated and automatically restarted. When the new APPN connection attempt is tried again, the SVC or PVC should be re-established.

  APPN CONNECTION ENDED DUE TO INACTIVITY
  No HPR traffic has been detected for the DISCNT time period specified on the PU statement representing this connection. The ATM switched virtual circuit (SVC) will be terminated. This is a normal condition when session traffic has ceased to use this connection. The next session request will cause activation of another ATM SVC.

  APPN CONNECTION FAILED – LIVENESS TIMEOUT
  An APPN connection is being terminated over an ATM PVC because the remote end of the PVC is not responding to liveness messages. The PVC and the APPN connection over it will be terminated and automatically restarted. If no response is then received, the APPN connection will remain open pending activation of the PVC from the remote node.

  APPN CONNECTION FAILED – STORAGE FAILURE
  During APPN connection establishment, either an XID or an LDLC COMMAND could not be transmitted to the remote node because no storage was available. The APPN connection and the ATM SVC or PVC will be terminated. When the storage failure condition is relieved, this connection can be tried again.

  EE HEALTH VERIFICATION FAILURE
  Issue D NET,EEDIAG,ID=resource_name,TEST=YES to test the EE connection. See the information about understanding the EE connectivity test output in z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures to interpret the output from the EEDIAG command.
INBOUND PIU COULD NOT BE ROUTED

- An ABEND occurred while processing the PIU. See IST1037I for recommended actions.
- A PIU was received out of sequence.
  The TG sequence number in the FID4 TH of the inbound PIU did not match the next sequence number that VTAM expected to receive. If VTAM internal trace was running, then PIU discard trace entries were written. Look for a DSCD entry that contains discard reason code 0001 and a module ID in the DSC2 trace record of LS6L. See z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures for the format and content of the DSCD and DSC2 trace entries.
- A PIU was lost.
  A segment was received that did not complete a PIU before the start of a new PIU. If VTAM internal trace was running, then PIU discard trace entries were written. Look for DSCD entries that contain discard reason codes 0001 and 0004 and the module ID in the trace record of LS6Z. See z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures for the format and content of the DSCD trace entry.
- The segment size was too large.
  An inbound PIU was received and the segment size exceeded the maximum frame size and the maximum PIU size. The maximum segment size for inbound PIUs is determined by the maximum PIU or frame size passed in the XID. If VTAM internal trace was running, then PIU discard trace entries were written. Look for DSCD entries that contain discard reason codes 0003 and 0004 and a module ID in the DSC2 trace record of LS6Z. See z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures for the format and content of the DSCD and DSC2 trace entries.
- The PIU was not valid.
  If the INOPDUMP start option is ON, then an SVC DUMP was attempted by ISTTSCPD, whose name will appear in the title of the dump. Use the system log and dump to assist you in determining the reason for the INOP. See z/OS Communications Server: SNA Resource Definition Reference for more information on the INOPDUMP start option. If VTAM internal trace was running, then PIU discard trace entries were written. Look for a DSCD entry that contains discard reason code 0002 and a module ID in the DSC2 trace record of LS6L. See z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures for the format and content of the DSCD and DSC2 trace entries.

LDLC COMMAND ERROR

The XID Done LDLC command establishing the primary end of the connection was received before XID negotiation completed. The remote node did not properly complete XID negotiation.

MACADDR OR SAPADDR IN USE

Verify that the MACADDR and SAPADDR for this connection is a unique pair. See z/OS Communications Server: SNA Resource Definition Reference for additional information on specifying MACADDR and SAPADDR in the XCA major node.

TCP/IP JOB jobname IS NOT AVAILABLE

The Enterprise Extender (HPR/IP) connection to TCP/IP was established, but due to a change in the TCP/IP job to which VTAM was attached, the connection cannot continue. The TCP/IP job name can be supplied to VTAM using the VTAM start option TCPNAME, which is modifiable using the MODIFY VTAMOPTS command. If the Enterprise Extender is active, a change in the TCPNAME value will not be detected. The TCPNAME value is used only when the Enterprise Extender is started. If the TCPNAME option is not used, the Enterprise Extender selects any TCP/IP job that is active.

TIMEOUT OCCURRED – PORT TIMER EXPIRED

Verify that the TIMER value on the PORT definition statement is high enough. See z/OS Communications Server: SNA Resource Definition Reference for additional information.

UNRECOGNIZED OPERATION

The reason for the INOP could not be determined. Contact the IBM support center.

XID ERROR

Either a non format 3 XID or an XID with an appended Control Vector 22 was received. If VTAM internal trace was running with the LCS option, then an LCSX trace entry will contain the XID in error sent from the remote end of the connection. The format of the XID or control vector 22 can be used to determine what part of the XID is not valid.
XID OR LDLC COMMAND TIMEOUT

During APPN connection establishment, either an XID or an LDLC COMMAND was sent to the remote node. No response was received. The XID or LDLC command was retransmitted multiple times without response.

ATM: The SVC or PVC is still active, but the remote node is not responding. The ATM SVC or PVC will be cleared to attempt to reset the error condition on the remote node.

Enterprise Extender (HPR/IP): Try the connection again by reissuing the dial. If failure persists, determine if the failure is a result of a system definition error or a network error. If the failure is a result of a system definition error, correct the error. If the failure is a result of a network error, contact the IP network provider.

Routing code: 8
Descriptor code: 4

IST1412I  lan_operation action – RETURN CODE return_code

Explanation: This message is part of a group of messages. The first message in the group is IST1411I. See the explanation of that message for a complete description.

Routing code: 8
Descriptor code: 4

IST1413I  error_type – REDIAL ATTEMPTED FOR puname

Explanation: VTAM issues this message if a redial for physical resource puname has been attempted.

error_type can be one of the following:

PROTOCOL VIOLATION
A CV X’51’ was not found on the ACTPU response or REQACTPU for the first PU activated for this dependent LU requester.

SESSION OUTAGE
One of the CPSVRMGR sessions between VTAM and the dependent LU requester was terminated by methods other than a VARY INACT command.

TDU ERROR
A topology database update (TDU) error has occurred. The end node dependent LU requester attempted to register its topology with its network node server and has received a negative response.

puname is the name of the physical resource.

System action: Redial is attempted. If the redial for puname completes successfully, message IST093I will be issued. If the redial does not complete successfully, message IST619I or IST1416I will be issued.

Operator response: Save the system log for problem determination.

- When error_type is PROTOCOL VIOLATION, First Failure Support Technology™ (FFST) probe ISTCSC13 is triggered. For more information on this probe, see the z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT.
- When error_type is SESSION OUTAGE, a buffer contents trace can provide additional information. See the z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures for more information.
- When error_type is TDU ERROR, First Failure Support Technology (FFST) probe ISTCSC14 is triggered. For more information on this probe, see the z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT.

System programmer response:

- When error_type is PROTOCOL VIOLATION, locate the ACTPU response (if doing a VARY DIAL) or locate the REQACTPU (if doing DLUR-initiated CPSVRMGR pipe activation) for the first PU activated on this CPSVRMGR pipe. Verify that the RU is formatted correctly and that it contains all the required control vectors.
- When error_type is SESSION OUTAGE, verify that all links to the dependent LU requester (DLUR) are still available for use and that the DLUR is still active.
- When error_type is TDU ERROR, locate the failed TDU RU in the dump and verify that the RU is formatted correctly.

Routing code: 2
**IST1414I • IST1415I**

Descriptor code: 5

---

**IST1414I**  
**error_type – REDIAL NOT ATTEMPTED FOR puname**

**Explanation:** VTAM issues this message if a redial for physical resource `puname` will not be attempted.

`error_type` can be one of the following:

**PROTOCOL VIOLATION**  
A CV51 was not found on the ACTPU response or REQACTPU for the first PU activated for this dependent LU requester.

**SESSION OUTAGE**  
One of the CPSVRMGR sessions between VTAM and the dependent LU requester was terminated by methods other than a VARY INACT command.

**TDU ERROR**  
A topology database update (TDU) error has occurred. The end node dependent LU requester attempted to register its topology with its network node server and has received a negative response.

`puname` is the name of the physical resource.

**System action:** A redial for `puname` is not attempted.

**Operator response:** Save the system log for problem determination.

- When `error_type` is **PROTOCOL VIOLATION**, First Failure Support Technology (FFST) probe ISTCSC13 is triggered. For more information on this probe, see the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#).
- When `error_type` is **SESSION OUTAGE**, a buffer contents trace can provide additional information. See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#).
- When `error_type` is **TDU ERROR**, First Failure Support Technology (FFST) probe ISTCSC14 is triggered. For more information on this probe, see the [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#).

**System programmer response:**

- When `error_type` is **PROTOCOL VIOLATION**, locate the ACTPU response (if doing a VARY DIAL) or locate the REQACTPU (if doing DLUR-initiated CPSVRMGR pipe activation) for the first PU activated on this CPSVRMGR pipe. Verify that the RU is formatted correctly and that it contains all the required control vectors.
- When `error_type` is **SESSION OUTAGE**, verify that all links to the dependent LU requester (DLUR) are still available for use and that the DLUR is still active.
- When `error_type` is **TDU ERROR**, locate the failed TDU RU in the dump and verify that the RU is formatted correctly.

Routing code: 2

Descriptor code: 5

---

**IST1415I**  
**resource_name CONFLICTS WITH A GENERIC RESOURCE NAME**

**Explanation:** VTAM issues this message in response to a DISPLAY ID=`resource_name` command, when IDTYPE is specified and both of the following conditions exist:

- `resource_name` is both a generic name and a real resource.
- The value of IDTYPE= is not GENERIC.

**System action:** VTAM displays information for the real resource name rather than the generic name. Processing continues.

If the generic resource resolution is suspended due to unavailability of the coupling facility (that is, rebuild of the coupling facility is in progress), a dynamic CDRSC will be temporarily created to represent the generic resource. This message is generated for informational purposes only; it is not an error message.

**Operator response:** To display generic name information, specify IDTYPE=GENERIC on the DISPLAY ID command.

**System programmer response:** One of the duplicate names should be renamed. As long as the duplicate names exist, the real resource is blocked from having sessions with another resource. Also, searches will always find the generic name.
Routing code: 2
Descriptor code: 5

**IST1416I**

**ID = nodename FAILED — RECOVERY IN PROGRESS**

**Explanation:** VTAM recognized a failure condition for node *nodename* and is attempting to recover the node. See subsequent messages for the results of that recovery attempt.

If the network where the node resides is known to VTAM, *nodename* is a network-qualified name in the form `netid.name`.

**System action:** Users of *nodename* or devices attached to *nodename* may be notified of the failure. VTAM attempts to recover *nodename*.

**Operator response:** Wait for additional messages indicating the success or failure of the recovery attempt.

**System programmer response:** None.

Routing code: 2, 8
Descriptor code: 4

**IST1417I**

**NETID NAME STATUS NODETYPE MAJNODE**

**Explanation:** This message is the first in a group of messages that VTAM issues in response to a DISPLAY RSCLIST command. A complete description of the message group follows.

IST1417I
\[ netid name status nodetype majnode \]

IST1418I
\[ netid name status nodetype majnode \]

IST350I

This message identifies the type of information in the display and is always RSCLIST for this message group.

**IST1418I**

*IST1418I* will occur as many times as is necessary to meet the specification of the ID keyword. If ID is a single value, *IST1418I* will occur once; if ID is a wildcard specification, *IST1418I* may occur multiple times.
**IST1418I • IST1419I**

- If multiple values are specified for the ID keyword (for example: ID=(A,B*,C)), each grouping will be separated by IST924I.

  netid is the network identifier of the resource being displayed. An asterisk symbol (*) indicates that VTAM has not learned the netid of the resource or no longer has information about the netid for this resource.

  name is the name of the resource being displayed. Only resources matching the pattern specified by the ID keyword will be displayed.

  status is the current status of name. See Resource Status Codes and Modifiers in z/OS Communications Server: IP and SNA Codes for potential values.

  nodetype is the resource type of the major or minor node. See Chapter 17, “Node and ID types in VTAM messages,” on page 1097 for a description of nodetype.

  majnode is the name of the major node containing netid.name.

- See the z/OS Communications Server: SNA Operation for more information.

- See the information about removing a generic resource in z/OS Communications Server: SNA Network Implementation Guide for more information about node type GENERIC USERVAR.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 3

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**IST1418I**

netid name status nodetype majnode

**Explanation:** This message is part of a group of messages. The first message in the group is IST1417I. See the explanation of that message for a full description.

**Routing code:** 2

**Descriptor code:** 5

---

**IST1419I** DUPLICATE SESSION INFORMATION REPORTED FOR luname

**Explanation:** This message is the first in a group of messages that VTAM issues after the completion of a VARY ACT command when a BFSESSINFO request unit (RU) is received during SSCP takeover processing. This message group indicates that VTAM now owns two type 2.1 link stations in the direction of the same logical unit luname for one or more of the sessions described by the BFSESSINFO RU. A complete description of the message group follows.

IST1419I DUPLICATE SESSION INFORMATION REPORTED FOR luname
IST1420I UNABLE TO ASSOCIATE THE FOLLOWING SESSION(S) WITH pname
IST873I PLU SLU SID STATUS
IST874I netid.pluname netid.sluname sessionid status
[IST874I netid.pluname netid.sluname sessionid status]
IST314I END

**luname** is the network-qualified name of the independent logical unit.

**IST1420I**

pname is the name of the type 2.1 link station (takeover physical unit) that is associated with the BFSESSINFO RU.

**IST873I**

This message is a header message for the information displayed in message IST874I.

**IST874I**

pluname is the network-qualified primary session partner name.

sluname is the network-qualified secondary session partner name.
sessionid is the session identifier. For additional information on the session, enter a DISPLAY SESSIONS,SID=sessionid command.

status is the session status. See the z/OS Communications Server: IP and SNA Codes for a description of possible session initiation and termination states.

Status modifiers will not display in the status field of this message group. Enter a DISPLAY SESSIONS,SID=sessionid command to obtain this information.

System action: Subsequent messages will be issued if errors are encountered while processing the BFSESSINFO RU. If no errors are encountered during BFSESSINFO RU processing, session states are not changed. However, certain session and problem determination information will not be available until the link that was taken over is given back to the original owning SSCP.

Operator response: Save the system log for problem determination.

Since certain session and problem determination information will not be available until the link that was taken over is given back to the original owning SSCP, information such as luname, puname, and sessionids of the affected sessions should be saved. This information may be useful if, for example, puname is about to be deactivated because system information indicates that no logical units are currently using it.

Entering a DISPLAY command for puname may not show all of the logical units that are currently using the PU. Therefore, saving the information in this message group will enable you to DISPLAY specific logical units and/or sessions to determine whether the PU is currently in use.

Notes:
1. When a DISPLAY ID=luname command is entered with SCOPE=ALL, all sessions involving luname are displayed. Sessions that use type 2.1 adjacent link stations are displayed in groups, following message IST1081I indicating the adjacent link station (PU) being used for those sessions. However, sessions that were listed in the IST1419I message group during an SSCP takeover will not be displayed following message IST1081I for puname in message IST1420I.
2. When a DISPLAY ID=puname command is entered with SCOPE=ALL, a list of logical units that are currently using that PU are displayed following message IST355I. However, some of the logical units that are using puname may not be displayed, if the only sessions using puname are sessions that were displayed in the IST1419I message group during an SSCP takeover.

For an explanation of SSCP takeover, see the z/OS Communications Server: SNA Network Implementation Guide.

System programmer response: None.

Routing code: 2
Descriptor code: 5

IST1420I UNABLE TO ASSOCIATE THE FOLLOWING SESSION(S) WITH puname

Explanation: This message is part of a group of messages that VTAM issues during SSCP takeover processing. The first message in the group is IST1419I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST1421I nodetype resourcename HAS DUPLICATE ADDRESS

Explanation: This message is part of a message group. The first message in the group is either IST718I or IST1693I. See the explanation of those messages for a complete description.

Routing code: 8
Descriptor code: 5
**IST1422I • IST1424I**

**IST1422I**  SAVED TRACE REQUESTS FOR `value`

**Explanation:** VTAM issues this message as part of a message group in response to a DISPLAY TRACES command. See the explanation of message IST1041I for a complete description of this message group.

**Routing code:** 2

**Descriptor code:** 5

**IST1423I**  `rsname` REJECTED BECAUSE DSPLYWLD = `option`

**Explanation:** The `rsname` value for an ID keyword of a DISPLAY command included a wildcard specification (* or ?). Wildcards are not permitted on this DISPLAY command because the current value of the DSPLYWLD start option is `option`. Potential values for `option` are:

- **NOWILD**
  Wildcards are not permitted in any DISPLAY commands.

- **OPERONLY**
  Wildcards are permitted in DISPLAY commands from the network operator, but not from Program Operator Applications.

- **POAONLY**
  Wildcards are permitted in DISPLAY commands from Program Operator Applications, but not from the network operator.

**System action:** Processing continues with the remaining ID keyword values in the DISPLAY command.

**Operator response:** Use the MODIFY VTAMOPTS command to change the DSPLYWLD value and reissue the DISPLAY command.

**System programmer response:** If wildcards should be permitted from either the network operator or Program Operator Applications, update the value of the DSPLYWLD start option in the VTAM start list (ATCSTRxx) to DSPLYWLD=FULLWILD.

**Routing code:** 2

**Descriptor code:** 5

**IST1424I**  APPLICATIONS DEFINED USING THIS MODEL:

**Explanation:** VTAM issues this message as part of a subgroup in response to a DISPLAY ID command when the resource identified by ID is a model application program. A complete description of the message subgroup follows.

**IST1424I**  APPLICATIONS DEFINED USING THIS MODEL:

**IST080I**  `nodename1 status1 nodename2 status2 nodename3 status3`

- **IST080I**
  This message lists the dynamic application programs that have been defined using this model.
  `nodename` is the name of the dynamic application program.

  See [Resource Status Codes and Modifiers](z/OS Communications Server: IP and SNA Codes) for a description of these status codes.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5
IST1425I  DEFINED USING MODEL  *model_name*

Explanation: VTAM issues this message in response to a DISPLAY ID command when the resource identified by ID is a dynamic application program or a clone CDRSC. If the ID is a dynamic application program, it identifies the model application program from which this dynamic application program was built; it will not be network qualified. If the ID is a clone CDRSC, it identifies the model CDRSC from which this clone CDRSC was built. The model CDRSC name will be network qualified if it is not an alias model CDRSC; if it is an alias model CDRSC, it will not be network qualified.

*model_name* is the name of the model resource definition. If ID specifies a CDRSC, the *model_name* can be a network-qualified name in the form netid.name.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2

Descriptor code: 5

IST1426I  NO APPLICATIONS DEFINED USING THIS MODEL

Explanation: VTAM issues this message in response to a DISPLAY ID command when the resource identified by ID is a model application program and no dynamic application programs have been defined using this model.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2

Descriptor code: 5

IST1427I  NAME = resource_name  FOUND TYPE = found_type

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY DIRECTORY command when SCOPE=NSEARCH is specified. A complete description of the message group follows.

- If the resource name specified on the command is not found, the following message group is displayed.
  
  IST350I  DISPLAY TYPE = NETWORK SEARCH
  IST1427I  NAME = resource_name  FOUND TYPE = found_type
  IST314I  END

- If one instance of the resource name specified on the command is found, the following message group is displayed.
  
  IST350I  DISPLAY TYPE = NETWORK SEARCH
  IST1427I  NAME = resource_name  FOUND TYPE = found_type
  IST1184I  CPNAME = cpname - NETSRVR = network_node_server
  IST314I  END

- If duplicate instances of the resource name specified on the command are found, the following message group is displayed.
  
  IST350I  DISPLAY TYPE = NETWORK SEARCH
  IST1427I  NAME = resource_name  FOUND TYPE = found_type
  IST1184I  CPNAME = cpname - NETSRVR = network_node_server
  IST924I  -------------------------------------------------------------
  IST1427I  NAME = resource_name  FOUND TYPE = found_type
  IST1184I  CPNAME = cpname - NETSRVR = network_node_server
  :  
  IST314I  END

Following are some of the situations in which all instances of resource_name might not be returned.

- The resource is not registered to its network node server and the end node does not allow searching on a domain broadcast.
IST1430I

- A response is not returned in the time allotted for a Locate, as determined by the IOPURGE start option.
- Subarea searching is restricted due to the SSEARCH start option.
- The SNVC start option limit has been exceeded, preventing a border node from searching nonnative subnetworks.
- The search request is restricted by search reduction entries at nodes from which the command is not issued. Search reduction entries are ignored at the node from which the command is issued.
- An exit is restricting searches.
- Due to current network topology, the resource is unreachable via Locate flows (for example, an outage has occurred in the network).

IST350I

This message identifies the type of information in the display and is always NETWORK SEARCH for this message group.

IST1184I

cpname is the network-qualified name of the owning control point in the form netid.name.

network_node_server is the network-qualified name of the network node server in the form netid.name.

IST1427I

- resource_name is the name of the resource specified on the command.

  Note: If the resource specified is a generic resource name or USERVAR, the name can be translated by nodes from which the command is not issued. In this case, resource_name will be the actual network name of the resource rather than the name specified.

- found_type is determined by the start options that are specified or defaulted. Possible values are:

  NONE
  - The resource was not found.

  OWNER
  - The resource was found, and this response is from the actual owner of the resource.

  SURROGATE
  - The resource was found, and this response is from a node connected to the resource by a LEN connection and is providing network services for the resource.

  WILDCARD
  - The resource was found, but is only used if other responses are not received. This response is returned by a node that has either:
    - A generic definition for a connection to a network that might contain the target resource
    - A backup resource definition for the specified resource. VTAM uses this for connectable application programs and inactive LUs.

  Resources of found_type OWNER will be issued first, followed by found_type SURROGATE and found_type WILDCARD.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2

Descriptor code: 5

IST1430I REASON FOR INOP IS reason

Explanation: VTAM issues this message as part of a group of messages when an error condition has been detected for an External Communications Adapter (XCA) node. The first message in the group is IST1411I. See the description of that message for more information.

Routing code: 4

Descriptor code: 8
IST1431I  APPN COS SUBAREA COS

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY COSMAP command. See the explanation of IST1321I for a complete description of the group.

Routing code: 2
Descriptor code: 5

IST1432I  DYNLU AND CDRSC VALUES FOR cpname CONFLICT

Explanation: VTAM issues this message when the value of the DYNLU operand or DYNLU start option does not match the value of the CDRSC operand on the CDRM definition statement. These values determine whether dynamic CDRSC definitions are allowed.

cpname is the network-qualified name of the adjacent control point in the form netid.name.

System action: Even though session traffic may continue to flow, this conflict may result in intermittent session failures. Processing continues.

Operator response: Save the system log for problem determination.

System programmer response: To correct the conflict, ensure that the values for DYNLU and CDRSC match.

See the z/OS Communications Server: SNA Resource Definition Reference for a description of the DYNLU and CDRSC operands and the DYNLU start option.

Routing code: 8
Descriptor code: 5

IST1433I  rscname REJECTED - DSPLYWLD = NO FOR APPL applname

Explanation: The rscname value for an ID keyword of a DISPLAY command issued by Program Operator Application applname included a wildcard specification (* or ?). Wildcards are not permitted on DISPLAY commands from applname because the application's definition statement specifies DSPLYWLD=NO.

System action: Processing continues with the remaining ID keyword values in the DISPLAY command.

Operator response: No action is required unless wildcards are to be permitted in DISPLAY commands from this application.

System programmer response: If wildcards should be permitted, update the value of the DSPLYWLD keyword on the APPL definition statement for applname to DSPLYWLD=YES.

Routing code: 5
Descriptor code: 2

IST1434I  DLUR ANS SUPPORT CONFLICT FOR PU puname – SET TO ANS=STOP

Explanation: VTAM issues this message when a dependent LU server PU has the ANS (Automatic Network Shutdown) keyword coded as CONT and the dependent LU requester (DLUR) is only capable of supporting ANS=STOP.

puname is the name of the dependent LU server PU.

System action: VTAM changes the ANS value coded on the PU to the default (ANS=STOP).

Operator response: Save the system log for problem determination.

System programmer response: The DLUR being used with the DLUS does not have ANS=CONT support. To prevent the message from being issued, either allow ANS to default or code ANS=STOP for those DLUS PUs in the switched major nodes which have this DLUR coded for the DLURNAME parameter on the PU’s PATH statements.

Routing code: 2
Descriptor code: 5
IST1435I

LEVEL INPUT OUTPUT

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY STATS command when TYPE=COMPRESS is specified.

A complete description of the message group follows the example.

IST350I DISPLAY TYPE = STATS, TYPE=COMPRESS
IST1435I LEVEL INPUT OUTPUT
IST1176I BASIC FROZEN
IST1177I 0 input basic **NA**
IST1177I 1 input basic **NA**
IST1177I 2 input basic frozen
IST1177I 3 input basic frozen
IST1177I 4 input basic frozen
IST314I END

IST350I

This message identifies the type of information shown in the display. For this message group, type is always STATS, TYPE=COMPRESS.

IST1176I

This message is a header message for message IST1177I.

BASIC and FROZEN are OUTPUT values indicating the number of half-sessions using a given compression level for outgoing data.

For more information, see the description of message IST1177I.

IST1177I

This message is issued once for each possible data compression level.

- **level** is 0, 1, 2, 3, or 4.
  - Level 0 indicates that no data compression is used. This is the default compression level.
  - Level 1 indicates that VTAM uses run length encoding (RLE) compression. This type of compression simply replaces strings of identical characters with one or two bytes, without using a compression dictionary.
  - Levels 2, 3, and 4 indicate that VTAM uses an adaptive compression algorithm. This type of compression replaces strings of data with codes of 9, 10, and 12 bits for levels 2, 3, and 4, respectively. Codes identify entries in dictionaries of data strings.
    - In BASIC mode, which is always the initial mode, VTAM continuously updates the dictionaries so that they reflect the most recently compressed data.
    - In FROZEN mode, VTAM stops updating (freezes) the dictionaries to speed up compression processing. In this mode, VTAM can take advantage of the ESA/390 data compression facility, if it is available on the CPU.
    - Compression periodically switches from FROZEN mode to BASIC mode to resume updating of the dictionaries. It switches back to FROZEN when the dictionaries again reflect the most recently compressed data.

- The **INPUT** value **input** represents the number of half-sessions using a given compression level for incoming data.
  - When a session is established, **input** is incremented by one at the input compression level used by the corresponding half-session in this host.
  - When a session ends, **input** is decremented by one at the input compression level used by the corresponding half-session in this host.
- The **OUTPUT** values **basic** and **frozen** represent the number of half-sessions using a given compression level for outgoing data.
  - When a session is established, **basic** is incremented by one at the output compression level used by the corresponding half-session in this host.
  - Each time VTAM freezes the compression dictionaries for a half-session on output, **basic** for that half-session is decremented by one, and **frozen** at the same level is incremented by one.
  - Each time VTAM resumes updating the compression dictionaries for a half-session on output, **frozen** for that half-session is decremented by one, and **basic** at the same level is incremented by one.

See the [z/OS Communications Server: SNA Network Implementation Guide](#) for more information on the RLE and adaptive compression algorithms.
– When a session ends, basic or frozen (depending on the compression state at the time) is decremented by one at the output compression level used by the corresponding half-session in this host.

**Note:** A session with both half-sessions in the same host is prevented from using compression. Each of its two half-sessions is counted separately for **INPUT** and **OUTPUT** on level 0.

**IST1435I**

- This message serves as a header for message IST1177I.
- LEVEL indicates the data compression level.
- INPUT indicates the number of half-sessions (one end of a session) using a given compression level for incoming data.
- OUTPUT indicates the number of half-sessions using a given compression level for outgoing data. Values are basic and frozen.
- For more information, see the description of message IST1177I.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** You can use the information in this display to monitor the distribution of sessions for different compression levels. This distribution can be altered by using any of the following:

- MODIFY COMPRESS command
- MODIFY VTAMOPTS,CMPPMIPS=cmpmips command
- CMPVTAM start option
- CMPPMIPS start option
- APPL definition statement by CMPAPPLO or CMPAPPLI.

Use the DISPLAY SESSIONS,SID=sid command to monitor the compression performance of individual sessions. See the explanation of message IST879I for a description of the information in this display.

For more information on commands, see the [z/OS Communications Server: SNA Operation](https://www.ibm.com/support/docview/ibmop/). For more information about Data Compression, see the [z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com/support/docview/ibmop/).

**Routing code:** 2

**Descriptor code:** 5

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**IST1436I ** **RU PENDING:**

**Explanation:** This message is the first in a group of messages that VTAM issues when the request unit (RU) runame has been pending on the node fornodename for a period of time without receipt of a corresponding response unit. A complete description of the message group follows.

IST1436I **RU PENDING:**
IST1278I runame FROM fromnetid TO tonetid FOR fornodename
[IST531I FROM SUBAREA = subarea, ELEMENT = element]
[IST531I TO SUBAREA = subarea, ELEMENT = element]
IST1051I EVENT CODE = code
IST1062I EVENT ID = eventid

**Note:** If runame remains outstanding for subsequent intervals, these messages will be repeated at such intervals until runame is received or until the request unit is purged.

**IST531I**

VTAM will not issue this message if both FROM network name fromnetid and TO network name tonetid are displayed in this message.

VTAM will display this message once if one of the network names is unknown and twice if both of the network names are unknown.
If the subarea and element addresses are unknown, VTAM issues either 0 or *NA* in place of the address.

**IST1051I**

*code* is an event code that identifies which format of event ID is being displayed.

See the [z/OS Communications Server: IP and SNA Codes](https://www.ibm.com/support/knowledgecenter/SSLTBW/welcome?lang=en) for a description of *code*.

**IST1062I**

*eventid* is an internal VTAM identifier of the pending request.

See the [z/OS Communications Server: IP and SNA Codes](https://www.ibm.com/support/knowledgecenter/SSLTBW/welcome?lang=en) for a description of *eventid*.

**IST1278I**

- *runame* is the request unit (RU) that is pending. See Chapter 16, “Command and RU types in VTAM messages,” on page 1083 for a description of *runame*.
- The origin and destination of *runame* are identified by one of the following:
  - Network names (*fromnetid* and *tonetid*) as displayed in this message.
  - Network addresses (subarea number *subarea* and element number *element*) as displayed in message IST531I.

**Note:** VTAM will not issue message IST531I if both FROM network name *fromnetid* and TO network name *tonetid* are displayed in this message. VTAM will display message IST531I once if one of the network names is unknown and twice if both of the network names are unknown. If the subarea and element addresses are unknown, VTAM issues either 0 or *NA* in place of the address.

- *fornodename* is the name of the node with the pending RU. If *fornodename* is session-capable, VTAM issues *fornodename* as a network-qualified name in the form *netid.name*.

**IST1436I**

This is the header message for message IST1278I.

**System action:** Processing continues, awaiting the corresponding response unit.

**Operator response:** This message group indicates that a problem may exist. The longer an RU remains outstanding (that is, the more often these messages reappear for the same RU), the more probable it is that a problem exists.

If a particular RU remains outstanding for an extended period of time, display the node for which the I/O is pending, and save the system log for problem determination.

- If *runame* is **CD DSEARCH**, this message group may indicate one of the following problems:
  - A low IOINT value and no ADJSSCP table values were coded.
  - The DYNASSCP start option and the ADJSSCP table are not properly tuned.

See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](https://www.ibm.com/support/knowledgecenter/SSLTBW/welcome?lang=en) for more information about these DSRLST problems.

- If *runame* is **CHAR CODED**, this message group indicates that VTAM sent a USSMSG to the LU and is waiting for a response. This is usually a device problem. A frequent cause of this error is when a user powers off the terminal without logging off first. To correct the situation, enter a VARY INACT command for the resource *fornodename* and then enter a VARY ACT for the same resource.

- If *runame* is **NMVT**, this message group may indicate that the device is not real-time-monitor-capable. This means that the device did not process the response and return the requested information properly to the NetView program for most devices, or to the RS/6000 network management program for RS/6000 devices. A microcode change is needed to permanently resolve this problem.

See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](https://www.ibm.com/support/knowledgecenter/SSLTBW/welcome?lang=en) for more information about this problem.

**System programmer response:** You can use the MODIFY IOPD command to change the time-out interval controlling the display of this message. See the [z/OS Communications Server: SNA Operation](https://www.ibm.com/support/knowledgecenter/SSLTBW/welcome?lang=en) for additional information.

See the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](https://www.ibm.com/support/knowledgecenter/SSLTBW/welcome?lang=en) for information on the wait procedure.

**Routing code:** 8

**Descriptor code:** 4
LOGMODE logmode UNKNOWN IN THIS DOMAIN, DEFAULT IS ISTCOSDF

Explanation: This message is part of a message group that VTAM issues in response to a DISPLAY SESSIONS,SID command. The first message in the group is IST879I. See the description of that message for more information.

Routing code: 2
Descriptor code: 5

PERCENT OF storage_type USED FOR STRUCTURE structure

Explanation: VTAM has detected a possible storage shortage problem in a coupling facility structure. You can issue D NET,STATS,TYPE=CFS,STRNAME=structure to get the storage utilization for the structure.

This message is issued for each storage type that exceeds 80% storage being used.

This message will remain on the screen until the problem has been corrected.

- percent is the percentage in use for storage_type.
- storage_type identifies the type of storage shortage. Possible values are:
  - ELEMENTS
    The storage shortage pertains to list elements in a coupling facility list structure.
  - ENTRIES
    The storage shortage pertains to list entries in a coupling facility list structure.

- structure is the name of the coupling facility structure.

System action:
- If percent is greater than 90 and storage_type is either ENTRIES or ELEMENTS, then VTAM automatically attempts to alter the ratio of ENTRIES and ELEMENTS.
- If percent is greater than 90 for storage_type ENTRIES and ELEMENTS, then VTAM automatically attempts to alter the size to the SIZE value coded in CFRM policy.
- If the alter attempts fail to relieve the storage problem or percent is 100, VTAM attempts a rebuild of the structure to change the number of entries or elements available.
- If percent is 100 and storage_type is ENTRIES or ELEMENTS, attempts to register generic resources or attempts to log on to generic resources might fail.

Operator response: Issue D NET,STATS,TYPE=CFS,STRNAME=structure and perform the following based on the structure size indicated in message IST1375I:

- If the current size is smaller than the maximum size, rebuild the structure into a facility with space that will allow the maximum size to be allocated.
- If the current size and maximum size are the same, update the size of the structure in the active CFRM policy and start a rebuild.

Note: See the z/OS Communications Server: SNA Network Implementation Guide for information on estimating coupling facility structure storage.

If storage_type is ENTRIES or ELEMENTS and the percentage is less than 100, a rebuild could be started using the SETXCF START,REBUILD command. This will cause VTAM to adjust the number of entries and elements available in the structure. If a rebuild is not started by operator, VTAM automatically attempts a rebuild in the case when the storage is totally exhausted (percent is 100).

System programmer response: None.

Routing code: 2
Descriptor code: 11
IST1440I  USE = text

Explanation: VTAM issues this message in response to a DISPLAY ID command, when the resource being displayed is a line in an NCP major node.

text identifies the usage of the line

EP, DEFINED RESOURCE, CANNOT BE REDEFINED
indicates that the line is in EP mode, is a defined line and cannot be redefined.

NCP, DEFINED RESOURCE, CANNOT BE REDEFINED
indicates that the line is in NCP mode, is a defined line and cannot be redefined.

NCP, DEFINED RESOURCE, CAN BE REDEFINED
indicates that the line is in NCP mode, is a defined line and can be redefined.

NCP, SPARE RESOURCE, CAN BE REDEFINED
indicates that the line is in NCP mode, is a spare line and can be redefined.

System action: Processing continues

Operator response: None

System programmer response: None.

Routing code: 2
Descriptor code: 5

IST1441I  VARY ACT FOR linename FAILED, USE=SPARE

Explanation: VTAM issues this message in response to a VARY ACT command, when the resource being activated is a spare line.

linename identifies the name of the line.

System action: Processing continues

Operator response: If the line should be DEFINED, issue the MODIFY LINEDEF command, specifying USE=DEFINED.

System programmer response: None

Routing code: 2
Descriptor code: 5

IST1442I  MODIFY LINEDEF FAILED, linename CANNOT BE REDEFINED

Explanation: VTAM issues this message in response to a MODIFY LINEDEF command, when the line cannot be redefined.

linename identifies the name of the line.

System action: Processing continues.

Operator response: Display the line to ensure the correct line is being used.

Save the system log for problem determination.

System programmer response: Ensure that the line has been defined correctly.

Routing code: 2
Descriptor code: 5
**IST1443I  ACYDDF LOADED – NO ACCESS AUTHORITY CHECKING**

**Explanation:** VTAM issues this message when the ACYDDF directory definition file was successfully loaded but no valid security records were found.

**System action:** No additional authorization checking is performed on association requests from remote CMIP services. Processing continues.

**Operator response:** None.

**System programmer response:** If no association security checking is desired, no action is required. Verify that the proper associationKey entry is present in ACYDDF, then issue another MODIFY TABLE command. If this message continues to be displayed, restart CMIP services.

**Routing code:** 2

**Descriptor code:** 5

**IST1444I  filename NOT LOADED – reason**

**Explanation:** VTAM issues this message when a CMIP services directory definition file (DDF) was not loaded successfully.

*filename* is the name of the directory definition file (ACYDDF).

*reason* displays the reason for the unsuccessful load. *reason* can be the following values:

**DUPLICATE ATTRIBUTE AT RECORD record**

The same attribute keyword was used more than once with a given value for “name”.

*record* indicates the record number (line number) in the directory definition file for the last line of the attribute where the error is found.

**ERROR READING FILE**

A DASD or other error was encountered while reading ACYDDF.

**FILE NOT FOUND**

The file in the start procedure containing the ISTCMIP DD statement was not found.

**INSUFFICIENT STORAGE**

There is not enough internal table storage available for the number of entries in the directory definition file.

**LINE EXCEEDS 2080 AT RECORD record**

Continuation lines caused the total line length to exceed 2080.

*record* indicates the record number (line number) in the directory definition file for the last line of the attribute where the error is found.

**LRECL EXCEEDS 2080**

The logical record length of the file in the start procedure containing the ISTCMIP DD statement exceeded 2080.

**NAME MISSING BEFORE RECORD record**

*record* was something other than a “name” record. The prior “class” record needs a “name” record before any attributes can be defined.

*record* indicates the record number (line number) in the directory definition file for the last line of the attribute where the error is found.

**NAME VALUE NOT VALID AT RECORD record**

The value given for a “name” entry is not a valid CMIP distinguished name.

*record* indicates the record number (line number) in the directory definition file for the last line of the attribute where the error is found.

**NO CLASS SPECIFIED**

The first non-comment record of the directory definition file was a “name” record which had an unknown “class”. The first non-comment record of the directory definition file must contain a “class” record to identify the class of subsequent entries.
SYNTAX ERROR AT RECORD record
A syntax error was detected in the record record of the directory definition file. The error might have been caused by one of the following:

- There is only one word on the line
- A quoted string exists that has not been terminated with another quote before the end of the line, including any valid continuation lines.
- The keyword was “class” and the following value was neither “aetitle” nor “managed” (object).
- The conversion of a distinguished name to a standard internal representation failed because the name had both kinds of quotes in it.
- The conversion of a distinguished name to a standard internal representation failed because the name had bad syntax.
- The key value for associationKey in a DDF entry is not one of the three special values (‘*’ ‘–’ ‘.’) and is not exactly 16 hexadecimal digits.
- The value for timeSync is too large (greater than 86,400).
- The value for timeSync is not numeric.
- The attribute keyword (first word of the line) was not recognized as a valid one. (This might be due to a mistake in spelling or capitalization.)

record indicates the record number (line number) in the directory definition file for the last line of the attribute where the error is found.

System action: Processing continues. If CMIP services is just being started, initialization will not complete successfully. If CMIP services was started earlier with a valid directory definition file, it will continue to run with the previous definitions.

Operator response: Save the system log for problem determination.

System programmer response: Action depends on the value for reason:

DUPLICATE ATTRIBUTE AT RECORD record
Remove one of the duplicate attributes, then issue the MODIFY TABLE command or restart CMIP services.

ERROR READING FILE
Correct the problem, then issue the MODIFY TABLE command or restart CMIP services.

FILE NOT FOUND
Verify that the name of the directory definition file has the correct name, then issue the MODIFY TABLE command or restart CMIP services.

INSUFFICIENT STORAGE
Wait until enough storage has been made available, then issue the MODIFY TABLE command or restart CMIP services. Halting and restarting CMIP services could free up the current copy of the DDF table, which might allow the new table to be read. See z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures for more information on how to correct storage problems.

LINE EXCEEDS 2080 AT RECORD record
Shorten the line, then issue the MODIFY TABLE command or restart CMIP services.

LRECL EXCEEDS 2080
Create a version of the directory definition file with a logical record length less than 2080 (using line continuation as required), then issue the MODIFY TABLE command or restart CMIP services.

NAME MISSING BEFORE RECORD record
Correct the problem, then issue the MODIFY TABLE command or restart CMIP services.

NAME VALUE NOT VALID AT RECORD record
Correct the problem, then issue the MODIFY TABLE command. If the problem persists, restart CMIP services.

NO CLASS SPECIFIED
Add the proper “class” record before the first “name” record, then issue the MODIFY TABLE command or restart CMIP services.

SYNTAX ERROR AT RECORD record
Correct the problem, then issue the MODIFY TABLE command or restart CMIP services.
IST1445I  RESOURCE value FOR USERVAR uservar NOT FOUND

Explanation: VTAM issues this message in response to a DISPLAY ID=uservar,JDTYPE=USERVAR when the application program, value, that is associated with USERVAR, uservar, is not defined to VTAM.

value is the VALUE of the USERVAR. value is an application program that is displayed as a network-qualified name in the form netid.name, if value was a network-qualified name on the MODIFY USERVAR command.

uservar is the name of the USERVAR.

System action: VTAM rejects the command.

Operator response: Activate the application major node containing value and reenter the command.

System programmer response: None.

Routing code: 8
Descriptor code: 5

IST1446I  SYMBOLIC SUBSTITUTION NOT AVAILABLE IN THIS RELEASE OF MVS

Explanation: VTAM issues this message when an ampersand (&) is encountered in an input record in a member of VTAMLST and VTAM is running on a release of MVS that does not support symbolic substitution. Symbolic substitution is available on MVS V5R2 and later releases.

System action: Processing continues.

Operator response: Save the system log for problem determination.

System programmer response: Correct the VTAM definition library member by removing the ampersand or symbolic variable.

Routing code: 2
Descriptor code: 5

IST1447I  REGISTRATION TYPE = registration_type

Explanation: This message is issued with a group of messages in response to the DISPLAY ID command. It displays the registration type for the resource, if applicable.

registration_type can have the following values:

NO Resource registration type is none.

NETSRVR Resource registration type is network node server.

CDSERVR Resource registration type is central directory server.

The value for resource_type is determined by resource definition unless it has been changed by the MODIFY RESOURCE command. See the Z/OS Communications Server: SNA Network Implementation Guide for more information about resource registration.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2
Descriptor code: 5
IST1449I  •  IST1451I

IST1449I  DEFAULTS WILL BE USED IF NO OVERRIDE IS SPECIFIED

Explanation: VTAM issues this message during START processing when a start option is specified with a value that is not valid or when a syntax error is detected in the START command. After issuing IST1449I, VTAM will issue IST1311A to prompt the operator to reenter the start options. If the operator does not enter overriding values, VTAM will use default values for the start options in error.

System action: Processing will be halted while VTAM waits for a reply to IST1311A.
- If the LIST start option is entered, VTAM ignores it.
- If HALT is entered, start processing ends and VTAM is terminated.

Operator response:
- Enter start options to override current values, or enter a blank to indicate that you want default values. If you need another prompt for further overrides, follow the last option with a comma.
- Enter HALT to terminate VTAM.

System programmer response: None.
Routing code: 2
Descriptor code: 3

IST1450I  GLOBAL TNSTAT = status CNSL = console TIME = interval

Explanation: VTAM issues this message as part of the response to the DISPLAY TNSTAT or MODIFY TNSTAT commands.

When status is ACTIVE, that indicates that all non-TRLE devices are recording, and recording will be initiated automatically for newly activated devices. When status is INACTIVE, that indicates that recording is not in effect for non-TRLE controlled devices, nor will recording be initiated automatically for newly activated devices.

When console is YES, that indicates that tuning statistics reports are displayed at the system console. When console is NO, that indicates that tuning statistics reports are not displayed at the system console.

interval is the number of minutes in the tuning statistics reporting interval.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST1451I  TRLE = trlename TNSTAT = status

Explanation: VTAM issues this message as part of the response to the DISPLAY TNSTAT and MODIFY TNSTAT commands.

trlename is the name of the TRLE for which status is being reported.

When status is ACTIVE, that indicates that tuning statistics are currently being recorded for the devices in the TRLE. When status is INACTIVE, that indicates that tuning statistics are not currently being recorded for the devices in the TRLE.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5
IST1452I  type MISMATCH IGNORED FOR puname

Explanation: VTAM issues this message as part of a group of messages when a connection for the switched physical unit puname was established, but the CP name or the station ID of puname did not match the CP name or station ID that was passed in the XID request. A complete description of the message group follows.

IST1452I  type MISMATCH IGNORED FOR puname
IST1394I  CPNAME = cpname  STATION ID = stationid
IST314I  END

IST1452I

puname is the name of the PU.

type is the type of mismatch that occurred. Possible values are: CPNAME or STATION ID.

IST1394I

cpname is the network-qualified name of the control point (CP) that was passed in the XID from the node attempting the connection. VTAM displays cpname in the form netid.name.

stationid is the station identifier expressed in hexadecimal. For more information on station identifier formats, see the descriptions of the IDBLK and IDNUM operands in the z/OS Communications Server: SNA Resource Definition Reference.

System action: The connection will be established. Processing continues.

Operator response: Enter a DISPLAY ID on puname and save the system log for problem determination.

System programmer response: Perform one of the following:

• Reinitialize the physical unit with the correct station identifier or CP name.
• Check for a CP name or station ID mismatch between the PU and the switched major node and revise as needed.

Routing code: 2
Descriptor code: 3

IST1453I  VARY INACT FOR resourcename FAILED - FRSESET PU ACTIVE

Explanation: VTAM issues this message when a VARY NET,INACT,ID= resourcename was attempted for a frame relay LMI PU and at least one FRESESET PU associated with that LMI PU is still active. The deactivation attempt is ignored.

System action: Processing continues. The deactivation attempt is ignored.

Operator response: All of the FRSESET PUs must be deactivated before deactivation of the LMI PU. To determine the FRESESET PUs defined under the LMI PU you want to deactivate, perform the following steps:

1. Issue a DISPLAY ID for the LMI PU you want to deactivate to get the corresponding line name.
2. Issue a DISPLAY LINE (with SCOPE=ALL) to obtain the names for the FRSESET PUs defined under the line.

System programmer response: None.

Routing code: 2
Descriptor code: 5

IST1454I  count type DISPLAYED [FOR ID = rscname 1 FOR LU = rscname]

Explanation: IST1454I is issued once for every ID value (rscname) specified on the DISPLAY command and indicates how many (count) resources matched the command specifications (for example ID, EXCLUDE, SCOPE, IDTYPE). This message was issued in response to one of the following commands.

• DISPLAY ADJSSCP
• DISPLAY APPLS
• DISPLAY CDRMS
• DISPLAY CDRSCS
• DISPLAY CPCP
**IST1454I**

- DISPLAY CLSTRS
- DISPLAY EXIT
- DISPLAY GRAFFIN
- DISPLAY GROUPS
- DISPLAY LINES
- DISPLAY LUGROUPS,SCOPE=ALL
- DISPLAY MAJNODES
- DISPLAY PATHTAB
- DISPLAY PENDING
- DISPLAY RSCLIST
- DISPLAY SRCHINFO
- DISPLAY STATIONS
- DISPLAY STATS,TYPE=VTAM
- DISPLAY STORUSE
- DISPLAY TABLE,SCOPE=ALL
- DISPLAY TERMS
- DISPLAY TGPS
- DISPLAY TOPO,LIST=TDUINFO
- DISPLAY TRL
- DISPLAY USERVAR.

`rscname` is network-qualified only if the corresponding ID keyword was network-qualified on the DISPLAY command. FOR ID=`rscname` is not present if ID was not coded on the command.

IST1454I is issued even if the specified MAX limit is reached for the command.

`type` is based on the command issued, as follows:

**Display Command**

**type**

**DISPLAY ADJSSCP(S)**

**DISPLAY APPLS**

**DISPLAY CDRMS**

**DISPLAY CDRSCS**

**DISPLAY CLSTRS**

**DISPLAY CPCP**

**DISPLAY EXIT**

**DISPLAY GRAFFIN**

**DISPLAY GROUPS**

**DISPLAY LINES**
DISPLAY LUGROUPS
   RESOURCE(S)

DISPLAY MAJNODES
   RESOURCE(S)

DISPLAY PATHTAB
   PATH(S)

DISPLAY PENDING
   RESOURCE(S)

DISPLAY RSCLIST
   RESOURCE(S)

DISPLAY SRCHINFO, LIST=ALL
   PAIR(S)

DISPLAY SRCHINFO, LIST=SUMMARY
   CP NAME(S), SSCP(S)

DISPLAY SRCHINFO, SID
   ADJSSCP(S)

DISPLAY STATIONS
   STATION(S)

DISPLAY STATS, TYPE=VTAM
   STATISTICS

DISPLAY STORUSE, APPL
   APPL(S)

DISPLAY STORUSE, DSPNAME
   DSPNAME(S)

DISPLAY STORUSE, JOBNAME
   JOBNAME(S)

DISPLAY STORUSE, POOL
   POOL(S)

DISPLAY TABLE
   RESOURCE(S)

DISPLAY TERMS
   RESOURCE(S)

DISPLAY TOPO, LIST=TDUINFO
   TDUINFO(S)

DISPLAY TGPS
   TGP(S)

DISPLAY TRL
   TRLE(S)

DISPLAY USERVAR
   USERVAR(S)

System action:  Processing continues.
Operator response:  None.
System programmer response:  None.
Routing code:  2
Descriptor code:  5
IST1455I • IST1456I

IST1455I  ERROR DETECTED BY EXIT SERVICES FOR exitname IN modulename

Explanation:  This message is the first in a group of messages issued by VTAM exit services when an error has been detected while processing a request from a user-written exit. A complete description of the message group follows.

IST1455I ERROR DETECTED BY EXIT SERVICES FOR exitname IN modulename
IST1456I FUNCTION function — REASON: reason
IST314I END

IST1455I

exitname is the CSECT name of the exit.
modulename is the name of the load module that contains exitname.

IST1456I

• function is the function being performed by VTAM exit services and can be one of the following:
  *UNKNOWN
  The function requested could not be determined.

MESSAGE
  The exit exitname requested the message function.

• reason is the reason for the error and can be one of the following:

EXSPL POINTER IS ZERO
  The pointer to the EXSPL (passed by the exit in register 1) is zero.

INPUT PARMLIST POINTER IS ZERO
  The pointer to the input parameter list in the EXSPL is zero.

MESSAGE LENGTH IS NOT VALID
  The message text length specified in the EXMPL is not valid. Message text length must be greater than 0 and less than or equal to 4096 (decimal).

MESSAGE TEXT POINTER IS ZERO
  The pointer to the message text in the EXMPL is zero.

REQUESTED FUNCTION IS NOT VALID
  The function code specified in the EXSPL is not defined to (nor supported by) the current level of VTAM exit services.

VTAM MESSAGE MACRO FAILED
  The macro used by VTAM to send a message to the system console returned a nonzero return code to exit services.

System action:  Processing continues.

Operator response:  Save the system log for problem determination.

System programmer response:  Correct the error in exitname. See z/OS Communications Server: SNA Customization for more information on exitname.

Routing code:  2
Descriptor code:  4

IST1456I  FUNCTION function — REASON: reason

Explanation:  VTAM issues this message as part of a message group. The first message in the group is IST1455I. See the explanation of that message for a complete description.

Routing code:  2
Descriptor code:  4
IST1457I

VTAM APING VERSION *apver* (PARTNER TP VERSION *partver*)

**Explanation:** This message is the first in a group of messages that VTAM APING transaction program (TP) issues in response to the DISPLAY APING command. This group of messages provides information about the exchange of data between the APING TP and its partner TP. A complete description of the message group issued for a normal, non-exception APING transaction on the APING side follows.

The following is an example of messages that could be issued in the message group.

IST1457I VTAM APING VERSION apver (PARTNER TP VERSION partver)
IST1490I DLU=dluname SID=sid
IST1462I ECHO IS [ON|OFF|FORCED]
IST1463I ALLOCATION DURATION: time MILLISECONDS
IST1464I PROGRAM STARTUP AND VERSION EXCHANGE: time MILLISECONDS
[IST1465I DURATION DATA SENT DATA RATE DATA RATE]
[IST1466I (MILLISECONDS) (BYTES) (KBYTE/SEC) (MBIT/SEC)]
[IST1467I dur dsnt drkb drmb]
[IST1468I TOTALS: durt dsntt drkbt drmbl]
IST1469I DURATION STATISTICS:
IST1470I MINIMUM = min AVERAGE = avg MAXIMUM = max
IST314I END

IST1457I

*apver* identifies the VTAM version of APING.

*partver* identifies the APING version of the partner TP.

IST1462I

- This message displays the value of ECHO. Possible values are:
  - **NO** The partner TP does not echo back to APING.
  - **YES** The partner TP does echo back to APING.
  - **FORCED** The issuer has specified ECHO=NO, but the partner TP cannot support ECHO=NO. In this case, ECHO=YES will be used.

IST1463I

This message displays the time it takes to perform the conversation allocation between APING and its partner TP.

IST1464I

This message displays the time it takes to perform the version exchange between APING and its partner TP. The time starts when the data is sent and timer stops when the partner's version has been received.

IST1465I

This message is a header message for information displayed in message IST1467I.

IST1466I

This message is a header message for information displayed in message IST1467I.

IST1467I

*dur* is the time it takes to send the data and receive the echo (or confirm for one way transactions).

*dsnt* is the count of sent and received bytes. If message IST1462I indicates that ECHO IS OFF, the total is (SIZE * CONSEC) from the D NET,APING command. Otherwise, the total is (2 * SIZE * CONSEC).

*drkb* is the data rate in KB.

*drmb* is the data rate in MB.

Decimal values are not displayed in the message. If a decimal results from data rate calculations, the number is truncated to the whole number. If the decimal value is less than one, zero is displayed.

IST1468I

*durt* is the total of the duration time in all IST1467I messages.
**IST1458I • IST1460I**

*dsntt* is the total of the data sent for all IST1467I messages.
*drkbt* is the data rate in KB calculated from all of the data rates in message IST1467I.
*drmbt* is the data rate in MB calculated from all of the data rates in message IST1467I.
Decimal values are not displayed in the message. If a decimal results from data rate calculations, the number is truncated to the whole number. If the decimal value is less than one, zero is displayed.

**IST1469I**
This message states that message IST1470I is going to display duration statistics.

**IST1470I**
*min* is the minimum duration displayed in all IST1467I messages.
*avg* is the average of all the duration times displayed in message IST1467I messages.
*max* is the maximum duration displayed in all IST1467I messages.

**IST1490I**
*dluname* is the name of the destination logical unit (DLU) with which the APING transaction occurs.
*sid* is the session identifier (SID) that is used to identify the session over which the APING transaction occurs. The value ***NA*** will be displayed if the session identifier was not currently available to VTAM.
If VTAM allocates a session to transmit the APING data, a message group with IST1489I as the first message is also issued. The name of the DLU in the two message groups might not match if any name translation has occurred on the route between the LUs.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2
**Descriptor code:** 5

**---**

**IST1458I ORIGIN ADJSUB VR TP ER REVERSE ER**

**Explanation:** This message is part of a message group. Please see the explanation for message IST1489I for a detailed explanation of this message.

**Routing code:** 2
**Descriptor code:** 5

**---**

**IST1459I origina destsa vr tp er re**

**Explanation:** This message is part of a message group. Please see the explanation for message IST1489I for a detailed explanation of this message.

**Routing code:** 2
**Descriptor code:** 5

**---**

**IST1460I TGN CPNAME TG TYPE HPR**

**Explanation:** This message is part of a message group. The first message is either IST879I, IST1476I, IST1489I, IST1494I, IST2102I, IST2103I, or IST2104I. See the explanation of those messages for a full description.

**Routing code:** 2
**Descriptor code:** 5

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Chapter 8. IST messages for VTAM network operators IST1200I – IST1599I
**IST1468I • IST1471I**

### IST1468I

**TOTALS: dur dsnt drkb drmb**

**Explanation:** This message is part of a message group. Please see the explanation for message IST1457I for a detailed explanation of this message.

**Routing code:** 2

**Descriptor code:** 5

### IST1469I

**DURATION STATISTICS:**

**Explanation:** This message is part of a message group. Please see the explanation for message IST1457I for a detailed explanation of this message.

**Routing code:** 2

**Descriptor code:** 5

### IST1470I

**MINIMUM = min AVERAGE = avg MAXIMUM = max**

**Explanation:** This message is part of a message group. Please see the explanation for message IST1457I for a detailed explanation of this message.

**Routing code:** 2

**Descriptor code:** 5

### IST1471I

**SESSION UNAVAILABLE FOR APING**

**Explanation:** This message is a single line message issued in response to a DISPLAY APING command when VTAM is unable to start an APING transaction because no sessions are available for the specified partner and logmode.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

### IST1472I

**APING errtype ERROR**

**Explanation:** This message is the first in a group of messages that VTAM issues when an error case occurs in processing the DISPLAY APING command. The group can be issued a significant amount of time after the DISPLAY APING command has been issued.

- The following is an example of the message group:

  IST1472I APING TRANSACTION ERROR
  IST1219I RTNCD=rtncd, FDB2=fdb2
  IST1002I RCPRI=rcpri, RCSEC=rcsec
  IST14731 SENSE = sense_code
  IST3141 END

  **rcpri** is the value of the primary return code issued by VTAM.
  **rcsec** is the value of the secondary return code issued by VTAM.

**IST1219I**

 **rtncd** is the error field RPLRTNCD. It is a hexadecimal value returned by the SETLOGON macro.

 **fdb2** is the feedback field RPLFDB2. It is a hexadecimal value returned by the SETLOGON macro.

**IST1472I**

This message states that an APING transaction error has occurred.
**Errtype** states what type of APING error has occurred. If the APING error is due to a protocol violation of APINGD, **errtype** is PROTOCOL. Otherwise, **errtype** is TRANSACTION.

**IST1473I**

This message provides sense code information.

**System action:** Processing stops.

**Operator response:** Try the DISPLAY APING command again. If the command still fails, save the system log for problem determination.

**System programmer response:** Use the system log and return code information to assist you in correcting the problem.

**Routing code:** 2

**Descriptor code:** 5

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**IST1473I**

**SENSE = sense_code**

**Explanation:** This message is part of a message group. See IST1472I for a detailed explanation of this message.

**Routing code:** 2

**Descriptor code:** 5

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**IST1474I**

**tpname TP CONCURRENT INSTANCE LIMIT = value**

**Explanation:** This message is issued in response to the DISPLAY APINGDTP or DISPLAY APINGTP command and displays the number of APINGD or APING transaction programs that are allowed to run concurrently.

**tpname** is either APING or APINGD.

**value** shows the number of instances of the APING or APINGD transaction program allowed to run concurrently. **value** can be either a numeric value or UNLIMITED. UNLIMITED indicates that there is no limit to the number of instances of this transaction program allowed to run concurrently.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

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**IST1475I**

**EXIT exitname INVOKED: RE-ENTER FORCE COMMAND**

**Explanation:** VTAM issues this message in response to the MODIFY EXIT OPTION=FORCE command when the exit to be forced inactive is currently being invoked.

- **exitname** is displayed in the form **routine_name.instance_name** where:
  - **routine_name** is the name of the installation-wide exit routine.
  - **instance_name** is the instance name of the exit routine. When issued for the base exit, **instance_name** is blank.

**System action:** Inactivation continues. Under certain circumstances, however, the exit might “hang” in a pending inactive state.

**Operator response:** Wait a short period, then enter D NET, EXIT to display the exit being forced. If the state is still PENDING INACTIVE, reissue the command. Otherwise, no further action is necessary.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 3
Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a type 2.1 node representing a Rapid Transport Protocol (RTP) route. This message is the first in a group of messages and the full description of the message group follows.

- If the DISPLAY ID command was issued without HPRDIAG=YES specified, the following message group is displayed:

  IST1476I TCID X'tcid' - REMOTE TCID X'remote_tcid'
  IST1481I DESTINATION CP nodename - NCE X'nceid'
  IST1587I ORIGIN NCE X'nceid'
  [IST1966I ACTIVATED AS ACTIVE ON date AT time]
  [IST1967I ACTIVATED AS PASSIVE ON date AT time]
  [IST2237I puname CURRENTLY REPRESENTS A LIMITED RESOURCE]
  IST1477I ALLOWED DATA FLOW RATE = allowed units
  IST1516I INITIAL DATA FLOW RATE = initial units
  IST1841I ACTUAL DATA FLOW RATE = actual units
  IST1511I MAXIMUM NETWORK LAYER PACKET SIZE = size BYTES
  IST1478I NUMBER OF UNACKNOWLEDGED BUFFERS = buffers
  IST1479I RTP CONNECTION STATE = state - MNPS = mnps
  [IST1959I DATA FLOW STATE: NORMAL]
  [IST1961I DATA FLOW STATE: STALLED]
  IST1855I NUMBER OF SESSIONS USING RTP = sessions
  IST1460I RTP PACING ALGORITHM = ARB RESPONSIVE MODE
  IST2267I RTP PACING ALGORITHM = ARB PROGRESSIVE MODE
  IST2395I RTP PACING ALGORITHM = ARB BASE MODE
  [IST1480I RTP END TO END ROUTE - RSCV PATH]
  [IST1460I TGN CPNAME TG TYPE HPR]
  [IST1461I tgn cpname tgtype hpr]
  [IST875I ALSNAME TOWARDS adjacent_resource_type = resource_name]
  [IST1738I ANR LABEL TP ER NUMBER]
  [IST1739I anr_label tp er_number]
  [IST1588I RTP END TO END ROUTE - COMPUTED SESSION PATH]
  [IST1460I TGN CPNAME TG TYPE HPR]
  [IST1461I tgn cpname tgtype hpr]
  [IST875I ALSNAME TOWARDS adjacent_resource_type = resource_name]
  [IST1738I ANR LABEL TP ER NUMBER]
  [IST1739I anr_label tp er_number]

- If the DISPLAY ID command was issued with HPRDIAG=YES specified, the following message group is displayed:

  IST1476I TCID X'tcid' - REMOTE TCID X'remote_tcid'
  IST1481I DESTINATION CP nodename - NCE X'nceid'
  IST1587I ORIGIN NCE X'nceid'
  [IST1966I ACTIVATED AS ACTIVE ON date AT time]
  [IST1967I ACTIVATED AS PASSIVE ON date AT time]
  [IST2237I puname CURRENTLY REPRESENTS A LIMITED RESOURCE]
  IST1479I RTP CONNECTION STATE = state - MNPS = mnps
  [IST1959I DATA FLOW STATE: NORMAL]
  [IST1961I DATA FLOW STATE: STALLED]
  IST1855I NUMBER OF SESSIONS USING RTP = sessions
  IST1460I RTP PACING ALGORITHM = ARB RESPONSIVE MODE
  IST2267I RTP PACING ALGORITHM = ARB PROGRESSIVE MODE
  IST2395I RTP PACING ALGORITHM = ARB BASE MODE
  [IST1480I RTP END TO END ROUTE - RSCV PATH]
  [IST1460I TGN CPNAME TG TYPE HPR]
  [IST1461I tgn cpname tgtype hpr]
  [IST875I ALSNAME TOWARDS adjacent_resource_type = resource_name]
  [IST1738I ANR LABEL TP ER NUMBER]
  [IST1739I anr_label tp er_number]

The remainder of this display is described under IST1968I. See that message for more information.
IST875I
This message displays information about the adjacent link station (ALSNAME), which is the physical connection to the adjacent node. 

_adjacent_resource_type will always be RTP, which means that the ALSNAME is used in the direction of the other endpoint of the RTP pipe. 

_resource_name is the name of the adjacent link station (ALS).

IST924I
This message is used as a separator message to group together messages IST1857I, IST1858I, and IST1859I in the display.

IST1460I
This message is a header message for information displayed in message IST1461I.

IST1461I
• The route selection control vector (RSCV) is displayed for the route to the destination node of the partner transaction program. Multiple IST1461I messages might be needed to display the full route. 
• tgn is the transmission group number. 
• cpname is the destination CP name for the transmission group. 
   Tip: The cpname for a composite node might not always be correct. When an SSCP takeover occurs for an NCP in a composite node and the cpname was changed, the new cpname is not reflected in the display of the RTP end-to-end route. 
• tgttype is the transmission group type. The values for tgttype can be one of the following: 
  APPN Indicates that this TG is an APPN-based TG. 
  INTERCHANGE Indicates that this TG represents a TG from an interchange node to a subarea node. 
  VRTG Indicates that this TG is a virtual-route-based TG. 
  ISL Indicates that this TG is an intersubnet TG. 
• hpr corresponds with the HPR start option. The values for hpr can be: 
  RTP indicates this VTAM provides RTP-level HPR support. 
  ANR indicates this VTAM provides ANR-level HPR support. 
  *NA* indicates this VTAM provides no HPR support.

IST1476I

tcid is a transport connection identifier, assigned by this node, that uniquely identifies the session endpoint. 
remote_tcid is a transport connection identifier, assigned by the RTP partner node, that uniquely identifies the session endpoint.

IST1477I
allowed is the allowed rate at which data can be sent over the RTP connection at the time this message is displayed. 
units is the unit of measure for the rate and is displayed in bits, kilobits, megabits, or gigabits per second (BITS/SEC, KBITS/SEC, MBITS/SEC, or GBITS/SEC). 
The data flow rate is updated approximately every second while data is flowing.

IST1478I
buffers is the number of I/O buffers, containing outbound data, that have been sent to the partner without an acknowledgment since the HPR PU was activated.

IST1479I
• state is the connection state of the RTP. The values for state can be:
INITIAL
Initial state at startup time.

ALS_PENDING
Waiting for adjacent link station processing.

ALS_ASSIGNED
Adjacent link station processing is complete.

OPENED
Initial state for active partner after startup.

CALLING
Active partner sending connection setup to the partner.

CALLING/PATHSWITCH
RTP path switch is in progress while in CALLING state.

CONNECTED
RTP is active.

CONNECTED/BACKPRESSURE
RTP backpressure is currently being applied.

CONNECTED/PATHSWITCH
RTP path switch is in progress.

DISCONNECT
Doing disconnect processing.

DISCONNECTED
Disconnect processing is complete and last message has been sent.

LISTENING
Initial state for passive partner after startup.

LISTENING/PATHSWITCH
RTP path switch is in progress while in LISTENING state.

PENDING_ACT
Waiting for activation to complete.

PENDING_INACT
Waiting for deactivation to complete.

PENDING TAKEOVR
Multinode persistent session planned takeover is in progress.

RECOVERY
Multinode persistent session recovery in progress.

$mnps$
indicates if the RTP end-to-end route is being used by an MNPS application. The values for $mnps$ can be:

YES  The RTP is being used by an MNPS application.

NO   The RTP is not being used by an MNPS application.

IST1480I
This message informs users that the messages that follow describe the RSCV end-to-end path of the RTP route. The RSCV path represents the route used to send data from the origin CP to the destination CP. This message group will not be displayed if the RTP is processing a path switch or the RSCV is not available.

IST1481I

$nodename$ is the network-qualified name of destination partner’s CP in the form netid:name for this RTP route.$ncsid$ is the destination partner’s network connection endpoint (NCE) ID for this RTP route.

IST15111I
size is the maximum size of a network layer packet (NLP) that can be sent over this Rapid Transport Protocol (RTP) connection in bytes.

IST1516I

initial is the initial data flow rate for this Rapid Transport Protocol (RTP) connection.

units is the unit of measure for the rate and is displayed in bits, kilobits, megabits, or gigabits per second (BITS/SEC, KBITS/SEC, MBITS/SEC, or GBITS/SEC).

IST1587I

nceid is this node's network connection endpoint (NCE) ID for the Rapid Transport Protocol (RTP) connection.

IST1588I

This message informs users that the messages that follow describe the computed end-to-end path of the Rapid Transport Protocol (RTP) route. This message is displayed if the physical path is different from the computed path. The physical and computed session paths can be different when one of the RTP endpoints is associated with a multiple node persistent session (MNPS) application program.

See the [z/OS Communications Server: SNA Network Implementation Guide](https://www.ibm.com/docs/en/zos?topic=networking) for additional information when the computed path is different from the physical path.

IST1697I

This message indicates that the responsive-mode adaptive rate-based (ARB) pacing algorithm is being used.

IST1738I

This message is a header message for information displayed in message IST1739I.

IST1739I

anr_label is an identifier for a unidirectional transmission link between two nodes. A node will use this routing label internally to correctly forward HPR network layer packet (NLP) data along a given Rapid Transport Protocol (RTP) connection.

tp is the subarea transmission priority. When anr_label represents a subarea transmission link, tp identifies the priority of data flowing over an explicit route during a session.

er_number is the explicit route number. When anr_label represents a subarea transmission link, er_number represents the underlying subarea explicit route used for the HPR NLP traffic.

IST1841I

This message shows the actual data flow rate for this Rapid Transport Protocol (RTP). It should be compared with the allowed data rate displayed by message IST1477I, and the initial data rate displayed by IST1516I.

actual is the actual rate at which data is being sent over the RTP connection at the time this message is displayed.

units is the actual rate at which data is being sent over the RTP connection at the time this message is displayed.

The data flow rate is updated approximately every second while data is flowing.

IST1855I

sessions is the number of fully active sessions that are currently using this Rapid Transport Protocol (RTP).

IST1959I

This message indicates that data is flowing on the RTP pipe.

IST1961I

- This message indicates that data is not flowing on the RTP pipe. The data flow is stalled for one of the following reasons:
  - The RTP partner requests retransmission of at least one NLP, but the request cannot be honored.
  - The RTP partner repeatedly requests the retransmission of the same NLP. In this case, VTAM honors the request by retransmitting the NLP, but the partner does not receive this NLP.
A stalled RTP pipe causes all the sessions using the pipe to stall. A persistent STALLED state might require forced inactivation of the HPR PU. If you want VTAM to automatically deactivate stalled RTP pipes after a specified amount of time, use the HPRSTALL start option. See the HPRSTALL start option information in z/OS Communications Server: SNA Resource Definition Reference.

**IST1966I**
This message shows when the RTP pipe was activated. It is issued only if the PU is the active end of the pipe. The date and time values specify the date and time of the activation. See "DATE and TIME formats" on page 6 for information about the date and time values.

**IST1967I**
This message shows when the RTP pipe was activated. It is issued only if the PU is the passive end of the pipe. The date and time values specify the date and time of the activation. See "DATE and TIME formats" on page 6 for information about the date and time values.

**IST2237I**
This message indicates that a DISCNT value was coded on the physical link of the underlying DLC. *puname* is the name of the Rapid Transport Protocol (RTP) PU being displayed.

**IST2267I**
This message indicates that the progressive-mode adaptive rate-based (ARB) pacing algorithm is being used.

**IST2395I**
This message indicates that the base-mode adaptive rate-based (ARB) pacing algorithm is being used.

System action:  Processing continues.
Operator response:  None.
System programmer response:  None.
Routing code:  2
Descriptor code:  5

**IST1477I**  ALLOWED DATA FLOW RATE = *allowed units*

Explanation:  VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route.

The first message in the group is either IST1476I or IST1968I. See the description of those messages for more information.

Routing code:  2
Descriptor code:  5

**IST1478I**  NUMBER OF UNACKNOWLEDGED BUFFERS = *buffers*

Explanation:  VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 node representing a Rapid Transport Protocol (RTP) route.

The first message in the group is either IST1476I or IST1968I. See the description of those messages for more information.

Routing code:  2
Descriptor code:  5
IST1479I RTP CONNECTION STATE = state - MNPS = mnps

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a type 2.1 node representing a Rapid Transport Protocol (RTP) route.

The first message in the group is IST1476I. See the description of that message for more information.

Routing code: 2
Descriptor code: 5

IST1480I RTP END TO END ROUTE - RSCV PATH

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command or a MODIFY RTP command.

- If DISPLAY ID is issued for a type 2.1 node representing a Rapid Transport Protocol (RTP) route, the first message is IST1476I. See the description of that message for more information.
- If MODIFY RTP is issued, the first message is IST1494I. See the description of that message for more information.

Routing code: 2
Descriptor code: 5

IST1481I DESTINATION CP nodename – NCE nceid

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 node representing a Rapid Transport Protocol (RTP) route.

The first message in the group is IST1476I. See the description of that message for more information.

Routing code: 2
Descriptor code: 5

IST1482I HPR = hpr – OVERRIDE = override – CONNECTION = connection

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a APPN capable PU type 2.1.

hpr, override, and connection indicates whether this PU or CDRM is capable of using Rapid Transport Protocols (RTP).

hpr can be RTP, ANR, or NONE.
override and connection can be YES or NO.

HPR corresponds with the HPR operand on the group, line, PU, or CDRM definition statement and the HPR start option.

<table>
<thead>
<tr>
<th>HPR start option</th>
<th>HPR operand coded on the group, line, or PU definition statement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HPR start option</td>
</tr>
<tr>
<td></td>
<td>Default</td>
</tr>
<tr>
<td>None, None</td>
<td>None</td>
</tr>
<tr>
<td>ANR, None</td>
<td>None</td>
</tr>
<tr>
<td>RTP, None</td>
<td>None</td>
</tr>
<tr>
<td>ANR, ANR</td>
<td>ANR</td>
</tr>
<tr>
<td>RTP, ANR</td>
<td>ANR</td>
</tr>
<tr>
<td>RTP, RTP</td>
<td>RTP</td>
</tr>
</tbody>
</table>

The HPR capability of the PU or CDRM can be overridden by the hpr operand on the V ACT command for other than NONE coded on the HPR start option.
The HPR value for the CDRM is only valid when the CDRM is active, otherwise it reflects the value for the last time the CDRM was active or if never active, it will be none.

OVERWRITE is the value of the HPR operand on the V ACT command or N/A if not coded.

Link activation can change the HPR capability of the PU or CDRM for each activation of the link.

CONNECTION is the HPR capability of the PU or CDRM after the connection becomes active or N/A if no connection.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST1483I DTEAD = dtetraddr VNREVCHG = ACCEPT|REJECT

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command when a line was specified on the ID operand of the command.
A complete description of the message group follows the example.
IST1484I vnnetid.vnname vngroup
IST1483I DTEAD = dtetraddr VNREVCHG = ACCEPT|REJECT

IST1484I

vnname is the network-qualified name in the form netid.name.

IST1483I

dtetraddr is the DTE address that was specified on the DTEAD operand of the LINE definition statement for the NCP major node.
VNREVCHG specifies whether a node will accept or reject call request packets that indicate the destination node is to pay for the call.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST1484I

vnnetid.vnname vngroup

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command when a line was specified on the ID operand of the command.
This message will be issued when multiple connection networks have been defined and will immediately follow message IST1324I.
A complete description of the message group follows the example.
IST1324I VNNAME = vnname VNGROUP = vngroup
IST1484I vnnetid.vnname vngroup

IST1324I

vnname is the connection network CP name that was specified on subfield 1 of the DLCADDR keyword of the LINE definition statement for the NCP major node.
vnгрупп is the name of the logical group that was specified on subfield 1 of the DLCADDR keyword operand of the LINE definition statement for the NCP major node. This group will be used to establish the link between the NCP major node and other adjacent nodes in the connection network.

IST1484I

vnимя is the network-qualified name in the form vnсетид.имя.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST1485I DLCADDR SUBFIELDS FOR name

Explanation: VTAM issues this message as a header for a group of IST1318I messages in response to one of the following commands:
- A DISPLAY ADJCP command when the ID operand specifies the name of a X.25 virtual node and SCOPE=ALL is specified
- A DISPLAY ID command for an XCA major node group that defines a transmission group (TG) to an ATM native connection network.

A complete description of the message group follows the example.

IST1485I DLCADDR SUBFIELDS FOR name
IST1318I parameter_value
IST1318I parameter_value
[IST1319I parameter_value]
;
IST314I END

IST1318I
- parameter_value is the DLCADDR value specified on the LINE or GROUP definition statement. The message will appear as follows:
  IST1318I yy,N'parameter_value'
- N is the value specified on the DLCADDR keyword.
- yy is the subfield ID.
- If the DLCADDR value was coded in hexadecimal or binary coded decimal (BCD), parameter_value is displayed with a blank separating every 8 characters of data. If an odd number of digits was coded for the DLCADDR value, parameter_value will be padded on the left with a zero.

IST1319I
This message is used to display overflow information from parameter_value in message IST1318I.

IST1485I
- name identifies LINE or GROUP definition statement where the DLCADDR statements are coded.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5
Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ADJCP ID= command for an adjacent control point (ADJCP) that has a Rapid Transport Protocol (RTP) connected to it or in response to a DISPLAY ID= command where ID is the name of the RTP major node.

This message is the first in a group of messages and the full description of the message group follows the example.

IST1487I puname state nodename mnps type...

This message is a header message for the information displayed in message IST1487I.

puname is the RTP PU NAME of the adjacent link station (RTP ALS).

state is the connection state of the RTP and can be one of the following:

INITIAL
   Initial state at startup time

ALS_PENDING
   Waiting for adjacent link station processing

ALS_ASSIGNED
   Adjacent link station processing is complete

OPENED
   Initial state for active partner after startup

CALLING
   Active partner sending connection setup to the passive partner

LISTENING
   Initial state for passive partner after startup

CONNECTED
   RTP is active

DISCONNECTED
   Disconnect processing is complete and last message has been sent

DISCONNECT
   Disconnect processing is in progress

PENDING_ACT
   Waiting for activation to complete

PENDING_INACT
   Waiting for inactivation to complete

PENDING_TAKEOVR
   Multinode persistent session application program planned takeover is in progress

RECOVERY
   Multi-node persistent session application program recovery in progress

nodename is the destination partner's name in the form of netid.name for this RTP.

mnps indicates if the RTP connection is being used by an MNPS application and can be one of the following:

YES
   The RTP connection is being used by an MNPS application.
The RTP connection is not being used by an MNPS application.

type indicates the type of RTP connection and can be one of the following:

CPCP    CP_CP RTP
RSTP    Route_Setup RTP
LULU    LU_LU RTP

System action:    Processing continues.

Operator response:    None.

System programmer response:    None.

Routing code:    2

Descriptor code:    5

**IST1487I**  puname state nodename mnps type

Explanation:    VTAM issues this message as part of a group of messages in response to a DISPLAY ADJCP ID command for an adjacent control point (ADJCP) that has a Rapid Transport Protocol (RTP) connected to it or in response to a DISPLAY ID= command where ID is the name of the RTP major node.

The first message in the group is IST1486I. See the explanation of that message for a complete description.

Routing code:    2

Descriptor code:    5

**IST1488I**  action OF RTP puname AS role TO cpnetid.cpname

Explanation:    Depending on the value of the HPRITMSG start option, this message might be issued alone or as the first message in a group of messages when a Rapid Transport Protocol (RTP) is activated or deactivated.

If the HPRITMSG start option is the value BASE (default):

- When an RTP pipe is activating, VTAM issues the following IST1488I message:
  IST1488I ACTIVATION OF RTP puname AS role TO cpnetid.cpname
- When an RTP pipe is deactivating, VTAM issues the following IST1488I message:
  IST1488I INACTIVATION OF RTP puname AS role TO cpnetid.cpname

If the HPRITMSG start option is the value ENHANCED:

- When an RTP pipe is activating, VTAM issues the following IST1488I message group:
  IST1488I ACTIVATION OF RTP puname AS role TO cpnetid.cpname
  [IST1962I APPNCS = appncs_name- PRIORITY = NETWORK]
  [IST1963I APPNCS = appncs_name- PRIORITY = HIGH]
  [IST1964I APPNCS = appncs_name- PRIORITY = MEDIUM]
  [IST1965I APPNCS = appncs_name- PRIORITY = LOW]
  [IST1480I RTP END TO END ROUTE - RSCV PATH]
  [IST1460I TGN CPNAME TG TYPE HPR]
  [IST1461I tgn cpname tgrey hpr]
  [...]
  IST314I END

- When an RTP pipe is deactivating, VTAM issues the following IST1488I message group:
  IST1488I INACTIVATION OF RTP puname AS role TO cpnetid.cpname
  [IST1962I APPNCS = appncs_name- PRIORITY = NETWORK]
  [IST1963I APPNCS = appncs_name- PRIORITY = HIGH]
  [IST1964I APPNCS = appncs_name- PRIORITY = MEDIUM]
  [IST1965I APPNCS = appncs_name- PRIORITY = LOW]
  IST314I END
IST1488I

IST1460I
This message is a header message for information displayed in message IST1461I.

IST1461I
• In the message text:
  
  tgn
  The transmission group number.

  cpname
  The destination CP name for the transmission group.

  tgttype
  The transmission group type. Possible values are:
  – APPN
  – INTERCHANGE
  – VRTG
  – ISL

  hpr
  Corresponds with the HPR start option. Possible values are:
  RTP  Indicates that this VTAM provides RTP-level HPR support.
  ANR  Indicates that this VTAM provides ANR-level HPR support.
  *NA* Indicate that the link to the next node is not HPR capable.

  • When a link in a particular route is not HPR capable, then the HPR capability for the next node cannot be determined.

IST1480I
This message informs the operator that the messages that follow describe the RSCV end-to-end path of the RTP route. The RSCV path represents the route used to send data from the origin CP to the destination CP.

IST1488I
• In the message text:
  
  action
  Indicates the process that caused this message to be issued. Possible values are:
  
  ACTIVATION
  The RTP activation has been completed.

  INACTIVATION
  The RTP inactivation has been completed.

  puname
  The RTP PU name by which VTAM knows the RTP adjacent link station (ALS).

  role
  The role of this partner in the RTP connection. Possible values are:
  
  ACTIVE
  This partner initiated the activation of the RTP.

  PASSIVE
  This partner did not initiate the activation of the RTP.

  cpnetid.cpname
  The network-qualified cp name of the RTP partner.

IST1962I
• This message displays information about an APPN Class of Service (APPNCOS) with a transmission priority of network.

• In the message text:
The APPNCOS name associated with this RTP pipe.

**IST1963I**
- This message displays information about an APPN Class of Service (APPNCOS) with a transmission priority of high.
- In the message text:

  `appncos_name`  
  The APPNCOS name associated with this RTP pipe.

**IST1964I**
- This message displays information about an APPN Class of Service (APPNCOS) with a transmission priority of medium.
- In the message text:

  `appncos_name`  
  The APPNCOS name associated with this RTP pipe.

**IST1965I**
- This message displays information about an APPN Class of Service (APPNCOS) with a transmission priority of low.
- In the message text:

  `appncos_name`  
  The APPNCOS name associated with this RTP pipe.

**System action:**  Processing continues.

**Operator response:**  None.

**System programmer response:**  None.

**Routing code:**  2

**Descriptor code:**  5

**IST1489I**  APING SESSION INFORMATION

**Explanation:**  This message is the first in a group of messages that VTAM issues in response to a session startup due to the DISPLAY APIING command. A complete description of the message group follows the example.

The following is an example of messages that could be issued in the message group.

```
IST1489I  APING SESSION INFORMATION
IST1490I  BLU=dluname SID=sid
IST933I   LOGMODE = logmode, COS = cosentry
IST875I   APPNCOS TOWARDS SLU = resource_name
IST1458I  ORIGIN ADJSUB VR TP ER REVERSE ER
IST1459I  originsa destsa vr tp er rev_er
IST1460I  TGN CPNAME TG TYPE HPR
IST1461I  tgn cpname tgttype hpr
IST314I   END
```

**resource_name** is the APPN class of service (CoS) name.

**IST933**
- This message is part of message group IST875I or IST1489I.

**IST1458I**
- This message is a header message for information displayed in message IST1459I.

**IST1459I**
- `originsa` is the originating subarea number.
IST1489I

destsa is the destination subarea number.
vr is the virtual route number.
tp is the transmission priority of the virtual route.
er is the number of the explicit route from APING to its partner TP.
rev_er is the number of the explicit route from APINGD to its partner TP.

IST1460I

This message is a header message for information displayed in message IST1461I.

IST1461I

- The route selection control vector (RSCV) is displayed for the route to the destination node of the partner TP. Multiple IST1461I messages might be needed to display the full route. There are cases where the entire route is not displayed to the node named on the ID operand of the DISPLAY APING command (when border nodes, interchange nodes, and LEN connections are on the session path). In these cases, IST1461I displays as much of the RSCV as is available.
- tgtn is the transmission group number.
- cpname is the destination cpname for the transmission group.

Note: The cpname for a composite node might not always be correct. When an SSCP takeover occurs for an NCP in a composite node and the cpname was changed, the new cpname is not reflected in the display of the RTP end-to-end route.

- tgsyte is the transmission group type. The values for tgsyte can be one of the following:
  - APPN Indicates that this TG is an APPN-based TG.
  - INTERCHANGE Indicates that this TG represents a TG from an interchange node to a subarea node.
  - VRTG Indicates that this TG is a virtual-route-based TG.
  - ISL Indicates that this TG is an intersubnet TG.
- hpr corresponds with the HPR start option. The values for hpr are:
  - RTP indicates this VTAM provides RTP-level HPR support
  - ANR indicates this VTAM provides ANR-level HPR support
  - *NA* indicates the link to the next node is not HPR capable

Note: When a link in a particular route is not HPR capable, then the HPR capability for the next node cannot be determined.

IST1489I

This message is the first in a group of messages that display information about the newly activated VTAM APING session.

IST1490I

dluuname is the name of the destination logical unit (DLU) with which the APING transaction occurs.
sid is the session identifier (SID) used to identify the session over which the APING transaction occurs. The value ***NA*** is displayed if the session identifier is not currently available to VTAM.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5
IST1490I  DLU=dluname  SID=sid

Explanation: VTAM issues this message in response to a valid D NET,APING command to display the results of that command. It is part of two groups of messages.

The first messages in the groups are IST1457I and IST1489I. See the explanations of those messages for a complete description.

Routing code:  2
Descriptor code:  5

IST1493I  RTP SUMMARY FOR adjcpname  COUNT = count  RTPONLY = value

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID= command where ID is the name of an adjacent control point (ADJCP) major node or in response to a DISPLAY ADJCP,ID= command.

adjcpname is the name of the adjacent control point. If the network where the resource resides is known to VTAM, adjcpname is issued as a network-qualified name in the form netid.name.

count is the number of Rapid Transport Protocols (RTPs) connected to this ADJCP. If no RTPs are active to this ADJCP, count will be zero.

value is the value of the RTPONLY operand for this adjacent node. Possible values are: YES, NO, and NA (not applicable). NA is used whenever this message is displayed by a node that is not defined as a border node (the BN=NO start option was specified or defaulted), or when the node identified by adjcpname is a native network node or end node.

Note: The destination CP of the RTP is considered an ADJCP to this VTAM while there is at least one active RTP to it.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code:  2
Descriptor code:  5

IST1494I  PATH SWITCH status FOR RTP puname TO cpname

Explanation: This message is the first in a group of messages that VTAM issues in response to an RTP path switch.

- If status is COMPLETED, the following message group is displayed:

  IST1494I  PATH SWITCH status FOR RTP puname TO cpname
  IST1480I  RTP END TO END ROUTE - RSCV PATH
  IST1460I  TGN CPNAME TG TYPE HPR
  IST1461I  tgn cpname tgy tgy hpr
  :.
  IST314I  END

- If status is FAILED, the following message group is displayed:

  IST1494I  PATH SWITCH status FOR RTP puname TO cpname
  IST1495I  NO ALTERNATE ROUTE AVAILABLE
  IST314I  END

- If status is OVERRIDDEN, the following message group is displayed:

  IST1494I  PATH SWITCH status FOR RTP puname TO cpname
  IST1937I  PATH SWITCH REASON: INITIATED BY REMOTE PARTNER
  IST314I  END

- If status is STARTED, the following message group is displayed:

  IST1494I  PATH SWITCH status FOR RTP puname TO cpname
  [IST1817I  PATH SWITCH REASON: RTP CONNECTION UNAVAILABLE]
  [IST1818I  PATH SWITCH REASON: SHORT REQUEST RETRY LIMIT EXHAUSTED]
  [IST1819I  PATH SWITCH REASON: TG INOP]
IST1494I

This message is a header message for information displayed in message IST1461I.

IST1461I

- \(tg\) is the transmission group number.
- \(cpname\) is the destination CP name for the transmission group.
- \(tgtype\) is the transmission group type. The values for \(tgtype\) can be one of the following:
  - APPN  Indicates that this TG is an APPN-based TG.
  - INTERCHANGE  Indicates that this TG represents a TG from an interchange node to a subarea node.
  - VRTG  Indicates that this TG is a virtual-route-based TG.
  - ISL  Indicates that this TG is an intersubnet TG.
- \(hpr\) corresponds with the HPR start option. The values for \(hpr\) can be:
  - RTP  indicates this VTAM provides RTP-level HPR support
  - ANR  indicates this VTAM provides ANR-level HPR support
  - *NA*  indicates the link to the next node is not HPR capable

  **Note:** When a link in a particular route is not HPR capable, then the HPR capability for the next node cannot be determined.

IST1480I

This message informs the operator that the messages that follow describe the RSCV end-to-end path of the RTP route. The RSCV path represents the route used to send data from the origin CP to the destination CP.

IST1494I

- \(status\) is the outcome of VTAM attempting to do a path switch for this specific RTP.
  - COMPLETED  VTAM was able to complete the path switch for this specific RTP.
  - FAILED  VTAM was not able to complete the path switch for this specific RTP.
  - OVERRIDDEN  VTAM and the partner RTP endpoint have both initiated a path switch for this specific RTP at the same time. The partner RTP endpoint's path switch is accepted by VTAM (this RTP endpoint). This message is issued to indicate the path switch initiated by this RTP endpoint has been overridden by the partner.
  - STARTED  VTAM has begun the path switch for this specific RTP.

- \(puname\) is the RTP PU NAME of the adjacent link station (RTP ALS).
- \(cpname\) is the CP name of the remote partner.

IST1495I

No alternate route could be established for the RTP, therefore, no path switch took place. The current RTP remains active.

IST1817I

The underlying physical connection or the RTP itself is not in a state suitable for RTP traffic.
IST1818I
The RTP partner is not responding to status requests initiated by this RTP endpoint. Each time a status request is sent to the partner a short request timer is set to timeout the transaction. If the short request timer expires and no response is received from the partner, the process is repeated. This process will repeat until the retry limit for the RTP pipe is exhausted. When the retry limit is met, a path switch is requested to try to restore communications with the RTP partner.

The short request timer is an internally calculated value. It is based on the observed response time of the RTP pipe. This timer cannot be specified externally.

Tip: HPRPSDLY can be used to add a delay to the path switch when there are network or node constraints with partners. See the HPRPSDLY start option in z/OS Communications Server: SNA Resource Definition Reference.

IST1819I
The physical connection that the RTP pipe traverses has suffered an INOP condition.

IST1820I
An operator has issued an F RTP command to force an RTP path switch.

IST1821I
The PSRETRY start option value is forcing an automatic path switch for this RTP connection.

IST1822I
The reason for the RTP path switch is unavailable.

IST1937I
The path switch was initiated by the remote partner.

IST2239I
The path switch is initiated for the recovery of an MNPS application.

IST2335I
The path switch is initiated when a transmission (XMIT) stall recovery is attempted. A transmission stall condition occurs after VTAM retransmits an NLP for the sixth time and at least 10 seconds has elapsed since the NLP was first retransmitted. VTAM attempts recovery by initiating an HPR path switch.

System action: Processing continues.
Operator response: If status is FAILED, save the system log for problem determination and provide the files used for system definition.
System programmer response: Use the output and system definition files provided to assist in determining the cause of the problem. (You might need to work with system programmers in other networks to determine the adjacent SSCP tables used in another network to define the system.)
Routing code: 2
Descriptor code: 5

IST1495I NO ALTERNATE ROUTE AVAILABLE
Explanation: This message is part of a group of messages that VTAM issues in response to an RTP path switch.
The first message in the group is IST1494I. See the description of that message for more information.
System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5
IST1496I • IST1499I

IST1496I DISPLAY APIING FAILED - PRIOR APIING IS EXECUTING

Explanation: VTAM cannot execute a DISPLAY APIING command because a prior DISPLAY APIING request is still executing. VTAM only allows one DISPLAY APIING command to execute at a time.

System action: VTAM rejects the command.

Operator response: Reenter the command once the prior APIING completes execution. See the z/OS Communications Server: SNA Network Implementation Guide for instructions on terminating the currently executing APIING, should that become necessary.

System programmer response: None.

Routing code: 2

Descriptor code: 5

IST1498I LOADING NCP FROM source

Explanation: VTAM issues this message as a result of a DISPLAY ID command for an NCP that is in PLOAD (Pending Load) status.

source indicates if the NCP is being loaded from the host or from the 3720 or 3745 Communication Controller external disk.

This message follows IST247I when the NCP is in the PLOAD state.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2

Descriptor code: 2.8

IST1499I AHHC SUBCHANNEL address state

Explanation: This message is issued when the MVS status of a subchannel changes.

address is the subchannel address.

state is the subchannel address state, and can be one of the following:

ONLINE
  An MVS VARY ONLINE command is issued for a subchannel and VTAM successfully completes activation for the subchannel.

OFFLINE.PENDING
  An MVS VARY OFFLINE command is issued for a subchannel and VTAM and MVS are in the process of completing deallocation for the subchannel.

OFFLINE
  Deactivation processing has completed and MVS acknowledges that the subchannel is OFFLINE.

REACCESSIBLE
  An INOP situation occurs and MVS deactivates and then reactivates a subchannel without operator intervention.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2

Descriptor code: 4
IST1500I STATE TRACE = status

Explanation: This message is part of a subgroup of messages that VTAM issues in response to a DISPLAY ID command for a traceable node. It indicates whether the state of the resource specified on the ID parameter is being traced.

status will be ON or OFF. For more information, see the [/OS Communications Server: SNA Operation](#).

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 8

Descriptor code: 5

IST1501I XCF TOKEN = token

Explanation: VTAM issues this message as part of a message group in response to a DISPLAY ID=VTAM command or when a cross-system coupling facility (XCF) path to an adjacent node is no longer active. If message IST1504I precedes this message, see the description of IST1504I for a description of the message group.

This message is issued to inform the operator of the XCF token that MVS has assigned to VTAM. An XCF token identifies each VTAM in the MVS sysplex under XCF connectivity. Support personnel will use this message to correlate VTAM diagnostic information with MVS diagnostic information.

A complete description of the message group follows the example.

IST075I NAME = nodename, TYPE = nodetype
IST1501I XCF TOKEN = token

IST075I nodename is the name of the resource or ID type that is displayed.

IST1501I token is the XCF token MVS assigned to the adjacent VTAM.

System action: Processing continues.

Operator response: None.

System programmer response: None.

IST1502I ADJACENT CP = CP_name_of_other_side

Explanation: This message is part of a message subgroup. The first message in the subgroup is IST1503I. See the explanation of that message for a complete description of the subgroup.

IST1503I XCF TOKEN = token STATUS = status

Explanation: VTAM issues this message in response to the DISPLAY TRL, TRLE=trl_entry_name or a DISPLAY ID=trl_entry_name command when trle_name is the name of the dynamically created TRLE that defines the XCF connection between two VTAMs. This message is also issued in response to a DISPLAY TRL, XCFCP=cp_name command.

When MPC connectivity exists, message IST1221I is normally displayed. XCF TRLE’s do not have device addresses as MPC TRLEs have and thus, only the XCF token and the status of the XCF TRLE are displayed. Message IST1503I will be issued instead of message IST1221I to display XCF connection status. A complete description of the message group follows the example.

IST075I NAME= name, TYPE=type
IST486I STATUS= currentstatus, DESIRED STATE= desiredstate
IST087I TYPE = line_type, CONTROL = line_control, HPDT = hpdvalue
IST1503I XCF TOKEN = token STATUS = status
IST1502I ADJACENT CP = CP_name_of_other_side
IST314I END
IST1504I

XCF CONNECTION WITH cp_name IS INOPERATIVE

Explanation: This message is the first message in a group of two messages that VTAM issues when a cross-system coupling facility (XCF) READ/WRITE path to an adjacent node is no longer active. This message provides information about a potential problem and can be used to correlate VTAM diagnostic information with MVS diagnostic information. This message can be issued prior to the deactivation of an XCF local SNA PU, prior to an XCF group exit, or prior to the deactivation of a dynamic local SNA major node indicating that XCF connectivity has been terminated for that CP.

A complete description of the message group follows the example.

IST1504I XCF CONNECTION WITH cp_name IS INOPERATIVE
IST1501I XCF TOKEN = token

IST1504I

cp_name is the network qualified CP name of the adjacent VTAM.
IST1505I

token is the XCF token MVS assigned to the adjacent VTAM.

**System action:** Processing continues.

**Operator response:**
You may want to reactivate the dynamic XCF local SNA PU or the dynamic local SNA major node (ISTLSXCF). Otherwise, no action is necessary.

You may want to save the system log for problem determination if the inoperative connection is critical to the network.

**System programmer response:** None.

---

**IST1505I**  
**TYPE =** type  
**TOKEN =** token

**Explanation:** VTAM issues this message as part of a group of messages that display tuning statistics for XCF connections.

A complete description of the message group follows the example.

<table>
<thead>
<tr>
<th>Message Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IST1230I</td>
<td>TIME = time   DATE = date   ID = id</td>
</tr>
<tr>
<td>IST1231I</td>
<td>IPDU = ipdu   OPDU = opdu</td>
</tr>
<tr>
<td>IST1232I</td>
<td>TSWEEP = tsweep  QSWEEP = qsweep</td>
</tr>
<tr>
<td>IST1234I</td>
<td>BSIZE = bsize   MAXBYTES = maxbytes</td>
</tr>
<tr>
<td>IST1236I</td>
<td>BYTECNTO = bytecnto  BYTECNT = bytecnt  DIR = direction</td>
</tr>
</tbody>
</table>

- **time** is in the format hh:mm:ss:pp, where:
  - **hh** is the hour
  - **mm** is the minutes
  - **ss** is the seconds
  - **pp** is hundredths of a second.
- **The date value specifies the date that the record was reported.**

<table>
<thead>
<tr>
<th>Message Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IST1231I</td>
<td>IPDU = ipdu   OPDU = opdu</td>
</tr>
</tbody>
</table>

- **ipdu** is the total number of inbound PDU’s received.
- **opdu** is the total number of outbound PDU’s sent.

<table>
<thead>
<tr>
<th>Message Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IST1232I</td>
<td>TSWEEP = tsweep  QSWEEP = qsweep</td>
</tr>
</tbody>
</table>

- **tsweep** is the number of sweeps initiated during a time-out.
- **qsweep** is the number of sweeps initiated due to excessive receive queue depth.

<table>
<thead>
<tr>
<th>Message Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IST1234I</td>
<td>BSIZE = bsize   MAXBYTES = maxbytes</td>
</tr>
</tbody>
</table>

- **bsize** is the maximum buffer size supported by the device.
- **maxbytes** is number of bytes used in the largest channel program.

<table>
<thead>
<tr>
<th>Message Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IST1236I</td>
<td>BYTECNTO = bytecnto  BYTECNT = bytecnt  DIR = direction</td>
</tr>
</tbody>
</table>

- **bytecnto** is the byte count overflow.
- **bytecnt** is the byte count.
- **direction** is the direction of data flow over this device. **direction** can be either SENT or RECEIVED.

**IST1505I**  
**type =** XCF  
**TOKEN =** token

- **type** is XCF.
- **token** is the XCF token MVS assigned to the adjacent VTAM.

**System action:** Processing continues.
Operator response: To discontinue statistic recording, enter the MODIFY NOTNSTAT command.

System programmer response: For additional information on tuning and analyzing tuning statistics, see the z/OS Communications Server: SNA Network Implementation Guide.

---

**IST1506I**  
**command** FAILED FOR **nodename** - MEMBER LEAVING GROUP  
**Explanation:** An operator issues a VARY ACT to activate the local SNA PU. A deactivation request is received. VTAM issues this message to indicate the activation of the local SNA PU has failed because a deactivation request was received. The VTAM represented by the PU leaves the XCF group.  
- **command** is always VARY ACT.  
- **nodename** is the name specified for ID that is always a dynamic local SNA PU.  

**System action:** VTAM rejects the command.  
**Operator response:** None  
**System programmer response:** None.

---

**IST1507I**  
VR-BASED TG NOT SUPPORTED

**Explanation:** VTAM issues this message as part of a group of messages. The first message in the group is IST1110I. See the explanation of that message for a complete description.

---

**IST1508I**  
CP-CP SESSIONS ON VR-BASED TG NOT SUPPORTED

**Explanation:** VTAM issues this message as part of a group of messages. The first message in the group is IST1110I. See the explanation of that message for a complete description.

---

**IST1509I**  
**new_dlogmod** UNKNOWN BUT ACCEPTED -- PREVIOUS VALUE WAS **old_dlogmod**

**Explanation:** VTAM issues this message in response to a MODIFY DEFAULTS command and a MODIFY RESOURCE command which has successfully associated the **new_dlogmod** with the resource specified in the MODIFY command even though the **new_dlogmod** is not known to VTAM.  
- **new_dlogmod** is the new DLOGMOD value that is assigned to the resource.  
- **old_dlogmod** is the previous DLOGMOD value for the resource. **old_dlogmod** might not be known; it is only the previous value assigned to the resource.  

**System action:** None.  
**Operator response:** Verify that the value specified for DLOGMOD is valid. You might need to modify the logon mode table (MODETAB) to include the new logon mode entry (DLOGMOD).  

The previous value for DLOGMOD can be used to reset the resource’s DLOGMOD value. Be aware that the previous DLOGMOD value might be known. Since MODIFY DEFAULTS and MODIFY RESOURCE changes the value regardless of whether the new DLOGMOD is known, the value could be from a previous command. Also, no verification of the DLOGMOD value is performed during system definition.  
**System programmer response:** None.  
**Routing code:** 2  
**Descriptor code:** 5

---

**IST1510I**  
**LLERP** = **llerp** – **RECEIVED** = **received**

**Explanation:** VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for an HPR-capable PU.  

**LLERP** (link level error recovery procedure) is the LLERP capability of this PU as sent in the XID when the connection was established.  
**RECEIVED** is the LLERP capability of the adjacent node’s PU as received on the XID when the connection was established.
The values for *llerp* are:

**required**
- *llerp* is required

**notpref**
- *llerp* is not preferred but will be used if partner requires it.

The values for *received* are:

**required**
- *llerp* is required

**notpref**
- *llerp* is not preferred, but will be used if a partner requires it.

**notallow**
- *llerp* is not allowed on this connection.

<table>
<thead>
<tr>
<th>HPR start option</th>
<th>LLERP operand coded on the PU statement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>default</td>
</tr>
<tr>
<td><strong>NONE</strong></td>
<td></td>
</tr>
<tr>
<td><strong>ANR</strong></td>
<td>notpref</td>
</tr>
<tr>
<td><strong>RTP</strong></td>
<td>required</td>
</tr>
</tbody>
</table>

The HPR capability of the PU will be forced to NO if **REQUIRED** is specified for *llerp* and **NOTALLOW** is specified for *received*.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

IST1511I MAXIMUM NETWORK LAYER PACKET SIZE = size BYTES

**Explanation:** VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 node representing a Rapid Transport Protocol (RTP) route.

The first message in the group is either IST1476I or IST1968I. See the description of those messages for more information.

**Routing code:** 2

**Descriptor code:** 5

IST1512I lan_operation FAILED - CODE X'return_code' - CUA channel_unit_address

**Explanation:** VTAM issues this message when an error condition has been detected for local area network (LAN).

*lan_operation* is the name of the LAN operation that failed.

*return_code* is a 4-digit hexadecimal code. See the [z/OS Communications Server: IP and SNA Codes](https://www.ibm.com/support/documentation) for a description of *return_code*.

*channel_unit_address* is the channel device address of the port in error.

**System action:** VTAM does not perform the request.

**Operator response:** Enter a DISPLAY NET,ID=**name**,E to display the xca major node and its resources. Save the system log for problem determination.

**System programmer response:** See the [z/OS Communications Server: IP and SNA Codes](https://www.ibm.com/support/documentation)
IST1513I • IST1517I

Note: If `lan_operation` is ACTIVATE_SAP_CONFIRM, and `return_code` is 763A or 7658, verify that no XCA PORT definition statement includes too many lines. These lines can be explicitly defined by either the LINE definition statements or by the AUTOGEN parameter on the GROUP definition statement. The total number of lines under a PORT cannot exceed 255; or if OF/2 is being used in the D/T3172 IBM Interconnect Controller, then the total number of lines cannot exceed 245. If multiple GROUP definition statements are defined under a PORT definition statement, then the total number of lines is the sum of the number of lines defined explicitly or by the AUTOGEN parameters on the GROUP definition statements.

**IST1513I**  
`lan_operation` FAILED – `reason`

**Explanation:** VTAM issues this message when an error condition has been detected for a local area network (LAN).
- `lan_operation` is the abbreviated name of the LAN operation that failed.
- `reason` indicates the cause of the error and can be:

  **PORT TIMER LESS THAN LLC REPLY TIMER**
  
  The TIMER value on the PORT definition statement in the XCA major node is less than the result of the REPLY TIMER (T1) times the (maximum number of transmissions (N2)+1), specified on the system parameters of the IBM 3172 Interconnect Controller.

**System action:** VTAM does not perform the request.

**Operator response:** Save the system log for problem determination.

**System programmer response:** Adjust timer value on the port statement in the XCA major node to be greater than the T1 reply time defined in the IBM 3172 Interconnect Controller.

---

**IST1514I**  
SUBAREA COS APPNCOS

**Explanation:** This message is part of a group that VTAM issues in response to a DISPLAY SATOAPPN command. See the explanation of message IST1321I for a complete description of the message group.

**Routing code:** 2

**Descriptor code:** 5

---

**IST1515I**  
`tracetype` TRACE ACTIVE

**Explanation:** VTAM issues this message when a buffer, I/O, module, resource state, or QDIOSYNC trace is activated. If message IST199I follows this message, see the explanation of that message for a complete description of the group.

If message IST199I does not follow this message, `tracetype` is either BUFFER, IO, or QDIOSYNC.

**Routing code:** 2

**Descriptor code:** 5

---

**IST1516I**  
INITIAL DATA FLOW RATE = `initial units`

**Explanation:** VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 node representing a Rapid Transport Protocol (RTP) route.

The first message in the group is either IST1476I or IST1968I. See the description of those messages for more information.

**Routing code:** 2

**Descriptor code:** 5

---

**IST1517I**  
LIST HEADERS = `list_hdrs` – LOCK HEADERS = `lock_ents`

**Explanation:** This message is part of a group of messages VTAM issues in response to a DISPLAY STATS, TYPE=CFS command. The first message in the group is IST1370I. See the explanation of that message for a complete description.

**Routing code:** 2
Descriptor code: 5

**IST1518I**  BASE STRUCTURE IS *strname*

**Explanation:** This message is part of a group of messages VTAM issues in response to a DISPLAY STATS, TYPE=CFS command. The first message in the group is IST1370I. See the explanation of that message for a complete description.

Routing code: 2

Descriptor code: 5

**IST1519I**  ALTERNATE STRUCTURES ARE:

**Explanation:** This message is part of a group of messages VTAM issues in response to a DISPLAY STATS, TYPE=CFS command. The first message in the group is IST1370I. See the explanation of that message for a complete description.

Routing code: 2

Descriptor code: 5

**IST1520I**  SUBAREA SEARCH INFORMATION:

**Explanation:** This message is part of several subgroups of messages that VTAM issues in response to a DISPLAY SRCHINFO command. See the explanation of messages IST1521I, IST1523I, or IST1531I for a complete description of the message subgroups.

Routing code: 2

Descriptor code: 5

**IST1521I**  *sscp_dir* NAME CDINIT DSRLST IOCD INTOTH TOTAL

**Explanation:** This message is the first of a subgroup of messages issued in response to a DISPLAY SRCHINFO, LIST=SUMMARY command. The OLU, DLU, LU1, LU2, FROMCP, FROMSSCP, TOCP, and TOSSCP operands might have been used to limit the output displayed in the subgroup. A complete description of the message subgroup follows the example.

IST350I  DISPLAY TYPE = SRCHINFO
IST1520I  SUBAREA SEARCH INFORMATION:
IST1521I  *sscp_dir* NAME CDINIT DSRLST IOCD INTOTH TOTAL
IST1522I  *ssscpname* cdinit dsrlst iocd intoth total...

IST1525I  TOTAL NUMBER OF OUTSTANDING SEARCHES = *srchcnt*
IST1454I  count SSCPNAME(S) DISPLAYED
IST924I  '-----------------------------------------------'
IST1526I  APPN SEARCH INFORMATION:
IST1527I  *cp_dir* NAME TYPE STATUS BROADCAST DIRECTED TOTAL
IST1528I  *cpname* type status broadcast directed total...

IST1525I  TOTAL NUMBER OF OUTSTANDING SEARCHES = *srchcnt*
IST1454I  count CPNAMES(S) DISPLAYED
IST314I  END

**IST1454I**

- The value for *count* can be:
- - The sum of CP names displayed in message IST1528I messages for the APPN message subgroup.
- - The sum of SSCP names displayed in message IST1522I messages for the subarea message subgroup.

**IST1520I**

This message is a header message for the subarea messages that follow. Subarea information is only provided if TYPE=SUBAREA or TYPE=ALL was specified on the DISPLAY SRCHINFO command.

**IST1521I**
IST1521

- This message is a header message for the information displayed in message IST1522I.
- The value for sscp_dir can be:

  **FROMSSCP**
  The FROMSSCP operand was specified on the DISPLAY SRCHINFO command.

  **TOSSCP**
  The TOSSCP operand was specified, or neither FROMSSCP nor TOSSCP was specified, on the DISPLAY SRCHINFO command.

IST1522I

- One IST1522I message will be issued for each unique SSCP with an outstanding CDINIT, DSRLST, Init_Other CD, or Init_Other RU.
- A DISPLAY SRCHINFO, LIST=ALL command can provide additional information about the outstanding RUs.
  - **sscpname** is the originating SSCP of the search request if FROMSSCP was specified, the name of the destination SSCP if TOSSCP was specified.
  - **cdinit** is the decimal number of outstanding CDINIT RUs.
  - **dsrlst** is the decimal number of outstanding DSRLST RUs.
  - **iocd** is the decimal number of outstanding Init_Other CD RUs.
  - **intoth** is the decimal number of outstanding Init_Other RUs.
  - **total** is the total in decimal of the cdinit, dsrlst, iocd and intoth columns.

IST1525I

- In the subarea message subgroup, **srchcnt** is the decimal total of the total columns in all of the IST1522I messages for SSCPs.
- In the APPN message subgroup, **srchcnt** is the decimal total of the total columns in all of the IST1528I messages for CPs.
- This message is not displayed if the MAX operand value from the DISPLAY SRCHINFO command was exceeded.

IST1526I

- This message is a header message for the APPN messages that follow. APPN information is only provided if TYPE=APPN or TYPE=ALL was specified on the DISPLAY SRCHINFO command.

IST1527I

- This message is a header message for the information displayed in message IST1528I.
- The value for cp_dir can be:

  **FROMCP**
  The FROMCP operand was specified on the DISPLAY SRCHINFO command.

  **TOCP**
  The TOCP was specified, or neither the FROMCP nor TOCP operand was specified, on the DISPLAY SRCHINFO command.

IST1528I

- One IST1528I message will be issued for each CP with at least one outstanding search request.
- A DISPLAY SRCHINFO, LIST=ALL command can provide additional information about the outstanding searches.
- **cpname** is the network-qualified name of a CP with an outstanding search request. If TOCP is specified, **cpname** is the destination of the search request. If FROMCP is specified, **cpname** is the origin of the search request.
- **type** is the node type for the adjacent CP. The values for **type** can be:
  - **EN** cpname is an end node.
  - **NN** cpname is a network node.
- **status** is the current congestion status of the adjacent CP. The values for **status** can be:
  - **OPEN** APPN Locates are being sent to this cpname.
  - **HELD** APPN Locate searches are not being sent to this cpname.
- **broadcast** is the decimal number of broadcast locates (for example, INN, EN, NN) outstanding for this adjacent CP.
• *directed* is the decimal number of directed locates outstanding for this adjacent CP.
• *total* is the decimal number of locates outstanding for this adjacent CP, including directed, broadcast, and other types of locates.

**Operator response:** Issue the DISPLAY SRCHINFO command multiple times. If there is no change in the number of searches outstanding to a particular node, or if the count only increases, the node not be responding to search requests. Issue a DISPLAY SRCHINFO, LIST=ALL, TOCP=xxxxxxxx, TOSSCP=xxxxxxxx command where:

xxxxxxx is the *sscpname* in message IST1522I or the *cpname* in message IST1528I.

**Routing code:** 2

**Descriptor code:** 5

---

**IST1522I**

```
sscpname cdinit dsrlst iocd intoth total
```

**Explanation:** This message is part of a subgroup of messages that VTAM issues in response to a DISPLAY SRCHINFO, LIST=SUMMARY command. The first message of the subgroup is IST1521I. See the explanation of that message for a complete description of the message subgroup.

**Routing code:** 2

**Descriptor code:** 5

---

**IST1523I**

```
OLU DLU SID RU
```

**Explanation:** This message is the first of a subgroup of messages issued in response to a DISPLAY SRCHINFO, LIST=ALL command. The OLU, DLU, LU1, LU2, FROMCP, FROMSSCP, TOCP, and TOSSCP operands might have been used to limit the output displayed in the subgroup. A complete description of the message subgroup follows.

**IST1524I**

```
olu dlu sid rutype...
```

**IST1525I**

```
TOTAL NUMBER OF OUTSTANDING SEARCHES = srchcnt
```

One message is displayed for each outstanding search request.

In the subarea message subgroup, *count* is the decimal number of IST1524I messages displayed.

In the APPN message subgroup, *count* is the decimal number of IST1530I messages displayed.

**IST1520I**

This message is a header message for the subarea messages that follow. Subarea information is only provided if TYPE=SUBAREA or TYPE=ALL was specified on the DISPLAY SRCHINFO command.

**IST1523I**

This message is a header message for the information displayed in message IST1524I.

**IST1524I**

• *olu* is the network-qualified name of the LU originating the search request.
  – If *rutype* is IOCD, *olu* is the name of the secondary LU.
- In mixed configurations involving both subarea and APPN nodes, olu might be the name of a host as the search request is transferred between the subarea and APPN components of the various VTAMs.

- dlu is the network-qualified name of the LU that is the destination of the search request.

- If the search request for the DLU was forwarded to ISTAPNCP or to another internal component of VTAM, the DLU name will be that of the host on which the DISPLAY SRCHINFO command was issued. In such a case, multiple IST1524I messages might be displayed — one for the OLU to the host and another for the OLU to the DLU.

- If rutype is IOCD, dlu is name of the primary LU.

- sid is the session identifier (SID) for the search request. The SID is also known as the procedure correlation identification (PCID). If the PCID is unavailable, the value for sid is ****NA****. For example, if an INQUIRE APPSTAT is issued, the DSRLST shown represents an internal flow between two VTAM components, with the second component assigning the PCID.

- rutype is the type of request unit represented by the search request. The value for rutype can be:

  CDINIT
  Cross-domain Initiate

  DSRLST
  Directed Search List

  IOCD   Init_Other CD

  INTOTH
  Init_Other

  **NA**
  This search is concentrated behind another search request. Information about the other search can be found by issuing a DISPLAY SRCHINFO,SID=sid command.

Note that the Init_Other CD RU is called “CDINIT OTH” in message IST530I messages and “IOCD” in message IST1524I messages.

- The sid value can be used in a DISPLAY SRCHINFO,SID=sid command to obtain additional information about a particular search.

IST1525I

srcchnt is the total of the locates column in all of the IST1530I messages, expressed as a decimal number.

This message is not displayed if the MAX operand value on the DISPLAY SRCHINFO command was exceeded.

IST1526I

This message is a header message for the APPN messages that follow. APPN information is only provided if TYPE=APPN or TYPE=ALL was specified on the DISPLAY SRCHINFO command.

IST1529I

This message is a header message for the information displayed in message IST1530I.

IST1530I

One message is displayed for each outstanding search request. The searches displayed by IST1530I are ordered from the newest to the oldest request.

- olu is the network-qualified name of the LU originating the search request. olu is **NA** for an intermediate network node (INN) on a directed search.

- dlu is the network-qualified name of the LU that is the destination of the search request. dlu is **NA** for an INN on a directed search.

- sid is the session ID (SID) for the search request. The SID is also known as the procedure correlation identification (PCID).

- locates is the decimal number of locates pending for the session. A value of 0 for locates indicates that the search request is concentrated behind another search for the same destination LU, initiated by the host CP.

The sid value can be used in a DISPLAY SRCHINFO,SID=sid command to obtain additional information about a particular search.
**Operator response:** If initiation of a specific session is stalling, issue DISPLAY SRCHINFO,PCID and DISPLAY ID=name,E for the specific session. A VARY TERM command might be needed to terminate the stalling session.

If multiple searches are pending to a specific adjacent node, perform diagnosis on that node to determine the reason the searches are not being processed. If that adjacent node is VTAM, DISPLAY SRCHINFO,LIST=ALL and DISPLAY SRCHINFO,PCID commands can be issued from that host to determine the cause of the stall. If the adjacent node is not a VTAM, consult the product specific documentation. VARY TERM,SID can be issued to session request

**Routing code:** 2

**Descriptor code:** 5

---

**IST1524I**  
olu dlu sid rutype

**Explanation:** This message is part of a subgroup of messages that VTAM issues in response to a DISPLAY SRCHINFO,LIST=ALL command. The first message of the subgroup is IST1523I. See the explanation of that message for a complete description of the subgroup.

**Routing code:** 2

**Descriptor code:** 5

---

**IST1525I**  
TOTAL NUMBER OF OUTSTANDING SEARCHES = srchcnt

**Explanation:** This message is part of a subgroup of messages that VTAM issues in response to a DISPLAY SRCHINFO command. The first message of the subgroup is either IST1521I or IST1523I. See the explanation of those messages for a complete description of the subgroup.

**Routing code:** 2

**Descriptor code:** 5

---

**IST1526I**  
APPN SEARCH INFORMATION:

**Explanation:** This message is part of a subgroup of messages that VTAM issues in response to a DISPLAY SRCHINFO command. The first message of the subgroup is IST1521I, IST1523I, or IST1531I. See the explanation of those messages for a complete description of the subgroup.

**Routing code:** 2

**Descriptor code:** 5

---

**IST1527I**  
cp_dir NAME TYPE STATUS BROADCAST DIRECTED TOTAL

**Explanation:** This message is part of a subgroup of messages that VTAM issues in response to a DISPLAY SRCHINFO,LIST=SUMMARY command. The first message of the subgroup is IST1521I. See the explanation of that message for a complete description of the subgroup.

**Routing code:** 2

**Descriptor code:** 5

---

**IST1528I**  
cpname type status broadcast directed total

**Explanation:** This message is part of a subgroup of messages that VTAM issues in response to a DISPLAY SRCHINFO,LIST=SUMMARY command. The first message of the subgroup is IST1521I. See the explanation of that message for a complete description of the subgroup.

**Routing code:** 2

**Descriptor code:** 5
IST1529I • IST1531I

IST1529I  OLU DLU SID LOCATE

Explanation: This message is part of a subgroup of messages that VTAM issues in response to a DISPLAY SRCHINFO,LIST=ALL command. The first message of the subgroup is IST1523I. See the explanation of that message for a complete description of the subgroup.

Routing code: 2
Descriptor code: 5

IST1530I  olu dlu sid locates

Explanation: This message is part of a subgroup of messages that VTAM issues in response to a DISPLAY SRCHINFO,LIST=ALL command. The first message of the subgroup is IST1523I. See the explanation of that message for a complete description of the subgroup.

Routing code: 2
Descriptor code: 5

IST1531I  SID = sid CP(OLU) = origcp

Explanation: This message is the first of a subgroup of messages that VTAM issues in response to a DISPLAY SRCHINFO,SID command.

Possible message subgroups follow. Note that the group will be displayed if the SID can be located, even if no search is outstanding. This means this group will be displayed if DISPLAY SRCHINFO,SID is issued using a SID for an active session, for example.

• If search information can be found in the subarea network, VTAM issues the following messages:

  IST350I  DISPLAY TYPE = SRCHINFO
  IST1520I  SUBAREA SEARCH INFORMATION:
  IST1531I  SID = sid  CP(OLU) = origcp
  IST1532I  OLU = oluname  DLU = dluname
  IST1540I  SEARCH STATUS = status  SSCP(OLU) = sscpolu
  [IST1539I  PCID MODIFIER = pcidmod]
  IST1534I  SSCP/CP IN OLU DIRECTION = dirolu
  IST1533I  SEARCH CONCENTRATED = conc  RDS = rds
  [IST1536I  CONCENTRATED BEHIND conc_pcid conc_mod]
  [IST1543I  REQUESTS CONCENTRATED BEHIND THIS SEARCH = nbr_conc]
  [IST1705I  sc_option = sc_value FROM START OPTION]
  [IST1704I  sc_option = sc_value FROM ADJACENT SSCP TABLE]
  [IST894I  ADJSSCP TRIED FAILURE SENSE ADJSSCP TRIED FAILURE SENSE
  IST895I  sscpname  sense  sscpname  sense

  ...
  IST1454I  count ADJSSCPs DISPLAYED]
  [IST1537I  AWAITING REPLY FROM THE FOLLOWING NODE(S):
  IST1538I  name  name  name]

• If search information can be found in the subarea network, but no adjacent SSCP routing information is available, VTAM issues the following messages:

  IST350I  DISPLAY TYPE = SRCHINFO
  IST1520I  SUBAREA SEARCH INFORMATION:
  IST1531I  SID = sid  CP(OLU) = origcp
  IST1532I  OLU = oluname  DLU = dluname
  IST1540I  SEARCH STATUS = status  SSCP(OLU) = sscpolu
  [IST1539I  PCID MODIFIER = pcidmod]
  IST1534I  SSCP/CP IN OLU DIRECTION = dirolu
  IST1533I  SEARCH CONCENTRATED = conc  RDS = rds
  [IST1536I  CONCENTRATED BEHIND conc_pcid conc_mod]
  [IST1543I  REQUESTS CONCENTRATED BEHIND THIS SEARCH = nbr_conc]
  [IST1542I  NO ADJSSCP ROUTING INFORMATION AVAILABLE
  IST1537I  AWAITING REPLY FROM THE FOLLOWING NODE(S):
  IST1538I  name  name  name]
If search information can be found in the APPN network, VTAM issues the following messages alone or following the subarea message subgroup with an IST924I separator message.

IST1526I  APPN SEARCH INFORMATION:
IST1531I  SID = sid  CP(OLU) = origcp
IST1532I  OLU = oluname  DLU = dluname
IST1539I  PCID MODIFIER = pcidmod
IST1545I  NODE ROLE VECTOR = role
IST1541I  LOCATES PENDING = locates  CURRENT TASK = task
IST1533I  SEARCH CONCENTRATED = conc  RDS = rds
[IST1548I  BROADCAST = bdct  DIRECTED = drctd]
IST1534I  SSCP/CP IN OLU DIRECTION = dirolu
IST1535I  REPLY RETURNED TO ORIGINATING CP = reply
[IST1536I  CONCENTRATED BEHIND conc_pcid conc_mod]
[IST1543I  REQUESTS CONCENTRATED BEHIND THIS SEARCH = nbr_conc]
[IST1537I  AWAITING REPLY FROM THE FOLLOWING NODE(S):
IST1538I  name  name  name...
IST1541I  node_cnt NODE(S) DISPLAYED]

IST894I

This message is a header for the information displayed in message IST895I.

IST895I

This message is issued when adjacent SSCP routing is in progress. An IST895I message is issued for each SSCP, in the order it was tried, until all adjacent SSCP routing information has been displayed or until the MAX operand value on the DISPLAY SRCHINFO command has been reached.

sscpname is the adjacent SSCP through which trial-and-error routing was attempted.

sense is the sense code indicating the cause of failure.

IST1454I

• The value for count can be:
  – The total number of adjacent SSCPs, in decimal, displayed in the IST895I messages.
  – The total number of adjacent CPs, in decimal, displayed in the IST1538I messages.

IST1520I

This message is a header for the subarea messages that follow. Subarea information is provided if TYPE=SUBAREA or TYPE=ALL was specified on the DISPLAY SRCHINFO command.

IST1526I

This message is a header for the APPN messages that follow. APPN information is provided if TYPE=APPN or TYPE=ALL was specified on the DISPLAY SRCHINFO command.

IST1531I

sid is the session ID (SID) for the session. The session ID, also known as the procedure correlation ID (PCID), is applicable to both APPN and subarea searches.

origcp is the name of the control point for the LU that originated the search request. If origcp is ISTAPNCP, the search request was passed from the APPN component of this host to the subarea component. In mixed environments involving both subarea and APPN nodes, origcp could be the name of a host involved in transferring the search request between APPN and subarea (for example, in a subarea search initiated by a central directory server (CDS)).

IST1532I

oluname is the network-qualified name of the LU that is originating the search request. If known, the OLU’s real name is shown. Otherwise, ***NA*** is shown.

dluname is the network-qualified name of the LU that is the destination of the session request. If known, the DLU’s real name is shown. Otherwise, the DLU alias name is shown.

IST1533I
The values for conc can be:

YES   Search is concentrated behind a scout search, attempting to locate a specific resource.
NO    Search is not concentrated behind a scout search, attempting to located a specific resource.

The values for rds can be:

YES   This is a resource discovery search (RDS), a type of scout search.
NO    This is not a resource discovery search (RDS).

This message gives the name of the adjacent CP or SSCP (dirolu) in the direction of the originating LU (OLU).

The values for reply can be:

YES   If a positive reply was returned towards the parent CP.
NO    If a positive reply was not returned towards the parent CP.

This message is issued only if CONCENTRATED=YES in message IST1533I.
conc_pcid is the procedure correlation ID (PCID) of the scout search behind which this search is concentrated.
conc_mod is the PCID modifier of the scout search behind which this search is concentrated.

This message is issued only if CONCENTRATED = NO in message IST1533I. It is a header message for the information displayed in message IST1538I.

In the subarea message subgroup:
name is the network-qualified name of an SSCP from which this search is awaiting a reply. If the name is ISTAPNCP, the host is awaiting a response from a search of the APPN network.

In the APPN message subgroup:
name is the network-qualified name of a control point from which this search is awaiting a reply. If a host appears to be awaiting a reply from itself, as shown by name in message IST1538I, the host is awaiting a response from a search of the subarea network.

pcidmod is the procedure correlation ID (PCID) modifier to the PCID in message IST1531I.

status is the status of the search request. See in the z/OS Communications Server: IP and SNA Codes for list of status values.
sscpolu is the name of the SSCP originating the search request. Note that this might not be the CP(OLU) if the network consists of both subarea and APPN nodes.

locates is the number of Locates outstanding for this PCID.
task is the current task being performed on behalf of the search. The value for task can be:

<table>
<thead>
<tr>
<th>Value</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>X'00'</td>
<td>Null task</td>
</tr>
<tr>
<td>X'01'</td>
<td>Directory Services Management Exit</td>
</tr>
<tr>
<td>X'02'</td>
<td>Directory services database query</td>
</tr>
<tr>
<td>X'03'</td>
<td>Topology and routing services database query</td>
</tr>
</tbody>
</table>
X'04'  Forward to network node server
X'05'  One hop if directory services database is found (i.e. a directed search to an End Node)
X'06'  One hop if control vector X'0E' is received for request
X'07'  Non-Verify attempt
X'08'  Directed due to network node destination LU hierarchy received on a search request
X'09'  Directed if directory services database is found
X'0A'  Directed if the topology and routing services valid route selection CV is returned
X'0B'  Directed if information is learned from scout search
X'0C'  Directed to a directory server
X'0D'  Directed to a higher function directory server
X'0E'  Directed to a directory server retry
X'0F'  Directed to a gateway node
X'10'  Sequential directed search to alternate directory servers
X'11'  Sequential directed search to interchange node
X'12'  Subarea symbol resolution table (SRT) cache search
X'13'  Subarea search after a positive cache search
X'14'  Subarea search after a positive directory services directory entry database query
X'15'  Subarea search after a negative or no cache search
X'16'  Domain Broadcast search
X'17'  Originate network broadcast search
X'18'  Forward network broadcast not originated by this node
X'19'  One-hop search request due to end node destination LU hierarchy received on a search request
X'1A'  A cross-subnetwork directed search due to information received on the original request
X'1B'  A cross-network directed search due to information found in the directory services database
X'1C'  A directed search due to information found in the topology and routing services database
X'1D'  Sequential directed search with the intent of finding the resource cross-subnetwork
X'1E'  Generic cache search
X'1F'  A subarea search due to a SESS_INIT_INFO_RPY interprocess signal
X'20'  A directed search due to a SEARCH_RPY interprocess signal following a positive CACHE_SEARCH_RPY interprocess signal
X'21'  Directed search due to a SEARCH_RPY interprocess signal following a positive directory services database query
X'22'  Directory services database query after resource discovery search found
X'23'  Directed to Resource Selector Node (RSN)
X'3F'  Post processing.

IST1542I

This message is issued when no adjacent SSCP routing information is available.

IST1543I

This message is issued when CONCENTRATED = NO appears in message IST1533I and when the number of searches concentrated behind this search is nonzero.

nbr_conc is the number of other searches concentrated behind this scout search.
IST1545I

- role is a hexadecimal representation of the node role vector for this search. More than one bit can be on.

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>X'8000'</td>
<td>CP originating LU</td>
</tr>
<tr>
<td>X'4000'</td>
<td>CP destination LU</td>
</tr>
<tr>
<td>X'2000'</td>
<td>NN originating LU</td>
</tr>
<tr>
<td>X'1000'</td>
<td>NN destination LU</td>
</tr>
<tr>
<td>X'0800'</td>
<td>Owning directory server</td>
</tr>
<tr>
<td>X'0400'</td>
<td>Alternate directory server</td>
</tr>
<tr>
<td>X'0200'</td>
<td>Intermediate network server</td>
</tr>
<tr>
<td>X'0100'</td>
<td>Intermediate network node (INN) directed.</td>
</tr>
<tr>
<td>X'0080'</td>
<td>Intermediate network node (INN) broadcast.</td>
</tr>
<tr>
<td>X'0040'</td>
<td>Intermediate network node (INN) on a request that requires border node processing.</td>
</tr>
</tbody>
</table>

IST1548I

- The values for bdcst can be:
  - YES  A broadcast search is in progress.
  - NO   A broadcast search is not in progress.

- The values for drctd can be:
  - YES  A directed search is in progress.
  - NO   A directed search is not in progress.

*Note:* Both bdcst and drctd can be YES at the same time (for example, a directed search from an end node that is turned into a broadcast search by the network node server (NNS)).

- This message is only issued if CONCENTRATE = NO in message IST1533I.

IST1704I or IST1705I

- sc_option indicates a search control option associated with the search being displayed. Possible values are: SORDER and SSCPORD. When VTAM is enabled for APPN, both search control options will be displayed with SORDER being first. When VTAM is not enabled for APPN, SSCPORD will be the only search control option displayed. Either IST1704I or IST1705I will be issued for each search control option displayed.

- sc_value indicates the value of the search control option associated with the search being displayed. If sc_value is ADJLIST, the adjacent SSCP table associated with the search being displayed is for a resource that specified an adjacent CDRM list (ADJLIST); therefore, the SORDER and SSCPORD search control options do not apply.

*System action:* Processing continues.

*Operator response:* None.

*System programmer response:* None.

*Routing code:* 2

*Descriptor code:* 5

IST1532I  OLU = oluname DLU = dluname

*Explanation:* This message is part of a subgroup of messages that VTAM issues in response to a DISPLAY SRCHINFO,SID command. The first message of the subgroup is IST1531I. See the explanation of that message for a complete description of the subgroup.

*Routing code:* 2

*Descriptor code:* 5
IST1533I  SEARCH CONCENTRATED = conc RDS = rds

Explanation: This message is part of a subgroup of messages that VTAM issues in response to a DISPLAY SRCHINFO,SID command. The first message of the subgroup is IST1531I. See the explanation of that message for a complete description of the subgroup.

Routing code: 2
Descriptor code: 5

IST1534I  SSCP/CP IN OLU DIRECTION = dirolu

Explanation: This message is part of a subgroup of messages that VTAM issues in response to a DISPLAY SRCHINFO,SID command. The first message of the subgroup is IST1531I. See the explanation of that message for a complete description of the subgroup.

Routing code: 2
Descriptor code: 5

IST1535I  REPLY RETURNED TO ORIGINATING CP = reply

Explanation: This message is part of a subgroup of messages that VTAM issues in response to a DISPLAY SRCHINFO,SID command. The first message of the subgroup is IST1531I. See the explanation of that message for a complete description of the subgroup.

Routing code: 2
Descriptor code: 5

IST1536I  CONCENTRATED BEHIND conc_pcid conc_mod

Explanation: This message is part of a subgroup of messages that VTAM issues in response to a DISPLAY SRCHINFO,SID command. The first message of the subgroup is IST1531I. See the explanation of that message for a complete description of the subgroup.

Routing code: 2
Descriptor code: 5

IST1537I  AWAITING REPLY FROM THE FOLLOWING NODE(S):

Explanation: This message is part of a subgroup of messages that VTAM issues in response to a DISPLAY SRCHINFO,SID command. The first message of the subgroup is IST1531I. See the explanation of that message for a complete description of the subgroup.

Routing code: 2
Descriptor code: 5

IST1538I  name name name

Explanation: This message is part of a subgroup of messages that VTAM issues in response to a DISPLAY SRCHINFO,SID command. The first message of the subgroup is IST1531I. See the explanation of that message for a complete description of the subgroup.

Routing code: 2
Descriptor code: 5

IST1539I  PCID MODIFIER = pcidmod

Explanation: This message is part of a subgroup of messages that VTAM issues in response to a DISPLAY SRCHINFO,SID command. The first message of the subgroup is IST1531I. See the explanation of that message for a complete description of the subgroup.
IST1540I • IST1545I

Routing code: 2
Descriptor code: 5

---

**IST1540I**  
SEARCH STATUS = status  
SSCP(OLU) = sscpolu

**Explanation:** This message is part of a subgroup of messages that VTAM issues in response to a DISPLAY SRCHINFO,SID command. The first message of the subgroup is IST1531I. See the explanation of that message for a complete description of the subgroup.

Routing code: 2
Descriptor code: 5

---

**IST1541I**  
LOCATES PENDING = locates  
CURRENT TASK = task

**Explanation:** This message is part of a subgroup of messages that VTAM issues in response to a DISPLAY SRCHINFO,SID command. The first message of the subgroup is IST1531I. See the explanation of that message for a complete description of the subgroup.

Routing code: 2
Descriptor code: 5

---

**IST1542I**  
NO ADJSSCP ROUTING INFORMATION AVAILABLE

**Explanation:** This message is part of a subgroup of messages that VTAM issues in response to a DISPLAY SRCHINFO,SID command. The first message of the subgroup is IST1531I. See the explanation of that message for a complete description of the subgroup.

Routing code: 2
Descriptor code: 5

---

**IST1543I**  
REQUESTS CONCENTRATED BEHIND THIS SEARCH = nbr_conc

**Explanation:** This message is part of a subgroup of messages that VTAM issues in response to a DISPLAY SRCHINFO,SID command. The first message of the subgroup is IST1531I. See the explanation of that message for a complete description of the subgroup.

Routing code: 2
Descriptor code: 5

---

**IST1544I**  
DIAL OUT PURGE IN PROGRESS - ID = nodename

**Explanation:** VTAM issues this message as part of a group of messages when a call collision occurs. Call collision occurs when a dial in and a dial out attempt to use the same line at the same time. The first message in the group is either IST680I or IST690I. See the explanation of those messages for a complete description.

Routing code: 8
Descriptor code: 4

---

**IST1545I**  
NODE ROLE VECTOR = role

**Explanation:** This message is part of a subgroup of messages that VTAM issues in response to a DISPLAY SRCHINFO,SID command. The first message of the subgroup is IST1531I. See the explanation of that message for a complete description of the subgroup.

Routing code: 2
Descriptor code: 5
IST1546I  CDRM STATUS SUBAREA ELEMENT NETID SSCPID

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY command concerning the cross-domain resource manager (CDRM). This message is the result of one of the following:
• A DISPLAY ID command for a cross-domain resource manager major node
• A DISPLAY CDRMS command requesting information about cross-domain resource managers (CDRMS) defined to this domain.

IST1546I  cdrmname status subarea element cdrmnetid sscpid

This message is a header for IST1547I.

IST1547I

This message is issued for each cross-domain resource.
cdrmname is the CDRM name.
status is the resource status.
subarea is the subarea address of the CDRM in decimal. If the subarea address is not available, subarea will be N/A.
element is the element address of the CDRM in decimal. If the element address is not available, element will be N/A.
cdrmnetid is the network ID of cdrmname.
sscpid is the SSCP identifier of the CDRM. sscpid will be displayed for a host CDRM and for an external CDRM with an SSCP-SSCP session with this host. sscpid is not available for a CDRM without an SSCP-SSCP session with this host and will be displayed as N/A.

Routing code: 2
Descriptor code: 5

IST1548I  cdrmname status subarea element cdrmnetid sscpid

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY CDRMS or DISPLAY ID=cdrm_major_node command. See the description of IST1546I for a complete description of the message group.

Routing code: 2
Descriptor code: 5

IST1549I  BROADCAST = bdest DIRECTED = drcid

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY SRCHINFO,SID command. The first message of the group is IST1531I. See the explanation of that message for a complete description of the subgroup.

Routing code: 2
Descriptor code: 5

IST1549I  OWNER = owning_VTAM MNPS STATE = state

Explanation: VTAM issues this message in response to a DISPLAY ID command when a multinode persistent application is specified and the application is not defined to the VTAM on which the command is issued, but is found in the multinode persistent session coupling facility structure.

owning_VTAM is the VTAM where the multinode persistent application last opened its ACB.
The application can be in one of the following states:
The data related to this application is being cleaned up in the multinode persistent coupling facility structure.

The application OPENed its ACB and specified PERSIST=YES, but has not yet issued SETLOGON OPTCD=PERSIST. Data for the application is stored in the coupling facility structure in case the application chooses to enable persistence. However, sessions are not restored in the event of a failure.

The application issued SETLOGON OPTCD=PERSIST. Multinode persistent sessions will be restored in the event of a failure.

A failure of the VTAM owning the application was detected. Wait for the application to recover.

The application failed, or issued CLOSE, while it was enabled for persistence. The application is now waiting for recovery on its owning VTAM or some other VTAM. In the event of subsequent failure of the owning VTAM, the sessions will be maintained and thus can be restored.

The data associated with this application might be invalid; in the event of failure, the application's sessions will not be recovered. This might be caused by the following:

- The multinode persistent coupling facility structure containing the application's data is currently being rebuilt.
- The owning VTAM lost connectivity to the multinode persistent session structure containing the application's data.

The application received a forced takeover request, asking the application to move from its current owning node to a different node in the sysplex. The application is in the process of completing its persistent CLOSE ACB processing prior to moving to the new owning node. The owning VTAM is the CP where the application is undergoing persistent CLOSE processing, and not the VTAM to which the application is expected to eventually move.

The application is moving from one VTAM to another VTAM. The owning VTAM is the CP where the application is expected to end up. If the owning CP were to fail, sessions in this state would be maintained and could be recovered.

The application CLOSeD its ACB, in a non-persistent manner, on its owning VTAM, but not all the multinode persistent sessions or RTP connections have been terminated yet.

The application is MNPS capable, but there is currently no local application status block (ASB) available for this VTAM to use to determine the MNPS state of the application. This will most probably occur when the application is attempting to move from one VTAM to this VTAM, but the ownership of the application has not yet been transferred between the VTAMs.

Operators can display the current application state from other VTAMs in the sysplex that are connected to the MNPS structure.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5
IST1550I  MNPS STATE = state

Explanation: VTAM issues this message in response to a DISPLAY ID command when a multinode persistent (MNPS) application is specified, and the application is found on the VTAM on which the command is issued.

The application can be in one of the following states:

CLEANUP
 The data related to this application is being cleaned up in the MNPS coupling facility structure.

DEFINED
 The application was defined with PERSIST=M on the application definition statement, but VTAM is not in the proper environment to perform the MNPS function. See the z/OS Communications Server: SNA Network Implementation Guide for a description of the MNPS environment.

DISABLED
 The application OPENed its ACB and specified PERSIST=YES, but has not yet issued SETLOGON OPTCD=PERSIST. Data for the application is stored in the coupling facility structure in case the application chooses to enable persistence. However, sessions are not restored in the event of a failure.

ENABLED
 The application issued SETLOGON OPTCD=PERSIST. Sessions will be restored in the event of a failure.

RECOVERY PENDING
 A failure of the VTAM owning the application was detected. Wait for the application to recover.

SNPS RECOVERY PENDING
 The application failed, or issued CLOSE, while it was enabled for persistence. The application is now waiting for recovery on its owning VTAM or some other VTAM. In the event of subsequent failure of the owning VTAM, the sessions will be maintained and thus can be restored.

SUSPECT
 The data associated with this application might be invalid; in the event of failure, the application's sessions will not be recovered. This might be caused by the current rebuilding of MNPS structure that contains the application's data.

TAKEOVER ACKNOWLEDGED
 The application received a forced takeover request, asking the application to move from its current owning node to a different node in the sysplex. The application is in the process of completing its persistent CLOSE ACB processing prior to moving to the new owning node. The owning VTAM is the CP where the application is undergoing persistent CLOSE processing, and not the VTAM to which the application is expected to eventually move.

TAKEOVER IN PROGRESS
 The application is moving from one VTAM to another VTAM. The owning VTAM is the CP where the application is expected to end up. If the owning CP were to fail, sessions in this state would be maintained and could be recovered.

TERMINATE
 The application CLOSEd, in a non-persistent manner, on its owning VTAM, but not all the sessions or RTP connections have been terminated yet.

UNKNOWN STATE
 The application is MNPS capable, but there is currently no local application status block (ASB) available for this VTAM to use to determine the MNPS state of the application. This will most probably occur when the application is attempting to move from one VTAM to this VTAM, but the ownership of the application has not yet been transferred between the VTAMs.

Operators can display the current application state from other VTAMs in the sysplex that are connected to the MNPS structure.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2
IST1551I • IST1555I

Descriptor code: 5

IST1551I  sense_1 sense_2 sense_3 sense_4 sense_5

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY SNSFILTR command. See the explanation of IST1321I for a complete description of the group.

Routing code: 2
Descriptor code: 5

IST1552I  MAC = mac_level MACTYPE = mac_type.

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY ID, DISPLAY MODEL, or DISPLAY LUGROUPS command. The first message in the group is IST228I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST1553I  atm_address address_type address_format

Explanation: This message is part of a group of messages. See the explanation of message IST1559I for a complete description of the group.

Routing code: 2
Descriptor code: 5

IST1554I  PVCNAME = pvc_name

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for an ATM native permanent virtual channel (PVC).

pvc_name is the name of the PVC, as defined on the PVCNAME operand on the LINE definition statement in the external communication adapter (XCA) major node.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST1555I  VPCI/VCI = vpci_vci

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a remote PU connected through an ATM native switched virtual channel (SVC) or a permanent virtual channel (PVC).

The virtual path connection identifier (VPCI) is represented by the first two hexadecimal digits in vpci_vci.

The virtual channel identifier (VCI) is represented by the last four hexadecimal digits in vpci_vci.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5
**IST1556I**

**ATM connection_type FAILURE: ID = node_name STATUS = status_code**

**Explanation:** This message is the first message in a group of messages that VTAM issues in response to a failed inactivation or activation request for an ATM native permanent virtual channel (PVC) or switched virtual channel (SVC) connection. VTAM issues the same group of messages when an existing native ATM PVC or SVC connection fails.

A complete description of the message group follows the example.

```
IST1556I ATM connection_type FAILURE: ID = node_name STATUS = status_code
  [IST1562I CAUSE = cause_code]
  [IST1558I DIAG = diagnostic_code]
  [IST1558I DIAG = diagnostic_code]
  [IST1562I CAUSE = cause_code]
  [IST1558I DIAG = diagnostic_code]
  [IST1558I DIAG = diagnostic_code]
IST314I END
```

**IST1556I**

- **connection_type** can be one of the following:
  - **CALL** Indicates the failure of an activation or inactivation request for an ATM native PVC or SVC connection.
  - **DISABLE** Indicates the failure of an inactivation request for an incoming call filter for an ATM native port on the IBM Open Systems Adapter.
  - **ENABLE** Indicates the failure of an activation request for an incoming call filter for an ATM native port on the IBM Open Systems Adapter.
  - **PORT** Indicates the failure of an activation or inactivation request for an ATM native port on the IBM Open Systems Adapter.

- If **connection_type** is DISABLE, ENABLE, or PORT, **node_name** is the name of an external communication adapter (XCA) major node that defines an ATM native port.
- If **connection_type** is CALL, **node_name** is the name of the PU definition statement that represents the remote PU that is connected through an ATM native SVC.

- **status_code** indicates the cause of a failure detected by the IBM Open Systems Adapter. See the [z/OS Communications Server: IP and SNA Codes](https://publib.boulder.ibm.com/infocenter/comserver/v6r1/topic/com.ibm.zos.v6r1.cics.doc/... for an explanation of what the status code means.

**IST1562I**

- **cause_code** indicates the cause of a failure detected by the ATM network. See the [z/OS Communications Server: IP and SNA Codes](https://publib.boulder.ibm.com/infocenter/comserver/v6r1/topic/com.ibm.zos.v6r1.cics.doc/... for an explanation of what the cause code means.

**Note:** This message might be repeated if there are multiple cause codes associated with the failure.

**IST1558I**

- **diagnostic_code** indicates additional information about the cause of a failure detected by the ATM network. See the [z/OS Communications Server: IP and SNA Codes](https://publib.boulder.ibm.com/infocenter/comserver/v6r1/topic/com.ibm.zos.v6r1.cics.doc/... for an explanation of what the diagnostic code means.

**Note:** This message might be repeated to accommodate diagnostic codes that are longer than 24 bytes.

**System action:** For call failures, the dial or activation of the PU fails. For enable and disable failures, no incoming calls can be accepted from the ATM native port. For port failures, all lines and PUs for the port will be deactivated.

**Operator response:** If **status_code**, **cause_code**, or **diagnostic_code** indicates that the failure is a result of a temporary condition, reactivate the PU.

**System programmer response:** If failure persists after reactivation attempts, examine **status_code**, **cause_code**, or **diagnostic_code** to determine whether the failure is a result of a system definition error or a network error. If the failure is a result of a system definition error, correct the error. If the failure is a result of a network error, contact the ATM network provider.

**Routing code:** 2
IST1557I  •  IST1559I

Descriptor code: 5

IST1557I  MEDIUM = medium, PORT NAME = port_name

Explanation: VTAM issues this message when a DISPLAY ID command is entered for an external communication
adapter (XCA) major node that defines an ATM native connection.

medium is the type of shared access transport facility (SATF) represented by the XCA major node. ATM is the only
valid value for an ATM native connection.

port_name is the name of the port on the IBM Open Systems Adapter through which the ATM native connection is
made.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2

Descriptor code: 5

IST1558I  DIAG = diagnostic_code

Explanation: This message is part of a group of messages. See the explanation of message IST1556I for a complete
description of the group.

Routing code: 2

Descriptor code: 5

IST1559I  ATM ADDRESS TYPE FORMAT

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for:

• An external communication adapter (XCA) major node that defines an ATM native port.

• A remote node connected through an ATM native switched virtual channel (SVC).

A complete description of the message group follows the example.

<table>
<thead>
<tr>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IST1559I</td>
<td>ATM ADDRESS TYPE FORMAT</td>
</tr>
<tr>
<td>IST1553I</td>
<td>atm_address</td>
</tr>
</tbody>
</table>

IST1559I

Message IST1559I is a header line identifying information in subsequent occurrences of message IST1553I.

IST1553I

• For an XCA major node, address_type can be LOCAL or GATEWAY.
  - LOCAL atm_address is the address, in hexadecimal, of a local IBM Open Systems Adapter port defined by the
    XCA major node.
  - GATEWAY atm_address is the public E164 address, in decimal, through which a local IBM Open Systems
    Adapter port can be reached.

• For a remote node connected through an ATM native SVC, address_type can be LOCAL or REMOTE.
  - LOCAL atm_address is the address, in decimal, of the local IBM Open Systems Adapter port through which the
    remote node is connected.
  - REMOTE atm_address is the address, in decimal, of the remote node.

• address_format can be one of the following:
  - E164 Indicates that the address is in a public ATM network and is in the native E164 address format.
  - NSAP Indicates that the address is in a private ATM network and is in the International Organization for
    Standardization (ISO) network service access point (NSAP) address format.
Note: An "NA" in all three fields of the message indicates that an address is not available, most probably because a line defined in the XCA major node was not activated.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST1560I VARY ACT statement_name CHANGE FAILED

Explanation: This message is the first in a group of messages that VTAM issues to indicate the failure of a dynamic change to a TRL major node. The failure resulted from a VARY ACT command.

A complete description of the message group follows the example.

IST1560I VARY ACT statement_name CHANGE FAILED
IST1561I PORTNAME ON TRLE NOT VALID
IST314I END

IST1560I

statement_name is the major node name that was specified on the ID operand of the VARY ACT command.

IST1561I

PORTNAME ON TRLE NOT VALID

An attempt was made to add or modify a TRLE definition statement that specified an invalid name on the PORTNAME operand. A probable cause is that the name specified on the PORTNAME operand is not unique in this node or is already active.

System action: The remaining definition statements are processed.
Operator response: Enter a DISPLAY command for ISTTRL. Save the system log for problem determination.
System programmer response: Use the output from the operator to correct the TRLE definition statement in error.
Routing code: 2
Descriptor code: 5

IST1562I CAUSE = cause_code

Explanation: This message is part of a group of messages. See the explanation of message IST1556I for a complete description of the group.

Routing code: 2
Descriptor code: 5
IST1563I  CKEYNAME = ckeyname CKEY = ckey_value CERTIFY = certify_value

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY ID, DISPLAY MODEL, or DISPLAY LUGROUPS command. The first message in the group is IST228I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST1564I  TSO NOT ACTIVE

Explanation: VTAM issues this message when DISPLAY TSOUSER command is entered for a given user ID, but there is no TSO active.

System action: Processing continues.
Operator response: Start TSO and try the command again.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST1565I  type MODULES = currentK

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY BFRUSE or a DISPLAY STORUSE command. For a DISPLAY BFRUSE command, the first message in the group is IST449I. For a DISPLAY STORUSE command, the first message in the group is IST1242I. See the explanation of those messages for a complete description.

Routing code: 2
Descriptor code: 5

IST1567I  alt_structure alt_structure alt_structure

Explanation: This message is part of a group of messages VTAM issues in response to a DISPLAY STATS,TYPE=CFS command. The first message in the group is IST1370I. See the explanation of that message for a complete description.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST1568I  INLP = inlp ONLP = onlp BFNLP = bfnlp

Explanation: VTAM issues this message as part of a message group. The first message in the group is IST440I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 4

IST1569I  INLP = inlp ONLP = onlp

Explanation: VTAM issues this message as part of a group of messages that displays tuning statistics for multipath channel (MPC) attached resources. The first message in the group is IST1230I. See that message for a complete description.

Routing code: 2
Descriptor code: 4
IST1570I  NBYTECTO = nbytect  NBYTECT = nbytect

Explanation: VTAM issues this message as part of a group of messages that displays tuning statistics for multipath channel (MPC) attached resources. The first message in the group is IST1230I. See that message for a complete description.

Routing code: 2
Descriptor code: 4

IST1571I  module_name ENTRY POINT IS address  LEVEL IS svc_level

Explanation: This message is part of a group of messages VTAM issues in response to a DISPLAY VTAMSTOR,MODULE command. A complete description of the message group follows the example.

IST1574I  offset hexdata_1 hexdata_2 hexdata_3 hexdata_4 EBCDIC_data
IST1574I  offset hexdata_1 hexdata_2 hexdata_3 hexdata_4 EBCDIC_data
IST314I  END

IST1571I

- module_name is the module name provided in the DISPLAY VTAMSTOR command.
- address is the hexadecimal storage address of the module's entry point.
- svc_level is the service level of the module. This will usually contain a PTF number or a Julian date; if this is not available, the field will contain **NA**. The Julian date will be of the format yy.ddd, where yy is the year and ddd is the day.
- There are two special values that might appear in this field.
  - REPLACD is stored in the service level when a module or table is replaced. For example, if a MODIFY EXIT command replaced ISTEXCAA, the service level for ISTEXCAA would be REPLACD. Because ISTIECDM is only loaded to support ISTEXCAA, it will also be replaced when ISTEXCAA is replaced. Therefore, REPLACD will also be stored in the service level of ISTIECDM or the supporting module for the EXIT being loaded.
  - LM NAME is stored in the service level when a module is loaded and the module name cannot be found at the beginning of the module. LM NAME indicates that name of the module was retrieved from the load module name.

IST1574I

This message displays storage beginning at the address indicated in message IST1571I. This message is issued twice to display a total of 32 bytes beginning with address.

offset is the hexadecimal offset of the storage from the address in message IST1571I.

hexdata_1, hexdata_2, hexdata_3, and hexdata_4 each display four bytes of the storage in hexadecimal format.

EBCDIC_data displays sixteen bytes of the storage in EBCDIC format.

For some modules, the entry point address does not point to the beginning of the modules. Processing for the DISPLAY VTAMSTOR,MODULE command will display up to 32 bytes prior to the entry point address. This will be displayed as a negative offset. Less than 32 bytes might be displayed if the beginning of the module is found.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 8
Descriptor code: 5

IST1572I  MODULE module_name CANNOT BE LOCATED

Explanation: VTAM issues this message in response to a DISPLAY VTAMSTOR command when the value specified on the MODULE parameter (module_name) cannot be located in storage. For the value on the MODULE parameter to be found, it must be the name in the eyecatcher of the module.
IST1573I • IST1575I

This message does not indicate that the module or CSECT is not loaded in storage; it just indicates that the defined searching algorithms cannot locate it.

System action: Processing continues.

Operator response: Verify that the name is a valid VTAM module name.

System programmer response: None.

Routing code: 8

Descriptor code: 5

---

IST1573I  type STORAGE DISPLAY BEGINS AT LOCATION address

Explanation: VTAM issues this message as the first of a group of messages in response to a DISPLAY VTAMSTOR,RESOURCE or DISPLAY VTAMSTOR,NETADDR command or as part of the IST1863I message group. See the description of that message when IST1573I is not the first message in the group.

The following is a complete description of the IST1573I message group:

IST1573I type STORAGE DISPLAY BEGINS AT LOCATION address
IST1574I offset hexdata_1 hexdata_2 hexdata_3 hexdata_4 EBCDIC_data
IST1574I offset hexdata_1 hexdata_2 hexdata_3 hexdata_4 EBCDIC_data
IST1574I offset hexdata_1 hexdata_2 hexdata_3 hexdata_4 EBCDIC_data
...;
IST314I END

IST1573I

type indicates the type of storage being displayed. The values for type are RDTE or RDTE PROFILE.

address indicates the hexadecimal storage address for the beginning of the display.

IST1574I

This message displays storage beginning at the address indicated in message IST1573I. This message is issued as many times as necessary to display the entire RDTE or RDTE profile.

offset is the hexadecimal offset of the storage from the address in message IST1571I.

hexdata_1, hexdata_2, hexdata_3, and hexdata_4 each display four bytes of the storage in hexadecimal format.

EBCDIC_data displays sixteen bytes of the storage in EBCDIC format.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 8

Descriptor code: 5

---

IST1574I  offset hexdata_1 hexdata_2 hexdata_3 hexdata_4 EBCDIC_data

Explanation: VTAM issues this message as part of a group of messages. The first message in the group is IST467I, IST1571I, IST1573I, IST1650I, IST1658I, or IST1863I. See the explanation of those messages for a complete description.

Routing code: 8

Descriptor code: 5

---

IST1575I  DIALNO FOR PID: pid(instance)

Explanation: VTAM issues this message as part of a message group. The first message in the group is either IST149I or IST1351I. See the explanation of those messages for a complete description of the message group.

Routing code: 2

Descriptor code: 5
**IST1576I**  
**Dynamic Switched Major Node**  
**nodename Created**

**Explanation:** VTAM issues this message to indicate that a new dynamic switched major node, **nodename**, was created as part of processing to create a dynamic PU or LU.

**System action:** Major node **nodename** is created.

**Operator response:** None. DISPLAY commands can now be issued for **nodename**.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

---

**IST1577I**  
**Header Size = hpsize Data Size = dsize Storage = storage**

**Explanation:** VTAM issues this message as part of a message subgroup. See “IST1221I” on page 467 for a complete description.

**Routing code:** 2

**Descriptor code:** 5

---

**IST1578I**  
**inoptype Inop Detected For trlename By modname Code=code**

**Explanation:** A module detected an inoperative condition for a resource. This message follows message IST1222I, IST1501I, or IST1717I.

**inoptype** is the type of inoperative condition and can be one of the following:

**DEVICE**
- One of the following conditions has occurred:
  - A device in a multipath channel (MPC) group is inoperative.
  - A 10GbE RoCE Express interface for a TCP/IP stack is inoperative. The TCP/IP stack is identified by the ULPID value in the preceding message IST1717I.

**HARD**
- The entire MPC group is inoperative, and is not expected to recover without intervention.

**SOFT**
- The entire MPC group is inoperative; however, recovery of the connection is possible.

**trlename** is the name of the TRLE definition statement in the TRL major node that defines the MPC connection, or the system-generated TRLE that represents the 10GbE RoCE Express interface.

**modname** is the name of the module that detected the inoperative condition.

**code** identifies the point in **modname** where the inoperative condition was detected. **code** also categorizes the inoperative condition into the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1–99</td>
<td>VTAM internal error</td>
</tr>
<tr>
<td></td>
<td>The inoperative condition was issued because of a VTAM internal logic error.</td>
</tr>
<tr>
<td>100–199</td>
<td>Probable hardware error</td>
</tr>
<tr>
<td></td>
<td>The inoperative condition was probably generated due to unexpected channel status presented to VTAM from the hardware.</td>
</tr>
<tr>
<td>200–255</td>
<td>Should not occur condition</td>
</tr>
<tr>
<td></td>
<td>This condition could not be categorized into either a software or hardware error.</td>
</tr>
</tbody>
</table>
VTAM provides the ability to take a diagnostic dump when an inoperative condition is detected. The INOPDUMP and INOPCODE start options and commands are used to enable the dump function for specific resources, modules, and codes. See z/OS Communications Server: SNA Operation for information about the INOPDUMP command and the INOPCODE command.

If modname is ISTTSC8W and code is 200, this indicates a failure when VTAM is trying to send data to another node in a sysplex via the Cross-system Coupling Facility (XCF). If this message is preceded by MVS message IXC409D, an XCF signaling path between the two nodes was lost. The resource, trlename, is the name of the dynamic XCF TRLE used by VTAM for connectivity between the two nodes. A display of the corresponding dynamic XCF PU will show the CP name of the other node. The VTAM in this other node might not be aware of the inoperative condition. The loss of the XCF signaling path might be transient or permanent. When the signaling path is restored, the VTAM in the other node will be informed of the inoperative condition of this connection, and the corresponding PU in that node will go inoperative. Connectivity can be restored at that time by reactivating one of the PUs.

System action: If inoptype is DEVICE and trlename represents an MPC connection, the channel listed in the preceding message is deactivated. The device might be dynamically added back to the active group without disruption using APPN host-to-host channel dynamics.

If inoptype is DEVICE and trlename represents a 10GbE RoCE Express interface, the 10GbE RoCE Express interface listed in the preceding message is deactivated. The TCP/IP stack might attempt recovery of the 10GbE RoCE Express interface.

If inoptype is HARD, resource trlename is deactivated and all service access points (SAPs) for trlename are notified of the condition.

If inoptype is SOFT, resource trlename is deactivated and all service access points (SAP) for trlename are notified of the condition. VTAM attempts to reactivate trlename.

Operator response: If inoptype is DEVICE and trlename represents an MPC connection, no further action is required. If inoptype is DEVICE and trlename represents a 10GbE RoCE Express interface, no further action is required. If recovery fails, save the system log for problem determination.

If inoptype is HARD, reactivate resource trlename. If the activation fails, and the MPC group is critical to your network, save the system log for problem determination.

If inoptype is SOFT, and this is the first occurrence of the message, no further action is required. If inoptype is SOFT, and this is not the first occurrence of the message, attempt to reactivate trlename. If the activation fails, and the MPC group is critical to your network, save the system log for problem determination.

System programmer response: For code values in the “VTAM internal error” or “should not occur condition” categories, take the following actions:

• If you have access to IBMLink, search for known problems with similar symptoms.
• If no applicable matches are found, or if you do not have access to IBMLink, obtain a diagnostic dump for this error and report the problem to IBM. If you have access to IBMLink, the problem can be reported to IBM using the Electronic Technical Report (ETR) option on IBMLink.

For code values in the “probable hardware error” category, contact the appropriate hardware support organization to analyze this error.

Routing code: 2
Descriptor code: 5

Explanation: VTAM issues this message as part of a group of messages in response to the following commands:

• DISPLAY TOPO,ID=cp_name,LIST=ALL. See message IST1295I for a complete description of this message group.
• DISPLAY TOPO,ORIG=orig_cp_name,DEST=dest_cp_name or DISPLAY TOPO,ORIG=orig_cp_name,TGN=tgn. See message IST1299I for a complete description of this message group.

Routing code: 2
Descriptor code: 5
IST1580I  XID RECEIVED BY VTAM:
Explanation: VTAM issues this message as part of a group of messages. The first message in the group is IST467I or IST1658I. See the explanation of those messages for a complete description.
Routing code: 8
Descriptor code: 5

IST1582I  CONTROL VECTOR X'22' ANALYSIS
Explanation: VTAM issues this message as part of a group of messages. The first message in the group is IST467I or IST1658I. See the explanation of those messages for a complete description.
Routing code: 8
Descriptor code: 5

IST1583I  BYTE OFFSET OF FIRST BYTE IN ERROR = byteoffset
Explanation: VTAM issues this message as part of a group of messages. The first message in the group is IST467I or IST1658I. See the explanation of those messages for a complete description.
Routing code: 8
Descriptor code: 5

IST1584I  BIT OFFSET OF FIRST BIT IN ERROR = bitoffset
Explanation: VTAM issues this message as part of a group of messages. The first message in the group is IST467I or IST1658I. See the explanation of those messages for a complete description.
Routing code: 8
Descriptor code: 5

IST1585I  SENSE CODE = sense
Explanation: VTAM issues this message as part of a group of messages. The first message in the group is IST467I. See the explanation of that message for a complete description.
Routing code: 8
Descriptor code: 5

IST1586I  XID SENT BY VTAM:
Explanation: VTAM issues this message as part of a group of messages. The first message in the group is IST467I or IST1658I. See the explanation of those messages for a complete description.
Routing code: 8
Descriptor code: 5

IST1587I  ORIGIN NCE X'nceid'
Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a type 2.1 node representing a Rapid Transport Protocol (RTP) route. The first message in the group is IST1476I. See the description of that message for more information.
Routing code: 2
Descriptor code: 5
**IST1588I • IST1590I**

**IST1588I**  
**RTP END TO END ROUTE - COMPUTED SESSION PATH**

**Explanation:** VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a type 2.1 node representing a Rapid Transport Protocol (RTP) route.

The first message in the group is [IST1476I](#). See the description of that message for more information.

**System action:** None.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

---

**IST1589I**  
**XNETALS = xnetalsvalue**

**Explanation:** VTAM issues this message in response to a DISPLAY ID command for a type 2.1 PU.

*xnetalsvalue* is the value of the XNETALS operand defined for the PU specified on the DISPLAY ID command.

*xnetalsvalue* can be one of the following:

- **YES**  Nonnative NETIDs are allowed.
- **NO**  The native NETID is to used.

**System action:** Processing continues

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 8

**Descriptor code:** 9

---

**IST1590I**  
**PU NETID DIFFERENT THAN HOST AND CONTACTED REQUEST**

**Explanation:** This message is issued in a message group with message IST605I. A complete description of the message group follows the example.

*IST605I*  
**ERROR FOR ID = nodename – text1 : text2**

*IST1590I*  
**PU NETID DIFFERENT THAN HOST AND CONTACTED REQUEST**

*IST314I* END

**IST605I**

A request from *nodename* failed.

*text1 : text2* specifies the RU in error, and is REQUEST : CONTACTED for this message group.

**IST1590I**

One of the following occurred:

- The PU is being reactivated. The NETID was not specified on the PU definition statement, and the NETID received in the CONTACTED request is not the same as the NETID received on a previous activation of this PU.
- NETID=(,NOXNETLS) was coded on the PU definition statement and the CONTACTED RU contained a NETID that does not match this VTAM NETID.

**System action:** *nodename* is deactivated.

**Operator response:** Save the system log for problem determination.

**System programmer response:**

- Verify that the network ID passed in the contacted RU matches the network ID specified in the PU definition statement.
If the problem persists, try to create the problem again while an I/O trace or buffer trace is running for the affected nodename. If nodename is link-attached, run a line trace for the affected line.

Enter a MODIFY TRACE,ID=ncpname command, where ncpname is the name of the NCP major node that contains the peripheral PU or link station nodename (as opposed to the NCP major node adjacent to the link station nodename).

Routing code: 2
Descriptor code: 5

IST1591I  NCP NOT LOADED

Explanation: This message is issued in a message group with message IST605I. A complete description of the message group follows the example.

IST605I  ERROR FOR ID = nodename – text1 : text2
IST1591I  NCP NOT LOADED
IST314I  END

IST605I

A request from nodename failed.

text1 : text2 specifies the RU in error, and is REQUEST : CONTACTED for this message group.

IST1591I

The CONTACTED request from the NCP indicates that LOAD is required.

System action: nodename is deactivated.

Operator response: Save the system log for problem determination.

System programmer response:
• If the node should be activated, reactivate it, specifying LOAD=YES on the command.
• If the problem persists, try to create the problem again while an I/O trace or buffer trace is running for the affected nodename. If nodename is link-attached, run a line trace for the affected line.

Enter a MODIFY TRACE,ID=ncpname command, where ncpname is the name of the NCP major node that contains the peripheral PU or link station nodename (as opposed to the node adjacent to the link station nodename).

Routing code: 2
Descriptor code: 5

IST1592I  NETID IN XID DID NOT MATCH NETID OF PU

Explanation: This message is issued in a message group with message IST605I. A complete description of the message group follows the example.

IST605I  ERROR FOR ID = nodename – text1 : text2
IST1592I  NETID IN XID DID NOT MATCH NETID OF PU
IST314I  END

IST605I

A request from nodename failed.

text1 : text2 specifies the RU in error, and is REQUEST : CONTACTED for this message group.

IST1592I

The NETID received in the XID is not the same as the NETID defined on the PU definition statement, or a nonnative NETID is not allowed for this PU.

Chapter 8. IST messages for VTAM network operators IST1200I – IST1599I  669
IST1593I • IST1594I

System action: nodename is deactivated.

Operator response: Save the system log for problem determination.

System programmer response:

• Verify that the network ID passed in the contacted RU matches the network ID specified in the PU definition statement.
• If this connection is to be allowed, then correct the NETID defined on the PU or correct the NETID configured in the device being contacted.

Routing code: 2
Descriptor code: 5

IST1593I  RESOURCE TYPE NOT VALID

Explanation: This message is issued in a message group with message IST605I. A complete description of the message group follows the example.

IST605I  ERROR FOR ID = nodename – text1 : text2
IST1593I  RESOURCE TYPE NOT VALID
IST314I  END

IST605I

A request from nodename failed.

text1 : text2 specifies the RU in error, and is REQUEST : CONTACTED for this message group.

IST1593I

The nodename received in the CONTACTED request is already defined to VTAM and is not an adjacent CP, PU, or link station or RNAME.

System action: nodename is deactivated.

Operator response: Save the system log for problem determination.

System programmer response:

• If the node should be activated, then the duplicate name condition must be resolved. Correct the VTAM definition that defines nodename, or determine the reason that the connecting node is sending in the conflicting information.
• If the problem persists, try to create the problem again while an I/O trace or buffer trace is running for the affected nodename. If nodename is link-attached, run a line trace for the affected line.
  Enter a MODIFY TRACE,ID=ncpname command, where ncpname is the name of the NCP major node that contains the peripheral PU or link station nodename (as opposed to the NCP major node adjacent to the link station nodename).

Routing code: 2
Descriptor code: 5

IST1594I  CPNAME IN CONTACTED REQUEST SAME AS SSCPNAME

Explanation: This message is issued in a message group with message IST605I. A complete description of the message group follows the example.

IST605I  ERROR FOR ID = nodename – text1 : text2
IST1594I  CPNAME IN CONTACTED REQUEST SAME AS SSCPNAME
IST314I  END

IST605I

A request from nodename failed.

text1 : text2 specifies the RU in error, and is REQUEST : CONTACTED for this message group.
The CPNAME received in control vector (CV) X'0E' appended to the XID is the same as this host’s SSCPNAME start parameter.

**System action:** nodename is deactivated.

**Operator response:** Save the system log for problem determination.

**System programmer response:**
- If the node should be activated, then the CPNAME must be corrected before the reactivation can succeed. The cpname is most probably configured or defined in the node nodename that is being contacted.
- If the problem persists, try to create the problem again while an I/O trace or buffer trace is running for the affected nodename. If nodename is link-attached, run a line trace for the affected line.

Enter a MODIFY TRACE,ID=ncpname command, where ncpname is the name of the NCP major node that contains the peripheral PU or link station nodename (as opposed to the NCP major node adjacent to the link station nodename).

**Routing code:** 2

**Descriptor code:** 5

**IST1595I**

**LINK STATION NOT ASSOCIATED WITH AN NCP**

**Explanation:** This message is issued in a message group with message IST605I. A complete description of the message group follows the example.

IST1595I  LINK STATION NOT ASSOCIATED WITH AN NCP
IST605I  ERROR FOR ID = nodename – text1 : text2
IST1595I  LINK STATION NOT ASSOCIATED WITH AN NCP
IST314I  END

**IST605I**

A request from nodename failed.

text1 : text2 specifies the RU in error, and is REQUEST : CONTACTED for this message group.

**IST1595I**

A CONTACTED request was received for a link station indicating that an adjacent communication controller was not loaded. There are three possible situations:

- The link station nodename was being activated as a result of a VARY ACT command directed at the link station itself (direct or indirect activation of the link station). VTAM expected to find the adjacent communication controller already loaded with an NCP, but it was not. The link station activation fails because VTAM does not perform load operations when only a link station is activated.
- The link-station nodename was being activated as a result of error recovery to an NCP adjacent to nodename (automatic activation of the link station).
- The link station nodename was being activated as a result of a VARY ACT command to an NCP adjacent to nodename. The NCP is not loaded because LOAD=NO was specified on the VARY ACT command.

**System action:** nodename is deactivated, and the adjacent NCP remains pending awaiting the successful activation of one or more other adjacent link stations.

**Operator response:** After first ensuring that the NCP is inactive, the communication controller adjacent to link station nodename needs to be loaded by activating an NCP for this communication controller.

The link station nodename can be reactivated:

- Automatically, as part of the NCP activation
- Directly or indirectly (for example, by using a VARY ACT command after the NCP is successfully activated).

If the NCP repeatedly abends after being loaded, dump the failing NCP for further troubleshooting.

**System programmer response:** No further recommended response.
IST1596I • IST1597I

Routing code: 2
Descriptor code: 5

IST1596I  SWITCHED LINK STATION STATE PCTD2 NOT VALID FOR LOAD

Explanation: This message is issued in a message group with message IST605I. A complete description of the message group follows the example.

IST605I  ERROR FOR ID = nodename – text1 : text2
IST1596I  SWITCHED LINK STATION STATE PCTD2 NOT VALID FOR LOAD
IST314I  END

IST605I

A request from nodename failed.

text1 : text2 specifies the RU in error, and is REQUEST: CONTACTED for this message group.

IST1596I

The activation cannot proceed due to the current NCP state of PCTD2.

System action: nodename is deactivated, and the adjacent NCP remains pending awaiting the successful activation of one or more other adjacent link stations.

Operator response: After ensuring that the NCP is inactive, the communication controller adjacent to link station nodename needs to be loaded by activating an NCP for this communication controller.

The link station nodename can be reactivated:
• Automatically, as part of the NCP activation
• Directly or indirectly (for example, by using a VARY ACT command after the NCP is successfully activated).

If the NCP repeatedly abends after being loaded, dump the failing NCP for further troubleshooting.

System programmer response: No further recommended response.

Routing code: 2
Descriptor code: 5

IST1597I  SWITCHED CALL=IN NCP NOT VALID

Explanation: This message is issued in a message group with message IST605I. A complete description of the message group follows the example.

IST605I  ERROR FOR ID = nodename – text1 : text2
IST1597I  SWITCHED CALL=IN NCP NOT VALID
IST314I  END

IST605I

A request from nodename failed.

text1 : text2 specifies the RU in error, and is REQUEST: CONTACTED for this message group.

IST1597I

A switched connection to an NCP must be defined with a CALL=OUT PATH definition.

System action: nodename is deactivated, and the adjacent NCP remains pending awaiting the successful activation of one or more other adjacent link stations.

Operator response: After ensuring that the NCP is inactive, the communication controller adjacent to link station nodename needs to be loaded by activating an NCP for this communication controller.
The link station *nodename* can be reactivated:
- Automatically, as part of the NCP activation
- Directly or indirectly (for example, by using a VARY ACT command after the NCP is successfully activated).

If the NCP repeatedly abends after being loaded, dump the failing NCP for further troubleshooting.

**System programmer response:** No further recommended response.

Routing code: 2  
Descriptor code: 5

### IST1598I LEASED LINK STATION STATE PCTD2 NOT VALID FOR LOAD

**Explanation:** This message is issued in a message group with message IST605I. A complete description of the message group follows the example.

IST605I ERROR FOR ID = nodename - text1 : text2  
IST1598I LEASED LINK STATION STATE PCTD2 NOT VALID FOR LOAD  
IST314I END

IST605I

A request from *nodename* failed.

*text1 : text2* specifies the RU in error, and is **REQUEST : CONTACTED** for this message group.

### IST1598I

The NCP was in a PCTD2 state when the NCP indicated that a LOAD was required. NCP must be in a CONTACTED state to perform a load.

**System action:** *nodename* is deactivated, and the adjacent NCP remains pending awaiting the successful activation of one or more other adjacent link stations.

**Operator response:** After ensuring that the NCP is inactive, the communication controller adjacent to link station *nodename* needs to be loaded by activating an NCP for this communication controller.

The link station *nodename* can be reactivated:
- Automatically, as part of the NCP activation
- Directly or indirectly (for example, by using a VARY ACT command after the NCP is successfully activated).

If the NCP repeatedly abends after being loaded, dump the failing NCP for further troubleshooting.

**System programmer response:** No further recommended response.

Routing code: 2  
Descriptor code: 5

### IST1599I NCP INDICATES LOAD REQUIRED BUT LOAD=NO

**Explanation:** This message is issued in a message group with message IST605I. A complete description of the message group follows the example.

IST605I ERROR FOR ID = nodename - text1 : text2  
IST1599I NCP INDICATES LOAD REQUIRED BUT LOAD=NO  
IST314I END

IST605I

A request from *nodename* failed.

*text1 : text2* specifies the RU in error, and is **REQUEST : CONTACTED** for this message group.
The CONTACTED request received from the NCP indicates that the NCP needs to be loaded, but the VARY ACT command was issued with the LOAD parameter defaulted to or specified LOAD=NO.

**System action:** *nodename* is deactivated, and the adjacent NCP remains pending awaiting the successful activation of one or more other adjacent link stations.

**Operator response:** After first ensuring that the NCP is inactive, the communication controller adjacent to link station *nodename* needs to be loaded by activating an NCP for this communication controller.

The link station *nodename* can be reactivated:
- Automatically, as part of the NCP activation
- Directly or indirectly (for example, by using a VARY ACT command after the NCP is successfully activated).

If the NCP repeatedly abends after being loaded, dump the failing NCP for further troubleshooting.

**System programmer response:** No further recommended response.

**Routing code:** 2

**Descriptor code:** 5
Chapter 9. IST messages for VTAM network operators
IST1600I – IST1999I

This chapter lists the VTAM messages beginning with IST in the range of IST1600I through IST1999I. These messages can appear on a network operator’s console.

See Appendix E, “Message text for VTAM operator messages,” on page 1177 for a list of the text of all VTAM operator messages.

Note: Messages that begin with the prefix ISTF are issued by the VTAM dump analysis tool and the VTAM internal trace (VIT) analysis tool. Help information is available as a part of each tool by pressing F1. Therefore, ISTF messages are not documented in z/OS Communications Server: SNA Messages. See z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures for additional information.

IST1600I LOAD MODULE MISMATCH – LOAD=NO

Explanation: This message is issued in a message group with message IST605I. A complete description of the message group follows the example.

IST605I ERROR FOR ID = nodename – text1 : text2
IST1600I LOAD MODULE MISMATCH – LOAD=NO
IST314I END

IST605I

A response sent by nodename contained invalid data.

text1 : text2 specifies the RU in error, and is RESPONSE : ACTPU for this message group.

IST1600I

The NCP load module name received in an ACTPU response does not match the NCP load module name in the VTAM definition. LOAD=NO was defaulted to or specified on the VARY ACT command.

System action: nodename is deactivated.

Operator response: Save the system log for problem determination.

System programmer response:

• If the node should be activated, reactivate it.
• If the problem persists, try to create the problem again while an I/O trace or buffer trace is running for the affected nodename. If nodename is link-attached, run a line trace for the affected line.

Routing code: 2

Descriptor code: 5

IST1601I APPN SEARCHES TO cp_name ARE status

Explanation: VTAM issues this message when the sending of APPN search requests to an adjacent control point (CP) has been suspended or resumed.

cp_name is the name of the adjacent CP.

status can be either SUSPENDED or RESUMED.

When status is SUSPENDED, severe network congestion has occurred.
VTAM suspends sending of APPN search requests to an adjacent CP when the maximum congestion threshold reaches the value specified by the MAXLOCAT start option.

VTAM resumes sending APPN search requests to an adjacent CP when a minimum congestion threshold is reached.

For information on the minimum and maximum congestion thresholds, see the description of the MAXLOCAT start option in the [z/OS Communications Server: SNA Resource Definition Reference](http://zos.ibm.com/ibm/doc威/c32/messages-06365.htm).

**System action:** When the maximum congestion threshold is reached, VTAM stops sending new APPN search requests to the adjacent CP.

When the minimum congestion threshold is reached, VTAM resumes sending APPN search requests to the adjacent CP.

**Operator response:** If status is RESUMED, no action is required.

If status is SUSPENDED, issue a DISPLAY STORUSE command to ensure that VTAM has enough private storage with which to operate. If storage is critical, issue a VARY INACT,ID=cp_name,TYPE=FORCE command to terminate CP-CP sessions with the adjacent CP.

Termination of CP-CP sessions with the adjacent CP clears the outbound data queue, and frees storage. However, the adjacent CP might be able to recover and allow VTAM to resume sending APPN search requests.

Notify the system programmer of the cp_name. New LU-LU sessions fail if APPN search requests are required to pass through cp_name.

**System programmer response:** Determine the severity of the problem based on the network configuration and the status of VTAM private storage. Termination of CP-CP sessions with the adjacent CP clears the outbound data queue, and frees storage. However, the adjacent CP might be able to recover and allow VTAM to resume sending APPN search requests.

Determine that the maximum threshold value is appropriate for the network. If the value needs to be adjusted, change the value of the MAXLOCAT start option.

**Routing code:** 2

**Descriptor code:** 3

---

**IST1602I**

RU ERROR: EXTRA CV X'xx'

**Explanation:** This message is issued in a message group with message IST605I. A complete description of the message group follows the example.

IST605I ERROR FOR ID = nodename – text1 : text2
IST1602I RU ERROR: EXTRA CV X’xx’
IST314I END

**IST605I**

A response sent by nodename contained invalid data.

text1 : text2 specifies the RU in error, and is RESPONSE : ACTPU for this message group.

**IST1602I**

Multiple Control Vectors X'09', X'0B', X'11', or X'FE' were returned with the ACTPU response from the NCP.

**System action:** nodename is deactivated.

**Operator response:** Save the system log for problem determination.

Run your operating system service aid program to determine whether MDR/OBR information has been recorded. See the EREP User’s Guide and Reference for more information on using EREP. If you use a network management application such as NetView, check to determine whether an alert was recorded for this problem.

A buffer trace can provide additional information regarding the cause of the error.

**System programmer response:** If you cannot determine the cause of the problem from the output provided or need additional assistance, contact the IBM support center. If available, provide the MDR/OBR information from your
operating system service aid program or the alert information recorded by your network management application.

Routing code: 2
Descriptor code: 5

**IST1603I** 
**RU ERROR: INVALID POSITIVE RESPONSE**

**Explanation:** This message is issued in a message group with message IST605I. A complete description of the message group follows the example.

```
IST605I ERROR FOR ID = nodename – text1 : text2
IST1603I RU ERROR: INVALID POSITIVE RESPONSE
IST314I END

IST605I
```

A response sent by nodename contained invalid data.

text1 : text2 specifies the RU in error, and is **RESPONSE**: ACTPU for this message group.

**IST1603I** One of the following has occurred:

- Reserved bits are nonzero.
- The ACTPU response length is incorrect.
- The ACTPU response is not format 1 or format 2.
- The ACTPU response type is not ERP or COLD.

**System action:** nodename is deactivated.

**Operator response:** Save the system log for problem determination.

Run your operating system service aid program to determine whether MDR/OBR information has been recorded. See the EREP User’s Guide and Reference for more information on using EREP. If you use a network management application such as NetView, check to determine whether an alert was recorded for this problem.

A buffer trace can provide additional information regarding the cause of the error.

**System programmer response:** If you cannot determine the cause of the problem from the output provided or need additional assistance, contact the IBM support center. If available, provide the MDR/OBR information from your operating system service aid program or the alert information recorded by your network management application.

Routing code: 2
Descriptor code: 5

**IST1604I** 
**RU ERROR: LENGTH, FORMAT, OR TYPE NOT VALID**

**Explanation:** This message is issued in a message group with message IST605I. A complete description of the message group follows the example.

```
IST605I ERROR FOR ID = nodename – text1 : text2
IST1604I RU ERROR: LENGTH, FORMAT, OR TYPE NOT VALID
IST314I END

IST605I
```

A response sent by nodename contained invalid data.

text1 : text2 specifies the RU in error, and is **RESPONSE**: ACTPU for this message group.

**IST1604I**

One of the following has occurred:

- Reserved bits are nonzero.
The ACTPU response length is incorrect.
The ACTPU response is not format 0 or format 3.
The ACTPU response type is not ERP or COLD.

**System action:** `nodename` is deactivated.

**Operator response:** Save the system log for problem determination.
Run your operating system service aid program to determine whether MDR/OBR information has been recorded. See the EREP User’s Guide and Reference for more information on using EREP. If you use a network management application such as NetView, check to determine whether an alert was recorded for this problem.
A buffer trace can provide additional information regarding the cause of the error.

**System programmer response:** If you cannot determine the cause of the problem from the output provided or need additional assistance, contact the IBM support center. If available, provide the MDR/OBR information from your operating system service aid program or the alert information recorded by your network management application.

**Routing code:** 2
**Descriptor code:** 5

---

**IST1605I RU ERROR: MISSING CV X'0B'**

**Explanation:** This message is issued in a message group with message IST605I. A complete description of the message group follows the example.

```
IST605I ERROR FOR ID = nodename – text1 : text2
IST1605I RU ERROR: MISSING CV X'0B'
IST314I END
```

**IST605I**

A response sent by `nodename` contained invalid data.

`text1 : text2` specifies the RU in error, and is **RESPONSE**: ACTPU for this message group.

**IST1605I**

A format 3 ACTPU response was received, but did not include an SSCP-PU capabilities vector, CV X'0B', which is required.

**System action:** `nodename` is deactivated.

**Operator response:** Save the system log for problem determination.
Run your operating system service aid program to determine whether MDR/OBR information has been recorded. See the EREP User’s Guide and Reference for more information on using EREP. If you use a network management application such as NetView, check to determine whether an alert was recorded for this problem.
A buffer trace can provide additional information regarding the cause of the error.

**System programmer response:** If you cannot determine the cause of the problem from the output provided or need additional assistance, contact the IBM support center. If available, provide the MDR/OBR information from your operating system service aid program or the alert information recorded by your network management application.

**Routing code:** 2
**Descriptor code:** 5

---

**IST1606I DIAL RETRY FAILED**

**Explanation:** This message is issued in a message group with message IST605I. A complete description of the message group follows the example.

```
IST605I ERROR FOR ID = nodename – text1 : text2
IST1606I DIAL RETRY FAILED
IST314I END
```

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A response sent by nodename contained invalid data.

text1 : text2 specifies the RU in error, and is RESPONSE : ACTPU for this message group.

IST1606I

Consecutive dial attempts have failed for this nodename. This may be due to line problems.

System action: VTAM rejects the command. Other processing continues.

Operator response: Try the command again. If the condition persists, save the system log for problem determination.

System programmer response:
- If the node should be activated, reactivate it.
- If the problem persists, try to create the problem again while an I/O trace or buffer trace is running for the affected nodename. If nodename is link-attached, run a line trace for the affected line.

Routing code: 2
Desciptor code: 5

IST1607I RU ERROR: RESPONSE TOO LONG

Explanation: This message is issued in a message group with message IST605I. A complete description of the message group follows the example.

IST605I ERROR FOR ID = nodename – text1 : text2
IST1607I RU ERROR: RESPONSE TOO LONG
IST314I END

IST605I

A response sent by nodename contained invalid data.

text1 : text2 specifies the RU in error, and is RESPONSE : ACTPU for this message group.

IST1607I

The ACTPU response received from the NCP is too long.

System action: nodename is deactivated.

Operator response: Save the system log for problem determination.

Run your operating system service aid program to determine whether MDR/OBR information has been recorded. See the EREP User’s Guide and Reference for more information on using EREP. If you use a network management application such as NetView, check to determine whether an alert was recorded for this problem.

A buffer trace can provide additional information regarding the cause of the error.

System programmer response: If you cannot determine the cause of the problem from the output provided or need additional assistance, contact the IBM support center. If available, provide the MDR/OBR information from your operating system service aid program or the alert information recorded by your network management application.

Routing code: 2
Desciptor code: 5
IST1608I • IST1609I

**IST1608I**  
**RU ERROR: RESPONSE TOO SHORT**

**Explanation:** This message is issued in a message group with message IST605I. A complete description of the message group follows the example.

```
IST605I  ERROR FOR ID = nodename – text1 : text2
IST1608I  RU ERROR: RESPONSE TOO SHORT
IST314I  END

IST605I

A response sent by `nodename` contained invalid data.

`text1 : text2` specifies the RU in error, and is `RESPONSE : ACTPU` for this message group.

**IST1608I**

The `ACTPU` response received from the NCP is too short. This includes the length of the `ACTPU` response and its vectors.

**System action:** `nodename` is deactivated.

**Operator response:** Save the system log for problem determination.

Run your operating system service aid program to determine whether MDR/OBR information has been recorded. See the `EREP User's Guide and Reference` for more information on using EREP. If you use a network management application such as NetView, check to determine whether an alert was recorded for this problem.

A buffer trace can provide additional information regarding the cause of the error.

**System programmer response:** If you cannot determine the cause of the problem from the output provided or need additional assistance, contact the IBM support center. If available, provide the MDR/OBR information from your operating system service aid program or the alert information recorded by your network management application.

**Routing code:** 2  
**Descriptor code:** 5

**IST1609I**  
**CV X'0B' INDICATES ADJACENT LINK STATION NOT SUPPORTED**

**Explanation:** This message is issued in a message group with message IST605I. A complete description of the message group follows the example.

```
IST605I  ERROR FOR ID = nodename – text1 : text2
IST1609I  CV X'0B' INDICATES ADJACENT LINK STATION NOT SUPPORTED
IST314I  END

IST605I

A response sent by `nodename` contained invalid data.

`text1 : text2` specifies the RU in error, and is `RESPONSE : ACTPU` for this message group.

**IST1609I**

A required indicator for Adjacent Link Station Address support is not present in the control vector (CV) X'0B'.

**System action:** `nodename` is deactivated.

**Operator response:** Save the system log for problem determination.

Run your operating system service aid program to determine whether MDR/OBR information has been recorded. See the `EREP User’s Guide and Reference` for more information on using EREP. If you use a network management application such as NetView, check to determine whether an alert was recorded for this problem.

A buffer trace can provide additional information regarding the cause of the error.
**System programmer response:** If you cannot determine the cause of the problem from the output provided or need additional assistance, contact the IBM support center. If available, provide the MDR/OBR information from your operating system service aid program or the alert information recorded by your network management application.

**Routing code:** 2

**Descriptor code:** 5

---

**IST1610I**

**CORRELATOR MISMATCH – LOAD=NO**

**Explanation:** This message is issued in a message group with message IST605I. A complete description of the message group follows the example.

IST605I  ERROR FOR ID = nodename – text1 : text2
IST1610I  CORRELATOR MISMATCH – LOAD=NO
IST314I  END

IST605I

A response sent by **nodename** contained invalid data.

**text1** : **text2** specifies the RU in error, and is **RESPONSE** : **ACTPU** for this message group.

**IST1610I**

The VARY ACT command defaulted to or specified LOAD=NO, and the generated correlator did not match the correlator loaded in the communications controller.

**System action:** **nodename** is deactivated.

**Operator response:** Save the system log for problem determination.

**System programmer response:**

• If the node should be activated, reactivate it.

• If the problem persists, try to create the problem again while an I/O trace or buffer trace is running for the affected **nodename**. If **nodename** is link-attached, run a line trace for the affected line.

    Enter a **MODIFY TRACE,ID=nodename** command.

**Routing code:** 2

**Descriptor code:** 5

---

**IST1611I**

**CORRELATOR MISMATCH – NCP ACQUIRED BEFORE ACTIVATION**

**Explanation:** This message is issued in a message group with message IST605I. A complete description of the message group follows the example.

IST605I  ERROR FOR ID = nodename – text1 : text2
IST1611I  CORRELATOR MISMATCH – NCP ACQUIRED BEFORE ACTIVATION
IST314I  END

IST605I

A response sent by **nodename** contained invalid data.

**text1** : **text2** specifies the RU in error, and is **RESPONSE** : **ACTPU** for this message group.

**IST1611I**

The VARY ACT command defaulted to or specified LOAD=NO, and the generated correlator did not match the correlator loaded in the communications controller.

**System action:** **nodename** is deactivated.

**Operator response:** Save the system log for problem determination.
System programmer response:

- If the node should be activated, reactivate it.
- If the problem persists, try to create the problem again while an I/O trace or buffer trace is running for the affected nodename. If nodename is link-attached, run a line trace for the affected line.

   Enter a MODIFY TRACE,ID=nodename command.

Routing code: 2
Descriptor code: 5

IST1612I  LOAD MODULE MISMATCH - EXPECTED loadmod1 FOUND loadmod2

Explanation: This message is issued in a message group with message IST605I. A complete description of the message group follows the example.

IST605I  ERROR FOR ID = nodename – text1 : text2
IST1612I  LOAD MODULE MISMATCH - EXPECTED loadmod1 FOUND loadmod2
IST314I  END

IST605I

A response sent by nodename contained invalid data.

text1 : text2 specifies the RU in error, and is RESPONSE : ACTPU for this message group.

IST1612I

The NCP load module name, loadmod1, received in the ACTPU response did not match the NCP load module name, loadmod2, found in the VTAM definition.

System action: nodename is deactivated.

Operator response: Enter a VARY ACT,LOAD=NO command to activate the NCP with the load module used during IPL.

System programmer response: No further recommended response.

Routing code: 2
Descriptor code: 5

IST1613I  TYPE = type ATTN = attn

Explanation: This message is the first in a subgroup of messages that displays tuning statistics for a TCP/IP connection. A complete description of the message groups follow.

This message group displays tuning statistics for a TCP/IP channel-to-channel (CTC), LAN channel station (LCS), or HyperChannel connection.

IST1230I  TIME = time DATE = date ID = id
IST1613I  TYPE = type ATTN = attn
IST1614I  READSIO = readsio PACKET = packet BYT = byt
IST1615I  ARPACKET = arpacket ARBYTE = arbyte MAX = max
IST1616I  WRITESIO = writesio PACKET = packet BYT = byt
IST1617I  AWPACKET = awpacket AWBYTE = awbyte MAX = max
IST314I  END

This message group displays tuning statistics for a TCP/IP Common Link Access to Workstation (CLAW) connection.

IST1230I  TIME = time DATE = date ID = id
IST1613I  TYPE = type ATTN = attn
IST1614I  READSIO = readsio PACKET = packet BYT = byt
IST1615I  ARPACKET = arpacket ARBYTE = arbyte MAX = max
IST1616I  WRITESIO = writesio PACKET = packet BYT = byt
This message group displays tuning statistics for a TCP/IP channel data link control (CDLC) connection.

- **TIME** = time  
- **DATE** = date  
- **ID** = id  
- **TYPE** = type  
- **ATTN** = attn  
- **RWSIO** = rwsio  
- **WCH** = wch  
- **RCH** = rch  
- **INPACKET** = inpacket  
- **INBYTE** = inbyte  
- **MAX** = max  
- **OTPACKET** = otpacket  
- **OTBYTE** = otbyte  
- **MAX** = max  
- **APPEND** = append

The **time** and **date** values specify when the record was reported. See "DATE and TIME formats" on page 6 for information about the **date** and **time** values.

**id** is the name of the link for which tuning statistics are being recorded, and is the name specified on the LINE definition statement in the associated channel-attached major node.

- **type** is the TCP/IP resource type, which can be one of the following:
  - **CDLC** Channel data link control
  - **CLAW** Common Link Access to Workstation
  - **CTC** Channel-to-channel
  - **HYP** Hyperchannel
  - **LCS** LAN channel station
- **attn** is the number of unsolicited attention interrupts received.

This message is issued for CLAW, CTC, and LCS resources only.

- **readsio** is the number of READ start I/Os issued.
- **in Packet** is the number of inbound TCP/IP packets received.
- **in Byte** is the number of inbound TCP/IP bytes received.

This message is issued for CLAW, CTC, and LCS resources only.

- **arpacket** is the average number of TCP/IP packets received.
- **arbyte** is the average number of TCP/IP bytes received.
- **max** is the largest TCP/IP packet received.

This message is issued for CLAW, CTC, and LCS resources only.

- **writesio** is the number of WRITE start I/Os issued.
- **out Packet** is the number of outbound TCP/IP packets sent.
- **out Byte** is the number of outbound TCP/IP bytes sent.

This message is issued for CLAW, CTC, and LCS resources only.

- **awpacket** is the average number of TCP/IP packets sent.
- **awbyte** is the average number of TCP/IP bytes sent.
**IST1614I • IST1615I**

*max* is the largest TCP/IP packet sent.

**IST1618I**

This message is issued for CLAW resources only.
*readccw* is the number of READ CCWs used.
*pccnt* is the number of PCI interrupts received.

**IST1619I**

This message is issued for CLAW resources only.
*writeccw* is the number of WRITE CCWs issued.
*append* is the number of WRITE appends done.

**IST1653I**

This message is issued for CDLC resources only.
*ruisio* is the number of read/write SIOs issued.
*wch* is the total number of write channel programs issued.
*rch* is the total number of read channel programs issued.

**IST1654I**

This message is issued for CDLC resources only.
*inpacket* is the number of inbound TCP/IP packets received.
*inbyte* is the number of inbound TCP/IP bytes received.
*max* is the largest TCP/IP packet received.

**IST1655I**

This message is issued for CDLC resources only.
*otpacket* is the number of outbound TCP/IP packets sent.
*otbyte* is the number of outbound TCP/IP bytes sent.
*max* is the largest TCP/IP packet sent.

**System action:** Processing continues

**Operator response:** None

**System programmer response:** None.

Routing code: 2

Descriptor code: 4

---

**IST1614I**  **READSIO = readsio PACKET = packet BYT = byt**

**Explanation:** VTAM issues this message as part of a message subgroup. The first message in the group is IST1613I. See the explanation of that message for a complete description of the subgroup.

Routing code: 2

Descriptor code: 4

---

**IST1615I**  **ARPACKET = arpacket ARBYTE = arbyte MAX = max**

**Explanation:** VTAM issues this message as part of a message subgroup. The first message in the group is IST1613I. See the explanation of that message for a complete description of the subgroup.

Routing code: 2
IST1616I WRITESIO = writesio PACKET = packet BYT = byt

Explanation: VTAM issues this message as part of a message subgroup. The first message in the group is IST1613I. See the explanation of that message for a complete description of the subgroup.
Routing code: 2
Descriptor code: 4

IST1617I AWPACKET = awpacket AWBYTE = awbyte MAX = max

Explanation: VTAM issues this message as part of a message subgroup. The first message in the group is IST1613I. See the explanation of that message for a complete description of the subgroup.
Routing code: 2
Descriptor code: 4

IST1618I READCCW = readccw PCICNT = pcicnt

Explanation: VTAM issues this message as part of a message subgroup and is only issued for TCP/IP resource type CLAW. The first message in the group is IST1613I. See the explanation of that message for a complete description of the subgroup.
Routing code: 2
Descriptor code: 4

IST1619I WRITECCW = writeccw APPEND = append

Explanation: VTAM issues this message as part of a message subgroup and is only issued for TCP/IP resource type CLAW. The first message in the group is IST1613I. See the explanation of that message for a complete description of the subgroup.
Routing code: 2
Descriptor code: 4

IST1621I DUPLICATE CP NAME: cpname FOR ID = puname

Explanation: VTAM issues this message in response to VARY ACT of a PU (or major node containing the PU) when the network-qualified name of this node and the network-qualified name of the remote node are found to be the same. This message is followed by message IST259I.

cpname is the network-qualified name of the node that the PU represents.
puname is the name of the PU being activated.

System action: Processing continues, but the specified PU is in an INOP condition.
Operator response: Save the system log for problem determination.
System programmer response: Determine which remote node has the same fully qualified network name as this node, and change one of the names.
Routing code: 2
Descriptor code: 4

IST1622I DLCADDR SUBFIELD subfield_id NOT VALID - subfield_description

Explanation: VTAM issues this message as part of a group of messages. The first message in the group is IST1166I. See the explanation of that message for a complete description.
Routing code: 2
IST1623I • IST1626I

Descriptor code: 5

IST1623I  DUPLICATE DLCADDR SUBFIELD subfield_id - subfield_description

Explanation: VTAM issues this message as part of a group of messages. The first message in the group is IST1166I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST1624I  DLCADDR SUBFIELD subfield_id NOT SPECIFIED - subfield_description

Explanation: VTAM issues this message as part of a group of messages. The first message in the group is IST1166I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST1625I  STORAGE ADDRESS address IS UNAVAILABLE

Explanation: This message is issued in response to a DISPLAY VTAMSTOR,ADDRESS command. address points to storage which would result in a protection exception if accessed.

This message may be issued at two different points during processing of the command. If the address of the storage for the length specified has any protection exceptions, this message will be issued in response to the command. If processing for the command begun issuing messages, this message will be issued following IST1574I and then the message group will be terminated with IST314I.

System action: None.
Operator response: None.
System programmer response: None.
Routing code: 8
Descriptor code: 5

IST1626I  ALL DATA IN structure_name FOR appl_name REMOVED

Explanation: This message is the first of a group of messages VTAM issues when data owned by a multi-node persistent session (MNPS) application program is deleted from a MNPS coupling facility structure after a VTAM failure. The second message in the group gives the reason the data was deleted. A complete description of the message group follows.

IST1626I ALL DATA IN structure_name FOR appl_name REMOVED
[IST1627I MULTI-NODE PERSISTENT SESSION TIMER EXPIRED]
[IST1628I DATA WAS IN AN UNRECOVERABLE STATE - state]
IST314I END

IST1626I

structure_name is the coupling facility structure from which the data was deleted.

appl_name is the network-qualified name of the application program that owned the deleted data.

IST1627I

The MNPS application program was not recovered in the time specified by the persistent timer. The persistent timer is set using the PSTIMER option on SETLOGON OPTCD=PERSIST.

IST1628I

state can be one of the following:
Cleanup
Another VTAM cleaned up the data when it failed.

Disabled
At the time of the VTAM failure, the application had not issued SETLOGON OPTCD=PERSIST.

Suspect
At the time of the VTAM failure either the structure was being rebuilt or the VTAM did not have connectivity to the structure.

Terminate
The application had closed its ACB, in a non-persistent manner, but not all the MNPS sessions or connections were terminated when the VTAM failed.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST1627I MULTI-NODE PERSISTENT SESSION TIMER EXPIRED
Explanation: This message is part of a subgroup of messages that VTAM issues in when data has been deleted from the multi-node persistent session coupling facility structure. See the explanation of message IST1626I for a complete description of the message subgroup.
Routing code: 2
Descriptor code: 5

IST1628I DATA WAS IN AN UNRECOVERABLE STATE - state
Explanation: This message is part of a subgroup of messages that VTAM issues in when data has been deleted from the multi-node persistent session coupling facility structure. See the explanation of message IST1626I for a complete description of the message subgroup.
Routing code: 2
Descriptor code: 5

IST1629I MODSRCH = modsrch_value
Explanation: VTAM issues this message in response to a DISPLAY ID command for a model application program or a dynamic application program. modsrch_value specifies the current value of the MODSRCH operand, and can be FIRST, LAST, or NEVER. See z/OS Communications Server: SNA Resource Definition Reference for more information about the MODSRCH operand for the application program major node.
System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST1630I name ACTIVATION FAILED - HPR=RTP REQUIRED WITH HPDT MPC
Explanation: VTAM issues this message in response to VARY ACT of a PU or a major node when VTAM or the local PU is not configured for HPR RTP support, and the MPC group that the PU or major node will be using for connectivity provides HPDT support. If the activation failure is for a PU, this message is followed by IST299I.
name is the name of the PU or major node for which the activation failed.
**IST1631I**

**System action:** Processing continues. If the activation failure is for a PU, the specified PU is in an INOP condition.

**Operator response:** Reconfigure VTAM or the PU to support HPR=RTP, or reconfigure the TRLE that the PU references to specify MPCLEVEL=NOHPDT. The VARY ACT command may then be entered again.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

---

**IST1631I resource SUBCHANNEL cua status**

**Explanation:** This message is issued when the status of a subchannel that uses multipath channel (MPC) changes.

*resource* is the name of the TRLE or MPC subarea line that contains the subchannel.

*cua* is the subchannel address.

*status* is the subchannel address status, and can be one of the following:

- **DEVICE ALREADY ALLOCATED**
  The subchannel is already in use.

- **DEVICE NOT FOUND**
  The subchannel was not found by MVS.

- **INVALID DEVICE TYPE**
  The subchannel device type does not match the characteristics of the *resource* value.

- **INVALID QDIO PORT NUMBER**
  The port number (PORTNUM) specified on the QDIO TRLE definition exceeds the number of physical ports available on the OSA-Express3 or later CHPID.

- **IQDIO CULA UNAVAILABLE**
  The data subchannel for HiperSockets (IQDIO) is missing the control unit logical address (CULA).

- **NO PATH AVAILABLE**
  There is no path available to the subchannel.

- **NO STORAGE TO ALLOCATE**
  There is insufficient storage available to activate the subchannel.

- **NOT ADDED TO VIRTUAL NET**
  An ensemble virtual network does not include this host and this OSA-Express interface.

- **NOT AN ENSEMBLE MEMBER**
  Either the central processing complex (CPC) is not configured as a member of an ensemble, or this specific z/OS image is not included as a member of the ensemble because the VTAM start option ENSEMBLE is set to the value NO. z/OS Communications Server will not permit connectivity to either the intraensemble data network or the intranode management network. z/OS Communications Server denies this connectivity by denying the activation of OSX and OSM interfaces.

- **OFFLINE**
  Deactivation processing has completed and MVS acknowledges that the subchannel is off line.

- **OFFLINE.PENDING**
  An MVS VARY OFFLINE command is issued for a subchannel and VTAM and MVS are in the process of completing deallocation for the subchannel.

- **ONLINE**
  An MVS VARY ONLINE command is issued for a subchannel and VTAM successfully completes activation for the subchannel.

- **OPEN FOR DEVICE FAILED**
  The attempt to activate the subchannel failed.

- **QDIO CULA UNAVAILABLE**
  The data subchannel for an OSA-Express adapter is missing the Control Unit Logical Address (CULA).
**QDIO DEVICE NOT FOUND**
The data subchannel for an OSA-Express adapter was not found by MVS.

**QDIO DEVICE PATH INVALID**
The subchannel for an OSE-Express adapter, or iQDIO device has a path that is not valid, or is not online to MVS.

**QDIO DEVICE TYPE NOT OSD**
The subchannel for an OSA-Express adapter is not of type OSD.

**QDIO DEVICE TYPE NOT OSM**
The subchannel for an OSA-Express adapter is not an OSM subchannel.

**QDIO DEVICE TYPE NOT OSX**
The subchannel for an OSA-Express adapter is not an OSX subchannel.

**QDIO INVALID SUBCHANNEL**
There was a channel subsystem call (CHSC) failure for a QDIO device.

**QDIO PNET SERVICE FAILED**
The service to access the physical network ID for the OSA-Express adapter represented by the resource value failed.

**QDIO UCBINFO UNAVAILABLE**
The subchannel for an OSA-Express adapter has a path that is not valid.

**REACCESSIBLE**
An INOP situation occurs and MVS deactivates and then reactivates a subchannel without operator intervention.

**System action:** None.

**Operator response:** Depending on the value of status, take the following action:

**NO PATH AVAILABLE**
Ensure that all devices are on line and have PATHs available.

**OFFLINE**
Issue an MVS VARY ONLINE command to use this subchannel for this device.

If activation succeeded or is pending for this resource, no further response is needed. The subchannel will be dynamically made available to the resource when it comes online. If activation failed, attempt reactivation after making the previously described adjustments.

**System programmer response:** Depending on the value of status, take the following action:

**DEVICE ALREADY ALLOCATED**
Ensure that the same subchannel is not used for multiple devices.

**DEVICE NOT FOUND**
Ensure that the subchannel address indicated has been defined to MVS.

**INVALID DEVICE TYPE**
Ensure that the subchannel address indicated was defined to MVS with a type that matches the resource value containing this subchannel. For example, if the resource value is a transport resource list element (TRLE) with LNCTL=MPC, ensure that the type of the subchannel is for a channel-to-channel adapter connection.

**INVALID QDIO PORT NUMBER**
Issue the D NET,TRL,TRLE=trlename command. Locate message IST2263I in the display output. Ensure that the displayed PORTNUM value does not exceed the number of physical ports available with OSA-Express3 or later. For instance, if OSA-Express3 or later supports 2 physical ports, the only valid PORTNUM values are 0 and 1.

**IQDIO CULA UNAVAILABLE**
Contact the IBM Software Support Center.

**NO STORAGE TO ALLOCATE**
A storage shortage unrelated to this device activation has occurred. Attempt to determine the reason for the storage shortage.
NOT ADDED TO VIRTUAL NET
Use the network virtualization function to perform the following steps:
1. Create a virtual network.
2. Add this z/OS image as a host to that virtual network.
3. Specify the OSA-Express OSX interface corresponding to the TRLE in this message as a network interface.
4. Ensure that the VLANID parameter for the TCP/IP interface that is being activated is the VLAN ID of the virtual network that you created.

OPEN FOR DEVICE FAILED
Contact the IBM Software Support Center.

QDIO CULA UNAVAILABLE
Contact the IBM Software Support Center.

QDIO DEVICE NOT FOUND
Ensure that the subchannel address indicated has been defined to MVS.

QDIO DEVICE PATH INVALID
Ensure that the subchannels on the TRLE for an OSA-Express or HiperSockets adapter have been correctly defined. For an OSA-Express device, the subchannels should be type OSD, OSX, or OSM. For a HiperSockets device, the subchannels should be type IQD. Also ensure that the failing cua has not been redefined since the device was last activated on this system.

QDIO DEVICE TYPE NOT OSD
The subchannel is not connected to an OSA-Express adapter that is configured in QDIO mode. Ensure that the READ, WRITE, and DATAPATH subchannels that are associated with the TRLE are defined as type OSD.

QDIO DEVICE TYPE NOT OSM
The subchannel is not connected to the intranode management network. Ensure that the CHPID that is defined has an OSM channel type of OSM.

QDIO DEVICE TYPE NOT OSX
An OSX INTERFACE is being activated by TCP/IP, but the subchannel address is not connected to the intraensemble data network. If the OSXCHPID parameter is defined on the INTERFACE, ensure that the CHPID that is defined has a channel type of OSX. If the OSXPORTNAME parameter is defined on the INTERFACE statement, ensure that the subchannel addresses on the TRLE that match the PORTNAME are of type OSX.

QDIO INVALID SUBCHANNEL
Contact the IBM Software Support Center.

QDIO PNET SERVICE FAILED
Contact the IBM Software Support Center.

QDIO UCBINFO UNAVAILABLE
Ensure that the specified subchannel address was defined to MVS with a type that matches the QDIO TRLE that contains this subchannel. For example, if the subchannel is to an OSA adapter, ensure that the subchannel type is OSD, OSX, or OSM.

Routing code: 2
Descriptor code: 5

IST1632I VPACING = value

Explanation: This message is issued in response to a DISPLAY ID command for an application program.

value is the VPACING value coded on the APPL definition statement.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2
IST1633I  ASRCVLM = asrcvlm
Explanation: This message is issued in response to a DISPLAY ID command for an application program.
asrcvlm is the ASRCVLVM value coded on the APPL definition statement.
System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST1634I  DATA SPACE USAGE: CURRENT = dscurrent MAXIMUM = dsmax
Explanation: This message is issued in response to a DISPLAY ID command for an application program.
dscurrent is the number of bytes currently being used in the application's data space. If multiple ACBs are opened in the address space, dscurrent represents the total usage for all ACBs.
dsmax is a maximum number of bytes used by the application's data space.
System action: Processing continues.
Operator response: None.
System programmer response: The value of dsmax can be used to tune the ASRCVLVM operand on the APPL definition statement.
Routing code: 2
Descriptor code: 5

IST1635I  {PLU|SLU} HSCB TYPE: hscbtype LOCATED AT ADDRESS X'hscbaddr'
Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY SESSIONS,SID command. The first message of the group is IST879I. See the explanation of that message for a complete description.
Routing code: 2
Descriptor code: 5

IST1636I  PACING STAGE(S) AND VALUES:
Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY SESSIONS,SID command. The first message of the group is IST879I. See the explanation of that message for a complete description.
Routing code: 2
Descriptor code: 5

IST1637I  PLU--STAGE 1--SLU
Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY SESSIONS,SID command. The first message of the group is IST879I. See the explanation of that message for a complete description.
Routing code: 2
Descriptor code: 5
IST1638I  stage: PRIMARY TO SECONDARY DIRECTION - pacingtype

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY SESSIONS,SID command. The first message of the group is IST879I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST1639I  PRIMARY SEND: CURRENT = pscur NEXT = psnext

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY SESSIONS,SID command. The first message of the group is IST879I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST1640I  SECONDARY RECEIVE = srcvcnt

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY SESSIONS,SID command. The first message of the group is IST879I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST1641I  stage: SECONDARY TO PRIMARY DIRECTION - pacingtype

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY SESSIONS,SID command. The first message of the group is IST879I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST1642I  SECONDARY SEND: CURRENT = sscur NEXT = ssnext

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY SESSIONS,SID command. The first message of the group is IST879I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST1643I  PRIMARY RECEIVE = prcvcnt

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY SESSIONS,SID command. The first message of the group is IST879I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST1644I  PLU--STAGE 1-----|-----STAGE 2--SLU

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY SESSIONS,SID command. The first message of the group is IST879I. See the explanation of that message for a complete description.
Routing code: 2
Descriptor code: 5

IST1645I PLU--STAGE 1-----|-----STAGE 2-----|-----STAGE 3--SLU

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY SESSIONS,SID command. The first message of the group is IST879I. See the explanation of that message for a complete description.
Routing code: 2
Descriptor code: 5

IST1649I ORIGIN = origin TARGET = target STATUS = status

Explanation: VTAM issues this message as part of a message group in response to a DISPLAY TRL command for an active TRL entry using TCP/IP SAMEHOST DLC connections.

A complete description of the message group follows the example.

IST075I NAME = nodename, TYPE = type
IST087I TYPE = line_type, CONTROL = line_control, HPDT = hpdtvalue
IST486I STATUS = currentstatus, DESIRED STATE = desiredstate
IST1649I ORIGIN = origin TARGET = target STATUS = status
IST314I END

IST075I

nodename is the name of the TRL entry that was entered on the DISPLAY TRL command.
Node type is always TRLE for this message group.

IST087I

line_type is always LEASED for this message group.
line_control is always TCP for this message group.
hpdtvalue is always *NA* for this message group.

IST486I

currentstatus is the current status of the node. See the z/OS Communications Server: IP and SNA Codes for status information.
desiredstate is the node state that is desired. See the z/OS Communications Server: IP and SNA Codes for status information. If VTAM cannot determine the desired state, desiredstate is ***NA***.

IST1649I

• origin is the name of the origin address space.
• target is the name of the target address space.
• status is the condition or state of the connection that is displayed. Possible values are:
  
  ACTIVE
  
  Connection is active.

  INOP
  
  Connection path is inoperative.

  RESET
  
  Connection path is not ready.

  SLOWDN
  
  Connection path is in slowdown.

  ACTPEND
  
  Connection is in the process of activation.

  INACTPEND
  
  Connection is in the process of deactivation.

System action: Processing continues.
IST1650I

Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST1650I  IDX INITIALIZATION FAILED FOR trlename DEVICE device_number CODE code

Explanation: This message is the first in a group of messages that VTAM issues when an identification exchange (IDX) device failed to initialize. A complete description of the message group follows.

IST1650I  IDX INITIALIZATION FAILED FOR trlename DEVICE device_number CODE code
IST1651I  IDX RECEIVED BY VTAM:
IST1574I  offset hexdata_1 hexdata_2 hexdata_3 hexdata_4 EBCDIC_data
;...
IST1574I  offset hexdata_1 hexdata_2 hexdata_3 hexdata_4 EBCDIC_data
IST1652I  IDX SENT BY VTAM:
IST1574I  offset hexdata_1 hexdata_2 hexdata_3 hexdata_4 EBCDIC_data
;...
IST1574I  offset hexdata_1 hexdata_2 hexdata_3 hexdata_4 EBCDIC_data
IST314I  END

IST1650I

VTAM issues this message while processing an OPENPATH request unit when initializing an identification exchange (IDX) with a device, such as the IBM S/390® Open Systems Adapter or a HiperSockets (iQDIO) adapter.

- The trlename value is the name of the device, as defined on the TRLE definition statement in the TRL major node or dynamically created in the ISTTRL major node.
- The device_number value is the hexadecimal address of the WRITE or READ subchannel, as defined on the WRITE or READ operand on the TRLE definition statement in the TRL major node.
- The code value is a 1-byte hexadecimal value that indicates the reason that the device failed to initialize. The code value is one of the following:
  - If the code value is less than X'80', it is a code that is generated by the OSA or the HiperSockets adapter. See the OSA IDX failure return codes information in [Enterprise System and System z10 OSA-Express Customer's Guide and Reference] for a description of the failures generated by the OSA. Contact the IBM Software Support Center for failures generated by the HiperSocket adapter.
  - If the code value is greater than or equal to X'80', then that code is byte 3 of a data link control (DLC) status code that describes the error. Byte 2 of the DLC status code that describes this type of error is X'40'. Together, bytes 2 and 3 of a DLC status code form the completion code. For example, if code is X'80', this error is documented as completion code X'4080'. See the completion code information in [z/OS Communications Server: IP and SNA Codes] for a description of the completion code.

IST1574I

This message displays the IDX received from (if preceded by message IST1651I) or sent to (if preceded by message IST1652I) the IDX device.

offset is the hexadecimal offset in the IDX.
hexdata_1, hexdata_2, hexdata_3 and hexdata_4 each display 4 bytes of the IDX in hexadecimal format.
EBCDIC_data displays 16 bytes of the IDX in EBCDIC format. Unprintable characters are represented by periods.

IST1651I

This message is a header for the information displayed in message IST1574I for the IDX received from the IDX device.

IST1652I

This message is a header for the information displayed in message IST1574I for the IDX sent by VTAM to the IDX device.

System action: The IDX connection is not established.
Operator response: Save the system log and print the TRL major node definition for problem determination.

For code 8B (insufficient storage), wait a short time and reenter the command. If VTAM continues to issue this message, enter the DISPLAY STORUSE and DISPLAY CSM commands. Save the system log and dump for problem determination.

System programmer response: For code 82, verify that the subchannel address in the I/O generation and in the TRL major node are correct.

For code 8B (insufficient storage):
- See the z/OS Communications Server: New Function Summary for help to determine the storage requirements for VTAM.
- See the z/OS Communications Server: SNA Resource Definition Reference for a description of VTAM start options.
- See the z/OS Communications Server: SNA Operation for information about the DISPLAY STORUSE command, the DISPLAY CSM command, the MODIFY CSM command, and the MODIFY VTAMOPTS command.
- See the z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT for information about analyzing dumps or about analyzing storage using the VIT analysis tool if external trace is active.

For code 8C, verify that the TRL major node name is configured correctly in the IDX device.

For an apparent software problem, take the following actions:
- If you have access to IBMLink, search for known problems with similar symptoms. If no applicable matches are found, report the problem to IBM using the Electronic Technical Report (ETR) option on IBMLink.
- If you do not have access to IBMLink, report the problem to the IBM software support center.

Routing code: 8
Descriptor code: 5
IST1655I • IST1656I

IST1655I  OTPACKET = otpacket  OTBYTE = otbyte  MAX = max

Explanation: VTAM issues this message as part of a message subgroup. The first message in the group is IST1613I. See the explanation of that message for a complete description of the subgroup.

Routing code: 2
Descriptor code: 4

IST1656I  VTAMTOPO = value, NODE REPORTED - status

Explanation: VTAM issues this message as part of a subgroup of messages in response to a DISPLAY ID, DISPLAY MODELS, or a MODIFY RESOURCE command for an NCP, XCA, switched, or model major node, or for a LINE or PU defined in one of those major nodes.

This message is the first message in the subgroup. A full description of the message subgroup follows the example.

IST075I  NAME = name, TYPE = type

IST1656I  VTAMTOPO = value, NODE REPORTED - status

IST1657I  MAJOR NODE VTAMTOPO = value

IST075I

name is the name of the resource or ID type that is displayed.

See Chapter 17, “Node and ID types in VTAM messages,” on page 1097 for a description of type.

IST1656I

• This message indicates the current VTAMTOPO value for the displayed major or minor node and whether the node is reported to a network management application as part of the SNA local topology.

• value is the current reporting designation for name in message IST075I and can be one of the following:
  - IGNORE
  - INCLUDE
  - NOSWPUS
  - NOLLINES
  - REPORT
  - NOREPORT.

• status specifies whether name is reported as part of SNA local topology, and can be either YES or NO.

IST1657I

• This message is issued when name in message IST075I is a LINE or PU defined in an NCP, XCA, or switched major node, and status in message IST1656I may be determined by the VTAMTOPO value of the major node.

• value is the current VTAMTOPO value for the major node and can be one of the following:
  - IGNORE
  - INCLUDE
  - NOSWPUS
  - NOLLINES
  - REPORT
  - NOREPORT.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 8
Descriptor code: 5
IST1657I  MAJOR NODE VTAMTOPO = value

Explanation: VTAM issues this message as part of a subgroup of messages in response to a DISPLAY ID or a
MODIFY RESOURCE command for a PU or a LINE defined in an NCP, XCA, or switched major node.
The first message in the group is IST1656I. See the description of that message for a complete description of the
subgroup.

Routing code: 8
Descriptor code: 5

IST1658I  XID3 NEGOTIATION ERROR - DEVICE devicename - SENSE = code

Explanation: This message is the first of a group of messages that VTAM issues when it detects an XID3 negotiation
error during activation of a TCP/IP over CDLC connection. A complete description of the message group follows the
example.

IST1658I  XID3 NEGOTIATION ERROR - DEVICE devicename - SENSE = code
IST1580I  XID RECEIVED BY VTAM:
; IST1574I  offset hexdata_1 hexdata_2 hexdata_3 hexdata_4 EBCDIC_data
; IST1574I  offset hexdata_1 hexdata_2 hexdata_3 hexdata_4 EBCDIC_data
[IST1583I  BYTE OFFSET OF FIRST BYTE IN ERROR = byteoffset
IST1584I  BIT OFFSET OF FIRST BIT IN ERROR = bitoffset]
[IST1582I  CONTROL VECTOR X'22' ANALYSIS:
IST1583I  BYTE OFFSET OF FIRST BYTE IN ERROR = byteoffset
IST1584I  BIT OFFSET OF FIRST BIT IN ERROR = bitoffset]
[IST1586I  XID SENT BY VTAM:
IST1574I  offset hexdata_1 hexdata_2 hexdata_3 hexdata_4 EBCDIC_data
; IST1574I  offset hexdata_1 hexdata_2 hexdata_3 hexdata_4 EBCDIC_data
IST314I  END

IST1658I  XID3 NEGOTIATION ERROR - DEVICE devicename - SENSE = code

An XID3 negotiation error has been detected by VTAM during activation of a TCP/IP over CDLC connection with
CDLC device devicename.

code is the sense code and indicates the reason for the failure. See the z/OS Communications Server: IP and SNA
Codes for a description of code.

IST1580I  This message is a header for the information displayed in messages IST1574I and IST1582I through IST1586I for
the XID3 received from the CDLC device.

IST1574I  This message displays the XID3 received from (if preceded by message IST1651I) or sent to (if preceded by
message IST1652I) the CDLC device.

offset is the hexadecimal offset in the XID3.

hexdata_1, hexdata_2, hexdata_3 and hexdata_4 each display 4 bytes of the XID3 in hexadecimal format.
EBCDIC_data displays 16 bytes of the XID3 in EBCDIC format. Unprintable characters are represented by periods.

IST1582I  This message is a header for the information displayed in messages IST1583I and IST1584I. Messages IST1582I
through IST1584I are present only if CV 'X'22' is present in the XID3.

IST1583I  byteoffset is the hexadecimal offset of the byte containing the error, as determined by the CDLC device. Offsets are
from byte 0 in the XID3.

IST1584I
IST1660A • IST1661I

*bitoffset* is the hexadecimal offset of the bit containing the error, as determined by the CDLC device. Offsets are from bit 0 in the XID3.

**IST1586I**

This message is a header for the information displayed in message IST1574I for the XID3 sent by VTAM to the CDLC device. This message is issued only if the host either detected a mismatch between the sent XID3 and the received XID3, or if a CV 'X22' is present in the received XID3.

**System action:** Activation of the TCP/IP over CDLC connection halts. TCP/IP continues.

**Operator response:** Notify system programmer.

**System programmer response:** This is normally a configuration problem, probably caused by an incompatibility between the definitions in the PROFILE.TCPIP and the definitions in the NCP generation. The sense code indicates the reason for the failure. Correct the problem and restart the TCP/IP over CDLC connection.

The received XID3 may contain a CV 'X22' (See *System Network Architecture Formats, GA27-3136*). Presence of the CV 'X22' indicates that the CDLC device rejected the XID3 sent from the host. The CV 'X22' contains an offset (from the start of the XID3 sent by VTAM) to the unacceptable field.

**Routing code:** 8

**Descriptor code:** 5

### IST1660A

**ENTER PASSWORD FOR** *command cmdtype*

**Explanation:** VTAM issues this message when the DISPLAY APING command is entered with the PASSWORD parameter. The operator must reply with the 1-8 character password for LU6.2 conversation level security.

*command* is the operator command entered.

*cmdtype* is the operator command type entered.

**System action:** VTAM processing continues. Message IST1660A remains outstanding and the DISPLAY APING command does not complete until the operator replies with the password.

**Operator response:** Reply with the 1-8 character password.

**System programmer response:** None.

**Routing code:** 2, 9

**Descriptor code:** 3

### IST1661I

**parameter** **PARAMETER NOT VALID FROM PROGRAM OPERATOR**

**Explanation:** This message is the first in a group of messages that VTAM issues when a DISPLAY APING command is entered with the PASSWORD parameter from a Program Operator Application (POA). Since there is no capability to suppress the password from displaying via the Program Operator Interface, the command is failed. A complete description of the message group follows.

IST1661I parameter PARAMETER NOT VALID FROM PROGRAM OPERATOR

IST1663I command cmdtype COMMAND FAILED - reason

IST314I END

**IST1661I**

*parameter* is the parameter entered on the command.

**IST1663I**

• *command* is the operator command entered.

• *cmdtype* is the operator command type entered.

• *reason* is one of the following values:

**SECURITY VIOLATION**

Processing the DISPLAY APING command as entered would allow the password to be displayed in the Program Operator Application log, which is a security exposure.

**System action:** VTAM rejects the command.
Operator response: Reenter the command without the PASSWORD parameter or enter the command with the PASSWORD parameter from an MVS console.

System programmer response: None.

Routing code: 2

Descriptor code: 5

**IST1662I**  
*parameter* PARAMETER VALUE NOT ALLOWED

Explanation: This message is the first in a group of messages that VTAM issues when a DISPLAY APING command is entered from the MVS console with a value specified on the PASSWORD parameter (i.e. PASSWORD=xxxxxx). Since entering the password value on the command causes it to be displayed on the console and in the system log, which is a security exposure, the command is failed. A full explanation of the message group follows.

IST1662I parameter PARAMETER VALUE NOT ALLOWED  
IST1663I command cmdtype COMMAND FAILED - reason  
IST314I END

**IST1663I**

*parameter* is the parameter entered on the command.

**IST1663I**

- *command* is the operator command entered.
- *cmdtype* is the operator command type entered.
- *reason* is one of the following values:
  
  **SECURITY VIOLATION**

  Processing the DISPLAY APING command as entered would allow the password to be displayed in the system log, which is a security exposure.

System action: VTAM rejects the command.

Operator response: Reenter the command from an MVS console without a value specified on the PASSWORD parameter.

System programmer response: None.

Routing code: 2

Descriptor code: 5

**IST1663I**  
*command cmdtype* COMMAND FAILED - *reason*

Explanation: VTAM issues this message when a DISPLAY APING command is entered with the PASSWORD parameter and the command is rejected. When it is issued as part of a message group the first message in the group is either IST1661I, IST1662I, or IST1664I. See the explanation of those messages for a complete description. A full description of the message when it is issued alone follows.

- *command* is the operator command entered.
- *cmdtype* is the operator command type entered.
- *reason* is one of the following values:

  **WTOR FAILURE**

  An internal VTAM failure occurred attempting to issue WTOR message IST1660A.

System action: VTAM rejects the command.

Operator response: Reenter the command. If the command continues to fail with this reason, save the system log for problem determination and contact the system programmer.

System programmer response: If the command fails repeatedly, contact the IBM Software Support Center.

Routing code: 2

Descriptor code: 5
**IST1664I • IST1666I**

**IST1664I**  PASSWORD MUST BE 1-8 CHARACTERS

Explanation:  This message is the first in a group of messages that VTAM issues when a blank password for DISPLAY APING is entered in reply to message IST1660A. A full explanation of the message group follows.

IST1664I  PASSWORD MUST BE 1-8 CHARACTERS
IST1663I  command cmdtype COMMAND FAILED - reason
IST314I  END

**IST1664I**

The DISPLAY APING password entered was blank. It must be 1-8 characters in length.

**IST1663I**

- *command* is the operator command entered.
- *cmdtype* is the operator command type entered.
- *reason* is one of the following values:
  - PASSWORD NOT VALID
    - The blank password entered for DISPLAY APING is not valid. It must be 1-8 characters in length.

**System action:**  VTAM rejects the command.

**Operator response:**  Reenter the command and respond to message IST1660A with a valid password.

**System programmer response:**  None.

**Routing code:**  2

**Descriptor code:**  5

**IST1665I**  CSALIMIT VALUE value EXCEEDS SYSTEM CSA LIMIT

Explanation:  This message is the first in a group of messages that VTAM issues during start processing or in response to a Modify VTAMOPTS,CSALIMIT or Modify CSALIMIT command when the value specified for CSALIMIT is above the system CSA limit. See the [z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com) for more information about the system CSA limit. A complete description of the message follows:

**Note:**  The SYSTEM CSA LIMIT in messages IST1665I and IST1666I refers to the 90% of the total system CSA that VTAM is allowed to use.

**IST1665I**  CSALIMIT VALUE value EXCEEDS SYSTEM CSA LIMIT
IST1666I  SYSTEM CSA LIMIT WILL BE USED FOR CSALIMIT
IST495I  type HAS BEEN SET TO value

**IST495I**

- *type* is CSALIMIT.
- *value* is the value to be used for CSALIMIT, expressed in kilobytes.

**IST1665I**

- *value* is the value specified (but rejected) for the CSALIMIT.

**System action:**  Processing continues with CSALIMIT set to the system CSA limit.

**Operator response:**  Save the system log for problem determination.

**System programmer response:**  Check the value specified for CSALIMIT in the start list, on the start command, or the Modify command. Use the D NET,BFRUSE command to see what the system CSA limit is.

**IST1666I**  SYSTEM CSA LIMIT WILL BE USED FOR CSALIMIT

Explanation:  There are two ways this message can be issued:

This message is part of a group of messages that VTAM issues during start processing or in response to a Modify VTAMOPTS, CSALIMIT or Modify CSALIMIT command when the value specified for CSALIMIT is above the
system CSA limit. The first message in the group is IST1665I. See the explanation of that message for a full description.

This message is the first in a group of messages that VTAM issues in response to a Modify VTAMOPTS.CSALIMIT or Modify CSALIMIT command when the value specified for CSALIMIT is 0. See the SNA Resource Definition Reference for more information about the system CSA limit. A complete description of the message follows:

**Note:** The SYSTEM CSA LIMIT in messages IST1665I and IST1666I refers to the 90% of the total system CSA that VTAM is allowed to use.

IST1666I SYSTEM CSA LIMIT WILL BE USED FOR CSALIMIT
IST495I type HAS BEEN SET TO value

**IST495I**

*type* is CSALIMIT.

*value* is the value to be used for CSALIMIT, expressed in kilobytes.

**System action:** Processing continues with CSALIMIT set to the system CSA limit.

**Operator response:** None.

**System programmer response:** None.

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**IST1667I** SYSTEM CSA LIMIT = sys_csa_limit

**Explanation:** This message is part of a group of messages that VTAM issues in response to a DISPLAY BFRUSE command. The first message in the group is IST449I. See the explanation of that message for a full description.

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**IST1668I** LUNAME IPADDR..PORT

**Explanation:** This message is the first in a group of messages that VTAM issues in response to a DISPLAY ID,IDTYPE=IPADDR command when multiple LUs are associated with the specified TN3270 client IP address. A complete description of the message group follows.

IST1668I LUNAME IPADDR..PORT
IST1670I netid.luname ipaddr..portno...
;
IST314I END

**IST1668I**

Message IST1668I is a column header for IST1670I.

**IST1670I**

Message IST1670I is issued for each LU associated with the specified TN3270 client IP address.

*netid.luname* is the network-qualified name of the LU.

*ipaddr* is the specified TN3270 client IP address.

*portno* is the port number associated with this IP address. The IP address and port number identify the remote TN3270 client.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5
IST1669I • IST1672I

IST1669I   IPADDR..PORT ipaddr..portno

Explanation: This message is part of a group of messages that VTAM issues for one of the following reasons:
• In response to a DISPLAY ID command for a TN3270-connected application, CDRSC, or LU resource.
• In response to a DISPLAY ID,IDTYPE=IPADDR command when only one TN3270 client application, CDRSC, or
   LU is associated with the specified TN3270 client IP address.
• In response to a DISPLAY TSOUSER command for a TN3270-connected application, CDRSC, or LU resource.
• When a session setup fails as part of message group IST663I and the resource is a TN3270-connected application,
   CDRSC, or LU resource.

Note: The saving and displaying of the IP Information for TELNET 3270 Clients is controlled by the IPINFO Start
Option. See the z/OS Communications Server: SNA Resource Definition Reference for more information.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST1670I   netid.luname ipaddr..portno

Explanation: This message is issued as part of a group of messages that VTAM issues in response to a DISPLAY ID
TYPE=IPADDR command when multiple LUs are associated with the specified TN3270 client IP address.

The first message in the group is IST1668I. See the description of that message for a detailed explanation.

Routing code: 2
Descriptor code: 5

IST1671I   subarea_number MAPSTO subarea_number

Explanation: This message is part of a group that VTAM issues in response to a DISPLAY SAMAP command. See
the explanation of message IST1321I for a complete description of the message group.

System action: Processing Continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST1672I   CURRENT NETWORK NODE SERVER NOT FOUND IN ACTIVE NETSRVR LIST

Explanation: VTAM issues this message as part of a group of messages, or as a stand-alone message. The first
message in the group is IST1252I. See the explanation of that message for a complete description of the group. There
are two cases when VTAM issues this message alone.
• This message is issued when a NETSRVR list is activated and the active NETSRVR list does not include an explicit
  entry for the current network node server and also does not include a nameless entry.
• This message is issued when the operator enters a MODIFY VTAMOPTS,NNSPREF=NONE command and the
current NNS is the former preferred NNS, the former preferred NNS is not found in the active NETSRVR list, and
the active NETSRVR list does not include a nameless entry.

System action: Processing continues.
Operator response: If the current network node server is the one desired, activate a network node server list that
includes the current network node server. If no network node server list member includes the current network node
server, contact the system programmer to code the current network node server in a network node server list
member. Then activate that list.
If the current network node server is not the one desired, deactivate the CP-CP session with the current network node server. The new network node server will be selected from the candidates specified in the active network node server list.

**System programmer response:** If requested by the operator, code the name of the current network node server in a network node server list member.

**Routing code:** 2
**Descriptor code:** 4

 IST1673I  SWITCH TO PREFERRED NETWORK NODE SERVER IS COMPLETE

**Explanation:** VTAM issues this message as part of a group of messages issued at an end node when the end node establishes CP-CP sessions with a network node server. The first message in the group is IST1096I. See the explanation of that message for a complete description.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

 IST1674I  PREFERRED NETWORK NODE SERVER = {nodename | NONE}

**Explanation:** VTAM issues this message in response to a MODIFY VTAMOPTS,NNSPREF command entered at a VTAM end node. If the command was entered with the name of an adjacent network node, the message identifies that network node as the preferred network node server for this end node. If the command was entered with the value NONE, the message indicates that no preferred network node server is currently defined for this end node.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

 IST1675I  ACTIVE NETSRVR LIST AND PREFERRED NN SERVER ARE MERGED

**Explanation:** VTAM issues this message in response to either the activation of a network node server list at an end node or the entry at an end node of a MODIFY VTAMOPTS,NNSPREF=nodename command. In the first case, the message is displayed when the network node server list being activated does not contain an explicit entry for the current preferred network node server. In the second case, the message is displayed when the network node being defined as this end node’s preferred network node server is not explicitly defined in the currently active network node server list.

In both cases, the message indicates that the preferred network node server and the contents of the network node server list member have been merged into a single list.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2
**Descriptor code:** 4

 IST1676I  SWITCH TO PREFERRED NETWORK NODE SERVER FAILED - CODE = code

**Explanation:** This message is issued when this end node has attempted but failed to switch CP-CP sessions from its current network node server to its preferred network node server. When it is issued as part of a message group the first message in the group is IST1110I. See the explanation of that message for a complete description of the message group. The following is a full description of the message when it is issued alone.
code is the code associated with the failure:

4 There is no active CP-capable link to the preferred server.
8 See the sense code in message IST1280I to determine the reason for the failure.
12 The switch to the preferred network node server specified by the MODIFY VTAMOPTS,NNSPREF command currently being processed has been terminated because a later MODIFY VTAMOPTS,NNSPREF command has superseded it.
16 The switch of CP-CP sessions to the adjacent CP specified on the NNSPREF start option failed because the adjacent CP is actually an end node. CP-CP sessions between adjacent end nodes (EN) are not allowed.

System action: Processing continues.

Operator response: The operator response is determined by the error code:

4 Activate a CP-capable link from the EN to the preferred network node server.
8 Save the console output and contact system programmer to determine causes for failure of CP-CP session activation attempt.
12 No action is necessary.
16 Contact the system programmer to help determine the correct value for the NNSPREF start option.

System programmer response: None.

Routing code: 2
Descriptor code: 4

IST1677I PREFERRED NETWORK NODE SERVER

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY NETSRVR command. The first message in the group is IST1252I. See the explanation of that message for a complete description.

System action: None.

Operator response: None.

System programmer response: None.

IST1678I FFST NOT AVAILABLE

Explanation: This message will be issued at the end of VTAM initialization if VTAM detects that the FFST product has not been installed and activated. VTAM also issues this message in response to a DISPLAY VTAMOPTS,OPTION=* command.

System action: Processing continues.

Operator response: None.

System programmer response: Although it is not required, VTAM Service highly recommends that the FFST product be installed and activated to speed the resolution of VTAM problems.

IST1679I MEDIUM = medium

Explanation: VTAM issues this message as part of a group when a DISPLAY ID command is entered for an external communication adapter (XCA) major node that defines an Enterprise Extender (HPR/IP) connection.

medium is the type of shared access transport facility (SATF) represented by the XCA major node. HPRIP is the only valid value for an Enterprise Extender (HPR/IP) connection.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2
Descriptor code: 5

**IST1680I**  
*type* IP ADDRESS *ip_address*

**Explanation:** VTAM issues this message in response to the following:

- The first VARY ACTIVATE command for an Enterprise Extender (HPR/IP) link.
- A DISPLAY PATHS command for a PATH statement that represents a connection to an Enterprise Extender node. See the explanation of IST149I for a complete description.
- The TCP/IP stack cannot find a route to a specified static VIPA address, or in response to an XID or LDLC command timeout failure during APPN connection establishment across an Enterprise Extender network. See the explanation of IST1892I for a complete description.
- A DISPLAY ID for the following:
  - An external communication adapter (XCA) major node that defines an Enterprise Extender (HPR/IP) port.
  - A remote node connected through Enterprise Extender (HPR/IP).
- The activation of an Enterprise Extender (HPR/IP) connection fails because the remote IP address is not in the same IP address family as the local IP address. See IST1891I for a complete description of this message group.
- The same VNNAME is defined more than once in the Enterprise Extender XCA major node but the IPADDR value, or HOSTNAME value, or IP address resolved from the HOSTNAME value associated with each VNNAME definition is not unique. See IST1899I for a complete description of this message group.
- A DISPLAY EE command. The DISPLAY EE command issues one of several message groups, depending on the format of the command. These message groups begin with message IST2000I, IST2001I, IST2002I, IST2119I, or IST2145I. See the explanation of these messages for a complete description.
- A DISPLAY EEDIAG command. The DISPLAY EEDIAG command issues one of several message groups, depending on the format of the command. These message groups begin with message IST2065I, IST2066I, IST2119I, IST2130I or IST2145I. See the explanation of those messages for a complete description.
- An Enterprise Extender predefined connection request fails because the local and remote IP addresses are not unique. This message group begins with message IST2123I. See the explanation of IST2123I for a complete description.
- An Enterprise Extender connection request across a connection network fails because an existing connection across a different connection network has the same local and remote IP addresses. This message group begins with message IST2387I. See the explanation of IST2387I for a complete description.
- The activation of an EE XCA major node group that experienced problems associated with the LDLC timer operands. This message is issued as part of a message group headed by IST2138I. See the explanation of that message for a complete description.

*type* is either LOCAL or REMOTE, indicating which IP address is being displayed.

*ip_address* is the IP address. An ****NA**** in this field indicates that the value is not available because a line defined in the XCA major node has not been activated, or the name-to-address resolution of the HOSTNAME associated with this PATH definition has not completed or was unsuccessful.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

**IST1681I**  
LOCAL SAP = local_sap REMOTE SAP = remote_sap

**Explanation:** VTAM issues this message as part of a group in response to a DISPLAY ID for

- An external communication adapter (XCA) major node that defines an Enterprise Extender (HPR/IP) port.
- A remote node connected through Enterprise Extender (HPR/IP).

*local_sap* is the decimal value of the service access point of the local node.
**IST1682I • IST1683I**

`remote_sap` is the decimal value of the service access point of the remote node.

The SAPs, along with the `ip_address` in message IST1680I, uniquely identify a link. An ****NA**** in either the `local_sap` or the `remote_sap` indicates that the value is not available because a line defined in the XCA major node has not been activated.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

---

**IST1682I**

**HPR/IP call_type FAILURE: ID = node_name**

**Explanation:** This message is the first message in a group of messages that VTAM issues in response to a failed activation request for an Enterprise Extender (HPR/IP) connection.

A complete description of the message group follows the example.

IST1682I HPR/IP call_type FAILURE: ID = node_name
IST1684I RETURN CODE = return_value REASON CODE = errno
IST314I END

**IST1682I**

- `call_type` is:
  - **GETIBMOP**
    - Indicates the failure of the TCP/IP API call `getibmopt()`, which returns the list of TCP/IP jobs that are running.
  - `node_name` is the name of an external communication adapter (XCA) major node that defines an HPR/IP (Enterprise Extender) port.

**IST1684I**

`return_value` will always be -1, indicating an error.

`errno` is the Sockets Extended Return Code. See the [z/OS Communications Server: IP and SNA Codes](https://www.ibm.com/support/docview/index.wss?uid=swg27063617) for the Sockets Extended Return Code table.

**System action:** The XCA major node is deactivated.

**Operator response:** If `return_value` or `errno` indicates that the failure is a result of a temporary condition, reactivate the PU.

**System programmer response:** If failure persists after reactivation attempts, examine `return_value` and `errno` to determine whether the failure is a result of a system definition error or a network error. If the failure is a result of a system definition error, correct the error. If the failure is a result of a network error, contact the IP network provider.

**Routing code:** 2

**Descriptor code:** 5

---

**IST1683I**

**HPR/IP connection_type FAILURE: ID = node_name STATUS = status_code**

**Explanation:** VTAM issues this message in response to a failed activation or inactivation request for an HPR/IP (Enterprise Extender) connection.

- `connection_type` can be one of the following:
  - **CALL**
    - Indicates the failure of an activation or inactivation request for an HPR/IP (Enterprise Extender) connection.
  - **ENABLE**
    - Indicates the failure of an activation request for an incoming call over an HPR/IP (Enterprise Extender) connection.
PORT Indicates the failure of an activation or inactivation request for an HPR/IP (Enterprise Extender) connection.

* node_name is the name of an external communication adapter (XCA) major node that defines an HPR/IP (Enterprise Extender) port.

* status_code is the DLC status code and it indicates the cause of a failure detected by the connection manager. See [z/OS Communications Server: IP and SNA Codes](https://www.ibm.com/support/knowledgecenter/SS7072_1.3.0/com.ibm.zos.v1r11.cat_ip_sna.doc) for a description of the DLC status codes.

**System action:** For call failures, the dial or activation of the PU fails. For enable and disable failures, no incoming calls can be accepted from the HPR/IP (Enterprise Extender) connection. For port failures, all lines and PUs for the port will be deactivated.

**Operator response:** If status_code indicates that the failure is a result of a temporary condition, reactivate the PU.

**System programmer response:** If failure persists after reactivation attempts, examine status_code to determine whether the failure is a result of a system definition error or a network error. If the failure is a result of a system definition error, correct the error. If the failure is a result of a network error, contact the IP network provider.

Routing code: 2
Descriptor code: 5

-------------------

**IST1684I** RETURN CODE = return_value REASON CODE = errno

**Explanation:** This message is part of several groups of messages. See the explanation of message IST1682I, IST2187I, IST2390I, or IST2391I for complete descriptions of the message groups.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

Routing code: 2
Descriptor code: 5

-------------------

**IST1685I** TCP/IP JOB NAME = jobname

**Explanation:** VTAM issues this message in response to the first VARY ACTIVATE command for an Enterprise Extender (HPR/IP) link or in response to a DISPLAY ID command for an external communication adapter (XCA) major node that defines an Enterprise Extender (HPR/IP) connection.

VTAM also issues this message as part a message group in response to a DISPLAY EE command. This message group begins with message IST2000I. See the explanation of that message for a complete description.

jobname is the 1-8 character TCP/IP job name used to start the TCP/IP address space. When using HPR over IP, VTAM acts as a TCP/IP application. Consequently, VTAM must know the job name of TCP/IP. See the [z/OS Communications Server: IP Configuration Guide](https://www.ibm.com/support/knowledgecenter/SS7072_1.3.0/com.ibm.zos.v1r11.cat_ip_sna.doc) for information about the TCP/IP job name.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

Routing code: 2
Descriptor code: 5

-------------------

**IST1686I** NO USABLE TCP/IP JOB AVAILABLE FOR HPR/IP

**Explanation:** VTAM issues this message in response to a failed activation request for an HPR/IP (Enterprise Extender) connection because no usable TCP/IP job is running.

When using HPR over IP, VTAM acts as a TCP/IP application. Consequently, VTAM must know the job name of TCP/IP.

If the TCPNAME start or modify option was specified, this message is issued when the TCP/IP job specified as a start or modify option is not running, has the wrong version, or has the wrong status.
If the TCPNAME start or modify option was not specified, VTAM issues this message when it was unable to find an executing TCP/IP job with an acceptable version and status.

The job name is specified on the TCPIPJOBNAME statement in the TCP/IP data file. See the z/OS Communications Server: IP Configuration Guide for information about the TCPIPJOBNAME statement.

System action: The HPR/IP (Enterprise Extender) port will not be activated.

Operator response: Check the status of the TCP/IP jobs by issuing the DISPLAY TCPIP command. Issue the MODIFY VTAMOPTS command to change the TCP/IP job name that will be used. Then repeat the activation command for the Enterprise Extender. See the z/OS Communications Server: IP Configuration Guide for more information about the DISPLAY TCPIP command.

System programmer response: None.

Routing code: 2
Descriptor code: 5

IST1687I HPR/IP PORT NOT AVAILABLE

Explanation: VTAM issues this message in response to a failed activation request for an HPR/IP (Enterprise Extender) connection because one or more of the five ports required for HPR/IP (Enterprise Extender) are not available.

The ports reserved for use by HPR/IP (Enterprise Extender) are decimal port numbers:

12000  LDLC signal traffic
12001  Network-priority data
12002  High-priority data
12003  Medium-priority data
12004  Low-priority data

System action: The HPR/IP (Enterprise Extender) port will not be activated.

Operator response: Issue the TCP/IP command NETSTAT SOCKETS to display the TCP/IP applications and the ports they are using. Stop the TCP/IP applications that are using any of the HPR/IP (Enterprise Extender) ports. Then repeat the activation command for the Enterprise Extender. See the z/OS Communications Server: IP Configuration Guide for more information about the NETSTAT command.

System programmer response: None.

Routing code: 2
Descriptor code: 5

IST1688I EXCESSIVE TIME elapsed DETECTED FOR STRUCTURE structure_name

Explanation: A coupling facility related process has not completed in elapsed minutes.

elapsed is the number of minutes since the process began.

structure_name is the name of the coupling facility structure to which the process is related.

The process may be one of the following:
• Connecting to structure_name and repopulating the data in structure_name
• Rebuilding structure_name
• Performing peer recovery for another VTAM which has failed or disconnected from structure_name

If VTAM has been waiting longer than 9999 minutes, *NA* is displayed for the value of elapsed. This message may be issued as a single message or as part of the IST1370I message group in response to DISPLAY NET,STATS,TYPE=CFS.

System action: Processing continues.

Operator response: This message is issued as a warning that the process might be stalled. VTAM will wait at least three minutes for the process to complete before issuing this message for the first time. Usually, three minutes is
enough time to complete any of the processes listed above. However, in certain circumstances, these processes might-legitimately require longer than three minutes to complete. These circumstance include: performing a rebuild of multiple coupling facility structures, multiple VTAMs connecting to the structure at the same time, multiple VTAMs disconnecting from the structure at the same time, or performing multiple back-to-back rebuilds. Allow extra time in these circumstances for the processes to complete before attempting to determine whether a stall situation has occurred.

Stall situations might occur for the following reasons: a VTAM failed to give a response during a rebuild, a VTAM failed to confirm a user sync point, or a VTAM failed to free a structure lock and other VTAMs are waiting to obtain the lock.

to determine whether there is a stall:

1. Issue D XCF,STRNAME=structure_name. Examine the output to determine whether any connectors have outstanding responses or if there is an outstanding user sync point. See z/OS UNIX System Services Command Reference for information about the DISPLAY XCF command.

2. For documentation purposes, obtain dumps of all VTAMs in the sysplex and also dump the coupling facility structure structure_name. If the connection process is attempted again, activate the CFS VIT option before obtaining the dumps.

3. Issue the VARY NET,CFS,ACTION=DISCONNECT command on the systems with outstanding responses. After all the systems have disconnected, you may issue V NET,CFS,ACTION=CONNECT to have them reconnect to structure_name. See z/OS Communications Server: SNA Operation for information about the VARY CFS command.

System programmer response: None.
Routing code: 2
Descriptor code: 5

IST1689I command_name FAILED - NOT CONNECTED TO structure_name

Explanation: The command, command_name, failed for structure_name because VTAM is not currently connected to structure_name.

command_name is the name of the command that failed.

structure_name is the name of the coupling facility structure specified on command_name.

System action: Processing continues.

Operator response: Issue DISPLAY NET,STATS,TYPE=CFS to determine the coupling facility structures to which VTAM is connected.

System programmer response: None.
Routing code: 2
Descriptor code: 5

IST1690I VARY CFS FAILED - ALREADY CONNECTED TO structure_name

Explanation: The VARY CFS,ACTION=CONNECT command failed because there is already an active connection to structure_name.

structure_name is the name of the coupling facility structure specified on the VARY CFS command.

System action: Processing continues.

Operator response: Issue DISPLAY NET,STATS,TYPE=CFS to determine the coupling facility structures to which VTAM is connected.

System programmer response: None.
Routing code: 2
Descriptor code: 5
IST1691I • IST1693I

IST1691I  VARY CFS FAILED - structure_name IS NOT AVAILABLE

Explanation: The VARY CFS,ACTION=CONNECT command failed because the structure_name is not defined in the CFRM policy or a VTAM start option (i.e. STRGR=NONE) indicated not to connect to the structure.

structure_name is the name of the coupling facility structure specified on the VARY CFS command.

System action: Processing continues.

Operator response: Issue DISPLAY XCFSTR to view a list of structures defined in the active CFRM policy. If structure_name is not listed, the structure must be defined before VTAM is able to connect. If structure_name is listed, issue DISPLAY NET,VTAMOPTS and find the structure's start option values (STRGR). If the value is NONE, VTAM must be restarted and the start option value must be set to structure_name.

See z/OS UNIX System Services Command Reference for more information on the DISPLAY XCF command. See z/OS Communications Server: SNA Operation for more information on the DISPLAY VTAMOPTS command.

System programmer response: If structure_name is not defined in the CFRM policy, define the structure in the policy and reactivate it, then restart VTAM. See z/OS MVS Setting Up a Sysplex for information on updating and activating the CFRM policy. If the structure's start option has a value of NONE, change the value in the start list to structure_name. See z/OS Communications Server: SNA Resource Definition Reference for more information about VTAM start options.

Routing code: 2
Descriptor code: 5

IST1692I  TCB = taskno TCP PORT = portno

Explanation: VTAM issues this message as part of a group of messages. The first message in the group is IST1342I. See the explanation of that message for complete description.

System action: The command failed. Other processing continues.

Operator response:
• Reenter the MODIFY command with the required network-qualified name specified as netid.majnode.

System programmer response: None.

Routing code: 8
Descriptor code: 5

IST1693I  NETWORK ADDRESS RECEIVED FOR resourcename IN USE

Explanation: This message is the first in a group of messages. This message is issued during cross domain or cross network LU-to-LU session setup when the network address for the specified resourcename could not be defined. VTAM detected another resource using the network address returned by the gateway NCP for resourcename. A complete description of the message group follows.

IST1693I NETWORK ADDRESS RECEIVED FOR resourcename IN USE
IST1421I nodetype dupresource HAS DUPLICATE ADDRESS
IST314I END

IST1693I

resourcename is the name of the specified resource. It is in the form of netid.name.

IST1421I

nodetype is the node type of dupresource. See Chapter 17, “Node and ID types in VTAM messages,” on page 1097 for a description of nodetype.

dupresource is the name of the resource that is currently defined to the address in question. The form of dupresource is netid.name.

System action: Processing continues.

Operator response: Issue the DISPLAY ID=dupresource,E command to display information about the duplicate resource. Save the system log for problem determination.
System programmer response: Check your network address assignments.
See the section about non-VTAM problems in the *z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures* for additional problem determination actions.

Routing code:  8
Descriptor code:  5

---

**IST1694I**  
REASON = SEQUENCE NUMBER ERROR

Explanation: This message is part of a message group. The first message in the group is IST520I. See the explanation of that message for a complete description.

Routing code:  8
Descriptor code:  4

---

**IST1695I**  
PU NAME CP NAME COSNAME SWITCH CONGEST STALL SESS

Explanation: This message is the first of a subgroup of messages issued in response to a DISPLAY RTPS command. The output might have been filtered by other keywords on the DISPLAY RTPS command (such as CPNAME, APPNCOS, SWITCH, CONGEST, STALL, or ID). A complete description of the message subgroup follows the example.

```
IST350I  DISPLAY TYPE = RTPS
IST1695I  PU NAME   CP NAME   COSNAME SWITCH CONGEST STALL SESS
IST1960I  puname   cpname   appncos switch congest stall sess

...  
[IST1786I  HPR ROUTE TEST INITIATED FOR RTP PU]
[IST1793I  HPR ROUTE TEST NOT INITIATED - RTP PU NOT IN PROPER STATE]
[IST1794I  HPR ROUTE TEST NOT INITIATED - TEST ALREADY IN PROGRESS]
[IST1795I  HPR ROUTE TEST NOT INITIATED - INSUFFICIENT STORAGE]
[IST1809I  HPR ROUTE TEST NOT INITIATED - INSUFFICIENT PATH INFORMATION]
IST2084I  count OF total MATCHING RTP PIPES DISPLAYED
[IST2248I  ALL DIAGNOSTIC COUNTERS CLEARED FOR number RTP PIPES]
IST314I  END

IST350I
```

This message identifies the type of information in the display and is always **RTPS** for this message group.

**IST1695I**

This message is a header message for the information displayed in message IST1960I.

**IST1786I**

This message is displayed when TEST=YES is included on the DISPLAY RTPS command and Route Test for the specified RTP was successfully initiated. When the Route Test results become available, they will be displayed using the IST1787I message group.

**IST1793I**

This message is displayed when TEST=YES is included on the DISPLAY RTPS command and Route Test for the specified RTP could not be initiated because the RTP PU was not in the CONNECTED state or a pathswitch was in progress.

**IST1794I**

This message is displayed when TEST=YES is included on the DISPLAY RTPS command and Route Test for the specified RTP could not be initiated because a Route Test was already in progress.

**IST1795I**

This message is displayed when TEST=YES is included on the DISPLAY RTPS command and Route Test for the specified RTP could not be initiated because of insufficient storage.
IST1809I

This message is displayed when TEST=YES is included on the DISPLAY RTPS command and Route Test for the specified RTP could not be initiated because one or more virtual routing nodes exist on the HPR path, and the HPR endpoint issuing this message does not have all the path information necessary to perform a Route Test.

IST1960I

- One IST1960I message will be issued for each RTP that matches the criteria specified on the DISPLAY RTPS command.
- **pname** is the name of the RTP pipe.
- **cpname** is the name of the CP at the other end of the pipe.
- **appncos** is the name of the class of service (CoS) used for the pipe.
- **switch** indicates whether a path switch is in progress. Valid values are:
  - **Yes** Indicates that a path switch is in progress.
  - **No** Indicates that a path switch is not in progress.
- **congest** indicates whether the pipe is currently congested. Valid values are:
  - **Yes** Indicates that the pipe is currently congested.
  - **No** Indicates that the pipe is not currently congested.
- **stall** indicates whether data flow is stalled. Valid values are:
  - **Yes** Indicates that data flow is stalled.
  - **No** Indicates that data flow is normal.
- **sess** indicates the number of active and pending active sessions using the pipe. The display output may show a pipe using the RSETUP (route setup) Class of Service. This pipe will be present between a pair of CPs that support RTP control flows. The value will always be 0 on this pipe.
  - A maximum of five digits are reserved to display the number of sessions using the pipe. **sess** will display 99999 when the count exceeds 99 998 sessions.

IST2084I

**count** is the number of matching RTP pipes displayed in the output.

**total** is the total number of RTP pipes that match the parameters specified on the DISPLAY RTPS command. The total might be larger than the displayed count because the number of RTP pipes displayed is governed by the MAX parameter.

IST2248I

This message is issued if CLEAR=ALL was specified.

The **number** value is the total number of RTP pipes whose diagnostic counters are cleared.

**System action:** For IST1786I, the system will wait for the HPR Route Test to complete and subsequently issue the IST1787I message group to display the results.

For IST1793I, IST1794I, IST1795I, and IST1809I no further action is taken for the TEST=YES operand specification.

**Operator response:** For IST1786I, wait for the IST1787I message group.

For IST1793I, wait for the RTP PU to reach the CONNECTED state or for pathswitch completion and reissue the DISPLAY RTPS command.

For IST1794I, wait for the previous route test for this RTP PU to complete and attempt to re-issue the DISPLAY RTPS command.

For IST1795I, enter the DISPLAY BFRUSE command to display storage used by VTAM buffer pools and information about the common service area (CSA). Total VTAM private storage information is also displayed in message IST981I. Issue the DISPLAY STORUSE command to display storage usage for storage pools. Save the system log and request a dump for problem determination.

For IST1809I, if the HPR route test function is supported by the other HPR endpoint, issue an HPR route test command from that node. To do this, you must be able to identify the RTP PU name or TCID used by the remote partner RTP node to represent this same RTP connection. This can be accomplished by using the DISPLAY
ID=rtp_pu_name on the local node to obtain the REMOTE TCID for the RTP, which is shown on the end of message IST1476I in the output of this command. Then from the remote partner RTP node (shown on the IST1481I message in the prior display), you can issue DISPLAY RTPS,TEST=YES,TCID=tcid_value (where tcid_value is the REMOTE TCID obtained from the prior display).

**System programmer response:** For IST1795I, verify that the operator entered the buffer pool or CSA start options as specified in the start procedures. Increase storage as required. For insufficient storage errors, you can redefine your buffer pool or CSA limits. If the start option cannot be modified using the MODIFY VTAMOPTS command, modify the VTAM start options file (ATCSTRxx) and restart VTAM to use the start option.

- See the z/OS Communications Server: New Function Summary to determine the storage requirements for VTAM.
- See the z/OS Communications Server: SNA Resource Definition Reference for a description of VTAM start options.
- See the z/OS Communications Server: SNA Operation for information about the DISPLAY BFRUSE command, the DISPLAY STORUSE command, and the MODIFY VTAMOPTS command.
- See the z/OS Communications Server: SNA Network Implementation Guide for an explanation and description of buffer pools and for general information on buffer pool specification and allocation.
- See the z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

**Routing code:** 2

**Descriptor code:** 5

---

**IST1696I**

**Explanation:** This message is part of a subgroup of messages that VTAM issues in response to a DISPLAY RTPS command. The first message of the subgroup is IST1695I. See the explanation of that message for a complete description of the subgroup.

**Routing code:** 2

**Descriptor code:** 5

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**IST1697I**

**RTP PACING ALGORITHM = ARB RESPONSIVE MODE**

**Explanation:** VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route.

The first message in the group is either IST1476I or IST1968I See the description of those messages for more information.

**Routing code:** 2

**Descriptor code:** 5

---

**IST1698I**

**PROBE probname ATTEMPTED - FFST NOT AVAILABLE**

**Explanation:** VTAM encountered an anomaly and attempted to execute the FFST probe. FFST was not active or available to service the probe request. VTAM handled the request by furnishing the identification of the probe.

**System action:** VTAM processing continues.

**Operator response:** Save the System Log for problem determination.

**System programmer response:** Determine why FFST was not active or available, then start FFST. See the z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures to determine the anomaly encountered.

**Routing code:** 2

**Descriptor code:** 5
**IST1700I • IST1701I**

**IST1700I  attribute CONFLICTS WITH rtype rname**

**Explanation:** VTAM issues this message along with IST489I or IST1272I to indicate what type of definition error has occurred.

*attribute* indicates the type of definition name that was duplicated. The values that can be displayed in *attribute* are:

- NAME
- NET ADDR
- LU ALIAS
- STATIONID (STATIONID refers to the IDBLOCK and IDNUM values.)
- ACBNAME
- CPNAME

*rtype* indicates the type of resource that has the duplicate *attribute*.

*rname* indicates the name of the resource that has the duplicate *attribute*.

**System action:** Processing of *command* in messages IST489I or IST1272I continues. However, VTAM cannot use the resource indicated in message IST1272I.

**Operator response:** This is a definition error. Save the system log for problem determination.

This message may be issued during session takeover processing. See the section about common APPN problems in the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](https://www.ibm.com/support/knowledgecenter/SS7Y19_2.2.1/com.ibm.zos.v2r1.2.apip.nadm3436.pdf) for a description of session takeover problems.

**System programmer response:** If there are duplicate operands on NCP and VTAM definition statements, you must change one or both of the duplicate statements if you want both resources to be defined at the same time. See the section about common APPN problems in the [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](https://www.ibm.com/support/knowledgecenter/SS7Y19_2.2.1/com.ibm.zos.v2r1.2.apip.nadm3436.pdf) for more information about this problem.

This message can also be issued if *rname* for this resource has also been specified as the CUADDR operand value on the LOCAL statement in a local non-SNA major node. VTAM creates an internal resource definition using the name specified on the CUADDR operand when such a channel-attached device is activated. Change the name of the resource identified in this message to a name that does not conflict with that CUADDR value.

**Routing code:** 2

**Descriptor code:** 5

**IST1701I  CP NAME LOCATE SIZE**

**Explanation:** VTAM issues this message in response to a DISPLAY TOPO command when LOCSIZE is specified. This message is a header message for information displayed in message IST1702I.

This message group is issued in response to the DISPLAY,TOPO,LIST=NN,LOCSIZE=locate size command.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5
IST1702I  cpname locatemessagesize

Explanation: VTAM issues this message in response to a DISPLAY TOPO command when LOCSIZE is specified.

*cpname* is the name of the control point (CP) which supports the APPN Locate message size specified on the command and is a network_qualified name in the form *netid*.name.

*locatemessagesize* is the maximum size of APPN locate messages that *cpname* is able to support. The valid range is 1 - 128 kilobytes.

System action: None.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST1703I  DESIRED LOCATE SIZE = desiredlocatesize LAST LOCATE SIZE = lastlocatesize

Explanation: VTAM issues this message as part of a subgroup of messages in response to a DISPLAY DIRECTORY or DISPLAY ID command and the resource being displayed is a logical unit. The first message in the subgroup is IST1186I. See the explanation of that message for a complete description.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST1704I  sc_option = sc_value FROM ADJACENT SSCP TABLE

Explanation: This message is displayed as part of several message groups. These message groups begin with message IST611I, IST623I, IST663I, or IST1531I. See the explanations of these messages for a complete description.

Routing code: 2
Descriptor code: 5

IST1705I  sc_option = sc_value FROM START OPTION

Explanation: This message is displayed as part of several message groups. These message groups begin with message IST611I, IST623I, IST663I, or IST1531I. See the explanations of these messages for a complete description.

Routing code: 2
Descriptor code: 5

IST1706I  PARTNER NAME GENERIC RESOURCE MEMBER ATTRIBUTES

Explanation: This message is the first in a group of messages that VTAM issues in response to DISPLAY GRAFFIN command. A complete description of the message group follows.

IST350I  DISPLAY TYPE = GENERIC AFFINITY
IST1706I  PARTNER NAME GENERIC RESOURCE MEMBER ATTRIBUTES
IST1707I  partner_name generic_name appl_name attributes

IST314I  END

IST1706I

This message is a header message for information displayed in message IST1707I.

IST1707I
**partner_name** is the network qualified partner LU name.

**generic_name** is the generic resource name of **appl_name**.

**appl_name** is the application to which the partner LU has an affinity.

**attributes** describes the attributes of the session the affinity represents. **attributes** is an eight-byte character string that has the following meaning:

1. The first character is either **P** to indicate that the generic name has been resolved but the session is pending activation, or a hyphen (−) otherwise.
2. The second character is either **V** to indicate that the affinity will be cleaned up by VTAM when the session is terminated, or **A** to indicate that the application is responsible for deleting the affinity. Application owned affinities might not be deleted when the session is terminated. An application owned affinity will also be deleted when the application is terminated, if the affinity is not persistent (see the fourth attribute character).
3. The third character is either **G** to indicate that the session was started using the generic name, or **A** to indicate that the session was started using the application name.
4. The fourth character is either **6** to indicate the affinity will persist after application termination, or a hyphen (−) otherwise. If the affinity will persist it is the responsibility of the application to delete the affinity. An affinity can persist for one of the following reasons:
   - This is an LU6.1 session.
   - This is an LU6.2 SYNCPG session.
   - The application used the SETLOGON GNAMEADD AFFIN=APPL API command to request ownership of all affinities.
   - The application used the LUAFFIN=APPL parameter on the appropriate RAPI or APPCCMD API command to request ownership of this affinity. LUAFFIN=NOTAPPL will override the other three reasons.
5. The fifth character is either **M** to indicate that the generic resource application also supports MNPS, or a hyphen (−) otherwise. This affinity will not be deleted in a MNPS recovery scenario unless the recovery does not occur before the PSTIMER expires. See the [z/OS Communications Server: SNA Network Implementation Guide](https://www.ibm.com/support/docview.wss?language=en&vid=swg25027464) for more information about MNPS.
6. The sixth character indicates who created the affinity. The value will be one of the following:
   - **V** to indicate that VTAM resolved the generic name to an application name based on session count or by setting up a session directly to a member of a generic resource group.
   - **W** to indicate that the WorkLoad Manager resolved the generic name to an application name based on system workload.
   - **X** to indicate that the Generic Resource Resolution Exit resolved the generic name to an application name.
   - **S** to indicate that the original resolver of the name is not known. This is most probably caused by a previous search request that did not cause an affinity to be created at the time of resolution. This may also occur due to such things as VTAM losing connectivity to the coupling facility, VTAM being re-IPL'ed, a structure failure of the generic resource coupling facility structure, or following an MNPS recovery.
7. The seventh character is either **L** to indicate that this affinity will be used for up to 10 minutes after the last session between the session partners ended, or a hyphen (−) otherwise. An affinity might used for this extended time if either of the following is true:
   - An LU6.2 session is established without SYNCPG or Limited Resource.
   - An LU6.2 session is established, but the application specified LUAFFIN=NOTAPPL on the NIB for the OPNDST or OPNSEC.
8. The eighth character is not used and is always a hyphen (−).

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5
IST1707I  partner_name generic_name appl_name attributes

Explanation: This message is part of a message group that VTAM issues in response to a DISPLAY GRAFFIN command. The first message in the group is IST1706I. See the explanation of that message for a complete description.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2

Descriptor code: 5

IST1708I  command FAILED - GENERIC RESOURCES NOT AVAILABLE

Explanation: This message is issued when command fails because the generic resource function is not available. This may be due to one of the following:

- VTAM is not in a parallel sysplex.
- The generic resource coupling facility structure in not defined in the active CFRM policy. Issue DISPLAY XCF,STR to display the structures defined in the CFRM policy.
- The STRGR start option was set to NONE. Issue DISPLAY VTAMOPTS to verify the value of the STRGR start option.

System action: Processing continues.

Operator response: If the generic resource function should be active, contact the system programmer.

System programmer response: If the generic resource function is not active, see z/OS Communications Server: SNA Network Implementation Guide for information on how to set up generic resources.

Routing code: 2

Descriptor code: 5

IST1709I  command_name FAILED - NOT CONNECTED TO structure_name

Explanation: The command, command_name, failed for structure_name because VTAM is not currently connected to structure_name.

command_name is the name of the command that failed.

structure_name is the name of the coupling facility structure specified on command_name.

System action: Processing continues. If command_name is MODIFY GR then generic resource data local to this host might have been deleted.

Operator response: Issue DISPLAY NET,STATS,TYPE=CFS to determine the coupling facility structures to which VTAM is connected.

System programmer response: None.

Routing code: 2

Descriptor code: 5

IST1710I  RSCV FROM PLU SAVED AT SESSION ACTIVATION

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY SESSIONS,SID=sid,PATHINFO=YES command when the session has RSCV information for the PLU. See the explanation of message IST879I for a complete description of the group.

Routing code: 2

Descriptor code: 5
IST1711I • IST1715I

IST1711I  RSCV TOWARDS SLU SAVED AT SESSION ACTIVATION

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY SESSIONS,SID=sid,PATHINFO=YES command when the session has RSCV information for the SLU. See the explanation of message IST879I for a complete description of the group.

Routing code: 2
Descriptor code: 5

IST1713I  RTP RSCV IN THE DIRECTION OF THE session_partner

Explanation: This message is displayed in response to a DISPLAY SESSIONS,SID=sid,PATHINFO=YES command for an HPR session. It displays the RSCV for the RTP pipe. See the explanation of message IST879I for a complete description of the group.

Routing code: 2
Descriptor code: 5

IST1714I  NO PATH INFORMATION EXISTS

Explanation: This message is displayed in response to a DISPLAY SESSIONS,SID=sid,PATHINFO=YES command but no path information exists to be displayed. See the explanation of message IST879I for a complete description of the group.

Routing code: 2
Descriptor code: 5

IST1715I  MPCLEVEL = mpc_level MPCUSAGE = mpc_usage

Explanation: This message is part of several message groups that VTAM issues in response to DISPLAY ID or DISPLAY TRL commands.

mpc_level indicates the level of MPC connection, and can be one of the following:
• HPDT indicates that the connection is capable of performing channel I/O directly to or from communications storage manager (CSM) buffers.
• NOHPDT indicates that the connection is not capable of performing channel I/O directly to or from CSM buffers.
• QDIO (Queued Direct I/O) indicates that the connection performs channel I/O operations using direct I/O instead of CCW channel operations. An MPCLEVEL of QDIO implies that the connection is also HPDT capable, and can perform the direct I/O to or from CSM buffers.

mpc_usage indicates whether the MPC connection can be used exclusively by only one upper-layer protocol (ULP), or shared by multiple ULPs. It can be one of the following:
• If mpclevel is QDIO or HPDT, mpc_usage is:
  – SHARE indicates that the connection can be shared by multiple ULPs.
  – EXCLUSIVE indicates that the connection can only be used by the first ULP that requests usage of the MPC connection.
• If mpclevel is NOHPDT, mpc_usage is ***NA***.

For detailed instructions about setting up an OSA-Express feature, see the zEnterprise System and System z10 OSA-Express Customer's Guide and Reference

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 8
Descriptor code: 5
**IST1716I**  PORTNAME = port_name LINKNUM = link_num OSA CODE LEVEL = code_level

**Explanation:** This message is part of several message groups that VTAM issues in response to DISPLAY ID or DISPLAY TRL commands. This message will appear if the TRLE being displayed represents an IBM OSA-Express Adapter, or an IBM Open Systems Adapter used for native access to an ATM network.

When the TRLE represents an OSA device:
- **port_name** is the port name to be assigned to the port on the IBM Open Systems Adapter. Each IBM Open Systems Adapter has one port_name that is represented by one TRLE.
- **link_num** indicates the relative adapter number of the OSA-Express Adapter port represented by this TRLE. For an IBM Open Systems Adapter used for native access to an ATM network, link_num will be N/A.
- **code_level** indicates the OSA processor code level of the OSA-Express. For some versions of OSA-Express, code_level will be *NA*.

When the TRLE represents the IQDIO device IUTIQDIO:
- **port_name** is a reserved name of IUTIQDxx where xx = the hexadecimal IQD CHPID in use.
- **link_num** is not applicable and will be displayed as 0.
- **code_level** will be *NA*.

For detailed instructions about setting up an OSA-Express feature, see the [zEnterprise System and System z10 OSA-Express Customer's Guide and Reference](#).

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** If the code_level value is *NA*, contact your hardware support personnel for code level information.

**Routing code:** 8

**Descriptor code:** 5

**IST1717I**  ULPID = ulp_id ULP INTERFACE = ulp_interface

**Explanation:** This message is issued in these different situations:
- As part of several message groups that VTAM issues in response to DISPLAY ID or DISPLAY TRL commands.
- As the first message in a message group that is issued when an IBM 10GbE RoCE Express interface becomes inoperative.
- As part of a message group that VTAM issues when it detects the failure of a Shared Memory Communications - Remote Direct Memory Access (SMC-R) link.

When this message is issued in response to a DISPLAY command, this message is displayed for all TRLEs that are currently being used by at least one Upper-layer Protocol (ULP). A separate message IST1717I will be displayed for each ULP using this TRLE.
- For a dynamic TCP TRLE, or an exclusively owned TRLE, only one message with ULPID is issued, because there can only be one ULP using each of these TRLEs.
- For an OSA-Express Adapter, one message with ULPID is issued for each Datapath channel address in use by a ULP.
- For other TRLEs, more than one message with ULPID might be issued, depending on how many upper-layer protocols are using the TRLE.

When this message is issued in response to a 10GbE RoCE Express interface becoming inoperative, it is the first message in this message group:

IST1717I ULPID = ulp_id ULP INTERFACE = ulp_interface
IST1578I inotype INOP DETECTED FOR trlename BY modname CODE = code

When this message is issued in response to an SMC-R link failure, this message is displayed to identify the TCP/IP stack associated with the failing SMC-R link. See message “IST2406I” on page 1031 for an explanation of the message group.

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Chapter 9. IST messages for VTAM network operators IST1600I – IST1999I 719
IST1717I

IST1717I

This message provides ULP information.

`ulp_id`
   Specifies the name of a z/OS Communications Server ULP that is using the TRLE, the SMC-R link, or one of the datapath channels of an OSA-Express TRLE.
   • For TCP/IP ULPs, the `ulp_id` is the job name.
   • For ANNC ULPs, the `ulp_id` is the SNA PU name.
   • For ATM or EE ULPs, the `ulp_id` is the XCA major node name.

`ulp_interface`
   Specifies the name of either the interface or the device that is using the TRLE, the SMC-R link, or one of the datapath channels of an OSA-Express TRLE.
   • For TRLEs with MPCLEVEL=QDIO, `ulp_interface` is the name of the interface dedicated to this datapath channel address of the OSA-Express TRLE.
   • For TRLEs with CONTROL=ROCE, `ulp_interface` is the name of the interface dedicated to the 10GbE RoCE Express TRLE.
   • For all other TRLEs, `ulp_interface` is `*NA*`.
   • For SMC-R links, `ulp_interface` is the name of the 10GbE RoCE Express interface that was being used by the failing link.

For detailed instructions about setting up an OSA-Express feature, see the zEnterprise System and System z10 OSA-Express Customer’s Guide and Reference.

IST1578I

IST1578I

This message provides information about the inoperative condition for a 10GbE RoCE Express interface for the TCP/IP stack represented by `ulp_id`.

`inoptype`
   Specifies the type of inoperative condition. In this message group, the only possible value is `DEVICE`.

`trlename`
   Specifies the name of the TRLE definition statement in the TRL major node that defines the system-generated TRLE that represents the 10GbE RoCE Express interface.

`modname`
   Specifies the name of the module that detected the inoperative condition.

`code`
   Identifies the point in `modname` where the inoperative condition was detected.

See message IST1578I for more details.

System action:
   • When this message is issued in response to a DISPLAY command, processing continues.
   • When this message is issued in response to a 10GbE RoCE Express interface becoming inoperative, the 10GbE RoCE Express interface is deactivated. The TCP/IP stack might attempt recovery of the 10GbE RoCE Express interface.
   • When this message is issued in response to an SMC-R link failure, processing continues. See message IST2406I on page 1031 for more details.

Operator response:
   • When this message is issued in response to a DISPLAY command, none.
   • When this message is issued in response to a 10GbE RoCE Express interface becoming inoperative, no further action is required. If recovery fails, save the system log for problem determination.
   • When this message is issued in response to an SMC-R link failure, contact the system programmer.

System programmer response:
   • When this message is issued in response to a DISPLAY command, none.
When this message is issued in response to a 10GbE RoCE Express interface becoming inoperative, use code to determine the correct course of action. See message "IST1578I" on page 665 for more details.

When this message is issued in response to an SMC-R link failure, use information in the IST2406I message group to determine the correct course of action. See message "IST2406I" on page 1031 for more details.

Routing code: 2
Descriptor code: 5

IST1718I  DATAPATH DEVICE device_addr NOT FOUND FOR TRLE trle

Explanation: The subchannel address specified on the DEVICE keyword on the MODIFY TRACE command is not coded on the DATAPATH keyword on the TRLE statement.

device_addr is the value coded on the DEVICE keyword on the MODIFY TRACE command.

trle is the name of the TRLE coded on the ID keyword on the MODIFY TRACE command.

For detailed instructions about setting up an OSA-Express feature, see the zEnterprise System and System z10 OSA-Express Customer's Guide and Reference

System action: The command will fail.
Operator response: Enter a valid subchannel address on the DEVICE keyword on the MODIFY TRACE command.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST1719I  PCIREALO = pcirealo PCIREAL = pcireal

Explanation: VTAM issues this message as part of a group of messages that displays tuning statistics for multipath channel (MPC) attached resources or for 10GbE RoCE Express resources. The first message in the group is IST1230I. See message IST1230I for a complete description of the MPC resources message group. See message IST2366I for a complete description of the 10GbE RoCE Express resources message group.

For detailed instructions about setting up an OSA-Express feature, see the zEnterprise System and System z10 OSA-Express Customer's Guide and Reference

Routing code: 2
Descriptor code: 5

IST1720I  PCIVIRTO = pcivirto PCIVIRT = pcivirt

Explanation: VTAM issues this message as part of a group of messages that displays tuning statistics for multipath channel (MPC) attached resources. The first message in the group is IST1230I. See that message for a complete description.

For detailed instructions about setting up an OSA-Express feature, see the zEnterprise System and System z10 OSA-Express Customer's Guide and Reference

Routing code: 2
Descriptor code: 5

IST1721I  SBALCNETO = sbalcnto SBALCNT = sbalcnt

Explanation: VTAM issues this message as part of a group of messages that displays tuning statistics for multipath channel (MPC) attached resources. The first message in the group is IST1230I. See that message for a complete description.

For detailed instructions about setting up an OSA-Express feature, see the zEnterprise System and System z10 OSA-Express Customer's Guide and Reference

System action: Processing continues.
IST1722I • IST1725E

Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

**IST1722I** PACKCNTO = packcnto PACKCNT = packcnt

**Explanation:** VTAM issues this message as part of a group of messages that displays tuning statistics for multipath channel (MPC) attached resources. The first message in the group is IST1230I. See that message for a complete description.

For detailed instructions about setting up an OSA-Express feature, see the [zEnterprise System and System z10 OSA-Express Customer’s Guide and Reference](#).  
Routing code: 2
Descriptor code: 5

**IST1723I** SIGACNTO = sigacnto SIGACNT = sigacnt

**Explanation:** VTAM issues this message as part of a group of messages that displays tuning statistics for multipath channel (MPC) attached resources. The first message in the group is IST1230I. See that message for a complete description.

For detailed instructions about setting up an OSA-Express feature, see the [zEnterprise System and System z10 OSA-Express Customer’s Guide and Reference](#).  
Routing code: 2
Descriptor code: 5

**IST1724I** I/O TRACE = iotrc TRACE LENGTH = length

**Explanation:** This message is part of several message groups that VTAM issues in response to DISPLAY ID or DISPLAY TRL commands. This message will appear for a TRLE representing an OSA-Express Adapter or an IBM 10GbE RoCE Express feature.

*iotrc* specifies whether I/O Trace is active for this device (ON or OFF).

*length* specifies the number of bytes being recorded for I/O Trace for this device.

For detailed instructions about setting up an OSA-Express feature, see the [zEnterprise System and System z10 OSA-Express Customer’s Guide and Reference](#).  
System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 8
Descriptor code: 5

**IST1725E** STORAGE SHORTAGE IN structure_name - UNABLE TO RECONNECT

**Explanation:** This message is issued when VTAM is attempting to reconnect to a coupling facility structure. A storage shortage in the structure was detected before attempting to reconnect. A storage shortage is defined as one or more of the following:

- 80% or greater of list entries are being used.
- 80% or greater of list elements are being used.

Before VTAM will connect to the structure, the storage problem must be corrected.

*structure_name* is the name of the MVS coupling facility structure.
System action: VTAM will remain disconnected from the coupling facility structure until the storage usage drops below 80%.

Operator response: Issue D NET,STATS,TYPE=CFS,STRNAME=structure_name to display the storage utilization of structure_name.

If either entry or element utilization is greater than 80%, start a rebuild using the SETXCF START,REBUILD command. This will cause VTAM to adjust the number of entries and elements in use. See the z/OS Communications Server: SNA Network Implementation Guide for more information about the SETXCF command.

If the rebuild does not relieve the storage shortage, the size of the structure will need to be increased. See the z/OS Communications Server: SNA Network Implementation Guide for information about how to adjust the size in the case of a storage shortage.

To force VTAM to reconnect to the structure regardless of storage utilization, issue the V NET,CFS,ACTION=CONNECT command.

System programmer response: None.

Routing code: 2
Descriptor code: 5

IST1726I CONNECTION IS PENDING DUE TO STORAGE SHORTAGE

Explanation: This message is part of a message group VTAM issues to indicate that the connection to the coupling facility structure is defined and active in the coupling facility policy but VTAM currently does not have a connection. The first message in the group is IST1367I. See the explanation of that message for additional information.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2
Descriptor code: 5

IST1727I DNS NAME: dns_name

Explanation: VTAM issues this message as part of several different message groups. It is optional and is issued for one of the following reasons:

- In response to a DISPLAY ID command for a TN3270-connected application, CDRSC, or LU resource.
- In response to a DISPLAY ID,IDTYPE=IPADDR command when only one TN3270 client application, CDRSC, or LU is associated with the specified TN3270 client IP address.
- In response to a DISPLAY TSOUSER command for a TN3270-connected application, CDRSC, or LU resource.
- When a session setup fails as part of message group IST1663I and the resource is a TN3270-connected application, CDRSC, or LU resource.

If the message ends with the (...) characters, it means that the DNS name was truncated as passed to z/OS Communications Server from the TN3270 Server. See the z/OS Communications Server: IP Configuration Guide for information about enabling messages.

Note: The saving and displaying of the IP Information for TELNET 3270 Clients is controlled by the IPINFO Start Option. See the z/OS Communications Server: SNA Resource Definition Reference for more information.

dns_name is the DNS NAME of the TN3270 client.

Operator response: None.

System programmer response: None.

Routing code: 2
Descriptor code: 5
IST1728I  dns_name_continued

Explanation: This message is a continuation of message IST1727I. It is issued as many times as necessary to display
the entire DNS name. If the message ends with the (..) characters, it means that the DNS name was truncated as
passed to z/OS Communications Server from the TN3270 Server.

dns_name_continued is the continuation of the DNS NAME displayed in message IST1727I.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2

Descriptor code: 5

IST1729I  OPTION traceopt MUST BE CODED WHEN SUBTRACE subtrace IS SPECIFIED

Explanation: This message is issued in response to a MODIFY TRACE,TYPE=VTAM command or when
TRACE,TYPE=VTAM is specified on the TRACE start option and SUBTRACE is specified without a valid OPTION
parameter on the command.

System action: VTAM rejects the request. For start VTAM command, VTAM will issue message IST1311A to prompt
you for the correct value of the TRACE or NOTRACE option.

Operator response: Enter the command again with the trace option specified on this message to activate or
deactivate the SUBTRACE type.

System programmer response: If these start options are coded in an ATCSTRxx file, correct the trace option value
for the TRACE or NOTRACE in that file. For more information about VTAM start options, see the z/OS
Communications Server: SNA Resource Definition Reference.

Routing code: 2

Descriptor code: 5

IST1730I  SUBTRACE subtrace ACTIVE UNDER TRACE OPTION traceopt

Explanation: This message displays the current active subtrace option and its associated trace option. VTAM issues
this message as part of a group of messages. The first message in the group is IST315I. See the explanation of that
message for a complete description.

Operator response: None.

System programmer response: None.

Routing code: 2

Descriptor code: 5

IST1731I  name ACTIVATION FAILED - HPR=RTP REQUIRED WITH HPR/IP

Explanation: VTAM issues this message in response to a VARY ACT command on an XCA major node when VTAM
is not configured for HPR RTP support and the port statement defines the shared access transport facility (SATF) as
MEDIUM=HPRIP (Enterprise Extender).

name is the name of the major node for which the activation failed.

System action: Processing continues.

Operator response: Reconfigure VTAM to support HPR=RTP, or reconfigure the XCA port to specify an SATF which
does not require HPR=RTP. The VARY ACT command may then be entered again.

System programmer response: None.

Routing code: 2

Descriptor code: 5
IST1732I  VTAM INITIATED SLOWDOWN TERMINATION FOR DEVICE device

Explanation: This message indicates the end of a slowdown condition for a channel-attached SNA device. The time interval identified by the second subparameter of the SLOWVAL start option has expired, causing VTAM to initiate I/O to device to force it out of a slowdown condition. This message will be preceded by IST1733I, which indicates that the device has been in a slowdown condition longer than the time period identified by the first subparameter of the SLOWVAL start option.

device is the name of the device.

System action: VTAM has initiated I/O to device to force it out of slowdown mode. VTAM will again send traffic to device.

Operator response: None.

System programmer response: If VTAM is required to initiate termination of the slowdown condition, then either 1) the signal from device to VTAM to exit slowdown has been lost or 2) the device is incapable of obtaining sufficient buffers to exit slowdown. For the first situation, the VTAM action will be sufficient to restart traffic to the device, although the lost signal should be investigated as a potential device or network problem. For the second condition, VTAM restarting traffic to the device will only force it back into a slowdown condition if buffers are still not available. Be sure the SLOWVAL start option values are sufficiently high.

Routing code: 2
Descriptor code: 4

IST1733I  device DEVICE HAS BEEN IN SLOWDOWN MORE THAN time SECONDS

Explanation: The threshold identified by the first subparameter of the SLOWVAL start option has been exceeded. This means that the device is not accepting data from VTAM. This message can also be received for local SNA devices, (for example, 3174 controllers).

device is the name of the device that has been in slowdown mode.

time is value of the first subparameter of the SLOWVAL start option.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2
Descriptor code: 5

IST1734I  DEVICE device INITIATED SLOWDOWN TERMINATION

Explanation: This message indicates the end of a slowdown condition for a channel-attached SNA device. The device sent VTAM a signal indicating that it should be removed from the slowdown condition. This message will be preceded by IST1733I, which indicates that the device has been in a slowdown condition longer than the time period identified by the first subparameter of the SLOWVAL start option.

device is the name of the device.

System action: VTAM resumes normal I/O.

Operator response: None.

System programmer response: Devices may enter and exit slowdown many times, based on the availability of buffers. This is a normal condition. The fact that IST1733I and this message are issued, however may indicate that either the first subparameter of the SLOWVAL start option is too low, or that the device is having problems obtaining sufficient buffers to allow it to exit slowdown in a timely manner.

Routing code: 2
Descriptor code: 4
IST1736I  PU NAME

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY
TOPO,ORIG=orig_cp_name,DEST=dest_cp_name or DISPLAY TOPO,ORIG=orig_cp_name,TGN=tgn command. See
IST1299I for a complete description of this message group.

Routing code:  2
Descriptor code:  5

IST1737I  puname

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY
TOPO,ORIG=orig_cp_name,DEST=dest_cp_name or DISPLAY TOPO,ORIG=orig_cp_name,TGN=tgn command. See
IST1299I for a complete description of this message group.

Routing code:  2
Descriptor code:  5

IST1738I  ANR LABEL TP ER NUMBER

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY
ID =nodename where nodename is an RTP PU. See IST1476I for a complete description of the message group.

System action:  Processing continues.
Operator response:  None.
System programmer response:  None.
Routing code:  2
Descriptor code:  5

IST1739I  anrlabel tp ernumber

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY
ID =nodename where nodename is an RTP PU. See IST1476I for a complete description of the message group.

System action:  Processing continues.
Operator response:  None.
System programmer response:  None.
Routing code:  2
Descriptor code:  5

IST1740I  IBMTGPS IN library IS EMPTY - PROCESSING CONTINUES

Explanation: VTAM issues this message when the library member IBMTGPS was empty.

library is the data definition name (DDNAME) specified for the definition library.

System action:  VTAM initialization continues. However, the IBM-supplied classes of service may not be available
for TGP selection.

Operator response:  If the TG's classes of service have been defined under a different member name and are
activated by configuration list processing or by a VARY ACT command, then no action is necessary.

System programmer response:  Verify that IBMTGPS was intentionally left empty.
Routing code:  2
Descriptor code:  5
IST1743I  IBMTGPS IN library NOT FOUND - PROCESSING CONTINUES

Explanation: VTAM issues this message when the library member IBMTGPS was not found.

library is the data definition name (DDNAME) specified for the definition library.

System action: VTAM initialization continues. However, the IBM-supplied classes of service may not be available for TGP selection.

Operator response: If the TG's classes of service have been defined under a different member name and are activated by configuration list processing or by a VARY ACT command, then no action is necessary.

System programmer response: Verify that IBMTGPS was intentionally not found.

Routing code: 2
Descriptor code: 5

IST1744I  IBMTGPS IN library IN ERROR - PROCESSING CONTINUES

Explanation: VTAM issues this message when the library member IBMTGPS contained a syntax error.

library is the data definition name (DDNAME) specified for the definition library.

System action: VTAM initialization continues. However, the IBM-supplied classes of service may not be available for TGP selection.

Operator response: If the TG's classes of service have been defined under a different member name and are activated by configuration list processing or by a VARY ACT command, then no action is necessary.

System programmer response: See the z/OS Communications Server: IP Configuration Guide for more information.

Routing code: 2
Descriptor code: 5

IST1745I  rscname REJECTED BECAUSE VARYWLD = option

Explanation: The rscname value for the ID keyword of a VARY command included a wildcard specification (* or ?). Wildcards are not permitted on this VARY command because the current value of the VARYWLD start option is option. Potential values for option are:

NOWILD
Wildcards are not permitted in any VARY commands.

OPERONLY
Wildcards are permitted in VARY commands from the network operator, but not from Program Operator Applications.

POAONLY
Wildcards are permitted in VARY commands from Program Operator Applications, but not from the network operator.

System action: Processing continues.

Operator response: Use the MODIFY VTAMOPTS command to change the VARYWLD value and reissue the VARY command.

System programmer response: If wildcards should be permitted from either the network operator or Program Operator Applications, update the value of the VARYWLD start option in the VTAM start list (ATCSTRxx) to VARYWLD=FULLWILD.

Routing code: 5
Descriptor code: 2
IST1746I  command COMMAND PROCESSING COMPLETE

Explanation: VTAM issues this message when the command processing to a Program Operator Application (POA) is complete. This message does not appear on the system operator console. See the z/OS Communications Server: SNA Programming for more information.

command is the command entered through the program operator interface. The valid commands are VARY, MODIFY and DISPLAY.

This is the last message issued in response to the command.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2

Descriptor code: 5

IST1747I  SUMMARY OF STATE INFORMATION:

Explanation: VTAM issues this message as part of a message group in response to a DISPLAY LINES or DISPLAY CLSTRS command. This message is a header for message IST1748I.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2

Descriptor code: 5

IST1748I  state1 = count1 [ state2 = count2 [ state3 = count3 ] ]

Explanation: VTAM issues this message as part of a message group in response to a DISPLAY CLSTRS or DISPLAY LINES command.

If there are more than 3 states, the message is repeated as many times as necessary to display all states.

state is a resource status code. See z/OS Communications Server: IP and SNA Codes for potential values.

count is the number of resources in the state displayed.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2

Descriptor code: 5

IST1749I  rscname REJECTED - VARYWLD = NO FOR APPL applname

Explanation: The rscname value for the ID keyword of a VARY command issued by Program Operator Application applname included a wildcard specification (* or ?). Wildcards are not permitted on VARY commands from applname because the application's definition statement specifies VARYWLD=NO.

System action: Processing continues.

Operator response: No action is required unless wildcards are to be permitted in VARY commands from this application.

System programmer response: If wildcards should be permitted, update the value of the VARYWLD keyword on the APPL definition statement for applname to VARYWLD=YES.

Routing code: 5
IST1750I  PCITHRS = pcithrs  PCITHRS = pcithrsh

Explanation: VTAM issues this message as part of a group of messages that displays tuning statistics for multipath channel (MPC) attached resources. The first message in the group is IST1230I. See that message for a complete description.

For detailed instructions about setting up an OSA-Express feature, see the zEnterprise System and System z10 OSA-Express Customer’s Guide and Reference

Routing code: 2
Descriptor code: 5

IST1751I  PCIUNPRO = pciunpro  PCIUNPRD = pciunprd

Explanation: VTAM issues this message as part of a group of messages that displays tuning statistics for multipath channel (MPC) attached resources or for 10GbE RoCE Express resources. The first message in the group is IST1230I. See message IST1230I for a complete description of the MPC resources message group. See message IST2366I for a complete description of the 10GbE RoCE Express resources message group.

For detailed instructions about setting up an OSA-Express feature, see the zEnterprise System and System z10 OSA-Express Customer’s Guide and Reference

Routing code: 2
Descriptor code: 5

IST1752I  RPROCDEO = rprocdeo  RPROCDEF = rprocdef

Explanation: VTAM issues this message as part of a group of messages that displays tuning statistics for multipath channel (MPC) attached resources. The first message in the group is IST1230I. See that message for a complete description.

For detailed instructions about setting up an OSA-Express feature, see the zEnterprise System and System z10 OSA-Express Customer’s Guide and Reference

Routing code: 2
Descriptor code: 5

IST1753I  RREPLDEO = rrepledo  RREPLDEF = rrepldef

Explanation: VTAM issues this message as part of a group of messages that displays tuning statistics for multipath channel (MPC) attached resources. The first message in the group is IST1230I. See that message for a complete description.

For detailed instructions about setting up an OSA-Express feature, see the zEnterprise System and System z10 OSA-Express Customer’s Guide and Reference

Routing code: 2
Descriptor code: 5

IST1754I  NOREADSO = noreadso  NOREADS = noreads

Explanation: VTAM issues this message as part of a group of messages that displays tuning statistics for multipath channel (MPC) attached resources. The first message in the group is IST1230I. See that message for a complete description.

For detailed instructions about setting up an OSA-Express feature, see the zEnterprise System and System z10 OSA-Express Customer’s Guide and Reference

Routing code: 2
Descriptor code: 5
IST1755I  •  IST1759I

IST1755I  SBALMAX = sbalmax  SBALAVG = sbalavg

Explanation: VTAM issues this message as part of a group of messages that displays tuning statistics for multipath channel (MPC) attached resources. The first message in the group is IST1230I. See that message for a complete description.

For detailed instructions about setting up an OSA-Express feature, see the zEnterprise System and System z10 OSA-Express Customer’s Guide and Reference

Routing code: 2
Descriptor code: 5

IST1756I  QDPTHMAX = qdpthmax  QDPTHAVG = qdpthavg

Explanation: VTAM issues this message as part of a group of messages that displays tuning statistics for multipath channel (MPC) attached resources. The first message in the group is IST1230I. See that message for a complete description.

For detailed instructions about setting up an OSA-Express feature, see the zEnterprise System and System z10 OSA-Express Customer’s Guide and Reference

Routing code: 2
Descriptor code: 5

IST1757I  PRIORITYx: congstate  PRIORITYx: congstate

Explanation: This message is part of several message groups that VTAM issues in response to DISPLAY ID or DISPLAY TRL commands. This message will appear for a TRLE representing an OSA-Express Adapter.

x specifies the write priority level.

congstate specifies the congestion state of that priority level. congstate will be CONGESTED when, at least once in the last congestion reporting window, all 128 writes for the priority level were unavailable. Otherwise congstate will be UNCONGESTED.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2
Descriptor code: 5

IST1758I  RSCV TOWARDS DLUR SAVED AT SESSION ACTIVATION

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY SESSIONS,SID=sid,PATHINFO=YES command when the session has RSCV information reported by the DLUR node which acts as the CP(SLU). See the explanation of message IST879I for a complete description of the group.

Routing code: 2
Descriptor code: 5

IST1759I  RTP RSCV FROM THE DIRECTION OF THE DLUR

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY SESSIONS,SID=sid,PATHINFO=YES command for an HPR session when the SLU endpoint of the session is at a DLUR node. The PLU endpoint of the session might be this z/OS Communications Server node. The RSCV displayed is the path of the RTP pipe from the perspective of the DLUR node. See the explanation of message IST879I for a complete description of the group.

Routing code: 2
Descriptor code: 5
IST1760I  trlename SUBCHANNEL cua VARY OFFLINE NOT ALLOWED

**Explanation:** VTAM received an MVS VARY OFFLINE command for the subchannel cua in the MPC group defined in trlename. The command is not allowed because the subchannel cua is the last active Read or Write device in this MPC group.

**trlename** is the name of the TRLE that contains the subchannel.

**cua** is the subchannel address.

**System action:** The VARY OFFLINE is ignored by VTAM and the CUA remains in a (system) pending offline state. Processing continues.

**Operator response:** If the intention is to deactivate the entire MPC group, issue a VARY OFFLINE FORCE command for the CUA, or deactivate the users of the MPC group as follows:

1. Issue VARY INACT command to the related SNA PU.
2. Issue STOP DEVICE command to the related TCP/IP devices.
3. When the MPC group is used by both SNA and TCP/IP issue both VARY INACT and STOP DEVICE.
4. When the MPC group is used by multiple TCP/IP stacks, a STOP DEVICE command must be issued for each TCP/IP stack using the group.
5. When the MPC group is QDIO (OSA-Express) and all devices are stopped, the MPC group will not deactivate until a specified time period (approximately 2 minutes) is exceeded. VARY OFFLINE FORCE will deactivate the MPC (QDIO) group immediately.

**System programmer response:** See the [z/OS Communications Server: IP Configuration Guide](https://publib.boulder.ibm.com/infocenter/ctsserv/v1r12/topic/com.ibm.zos.doc/Contents/TOC.html) for an explanation of how the keyword LASTRW on the TRLE definition statement affects the VTAM processing related to VARY OFFLINE (when associated with the last active read or write device in an MPC group). Careful consideration should be given when deciding how this keyword should be defined for your operating environment.

**Routing code:** 2

**Descriptor code:** 5

IST1761I  parameter PARAMETER EXTRANEOUS FOR DISPLAY ID COMMAND

**Explanation:** VTAM issues this message when an extraneous parameter is specified for a DISPLAY ID command.

**parameter** is the parameter that is not valid for a DISPLAY ID command.

**Notes:**

1. This message might be issued as the result of the intended verb of the command being specified incorrectly. For example, a DISPLAY NCPSTOR command issued with NCPSTOR misspelled:
   
   ```
   DISPLAY NET,NCPSTORE,ID=name,ADDR=address
   ```
   
   will result in this message issued with the text:
   
   IST1761I ADDR PARAMETER EXTRANEOUS FOR DISPLAY ID COMMAND
   
2. The parameter might be valid for other combinations of parameters and resource types.
3. Parameters on the operator commands are not processed in the order they are provided in the command.
4. All positional parameters in a command that occur before the first positional keyword parameter will be labeled P_x, starting with P_1.

**System action:** VTAM rejects the command.

**Operator response:** Reenter the command correctly. See the [z/OS Communications Server: SNA Operation](https://publib.boulder.ibm.com/infocenter/ctsserv/v1r12/topic/com.ibm.zos.doc/Contents/TOC.html) for the correct syntax.

**System programmer response:** None.

**Routing code:** 8

**Descriptor code:** 5
IST1762I • IST1765I

IST1762I  line ACT FAILED, TCPNAME OR IPADDR START OPTION REQUIRED

Explanation: This message is displayed when an Enterprise Extender (HPR/IP) line activation fails because no value was specified in the TCPNAME and IPADDR start options. Without one of these values coded, VTAM cannot determine which TCP/IP stack will be used for Enterprise Extender (HPR/IP) data traffic.

line is the name of the Enterprise Extender (HPR/IP) line that failed.

System action: Enterprise Extender (HPR/IP) line activation failed.

Operator response: Code either TCPNAME or IPADDR as a VTAM start option. Temporarily, you can issue a MODIFY VTAMOPTS command and specify the value of one of these start options.

System programmer response: None.

Routing code: 2
Descriptor code: 5

IST1763I  NO ACTIVE CP-CP SESSION-CAPABLE TGS EXIST

Explanation: VTAM issues this message in response to a DISPLAY CPCP command when there is no active CP-CP session-capable TG connection to any node.

System action: The DISPLAY command fails. Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2
Descriptor code: 5

IST1764I  NO ACTIVE CP-CP SESSION-CAPABLE TG TO cpname

Explanation: VTAM issues this message in response to a DISPLAY CPCP command when there is no active CP-CP session-capable TG connection to the adjacent node that you specified.

cpname is the network-qualified name of the adjacent node.

System action: The DISPLAY command fails. Processing continues.

Operator response: Verify that the CP name specified in the ID operand is valid. If the CP name entered belongs to a node in the network, there is currently no active CP-CP session-capable connection to this node.

System programmer response: None.

Routing code: 2
Descriptor code: 5

IST1765I  ADJACENT CP WINNER LOSER STATE NODE ANDCB

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY CPCP command or when a CP-CP session cannot be activated. When a CP-CP session cannot be activated, the first message in the group is IST1110I. See the explanation of that message for a complete description of the message group.

When this message is issued in response to a DISPLAY CPCP command, this message is the first message in the group. A complete description of the message group follows the example.

IST350I  DISPLAY TYPE = CP-CP SESSION STATUS
IST1765I  ADJACENT CP  WINNER  LOSER  STATE  NODE ANDCB
IST1766I  adjacent_cp  cw_state  cl_state  state  node address
...
[IST1315I  DISPLAY TRUNCATED AT MAX = number]
IST1454I  count ADJCP(S) DISPLAYED
IST314I  END

IST350I
• This message identifies the type of information in the display and is always CP-CP SESSION STATUS for this message group.

Note: CP-CP sessions see the contention winner and contention loser sessions of the CP-CP session pair.

IST1765I
This message is a header message for the information displayed in message IST1766I.

IST1766I
• One IST1766I will be issued for each adjacent node displayed.
• adjacent_cp is the network-qualified CP name of the adjacent control point.
• cw_state is the status of the contention winner CP-CP session. Valid values are:
  ACT    Active
  INACT   Inactive
  PACT    Pending active
  PINACT  Pending inactive
• cl_state is the status of the contention loser CP-CP session. Valid values are:
  ACT    Active
  INACT   Inactive
  PACT    Pending active
  PINACT  Pending inactive
• state is the state of the CP-CP sessions to the adjacent node being displayed. Valid values are:
  UP      One or more of the contention winner and contention loser sessions are active or pending-active.
  DOWN    Both contention winner and contention loser sessions are coming down but are not completely inactive.
  BOTH DOWN
          Both contention winner and contention loser sessions are inactive.
• node is the APPN node type of the adjacent control point. Valid values are:
  EN      End node
  NN      Network node
• address is the hexadecimal storage address for the adjacent node control block where the CP-CP session information is saved.

IST1454I
count is the total number of adjacent CPs that support CP-CP sessions.

IST1315I
VTAM issues this message when the number of CP-CP session status to be displayed exceeds the value specified on the MAX operand.
number is the value specified for the MAX operand.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5
**IST1766I • IST1769I**

**IST1766I**  
*adjacent_cp cw_state cl_state state node address*

**Explanation:** This message is part of a group of messages that VTAM issues in response to a DISPLAY CPCP command or when a CP-CP session cannot be activated. When a CP-CP session cannot be activated, the first message in the group is IST1110I. See the explanation of that message for a complete description of the message group. When this message is issued in response to a DISPLAY CPCP command, see IST1765I for a complete description of the message group.

**Routing code:** 2

**Descriptor code:** 5

**IST1767I**  
TRACE INITIATED FOR *number* DYNAMIC APPLICATIONS

**Explanation:** VTAM issues this message in response to a MODIFY TRACE command with all of the following:
- The ID operand specified as a model application name
- The SCOPE operand specified as ALL
- The TYPE operand specified as IO or BUF

MODIFY TRACE is used to initiate the IO or buffer trace on the model application and all the existing dynamic applications associated with the model. If there is at least one dynamic application associated with the model, this message will be issued to display the number of dynamic applications affected by the command.

*number* is the number of dynamic applications whose IO trace or buffer trace is initiated by a modify trace command.

**System action:** Processing Continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

**IST1768I**  
TRACE TERMINATED FOR *number* DYNAMIC APPLICATIONS

**Explanation:** VTAM issues this message in response to a MODIFY NOTRACE command with all of the following:
- The ID operand specified as a model application name
- The SCOPE operand specified as ALL
- The TYPE operand specified as IO or BUF

MODIFY NOTRACE is used to terminate the IO or buffer trace on the model application and all the existing dynamic applications associated with the model. If there is at least one dynamic application associated with the model, this message will be issued to display the number of dynamic applications affected by the command.

*number* is the number of dynamic applications whose IO trace or buffer trace is terminated by a modify trace command.

**System action:** Processing Continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

**IST1769I**  
LAST TDU RECEIVED *date time* FROM *adjacent_cp*

**Explanation:** VTAM issues this message as part of a group of messages in response to the following commands:
- DISPLAY TOPO, LIST=TDUDIAG, ID=cp_name. See message IST2306I for a complete description of this message group.
**IST1773I**  • **IST1774I**

- DISPLAY TOPO,LIST=TDUDIAG,ORIG=localhost,DEST=remote_host,TGN=tgn. See message [IST2311I](#) for a complete description of this message group.
- DISPLAY TOPO,ID=cp_name,LIST=ALL. See message [IST1295I](#) for a complete description of this message group.
- DISPLAY TOPO,ORIG=localhost,DEST=remote_host or DISPLAY TOPO,ORIG=localhost,TGN=tgn. See message [IST1299I](#) for a complete description of this message group.

**Routing code:** 2  
**Descriptor code:** 5

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**IST1773I**  
**TNSTAT RECORDS CANNOT BE SENT TO SMF - SMF NOT IN SYSTEM**

**Explanation:** This message is issued when SMF is unavailable at one of the following times:
- During VTAM initialization time and the TNSTAT start option was specified.
- A DISPLAY or MODIFY TNSTAT command has been accepted.
- When tuning statistics summary records have been built.

**System action:** Processing continues.

**Operator response:** If you intended to have SMF collect the TNSTAT summary records, then initiate SMF.

**System programmer response:** None.

**Routing code:** 2  
**Descriptor code:** 5

---

**IST1774I**  
**OPTIMAL CNN ROUTE NOT CHOSEN - ENTRY/EXIT SUBAREA MISMATCH**

**Explanation:** This message is the first in a group of messages that VTAM issues when an optimal CNN route exists and is not chosen during session activation. A complete description of the message group follows the example.

**IST1774I** OPTIMAL CNN ROUTE NOT CHOSEN - ENTRY/EXIT SUBAREA MISMATCH  
**IST1775I** CNN ENTRY SUBAREA = entry_subarea  
**IST1775I** CNN EXIT SUBAREA = exit_subarea  
**IST664I** REAL OLU=lname1  
**IST664I** REAL DLU=lname2  
**IST889I** SID = session_id  
**IST314I** END

**IST664I**

The origin LU may be either the PLU or SLU. The same applies for the destination LU. If the origin or destination LU name is unknown, VTAM displays ***NA***.

**IST889I**

**sessid** is a unique identifier for the session. If the session ID is unknown, VTAM displays ***NA***.

**IST1774I**

- A CNN Route is not optimal if the following conditions are both true:
  - The chosen CNN entry and exit TG subareas do not match.
  - Another active TG to the network node is found that has the same characteristics as the chosen entry TG and the same subarea as the CNN exit TG.
- The reason a nonoptimal route might be chosen is one of the following:
  - The topology of the CNN is not known by the APPN topology and route selection process.
  - The route was calculated by a non-VTAM node that does not support the use of subarea numbers in route calculation.
- The following figure is an example of a configuration:
IST1775I • IST1776I

In this figure, the CNN is composed of VTAM2, NCP1, and NCP2. The subarea of NCP1 is the CNN entry TG subarea and the subarea of NCP2 is the CNN exit TG subarea. A session is started between APPL1 (PLU) and LU2 (SLU). If the adjacent network node (NN1) chooses to use TG1 instead of TG2, then the IST1774I message group will appear on VTAM2.

Note: The APPN node that picked the CNN entry TG (NN1 in the above configuration) is the NNS of the PLU, which may or may not be a VTAM. In addition, the NNS of the PLU may or may not be directly adjacent to the CNN.

IST1775I

This message follows IST1774I and indicates the CNN entry subarea and the CNN exit subarea.

entry_subarea is the decimal subarea of the node in the CNN where the BIND entered the CNN from the PLU.

exit_subarea is the decimal subarea of the node in the CNN where the BIND exited the CNN to the SLU.

System action: Processing continues.

Operator response: Save the system log for problem determination.

System programmer response: If the APPN node calculating the session route (choosing the CNN entry subarea) was not VTAM, then change the APPN TG characteristics. If the APPN node calculating the session route (choosing the CNN entry subarea) was pre-V2R7 VTAM and the session partner is an LU on the CNN exit subarea (NCP), then change the APPN TG characteristics. See the z/OS Communications Server: SNA Network Implementation Guide for more information about APPN TG characteristics. If the APPN node calculating the session route is, at a minimum, V2R7 VTAM, then request a dump of the VTAM calculating the session route for problem determination. CNNRTMSG=SUPPRESS may be specified as the start option value or modified with the MODIFY VTAMOPTS command to suppress message group IST1774I.

Routing code: 8
Descriptor code: 4

IST1775I CNN ENTRY SUBAREA = entry_subarea CNN EXIT SUBAREA = exit_subarea

Explanation: VTAM issues this message as part of a message group to indicate that an optimal route through a CNN was not chosen during session establishment. See IST1774I for a complete description of the message group.

Routing code: 8
Descriptor code: 4

IST1776I TOPOLOGY RESOURCES WITH MOST RECENT TDU ACTIVITY

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO, LIST=TDUINFO, SCOPE=RECENT command. Possible message groups follow:

• This message group is issued if you allow the FORMAT command to default or you specify FORMAT=SHORT:

  IST350I DISPLAY TYPE = TDU INFORMATION
  IST1776I TOPOLOGY RESOURCES WITH MOST RECENT TDU ACTIVITY
  IST2275I TDU INFORMATION SINCE LAST RESET ON date AT time
  IST2290I TDUDIAG START OPTION = tdudiag_value
IST1776I

This message identifies the type of information in the display and is always TDU INFORMATION for this message group.

IST1776I

This is a header message for the most recent topology database updates (TDUs) and possible control vector corruption.

IST1777I

This is a header message for the information about topology resources in the TDUs that were received most recently that is displayed in the IST1778I messages that follow. These messages are displayed when FORMAT=SHORT is specified or the default FORMAT value is taken.

ACC is the abbreviation for ACCEPTED.

REJ is the abbreviation for REJECTED.

IST1778I

• One IST1778I is issued for each topology resource displayed in a subgroup when the FORMAT=SHORT operand is specified or the default FORMAT value is taken.
The NUM operand can be specified on the DISPLAY command to limit the number of topology resources that are displayed. The default value is 10 and the maximum value is 50. If the number of topology resources on the list since the last TDU count reset is smaller than the number requested on the display command, the number of IST1778I messages that are displayed in the subgroup will be smaller than the NUM value that was specified.

- cp_name is the network-qualified CP name of the node if the resource that is displayed is a node. If the resource that is displayed is a TG, cp_name is the network-qualified CP name of the TG origin node.
- rsn is the resource sequence number (RSN) expressed in decimal.
- destination_cp is the network-qualified CP name of the TG’s destination node if the resource that is displayed is a TG. **NA** is displayed if the resource is a node.
- tgn is the transmission group number associated with the TG that is displayed. NA is displayed if the resource is a node.

- If the subgroup displays the information about topology resources in the TDUs that were received most recently:
  - count1 is the total number of inbound TDUs that were accepted for this resource at the time the displayed TDU was received. Inbound TDUs are accepted when they contain new information that causes the resource record to be updated.
  - count2 is the total number of inbound TDUs that were rejected for this resource at the time the displayed TDU was received. Inbound TDUs are rejected when they contain inconsistent information that causes outbound TDUs to be sent as corrections.

- If the subgroup displays the information about topology resources in the TDUs that were sent most recently:
  - count1 is the total number of outbound TDUs that were sent for this resource at the time the displayed TDU was sent.
  - count2 is the total number of inbound TDUs that were received for this resource at the time the displayed TDU was sent.

**Tip:** A rsn value of ******* or TDU counter values of ***** indicates that the values are greater than the available space for those values to be displayed in message IST1778I. You can enter the command with the FORMAT=LONG operand to display these values in a format that includes two lines of output for each resource.

This is a header message for message subgroups that display information about topology resources in the TDUs that were received most recently.

- The date and time values indicate the date and time for the first topology resource and the last topology resource that are displayed in the subgroup. When there are no topology resources on the list, the first_tdu_date and first_tdu_time values display the date and time of the last reset of TDU information and TDU counters and the last_tdu_date and last_tdu_time values display the current date and time. See “DATE and TIME formats” on page 6 for information about the date and time values.

- The first topology resource that is displayed in the subgroup is from the TDU that was received most recently.
- The last topology resource that is displayed in the subgroup is from the TDU that was received least recently.

This message displays the date and time when all the TDU information and TDU counters were reset. All TDU information and TDU counters are reset every 24 hours when garbage collection runs, or when a DISPLAY NET,TOPO,LIST=TDUINFO,CLEAR=YES or a DISPLAY NET,TOPO,LIST=TDUDIAG,CLEAR=YES command is entered. See “DATE and TIME formats” on page 6 for information about the date and time values.

This message indicates that no corruption of topology control vectors was detected since VTAM was started.

This is a header message for a message subgroup that displays information about topology resources that have control vectors in the topology database that have possibly been corrupted.

- Because the topology control vectors contain the resource sequence number (RSN) for a node or TG, which determines how the TDU is processed, it is possible that control vector corruption could cause a TDU war. The most probable cause of control vector corruption is a storage overlay.
This message displays the date and time that VTAM was started. See "DATE and TIME formats" on page 6 for information about the date and time values.

Unlike the lists of topology resources in the TDUs that were received or sent most recently, the list of topology resources with possible topology control vector corruption is never cleared and includes any possible corruption detection since the start of VTAM.

IST2279I
This is a header message for the information about topology resources with possible topology control vector corruption that is displayed in the IST2280I messages that follow.

IST2280I
One IST2280I message is displayed for each topology resource that has control vectors that have possibly been corrupted.

Information about possible corrupted control vectors is maintained from the start of VTAM and is not deleted when TDU information is reset. All topology resources that have possible corrupted control vectors are displayed in this subgroup, regardless of the reset of TDU information.

The NUM operand can be specified on the DISPLAY command to limit the number of topology resources that are displayed. The default value is 10 and the maximum value is 50. If the number of topology resources on the list since the start of VTAM is smaller than the number requested on the display command, the number of IST2280I messages that are displayed in the subgroup will be smaller than the NUM value that was specified.

cp_name is the network-qualified CP name of the node, if the resource that is displayed is a node. If the resource that is displayed is a TG, cp_name is the network-qualified CP name of the TG origin node.

destination_cp is the network-qualified CP name of the TG's destination node, if the resource that is displayed is a TG. If the resource is a node, NA is displayed.

tgn is the transmission group number that is associated with the TG that is displayed. If the resource is a node, NA is displayed.

time_detected and date_detected are the date and time that possible corruption of control vectors for the topology resource was detected. See "DATE and TIME formats" on page 6 for information about date and time values.

IST2284I
This message indicates that possible topology control vector corruption was detected for a node or TG.

IST2285I
This is a header message for message subgroups that display information about topology resources in the TDUs that were sent most recently.

IST2285I displays the date and time for the first topology resource and the last topology resource that are displayed in the subgroup. When there are no topology resources on the list, the first_tdu_date and first_tdu_time values display the date and time of the last reset of TDU information and TDU counters. The last_tdu_date and last_tdu_time display the current date and time. See "DATE and TIME formats" on page 6 for information about date and time values.

The first topology resource that is displayed in the subgroup is from the TDU that was sent most recently. The last topology resource that is displayed in the subgroup is from the TDU sent least recently.

IST2288I
This is a header message for the information about topology resources in the TDUs that were sent most recently that is displayed in the IST1778I messages that follow. These messages are displayed when FORMAT=SHORT is specified or the default FORMAT value is taken.

REC is the abbreviation for RECEIVED.

IST2290I

- tdudias_value is the user-defined TDUDIAG start option value, specified on the START command or in the start list. The tdudias_value value specifies when TDU diagnostic information is included with node or TG control vectors within a TDU. See the TDUDIAG start option information in z/OS Communications Server: SNA Resource Definition Reference.

A decimal value in the range of 1-65535

This is a threshold number of times that this network node has updated the resource sequence number (RSN)
for a topology resource since the last time that TDU information was reset. When this threshold value is reached for a node or TG, TDU diagnostic information is included in the outbound TDU if the RSN is updated.

**ALWAYS**
TDU diagnostic information is always appended with the topology control vectors included in a TDU for a topology resource when the RSN for that resource is updated by this network node.

**NEVER**
TDU diagnostic information is never appended with the topology control vectors included in a TDU.

**IST2301I**
This message displays the number of topology resources that are displayed in a message subgroup.

$num$ is the total number of topology resources that are displayed in a message subgroup.

$total$ is the total number of topology resource records that currently exist on the displayed list.

**IST2352I**
This message follows message IST2358I and this message pair displays the information about topology resources in the TDUs that were sent most recently, when the FORMAT=LONG operand is specified.

$sent$ is the total number of TDUs that were sent for this resource at the time that the displayed TDU was sent.

$received$ is the total number of TDUs that were received for this resource at the time that the displayed TDU was sent.

**IST2353I**
This message follows message IST2358I and this message pair displays the information about topology resources in the TDUs that were received most recently, when the FORMAT=LONG operand is specified.

$accepted$ is the total number of inbound TDUs that were accepted for this resource at the time that the displayed TDU was received. Inbound TDUs are accepted when they contain new information that causes the resource record to be updated.

$rejected$ is the total number of inbound TDUs that were rejected for this resource at the time that the displayed TDU was received. Inbound TDUs are rejected when they contain backlevel information that causes outbound TDUs to be sent as corrections.

**IST2357I**
This is a header message for the information about topology resources in the TDUs that were received most recently or sent most recently. The information about each topology resource is displayed in a message pair when FORMAT=LONG is specified.

**IST2358I**
This is the first of two messages that display the information about a topology resource when the FORMAT=LONG operand is specified.

The NUM operand can be specified on the DISPLAY command to limit the number of topology resources that are displayed. The default value is 10 topology resources, or message pairs, and the maximum value is 50. If the number of topology resources on the list since the last TDU count reset is smaller than the number requested on the display command, the number of topology resources that are displayed in the subgroup will be smaller than the NUM value that was specified.

$cp_name$ is the network-qualified CP name of the node if the resource that is displayed is a node. If the resource that is displayed is a TG, $cp_name$ is the network-qualified CP name of the TG origin node.

$rsn$ is the resource sequence number (RSN) expressed in decimal.

$destination_cp$ is the network-qualified CP name of the TG's destination node if the resource that is displayed is a TG. If the resource that is displayed is a node, ***NA*** is displayed.

$tgn$ is the transmission group number that is associated with the TG that is displayed. If the resource is a node, NA is displayed.

**IST2359I**
This message is displayed when there are no topology resources that have been received or sent since the TDU information and TDU counters were last reset. Message IST2275I displays the last reset date and time.
System action: Processing continues.

Operator response: If you are displaying TDU information because of performance degradation of the APPN network, use the information about display TDU information in [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures] and do the following:

1. Repeat the display several times to see if there is a pattern of excessive TDU activity for a topology resource.
2. Enter the DISPLAY NET,TOPO,LIST=TDUINFO,SCOPE=ACTIVITY command to see the topology resources with the most frequent TDU activity.
3. If a node or TG is identified with excessive TDU activity, the following displays might provide information about the network nodes that are causing the performance degradation (TDU war):
   - DISPLAY NET,TOPO,LIST=TDUDIAG provides a summary of nodes and TGs with saved TDU diagnostic information.
   - DISPLAY NET,TOPO,LIST=TDUDIAG,ID=cp_name provides details about saved TDU diagnostic information for a node.
   - DISPLAY NET,TOPO,LIST=TDUDIAG,ORIG=orig_CP,DEST=dest_CP,TGN=tng provides details about saved TDU diagnostic information for a TG.
4. If you can identify the network nodes that are involved in the TDU war, bring down the CP-CP sessions from one of the network nodes involved to all other network nodes in the network or subnetwork.
5. If you cannot stop the TDU war, save the system log and request a dump for problem determination. Contact the system programmer.

Tip: On the DISPLAY TOPO,LIST=TDUINFO command output, A RSN value of ******** or TDU counter values of ***** indicates that the value is greater than the available space for the value to be displayed in message IST1778I or IST2293I. You can use the CLEAR=YES operand specified on either the DISPLAY TOPO,LIST=TDUINFO command or the DISPLAY TOPO,LIST=TDUDIAG summary command to clear the TDU counters, but not the RSN value. Alternatively, you can enter the command with the FORMAT=LONG operand to display these values in a format that includes two lines of output for each resource.

System programmer response: Take the following actions:

- If the operator provides output from the DISPLAY TOPO,LIST=TDUINFO or DISPLAY TOPO,LIST=TDUDIAG commands, use the display TDU information in [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures] to analyze the TDU activity. If possible, identify the topology resource that is in contention and the network nodes that are involved in the TDU war.
- If you have access to IBMLink, search for known problems in this area. If no applicable matches are found, report the problem to IBM by using the Electronic Technical Report (ETR) option on IBMLink.
- If you do not have access to IBMLink, report the problem to the IBM software support center.

User response: Not applicable.

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.

Routing code: 2

Descriptor code: 5

Automation: Not applicable.

Example: The following is an example of the display output from a DISPLAY TOPO,LIST=TDUINFO,SCOPE=RECENT,NUM=2,FORMAT=LONG command:

```
IST3501 DISPLAY TYPE = TDU INFORMATION
IST1776I TOPOLOGY RESOURCES WITH MOST RECENT TDU ACTIVITY
IST2275I TDU INFORMATION SINCE LAST RESET ON 01/29/10 AT 11:43:05
IST2290I TDUDIAG START OPTION = 1000
IST2276I NO CORRUPTION OF TOPOLOGY CONTROL VECTORS DETECTED
IST924I ------------------------------------------------------------
IST1779I TDUS RECEIVED BETWEEN 01/29/10 11:43:47 - 01/29/10 11:43:55
IST2357I CP NAME RSN DESTINATION CP TGN
IST2358I NETA.SSCP2A 24369982 NETA.SSCP1A 21
IST2353I ACCEPTED = 1435981 REJECTED = 2537561
IST2358I NETA.SSCP2A 24369980 NETA.SSCP1A 21
```

Chapter 9. IST messages for VTAM network operators IST1600I – IST1999I 741
IST1777I • IST1780I

IST2353I ACCEPTED = 1435981 REJECTED = 2537560
IST2301I 2 OF 50 TOPOLOGY RESOURCES DISPLAYED
IST924I ---------------------------------------------------------------------------
IST2285I TDUS SENT BETWEEN 01/29/10 11:43:47 - 01/29/10 11:43:55
IST2357I CP NAME RSN DESTINATION CP TGN
IST2358I NETA.SSCP2A 243699B4 NETA.SSCP1A 21
IST2352I SENT = 4296828 RECEIVED = 65097324
IST2358I NETA.SSCP2A 24369902 NETA.SSCP1A 21
IST2352I SENT = 4296827 RECEIVED = 65097323
IST2301I 2 OF 50 TOPOLOGY RESOURCES DISPLAYED
IST314I END

IST1777I CP NAME RSN DESTINATION CP TGN ACC REJ

Explanation: VTAM issues this message as part of a group of messages in response to the following commands:
• DISPLAY TOPO,LIST=TDUINFO,SCOPE=RECENT. See message IST1776I for a complete description of this message group.
• DISPLAY TOPO,LIST=TDUINFO,SCOPE=ACTIVITY. See message IST1780I for a complete description of this message group.
• DISPLAY TOPO,LIST=TDUDIAG summary. See message IST2274I for a complete description of this message group.

Routing code: 2
Descriptor code: 5

IST1778I cp_name rsn destination_cp tgn count1 count2

Explanation: VTAM issues this message as part of a group of messages in response to the following commands:
• DISPLAY TOPO,LIST=TDUINFO,SCOPE=RECENT. See message IST1776I for a complete description of this message group.
• DISPLAY TOPO,LIST=TDUINFO,SCOPE=ACTIVITY. See message IST1780I for a complete description of this message group.
• DISPLAY TOPO,LIST=TDUDIAG summary command. See message IST2274I for a complete description of this message group.

Routing code: 2
Descriptor code: 5

IST1779I TDUS RECEIVED BETWEEN first_tdu_date first_tdu_time - last_tdu_date last_tdu_time

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO,LIST=TDUINFO,SCOPE=RECENT command. See IST1776I for a complete description of the message groups.

Routing code: 2
Descriptor code: 5

IST1780I TOPOLOGY RESOURCES WITH MOST FREQUENT TDU ACTIVITY

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO,LIST=TDUINFO,SCOPE=ACTIVITY command.
• For LIST=TDUDIAG, see message IST2274I for a complete description of the message group.
• For LIST=TDUINFO, possible message groups follow:
• This message group is issued if you allow the FORMAT operand to default or you specify FORMAT=SHORT:
  IST350I DISPLAY TYPE = TDU INFORMATION
  IST1780I TOPOLOGY RESOURCES WITH MOST FREQUENT TDU ACTIVITY
  IST2275I TDU INFORMATION SINCE LAST RESET ON date AT time
  IST2290I TDUDIAG START OPTION = tdudiag_value
  [IST2276I NO CORRUPTION OF TOPOLOGY CONTROL VECTORS DETECTED]
  [IST924I ---------------------------------------------------------------------------]
If you specify FORMAT=LONG on the DISPLAY TOPO command, the display sections for TDUs that were received, TDUs that were sent, and RSNs that were updated by this node are replaced with the following:

This message identifies the type of information in the display and is always TDU INFORMATION for this message group.

This is a header message for the information about topology resources in the TDUs that were received most frequently that is displayed in the IST1778I messages that follow. These messages are displayed when FORMAT=SHORT is specified or the default FORMAT value is taken.

ACC is the abbreviation for ACCEPTED.
REJ is the abbreviation for REJECTED.

IST1778I

- One IST1778I is issued for each topology resource that is displayed in a subgroup when the FORMAT=SHORT operand is specified or the default FORMAT value is taken.
- The NUM operand can be specified on the DISPLAY command to limit the number of topology resources that are displayed. The default value is 10 and the maximum value is 50. If the number of topology resources on the list since the TDU information and TDU counters were last reset is smaller than the number requested on the display command, the number of IST1778I messages that are displayed in the subgroup will be smaller than the NUM value that was specified.
- cp_name is the network-qualified CP name of the node if the resource that is displayed is a node. If the resource that is displayed is a TG, cp_name is the network-qualified CP name of the TG origin node.
- rsn is the resource sequence number (RSN) expressed in decimal.
- destination_cp is the network-qualified CP name of the TG's destination node if the resource that is displayed is a TG. If the resource is a node, ***NA*** is displayed.
- tgn is the transmission group number that is associated with the TG that is displayed. If the resource is a node, NA is displayed.
- If the subgroup displays the information about topology resources in the TDUs that were received most frequently:
  - count1 is the total number of inbound TDUs that were accepted for this resource at the time that the displayed TDU was received. Inbound TDUs are accepted when they contain new information that causes the resource record to be updated.
  - count2 is the total number of inbound TDUs that were rejected for this resource at the time that the displayed TDU was received. Inbound TDUs are rejected when they contain inconsistent information that causes outbound TDUs to be sent as corrections.
- If the subgroup displays the information about topology resources in the TDUs that were sent most frequently:
  - count1 is the total number of outbound TDUs that were sent for this resource at the time that the displayed TDU was sent.
  - count2 is the total number of inbound TDUs that were received for this resource at the time that the displayed TDU was sent.

Tip: A RSN value of ******** or TDU counter values of ****** indicates that the values are greater than the available space for those values to be displayed in message IST1778I. You can enter the command with the FORMAT=LONG operand to display these values in a format that includes two lines of output for each resource.

IST1780I

This is a header message for the most frequent topology database updates (TDUs), possible control vector corruption, and resource sequence number (RSN) updates by this node.

IST2275I

This message displays the date and time when all the TDU information and TDU counters were reset. All TDU information and TDU counters are reset every 24 hours when garbage collection runs, or when a DISPLAY NET,TOPO,LIST=TDUINFO,CLEAR=YES or a DISPLAY NET,TOPO,LIST=TDUDIAG,CLEAR=YES command is entered. See “DATE and TIME formats” on page 6 for information about the date and time values.

IST2276I

This message indicates that no corruption of topology control vectors was detected since VTAM was started.

IST2277I

This is a header message for a message subgroup that displays information about topology resources that have control vectors in the topology database that have possibly been corrupted.

Because the topology control vectors contain the resource sequence number (RSN) for a node or TG, which determines how a TDU is processed, it is possible that control vector corruption could cause a TDU war. The most probable cause of control vector corruption is a storage overlay.
This message displays the date and time that VTAM was started. See "DATE and TIME formats" on page 6 for information about date and time values.

Unlike the lists of topology resources in the TDU slant that were received or sent most frequently, the list of topology resources with possible topology control vector corruption is never cleared and includes any possible corruption detection since the start of VTAM.

**IST2279I**

This is a header message for the information about topology resources with possible topology control vector corruption that is displayed in the IST2280I messages that follow.

**IST2280I**

One IST2280I is displayed for each topology resource with control vectors that have possibly been corrupted. Information about possible corrupted control vectors is maintained from the start of VTAM and is not deleted when TDU information is reset. All topology resources with possible corrupted control vectors are displayed in this subgroup, regardless of the reset of TDU information.

The NUM operand can be specified on the DISPLAY command to limit the number of topology resources that are displayed. The default value is 10 and the maximum value is 50. If the number of topology resources on the list since the start of VTAM is smaller than the number requested on the display command, the number of IST2280I messages that are displayed in the subgroup will be smaller than the NUM value that was specified.

`cp_name` is the network-qualified CP name of the node if the resource that is displayed is a node. If the resource that is displayed is a TG, `cp_name` is the network-qualified CP name of the TG origin node.

`destination_cp` is the network-qualified CP name of the TG's destination node if the resource that is displayed is a TG. If the resource is a node, **NA** is displayed.

`tgn` is the transmission group number that is associated with the TG that is displayed. If the resource is a node, NA is displayed.

`time_detected` and `date_detected` is the date and time that possible corruption of control vectors for the topology resource was detected. See "DATE and TIME formats" on page 6 for information about date and time values.

**IST2284I**

This message indicates that possible topology control vector corruption was detected for a node or TG.

**IST2286I**

This is a header message for message subgroups that display information about topology resources in the TDU slant that were received in inbound TDU slants most frequently.

The first topology resource that is displayed in the subgroup is the resource with the most frequent TDU activity. The last topology resource that is displayed in the subgroup is the resource with the least frequent TDU activity.

**IST2287I**

This is a header message for message subgroups that display information about topology resources in the TDU slant that were sent most frequently.

The first topology resource that is displayed in the subgroup is the resource with the most frequent TDU activity. The last topology resource that is displayed in the subgroup is the resource with the least frequent TDU activity.

**IST2288I**

This is a header message for the information about topology resources in the TDU slant that were sent most frequently, that is displayed in the IST1778I messages that follow. These messages are displayed when FORMAT=SHORT is specified or the default FORMAT value is taken.

REC is the abbreviation for RECEIVED.

**IST2289I**

This is a header message for information about topology resources that have resource sequence numbers (RSNs) that were updated by this node.

The first topology resource that is displayed in the subgroup is the resource with a RSN that was updated most frequently. The last topology resource that is displayed in the subgroup is the resource with a RSN that was updated least frequently.
IST2290I

- `tdudiag_value` is the user-defined TDUDIAG start option value, specified on the START command or in the start list, and specifies when TDU diagnostic information is included with node or TG control vectors within a TDU. See the TDUDIAG start option information in z/OS Communications Server: SNA Resource Definition Reference for additional information about this start option. Possible values can be one of the following:
  - A decimal value in the range 1-65535. This is a threshold number of times this network node has updated the resource sequence number (RSN) for a topology resource since the last time TDU information was reset. When this threshold value is reached for a node or TG, TDU diagnostic information is included in the outbound TDU if the RSN is updated.
  - `ALWAYS` specifies that TDU diagnostic information is always appended with the topology control vectors included in a TDU for a topology resource when the RSN for that resource is updated by this network node.
  - `NEVER` specifies that TDU diagnostic information is never appended with the topology control vectors included in a TDU.

IST2291I

This message follows message IST2358I and this message pair displays the information about topology resources that have a RSN that was updated by this node, when the FORMAT=LONG operand is specified.

`updated` is the number of times that the topology resource had been updated at the time of the last RSN update.

IST2292I

This is a header message for the information about topology resources with RSNs that were updated by this node. The topology resources are displayed in the IST2293I messages that follow. These messages are displayed when FORMAT=SHORT is specified or the default FORMAT value is taken.

IST2293I

One IST2293I is issued for each topology resource that has a RSN that was updated by this node. The first IST2293I message in this message subgroup describes the topology resource whose RSN was updated by this node most frequently.

The NUM operand can be specified on the DISPLAY command to limit the number of topology resources that are displayed. The default value is 10 and the maximum value is 50. If the number of topology resources on the list since the TDU information and TDU counters were last reset is smaller than the number requested on the display command, the number of IST2293I messages that are displayed in the subgroup will be smaller than the NUM value that was specified.

`cp_name` is the network-qualified CP name of the node if the resource that is displayed is a node. If the resource that is displayed is a TG, `cp_name` is the network-qualified CP name of the TG origin node.

`rsn` is the updated RSN expressed in decimal.

`destination_cp` is the network-qualified CP name of the TG's destination node if the resource that is displayed is a TG. If the resource is a node, ***NA*** is displayed.

`tgn` is the transmission group number that is associated with the TG that is displayed. If the resource is a node, `NA` is displayed.

`updated` is the number of times that the topology resource has been updated at the time of the last RSN update.

Tip: A RSN value of ********* or update counter value of ***** indicates that the value is greater than the available space for the value to be displayed in message IST2293I. You can enter the command with the FORMAT=LONG operand to display these values in a format that includes two lines of output for each resource.

IST2301I

This message displays the number of topology resources in a message subgroup.

`num` is the total number of topology resources that are displayed.

`total` is the total number of topology resource records that are on the displayed list.

IST2352I

This message follows message IST2358I when the FORMAT=LONG operand is specified. The message pair displays the information about topology resources in the TDUs that were sent most frequently.

`sent` is the total number of TDUs that were sent for this resource at the time that the displayed TDU was sent.
received is the total number of TDUs that were received for this resource at the time that the displayed TDU was sent.

IST2353I
This message follows message IST2358I when the FORMAT=LONG operand is specified. The message pair displays the information about topology resources in the TDUs that were received most frequently.

accepted is the total number of inbound TDUs that were accepted for this resource at the time that the displayed TDU was received. Inbound TDUs are accepted when they contain new information that causes the resource record to be updated.

rejected is the total number of inbound TDUs that were rejected for this resource at the time that the displayed TDU was received. Inbound TDUs are rejected when they contain inconsistent information that causes outbound TDUs to be sent as corrections.

IST2357I

- This is a header message for the information about topology resources that is displayed in message pairs when FORMAT=LONG is specified. The information is displayed in three sections:
  - topology resources in the TDUs that were received most frequently
  - topology resources in the TDUs that were sent most frequently
  - topology resources with RSNs that were updated by this node

IST2358I

This is the first of two messages that display the information about a topology resource when the FORMAT=LONG operand is specified.

The NUM operand can be specified on the DISPLAY command to limit the number of topology resources that are displayed. The default value is 10 topology resources, or message pairs, and the maximum value is 50. If the number of topology resources on the list since the last TDU count reset is smaller than the number requested on the display command, the number of topology resources that are displayed in the subgroup will be smaller than the NUM value that was specified.

cp_name is the network-qualified CP name of the node if the resource that is displayed is a node. If the resource that is displayed is a TG, cp_name is the network-qualified CP name of the TG origin node.

rsn is the resource sequence number (RSN) expressed in decimal.

destination_cp is the network-qualified CP name of the TG's destination node if the resource that is displayed is a TG. If the resource is a node, ***NA*** is displayed.

tgn is the transmission group number that is associated with the TG that is displayed. If the resource is a node, NA is displayed.

IST2359I

This message is displayed when there are no topology resources that have been received, sent, or had RSNs updated since the TDU information and TDU counters were last reset. Message IST2275I displays last reset date and time.

System action: Processing continues.

Operator response: If you are displaying TDU information because of performance degradation of the APPN network, use the information about display TDU information in [z/OS Communications Server: SNA Diagnosis Vol 1 Techniques and Procedures] and do the following:

1. Repeat the display several times to see if there is a pattern of excessive TDU activity for a topology resource.
2. Enter the DISPLAY NET,TOPO,LIST=TDUINFO,SCOPE=RECENT command to see the topology resources with the most recent TDU activity.
3. If a node or TG is identified with excessive TDU activity, the following displays might provide information about the network nodes that are causing the performance degradation (TDU war):
   - DISPLAY NET,TOPO,LIST=TDUDIAG provides a summary of nodes and TGs with saved TDU diagnostic information.
   - DISPLAY NET,TOPO,LIST=TDUDIAG,ID=cp_name provides details about saved TDU diagnostic information for a node.
4. If you can identify the network nodes that are involved in the TDU war, bring down the CP-CP sessions from one of the network nodes involved to all other network nodes in the network or subnetwork.

**Tip:** On the DISPLAY NET,TOPO,LIST=TDUINFO command output, A RSN value of ******** or TDU counter values of ***** indicates that the value is greater than the available space for the value to be displayed in message IST1778I or IST2293I. You can clear the TDU counters, but not the RSN, with the CLEAR=YES operand specified on either the DISPLAY TOPO,LIST=TDUINFO command or the DISPLAY TOPO,LIST=TDUDIAG summary command. Alternately, you can enter the command with the FORMAT=LONG operand to display these values in a format that includes two lines of output for each resource.

**System programmer response:** Take the following actions:

- If the operator provides output from the DISPLAY NET,TOPO,LIST=TDUINFO or DISPLAY NET,TOPO,LIST=TDUDIAG command, use the display TDU information in z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures to analyze the TDU activity. If possible, identify the topology resource that is in contention and the network nodes that are involved in the TDU war.
- If you have access to IBMLink, search for known problems in this area. If no applicable matches are found, report the problem to IBM by using the Electronic Technical Report (ETR) option on IBMLink.
- If you do not have access to IBMLink, report the problem to the IBM software support center.

**Problem determination:** See the system programmer response.

**Module:** You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

**Routing code:** 2

**Descriptor code:** 5

**Automation:** Not applicable.

**Example:** The following is an example of the display output from a DISPLAY NET,TOPO,LIST=TDUINFO,SCOPE=ACTIVITY,NUM=5,FORMAT=SHORT command:

```
IST350I DISPLAY TYPE = TDU INFORMATION
IST1780I TOPOLOGY RESOURCES WITH MOST FREQUENT TDU ACTIVITY
IST2275I TDU INFORMATION SINCE LAST RESET ON 01/29/10 AT 11:43:05
IST2290I TDUDIAG START OPTION = 1000
IST2276I NO CORRUPTION OF TOPOLOGY CONTROL VECTORS DETECTED
IST924I -----------------------------------------------------------
IST2286I TDUS RECEIVED:
IST1777I CP NAME RSN DESTINATION CP TGN ACC REJ
IST1778I NETA.SSCP2A 6 NETA.SSCP1A 21 2 0
IST1778I CNRA.LVRN4A 2 NETA.SSCP2A 21 1 0
IST1778I NETA.SSCP2A 2 CNRA.LVRN4A 21 1 0
IST1778I NETA.SSCP1A 4 NETA.SSCP1A 21 1 0
IST1778I NETA.SSCPAA 2 ***NA*** NA 1 0
IST2301I 5 OF 6 TOPOLOGY RESOURCES DISPLAYED
IST924I -----------------------------------------------------------
IST2287I TDUS SENT:
IST1778I CP NAME RSN DESTINATION CP TGN SENT REC
IST1778I NETA.SSCP2A 6 NETA.SSCP1A 21 3 3
IST1778I NETA.SSCP1A 6 NETA.SSCP2A 21 3 1
IST1778I NETA.SSCP2A 2 ***NA*** NA 2 0
IST1778I NETA.SSCP1A 2 ***NA*** NA 2 0
IST1778I CNRA.LVRN4A 2 NETA.SSCP2A 21 1 1
IST2301I 5 OF 11 TOPOLOGY RESOURCES DISPLAYED
IST924I -----------------------------------------------------------
IST2289I RESOURCE SEQUENCE NUMBERS UPDATED BY THIS NODE:
IST2292I CP NAME RSN DESTINATION CP TGN UPDATED
IST2293I NETA.SSCP1A 6 NETA.SSCP2A 21 1
IST2293I CNRA.LVRN4A 2 NETA.SSCP1A 21 1
IST2293I NETA.SSCP1A 2 CNRA.LVRN4A 21 1
IST2301I 3 OF 3 TOPOLOGY RESOURCES DISPLAYED
IST314I END
```
IST1781I  INITDB CHECKPOINT DATASET LAST GARBAGE COLLECTION

Explanation: VTAM issues this message as part of a group messages in response to a DISPLAY TOPO, LIST=SUMMARY command. See IST1306I for a complete description of the message group.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2

Descriptor code: 5

IST1782I  ENTRY NAME TABLE NAME ACTIVATION TIME

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY COS,TYPE=APPN command. A complete description of the message group follows the example.

IST350I  DISPLAY TYPE = APPN COS

IST1782I  ENTRY NAME TABLE NAME ACTIVATION TIME

IST1783I  cos_entry cos_table date time...

IST314I  END

IST350I

This message identifies the type of information in the display and is always APPN Class of Service for this message group.

IST1782I

This message is a header message for the information displayed in message IST1783I.

IST1783I

One IST1783I will be issued for each APPN COS entry displayed.

*cos_entry* is the name of the APPN Class of Service entry.

*cos_table* is the name of the last APPNCOS table that was used to create or update the Class of Service entry.

The *date* and *time* values are displayed in the ACTIVATION TIME field. The *date* and *time* values specify when the Class of Service entry was created or last updated. See "DATE and TIME formats" on page 6 for information about the *date* value.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2

Descriptor code: 5

IST1783I  cos_entry cos_table date time

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY COS,TYPE=APPN command. The first message of the group is IST1782I. See the explanation of that message for a complete description of the group.

Routing code: 2

Descriptor code: 5
IST1784I • IST1787I

IST1784I  LAST TDU RECEIVED - NONE

Explanation: VTAM issues this message as part of a group of messages in response to the following commands:
1. DISPLAY TOPO,LIST=TDUDIAG,ID=cp_name. See message IST2306I for a complete description of this message group.
2. DISPLAY TOPO,LIST=TDUDIAG,ORIG=orig_cp_name,DEST=dest_cp_name,TGN=tgn. See message IST2311I for a complete description of this message group.
3. DISPLAY TOPO,ID=cp_name,LIST=ALL. See message IST1295I for a complete description of this message group.
4. DISPLAY TOPO,ORIG=orig_cp_name,DEST=dest_cp_name or DISPLAY TOPO,ORIG=orig_cp_name,TGN=tgn. See message IST1299I for a complete description of this message group.

Routing code: 2
Descriptor code: 5

---

IST1785I  initdb_date initdb_time garbage_collect_date garbage_collect_time

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY,TOPO,LIST=SUMMARY command. See IST1306I for a complete description of the group.

Routing code: 2
Descriptor code: 5

---

IST1786I  HPR ROUTE TEST INITIATED FOR RTP PU

Explanation: VTAM issues this message as part of a subgroup of messages in response to a DISPLAY RTPS command. The first message of the subgroup is IST1695I. See the explanation of that message for a complete description of the subgroup.

Routing code: 2
Descriptor code: 5

---

IST1787I  HPR ROUTE TEST RESULTS FOR RTP PU puname

Explanation: VTAM issues this message as the first of a message group to display the results of an HPR Route Test for puname. This HPR Route Test was initiated in response to a DISPLAY RTPS command with ID=puname or TCID=tcid_value and TEST=YES being issued for the RTP PU identified by puname. This message is the first in a group of messages and the full description of the message group follows the example.

IST1787I HPR ROUTE TEST RESULTS FOR RTP PU puname
IST1788I NODE CP NAME  TG NUMBER  PARTNER CP NAME  INTERNODAL TIME
IST1789I (MILLISECONDS)
IST1790I node_cpname  tg_number  partner_cpname  internodal_time
[IST1791I HPR ROUTE TEST PACKET NOT RETURNED BY NODE cpname]
IST1792I TOTAL RTP TRAVERSAL TIME traversal_time MILLISECONDS
IST314I END

IST1787I

puname is the RTP PU for which the Route Test results are displayed.

IST1788I

This message serves as a header for message IST1788I to identify the output columns in that message.

IST1789I

This message shows that the internodal_time value is in milliseconds.

IST1790I

• This message provides the data obtained by the Route Test. One of these messages will be issued for each link (Transmission Group) in the RTP pipe.
• node_cpname is the CP name of the node owning the Transmission Group(TG).
IST1788I • IST1790I

- *tg_number* is the negotiated TG number for this RTP or **UNKNOWN** if the real TG information is not available.
- *partner_cpname* is the CP name of the partner node for this TG.
- *internodal_time* is the time it took for a Route Test packet to traverse this TG, in milliseconds, or *****NA***** if this test packet did not return.

**Note:** The sum of the internodal times shown in the IST1790I messages might be as much as 1 ms less for each hop in the RTP than the total RTP traversal time shown in message IST1792I, because integer division might cause internodal times to be truncated during calculation.

**IST1791I**
This message will be issued for all nodes in the RTP pipe that did not return a Route Test packet.
*cpname* is the CP name of the node that did not return the Route Test packet.

**IST1792I**
This message tells how long it took a Route Test packet to be sent from this VTAM to the other end of the RTP pipe.
*traversal_time* is the total time in milliseconds it took for a Route Test packet to travel from VTAM to the other end of the RTP pipe.

**System action:** Processing continues.

**Operator response:** Examine the internodal and traversal times for each link (Transmission Group) to identify any links where the traversal time is slow. Route Test packets not returned would indicate a problem with one or more of the links between this host node and the node identified by IST1791I. Path Switching for this RTP should be automatically attempted by the system.

**System programmer response:** None.

Routing code: 2
Descriptor code: 5

**IST1788I**

**NODE CP NAME TG NUMBER PARTNER CP NAME INTERNODAL TIME**

**Explanation:** This message is part of a group of messages that VTAM issues in response to an HPR Route Test. The first message of the group is IST1787I. See the explanation of that message for a complete description of the group.

Routing code: 2
Descriptor code: 5

**IST1789I (MILLISECONDS)**

**Explanation:** This message is part of a group of messages that VTAM issues in response to an HPR Route Test. The first message of the group is IST1787I. See the explanation of that message for a complete description of the group.

Routing code: 2
Descriptor code: 5

**IST1790I**

**node_cpname tg_number partner_cpname internodal_time**

**Explanation:** This message is part of a group of messages that VTAM issues in response to an HPR Route Test. The first message of the group is IST1787I. See the explanation of that message for a complete description of the group.

Routing code: 2
Descriptor code: 5
IST1791I • IST1797I

IST1791I  HPR ROUTE TEST PACKET NOT RETURNED BY NODE cp_name

Explanation: This message is part of a group of messages that VTAM issues in response to an HPR Route Test. The first message of the group is IST1787I. See the explanation of that message for a complete description of the group.
Routing code: 2
Descriptor code: 5

IST1792I  TOTAL RTP TRAVERSAL TIME traversal_time MILLISECONDS

Explanation: This message is part of a group of messages that VTAM issues in response to an HPR Route Test. The first message of the group is IST1787I. See the explanation of that message for a complete description of the group.
Routing code: 2
Descriptor code: 5

IST1793I  HPR ROUTE TEST NOT INITIATED - RTP PU NOT IN PROPER STATE

Explanation: VTAM issues this message as part of a subgroup of messages in response to a DISPLAY RTPS command. The first message of the subgroup is IST1695I. See the explanation of that message for a complete description of the subgroup.
Routing code: 2
Descriptor code: 5

IST1794I  HPR ROUTE TEST NOT INITIATED - TEST ALREADY IN PROGRESS

Explanation: VTAM issues this message as part of a subgroup of messages in response to a DISPLAY RTPS command. The first message of the subgroup is IST1695I. See the explanation of that message for a complete description of the subgroup.
Routing code: 2
Descriptor code: 5

IST1795I  HPR ROUTE TEST NOT INITIATED - INSUFFICIENT STORAGE

Explanation: VTAM issues this message as part of a subgroup of messages in response to a DISPLAY RTPS command. The first message of the subgroup is IST1695I. See the explanation of that message for a complete description of the subgroup.
Routing code: 2
Descriptor code: 5

IST1796I  SYSTEM-MANAGED DUPLEXING REBUILD IS IN PROGRESS

Explanation: This message is part of a group of messages VTAM issues in response to a DISPLAY STATS,TYPE=CFS command. The first message in the group is IST1370I. See the explanation of that message for a complete description.
Routing code: 2
Descriptor code: 5

IST1797I  STRUCTURE TYPE = type

Explanation: This message is part of a group of messages VTAM issues in response to a DISPLAY STATS,TYPE=CFS command. The first message in the group is IST1370I. See the explanation of that message for a complete description.
Routing code: 2
Descriptor code: 5
IST1798I  TOPOLOGY DATASET RETRIEVED WAS CREATED ON date time

Explanation: VTAM issues this message when topology data from a previously saved topology checkpoint data set has been read successfully at VTAM initialization.

The date and time values specify when the data set was created. See [DATE and TIME formats] on page 6 for information about the date and time values.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2

Descriptor code: 5

IST1799I  NO ROUTE AVAILABLE TO DESTINATION IP ADDRESS ipaddr

Explanation: This message is the first in a group of messages that VTAM issues when the TCP/IP stack could not find a route to the destination VIPA address specified. A complete description of the message group follows the example.

IST1799I NO ROUTE AVAILABLE TO DESTINATION IP ADDRESS ipaddr
IST1680I type IP ADDRESS ip_address
IST314I END

IST1799I

ipaddr is the destination static VIPA address.

IST1680I

type indicates which IP address is being displayed. In this message group, type is always LOCAL.

ip_address is the source static VIPA address.

System action: The Enterprise Extender connection will fail to activate and the associated link will be deactivated because no route was available.

Operator response: None.

System programmer response: There is no route to this IP address. For an Enterprise Extender connection, the address must be a static VIPA and a route must be available between the two endpoints of the connection. Determine if this address has been specified correctly and that there is a route in both directions between the endpoints of the Enterprise Extender connection.

Routing code: 2

Descriptor code: 5

IST1800I  TRLE = trlename ** CONGESTED **

Explanation: This message is issued in response to the following display commands when the associated device is congested:

- D NET TRL
- D NET,TRL,TRLE=trlename
- D NET,ID=trlename

** CONGESTED ** indicates that the associated device trlename has an excessive amount of outbound I/O work that is queued at the Data Link Control (DLC) layer. This congestion might be related to system storage problems (such as storage shortages) for this system.

System action: None.

Operator response: When a device is marked congested, further action is required to determine whether the congestion is related to a system storage problem. The following steps should be taken:

1. Review the system console for any messages related to current storage shortage conditions.
2. Issue the following display commands:
   • VTAM display commands:
     – D NET,CSM
     – D NET,BFRUSE
     – D NET,STORUSE,POOL=*  
   • TCP/IP display command (if applicable):
     – D TCPIP,, STOR

3. Issue D NET,TRL,TRLE= trlname to obtain more details about the device congestion (reference message IST1802I).
4. Activate VTAM tuning statistics (TNSTAT) or RMF™ (or other monitoring tools) to monitor this specific device.
5. Display the active jobs in the system to determine whether new work was recently started.

If the previous steps indicate a system storage shortage is present, it might be necessary to obtain documentation (such as a CONSOLE LOG and a DUMP) to diagnose the congestion related to this device. This condition might be relieved by stopping the device (TCP/IP) or inactivating the PU (SNA).

**System programmer response:** The following steps might be required to isolate a system storage problem that is related to an I/O device:
1. Review the network configuration related to this device or any recent configuration changes for this system.
2. Review or monitor (using the output from VTAM TNSTAT or RMF) the network traffic related to this device. Compare the actual workload to the I/O capacity of the hardware device.
3. Determine if the congestion is related to a specific time of day, job, application, or type of work load.
4. Verify that Missing Interrupt Handler (MIH) is defined for the write devices.
5. Review or verify that the maintenance level for the hardware device is current.
6. Consider automating the necessary storage displays to monitor system conditions.

**Routing code:** 2
**Descriptor code:** 5

---

**IST1801I • IST1802I**

**Explanation:** This message is displayed as a result of display command D NET,TRL,TRLE= trlename or D NET,ID = trlename.  

`stor_addr` is the storage address of the Node Control Block (NCB) that is related to this device. For a description of the counts of units of work, see IST1802I.

**System action:** None.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2
**Descriptor code:** 5

---

**IST1801I **

**Explanation:** This message is issued as a result of display command D NET,TRL,TRLE= trlename or D NET,ID= trlename. This message provides the detailed counts of units of work for a specific device or MPC group measured at the Data Link Control (DLC) layer.

`pn` is the Priority Queue Number (such as P1) for this device. `pn` is only displayed when applicable to a DLC.

Each of the following counts CURRENT, AVERAGE, and MAXIMUM is a 4-digit (nnnn) decimal number with a range of 1 - 9999. When the count exceeds 9999, the number will be expressed as nnnK (thousands - such as 12K). The highest value that can be displayed is 999K.

`cur` is the current total number of outbound work units that are being processed by the DLC layer for this device or MPC group.
avg is the average number of outbound work units that have been processed by the DLC layer for this device since activation. Average means how many outbound work units are present at the DLC layer for this device each time the DLC processes outbound work.

max is the maximum number of outbound work elements that accumulated in the DLC layer for this device since activation.

System action: None.

Operator response: None. However, if the CURRENT COUNT is excessive, the device might be marked **CONGESTED**. See IST1800I for an explanation of **CONGESTED**.

System programmer response: None.

Routing code: 2
Descriptor code: 5

IST1803I | parameter | PARAMETER VALUE NOT VALID - DEFAULT default USED
Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO command. See IST1295I for a complete description of the message group.
Routing code: 2
Descriptor code: 5

IST1804I | parameter | PARAMETER NOT VALID - IGNORED
Explanation: VTAM can issue this message as part of a group of messages or as a stand-alone message.
When VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO command, see IST1295I for a complete description of the message group.
VTAM issues this message alone in response to a MODIFY RESOURCE,ID=cdrc_name,ADJLIST=list,ACTION=UPDATE when the command is entered in a pure APPN node. A pure APPN node is a VTAM that is started with start options NODETYPE=NN or NODETYPE=EN, but without HOSTSA or with HOSTSA and SACONNS=NO.
parameter is the parameter that is not valid on the command. For the MODIFY RESOURCE command in a pure APPN node, parameter will always be ADJLIST.
System action: Processing continues. If this message is issued in response to a MODIFY RESOURCE command, the specified ADJLIST is not associated with the CDRSC.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST1805I | ONLY LOCAL TOPOLOGY INFORMATION IS AVAILABLE
Explanation: VTAM issues this message when a DISPLAY TOPO command is issued at an end node and one of the following is true:
• The requested information is not available at the end node. In this case, this message will be displayed before IST1308I.
• The information displayed might be a subset of the information displayed when the same command is issued at a network node. In this case, this message is part of a group of messages in response to a DISPLAY TOPO command. See IST1295I for a complete description of the message group.
System action: Processing continues.
Operator response: None.
System programmer response: None.
IST1806I • IST1810I

Routing code: 2
Descriptor code: 5

IST1806I  NO DIAL-IN LINE FOUND FOR HPR/IP SWITCHED CONNECTION

Explanation: This message is issued when there are no HPR/IP (Enterprise Extender) lines available to accept a dial in predefined Enterprise Extender (EE) network connection. The lines are defined in the HPR/IP (Enterprise Extender) XCA major node.

System action: Processing continues and the EE connection was not established. The other side of the EE connection (where the dial out was initiated) will eventually discover the connection was not established, and an INOP will be generated (due to a timeout while waiting for a response to EE connection initiation).

Operator response: Save the system log and contact the system programmer for problem determination.

System programmer response: Add lines to one of the GROUPs used to define HPR/IP (Enterprise Extender) predefined connections in the XCA major node. See the z/OS Communications Server: SNA Resource Definition Reference for information about defining EE connections and see the z/OS Communications Server: SNA Network Implementation Guide for general information about Enterprise Extender.

Routing code: 2
Descriptor code: 5

IST1807I  NO DIAL-IN LINE FOR HPR/IP VIRTUAL NODE nodename

Explanation: This message is issued when there are no HPR/IP (Enterprise Extender) lines available to accept a dial in for an Enterprise Extender (EE) Connection Network. The lines are defined in the HPR/IP (Enterprise Extender) XCA major node.

nodename is the name of the HPR/IP (Enterprise Extender) virtual node for a connection network.

System action: Processing continues and the EE connection was not established. The other side of the EE connection (where the dial out was initiated) will eventually discover that the connection was not established and an INOP will be generated (due to a timeout while waiting for a response to EE connection initiation.)

Operator response: Save the system log and contact the system programmer for problem determination.

System programmer response: Add lines to the GROUP used to define the HPR/IP (Enterprise Extender) Connection Network in the XCA major node. See the z/OS Communications Server: SNA Resource Definition Reference for information about defining EE connections and see the z/OS Communications Server: SNA Network Implementation Guide for general information about Enterprise Extender.

Routing code: 2
Descriptor code: 5

IST1809I  HPR ROUTE TEST NOT INITIATED - INSUFFICIENT PATH INFORMATION

Explanation: VTAM issues this message as part of a subgroup of messages in response to a DISPLAY RTPS command. The first message of the subgroup is IST1695I. See the explanation of that message for a complete description of the subgroup.

Routing code: 2
Descriptor code: 5

IST1810I  PKTIQDO = pktiqdo PKTIQD = pktiqd

Explanation: VTAM issues this message as part of a group of messages that displays tuning statistics for multipath channel (MPC) attached resources. The first message in the group is IST1230I. See that message for a complete description.

Routing code: 2
Descriptor code: 5
IST1811I  BYTIQDO = bytiqdo BYTIQD = bytiqdo

**Explanation:** VTAM issues this message as part of a group of messages that displays tuning statistics for multipath channel (MPC) attached resources. The first message in the group is IST1230I. See that message for a complete description.

**Routing code:** 2  
**Descriptor code:** 5

IST1816I  PARAMETER 1 FOR DISCNTIM MUST BE NUMERIC OR IMMED

**Explanation:** VTAM issues this message during START processing or in response to a MODIFY VTAMOPTS command when the first parameter specified for the DISCNTIM start option is not correct. The first parameter for the DISCNTIM start option must be numeric, or the character value IMMED.

**System action:** VTAM ignores the option. If the error occurred during START processing, VTAM will issue message IST1311A to prompt you to enter the start option value of DISCNTIM again. See IST1311A for more information. If the error occurred in response to a MODIFY VTAMOPTS command, processing continues.

**Operator response:** If the error occurred during START processing, enter a valid value for parameter one of DISCNTIM option in response to IST1311A. You can also enter a blank if you want to accept the default value for DISCNTIM. If the error occurred in response to a MODIFY VTAMOPTS command, issue the command again, specifying a valid value for parameter one of DISCNTIM.

**System programmer response:** If the error occurred during START processing, correct the value for DISCNTIM, if DISCNTIM is coded in an ATCSTRxx file. If the error occurred in response to a MODIFY VTAMOPTS command, no further action is required.

**Routing code:** 2  
**Descriptor code:** 5

IST1817I  PATH SWITCH REASON: RTP CONNECTION UNAVAILABLE

**Explanation:** This message is part of a group of messages that VTAM issues in response to an RTP path switch. The first message in the group is either IST1494I or IST1968I. See the description of those messages for more information.

**Routing code:** 2  
**Descriptor code:** 5

IST1818I  PATH SWITCH REASON: SHORT REQUEST RETRY LIMIT EXHAUSTED

**Explanation:** This message is part of a group of messages that VTAM issues in response to an RTP path switch. The first message in the group is either IST1494I or IST1968I. See the description of those messages for more information.

**Routing code:** 2  
**Descriptor code:** 5

IST1819I  PATH SWITCH REASON: TG INOP

**Explanation:** This message is part of a group of messages that VTAM issues in response to an RTP path switch. The first message in the group is either IST1494I or IST1968I. See the description of those messages for more information.

**Routing code:** 2  
**Descriptor code:** 5

IST1820I  PATH SWITCH REASON: MODIFY RTP COMMAND ISSUED

**Explanation:** This message is part of a group of messages that VTAM issues in response to an RTP path switch. The first message in the group is either IST1494I or IST1968I. See the description of those messages for more information.

**Routing code:** 2
IST1821I • IST1827I

Descriptor code: 5

IST1821I PATH SWITCH REASON: AUTO PATH SWITCH FOR PSRETRY

Explanation: This message is part of a group of messages that VTAM issues in response to an RTP path switch. The first message in the group is either IST1494I or IST1968I. See the description of those messages for more information.
Routing code: 2
Descriptor code: 5

IST1822I PATH SWITCH REASON: UNKNOWN

Explanation: This message is part of a group of messages that VTAM issues in response to an RTP path switch. The first message in the group is either IST1494I or IST1968I. See the description of those messages for more information.
Routing code: 2
Descriptor code: 5

IST1823I LIST DVIPA SYSNAME TCPNAME # ASSIGNED PORTS

Explanation: This message is part of a group of messages VTAM issues in response to a DISPLAY STATS,TYPE=CFS command. The first message in the group is IST1370I. See the explanation of that message for a complete description.
Routing code: 2
Descriptor code: 5

IST1824I list dvipa numports

Explanation: This message is part of a group of messages VTAM issues in response to a DISPLAY STATS,TYPE=CFS command. The first message in the group is IST1370I. See the explanation of that message for a complete description.
Routing code: 2
Descriptor code: 5

IST1825I sysname tcpname numports

Explanation: This message is part of a group of messages VTAM issues in response to a DISPLAY STATS,TYPE=CFS command. The first message in the group is IST1370I. See the explanation of that message for a complete description.
Routing code: 2
Descriptor code: 5

IST1826I PORTS: port1 port2 port3 port4 port5 port6

Explanation: This message is part of a group of messages VTAM issues in response to a DISPLAY STATS,TYPE=CFS command. The first message in the group is IST1370I. See the explanation of that message for a complete description.
Routing code: 2
Descriptor code: 5

IST1827I port1 port2 port3 port4 port5 port6

Explanation: This message is part of a group of messages VTAM issues in response to a DISPLAY STATS,TYPE=CFS command. The first message in the group is IST1370I. See the explanation of that message for a complete description.
Routing code: 2
Descriptor code: 5
IST1828I LIST listnum IS UNCLAIMED

Explanation: This message is part of a group of messages VTAM issues in response to a DISPLAY STATS,TYPE=CFS command. The first message in the group is IST1370I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST1829I NO CLAIMED LISTS FOUND FOR THE SPECIFIED DVIPA

Explanation: This message is part of a group of messages VTAM issues in response to a DISPLAY STATS,TYPE=CFS command. The first message in the group is IST1370I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST1830I NO CLAIMED LISTS FOUND

Explanation: This message is part of a group of messages VTAM issues in response to a DISPLAY STATS,TYPE=CFS command. The first message in the group is IST1370I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST1831I percent OF SYSTEM CSA STORAGE REMAINING = sys_csa_avail

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY BFRUSE command. The first message in the group is IST449I. See the explanation of that message for a full description.

Routing code: 2
Descriptor code: 5

IST1832I CSALIMIT VALUE csa_limit MIGHT BE TOO SMALL

Explanation: VTAM issues this message when a nonzero value is specified for CSALIMIT that is less than 25 Megabytes (25 000 Kilobytes) and the _F modifier is specified to make it an absolute setting. This message is informational because the value coded might be appropriate for your system.

csa_limit is the CSA limit specified in the CSALIMIT start option or a MODIFY CSALIMIT command.

System action: Processing continues.

Operator response: When VTAM is active, issue a DISPLAY BFRUSE,BUFFER=* command and save the console output for the system programmer.

System programmer response: See the z/OS Communications Server: SNA Resource Definition Reference and the z/OS Communications Server: SNA Network Implementation Guide for information about setting the CSALIMIT value too low. See the z/OS Communications Server: SNA Operation for details on using the VTAM DISPLAY BFRUSE command output to determine the currently available and the total system CSA.

Routing code: 2
Descriptor code: 3

IST1833I CSA STORAGE ALLOCATION EXCEEDS SPECIFIED CSALIMIT VALUE

Explanation: A CSA storage request caused VTAM to exceed the value specified for CSALIMIT.

System action: Processing continues.

Operator response: Monitor CSA storage usage with the DISPLAY BFRUSE,BUFFER=* command. See the z/OS Communications Server: SNA Operation for details. Save this console output for the System Programmer.

System programmer response: Determine if the current value for CSALIMIT is set too low and modify it, if
IST1834I • IST1839I

necessary. See the z/OS Communications Server: SNA Resource Definition Reference for information about specifying a low CSALIMIT value. See the z/OS Communications Server: SNA Operation for details on using the VTAM DISPLAY BFRUSE command output to determine the currently available and the total system CSA. See the z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures about storage problem procedures for CSA storage problems.

Routing code: 2
Descriptor code: 3

IST1834I   LIST DVIPA SYSNAME TCPNAME #ENTRIES TGCOUNT SEQNUMBER

Explanation: This message is part of a group of messages VTAM issues in response to a DISPLAY STATS,TYPE=CFS command. The first message in the group is IST1370I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST1835I   list dvipa

Explanation: This message is part of a group of messages VTAM issues in response to a DISPLAY STATS,TYPE=CFS command. The first message in the group is IST1370I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST1836I   sysname tcpname #entries tgcount

Explanation: This message is part of a group of messages VTAM issues in response to a DISPLAY STATS,TYPE=CFS command. The first message in the group is IST1370I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST1837I   sysname tcpname #entries seqnumber

Explanation: This message is part of a group of messages VTAM issues in response to a DISPLAY STATS,TYPE=CFS command. The first message in the group is IST1370I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST1838I   LIST ENTRY KEYS:

Explanation: This message is part of a group of messages VTAM issues in response to a DISPLAY STATS,TYPE=CFS command. The first message in the group is IST1370I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST1839I   list_entry_key

Explanation: This message is part of a group of messages VTAM issues in response to a DISPLAY STATS,TYPE=CFS command. The first message in the group is IST1370I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5
IST1840I  DLUR = dlurname

Explanation: VTAM issues this message as part of a message group to indicate the name of the dependent LU requester (DLUR) associated with a resource for which a negative response to a request was received. The first message in the group is IST1139I. See the description of that message for a complete description.

IST1841I  ACTUAL DATA FLOW RATE = actual units

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route. The first message in the group is either IST1476I or IST1968I. See the description of those messages for more information.

Routing code: 2
Descriptor code: 5

IST1842I  NUMBER OF NLPS RETRANSMITTED = retransmitted

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is IST1968I. See the description of that message for more information.

Routing code: 2
Descriptor code: 5

IST1843I  NUMBER OF NLPS ON WAITING-TO-SEND QUEUE = waitsend

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is IST1968I. See the description of that message for more information.

Routing code: 2
Descriptor code: 5

IST1844I  ARB MODE = mode

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is IST1968I. See the description of that message for more information.

Routing code: 2
Descriptor code: 5

IST1845I  BOUNDARY DIVIDING REGIONS lower AND upper = boundary MILLISECONDS

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is IST1968I. See the description of that message for more information.

Routing code: 2
Descriptor code: 5

IST1846I  type RECEIVER THRESHOLD = threshold MICROSECONDS

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is IST1968I. See the description of that message for more information.

Routing code: 2
Descriptor code: 5
**IST1847I • IST1853I**

**IST1847I**  NUMBER OF NLPS ON WAITING-FOR-ACKNOWLEDGEMENT QUEUE = waitack

**Explanation:** VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is IST1968I. See the description of that message for more information.

Routing code: 2  
Descriptor code: 5

**IST1848I**  SEND BYTE COUNT = sendcount RECEIVE BYTE COUNT = receivecount

**Explanation:** VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is IST1476I. See the description of that message for more information.

Routing code: 2  
Descriptor code: 5

**IST1849I**  LARGEST NLP SENT = size BYTES

**Explanation:** VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is IST1968I. See the description of that message for more information.

Routing code: 2  
Descriptor code: 5

**IST1850I**  LARGEST NLP RECEIVED = size BYTES

**Explanation:** VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is IST1968I. See the description of that message for more information.

Routing code: 2  
Descriptor code: 5

**IST1851I**  SMOOTHED ROUND TRIP TIME = smoothed_time MILLISECONDS

**Explanation:** VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is IST1968I. See the description of that message for more information.

Routing code: 2  
Descriptor code: 5

**IST1852I**  LIVENESS TIMER = liveness SECONDS

**Explanation:** VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is IST1968I. See the description of that message for more information.

Routing code: 2  
Descriptor code: 5

**IST1853I**  NUMBER OF NLPS ON OUT-OF-SEQUENCE QUEUE = out_of_sequence

**Explanation:** VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is IST1968I. See the description of that message for more information.
IST1854I  NUMBER OF NLPS ON INBOUND SEGMENTS QUEUE = inbound_segs

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is IST1968I. See the description of that message for more information.

Routing code: 2
Descriptor code: 5

IST1855I  NUMBER OF SESSIONS USING RTP = sessions

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route. The first message in the group is IST1476I. See the description of that message for more information.

Routing code: 2
Descriptor code: 5

IST1856I  LAST PATH SWITCH OCCURRENCE WAS ON date AT time

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is IST1968I. See the description of that message for more information.

Routing code: 2
Descriptor code: 5

IST1857I  BACKPRESSURE REASON COUNTS:

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is IST1968I. See the description of that message for more information.

Routing code: 2
Descriptor code: 5

IST1858I  PATHSWITCH SEND QUEUE MAX STORAGE FAILURE STALLED PIPE

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is IST1968I. See the description of that message for more information.

Routing code: 2
Descriptor code: 5

IST1859I  pathswitch sendqmax storefail stalledpipe

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is IST1968I. See the description of that message for more information.

Routing code: 2
Descriptor code: 5
IST1860I • IST1863I

IST1860I  NUMBER OF NLPS SENT = sent - OVERFLOW = overflow

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is IST1476I. See the description of that message for more information.

Routing code:  2
Descriptor code:  5

IST1861I  NUMBER OF NLPS RECEIVED = received - OVERFLOW = overflow

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is IST1476I. See the description of that message for more information.

Routing code:  2
Descriptor code:  5

IST1862I  ARB MAXIMUM SEND RATE = maximum units

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is IST1968I. See the description of that message for more information.

Routing code:  2
Descriptor code:  5

IST1863I  SUBAREA INDEX ELEMENT

Explanation: This message is the first of a group of messages that VTAM issues in response to a DISPLAY VTAMSTOR command to display storage contents associated with a resource name or a network address. A complete description of the message group follows the example.

IST1863I SUBAREA INDEX ELEMENT
IST1864I X’saHex'(saDec) X‘indHex' (indDec) X’eleHex' (eleDec)
IST1573I type STORAGE DISPLAY BEGINS AT LOCATION address
IST1574I offset hexdata_1 hexdata_2 hexdata_3 hexdata_4 EBCDIC_data
IST1574I offset hexdata_1 hexdata_2 hexdata_3 hexdata_4 EBCDIC_data
IST1574I offset hexdata_1 hexdata_2 hexdata_3 hexdata_4 EBCDIC_data;
IST314I END

IST1573I

type indicates the type of storage being displayed. The values for type are RDTE or RDTE PROFILE.

address indicates the hexadecimal storage address for the beginning of the display.

IST1574I

This message displays storage beginning at the address indicated in message IST1573I. This message is issued as many times as necessary to display the entire RDTE or RDTE profile.

offset is the hexadecimal offset of the storage from the address in message IST1573I.

hexdata_1, hexdata_2, hexdata_3, and hexdata_4 each display four bytes of the storage in hexadecimal format.

EBCDIC_data displays sixteen bytes of the storage in EBCDIC format.

IST1863I

This message is the header for the information displayed in message IST1864I.

IST1864I

This message provides the requested network address in hexadecimal and decimal.

saHex is the subarea address in hexadecimal.

saDec is the subarea address in decimal.
IST1864I • IST1865I

\[\text{indHex}\] is the index in hexadecimal.
\[\text{indDec}\] is the index in decimal.
\[\text{eleHex}\] is the element in hexadecimal.
\[\text{eleDec}\] is the element in decimal.

System action: None.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

\text{IST1864I} \ X'{\text{saHex}}(\text{saDec})\ X'{\text{indHex}}(\text{indDec})\ X'{\text{eleHex}}(\text{eleDec})$

Explanation: This is part of the message group that begins with message IST1863I. See the explanation of that message for a complete description.
Routing code: 2
Descriptor code: 5

\text{IST1865I} \ \text{GLOBAL INOPDUMP} = \text{status}$

Explanation: This message is the first in a group of messages in response to the DISPLAY INOPDUMP or MODIFY INOPDUMP commands. Possible message groups follow:

- In response to a DISPLAY INOPDUMP command:
  \begin{verbatim}
  IST350I DISPLAY TYPE = INOPDUMP
  IST1865I GLOBAL INOPDUMP = status
  [IST924I -------------------------------]
  [IST1954I TRL MAJOR NODE = trl_major_node_name]
  [IST1866I TRLE = trlename INOPDUMP = ON]
  ...
  IST314I END
  \end{verbatim}

- In response to a MODIFY INOPDUMP command:
  \begin{verbatim}
  IST1865I GLOBAL INOPDUMP = status
  [IST1866I TRLE = trlename INOPDUMP = status]
  ...
  [IST1867I INOPDUMP = status FOR ALL TRLE BASED RESOURCES]
  IST223I MODIFY COMMAND COMPLETE
  IST314I END
  \end{verbatim}

- In response to a MODIFY VTAMOPTS, INOPDUMP command:
  \begin{verbatim}
  IST1865I GLOBAL INOPDUMP = status
  IST1867I INOPDUMP = status FOR ALL TRLE BASED RESOURCES
  IST314I END
  \end{verbatim}

\text{IST223I}

VTAM issues this message when the MODIFY command has successfully completed.

\text{IST350I}

This message identifies the type of information shown in the display. For this message group, type is always INOPDUMP.

\text{IST1865I}

- \text{status} can be one of the following:
  - ON indicates that all active non-TRLE controlled resources might attempt to initiate an automatic VTAM dump when an inoperative condition is detected.
  - OFF indicates that no active non-TRLE controlled resources will attempt to initiate an automatic VTAM dump when an inoperative condition is detected.
IST1866I

• The global INOPDUMP status is the default used to initialize each TRLE-based resource INOPDUMP status when
  the TRLEs are activated.

IST1866I

• If you receive this message in response to a DISPLAY INOPDUMP command, it will appear once for each TRLE
  with INOPDUMP=ON.
• trlname is the name of the TRLE for which status is being reported.
• status can be one of the following:
  – ON indicates that the resources defined in the TRLE might attempt to initiate an automatic VTAM dump when
    an inoperative condition is detected.
  – OFF indicates that the resources defined in the TRLE will not attempt to initiate an automatic VTAM dump
    when an inoperative condition is detected.

IST1867I

• status can be one of the following:
  – ON indicates that the INOPDUMP status for every TRLE in all active predefined TRL major nodes has been set
    to ON.
  – OFF indicates that the INOPDUMP status for every TRLE in all active predefined TRL major nodes has been set
    OFF.
• This message is a reminder to the operator that use of the MODIFY VTAMOPTS,INOPDUMP command or a global
  MODIFY INOPDUMP command also sets the INOPDUMP status for each TRLE in all active predefined TRL major
  nodes. However, if there are no active predefined TRL major nodes, this message will not appear in the response.

IST1954I

  trl_major_node_name is the name of the TRL major node defining the TRLE for which status is being reported.
  This message is issued once for each active predefined TRL major node.

System action: Processing continues
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST1866I

TRLE = trlname INOPDUMP = status

Explanation: VTAM issues this message as part of the response to the following commands:
• DISPLAY INOPDUMP to show all TRLEs for which INOPDUMP = ON; see IST1865I for an example of this
  message group.
• MODIFY INOPDUMP (with the TRLE operand) to show the new INOPDUMP status of each TRLE in the operand
  list; see IST1865I for an example of this message group.
• DISPLAY ID=trlename when INOPDUMP=ON for trlename.
• DISPLAY TRL,TRLE=trlename when INOPDUMP=ON for trlename.

trlename is the name of the TRLE for which status is being reported.

status can be one of the following:
• ON indicates that the resources defined in the TRLE might attempt to initiate an automatic VTAM dump when
  an inoperative condition is detected.
• OFF indicates that the resources defined in the TRLE will not attempt to initiate an automatic VTAM dump when
  an inoperative condition is detected.

System action: Processing continues.
Operator response: None.
System programmer response: None.
**IST1867I • IST1870I**

Routing code: 2
Descriptor code: 5

---

**IST1867I INOPDUMP = status FOR ALL TRLE-BASED RESOURCES**

**Explanation:** This message is part of a message group that begins with message IST1865I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

---

**IST1868I DISPLAY APING FAILED - TP INSTANCE LIMIT EXCEEDED**

**Explanation:** The DISPLAY APING command was issued; however, the instance limit for the APING command transaction program (TP) has already been reached, so no further DISPLAY APING commands may be started until an executing APING completes.

**System action:** Processing continues.

**Operator response:** Wait until a currently executing DISPLAY APING command completes and reissue the command, or issue the MODIFY APINGTP command to increase the APING command TP instance limit.

**System programmer response:** None.

Routing code: 2
Descriptor code: 5

---

**IST1869I NO tname SESSIONS EXIST**

**Explanation:** A DISPLAY APINGTP or DISPLAY APINGDTP operator command was issued specifying LIST=ALL or LIST=COUNT to display session information for active instances of the requested TP. However, there are no sessions active for that transaction program.

*tname* is either APING or APINGD.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

Routing code: 2
Descriptor code: 5

---

**IST1870I tname HAS count ACTIVE SESSIONS**

**Explanation:** This message is the first in a group of messages that VTAM issues in response to a DISPLAY APINGTP or DISPLAY APINGDTP command when LIST=ALL is specified. The message will be issued without detailed session information in response to one of these commands when LIST=COUNT is specified. A complete description of the message group follows the example.

IST1870I tname HAS count ACTIVE SESSIONS
[IST1888I lutype = luname SID = sid]
[IST1888I lutype = luname SID = sid]
IST3141 END

**tname** is either APING or APINGD.

*count* shows the number of active sessions for the specified transaction program.

**IST1888I**

*lutype* is either DLU or OLU.
**IST1871I**

`luname` is the name of the destination logical unit (DLU) or originating logical unit (OLU) with which the API NG session exists.

`sid` is the session identifier (SID) used to identify the session over which the API NG transaction occurs. The value ***NA*** is displayed if the session identifier is not currently available to VTAM.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

**Explanation:** This message is part of a group of messages VTAM issues in response to a DISPLAY CSDUMP command. This message group displays the status of the message trigger used to trigger a dump and the sense trigger used to trigger a dump. A complete description of the message group follows the example.

**IST1871I** MESSAGE TRIGGER: MESSAGE = msgnum MATCHLIM = matchlimit

**IST1872I** VALUE fieldnum = specifiedtext

**IST2234I** MESSAGE TRIGGER: TCPNAME = tcpjobname

**IST2235I** REMOTE DUMP FOR XCF LINK INOP: remote_dump

**IST2240I** SENSE TRIGGER: TCPNAME = tcpjobname

**IST1873I** SENSE TRIGGER: NONE

**IST1874I** SENSE TRIGGER: NONE

**IST1875I** MESSAGE TRIGGER: NONE

**IST2399I** MESSAGE TRIGGER: RNICTRLE = rnic_trlename

**IST1871I** END

**IST350I** This message identifies the type of information shown in the display. For this message group, type is always CSDUMP TRIGGERS and the display contains the status of the CSDUMP triggers.

**IST1871I** This message is issued when a message trigger is used to trigger a dump.

`msgnum` is the message number of the message trigger.

`matchlimit` specifies the number of times the message trigger will be used.

**IST1872I** This message displays the contents of the message variable text fields if the variable text field was specified for the message. This message will be issued for each of the values that the user specified in the format (value_1,value_2,value_3). If any value is skipped, this message is issued with the value of *NONE*. No message will be issued for trailing values not specified.

`fieldnum` is the field number of the message variable text field. The fields are numbered in the order in which they appear in the trigger message.

`specifiedtext` is the value that the user specified to be used for a trigger.

**IST1873I** This message contains the information about the sense trigger used to trigger a dump.

`sensecode` is the sense code used as the trigger.

`rucode` is the request unit code used as a trigger. If there is no RU specified for a sense trigger, a value of *ANY* is displayed.

`matchlimit` specifies the number of times the sense trigger can be used.

**IST1874I** This message indicates that no message trigger is set.
IST1875I
This message indicates that no sense trigger is set.

IST2234I
This message displays the TCP job name associated with the message trigger.
The tcpjobname value is the job name of the TCP stack that is specified for this trigger.

IST2235I
This message indicates whether a dump of the remote VTAM will be attempted when an XCF link connecting two VTAMs in a sysplex goes INOP.
The remote_dump value is either YES or NO.

IST2240I
This message displays the TCP job name associated with the sense trigger.
The tcpjobname value is the job name of the TCP stack that is specified for this trigger.

IST2399I
This message displays the TRLE name associated with the message trigger.
The rnic_trlename value is the name of a 10GbE RoCE Express TRLE that is specified for this trigger.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

**IST1872I**  VALUE fieldnum = specifiedtext

Explanation: VTAM issues this message as part of a message group in response to a DISPLAY CSDUMP command. See IST1871I for a complete description of the message group.
Routing code: 2
Descriptor code: 5

**IST1873I**  SENSE TRIGGER: SENSE = sensecode RU = rucode MATCHLIM = matchlimit

Explanation: VTAM issues this message as part of a message group in response to a DISPLAY CSDUMP command. See IST1871I for a complete description of the message group.
Routing code: 2
Descriptor code: 5

**IST1874I**  MESSAGE TRIGGER: NONE

Explanation: VTAM issues this message as part of a message group in response to a DISPLAY CSDUMP command. The first message in the group is either this message or IST1871I. See IST1871I for a complete description of the message group.
Routing code: 2
Descriptor code: 5
IST1875I • IST1878I

IST1875I    SENSE TRIGGER: NONE
Explanation:  VTAM issues this message as part of a message group in response to a DISPLAY CSDUMP command. See IST1871I for a complete description of the message group.
Routing code:  2
Descriptor code:  5

IST1876I    MESSAGE TRIGGER DELETED
Explanation:  VTAM issues this message in response to a MODIFY CSDUMP command with the DELETE operand specified.
The following is a complete description of the group:
[IST1876I MESSAGE TRIGGER DELETED]
[IST1878I NO MESSAGE TRIGGER EXISTS]
[IST1877I SENSE TRIGGER DELETED]
[IST1882I NO SENSE TRIGGER EXISTS]
IST223I MODIFY CSDUMP COMMAND COMPLETED
IST314I END

IST1876I
VTAM deleted the message trigger that was set to cause a dump to be taken. This message is issued if DELETE=ALL or DELETE=MESSAGE is specified.

IST1877I
VTAM deleted the sense trigger that was set to cause a dump to be taken. This message is issued if DELETE=ALL or DELETE=SENSE is specified.

IST1878I
VTAM did not find the message trigger set when processing a MODIFY CSDUMP command with DELETE=MESSAGE or DELETE=ALL specified.

IST1882I
VTAM did not find the sense trigger set when processing a MODIFY CSDUMP command with DELETE=SENSE or DELETE=ALL specified.
System action:  Processing continues
Operator response:  None.
System programmer response:  None.
Routing code:  2
Descriptor code:  5

IST1877I    SENSE TRIGGER DELETED
Explanation:  VTAM issues this message as a part of a message group in response to a MODIFY CSDUMP command. See IST1876I for a complete description of the message group.
Routing code:  2
Descriptor code:  5

IST1878I    NO MESSAGE TRIGGER EXISTS
Explanation:  VTAM issues this message as a part of a message group in response to a MODIFY CSDUMP command. See IST1876I for a complete description of the message group.
Routing code:  2
Descriptor code:  5
IST1879I  VTAM DUMPING FOR CSDUMP TRIGGER MESSAGE messageNum
Explanation: VTAM initiated a dump in response to the trigger message being detected.
messageNum is the message number of the trigger message.
System action: VTAM takes a dump if the system dump data set is usable at this time. If VTAM successfully initiates the dump, the performance for other jobs might be degraded until the dump is complete.
Operator response: Save the system log and the contents of the dump for problem determination. Contact the system programmer.
System programmer response: Save the system log and the contents of the dump for problem determination. Contact the IBM software support center.
Routing code: 2
Descriptor code: 5

IST1880I  VTAM DUMPING FOR CSDUMP TRIGGER SENSE senseCode ruCode
Explanation: VTAM initiated a dump in response to the trigger sense code being detected.
senseCode is the sense code used for the trigger.
ruCode is the request unit code used for the trigger. If there is no RU specified for a sense trigger, a value of "ANY" is displayed.
System action: VTAM takes a dump if the system dump data set is usable at this time. If VTAM successfully initiates the dump, the performance for other jobs might be degraded until the dump is complete.
Operator response: Save the system log and the contents of the dump for problem determination. Contact the system programmer.
System programmer response: Save the system log and the contents of the dump for problem determination. Contact the IBM software support center.
Routing code: 2
Descriptor code: 5

IST1881I  VTAM DUMPING FOR CSDUMP - IMMEDIATE DUMP
Explanation: The VTAM Operator issued a MODIFY CSDUMP command to take a dump immediately.
System action: VTAM takes a dump if the system dump data set is usable at this time. If VTAM successfully initiates the dump, the performance for other jobs might be degraded until the dump is complete.
Operator response: Save the system log and the contents of the dump for problem determination. Contact the system programmer.
System programmer response: Save the system log and the contents of the dump for problem determination. Contact the IBM software support center.
Routing code: 2
Descriptor code: 5

IST1882I  NO SENSE TRIGGER EXISTS
Explanation: VTAM issues this message as a part of a message group in response to a MODIFY CSDUMP command. See IST1876I for a complete description of the message group.
Routing code: 2
Descriptor code: 5
IST1883I • IST1885I

IST1883I  SESSION ESTABLISHED WITH rscname - DLUR dlurname

Explanation: VTAM issues this message when a session between the physical unit with the name rscname has been established using DLUR dlurname.

rscname is the name of the resource.

dlurname is the network-qualified CP name of the dependent LU requester (DLUR) in the form netid.name. If the DLUR name cannot be determined ***NA*** (not available) will be displayed.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 8

Descriptor code: 4

IST1884I  SESSION ENDED WITH rscname - DLUR dlurname

Explanation: VTAM issues this message when the SSCP-PU session between VTAM and the physical unit with name rscname has ended. The PU was using DLUR dlurname to connect to VTAM.

rscname is the name of the resource.

dlurname is the network-qualified CP name of the dependent LU requester (DLUR) in the form netid.name. If the DLUR name cannot be determined ***NA*** (not available) will be displayed.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 8

Descriptor code: 4

IST1885I  SIO = sio SLOWDOWN = slowdown

Explanation: VTAM issues this message in response to a DISPLAY ID command requesting the status of an XCA major node. This message is issued for XCA major nodes that specify a CUADDR.

sio is the number of start I/O operations counted for the subchannel. This number is cumulative (from the time that the node was last activated) and is expressed in decimal. The value of sio is never larger than 65535. If sio is 65535, its value is reset to 0 when the next start I/O operation takes place. If the subchannel is not active for this major node, sio will display as N/A.

slowdown indicates if the subchannel is in slowdown. Values are YES and NO. SLOWDOWN = YES means that the XCA device will not accept write data from VTAM. SLOWDOWN = NO is the normal state of the subchannel. If the subchannel is not active for this major node, slowdown will display as N/A.

System action: Processing continues.

Operator response: If SLOWDOWN = YES is displayed, VTAM cannot write data to this device. If this device has a large amount of data queued to be written to it, a storage shortage might occur. Storage usage displays can be used to indicate if unusually high amounts of storage are being used. DISPLAY NET, BFRUSE can be used to display VTAM storage usage and DISPLAY NET,CSM can be used to display CSM storage usage. Use any problem determination aids available for the XCA device itself to determine why it is in slowdown. If storage usage is high, and the slowdown condition persists, the operator can use the VARY command to make this XCA major node inactive.

System programmer response: Use any diagnostics available for that device to determine why the XCA device is in slowdown.

Routing code: 2, 8

Descriptor code: 5
IST1886I  SLOWDOWN TIME EXCEEDS MAXSLOW = time SECONDS FOR DEVICE device

Explanation: The subchannel threshold identified by the second subparameter of MAXSLOW on the PORT definition statement on an XCA subchannel has been exceeded. This means that the XCA device passed control information to VTAM indicating that the device will not accept data. Sessions using this device will probably experience performance degradation.

time is the subchannel threshold value in seconds.

device is the subchannel (CUA) that is in slowdown.

System action: Processing continues.

Operator response: Storage usage might rise if a large amount of data is queued to be sent to the device that is in slowdown. Issue storage use display commands to determine whether storage usage is high. DISPLAY NET,BFRUSE can be used to display VTAM storage usage and DISPLAY NET,CSM can be used to display CSM storage usage. If storage usage is high and the slowdown condition persists, the operator can VARY INACT this XCA device.

DISPLAY NET,MAJNODES can be used to determine which XCA nodes are active. Message IST1021I in the displays of those XCA major nodes will show which are using this subchannel. Any diagnostic aids available for the XCA device itself should be invoked to determine why it is reporting a slowdown condition to VTAM.

System programmer response: Use any diagnostics available for that device to determine why the XCA device is in slowdown.

Routing code: 2
Descriptor code: 5

IST1887I  DEVICE device EXITED SLOWDOWN MODE

Explanation: This message indicates the end of a slowdown condition for an XCA device. The device sent VTAM control information indicating it is no longer in slowdown. This message will only be issued if message IST1886I was previously issued, indicating that the device was in slowdown for a period longer than the second subparameter of the MAXSLOW parameter for an XCA major node.

device is the subchannel CUA that has exited slowdown.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2
Descriptor code: 5

IST1888I  lutype = luname SID = sid

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY APINGDTP command or a DISPLAY APINGTP command. The first message in the group is IST1870I. See that message for a complete description of the group.

Routing code: 2
Descriptor code: 5

IST1889I  SSCP-SSCP SESSION TO sscpname HELD FOR PACING

Explanation: VTAM issues this message when an attempt to send an RU on the SSCP-SSCP session is held because the session has been in a pacing held state longer than three seconds.

This message will continue to be issued at 3-second intervals, for as long as attempts are made to send RUs on the SSCP-SSCP session and the session remains in a pacing held state.

sscpname is the name of the partner SSCP in session with this VTAM.

System action: Processing continues.
Operator response: Issue VTAM commands to help identify any network problems. Examples would be DISPLAY NET,ROUTE,BLOCKED and DISPLAY NET,ROUTE,HELD to determine status of the virtual routes. Contact the operator of the partner sscpname to issue similar commands and to coordinate network problem determination. If the problem persists, take a dump of the VTAM ASID by issuing a MODIFY vtamproc,CSDUMP and save the log for problem determination. To attempt to recover this SSCP-SSCP session, deactivate and reactivate the session.

System programmer response: If a VR held or blocked condition was indicated, setting the VOSDEACT VTAM start option to YES will cause a VR to be deactivated if a VR out of sequence condition occurs. A VR out of sequence condition could result in a hung VR, if VOSDEACT is set to NO. Use the log and dump information for problem determination.

Routing code: 2
Descriptor code: 3

IST1890I * IST1891I

IST1890I  line ACTIVATION FAILED - NO SOURCE IP ADDRESS AVAILABLE

Explanation: This message is displayed when an Enterprise Extender (HPR/IP) line activation fails because no static VIPA address was available to use for the connection. The static VIPA address is derived from any of the following sources:

- Supplied by the TCP/IP stack identified on the TCPNAME start option.
- Supplied on the IPADDR start option, or as the IPADDR operand on the XCA major node GROUP definition statement.
- Resolved from the value supplied as the HOSTNAME start option, or as the HOSTNAME operand on the XCA major node GROUP definition statement.

Without one of these values coded to provide the static VIPA address, VTAM cannot determine which TCP/IP stack will be used for Enterprise Extender (HPR/IP) data traffic.

line is the name of the Enterprise Extender (HPR/IP) line that failed.

System action: Enterprise Extender (HPR/IP) line activation failed.

Operator response: Issue DISPLAY VTAMOPTS and DISPLAY ID=XCAmajornodename (where XCAmajornodename is the name of the XCA major node that includes line) to determine whether settings for TCPNAME, IPADDR, or HOSTNAME are defined to the system.

If no values for the TCPNAME, IPADDR, and HOSTNAME start options or definition statement operands are defined, code a value for TCPNAME, IPADDR, or HOSTNAME as a VTAM start option. Temporarily, you can issue a MODIFY VTAMOPTS command and specify the value of one of these start options.

System programmer response: If the activation is failing because of a lack of TCPNAME, IPADDR, or HOSTNAME setting, include the appropriate start option setting in the start list file, or update the XCA major node definition statement to include either IPADDR or HOSTNAME.

Routing code: 2
Descriptor code: 3

IST1891I  pu DIAL FAILED - MISMATCH OF IP ADDRESS FAMILIES

Explanation: This message is the first message in a group of messages displayed when the dialing of an Enterprise Extender (HPR/IP) connection fails because the remote IP address is not in the same IP address family as the local IP address; for instance, the remote IP address is an IPv4 address and the local is an IPv6 address. If the addresses are in different family types, the Enterprise Extender connection cannot be established. A complete description of the message group follows the example.

IST1891I  line ACTIVATION FAILED - MISMATCH OF IP ADDRESS FAMILIES
IST1680I  type IP ADDRESS ip_address
IST1909I  REMOTE HOSTNAME value
IST1911I  value
IST1680I  type IP ADDRESS ip_address
IST1910I  LOCAL HOSTNAME value
IST1911I  value
IST314I  END
IST1680I

_type_ is either LOCAL or REMOTE to identify the IP address displayed.

_ip_address_ is either the remote IP address or the local IP address. The first instance of IST1680I will display the remote IP address, and the second instance of IST1680I will display the local IP address. If _ip_address_ is ****NA****, it means that the remote node is using IPv6 protocols but the local connection is using IPv4 protocols.

IST1891I

_line_ is the name of the Enterprise Extender (HPR/IP) connection that failed.

IST1909I

_value_ is the host name, owned by a target remote node, that was used to acquire the remote IP address as part of name-to-address resolution. If the host name is longer than 44 characters, then the first 44 characters are displayed as _value_ and the remaining characters are displayed in one or more IST1911I messages.

IST1910I

_value_ is the host name used to acquire the local static VIPA address used as part of the attempted route determination. If the host name is longer than 45 characters, then the first 45 characters are displayed as _value_ and the remaining characters are displayed in one or more IST1911I messages.

IST1911I

_value_ is the continuation of _value_ on IST1909I or IST1910I. IST1911I is repeated as many times as necessary to display the entire character string.

System action: Activation of the Enterprise Extender (HPR/IP) connection failed.

Operator response: None.

System programmer response: The Enterprise Extender connection cannot activate if the local and remote IP addresses are not in the same address family. The IP addresses can be obtained from the following sources:

- For both predefined and connection network Enterprise Extender connections, the local IP address (ip_address on the IST1680I instance with type LOCAL) is obtained from one of the following:
  - The TCP/IP stack identified on the TCPNAME start option.
  - The IPADDR start option, or the IPADDR operand on the XCA major node GROUP definition statement associated with the Enterprise Extender connection network or predefined Enterprise Extender connection used for the failed route attempt, when IST1910I is not displayed.
  - The name-to-address resolution of value on IST1909I, which represents either the value supplied as the HOSTNAME start option, or the value specified as the HOSTNAME operand on the XCA major node GROUP definition statement associated with the Enterprise Extender connection network or predefined Enterprise Extender connection used for the failed route attempt.

- For predefined Enterprise Extender connections, the remote IP address (ip_address on the IST1680I instance with type REMOTE) is obtained from one of the following:
  - The IPADDR operand on the PATH statement, when IST1909I is not displayed.
  - The name-to-address resolution of value on IST1909I, which represents the host name provided by the remote Enterprise Extender node in the APPN Route Selection Control Vector (RSCV) describing the session route to use, when IST1909I is not displayed.

- For connection network Enterprise Extender connections, the remote IP address (ip_address on the IST1680I instance with type REMOTE) is obtained from one of the following:
  - The IPv4 address provided by the remote Enterprise Extender node in the APPN Route Selection Control Vector (RSCV) describing the session route to use, when IST1909I is not displayed.
  - The name-to-address resolution of value on IST1909I, which represents the host name provided by the remote Enterprise Extender node in the APPN Route Selection Control Vector (RSCV) describing the session route to use.

Ensure that one of the following is true:

- The local or remote address was specified correctly.
- The correct local or remote host name, or both, have been used for name-to-address resolution.
- For an EE Connection Network, verify that all nodes are defining identical EE Connection Network names with an IP address from the same IP address family.
IST1892I

Routing code:  2
Descriptor code:  5

IST1892I    NO ROUTE AVAILABLE TO DESTINATION

Explanation:  VTAM displays this message group to indicate that the TCP/IP stack could not find a route to the specified destination address when activating an Enterprise Extender connection. For an Enterprise Extender connection to activate successfully:

• The local IP address must be a static VIPA owned by a TCP/IP stack on this node
• The remote IP address must be either a static VIPA (if it is on a z/OS host) owned by the intended destination node or a network address translation (NAT) address used to ultimately access the remote node
• A route must be available between the two endpoints of the connection.

A complete description of the message group follows the example.

IST1892I NO ROUTE AVAILABLE TO DESTINATION
IST1680I type IP ADDRESS ip_address
[IST1909I REMOTE HOSTNAME value]
[IST1911I value]
IST1680I type IP ADDRESS ip_address
[IST1910I LOCAL HOSTNAME value]
[IST1911I value]
IST314I END

IST1680I

type is either LOCAL or REMOTE to identify the IP address displayed.

ip_address is either the remote IP address or the local IP address. The first instance of IST1680I will display the remote IP address, and the second instance of IST1680I will display the local IP address.

IST1909I

value is the host name, owned by a target remote node, that was used to acquire the remote IP address as part of name-to-address resolution. If the host name is longer than 44 characters, then the first 44 characters are displayed as value and the remaining characters are displayed in one or more IST1911I messages.

IST1910I

value is the host name used to acquire the local static VIPA address used as part of the attempted route determination. If the host name is longer than 45 characters, then the first 45 characters are displayed as value and the remaining characters are displayed in one or more IST1911I messages.

IST1911I

value is the continuation of value on IST1909I or IST1910I. IST1911I is repeated as many times as necessary to display the entire character string.

System action:  The Enterprise Extender dial out attempt failed.

Operator response:  None.

System programmer response:  There is no route between these IP addresses. The IP addresses used in the connection activation attempt can be obtained in the following ways:

• For both predefined and connection network Enterprise Extender connection, the local IP address (ip_address on the IST1680I instance with type LOCAL) is obtained from one of the following:
  – The TCP/IP stack identified on the TCPNAME start option.
  – The IPADDR start option, or the IPADDR operand on the XCA major node GROUP definition statement associated with the Enterprise Extender connection network or predefined Enterprise Extender connection used for the failed route attempt, when IST1910I is not displayed.
  – The name-to-address resolution of value on IST1910I, which represents either the value supplied as the HOSTNAME start option, or the value specified as the HOSTNAME operand on the XCA major node GROUP definition statement associated with the Enterprise Extender connection network or predefined Enterprise Extender connection used for the failed route attempt.
For predefined Enterprise Extender connections, the remote IP address (\(ip\_address\) on the IST1680I instance with \textit{type REMOTE}) is obtained from one of the following:

- The IPADDR operand on the PATH statement, when IST1909I is not displayed.
- The name-to-address resolution of \textit{value} on IST1909I, which represents the value specified as the HOSTNAME operand on the PATH definition statement.

For connection network Enterprise Extender connections, the remote IP address (\(ip\_address\) on the IST1680I instance with \textit{type REMOTE}) is obtained from one of the following:

- The IPv4 address provided by the remote Enterprise Extender node in the APPN Route Selection Control Vector (RSCV) describing the session route to use, when IST1909I is not displayed.
- The name-to-address resolution of \textit{value} on IST1909I, which represents the host name provided by the remote Enterprise Extender node in the APPN Route Selection Control Vector (RSCV) describing the session route to use.

Ensure that all of the following are true:

- The local or remote address has been specified correctly.
- The correct local or remote host name, or both, have been used for name-to-address resolution.
- The routes exist in both directions between the attempted endpoints of the Enterprise Extender connection.
- The NAT translation tables are accurate for translating the NAT address to the ultimate target destination VIPA address (if on a z/OS host).
- The firewall along the route between the attempted endpoints of the Enterprise Extender connection is configured to allow traffic to flow from one endpoint to the other.

\textbf{Routing code}: 2

\textbf{Descriptor code}: 5

\textbf{IST1893I NAME-TO-ADDRESS RESOLUTION FAILED}

\textbf{Explanation}: This message is the first in a group of messages displayed when resolution of a host name owned by a remote node into an IP address is attempted but was unsuccessful. Name-to-address resolution is attempted as part of the following:

- LU-LU session activation when the session route traverses an Enterprise Extender connection network and the remote endpoint provides a host name, either instead of or in addition to an IP address, in the APPN Route Selection Control Vector (RSCV) representing the session route.
- VARY ACT command processing for a switched major node when the HOSTNAME operand was coded on the PATH statement.
- DISPLAY EE or DISPLAY EEDIAG command was issued which specified a remote HOSTNAME filter.

The complete message group in these situations is:

\begin{verbatim}
IST1893I NAME-TO-ADDRESS RESOLUTION FAILED
IST1909I REMOTE HOSTNAME value
[IST1911I value]
IST314I END
\end{verbatim}

This message is also the first message in a group of messages displayed when resolution of a locally owned host name into an IP address was unsuccessfully attempted. This type of name-to-address resolution is attempted as part of the following:

- VARY ACT command processing for a line defined under a GROUP in an XCA major node when HOSTNAME was coded on the GROUP statement or was inherited from the HOSTNAME start option.
- DISPLAY EE or DISPLAY EEDIAG command was issued which specified a local HOSTNAME filter.

The complete message group in these situations is:

\begin{verbatim}
IST1893I NAME-TO-ADDRESS RESOLUTION FAILED
IST1910I LOCAL HOSTNAME value
[IST1911I value]
IST314I END
\end{verbatim}
**IST1909I**  
Value is the host name owned by a remote node for which name-to-address resolution was attempted. If the host name is longer than 44 characters, then the first 44 characters are displayed as value and the remaining characters are displayed in one or more IST1911I messages.

**IST1910I**  
Value is the locally owned host name for which name-to-address resolution was attempted. If the host name is longer than 45 characters, then the first 45 characters are displayed as value and the remaining characters are displayed in one or more IST1911I messages.

**IST1911I**  
Value is the continuation of value on IST1909I or IST1910I. IST1911I is repeated as often as necessary to display the entire character string.

**System action:**  
- For LU-LU session processing:  
  In addition to its host name, if the target endpoint did not supply an IP address in the APPN RSCV, then session activation fails. If an IP address was supplied in addition to the host name, then processing continues with an attempt to use the supplied IP address to establish an IP connection.

  - For VARY ACT processing:  
    The resource activation fails.

  - For DISPLAY EE or DISPLAY EEDIAG processing:  
    The display command is not performed.

**Operator response:**  
Save the system log for problem determination. For DISPLAY EE or DISPLAY EEDIAG processing, determine whether the correct host name value is being resolved. If you specified an incorrect host name, issue the display command again specifying the correct host names.

**System programmer response:**  
- For LU-LU session processing:  
  - Determine if the correct host name value is being supplied by the remote node on the APPN RSCV, and if not, update the appropriate start option or XCA major node definition with the correct HOSTNAME.
  
  - If the correct host name is being supplied, verify that the name-to-address resolution mapping for the host name yields the desired static VIPA address (if on a z/OS host) of the node that owns the host name, or that it yields the correct network address translation (NAT) address to ultimately reach the target static VIPA address of the node that owns the host name. If the resolution is not correct, update the DNS zone files or local host files with the corrected name-to-address resolution. If the resolution is intended to yield an IPv6 address, ensure that the TCP/IP stack is enabled for IPv6 processing so that the resolver will search for IPv6 addresses.

- For VARY ACT command processing when activating an XCA major node:  
  - Determine if the correct host name value is being resolved. If the activation is using an incorrect host name, do one of the following:
    - If the failing host name is a local host name acquired from the start option, use MODIFY VTAMOPTS to correct the HOSTNAME start option.
    - If the failing host name is a local host name defined on the GROUP definition statement, deactivate the XCA major node, define the correct HOSTNAME on the appropriate GROUP definition statement, and reactivate the XCA major node.
  
  - If the correct host name is being supplied, verify that the name-to-address resolution mapping for the host name yields the desired static VIPA address on this node. If the resolution is not correct, update the DNS zone files or the appropriate local hosts files with the corrected name-to-address resolution. If the resolution is intended to yield an IPv6 address, ensure that the TCP/IP stack is enabled for IPv6 processing and that at least one TCP/IP IPv6 interface is active, so that the resolver will search for IPv6 addresses.

  - If name-to-address resolution processing is taking a long time, (for example, because the SEARCH directive in the TCP/IP Resolver Configuration file specifies a large number of domain names) the resolution attempt might be abandoned by VTAM before it can successfully complete due to the setting of the IPRESOLV operand on the PORT definition statement associated with the XCA major node. If that is the case, increase the value of the IPRESOLV operand on the PORT definition statement.

- For VARY ACT command processing when activating a switched major node:
- Determine if the correct host name value is being resolved. If the activation is using the incorrect host name, deactivate the switched major node, define the correct HOSTNAME on the appropriate PATH definition statement, and reactivate the switched major node.

- If the correct host name is being supplied, verify that the name-to-address resolution mapping for the host name yields the desired static VIPA address (if on a z/OS host) of the node that owns the host name, or that it yields the correct network address translation (NAT) address to ultimately reach the target static VIPA address of the node that owns the host name. If the resolution is not correct, update the DNS zone files or the appropriate local hosts files with the corrected name-to-address resolution. If the resolution is intended to yield an IPv6 address, ensure that the TCP/IP stack is enabled for IPv6 processing so that the resolver will search for IPv6 addresses.

- If name-to-address resolution processing is taking a long time, (for example, because the SEARCH directive in the TCP/IP Resolver Configuration file specifies a large number of domain names) the resolution attempt might be abandoned by VTAM before it can successfully complete due to the setting of the IPRESOLV operand on the PATH definition statement. If that is the case, increase the value of the IPRESOLV operand on the PATH definition statement.

• For DISPLAY EE or DISPLAY EEDIAG command processing:
  - If the correct host name is being supplied on the display command, verify the following:
    - The name-to-address resolution mapping for the host name yields the correct static VIPA address (if on a z/OS or OS/390® host) of the node that owns the host name.
    - If network address translation (NAT) is in use, the name-to-address resolution mapping for the host name yields the correct NAT address to ultimately reach the target static VIPA address of the node that owns the host name.

  - If the resolution is not correct, update the DNS zone files or the appropriate local hosts files with the corrected name-to-address resolution. If the resolution is intended to yield an IPv6 address, ensure that the TCP/IP stack is enabled for IPv6 processing so that the resolver searches for IPv6 addresses.

Routing code: 2
Descriptor code: 5

IST1894I  value1 IGNORED - INCOMPATIBLE WITH value2

Explanation: VTAM issues this message when one start option or definition statement operand is not processed because a mutually exclusive start option or definition statement was also specified. This message is issued when either of the following situations arise:

• A conflict between two start options during START command processing.
• A conflict between two definition statement operands during VARY ACT processing of a major node.

When issued during START command processing:

• value1 is the name of the start option that will not be processed because of the start option conflict.
• value2 is the name of the start option that will be processed, despite the start option conflict.

value1 and value2 are on the same definition statement.

When issued during VARY ACT command processing:

• value1 is the name of the definition statement operand that will not be processed because of the conflict with the second definition statement operand.
• value2 is the name of the definition statement operand that will be processed, despite the conflict with the first definition statement operand.

System action:

• For VTAM START command processing, VTAM processes the value for value2 while ignoring the coding of value1. Processing continues for the remaining start options.
• For VARY ACT command processing, VTAM processes the value for value2 while ignoring the coding of value1. Processing continues for any remaining definition statement operands on the major node definition deck.

Operator response:
For VTAM START command processing, if value1 is the preferred setting to be enforced, issue MODIFY VTAMOPTS, specifying the desired value1 setting, to deactivate the value2 setting and activate the value1 setting.

For VARY ACT command processing, if value1 is the preferred operand to be enforced, issue VARY INACT to deactivate the major node, remove value2 from the definition deck, and then issue VARY ACT to activate the major node with the desired operand in effect.

System programmer response:
- For VTAM START command processing, correct the start option setting in ATCSTRxx to remove the start option that is not required.
- For VARY ACT command processing, modify the definition deck to remove the definition statement operand that is not required.

Routing code: 2
Descriptor code: 5

IST1895I  value1 RESET - INCOMPATIBLE WITH value2

Explanation: VTAM issues this message when the start option specified on a MODIFY VTAMOPTS command is mutually exclusive with a start option already active for the node. The active start option is deactivated and the start option specified on the MODIFY command is activated.

value1 is the name of the active start option that will be deactivated due to the conflict with the start option specified on the MODIFY VTAMOPTS command.

value2 is the name of the start option that was specified on the MODIFY VTAMOPTS command.

System action: VTAM processes value2, and if successful, resets value1. Processing continues for any remaining start options specified on the MODIFY command.

Operator response: If value1 is the preferred setting, issue MODIFY VTAMOPTS, specifying the value1 setting.

System programmer response: None.

Routing code: 2
Descriptor code: 5

IST1896I  VNNAME nodename

Explanation: VTAM issues this message as part of a group of messages in response to failure to activate an Enterprise Extender line. The first message in the group is IST1899I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST1897I  line ACTIVATION FAILED - TCPNAME START OPTION REQUIRED

Explanation: This message is displayed when an Enterprise Extender line activation fails because no value was specified in the TCPNAME start option. This message is issued when all of the following conditions are true:

- The IPADDR or HOSTNAME parameter is specified on any Enterprise Extender GROUP definition statement.
- Running in a CINET TCP/IP environment (Common INET - multiple TCP/IP stacks.) If OMVS is not initialized at Enterprise Extender line activation, a Common INET environment is assumed.

line is the name of the Enterprise Extender line that failed activation.

System action: Enterprise Extender line activation failed.

Operator response: Temporarily, you can issue a MODIFY VTAMOPTS command and specify the value of the TCPNAME start option. Then reissue the VARY ACT command to activate the Enterprise Extender line. Contact the system programmer.

System programmer response: Code the TCPNAME as a VTAM start option.

Routing code: 2
**IST1898I**  line ACTIVATION FAILED - IPADDR OR HOSTNAME REQUIRED

**Explanation:** If more than one GROUP is defined in the Enterprise Extender XCA major node, and either IPADDR or HOSTNAME is specified on any of the GROUPs, then IPADDR or HOSTNAME must be supplied on all of the GROUPs, or either the IPADDR or HOSTNAME start option must be specified.

`line` is the name of the Enterprise Extender line that failed activation.

**System action:** Enterprise Extender line activation failed.

**Operator response:** Issue MODIFY,VTAMOPTS,IPADDR=`ipaddress` or MODIFY VTAMOPTS,HOSTNAME=`hostname`, then reactivate the Enterprise Extender line. Contact the system programmer with the system log.

**System programmer response:** Code the required IPADDR or HOSTNAME on all the GROUP definition statements in the Enterprise Extender XCA major node, or add either the IPADDR or HOSTNAME start option to the start file. Deactivate and reactivate the Enterprise Extender XCA major node to pick up the parameter changes.

**Routing code:** 2

**Descriptor code:** 5

---

**IST1899I**  line ACTIVATION FAILED - VRN INFORMATION MUST BE UNIQUE

**Explanation:** This message is the first message in a group of messages displayed when the same VNNAME is defined more than once in the Enterprise Extender XCA major node but the IPADDR value, or HOSTNAME value, or IP address resolved from the HOSTNAME value associated with each VNNAME definition is not unique.

A complete description of the message group follows the example.

**IST1899I**  line ACTIVATION FAILED - VRN INFORMATION MUST BE UNIQUE
**IST1896I**  VNNAME `nodename`
**IST1680I**  type IPADDR `ipaddress`
[**IST1910I**  LOCAL HOSTNAME `value`]
[**IST1911I**  `value`]
**IST314I**  END

**IST1680I**
This message is issued to display the IP address associated with the VNNAME definition. If message IST1910I is also present, then the IP address was obtained using the name-to-address resolution of `value`. If IST1910I is not displayed, then the IP address was specified as the IPADDR operand associated with the VNNAME definition.

`type` is LOCAL.

`ipaddress` is the IP address of the static VIPA used on this node. An ****NA**** in this field indicates that the value is not available because the name-to-address resolution of the HOSTNAME value has not completed or was unsuccessful.

**IST1896I**
`nodename` is the network qualified name of the VNNAME definition with the non-unique information.

**IST1899I**
`line` is the name of the Enterprise Extender line that failed activation.

**IST1910I**
This message is issued when the host name associated with the VNNAME definition is not unique, or the host name is unique but the local static VIPA address that was obtained after name-to-address resolution of `value` is not unique.

`value` is the host name, or the first 45 characters of the host name, associated with the VNNAME definition. If the host name is longer than 45 characters, then the first 45 characters are displayed as `value` and the remaining characters are displayed in one or more IST1911I messages.

**IST1911I**
**IST1901I • IST1901I**

value is the continuation of value on IST1910I. IST1911I is repeated as many times as necessary to display the entire character string.

**System action:** The Enterprise Extender line is failed.

**Operator response:** Contact the system programmer.

**System programmer response:** Correct the Enterprise Extender definition statements, or the DNS zone files or appropriate local hosts files, such that the VRN information for VNNAME is unique.

- If IST1680I is included in the message group, but IST1910I is not, then correct the IPADDR value on the appropriate VNNAME definition so that the VNNAME/IPADDR pair is unique.
- If IST1910I is included in the message group, then either correct the HOSTNAME value on the appropriate VNNAME definition so that the VNNAME/HOSTNAME pair is unique, or correct the DNS zone files or local hosts file such that value will resolve to a unique static VIPA address.

Deactivate and reactivate the Enterprise Extender major node.

**Routing code:** 2

**Descriptor code:** 5

---

**IST1900I**  **ASSIGNED IP ADDRESS**  ip_address

**Explanation:** VTAM issues this message in response to the first VARY ACTIVATE command for an Enterprise Extender link. This message displays the local IP address (static VIPA) that will be used by all Enterprise Extender connections. This static VIPA is assigned by TCP/IP during port activation when both of the following conditions are true:

- The IPADDR or HOSTNAME parameter is not coded as a start option or on any of the Enterprise Extender GROUP definition statements.
- The TCPNAME start option has been specified.

ip_address is the value of the IP address. If ****NA**** is displayed, the value is not available.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

---

**IST1901I**  **LINES UNDER GROUP:**  grpname

**Explanation:** This message is a header line that VTAM issues in response to a DISPLAY ID command for an external communication adapter (XCA) major node that defines an Enterprise Extender connection. This message is repeated in the display output when the lines defined under a particular Enterprise Extender GROUP match the requested SCOPE operand of the DISPLAY command.

grpname is the symbolic name of the line group in which the line being displayed is defined.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5
IST1902I  GROUP = grpname

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for an external communication adaptor (XCA) major node that defines an Enterprise Extender connection. This message is repeated for each Enterprise Extender GROUP definition statement (predefined connections) for the XCA major node.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2

Descriptor code: 5

IST1903I  FAILURE OVER VRN vrnname TO CP partnername

Explanation: This message indicates the occurrence of a dial failure or a connection INOP for a connection over the named Virtual Routing Node (VRN) to the named partner node. This message will appear after either message IST590I (for a dial out failure) or IST1196I (for a connection INOP). IST1903I can appear as a single line message or as the first message in a message group. The description of the message group follows the example.

IST1903I FAILURE OVER VRN vrnname TO CP partnername
IST2050I THIS PATH WILL NOT BE SELECTED FOR UNRCHTIM = seconds SECONDS
[IST2186I THIS PATH WILL NOT BE SELECTED FOR UNRCHTIM SECONDS]
IST314I END

 IST1903I

• vrnname is the name of the VRN over which the failure occurred.
• partnername is the CP name of the node adjacent to the VRN that was the endpoint of the failed dial or INOPed connection.
• This message is an indication that the named partner node cannot be reached at this time using the connection network path across the named VRN. This connection network path might have been chosen for this connection because it had a lower weight than any alternate path available at one of the following times:
  – The time of this failing dial
  – The time of the dial that set up the existing connection
  – The time of a path switch to this connection network path for an existing RTP connection
• If IST1903I is issued as a single line message, and this path still has the lowest weight of any available path to the partner node, any attempt to redial the partner node will continue to try the path over this particular VRN, which will probably result in failure until the underlying problem with this path is corrected.

IST2050I

• seconds is the number of seconds that the partner node through this VRN (both identified in message IST1903I) is considered to be unreachable.
• This message is issued on a network node. It is issued as part of a group with IST1903I when the unreachable time value on the UNRCHTIM start option is specified or the UNRCHTIM operand is specified on a PORT or GROUP definition statement that defines this VRN in an Enterprise Extender Extended Communications Adapter (XCA) major node.

See the UNRCHTIM start option in z/OS Communications Server: SNA Resource Definition Reference for more information.

IST2186I

This message is issued on an end node. It is issued as part of a group with IST1903I when the UNRCHTIM start option is specified or the UNRCHTIM operand is specified on a PORT or GROUP definition statement that defines this VRN in an Enterprise Extender Extended Communications Adapter (XCA) major node. See UNRCHTIM start option in z/OS Communications Server: SNA Resource Definition Reference and Unreachable time (UNRCHTIM) considerations in z/OS Communications Server: SNA Operation for more information about UNRCHTIM.
IST1903I

**System action:** Processing continues. When IST2050I is issued with IST1903I, the route to the unreachable partner node through the named Enterprise Extender VRN will not be considered for a session path until the unreachable time expires. If the unreachable time expires and this path still has the lowest weight of any available path to the partner node, which might again result in failure if the underlying problem with the connection has not been corrected. That dial failure will cause the unreachable time to be set again to prevent selection of the path through this Enterprise Extender VRN to the unreachable partner node for the period of time specified for that Enterprise Extender VRN. This will continue until the problem with the connection path is corrected.

**Operator response:** If message IST2050I is included with message IST1903I, the connection path over the named Enterprise Extender VRN will remain unavailable for the number of seconds specified as the unreachable time for that VRN, to provide time for you to find and correct the source of the underlying problem. Issue the DISPLAY TOPO, LIST=UNRCHTIM command to display the unreachable partner information and use the output to help identify the location of the failure.

If message IST2186I is included with message IST1903I, the connection path over the named Enterprise Extender VRN will remain unavailable for the amount of time specified by the UNRCHTIM start option to provide time for you to find and correct the source of the underlying problem. The UNRCHTIM value depends on which version of z/OS Communications Server is in use on the end node’s network node server (NNS). If z/OS Communications Server V1R6 or V1R7 is in use on the end node’s NNS, the value comes from the end node’s configuration (either the UNRCHTIM start option or the UNRCHTIM operand on the PORT or GROUP definition statement that defines the VRN). If z/OS Communications Server V1R8 or later is in use on the end node’s NNS, the value comes from the NNS’s configuration (either the UNRCHTIM start option or the UNRCHTIM operand on the PORT or GROUP definition statement that defines the VRN). Issue the DISPLAY TOPO, LIST=UNRCHTIM command on the NNS to display the unreachable partner information. This information includes the expiration time (the time at which the path will no longer be considered unreachable). This information can also be used to help identify the location of the failure.

If the problem has been corrected and the display of unreachable partner information indicates that there are paths through Enterprise Extender connection networks that will remain unavailable for some time, you can issue the MODIFY TOPO, FUNCTION=CLRUNRCH command to clear the unreachable partner information to make that path available for route calculation again. If you are receiving the IST1903I message group repetitively, you can increase the value of the UNRCHTIM start option using the MODIFY VTAMOPTS command or change the value of the UNRCHTIM operand on the PORT or GROUP statement in the EE XCA major node in VTAMLST and then use the VARY ACT,ID=xca_major_node,UPDATE=ALL command to change the value dynamically. See [z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com/support/knowledgecenter/en/SSGUG_1.5.0/com.ibm.sna.doc/index.html) and [Unreachable time (UNRCHTIM) considerations in z/OS Communications Server: SNA Operation](https://www.ibm.com/support/knowledgecenter/en/SSGMQ_1.5.0/com.ibm.zos.r15.sna.doc/r0005472.html) for more information about UNRCHTIM.

If IST1903I is issued as a single line message, to avoid repeated failures, you can temporarily make the connection path over the named VRN unavailable until the source of the underlying problem is found and corrected.

First, if it is active, turn off the start option PSRETRY. Issue the MODIFY VTAMOPTS, PSRETRY=(0,0,0,0) command to prevent any existing RTPs that are successfully using the named VRN to reach their destination endpoints from path-switching to a less attractive route. Then take one of the following actions to make the named VRN unavailable:

- Issue the MODIFY TOPO FUNCTION=QUIESCE, SCOPE=NETWORK command specifying the VRN named in IST1903I to remove the VRN from consideration by Topology in route calculations. Quiescing the VRN will make all paths through this VRN unavailable for all nodes connected to the connection network, not just the path identified in message IST1903I.
- Issue the VARY INACT command for the local link to the VRN.
- Increase the weight of this connection network path by issuing the MODIFY TGP command for the TGs to and from the VRN.

You might need to take the above actions (disabling PSRETRY and the single action chosen from the list above) from both this node and the partner node to successfully route around the connection network problem. When you have taken these actions, use established procedures to diagnose the underlying problem at both this node and the partner node to find and correct the problem.

When the problem has been corrected, reverse the actions taken above so the current connections and future connection attempts will be rerouted over the connection network path. Depending on which action was taken above, do one of the following things:

- Issue the MODIFY TOPO FUNCTION=NORMAL, SCOPE=NETWORK command for the named VRN.
- Reactivate the local link to the VRN.
• Issue the MODIFY TGP command for the TGs to and from the VRN to decrease the weight of the connection network path.

You can re-enable PSRETRY. This will cause existing RTPs to periodically check for a lower weight path and switch to it if one is available.

System programmer response: None.
Routing code: 2
Descriptor code: 5

---

IST1904I \( \text{option} = \text{current\_value} \)

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY VTAMOPTS command. The first message in the group is IST1188I. See the explanation of that message for a complete description.
Routing code: 2
Descriptor code: 5

---

IST1905I\( \text{START OPTION} = \text{value} \)

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY VTAMOPTS command. The first message in the group is IST1188I. See the explanation of that message for a complete description.
Routing code: 2
Descriptor code: 5

---

IST1906I \( \text{CURRENT VALUE} = \text{current\_value} \)

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY VTAMOPTS command. The first message in the group is IST1188I. See the explanation of that message for a complete description.
Routing code: 2
Descriptor code: 5

---

IST1907I \( \text{ORIGINAL VALUE} = \text{original\_value} \)

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY VTAMOPTS command. The first message in the group is IST1188I. See the explanation of that message for a complete description.
Routing code: 2
Descriptor code: 5

---

IST1908I \( \text{ORIGIN} = \text{origin} \)

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY VTAMOPTS command. The first message in the group is IST1188I. See the explanation of that message for a complete description.
Routing code: 2
Descriptor code: 5

---

IST1909I \( \text{REMOTE HOSTNAME} = \text{value} \)

Explanation: VTAM issues this message as part of a group of messages in response to DISPLAY ID command processing for a remote node connected using Enterprise Extender.

VTAM also issues this message as part of several message groups. These message groups begin with message IST149I, IST1891I, IST1892I, IST1893I, IST2001I, IST2065I, IST2066I, IST2119I, IST2130I, or IST2145I. See the explanations of these messages for a complete description.

\text{value} is the host name that was used to acquire the remote IP address associated with this connection to the remote
IST1911I • IST1910I

node. If the host name is longer than 44 characters, then the first 44 characters are displayed as value and the remaining characters are displayed in one or more IST1911I messages. See the description of IST1911I for more information.

**System action:** Processing continues.
**Operator response:** None.
**System programmer response:** None.
**Routing code:** 2
**Descriptor code:** 5

---

### IST1910I LOCAL HOSTNAME value

**Explanation:** VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for one of the following:

- A remote node connected using Enterprise Extender.
- An XCA major node representing Enterprise Extender connections.
- A GROUP definition statement associated with an XCA major node that represents Enterprise Extender connections.

VTAM also issues this message as part of several message groups. These message groups begin with message IST1891I, IST1892I, IST1893I, IST1899I, IST2000I, IST2001I, IST2002I, IST2065I, IST2066I, IST2119I, IST2130I or IST2145I. See the explanations of those messages for a complete description.

*value* is the host name that was used to acquire the local static VIPA address associated with this end of the Enterprise Extender connections. If the host name is longer than 45 characters, then the first 45 characters are displayed as *value* and the remaining characters are displayed using one or more IST1911I messages. See IST1911I for more information about that message.

**System action:** Processing continues.
**Operator response:** None.
**System programmer response:** None.
**Routing code:** 2
**Descriptor code:** 5

---

### IST1911I value

**Explanation:** VTAM issues this message as part of a group of messages in response to DISPLAY ID command processing for one of the following:

- A remote node connected using Enterprise Extender
- An XCA major node representing Enterprise Extender connections
- A GROUP definition statement associated with an XCA major node that represents Enterprise Extender connections

VTAM also issues this message as part of several message groups. These message groups begin with message IST149I, IST1188I, IST1891I, IST1892I, IST1893I, IST1899I, IST2000I, IST2001I, IST2002I, IST2065I, IST2066I, IST2119I, IST2130I or IST2145I. See the explanations of those messages for a complete description.

*value* is the continuation information for either IST1909I or IST1910I, when the value being displayed is too long to fit on the individual message. See the individual message for a complete description.

**System action:** Processing continues.
**Operator response:** None.
**System programmer response:** None.
**Routing code:** 2
**Descriptor code:** 5
IST1912I IP ADDRESS ipaddr

Explanation: This message is the first in a group of messages that VTAM issues in response to a DISPLAY ID,IDTYPE=IPADDR command when multiple LUs are associated with the specified TN3270 client IP address. A complete description of the message group follows.

IST1912I IP ADDRESS ipaddr
IST1913I LUNAME PORT
IST1914I netid.luname portno
;
IST314I END

IST1912I

Message IST1912I contains the IP address specified in the DISPLAY request.

ipaddr is the IP address specified in the DISPLAY request.

IST1913I

Message IST1913I is a column header for IST1914I.

IST1914I

Message IST1914I is issued for each LU associated with the specified TN3270 client IP address.

netid.luname is the network-qualified name of the LU.

portno is the port number associated with the IP address. The IP address and port number identify the remote TN3270 client.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2

Descriptor code: 5

IST1913I LUNAME PORT

Explanation: This message is issued as part of a group of messages that VTAM issues in response to a DISPLAY ID,IDTYPE=IPADDR command when multiple LUs are associated with the specified TN3270 client IP address. The first message in the group is IST1912I. See the description of that message for a detailed explanation.

Routing code: 2

Descriptor code: 5

IST1914I netid.luname portnum

Explanation: This message is issued as part of a group of messages that VTAM issues in response to a DISPLAY ID,IDTYPE=IPADDR command when multiple LUs are associated with the specified TN3270 client IP address. The first message in the group is IST1912I. See the description of that message for a detailed explanation.

Routing code: 2

Descriptor code: 5

IST1915I line ACTIVATION FAILED - VNNAME ALREADY ACTIVE AS GLOBAL

Explanation: If the same VNNAME is defined more than once in the Enterprise Extender XCA major node, the VNTYPE associated with the virtual routing node (VRN) must be the same. In this case, a VRN is being activated with a VNTYPE of LOCAL, but a VRN with the same VNNAME is already activate with a VNTYPE of GLOBAL.

line is the name of the Enterprise Extender line that failed activation.

System action: The Enterprise Extender line activation is failed.
**IST1916I • IST1919I**

**Operator response:** Contact the system programmer.

**System programmer response:** Correct the Enterprise Extender definition statements to ensure that all virtual routing nodes with the same VNNAME are defined with the same VNTYPE. Then deactivate and reactivate the XCA major node.

**Routing code:** 2

**Descriptor code:** 5

---

**IST1916I line ACTIVATION FAILED - VNNAME ALREADY ACTIVE AS LOCAL**

**Explanation:** If the same VNNAME is defined more than once in the Enterprise Extender XCA major node, the VNTYPE associated with the virtual routing node (VRN) must be the same. In this case, a VRN is being activated with a VNTYPE of GLOBAL, but a VRN with the same VNNAME is already active with a VNTYPE of LOCAL.

*line* is the name of the Enterprise Extender line that failed activation.

**System action:** The Enterprise Extender line activation fails.

**Operator response:** Contact the system programmer.

**System programmer response:** Correct the Enterprise Extender definition statements to ensure that all virtual routing nodes with the same VNNAME are defined with the same VNTYPE. Then deactivate and reactivate the XCA major node.

**Routing code:** 2

**Descriptor code:** 5

---

**IST1917I option1 IN CONFLICT WITH option2 - BOTH OPTIONS IGNORED**

**Explanation:** This message is issued in response to a MODIFY VTAMOPTS command specifying two start options that cannot be modified at the same time. See the [z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com/servers/zseries/zos/bkserv/comm/zosimf1100281.html) for an explanation of why the two start options are in conflict.

*option1* is the name of one of the start options in conflict on the MODIFY command.

*option2* is the name of the second start option that is in conflict on the MODIFY command.

**System action:** *option1* and *option2* are ignored. Any other start option specified on the MODIFY command is processed independently of these start options.

**Operator response:** Specify either MODIFY VTAMOPTS,*option1*=value or MODIFY VTAMOPTS,*option2*=value, but not both. See the [z/OS Communications Server: SNA Operation](https://www.ibm.com/servers/zseries/zos/bkserv/comm/zosimf11010051.html) for information about MODIFY VTAMOPTS.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

---

**IST1919I INOPCODES FOR MODULE modulename:**

**Explanation:** VTAM issues this message as part of a group of messages in response to a MODIFY or DISPLAY INOPCODE command. A complete description of the message group follows:

When MODIFY INOPCODE:

IST1919I INOPCODES FOR MODULE modulename:
IST1920I DUMP ENABLED:
IST1921I inopcode_list
IST1922I DUMP DISABLED:
IST1921I inopcode_list
IST223I MODIFY COMMAND COMPLETED
IST314I END

When DISPLAY INOPCODE:
IST1920I • IST1921I

IST350I DISPLAY TYPE = INOPCODE
IST1919I INOPCODES FOR MODULE modulename:
IST1920I DUMP ENABLED:
IST1921I inopcode_list
IST1922I DUMP DISABLED:
IST1921I inopcode_list

IST1920I DUMP ENABLED:
IST1921I inopcode_list
IST1922I DUMP DISABLED:
IST1921I inopcode_list

IST314I END

IST350I
This message identifies the type of information in the display and is always INOPCODE for this message group.

IST1919I
This message is a header for subsequent IST1920I, IST1921I, and IST1922I messages.
modulename identifies the VTAM modules for which the INOPCODES are being reported.

IST1920I
This message is a header for subsequent IST1921I messages. This message does not appear (nor will the IST1921I continuation message appear) if there are no INOPCODEs that are dump enabled in modulename.

IST1921I
inopcode_list specifies up to 14 INOPCODEs in modulename that are dump enabled or dump disabled.

IST1922I
This message is a header for subsequent IST1921I messages. This message does not appear (nor will the IST1921I continuation message appear) if there are no INOPCODEs that are dump disabled in modulename.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST1920I DUMP ENABLED:

Explanation: VTAM issues this message as part of a group of messages in response to a MODIFY or DISPLAY INOPCODE command. See IST1919I for a complete description of the message group.

Routing code: 2
Descriptor code: 5

IST1921I inopcode_list

Explanation: VTAM issues this message as part of a group of messages in response to a MODIFY or DISPLAY INOPCODE command. See IST1919I for a complete description of the message group.

Routing code: 2
Descriptor code: 5
**IST1922I • IST1925I**

**IST1922I**  DUMP DISABLED:

**Explanation:** VTAM issues this message as part of a group of messages in response to a MODIFY or DISPLAY INOPCODE command. See IST1919I for a complete description of the message group.

**Routing code:** 2

**Descriptor code:** 5

**IST1923I**  MODULE modulename INOPCODE inopcode DOES NOT EXIST

**Explanation:** VTAM issues this error message in response to a MODIFY INOPCODE command that specified modulename and inopcode. This message is issued when modulename is a valid VTAM module that contains INOPCODEs, but inopcode is not one of the codes used by modulename.

modulename is the name specified on the MODIFY INOPCODE command.

inopcode is the code specified on the MODIFY INOPCODE command.

**System action:** Processing continues.

**Operator response:** Issue DISPLAY NET,INOPCODE,MODULE=modulename and check the list of INOPCODEs returned. Reissue the command with the correct INOPCODE.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

**IST1924I**  modulename DOES NOT EXIST OR DOES NOT CONTAIN INOPCODES

**Explanation:** VTAM issues this error message in response to a MODIFY or DISPLAY INOPCODE command that specified modulename. This message is issued when modulename is not a valid VTAM module or modulename is a valid VTAM module but does not use any INOPCODEs.

modulename is the name specified on the MODIFY or DISPLAY INOPCODE command.

**System action:** Processing continues.

**Operator response:** Issue the DISPLAY INOPCODE command without the MODULE operand. The response shows all VTAM modules that use INOPCODEs. If necessary, correct modulename and reissue the MODIFY or DISPLAY INOPCODE command.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

**IST1925I**  SOCKET OPENED BY SNAMGMT SERVER SUBTASK

**Explanation:** VTAM issues this message when the SNA Network Management Server subtask successfully opens a Listener socket. The SNA Network Management Interface is ready to process connection requests from client applications.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5
IST1926I  SNAMGMT SERVER IS UNABLE TO ACCEPT CONNECTION REQUESTS

Explanation: This message is the first of a group of messages that VTAM issues when the SNA Network Management Server is unable to accept connection requests from client applications. This occurs when VTAM cannot establish a Listener socket. The second message in the message group describes the specific failure that occurred. The message group follows:

IST1926I  SNAMGMT SERVER IS UNABLE TO ACCEPT CONNECTION REQUESTS
IST1927I  SOCKET callname CALL FAILED - RC = rtncode RSN = reason
IST314I  END

IST1926I
This message indicates that the SNA Network Management Server is not able to successfully open a socket to accept connection requests from client applications.

IST1927I
A UNIX System Services function call issued by the SNA Network Management Server failed, which prevents it from accepting connection requests.

*callname* is the name of the UNIX System Services function call that failed. These function calls are listed and described in the [z/OS UNIX System Services Programming: Assembler Callable Services Reference](https://www.ibm.com/support/knowledgecenter/SSEPSY_1.2.0/com.ibm.zos.r12/books.cicr/z/OS%20UNIX%20System%20Services%20Programming%3A%20Assembler%20Callable%20Services%20Reference).

*rtncode* is the return code value, in decimal, returned from the UNIX System Services function call that failed. These return codes are listed and described in the [z/OS UNIX System Services Messages and Codes](https://www.ibm.com/support/knowledgecenter/SSEPSY_1.2.0/com.ibm.zos.r12/books.cicr/z/OS%20UNIX%20System%20Services%20Messages%20and%20Codes). The format of the 4-byte reason code is explained in the introduction to the Reason Code section of the [z/OS UNIX System Services Messages and Codes](https://www.ibm.com/support/knowledgecenter/SSEPSY_1.2.0/com.ibm.zos.r12/books.cicr/z/OS%20UNIX%20System%20Services%20Messages%20and%20Codes) where the reason codes are listed.

System action: The SNA Network Management Server socket remains closed and no client connection requests are accepted.

Operator response: Save the system log for problem determination.

System programmer response: Correct the error indicated by the UNIX System Services function call, return code and reason code identified by IST1927I.

Routing code: 2
Descriptor code: 5

IST1927I  SOCKET callname CALL FAILED - RC = rtncode RSN = reason

Explanation: VTAM issues this message in the following situations:

- As part of a group of messages when a UNIX System Services function call issued by the SNA Network Management Server fails, which prevents it from accepting connection requests. The first message in the group is IST1926I. See the description of that message for more information about the message group.

- As part of a group of messages when a UNIX System Services function call issued by the SNA Network Management Server fails, which causes the Server to close a connection with a client application. The first message in the group is IST1933I. See the description of that message for more information about the message group.

System action: Processing continues.

Routing code: 2
Descriptor code: 5

IST1928I  SNAMGMT CONNECTION TO userid IS ACTIVE

Explanation: VTAM issues this message when a connection to the SNA Network Management Server from a client application opens.

*userid* is the user ID that owns the client application.

System action: Processing continues.

Operator response: None.

System programmer response: None.
IST1929I • IST1932I

Routing code: 2
Descriptor code: 5

IST1929I SNAMGMT CONNECTION TO userid HAS ENDED

Explanation: VTAM issues this message when a connection to the SNA Network Management Server from a client application ends.

userid is the user ID that owns the client application. If the user ID is unknown, VTAM displays ***NA***.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2
Descriptor code: 5

IST1930I SOCKET CLOSED BY SNAMGMT SERVER SUBTASK

Explanation: VTAM issues this message when the SNA Network Management Server subtask closes the Listener socket. No connection requests from client applications will be processed.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2
Descriptor code: 5

IST1931I SNAMGMT CONNECTION REFUSED FOR userid

Explanation: VTAM issues this message when the SNA Network Management Server refuses a connection request from a client application because the VTAM capacity for simultaneous client connections has been reached.

userid is the user ID that owns the client application. If the user ID is unknown, VTAM displays ***NA***.

System action: Processing continues. The SNA Network Management Server continues to process existing connections.

Operator response: None.

System programmer response: None.

Routing code: 2
Descriptor code: 5

IST1932I SNAMGMT SECURITY CHECK FAILED FOR userid

Explanation: VTAM issues this message when a connection to the SNA Network Management Server from a client application is not authorized. VTAM closes the connection.

userid is the user ID of the application that attempted the connection to the SNA Network Management Server. If the user ID is unknown, VTAM displays ***NA***.

System action: Processing continues. The SNA Network Management Server continues to accept new connections and process existing connections.

Operator response: Contact the security administrator.

System programmer response: If this user should be authorized to use the SNA Network Management Server, update the security server to allow this user access to the SNA Network Management Server.

Routing code: 2
IST1933I SNAMGMT SERVER CLOSING CONNECTION TO userid

Explanation: VTAM issues this message as the first in a group of messages when a UNIX System Services function call issued by the SNA Network Management Server fails, which causes the Server to close a connection with a client application. The SNA Network Management Server is still able to accept client connection requests, and other existing connections are not disrupted.

IST1933I SNAMGMT SERVER CLOSING CONNECTION TO userid
IST1927I SOCKET callname CALL FAILED - RC = rtncode RSN = reason
IST314I END

IST1933I
This message indicates that the SNA Network Management Server is closing a connection with a client application owned by userid.

userid is the user ID that owns the client application whose connection is being closed. If the user ID is unknown, VTAM displays ***NA***.

IST1927I
callname is the name of the UNIX System Services function call that failed. These functions are listed and described in the z/OS UNIX System Services Programming: Assembler Callable Services Reference.
rtncode is the return code value, in decimal, from the UNIX System Services function call that failed. These return codes are listed and described in the z/OS UNIX System Services Messages and Codes.
reason is the reason code value, in hexadecimal, from the UNIX System Services function call that failed. The format of the 4-byte reason code is explained in the introduction to the Reason Code section of the z/OS UNIX System Services Messages and Codes where the reason codes are listed.

System action: VTAM closes the client connection for which this error occurred. The SNA Network Management Server remains available to service existing connections and accept new connection requests.

Operator response: Save the system log for problem determination.

System programmer response: Correct the error indicated by the UNIX System Services function call, return code, and reason code identified by IST1927I.

Routing code: 2
Descriptor code: 5

IST1934I IDBLK = idblk IDNUM = idnum

Explanation: VTAM issues this message in response to a DISPLAY ID command for any type 1 or type 2 switched PU.

idblk is the value specified on the IDBLK parameter on the PU statement that defines the switched PU.

idnum is the value specified on the IDNUM parameter on the PU statement that defines the switched PU. idblk and idnum are used together to identify the PU.

System action: Processing continues.

Operator response: None.

System programmer response: None.

IST1935I RIF = route_information

Explanation: VTAM issues this message in response to a DISPLAY ID command for a switched PU defined for an external communication adapter (XCA) LAN connection.

route_information is the hexadecimal value of the Route Information Field (RIF) for a LAN connection. See RFC 1042 for more information about this field. See Appendix F, “Related protocol specifications,” on page 1219 for information about accessing RFCs.

System action: Processing continues.
IST1936I  •  IST1940I

Operator response:  None.
System programmer response:  None.

IST1936I  LOCADDR = locaddr

Explanation:  VTAM issues this message in response to a DISPLAY ID command for a logical unit.
locaddr is the value specified on the LOCADDR parameter on the LU statement that defines the logical unit.
System action:  Processing continues.
Operator response:  None.
System programmer response:  None.

IST1937I  PATH SWITCH REASON: INITIATED BY REMOTE PARTNER

Explanation:  This message is part of a group of messages that VTAM issues in response to an RTP path switch. The
first message in the group is either IST1494I or IST1968I. See the description of those messages for more information.

IST1938I  APPC = value

Explanation:  VTAM issues this message in response to a DISPLAY ID command for a VTAM application.
value is the APPC value specified on the APPL definition statement for the application being displayed.
  • YES indicates that the application is APPC capable.
  • NO indicates that the application is not APPC capable.
System action:  Processing continues.
Operator response:  None.
System programmer response:  None.

IST1939I  INACT FINAL = status

Explanation:  VTAM issues this message in response to a DISPLAY ID command for a dependent LU requester
(DLUR) that is represented by a CDRSC.
status is YES to indicate that a VARY INACT command with FINAL=YES was issued against the DLUR. This would
indicate that there are no immediate plans to reactivate this node as a DLUR. To enable the DLUR again, issue a
VARY ACT command on the DLUR CDRSC. See z/OS Communications Server: SNA Operation for additional
information about the VARY INACT FINAL=YES command.
System action:  Processing continues.
Operator response:  None.
System programmer response:  None.

IST1940I  MODIFY COMMAND REJECTED - SNAMGMT ALREADY ACTIVE

Explanation:  VTAM issues this message when the MODIFY VTAMOPTS,SNAMGMT=YES command has been
issued and the SNA Network Management Server is already active.
System action:  VTAM rejects the MODIFY VTAMOPTS,SNAMGMT=YES command.
Operator response:  The SNA Network Management Server subtask may be closing the Listener socket due to either
an abend of the subtask or a recently-issued MODIFY VTAMOPTS,SNAMGMT=NO command. If this is the case and
you want to reactivate the SNA Network Management Server subtask after this processing completes, wait until
VTAM issues message IST1930I and then reissue the MODIFY VTAMOPTS,SNAMGMT=YES command.
System programmer response:  None.
Routing code:  2
Descriptor code:  5
**IST1941I** MODIFY COMMAND REJECTED - SNAMGMT ALREADY SET TO NO

**Explanation:** VTAM issues this message when the MODIFY VTAMOPTS,SNAMGMT=NO command has been issued and the SNAMGMT start option is already set to NO.

**System action:** VTAM rejects the MODIFY VTAMOPTS,SNAMGMT=NO command.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

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**IST1942I** APPN LOCATE SEARCH STEPS ATTEMPTED

**Explanation:** VTAM issues this message as part of a subgroup of messages to provide locate search failure information when a locate search fails to find the destination LU. This subgroup is issued only if the LSIRFMSG function is active for this node and the APPN search fails.

- IST1942I APPN LOCATE SEARCH STEPS ATTEMPTED
  - IST1943I DIRECTED SEARCH TO A SERVED END NODE
  - IST1953I search_nodename - SENSE code FROM reply_nodename
  - IST1944I DIRECTED SEARCH TO A NETWORK NODE
  - IST1953I search_nodename - SENSE code FROM reply_nodename
  - IST1945I DIRECTED SEARCH TO A BORDER NODE
  - IST1953I search_nodename - SENSE code FROM reply_nodename
  - IST1946I LOCAL SUBAREA SEARCH
  - IST1953I search_nodename - SENSE code FROM reply_nodename
  - IST1947I BROADCAST SEARCH TO SERVED END NODES
  - IST1953I search_nodename - SENSE code FROM reply_nodename
  - IST1948I DIRECTED SEARCHES TO BORDER NODES
  - IST1953I search_nodename - SENSE code FROM reply_nodename
  - IST1949I DIRECTED SEARCH TO A CENTRAL DIRECTORY SERVER
  - IST1953I search_nodename - SENSE code FROM reply_nodename
  - IST1950I DIRECTED SEARCHES TO ALTERNATE CENTRAL DIRECTORY SERVERS
  - IST1953I search_nodename - SENSE code FROM reply_nodename
  - IST1951I BROADCAST SEARCH TO NETWORK NODES
  - IST1953I search_nodename - SENSE code FROM reply_nodename
  - IST1952I DIRECTED SEARCHES TO INTERCHANGE NODES
  - IST1953I search_nodename - SENSE code FROM reply_nodename
  - IST314I END

**IST1942I**

This message is a header message for APPN locate failure information.

**IST1943I**

This message is a header message for information displayed in message IST1953I for a failed directed search to a served end node.

**IST1944I**

This message is a header message for information displayed in message IST1953I for a failed directed search to a network node.

**IST1945I**

This message is a header message for information displayed in message IST1953I for a failed directed search to a border node.

**IST1946I**

This message is a header message for information displayed in message IST1953I for a failed search of the local subarea.

**IST1947I**

This message is a header message for APPN locate failure information.
This message is a header message for information displayed in message IST1953I for a failed broadcast search to served end nodes.

**IST1948I**
This message is a header message for information displayed in message IST1953I for failed directed searches to border nodes.

**IST1949I**
This message is a header message for information displayed in message IST1953I for a failed directed search to a central directory server.

**IST1950I**
This message is a header message for information displayed in message IST1953I for failed directed searches to alternate central directory servers.

**IST1951I**
This message is a header message for information displayed in message IST1953I for failed broadcast search to network nodes.

**IST1952I**
This message is a header message for information displayed in message IST1953I for failed directed searches to interchange nodes.

**IST1953I**
This message lists the name of a node to which a locate search is sent, the sense code returned, and the name of the node that set the failing sense code. This message will be issued for each node searched during a search step. The messages appear in the order that the replies were received.

- **search_nodename** is the network-qualified name of the node to which directory services attempted to send a locate search request.
- **code** is the sense code returned in the locate reply. See the z/OS Communications Server: IP and SNA Codes for a description of sense.
- **reply_nodename** is the node that set the sense code that was returned on the locate reply. If the **reply_nodename** value is **"NA"**, then the CV35 on the locate reply did not contain a procedure origin name.

**System action:** The locate search failed.

**Operator response:** Save the system log for problem determination.

**System programmer response:** Use the output to assist in determining the cause of the problem. You might need to work with system programmers in other networks to determine the failures for resources located in other networks.

**Routing code:** 8

**Descriptor code:** 4

**IST1943I • DIRECTED SEARCH TO A SERVED END NODE**

**Explanation:** This message is part of a message subgroup that is issued with the IST663I message group when the LSIRFMSG and FSIRFMSG start options are enabled for this network node. The first message of the subgroup is IST1942I. See the explanation of that message for a complete description.

**Routing code:** 8

**Descriptor code:** 4

**IST1944I • DIRECTED SEARCH TO A NETWORK NODE**

**Explanation:** This message is part of a message subgroup that is issued with the IST663I message group when the LSIRFMSG and FSIRFMSG start options are enabled for this network node. The first message of the subgroup is IST1942I. See the explanation of that message for a complete description.

**Routing code:** 8

**Descriptor code:** 4
IST1945I - DIRECTED SEARCH TO A BORDER NODE

Explanation: This message is part of a message subgroup that is issued with the IST663I message group when the LSIRFMSG and FSIRFMSG start options are enabled for this network node. The first message of the subgroup is IST1942I. See the explanation of that message for a complete description.

Routing code: 8
Descriptor code: 4

IST1946I - LOCAL SUBAREA SEARCH

Explanation: This message is part of a message subgroup that is issued with the IST663I message group when the LSIRFMSG and FSIRFMSG start options are enabled for this network node. The first message of the subgroup is IST1942I. See the explanation of that message for a complete description.

Routing code: 8
Descriptor code: 4

IST1947I - BROADCAST SEARCH TO SERVED END NODES

Explanation: This message is part of a message subgroup that is issued with the IST663I message group when the LSIRFMSG and FSIRFMSG start options are enabled for this network node. The first message of the subgroup is IST1942I. See the explanation of that message for a complete description.

Routing code: 8
Descriptor code: 4

IST1948I - DIRECTED SEARCHES TO BORDER NODES

Explanation: This message is part of a message subgroup that is issued with the IST663I message group when the LSIRFMSG and FSIRFMSG start options are enabled for this network node. The first message of the subgroup is IST1942I. See the explanation of that message for a complete description.

Routing code: 8
Descriptor code: 4

IST1949I - DIRECTED SEARCH TO A CENTRAL DIRECTORY SERVER

Explanation: This message is part of a message subgroup that is issued with the IST663I message group when the LSIRFMSG and FSIRFMSG start options are enabled for this network node. The first message of the subgroup is IST1942I. See the explanation of that message for a complete description.

Routing code: 8
Descriptor code: 4

IST1950I - DIRECTED SEARCHES TO ALTERNATE CENTRAL DIRECTORY SERVERS

Explanation: This message is part of a message subgroup that is issued with the IST663I message group when the LSIRFMSG and FSIRFMSG start options are enabled for this network node. The first message of the subgroup is IST1942I. See the explanation of that message for a complete description.

Routing code: 8
Descriptor code: 4
IST1951I • IST1955I

IST1951I  BROADCAST SEARCH TO NETWORK NODES

Explanation: This message is part of a message subgroup that is issued with the IST663I message group when the LSIRFMSG and FSIRFMSG start options are enabled for this network node. The first message of the subgroup is IST1942I. See the explanation of that message for a complete description.

Routing code: 8
Descriptor code: 4

IST1952I  DIRECTED SEARCHES TO INTERCHANGE NODES

Explanation: This message is part of a message subgroup that is issued with the IST663I message group when the LSIRFMSG and FSIRFMSG start options are enabled for this network node. The first message of the subgroup is IST1942I. See the explanation of that message for a complete description.

Routing code: 8
Descriptor code: 4

IST1953I  search_nodename - SENSE code FROM reply_nodename

Explanation: This message is part of a message subgroup that is issued with the IST663I message group when the LSIRFMSG and FSIRFMSG start options are enabled for this network node. The first message of the subgroup is IST1942I. See the explanation of that message for a complete description.

Routing code: 8
Descriptor code: 4

IST1954I  TRL MAJOR NODE = major_node_name

Explanation: VTAM issues this message as part of a group of messages in response to:
  • A DISPLAY TRL command
  • A DISPLAY ID=trl_element command
  • A DISPLAY INOPDUMP command
  • A DISPLAY TNSTAT command

major_node_name is the name of TRL major node.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IST1955I  STALL DETECTED FOR RTP puname TO cpname

Explanation: This unsolicited message is issued when HPR detects that data flow for an RTP pipe stalled. The data flow is considered stalled because the RTP partner requested retransmission of at least one NLP, but the request cannot be honored. It might be an indication of either a device problem or an internal software problem.

Tip: It is not unusual for a stall to be detected on an RTP pipe that is in the process of pathswitching.

puname is the name of the HPR PU.

cpname is the name of the CP at the other end of the pipe.

System action: HPR attempts to make an internal copy of the NLPs causing the data flow stall (known as NLP recovery). If the copy is successful the recovered NLPs are retransmitted. If the stall persists, IST1956I is issued every 30 seconds until the stall is alleviated.
Operator response: The operator can use the DISPLAY NET,ID=puname or DISPLAY NET,RTPS,STALL=YES commands to monitor stalled RTP pipes.

If the data flow stall persists, issue VARY procname,INACT,ID=puname,TYPE=FORCE to deactivate the HPR PU and end the hung sessions.

If you want VTAM to automatically deactivate stalled RTP pipes after a specified amount of time, use the HPRSTALL start option. See the HPRSTALL start option information in z/OS Communications Server: SNA Resource Definition Reference.

System programmer response: If data flow stalls are prevalent and persistent, contact VTAM support for instructions about gathering documentation for problem determination.

Routing code: 2
Descriptor code: 4

IST1956I STALL CONTINUES FOR RTP puname TO cpname

Explanation: This unsolicited message is issued at 30-second intervals as long as data flow continues to be stalled for an RTP pipe.

puname is the name of the HPR PU.

cpname is the name of the CP at the other end of the pipe.

System action: HPR continues to wait for the partner RTP to acknowledge receipt of the NLPs identified as causing the data flow stall. When all those NLPs are acknowledged, the data flow stall is considered alleviated and IST1957I is issued.

Operator response: Use the DISPLAY NET,ID=puname or DISPLAY NET,RTPS,STALL=YES commands to monitor stalled RTP pipes.

If the data flow stall persists, issue VARY procname,INACT,ID=puname,TYPE=FORCE to deactivate the HPR PU and end the stalled sessions.

If you want VTAM to automatically deactivate stalled RTP pipes after a specified amount of time, use the HPRSTALL start option. See the HPRSTALL start option information in z/OS Communications Server: SNA Resource Definition Reference.

System programmer response: If data flow stalls are prevalent and persistent, contact VTAM support for instructions about gathering documentation for problem determination.

Routing code: 2
Descriptor code: 4

IST1957I STALL ALLEVIATED FOR RTP puname TO cpname

Explanation: This unsolicited message is issued when HPR detects that a data flow stall for an RTP pipe has been alleviated. The RTP pipe data flow is back to normal.

puname is the name of the HPR PU.

cpname is the name of the CP at the other end of the pipe.

System action: None.

Operator response: None.

System programmer response: None.

Routing code: 2
Descriptor code: 4
IST1958I • IST1962I

IST1958I  NUMBER OF ORPHANED BUFFERS = orphaned_NLP_count

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route. The first message in the group is IST1968I. See the description of that message for more information.

Routing code: 2
Descriptor code: 5

IST1959I  DATA FLOW STATE = NORMAL

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route. The first message in the group is IST1476I. See the description of that message for more information.

Routing code: 2
Descriptor code: 5

IST1960I  pname cpname appncos switch congest stall sessions

Explanation: This message is part of a subgroup of messages that VTAM issues in response to a DISPLAY RTPS command. The first message of the subgroup is IST1695I. See the explanation of that message for a complete description of the subgroup.

Routing code: 2
Descriptor code: 5

IST1961I  DATA FLOW STATE = STALLED

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route. The first message in the group is IST1476I. See the description of that message for more information.

Routing code: 2
Descriptor code: 5

IST1962I  APPNCOS = appncos_name - PRIORITY = NETWORK

Explanation: VTAM issues this message for the following reasons:
- In response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route.
- When an RTP pipe is activated and deactivated, this message might be issued as part of a group of messages headed by IST1488I. See the explanation for that message for a complete description.

This message displays information about an APPN Class of Service (APPNCOS) with a transmission priority of network.

appncos_name is the APPNCOS name used in the direction of the other endpoint of the RTP pipe.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5
IST1963I  APPNCOS = appncos_name - PRIORITY = HIGH

**Explanation:** VTAM issues this message for the following reasons:

- In response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route.
- When an RTP pipe is activated and deactivated, this message might be issued as part of a group of messages headed by IST1488I. See the explanation for that message for a complete description.

This message displays information about an APPN Class of Service (APPNCOS) with a transmission priority of **high**.

*appncos_name* is the APPNCOS name used in the direction of the other endpoint of the RTP pipe.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

---

IST1964I  APPNCOS = appncos_name - PRIORITY = MEDIUM

**Explanation:** VTAM issues this message for the following reasons:

- In response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route.
- When an RTP pipe is activated and deactivated, this message might be issued as part of a group of messages headed by IST1488I. See the explanation for that message for a complete description.

This message displays information about an APPN Class of Service (APPNCOS) with a transmission priority of **medium**.

*appncos_name* is the APPNCOS name used in the direction of the other endpoint of the RTP pipe.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

---

IST1965I  APPNCOS = appncos_name - PRIORITY = LOW

**Explanation:** VTAM issues this message for the following reasons:

- In response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route.
- When an RTP pipe is activated and deactivated, this message might be issued as part of a group of messages headed by IST1488I. See the explanation for that message for a complete description.

This message displays information about an APPN Class of Service (APPNCOS) with a transmission priority of **low**.

*appncos_name* is the APPNCOS name used in the direction of the other endpoint of the RTP pipe.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5
**IST1966I** • **IST1968I**

**IST1966I**  
**ACTIVATED AS ACTIVE ON** date **AT** time

**Explanation:** VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route. The first message in the group is [IST1476I](#). See the description of that message for more information.

Routing code: 2  
Descriptor code: 5

**IST1967I**  
**ACTIVATED AS PASSIVE ON** date **AT** time

**Explanation:** VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route. The first message in the group is [IST1476I](#). See the description of that message for more information.

Routing code: 2  
Descriptor code: 5

**IST1968I**  
**ARB INFORMATION:**

**Explanation:** VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. This message is the first in a group of messages and the full description of the message group follows.

IST1968I  
**ARB INFORMATION:**

IST1844I  
**ARB MODE = mode**

IST1697I  
**RTP PACING ALGORITHM = ARB RESPONSIVE MODE**

IST2267I  
**RTP PACING ALGORITHM = ARB PROGRESSIVE MODE**

IST2395I  
**RTP PACING ALGORITHM = ARB BASE MODE**

IST1477I  
**ALLOWED DATA FLOW RATE = allowed units**

IST1516I  
**INITIAL DATA FLOW RATE = initial units**

IST1841I  
**ACTUAL DATA FLOW RATE = actual units**

IST1969I  
**MAXIMUM ACTUAL DATA FLOW RATE = max_rate units**

IST1862I  
**ARB MAXIMUM SEND RATE = maximum units**

IST1845I  
**BOUNDARY DIVIDING REGIONS lower AND upper = boundary MILLISECONDS**

IST1846I  
**Type RECEIVER THRESHOLD = threshold MICROSECONDS**

IST1970I  
**RATE REDUCTIONS DUE TO RETRANSMISSIONS = count**

IST1971I  
**TIMER INFORMATION:**

IST1852I  
**LIVENESS TIMER = liveness SECONDS**

IST1851I  
**SMOOTHED ROUND TRIP TIME = smoothed_time MILLISECONDS**

IST1972I  
**SHORT REQUEST TIMER = timer MILLISECONDS**

IST2229I  
**REFIFO TIMER = refifo MILLISECONDS**

IST1974I  
**OUTBOUND TRANSMISSION INFORMATION:**

IST1975I  
**NUMBER OF NLPS SENT = count ( estimate )**

IST1849I  
**TOTAL BYTES SENT = count ( estimate )**

IST1849I  
**LARGEST NLP SENT = size BYTES**

IST1980I  
**SEQUENCE NUMBER = sequence_num (X'hex_value')**

IST1842I  
**NUMBER OF NLPS RETRANSMITTED = retransmitted**

IST2249I  
**NLP RETRANSMIT RATE = percentage**

IST1976I  
**BYTES RETRANSMITTED = count ( estimate )**

IST1478I  
**NUMBER OF UNACKNOWLEDGED BUFFERS = buffers**

IST1958I  
**NUMBER OF ORPHANED BUFFERS = orphaned_NLP_count**

IST1843I  
**NUMBER OF NLPS ON WAITING-TO-SEND QUEUE = waitsend**

IST1847I  
**NUMBER OF NLPS ON WAITING-FOR-ACKNOWLEDGEMENT QUEUE = waitack**

IST2268I  
**NUMBER OF BYTES ON WAITING-FOR-ACK QUEUE = waitforackbytes**

IST1977I  
**MAXIMUM NUMBER OF NLPS ON WAITING-FOR-ACK QUEUE = count**

IST2269I  
**MAXIMUM NUMBER OF BYTES ON WAITING-FOR-ACK QUEUE = maxwaitforack**

IST1978I  
**WAITING-FOR-ACK QUEUE MAX REACHED ON date AT time**

IST2085I  
**NUMBER OF NLPS ON OUTBOUND WORK QUEUE = num_nlps**
This message is used as a separator message.

allowd is the allowed rate at which data can be sent over the RTP connection at the time this message is displayed.

units is the unit of measure for the rate and is displayed in bits, kilobits, megabits, or gigabits per second (BITS/SEC, KBITS/SEC, MBITS/SEC, or GBITS/SEC).

buffers is the number of I/O buffers containing outbound data that have been sent to the partner without an acknowledgment since the HPR PU was activated.
IST1511I

size is the maximum size of a network layer packet (NLP) that can be sent over this Rapid Transfer Protocol (RTP) connection in bytes.

IST1516I

initial is the initial data flow rate for this Rapid Transfer Protocol (RTP) connection.

units is the unit of measure for the rate and is displayed in bits, kilobits, megabits, or gigabits per second (BITS/SEC, KBITS/SEC, MBITS/SEC, or GBITS/SEC).

IST1697I

This message indicates that the responsive-mode adaptive rate-based (ARB) pacing algorithm is being used.

IST1817I

This message is displayed following message IST1856I if HPRDIAG=YES was specified on the DISPLAY ID command for a rapid transfer protocol (RTP) and the last path switch took place because the underlying physical connection or the RTP itself was not in a state suitable for RTP traffic.

IST1818I

This message is displayed following message IST1856I if HPRDIAG=YES was specified on the DISPLAY ID command for a Rapid Transfer Protocol (RTP) and the last path switch took place because the RTP partner was not responding to status requests initiated by this RTP endpoint. Each time a status request is sent to the partner a short request timer is set to time the transaction. If the short request timer expires and no response is received from the partner, the process is repeated. This process will repeat until the retry limit for the RTP pipe is exhausted. When the retry limit is met, a path switch is requested to try to restore communications with the RTP partner.

The short request timer is an internally calculated value. It is based on the observed response time of the RTP pipe. This timer cannot be specified externally.

IST1819I

This message is displayed following message IST1856I if HPRDIAG=YES was specified on the DISPLAY ID command for a Rapid Transfer Protocol (RTP) and the last path switch took place because the physical connection that the RTP pipe traversed suffered an INOP condition.

IST1820I

This message is displayed following message IST1856I if HPRDIAG=YES was specified on the DISPLAY ID command for a Rapid Transfer Protocol (RTP) and the last path switch took place because an operator issued a MODIFY RTP command to force an RTP path switch.

IST1821I

This message is displayed following message IST1856I if HPRDIAG=YES was specified on the DISPLAY ID command for a Rapid Transfer Protocol (RTP) and the last path switch took place because the PSRETRY start option value forced an automatic path switch for this RTP connection.

IST1822I

This message is displayed following message IST1856I if HPRDIAG=YES was specified on the DISPLAY ID command for a Rapid Transfer Protocol (RTP) and the reason for the last RTP path switch is unavailable.

IST1841I

This message shows the actual data flow rate for this Rapid Transfer Protocol (RTP). It should be compared with the allowed data rate displayed by message IST1477I, and the initial data rate displayed by IST1516I.

actual is the actual rate at which data is being sent over the RTP connection at the time this message is displayed.

units is the unit of measure for the rate and is displayed in bits, kilobits, megabits, or gigabits per second (BITS/SEC, KBITS/SEC, MBITS/SEC, or GBITS/SEC).

The data flow rate is updated approximately every second while data is flowing.
This message is issued if HPRDIAG=YES is specified.

retransmitted is the number of network layer packets (NLPs) that have been retransmitted for this Rapid Transfer Protocol (RTP) since the last CLEAR command was issued or the activation of the RTP pipe.

IST1843I

This message is issued if HPRDIAG=YES is specified.
waitsend is the number of network layer packets (NLPs) currently in the waiting-to-send queue.

IST1844I

- This message is issued if HPRDIAG=YES is specified.
- mode is the current Adaptive Rate-Based (ARB) pacing mode. The value is one of the following:
  - Green: Data transmission is being performed without significant network congestion.
  - Yellow: Data transmission is being slowed down because network congestion has been detected.
  - Red: Data transmission is being affected by severe network congestion which might result in packet loss.

IST1845I

This message is issued if HPRDIAG=YES is specified and the base mode Adaptive Rate-Based (ARB) pacing algorithm is in use for this Rapid Transfer Protocol (RTP). It is issued three times to display each of the three Delay Change Sum (DCS) boundaries dividing the four ARB regions.

lower is a number (1, 2, or 3) representing the ARB region below the boundary.
upper is a number (2, 3, or 4) representing the ARB region above the boundary.
boundary is the DCS boundary in milliseconds dividing the two ARB regions designated by lower and upper.

IST1846I

- This message is issued if HPRDIAG=YES is specified and the responsive mode Adaptive Rate-Based (ARB) pacing algorithm is in use for this Rapid Transfer Protocol (RTP). It is issued three times to show each of the receiver thresholds identified by the message: CURRENT, MAXIMUM and MINIMUM.
- type is the receiver threshold type. The value is one of the following:
  - CURRENT: Amount of accumulated network delay permitted before a slowdown message is returned to the connection partner.
  - MAXIMUM: Maximum amount of accumulated network delay specifically allowed for this link's network capacity.
  - MINIMUM: Minimum amount of accumulated network delay specifically allowed for this link's network capacity.
- threshold is the receiver threshold value, in microseconds.

IST1847I

This message is issued if HPRDIAG=YES is specified.
waitack is the number of network layer packets (NLPs) currently in the waiting-for-acknowledgement queue.

IST1849I

This message is issued if HPRDIAG=YES is specified.
size is the number of data bytes contained in the largest network layer packet (NLP) sent on this Rapid Transfer Protocol (RTP) since the last CLEAR command was issued or the activation of the RTP pipe.

IST1850I

This message is issued if HPRDIAG=YES is specified.
size is the number of bytes contained in the largest network layer packet (NLP) received on this Rapid Transfer Protocol (RTP) since the last CLEAR command was issued or the activation of the RTP pipe.

IST1851I
This message is issued if HPRDIAG=YES is specified.

smoothed_time is the current smoothed round trip time, in milliseconds, for this Rapid Transfer Protocol (RTP). If that time is less than one millisecond, it will be rounded up to one millisecond in this message display.

IST1852I

• This message is issued if HPRDIAG=YES is specified.
• liveness is the value of the liveness timer, in seconds. The liveness timer specifies how long to wait without receipt of a network layer packet (NLP) from the connection partner before sending a liveness message to verify that the connection is still operational.

If liveness is zero, the RTP pipe is traversing a one-hop Enterprise Extender (including those RTP pipes where the RSCV describes a two-hop path across an EE connection network), and HPR Liveness Reduction for EE is enabled. The HPR ALIVE timer will not be used by this RTP endpoint. The HPR Liveness Reduction for EE function is enabled by the HPREELIV operand specified on the XCA Major Node for Enterprise Extender. See the
Communications Server: SNA Resource Definition Reference for more information about the liveness timer.

IST1853I

This message is issued if HPRDIAG=YES is specified.

outofsequence is the number of network layer packets (NLPs) currently in the out-of-sequence queue.

IST1854I

This message is issued if HPRDIAG=YES is specified.

inboundsegs is the number of network layer packets (NLPs) currently in the inbound segments queue.

IST1856I

This message is issued if HPRDIAG=YES is specified and a path switch has occurred for this Rapid Transfer Protocol (RTP). It is the first of a subgroup of messages that includes one of the following messages: IST1817I, IST1818I, IST1819I, IST1820I, IST1821I, and IST1822I. The date and time are displayed for the last path switch occurrence.

The date and time values specify the date and time of the last path switch occurrence. See DATE and TIME formats on page 6 for information about the date and time values.

IST1857I

This message is issued if HPRDIAG=YES is specified. It is a header message for the RTP backpressure information in the display.

IST1858I

This message is issued if HPRDIAG=YES is specified. It is a header message for the information displayed in message IST1859I.

IST1859I

• This message is issued if HPRDIAG=YES is specified. It displays the number of times that this Rapid Transfer Protocol (RTP) pipe went into backpressure (held up outbound data transmission) since the last CLEAR command was issued or the activation of the RTP pipe. Additional backpressure information is in message IST2211I.
• pathswitch is the number of times that this RTP pipe went into backpressure because of a path switch.
• sendqmax is the number of times that this RTP pipe went into backpressure by reaching the send queue maximum limit.
• storefail is the number of times that this RTP pipe went into backpressure because of a failure to obtain storage.
• stalledpipe is the number of times that this RTP pipe went into backpressure because of a stalled RTP pipe. An RTP pipe is considered stalled when data is not flowing because of one of the following conditions:
  – The RTP partner requests the retransmission of at least one NLP, but that request cannot be honored.
  – The RTP partner repeatedly requests the retransmission of the same NLP. In this case, VTAM honors the request by retransmitting the NLP, but the partner does not receive this NLP.

IST1862I

This message is issued if HPRDIAG=YES is specified.
maximum is the Adaptive Rate-Based (ARB) pacing maximum send rate that was reached for this Rapid Transfer Protocol (RTP) since the HPR PU was activated. units is the unit of measure for the rate and is displayed in bits, kilobits, or megabits per second (BITS/SEC, KBITS/SEC, or MBITS/SEC).

IST1937I
This message is displayed following message IST1856I if HPRDIAG=YES was specified on the DISPLAY ID command for a Rapid Transfer Protocol (RTP) and the most recent RTP path switch was initiated by the remote partner.

IST1958I
This message is issued if HPRDIAG=YES is specified. orphaned_NLP_count is the number of I/O buffers that were not returned by the DLC since the last CLEAR command was issued or the activation of the RTP pipe. A nonzero count indicates a device or DLC problem.

IST1968I
This message is issued if HPRDIAG=YES is specified. It is a header message for the Adaptive Rate-Based (ARB) pacing information in the display.

IST1969I
This message is issued if HPRDIAG=YES is specified. max_rate is the maximum rate at which data was sent over the RTP connection since the last CLEAR command was issued or the activation of the RTP pipe. units is the unit of measure for the rate and is displayed in bits, kilobits, or megabits per second (BITS/SEC, KBITS/SEC, or MBITS/SEC). The data flow rate is updated approximately every second while data is flowing.

IST1970I
This message is issued if HPRDIAG=YES is specified and IST1697I indicates that the responsive mode enhancements for the Adaptive Rate-Based (ARB) pacing algorithm is being used. count is number of times the data flow rate was reduced because of excessive packet loss since the last CLEAR command was issued or the activation of the RTP pipe. This value also represents the number of times that the ARB mode changed to yellow.

IST1971I
This message is issued if HPRDIAG=YES is specified. It is a header message for the RTP timer information in the display.

IST1972I
This message is issued if HPRDIAG=YES is specified. timer is the short request timer value. This is the amount of time allotted for the connection partner to respond to status requests from this host.

IST1973I
This message is issued if HPRDIAG=YES is specified. It is a header message for the outbound data information in the display.

IST1974I
• This message is issued if HPRDIAG=YES is specified.
• count is the number of network layer packets (NLPs) that were sent on this Rapid Transfer Protocol (RTP) since the last CLEAR command was issued or the activation of the RTP pipe.
• estimate is an estimate of count. It is in the form xxxU, where xxx is a numeric value and U is the unit of measure for xxx as follows:
  K estimate is in units of 1000 NLPs.
M estimate is in units of 1,000,000 NLPs.
G estimate is in units of 1,000,000,000 NLPs.
T estimate is in units of 1,000,000,000,000 NLPs.
P estimate is in units of 1,000,000,000,000,000 NLPs.

IST1975I

- This message is issued if HPRDIAG=YES is specified.
- count is the total number of bytes that were sent on this Rapid Transfer Protocol (RTP) since the last CLEAR command was issued or the activation of the RTP pipe.
- estimate is an estimate of count. It is in the form xxxU, where xxx is a numeric value and U is the unit of measure for xxx as follows:
  - K estimate is in units of 1000 bytes.
  - M estimate is in units of 1,000,000 bytes.
  - G estimate is in units of 1,000,000,000 bytes.
  - T estimate is in units of 1,000,000,000,000 bytes.
  - P estimate is in units of 1,000,000,000,000,000 bytes.

IST1976I

- This message is issued if HPRDIAG=YES is specified.
- count is the total number of bytes that were retransmitted on this Rapid Transfer Protocol (RTP) since the last CLEAR command was issued or the activation of the RTP pipe.
- estimate is an estimate of count. It is in the form xxxU, where xxx is a numeric value and U is the unit of measure for xxx as follows:
  - K estimate is in units of 1000 bytes.
  - M estimate is in units of 1,000,000 bytes.
  - G estimate is in units of 1,000,000,000 bytes.
  - T estimate is in units of 1,000,000,000,000 bytes.
  - P estimate is in units of 1,000,000,000,000,000 bytes.

IST1977I

This message is issued if HPRDIAG=YES is specified.

- count is the maximum number of network layer packets (NLPs) that have been in the waiting-for-acknowledgement queue since the last CLEAR command was issued or the activation of the RTP pipe.

IST1978I

This message is issued if HPRDIAG=YES is specified.

The date and time values specify when the waiting-for-acknowledgement queue maximum length was most recently reached. See "DATE and TIME formats" on page 6 for information about the date and time values.

IST1979I

This message is issued if HPRDIAG=YES is specified. It is a header message for the inbound data information in the display.

IST1980I

This message is issued if HPRDIAG=YES is specified.

- sequence_num is either the current send byte sequence number, if issued with the IST1973I header message, or the current receive byte sequence number, if issued with the IST1979I header message.
- hex_value is the hexadecimal representation of sequence_num.
This message is issued if HPRDIAG=YES is specified.

*count* is the total number of bytes that were received on this Rapid Transfer Protocol (RTP) pipe since the last CLEAR command was issued or the activation of the RTP pipe.

*estimate* is an estimate of *count*. It is in the form *xxxU*, where *xxx* is a numeric value and *U* is the unit of measure for *xxx* as follows:

- **K** estimate is in units of 1000 bytes.
- **M** estimate is in units of 1,000,000 bytes.
- **G** estimate is in units of 1,000,000,000 bytes.
- **T** estimate is in units of 1,000,000,000,000 bytes.
- **P** estimate is in units of 1,000,000,000,000,000 bytes.

**IST1982I**

This message is issued if HPRDIAG=YES is specified.

*count* is the number of network layer packets (NLPs) currently in the inbound work queue.

**IST1983I**

This message is issued if HPRDIAG=YES is specified.

*count* is the maximum number of network layer packets (NLPs) that were in the inbound work queue since the last CLEAR command was issued or the activation of the RTP pipe.

**IST1984I**

This message is issued if HPRDIAG=YES is specified. It is a header message for the RTP path switch information in the display.

**IST1985I**

This message is issued if HPRDIAG=YES is specified.

*count* is the number of RTP path switches that were initiated from the remote partner since the last CLEAR command was issued or the activation of the RTP pipe.

**IST1986I**

This message is issued if HPRDIAG=YES is specified.

*count* is the number of RTP path switches initiated locally since the last CLEAR command was issued or the activation of the RTP pipe.

**IST1987I**

This message is issued if HPRDIAG=YES is specified.

*count* is the number of RTP path switches that occurred as the result of local failure since the last CLEAR command was issued or the activation of the RTP pipe.

**IST1988I**

This message is issued if HPRDIAG=YES is specified.

*count* is the number of RTP path switches that occurred as the result of local PSRETRY since the last CLEAR command was issued or the activation of the RTP pipe.

**IST2059I**

*This message is issued if HPRDIAG=YES is specified.*

*count* is the number of network layer packets (NLPs) that were received on this Rapid Transfer Protocol (RTP) since the last CLEAR command was issued or the activation of the RTP pipe.

*estimate* is an estimate of *count*. It is in the form *xxxU*, where *xxx* is a numeric value and *U* is the unit of measure for *xxx* as follows:

- **K** estimate is in units of 1000 NLPs.
- **M** estimate is in units of 1,000,000 NLPs.
**IST1968I**

- G estimate is in units of 1 000 000 000 NLPs.
- T estimate is in units of 1 000 000 000 000 NLPs.
- P estimate is in units of 1 000 000 000 000 000 NLPs.

**IST2085I**

This message is issued if HPRDIAG=YES is specified.

num_nlps is the number of work elements currently on the RPN CB outbound work queue.

**IST2086I**

This message is issued if HPRDIAG=YES is specified.

max_num_nlps is the maximum number of work elements that have been on the RPN CB outbound work queue since the last CLEAR command was issued or the activation of the RTP pipe.

**IST2087I**

This message is issued if HPRDIAG=YES is specified.

The date and time values specify when the RPN CB outbound work queue maximum length was most recently reached. See “DATE and TIME formats” on page 6 for information about the date and time values.

**IST2205I**

This message is used as a separator message.

**IST2211I**

This message is issued if HPRDIAG=YES is specified. It is a header message for the information displayed in message IST2212I. This is a continuation of the information displayed in message IST1858I.

**IST2212I**

This message is issued if HPRDIAG=YES is specified. It displays the number of times that this Rapid Transfer Protocol (RTP) pipe went into backpressure (held up outbound data transmission) since the last CLEAR command was issued or the activation of the RTP pipe.

The ackqmax value is the number of times that this RTP went into backpressure by reaching the waiting-for-acknowledgement queue maximum limit.

**IST2213I**

This message is issued if HPRDIAG=YES is specified.

The date and time values specify when RTP backpressure was most recently applied. See “DATE and TIME formats” on page 6 for information about the date and time values.

**IST2214I**

This message is displayed following message IST2213I if HPRDIAG=YES was specified on the DISPLAY ID command for a Rapid Transfer Protocol (RTP) and the most recent RTP backpressure was applied because of a pathswitch.

**IST2215I**

This message is displayed following message IST2213I if HPRDIAG=YES was specified on the DISPLAY ID command for a Rapid Transfer Protocol (RTP) and the most recent RTP backpressure was applied because the send queue maximum limit was reached.

**IST2216I**

This message is displayed following message IST2213I if HPRDIAG=YES was specified on the DISPLAY ID command for a Rapid Transfer Protocol (RTP) and the most recent RTP backpressure was applied because of a storage failure.

**IST2217I**
• This message is displayed following message IST2213I if HPRDIAG=YES was specified on the DISPLAY ID command for an RTP pipe and the most recent RTP backpressure was applied because of a stalled pipe. An RTP pipe is considered stalled when data is not flowing because of one of the following conditions:
  – The RTP partner requests the retransmission of at least one NLP, but the request cannot be honored.
  – The RTP partner repeatedly requests the retransmission of the same NLP. In this case, VTAM honors the request by retransmitting the NLP, but the partner does not receive this NLP.

IST2218I
This message is displayed following message IST2213I if HPRDIAG=YES was specified on the DISPLAY ID command for a Rapid Transfer Protocol (RTP) and the most recent RTP backpressure was applied because the waiting-for-acknowledgement queue maximum limit was reached.

IST2229I
This message is issued if HPRDIAG=YES is specified.
refifo is the refifo timer value. This is the amount of time this end of the RTP pipe waits before reporting missing packets (gaps) to the partner.

IST2230I
This message is issued if HPRDIAG=YES is specified.
naxoutofsequence is the maximum number of network layer packets (NLPs) that have been on the out-of-sequence queue since the last CLEAR command was issued or the activation of the RTP pipe.

IST2236I
This message is issued if HPRDIAG=YES is specified.
The date and time values specify when a network layer packet (NLP) was most recently retransmitted for this RTP pipe since the HPR PU was activated. See “DATE and TIME formats” on page 6 for information about the date and time values.

IST2239I
This message is displayed following message IST1856I if HPRDIAG=YES was specified on the DISPLAY ID command for a Rapid Transfer Protocol (RTP) and the last path switch took place for the recovery of an MNPS application.

IST2248I
This message is issued if HPRDIAG=YES and CLEAR=ALL are specified.
The number value is the total number of RTP pipes whose diagnostic counters were cleared. The number value is always 1 when the DISPLAY ID command is issued with HPRDIAG=YES and CLEAR=ALL.

IST2249I
This message is issued if HPRDIAG=YES is specified.
The percentage value is the retransmission rate as a percentage of NLPs that were sent since the last CLEAR command was issued or since the activation of the RTP pipe. The percentage is accurate to 4 decimal places.

IST2250I
This message is issued if HPRDIAG=YES is specified.
The date and time values specify when all diagnostic counters for the RTP pipe were cleared with the CLEAR command or since the activation of the pipe. See “DATE and TIME formats” on page 6 for information about the date and time values.

IST2267I
This message indicates that the progressive-mode adaptive rate-based (ARB) pacing algorithm is being used.

IST2268I
This message is issued if HPRDIAG=YES is specified.
The `waitforackbytes` value is the total number of bytes that are currently in the waiting-for-acknowledgement queue.

**IST2269I**

This message is issued if HPRDIAG=YES is specified.
The `maxwaitforack` value is the maximum number of bytes that have been in the waiting-for-acknowledgement queue since the last CLEAR command was issued or the activation of the RTP pipe. If the value displayed is 999999999, this means that the maximum value reached 999999999 bytes or more.

**IST2271I**

This message is issued if HPRDIAG=YES is specified.
The `ps_delay_value` value is the HPR path switch delay value, in seconds, that is configured for this RTP pipe. This value specifies the amount of time that this RTP endpoint will delay entering the path switch state as a result of an unresponsive RTP partner.

**IST2272I**

This message is issued if HPRDIAG=YES is specified and this RTP endpoint is in the path switch delay state as a result of an unresponsive partner.
The `date` and `time` values specify when all diagnostic counters for the RTP pipe were cleared with the CLEAR command or since the activation of the pipe. See “DATE and TIME formats” on page 6 for information about the `date` and `time` values.

**IST2335I**

This message indicates that the base-mode adaptive rate-based (ARB) pacing algorithm is being used.

**System action:** None.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

**IST1969I** MAXIMUM ACTUAL DATA FLOW RATE = `max_rate` units

**Explanation:** VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is IST1968I. See the description of that message for more information.

**Routing code:** 2

**Descriptor code:** 5

**IST1970I** RATE REDUCTIONS DUE TO RETRANSMISSIONS = `count`

**Explanation:** VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is IST1968I. See the description of that message for more information.

**Routing code:** 2

**Descriptor code:** 5
IST1971I  TIMER INFORMATION:

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is IST1968I. See the description of that message for more information.

Routing code: 2
Descriptor code: 5

---

IST1972I  SHORT REQUEST TIMER = timer MILLISECONDS

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is IST1968I. See the description of that message for more information.

Routing code: 2
Descriptor code: 5

---

IST1973I  OUTBOUND TRANSMISSION INFORMATION:

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is IST1968I. See the description of that message for more information.

Routing code: 2
Descriptor code: 5

---

IST1974I  NUMBER OF NLPS SENT = count (estimate)

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is IST1968I. See the description of that message for more information.

Routing code: 2
Descriptor code: 5

---

IST1975I  TOTAL BYTES SENT = count (estimate)

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is IST1968I. See the description of that message for more information.

Routing code: 2
Descriptor code: 5

---

IST1976I  BYTES RETRANSMITTED = count (estimate)

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is IST1968I. See the description of that message for more information.

Routing code: 2
Descriptor code: 5

---

IST1977I  MAXIMUM NUMBER OF NLPS ON WAITING-FOR-ACK QUEUE = count

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is IST1968I. See the description of that message for more information.
**IST1978I • IST1983I**

Routing code: 2
Descriptor code: 5

**IST1978I** WAITING-FOR-ACK QUEUE MAX REACHED ON *date* AT *time*

*Explanation:* VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is IST1968I. See the description of that message for more information.

Routing code: 2
Descriptor code: 5

**IST1979I** INBOUND TRANSMISSION INFORMATION:

*Explanation:* VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is IST1968I. See the description of that message for more information.

Routing code: 2
Descriptor code: 5

**IST1980I** RECEIVE SEQUENCE NUMBER = *sequence_no* (*'hex_value'*)

*Explanation:* VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is IST1968I. See the description of that message for more information.

Routing code: 2
Descriptor code: 5

**IST1981I** TOTAL BYTES RECEIVED = *count* (*estimate*)

*Explanation:* VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is IST1968I. See the description of that message for more information.

Routing code: 2
Descriptor code: 5

**IST1982I** NUMBER OF NLPS ON INBOUND WORK QUEUE = *count*

*Explanation:* VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is IST1968I. See the description of that message for more information.

Routing code: 2
Descriptor code: 5

**IST1983I** MAXIMUM NUMBER OF NLPS ON INBOUND WORK QUEUE = *count*

*Explanation:* VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is IST1968I. See the description of that message for more information.

Routing code: 2
Descriptor code: 5
IST1984I PATH SWITCH INFORMATION:

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is IST1968I. See the description of that message for more information.

Routing code: 2
Descriptor code: 5

IST1985I PATH SWITCHES INITIATED FROM REMOTE RTP = count

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is IST1968I. See the description of that message for more information.

Routing code: 2
Descriptor code: 5

IST1986I PATH SWITCHES INITIATED FROM LOCAL RTP = count

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is IST1968I. See the description of that message for more information.

Routing code: 2
Descriptor code: 5

IST1987I PATH SWITCHES DUE TO LOCAL FAILURE = count

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is IST1968I. See the description of that message for more information.

Routing code: 2
Descriptor code: 5

IST1988I PATH SWITCHES DUE TO LOCAL PSRETRY = count

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is IST1968I. See the description of that message for more information.

Routing code: 2
Descriptor code: 5

IST1989I NO MATCHING AUTOLOGON REQUESTS

Explanation: This message is issued in response to a DISPLAY AUTOLOG command when there are no pending AUTOLOGON requests outstanding for any controlling applications, or for the controlling application identified by the ID= operand.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5
IST1990I

Explanation: This message is the first in a group of messages that VTAM issues in response to a DISPLAY
AUTOLOG command when outstanding AUTOLOGON requests exist. The complete description of the message

group follows the example.

IST350I DISPLAY TYPE = AUTOLOG
IST1990I PENDING AUTOLOGON REQUESTS FOR:
[IST1991I pluname - WAITING FOR PLU NOTIFICATION]
[IST1992I pluname - WAITING FOR AUTOTI TIMER]
[IST1993I pluname - WAITING FOR CDRM ACTIVATION]
[IST1994I pluname - WAITING FOR CDRM OR CPEP ACTIVATION]
[IST1995I pluname - WAITING FOR AUTOCAP NODE ACTIVATION]
[IST1996I OR AUTOTI TIMER]
[IST1998I pluname - WAITING FOR AUTOTI/AUTORTRY START OPTION]
[ IST1999I MODIFICATION OR SLU REACTIVATION]
[ IST2100I pluname - NORMALLY LOGGED OFF LUS]
[ IST1997I sluname sluname sluname

;]
[ IST1315I DISPLAY TRUNCATED AT MAX = number]
IST314I END

IST350I
This message identifies the type of information shown in the display. For this message group the display type is
always AUTOLOG.

IST1315I
VTAM issues this message when the number of resources to be displayed exceeds the value specified on the MAX
operand.

number is the value specified for the MAX operand.

IST1990I
This message is the header message for information displayed in the AUTOLOG messages IST1991I- IST1998I
each controlling application displayed.

IST1991I
This message is issued when the pending AUTOLOGON requests for this controlling application are waiting for
notification that the controlling application is now available for sessions.

pluname is the name of the controlling application for which there are pending AUTOLOGON requests. pluname
is in the form of netid.pluname.

If a pending AUTOLOGON request was created using the network-qualified name of the controlling application,
then pluname will be shown as a network qualified (real) name in the form netid.pluname. If the pending
AUTOLOGON request was created using the name of the controlling application that is not a network-qualified
(alias) name, then only the unqualified name will be shown in the form pluname.

IST1992I
This message is issued when the pending AUTOLOGON requests for this controlling application will be redriven
when the timer set by the AUTOTI start option has expired. See the z/OS Communications Server: SNA Resource
Definition Reference for the start option description.

pluname is the name of the controlling application for which there are pending AUTOLOGON requests. pluname
is in the form of netid.pluname.

If a pending AUTOLOGON request was created using the network-qualified name of the controlling application,
then pluname will be shown as a network qualified (real) name in the form netid.pluname. If the pending
AUTOLOGON request was created using the name of the controlling application that is not a network-qualified
(alias) name, then only the unqualified name will be shown in the form pluname.

IST1993I
This message is issued when the pending AUTOLOGON requests for this controlling application will be redriven when a new adjacent CDRM is activated. IST1996I might also be issued as a continuation of IST1993I.

pluname is the name of the controlling application for which there are pending AUTOLOGON requests. pluname is in the form of netid.pluname.

If a pending AUTOLOGON request was created using the network-qualified name of the controlling application, then pluname will be shown as a network qualified (real) name in the form netid.pluname. If the pending AUTOLOGON request was created using the name of the controlling application that is not a network-qualified (alias) name, then only the unqualified name will be shown in the form pluname.

IST1994I

This message is issued when the pending AUTOLOGON requests for this controlling application will be redriven when a new adjacent CDRM or a new CP-CP session is activated. IST1996I might also be issued as a continuation of IST1993I.

pluname is the name of the controlling application for which there are pending AUTOLOGON requests. pluname is in the form of netid.pluname.

If a pending AUTOLOGON request was created using the network-qualified name of the controlling application, then pluname will be shown as a network qualified (real) name in the form netid.pluname. If the pending AUTOLOGON request was created using the name of the controlling application that is not a network-qualified (alias) name, then only the unqualified name will be shown in the form pluname.

IST1995I

This message is issued when the pending AUTOLOGON requests for this controlling application will be redriven when a new adjacent CDRM is activated or when a new CP-CP session is activated to an adjacent APPN node which supports automatic LOGON. See the AUTORTRY start option in the z/OS Communications Server: SNA Resource Definition Reference for the start option description. IST1996I might also be issued as a continuation of IST1993I.

pluname is the name of the controlling application for which there are pending AUTOLOGON requests. pluname is in the form of netid.pluname.

If a pending AUTOLOGON request was created using the network-qualified name of the controlling application, then pluname will be shown as a network qualified (real) name in the form netid.pluname. If the pending AUTOLOGON request was created using the name of the controlling application that is not a network-qualified (alias) name, then only the unqualified name will be shown in the form pluname.

IST1996I

This message is a continuation of IST1993I, IST1994I, or IST1995I when the pending AUTOLOGON requests for the controlling application identified by the previous message will also be redriven when the timer set by the AUTOTI start option has expired. See the z/OS Communications Server: SNA Resource Definition Reference for the start option description.

IST1997I

This message is issued when SCOPE=ALL is specified. IST1997I is repeated until all logical units are displayed or until the DSLPYMAX start option, DSPLYDEF start option, or MAX operand value on the DISPLAY AUTOLOG command has been reached. See the z/OS Communications Server: SNA Resource Definition Reference for start option descriptions.

When IST1997I is preceded by either IST1991I, IST1992I, IST1993I, IST1994I, IST1995I, or IST1998I, then sluname is the name of the logical unit that has a pending AUTOLOGON request for the controlling application identified in the previous message. sluname is in the form netid.slname.

When IST1997I is preceded by IST2100I, then sluname is the name of a logical unit that had performed a normal termination to the controlling application identified in message IST2100I. sluname is in the form netid.slname.

IST1998I

This message is issued when a pending AUTOLOGON request exists for this controlling application that is not waiting for PLU notification. The AUTOTI and AUTORTRY start options are set to values which will not cause this request to be redriven. See the z/OS Communications Server: SNA Resource Definition Reference for the start option descriptions. Message IST1999I will always be issued as a continuation of this message.

pluname is the name of the controlling application for which there are pending AUTOLOGON requests. pluname is in the form of netid.pluname.
IST1991I

If a pending AUTOLOGON request was created using the network-qualified name of the controlling application, then *pluname* will be shown as a network qualified (real) name in the form `netid.pluname`. If the pending AUTOLOGON request was created using the name of the controlling application that is not a network-qualified (alias) name, then only the unqualified name will be shown in the form `pluname`.

IST1999I

This message is a continuation of the text in message IST1998I.

IST2100I

This message is included when there are LUs that have normally terminated their controlling application session with the named PLU. The controlling session can be initiated by the VARY ACT,ID=*luname* or VARY AUTOLOG operator commands. See [z/OS Communications Server: SNA Operation] for more information. The names of the LUs in this state will be listed in the IST1997I messages immediately following the IST2100I message when SCOPE=ALL is included on the DISPLAY AUTOLOG command. See the information about the automatic logon in [z/OS Communications Server: SNA Operation] for information on how to establish a controlling application session.

*pluname* is the name of the controlling application that has LUs that terminated their controlling session. *pluname* is in the form of `netid.pluname`.

**System action:** Processing continues.

**Operator response:** For messages IST1998I and IST1999I you can take the following actions to redrive a session attempt to the controlling application.

- Issue a Modify VTAMOPTS command to change the AUTOTI to a nonzero value.
- Use the following sequence of procedures to drive a session attempt to the controlling application:
  1. Issue the Display AUTOLOG command with SCOPE= ALL to obtain a list of SLU names.
  2. Use the SLU names contained in the IST1997I messages from the display command to issue VARY ACT,ID=*sluname* command for each SLU name.
- Issue a VARY AUTOLOG,ID=*pluname* to the PLU name displayed in messages IST1998I or IST1999I.

For message IST2100I, you can take the following actions to redrive a session attempt to the controlling application.

- Use the following sequence of procedures to drive a session attempt to the controlling application:
  1. Issue a DISPLAY AUTOLOG command with SCOPE=ALL to obtain a list of SLU names.
  2. Use the SLU names contained in the IST1997I messages from the display command to issue a VARY ACT,ID=*sluname* command for each SLU name.
- Issue a VARY AUTOLOG,ID=*pluname* command to the PLU name displayed in message IST2100I.

**System programmer response:** For messages IST1998I and IST1999I, update the AUTORTRY or AUTOTI start option in the VTAM start list (ATCSTR=x) to a value which will drive pending AUTOLOGON requests. See the [z/OS Communications Server: SNA Resource Definition Reference] for the Start Options description.

Otherwise no action is required.

**Routing code:** 2

**Descriptor code:** 5

---

**IST1991I**

*pluname* - WAITING FOR PLU NOTIFICATION

**Explanation:** This message is part of a message group that is issued in response to a DISPLAY AUTOLOG command. The first message of the group is IST1990I. See the explanation of that message for a complete description.

**Routing code:** 2

**Descriptor code:** 5
IST1992I  
**pluname** - WAITING FOR AUTOTI TIMER

**Explanation:** This message is part of a message group that is issued in response to a DISPLAY AUTOLOG command. The first message of the group is IST1990I. See the explanation of that message for a complete description.

**Routing code:** 2  
**Descriptor code:** 5

---

IST1993I  
**pluname** - WAITING FOR CDRM ACTIVATION

**Explanation:** This message is part of a message group that is issued in response to a DISPLAY AUTOLOG command. The first message of the group is IST1990I. See the explanation of that message for a complete description.

**Routing code:** 2  
**Descriptor code:** 5

---

IST1994I  
**pluname** - WAITING FOR CDRM OR CPCP ACTIVATION

**Explanation:** This message is part of a message group that is issued in response to a DISPLAY AUTOLOG command. The first message of the group is IST1990I. See the explanation of that message for a complete description.

**Routing code:** 2  
**Descriptor code:** 5

---

IST1995I  
**pluname** - WAITING FOR AUTOCAP NODE ACTIVATION

**Explanation:** This message is part of a message group that is issued in response to a DISPLAY AUTOLOG command. The first message of the group is IST1990I. See the explanation of that message for a complete description.

**Routing code:** 2  
**Descriptor code:** 5

---

IST1996I  
**OR AUTOTI TIMER**

**Explanation:** This message is part of a message group that is issued in response to a DISPLAY AUTOLOG command. The first message of the group is IST1990I. See the explanation of that message for a complete description.

**Routing code:** 2  
**Descriptor code:** 5

---

IST1997I  
**sluname1 sluname2 sluname3**

**Explanation:** This message is part of a message group that is issued in response to a DISPLAY AUTOLOG command. The first message of the group is IST1990I. See the explanation of that message for a complete description.

**Routing code:** 2  
**Descriptor code:** 5

---

IST1998I  
**pluname** - WAITING FOR AUTOTI/AUTORTRY START OPTION

**Explanation:** This message is part of a message group that is issued in response to a DISPLAY AUTOLOG command. The first message of the group is IST1990I. See the explanation of that message for a complete description.

**Routing code:** 2  
**Descriptor code:** 5
IST1999I

MODIFICATION OR SLU REACTIVATION

Explanation: This message is part of a message group that is issued in response to a DISPLAY AUTOLOG command. The first message of the group is IST1990I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5
Chapter 10. IST messages for VTAM network operators
IST2000I – IST2417I

This chapter lists the VTAM messages beginning with IST in the range of IST2000I through IST2417I. These messages can appear on a network operator’s console.

See Appendix E, “Message text for VTAM operator messages,” on page 1177 for a list of the text of all VTAM operator messages.

Note: Messages that begin with the prefix ISTF are issued by the VTAM dump analysis tool and the VTAM internal trace (VIT) analysis tool. Help information is available as a part of each tool by pressing F1. Therefore, ISTF messages are not documented in z/OS Communications Server: SNA Messages See z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures for additional information.

IST2000I ENTERPRISE EXTENDER GENERAL INFORMATION

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY EE command for general Enterprise Extender information. This message is the first in a group of messages. When LIST=DETAIL is specified an optional message subgroup, beginning with message IST1680I, is displayed for each local IP address. The full description of the message group follows the example.

IST2000I ENTERPRISE EXTENDER GENERAL INFORMATION
IST1685I TCP/IP JOB NAME = jobname
IST2003I ENTERPRISE EXTENDER XCA MAJOR NODE NAME = name
IST2004I LIVTIME = (init_value,max_value) SRQTIME = srqtime SRQRETRY = srqretry
IST2005I IPRESOLV = ipresolv
IST2231I CURRENT CLOCK RATE = current
IST2232I HPR CLOCK RATE LAST SET TO HIGH ON date AT time
IST2233I HPR CLOCK RATE LAST EXITED HIGH ON date AT time
IST924I -------------------------------------------------------------
IST2006I PORT PRIORITY = SIGNAL NETWORK HIGH MEDIUM LOW
IST2007I IPPORT NUMBER = portsig portnet porthigh portmed portlow
IST2008I IPTOS VALUE = sigtos nettos hightos medtos lowtos
IST2017I TOTAL RTP PIPES = totrtppipes LU-LU SESSIONS = totsessions
IST2018I TOTAL ACTIVE PREDEFINED EE CONNECTIONS = totpredconns
IST2019I TOTAL ACTIVE LOCAL VRN EE CONNECTIONS = totlvrnconns
IST2020I TOTAL ACTIVE GLOBAL VRN EE CONNECTIONS = totvrncconns
IST924I -------------------------------------------------------------
IST924I

This message is a line separator between subgroups.
IST2000I

IST1324I

• This is the first message of an optional subgroup. When LIST=DETAIL is specified, this subgroup is displayed for each active Enterprise Extender virtual routing node. This message is a header message for messages IST2011I and IST2012I. This message is also associated with a subgroup of messages that begins with message IST1680I.

• \textit{vnname} is the fully qualified virtual routing node name.

• \textit{vngroup} is the GROUP associated with the connection network definition.

• \textit{vntype} indicates the type of HPR/IP (Enterprise Extender) connection network. The two possible values are:

  - (LOCAL): The connection network is being defined as a LOCAL virtual routing node (the connection network cannot traverse network or subnetwork boundaries). Either VNTYPE was not specified, or VNTYPE was specified as LOCAL on the definition of the Enterprise Extender virtual routing node.

  - (GLOBAL): The connection network is being defined as a GLOBAL virtual routing node (the connection network can traverse network or subnetwork boundaries). VNTYPE was specified as GLOBAL on the definition of the Enterprise Extender virtual routing node.

• The complete message subgroup follows the example.

  IST1324I \textbf{VNAME = vnname} \textbf{VNGROUP = vngroup} \textbf{vntype}
  IST2011I AVAILABLE LINES FOR THIS EE VRN = vrnlines
  IST2012I ACTIVE CONNECTIONS USING THIS EE VRN = vrnconns

IST1680I

• This is the first message of an optional subgroup. When LIST=DETAIL is specified, this subgroup is displayed for each active local IP address.

• \textit{type} is always LOCAL for this subgroup display.

• \textit{ip_address} is the IP address. The complete message subgroup follows the example.

  IST1680I \textbf{type} \textbf{IP ADDRESS} \textbf{ip_address}
  [IST1910I LOCAL HOSTNAME \textit{value}]
  [IST1911I \textit{value}]
  [IST2004I LIVTIME = (init_value,max_value) SRQTIME = srqtime SRQRETRY = srqrety]
  [IST2009I RTP PIPES = rtppipes LU-LU SESSIONS = sessions ]
  [IST2010I INOPS DUE TO SRQRETRY EXPIRATION = inopcount ]
  [IST1324I \textbf{VNAME = vnname} \textbf{VNGROUP = vngroup} \textbf{vntype}]
  [IST2011I AVAILABLE LINES FOR THIS EE VRN = vrnlines ]
  [IST2012I ACTIVE CONNECTIONS USING THIS EE VRN = vrnconns ]
  [IST2013I AVAILABLE LINES FOR PREDEFINED EE CONNECTIONS = predeflines]
  [IST2014I ACTIVE PREDEFINED EE CONNECTIONS = predefconns]
  [IST2015I ACTIVE LOCAL VRN EE CONNECTIONS = lvrnconns]
  [IST2016I ACTIVE GLOBAL VRN EE CONNECTIONS = gvrnconns]

IST1685I

• \textit{jobname} is the 1-8 character TCP/IP job name used to start the TCP/IP address space. See the \texttt{z/OS Communications Server: IP Configuration Guide} for information about the TCP/IP job name.

IST1910I

• \textit{value} is the host name used to acquire the local static IP address displayed in message IST1680I. If the host name is longer than 45 characters, then the first 45 characters are displayed as \textit{value} and the remaining characters are displayed in one or more IST1911I messages.

IST1911I

• \textit{value} is the continuation of \textit{value} on message IST1910I. IST1911I is repeated as many times as necessary to display the entire character string.

IST2000I

• This message is the header message for the general Enterprise Extender display output.

IST2003I
name is the name of the Enterprise Extender XCA major node.

IST2004I

The first occurrence of this message, under the IST2000I message group, displays the LDLC timer operands that are specified on PORT definition statement or default values.

The other occurrences of this message, under the IST1680I message group, display the LDLC timer operands that are associated with each local static VIPA address. See the information about the removing a generic resource in z/OS Communications Server: SNA Resource Definition Reference for more information about the LIVTIME operand for Enterprise Extender.

init_value is the initial duration, in seconds, of an Enterprise Extender logical data link control (LDLC) liveness timer interval.

max_value is the maximum duration, in seconds, of an Enterprise Extender LDLC liveness timer interval.

srqtime is the duration, in seconds, of the Enterprise Extender LDLC short request timer interval. The short request timer interval represents the amount of time the LDLC layer waits, without receipt of a response from the connection partner, before sending the LDLC signal again.

srqretry is the number of times the short request timer is tried again before the Enterprise Extender port becomes inoperative.

IST2005I

ipresolv is the number of seconds VTAM waits for name-to-address resolution requests to complete before canceling the request. The value displayed is associated with the Enterprise Extender port and only affects local HOSTNAME name-to-address resolution requests.

IST2006I

This message is a header message for the information displayed in messages IST2007I and IST2008I.

IST2007I

This message lists the Enterprise Extender port numbers used to transmit signal, network, high, medium, and low priority data.

portsig is the port number used to transmit signal priority data.

portnet is the port number used to transmit network priority data.

porthigh is the port number used to transmit high priority data.

portmed is the port number used to transmit medium priority data.

portlow is the port number used to transmit low priority data.

IST2008I

This message lists the Type of Service (TOS) values associated with each Enterprise Extender port.

signal is the TOS value associated with the Enterprise Extender port used for signal priority data.

network is the TOS value associated with the Enterprise Extender port used for network priority data.

high is the TOS value associated with the Enterprise Extender port used for high priority data.

medium is the TOS value associated with the Enterprise Extender port used for medium priority data.

low is the TOS value associated with the Enterprise Extender port used for low priority data.

IST2009I

This message is associated with a subgroup of messages that begins with message IST1680I.

rtppipes is the number of RTP pipes, originating in this host that traverse EE connections associated with the local IP address displayed in message IST1680I of this subgroup.

sessions is the number of LU-LU sessions associated with the rtppipes.

IST2010I

This message is associated with a subgroup of messages that begins with message IST1680I.

inopcount is the number of Enterprise Extender connections, associated with the local IP address displayed in message IST1680I of this subgroup, that have been INOPed by VTAM due to SRQRETRY exhaustion.
IST2000I

IST2011I
This message is associated with a subgroup of messages that begins with message IST1680I.
vrnlines is the number of available lines associated with the virtual routing node displayed in message IST1324I of this subgroup.

IST2012I
This message is associated with a subgroup of messages that begins with message IST1680I.
vrnconns is the number of active EE connections associated with the virtual routing node displayed in message IST1324I of this subgroup.

IST2013I
• This message is associated with a subgroup of messages that begins with message IST1680I.
• predeflines is the number of available lines for predefined (non-VRN) Enterprise Extender connections that are associated with the local IP address displayed in message IST1680I of this subgroup.

Result: If the value for predeflines displays as 0, this might mean that all Enterprise Extender lines are associated with Connection Network (CN) groups. In that case, all available lines that are associated with CN groups are available for predefined connections. Lines will be selected from the local CN groups first. If no local CN lines are available, then lines will be selected from the global CN groups.

IST2014I
This message is associated with a subgroup of messages that begins with message IST1680I.
predefconns is the number of active predefined (non-VRN) Enterprise Extender connections that are associated with the local IP address displayed in message IST1680I of this subgroup.

IST2015I
This message is associated with a subgroup of messages that begins with message IST1680I.
lvrnconns is the number of Enterprise Extender LOCAL virtual routing node connections that are associated with the local IP address displayed in message IST1680I of this subgroup. lvrnconns is the sum of all the vrnconns values that are associated with LOCAL virtual routing nodes displayed in message IST2012I for this IST1680I subgroup.

IST2016I
This message is associated with a subgroup of messages that begins with message IST1680I.
gvrnconns is the number of Enterprise Extender GLOBAL virtual routing node connections associated with the local IP address displayed in message IST1680I of this subgroup. gvrnconns is the sum of all the vrnconns values that are associated with GLOBAL virtual routing nodes displayed in message IST2012I for this IST1680I subgroup.

IST2017I
totrtpipes is the total number of RTP pipes originating in this host that traverse EE connections on this host.
totrtpipes is the sum of the rtpipes values displayed in message IST2009I of each IST1680I subgroup. totsessions is the total number of LU-LU sessions associated with the totrtpipes.
totsessions is the sum of the sessions values displayed in message IST2009I of each IST1680I subgroup.

IST2018I

totpredefconns is the total number of active predefined (non-VRN) Enterprise Extender connections on this host.
totpredefconns is the sum of the predefconns values displayed in message IST2014I of each IST1680I subgroup.

IST2019I
	
totlvrnconns is the total number of active Enterprise Extender connections on this host that are associated with a LOCAL virtual routing node. totlvrnconns is the sum of the lvrnconns values displayed in message IST2015I of each IST1680I subgroup.

IST2020I
IST2001I

**totgvrnconns** is the total number of active Enterprise Extender connections on this host that are associated with a GLOBAL virtual routing node. **totgvrnconns** is the sum of the **gvrnconns** values displayed in message IST2016I of each IST1680I subgroup.

IST2021I

**totactive** is the total number of active Enterprise Extender connections on this host. **totactive** is the sum of the **totpredefconns**, **totlvrnconns** and **totgvrnconns** values reported in messages IST2018I, IST2019I and IST2020I respectively.

IST2231I

**current** is the current rate of the HPR clock. If the HPRCLKRT start option is set to STANDARD, then the current rate will always display as STANDARD. If the HPRCLKRT start option is set to ADAPTIVE, then the current rate displays as STANDARD or HIGH, depending on network conditions.

IST2232I

This message is issued when the HPRCLKRT start option is set to ADAPTIVE and the HPR clock has entered high mode at some point.

The **date** and **time** values specify when the HPR clock most recently entered high mode. See "DATE and TIME formats" on page 6 for information about the **date** and **time** values.

IST2233I

This message is issued only when the HPRCLKRT start option is set to ADAPTIVE and the HPR clock has exited high mode back to standard mode.

The **date** and **time** values specify when the HPR clock most recently exited high mode. See "DATE and TIME formats" on page 6 for information about the **date** and **time** values.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Source:** z/OS Communications Server SNA

**Module:** You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.

**Routing code:** 2

**Descriptor code:** 5

---

IST2001I ENTERPRISE EXTENDER CONNECTION INFORMATION

**Explanation:** VTAM issues this message as part of a group of messages in response to a DISPLAY EE command for Enterprise Extender connection information. This message is the first in a group of messages. The display output might consist of multiple Enterprise Extender connections being displayed. Each matching connection will be displayed in a subgroup beginning with message IST1680I. The full description of the message group follows the example.

IST2001I ENTERPRISE EXTENDER CONNECTION INFORMATION

[IST2119I ENTERPRISE EXTENDER DISPLAY CORRELATOR: correlator]

[IST075I NAME = name, TYPE = type ]

[IST924I -------------------------------------------------------------]

IST1680I type IP ADDRESS ip_address

IST1910I LOCAL HOSTNAME value]

[IST1911I value]

IST1680I type IP ADDRESS ip_address

IST1909I REMOTE HOSTNAME value]

[IST1911I value]

IST2346I CP NAME = cp_name

IST2022I EE CONNECTION ACTIVATED ON date AT TIME time

IST2114I LIVTIME: INITIAL = init_value MAXIMUM = max_value CURRENT = cur_value

[IST2023I CONNECTED TO LINE linename ]
This message is displayed when a DISPLAY EE command is issued using the ID parameter.

name is the name of the LINE or PU that is displayed.
**Chapter 10. IST messages for VTAM network operators IST2000I – IST2417I**

**IST2001I**

*type* is described in Chapter 17, “Node and ID types in VTAM messages,” on page 1097.

**IST924I**

This message is a line separator between subgroups.

**IST1680I**

- This is the first message of a message subgroup. For DISPLAY EE commands that result in multiple EE connections being displayed, this subgroup is displayed for each matching EE connection. When LIST=DETAIL is specified, five optional subgroups, beginning with the IST2030I subgroup and ending with the IST2034I subgroup, will also be displayed.
- *type* is either LOCAL or REMOTE, indicating which IP address is being displayed.
- *ip_address* is the IP address.
- The complete message subgroup (LIST=SUMMARY) follows:

  IST1680I type IP ADDRESS ip_address
  [IST1910I LOCAL HOSTNAME value]
  [IST1911I value]
  IST1680I type IP ADDRESS ip_address
  [IST1909I REMOTE HOSTNAME value]
  [IST1911I value]
  IST23461 CP NAME = cp_name
  IST2022I EE CONNECTION ACTIVATED ON date AT TIME time
  [IST2023I CONNECTED TO LINE linename ]
  [IST2024I CONNECTED TO SWITCHED PU puname ]
  IST20251 LDLC SIGNALS RETRANSMITTED AT LEAST ONE TIME = numsignals
  IST20261 LDLC SIGNALS RETRANSMITTED SRQRETRY TIMES = numsignals
  IST2009I RTP PIPES = rtppipes LU-LU SESSIONS = lusessions
  IST20271 DWI NOP = dwinop REDIAL = redial REDDELAY = reddelay
  IST2028I KEEPACT = keepact
  IST2029I MTU SIZE = mtusize
  IST1924I ---------------------------------------------------------------
  IST2035I TOTALS FOR ALL PORT PRIORITIES
  IST2036I NLPS SENT = nlps_sent ( estimate )
  IST2037I BYTES SENT = bytes_sent ( estimate )
  IST2038I NLPS RETRANSMITTED = nlps_retransmitted ( estimate )
  IST2039I BYTES RETRANSMITTED = bytes_retransmitted( estimate )
  IST2040I NLPS RECEIVED = nlps_received ( estimate )
  IST2041I BYTES RECEIVED = bytes_received ( estimate )

**IST1909I**

*value* is the host name used to acquire the remote IP address associated with this connection to the remote node. If the host name is longer than 44 characters, then the first 44 characters are displayed as *value* and the remaining characters are displayed in one or more IST1911I messages.

**IST1910I**

*value* is the host name used to acquire the local static IP address displayed in message IST1680I. If the host name is longer than 45 characters, then the first 45 characters are displayed as *value* and the remaining characters are displayed in one or more IST1911I messages.

**IST1911I**

*value* is the continuation of *value* on messages IST1909I and IST1910I. IST1911I is repeated as many times as necessary to display the entire character string.

**IST2001I**

This message is the header message for the Enterprise Extender connection display output.

**IST2009I**

*rtppipes* is the number of RTP pipes originating in this host that traverse EE connections associated with the local IP address displayed in message IST1680I of this subgroup.

*sessions* is the number of LU-LU sessions associated with the rtppipes.
IST2022I

The date and time values specify when this EE connection was activated. See "DATE and TIME formats" on page 6 for information about the date and time values.

IST2023I

"linename" is the name of the Enterprise Extender line that is being used for this Enterprise Extender connection.

IST2024I

"puname" is the name of the switched PU that is being used for this Enterprise Extender connection.

IST2025I

"numsignals" is the number of Logical Data Link Control (LDLC) signals that had to be retransmitted at least one time, prior to a response being received from the partner Enterprise Extender node.

IST2026I

"numsignals" is the number of Logical Data Link Control (LDLC) signals that had to be retransmitted SRQRETRY times, prior to a response being received from the partner Enterprise Extender node.

IST2027I

"dwinop" is the value of the DWINOP parameter associated with this Enterprise Extender physical unit. The DWINOP parameter specifies whether the physical unit is to be dialed after it has INOPed.

"re dial" is the value of the REDIAL parameter associated with this Enterprise Extender physical unit. The REDIAL parameter specifies the number of times dialing is to be tried again before returning a dialing error to VTAM.

"reddelay" is the value of the REDDELAY parameter associated with this Enterprise Extender physical unit. The REDDELAY parameter specifies the number of seconds between each attempt to redial an Enterprise Extender connection.

IST2028I

"keepact" is the value of the KEEPACT parameter associated with this Enterprise Extender line. The KEEPACT parameter specifies whether the line used for this Enterprise Extender connection should be automatically reactivated when the line is deactivated by a link INOP.

IST2029I

- This message is associated with a subgroup of messages that begins with message IST2030I, IST2031I, IST2032I, IST2033I, or IST2034I. When policy-based routing is in effect, the MTU size might be different for each of the ports, depending on the routes chosen for EE traffic. This message is issued for each of the five EE ports, regardless of whether policy-based routing is in effect and regardless of whether the display is for an IPv4 or IPv6 connection.
- "mtusize" is the size of the largest packet that VTAM will send over this Enterprise Extender connection. The MTU size (both IPv4 and IPv6) might change during the life of the EE connection. The displayed value is obtained in the following manner:
  1. VTAM queries the TCP/IP stack to obtain its MTU size and sets the EE connection to use this value. This MTU size has already been reduced to account for various header lengths such as the IP, UDP, and LLC headers necessary for EE traffic.
  2. VTAM takes into account the VTAM MTU operand value, if it is specified. The MTU operand can be specified on three types of VTAM major nodes:
     - For EE connection networks, this operand is defined on the connection network GROUP definition statements in the EE XCA major node.
     - For dial-in EE connections with associated PUs that are dynamically created, this operand is defined on the model major node (DYNTYPE=EE) PU definition statement.
     - For predefined EE connections, this operand is defined on the PU definition statement in the switched major node.
  3. VTAM uses the lesser of the TCP/IP stack computed MTU size and the VTAM defined MTU operand value (if it is specified). If the TCP/IP stack value is less than 768 bytes, VTAM sets the MTU value to 768 because this is the smallest packet size allowed by the HPR architecture.
Generally, the MTU size for an EE connection is reasonably constant when the EE connection is established.
However, in the event that the TCP/IP stack MTU size changes, RTP pipes with endpoints on the same node as
the TCP/IP stack dynamically detect these changes when their outbound packets are being transmitted. Some
reasons for MTU size changes include the following:
- New IP routes become available, which have different local MTU sizes.
- Existing IP routes become unavailable.
- Path MTU discovery is enabled for IPv4 or IPv6 EE connections, and path MTU changes are discovered in
  the IP network. See the PMTUD start option information in z/OS Communications Server: SNA Resource
  Definition Reference.

**IST2030I, IST2031I, IST2032I, IST2033I, IST2034I, IST2035I**

- Messages IST2030I through IST2034I are header messages for optional message subgroups. One subgroup is
displayed for each port priority when LIST=DETAIL is specified. Each header message is followed by messages
IST2029I, IST2036I, IST2037I, IST2038I, IST2039I, IST2040I, and IST2041I.
- IST2035I is a header message for a subgroup that displays a summary of all port priorities. This subgroup includes
the same messages as those that are listed for each port priority subgroup, with the exception of IST2029I.
- Each of these subgroups is also associated with a subgroup of messages that begins with message IST1680I.

A sample of one of the subgroups follows:

```
IST2030I PORT PRIORITY = SIGNAL
IST2029I MTU SIZE = mtusize
IST2036I NLPS SENT = nlps_sent ( estimate )
IST2037I BYTES SENT = bytes_sent ( estimate )
IST2038I NLPS RETRANSMITTED = nlps_retransmitted ( estimate )
IST2039I BYTES RETRANSMITTED = bytes_retransmitted ( estimate )
IST2040I NLPS RECEIVED = nlps_received ( estimate )
IST2041I BYTES RECEIVED = bytes_received ( estimate )
```

**IST2036I**

- This message is associated with a subgroup of messages that begins with message IST2030I, IST2031I, IST2032I,
IST2033I, IST2034I or IST2035I.
- `nlps_sent` is the total number of network layer packets (NLP) that have been sent across this EE connection for this
specific priority. This value is maintained from the time this connection was activated.
- `estimate` is an estimate of the displayed `nlps_sent`. It is in the form xxxU, where xxx is a numeric value and U is the
unit of measure for xxx as follows:

<table>
<thead>
<tr>
<th>Unit</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>K</td>
<td>estimate is in units of 1000 NLPs.</td>
</tr>
<tr>
<td>M</td>
<td>estimate is in units of 1 000 000 NLPs.</td>
</tr>
<tr>
<td>G</td>
<td>estimate is in units of 1 000 000 000 NLPs.</td>
</tr>
<tr>
<td>T</td>
<td>estimate is in units of 1 000 000 000 000 NLPs.</td>
</tr>
<tr>
<td>P</td>
<td>estimate is in units of 1 000 000 000 000 000 NLPs.</td>
</tr>
</tbody>
</table>

**IST2037I**

- This message is associated with a subgroup of messages that begins with message IST2030I, IST2031I, IST2032I,
IST2033I, IST2034I or IST2035I.
- `bytes_sent` is the total number of bytes that have been sent across this EE connection for this specific priority. This
value is maintained from the time this connection was activated.
- `estimate` is an estimate of the displayed `bytes_sent`. It is in the form xxxU, where xxx is a numeric value and U is the
unit of measure for xxx as follows:

<table>
<thead>
<tr>
<th>Unit</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>K</td>
<td>estimate is in units of 1000 bytes.</td>
</tr>
<tr>
<td>M</td>
<td>estimate is in units of 1 000 000 bytes.</td>
</tr>
<tr>
<td>G</td>
<td>estimate is in units of 1 000 000 000 bytes.</td>
</tr>
<tr>
<td>T</td>
<td>estimate is in units of 1 000 000 000 000 bytes.</td>
</tr>
<tr>
<td>P</td>
<td>estimate is in units of 1 000 000 000 000 000 NLPs.</td>
</tr>
</tbody>
</table>
IST2038I

- This message is associated with a subgroup of messages that begins with message IST2030I, IST2031I, IST2032I, IST2033I, IST2034I or IST2035I.
- \textit{nlps\_retransmitted} is the total number of network layer packets (NLP) that have been retransmitted across this EE connection for this specific priority. This value is maintained from the time this connection was activated.
- \textit{estimate} is an estimate of the displayed \textit{nlps\_retransmitted}. It is in the form \textit{xxxU}, where \textit{xxx} is a numeric value and \textit{U} is the unit of measure for \textit{xxx} as follows:
  - \textbf{K} estimate is in units of 1000 NLPs.
  - \textbf{M} estimate is in units of 1\ 000\ 000 NLPs.
  - \textbf{G} estimate is in units of 1\ 000\ 000\ 000 NLPs.
  - \textbf{T} estimate is in units of 1\ 000\ 000\ 000\ 000 NLPs.
  - \textbf{P} estimate is in units of 1\ 000\ 000\ 000\ 000\ 000 NLPs.

IST2039I

- This message is associated with a subgroup of messages that begins with message IST2030I, IST2031I, IST2032I, IST2033I, IST2034I or IST2035I.
- \textit{bytes\_retransmitted} is the total number of bytes that have been retransmitted across this EE connection for this specific priority. This value is maintained from the time this connection was activated.
- \textit{estimate} is an estimate of the displayed \textit{bytes\_retransmitted}. It is in the form \textit{xxxU}, where \textit{xxx} is a numeric value and \textit{U} is the unit of measure for \textit{xxx} as follows:
  - \textbf{K} estimate is in units of 1000 bytes.
  - \textbf{M} estimate is in units of 1\ 000\ 000 bytes.
  - \textbf{G} estimate is in units of 1\ 000\ 000\ 000 bytes.
  - \textbf{T} estimate is in units of 1\ 000\ 000\ 000\ 000 bytes.
  - \textbf{P} estimate is in units of 1\ 000\ 000\ 000\ 000\ 000 bytes.

IST2040I

- This message is associated with a subgroup of messages that begins with message IST2030I, IST2031I, IST2032I, IST2033I, IST2034I or IST2035I.
- \textit{nlps\_received} is the total number of network layer packets (NLP) that have been received across this EE connection for this specific priority. This value is maintained from the time this connection was activated.
- \textit{estimate} is an estimate of the displayed \textit{nlps\_received}. It is in the form \textit{xxxU}, where \textit{xxx} is a numeric value and \textit{U} is the unit of measure for \textit{xxx} as follows:
  - \textbf{K} estimate is in units of 1000 NLPs.
  - \textbf{M} estimate is in units of 1\ 000\ 000 NLPs.
  - \textbf{G} estimate is in units of 1\ 000\ 000\ 000 NLPs.
  - \textbf{T} estimate is in units of 1\ 000\ 000\ 000\ 000 NLPs.
  - \textbf{P} estimate is in units of 1\ 000\ 000\ 000\ 000\ 000 NLPs.

IST2041I

- This message is associated with a subgroup of messages that begins with message IST2030I, IST2031I, IST2032I, IST2033I, IST2034I or IST2035I.
- \textit{bytes\_received} is the total number of bytes that have been received across this EE connection for this specific priority. This value is maintained from the time this connection was activated.
- \textit{estimate} is an estimate of the displayed \textit{bytes\_received}. It is in the form \textit{xxxU}, where \textit{xxx} is a numeric value and \textit{U} is the unit of measure for \textit{xxx} as follows:
  - \textbf{K} estimate is in units of 1000 bytes.
  - \textbf{M} estimate is in units of 1\ 000\ 000 bytes.
The estimate is in units of 1,000,000,000 bytes.

IST2042I

This is an optional message that is issued when the DISPLAY EE command contains either a remote IPADDR or a remote HOSTNAME.

count is the number of matching EE connections displayed in the output.

total is the total number of EE connections that match the parameters specified on the DISPLAY EE command. The total might be larger than the displayed count because the number of EE connections displayed is governed by the MAX parameter.

IST2114I

This message displays the initial, maximum and current LIVTIME values for an Enterprise Extender connection. See the information about the external communication adapter (XCA) major node in z/OS Communications Server: SNA Resource Definition Reference for more information about the LIVTIME operand for Enterprise Extender.

init_value is the initial LIVTIME value, in seconds, defined for Enterprise Extender connections.

max_value is the maximum LIVTIME value, in seconds, defined for Enterprise Extender connections.

cur_value is the current LIVTIME value, in seconds, being used by this Enterprise Extender connection.

IST2119I

This is an optional message that is issued when the DISPLAY EE command contains HOSTNAME filters.

The correlator value is a unique display correlator associated with this DISPLAY EE command, which requires host name resolution. This correlator can be used to locate the various message groups associated with this DISPLAY EE command.

IST2323I

During the activation of the EE connection, VTAM sent Logical Data Link Control (LDLC) probes to the remote partner to determine if all five ports are accessible. VTAM did not receive a response from any of the LDLC probe requests. VTAM continued with the activation of the EE connection between this node and the remote partner. Because VTAM received no replies to its LDLC probe requests, VTAM determined that the remote partner does not support EE health verification.

IST2346I

cp_name is the CP name of the remote node associated with this Enterprise Extender connection.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

Routing code: 2

Descriptor code: 5

Automation: Not recommended.
IST2002I  ENTERPRISE EXTENDER AGGREGATE CONNECTION INFORMATION

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY EE command for aggregate Enterprise Extender connection information. This message is the first in a group of messages. This message group is displayed when the DISPLAY EE command is issued and only a local IPADDR or a local HOSTNAME is supplied as input. The output information is the aggregate of all Enterprise Extender connections associated with the local IPADDR or local HOSTNAME. When LIST=DETAIL is specified, five optional message subgroups, beginning with the IST2030I subgroup and ending with the IST2034I subgroup, are displayed for each port priority. The full description of the message group follows:

IST2002I ENTERPRISE EXTENDER AGGREGATE CONNECTION INFORMATION
IST2119I ENTERPRISE EXTENDER DISPLAY CORRELATOR: correlator]
IST9241 -------------------------------------------------------------
IST1680I type IP ADDRESS ip_address
IST1910I LOCAL HOSTNAME value]
IST1911I value]
IST2004I LIVTIME = (init_value,max_value) SRQTIME = srqtime SRQRETRY = srqretry
IST2009I RTP PIPES = rtppipes LU-LU SESSIONS = sessions
IST2010I INOPS DUE TO SRQRETRY EXPIRATION = inopcount
IST1324I VNNAME = vnname VNGROUP = vngroup vntype ]
IST2011I ACTIVE LOCAL VRN EE CONNECTIONS = lrncnns
IST2012I AVAILABLE LINES FOR THIS EE VRN = vnlines ]
IST2013I AVAILABLE LINES FOR PREDEFINED EE CONNECTIONS = predeflines
IST2014I AVAILABLE LINES FOR LOCAL VRN EE CONNECTIONS = lrncnns
IST2015I AVAILABLE LINES FOR PREDEFINED EE CONNECTIONS = predeflines
IST2016I AVAILABLE LINES FOR LOCAL HOSTNAME = totconns ]
IST2017I AVAILABLE LINES FOR LOCAL IPADDR = totconns ]
IST2018I TOTAL ACTIVE EE CONNECTIONS FOR LOCAL HOSTNAME = totconns ]
IST2019I TOTAL ACTIVE EE CONNECTIONS FOR LOCAL IPADDR = totconns ]
IST924I -------------------------------------------------------------
IST2030I PORT PRIORITY = SIGNAL ]
IST2031I PORT PRIORITY = NETWORK]}
IST2032I PORT PRIORITY = HIGH ]}
IST2033I PORT PRIORITY = MEDIUM ]}
IST2034I PORT PRIORITY = LOW ]}

z/OS V2R1.0 Communications Server: SNA Messages
This message is a line separator between subgroups.

- This is the first message of a subgroup. This subgroup is displayed for each active Enterprise Extender virtual routing node. This message is a header message for messages IST2011I and IST2012I. This message is also associated with a subgroup of messages that begins with message IST1680I.
- vnname is the fully qualified virtual routing node name.
- vngroup is the GROUP associated with the connection network definition.
- vntype indicates the type of HPR/IP (Enterprise Extender) connection network. The two possible values are:
  - **LOCAL**
    The connection network is being defined as a LOCAL Virtual Routing Node (the connection network cannot traverse network or subnetwork boundaries.) Either VNTYPE was not specified, or VNTYPE was specified as LOCAL on the definition of the Enterprise Extender virtual routing node.
  - **GLOBAL**
    The connection network is being defined as a GLOBAL Virtual Routing Node (the connection network can traverse network or subnetwork boundaries.) VNTYPE was specified as GLOBAL on the definition of the Enterprise Extender virtual routing node.

- The complete message subgroup follows the example.

```
IST1324I
VNAME = vnname VGROUP = vngroup vntype
IST2011I AVAILABLE LINES FOR THIS EE VRN = vrnlines
IST2012I ACTIVE CONNECTIONS USING THIS EE VRN = vrnconns
```

IST1680I
- type is always LOCAL for this display.
- ip_address is the IP address.

IST1910I
- value is the host name used to acquire the local static IP address displayed in message IST1680I. If the host name is longer than 45 characters, then the first 45 characters are displayed as value and the remaining characters are displayed in one or more IST1911I messages.

IST1911I
- value is the continuation of value on message IST1910I. IST1911I is repeated as many times as necessary to display the entire character string.

IST2004I
- This message displays the LDLC timer operands that are associated with the local static VIPA address displayed in message IST1680I. See the Communications Server: SNA Resource Definition Reference for more information about the LIVTIME operand for Enterprise Extender.
- The init_value value is the initial duration, in seconds, of an Enterprise Extender logical data link control (LDLC) liveness timer interval.
- The max_value value is the maximum duration, in seconds, of an Enterprise Extender LDLC liveness timer interval.
The *srqtime* value is the duration, in seconds, of the Enterprise Extender LDLC short request timer interval. The short request timer interval represents the amount of time the LDLC layer waits, without receipt of a response from the connection partner, before sending the LDLC signal again.

The *srqretry* value is the number of times the short request timer is tried again before the Enterprise Extender port becomes inoperative.

**IST2009I**

*rtpipes* is the number of RTP pipes originating in this host that traverse EE connections associated with the local IP address displayed in message IST1680I.

*sessions* is the number of LU-LU sessions associated with the rtpipes.

**IST2010I**

*inopcount* is the number of Enterprise Extender connections associated with the local IP address displayed in message IST1680I that have been INOPed by VTAM due to SRQRETRY exhaustion.

**IST2011I**

*vrnlines* is the number of available lines associated with the virtual routing node displayed in message IST1324I of this subgroup.

**IST2012I**

*vrnconns* is the number of active EE connections associated with the virtual routing node displayed in message IST1324I of this subgroup.

**IST2013I**

*predeflines* is the number of available lines for predefined (non-VRN) Enterprise Extender connections that are associated with the local IP address displayed in message IST1680I.

**IST2014I**

*predefconns* is the number of active predefined (non-VRN) Enterprise Extender connections that are associated with the local IP address displayed in message IST1680I.

**IST2015I**

*lrvcnns* is the number of Enterprise Extender local virtual routing node connections that are associated with the local IP address displayed in message IST1680I.

*lrvcnns* is the sum of all the *vrnconns* values that are associated with LOCAL virtual routing nodes displayed in message IST2012I for this local IP address.

**IST2016I**

*gvrnconns* is the number of Enterprise Extender global virtual routing node connections associated with the local IP address displayed in message IST1680I.

*gvrnconns* is the sum of all the *vrnconns* values that are associated with GLOBAL virtual routing nodes displayed in message IST2012I for this local IP address.

**IST2030I, IST2031I, IST2032I, IST2033I, IST2034I, IST2035I**

- Messages IST2030I through IST2034I are header messages for optional message subgroups. One subgroup is displayed for each port priority when LIST=DETAIL is specified. Each header message is followed by messages IST2036I, IST2037I, IST2038I, IST2039I, IST2040I, and IST2041I.
- IST2035I is a header message for a subgroup that displays a summary of all port priorities. This subgroup includes the same messages as those that are listed for each port priority subgroup.
- Each of these subgroups is also associated with a subgroup of messages that begins with message IST1680I.
- A sample of one of the subgroups follows:
  IST2030I PORT PRIORITY = SIGNAL
  IST2036I NLPS SENT = nlps_sent (estimate)
  IST2037I BYTES SENT = bytes_sent (estimate)
  IST2038I NLPS RETRANSMITTED = nlps_retransmitted (estimate)
• This message is associated with a subgroup of messages that begins with message IST2030I, IST2031I, IST2032I, IST2033I, IST2034I or IST2035I.

• \textit{nlps\_sent} is the total number of network layer packets (NLP) that have been sent across all active EE connections associated with the local IP address displayed in message IST1680I. This value is the aggregate of these connections for this specific priority. Each EE connection has its own count of sent NLPs, which is maintained from the time each connection was activated.

• \textit{estimate} is an estimate of the displayed \textit{nlps\_sent}. It is in the form xxxU, where xxx is a numeric value and U is the unit of measure for xxx as follows:
  - K: estimate is in units of 1000 NLPs.
  - M: estimate is in units of 1 000 000 NLPs.
  - G: estimate is in units of 1 000 000 000 NLPs.
  - T: estimate is in units of 1 000 000 000 000 NLPs.
  - P: estimate is in units of 1 000 000 000 000 000 NLPs.

• This message is associated with a subgroup of messages that begins with message IST2030I, IST2031I, IST2032I, IST2033I, IST2034I or IST2035I.

• \textit{bytes\_sent} is the total number of bytes that have been sent across all active EE connections associated with the local IP address displayed in message IST1680I. This value is the aggregate of these connections for this specific priority. Each EE connection has its own count of sent bytes, which is maintained from the time each connection was activated.

• \textit{estimate} is an estimate of the displayed \textit{bytes\_sent}. It is in the form xxxU, where xxx is a numeric value and U is the unit of measure for xxx as follows:
  - K: estimate is in units of 1000 bytes.
  - M: estimate is in units of 1 000 000 bytes.
  - G: estimate is in units of 1 000 000 000 bytes.
  - T: estimate is in units of 1 000 000 000 000 bytes.
  - P: estimate is in units of 1 000 000 000 000 000 bytes.

• This message is associated with a subgroup of messages that begins with message IST2030I, IST2031I, IST2032I, IST2033I, IST2034I or IST2035I.

• \textit{nlps\_retransmitted} is the total number of network layer packets (NLP) that have been retransmitted across all active EE connections associated with the local IP address displayed in message IST1680I. This value is the aggregate of these connections for this specific priority. Each EE connection has its own count of retransmitted NLPs, which is maintained from the time each connection was activated.

• \textit{estimate} is an estimate of the displayed \textit{nlps\_retransmitted}. It is in the form xxxU, where xxx is a numeric value and U is the unit of measure for xxx as follows:
  - K: estimate is in units of 1000 NLPs.
  - M: estimate is in units of 1 000 000 NLPs.
  - G: estimate is in units of 1 000 000 000 NLPs.
  - T: estimate is in units of 1 000 000 000 000 NLPs.
  - P: estimate is in units of 1 000 000 000 000 000 NLPs.
This message is associated with a subgroup of messages that begins with message IST2030I, IST2031I, IST2032I, IST2033I, IST2034I or IST2035I.

bytes_retransmitted is the total number of bytes that have been retransmitted across all active EE connections associated with the local IP address displayed in message IST1680I. This value is the aggregate of these connections for this specific priority. Each EE connection has its own count of retransmitted bytes, which is maintained from the time each connection was activated.

estimate is an estimate of the displayed bytes_retransmitted. It is in the form xxxU, where xxx is a numeric value and U is the unit of measure for xxx as follows:

- K estimate is in units of 1000 bytes.
- M estimate is in units of 1 000 000 bytes.
- G estimate is in units of 1 000 000 000 bytes.
- T estimate is in units of 1 000 000 000 000 bytes.
- P estimate is in units of 1 000 000 000 000 000 bytes.

nlps_received is the total number of network layer packets (NLP) that have been received across all active EE connections associated with the local IP address displayed in message IST1680I. This value is the aggregate of these connections for this specific priority. Each EE connection has its own count of received NLPs, which is maintained from the time each connection was activated.

estimate is an estimate of the displayed nlps_received. It is in the form xxxU, where xxx is a numeric value and U is the unit of measure for xxx as follows:

- K estimate is in units of 1000 NLPs.
- M estimate is in units of 1 000 000 NLPs.
- G estimate is in units of 1 000 000 000 NLPs.
- T estimate is in units of 1 000 000 000 000 NLPs.
- P estimate is in units of 1 000 000 000 000 000 NLPs.

bytes_received is the total number of bytes that have been received across all active EE connections associated with the local IP address displayed in message IST1680I. This value is the aggregate of these connections for this specific priority. Each EE connection has its own count of received bytes, which is maintained from the time each connection was activated.

estimate is an estimate of the displayed bytes_received. It is in the form xxxU, where xxx is a numeric value and U is the unit of measure for xxx as follows:

- K estimate is in units of 1000 bytes.
- M estimate is in units of 1 000 000 bytes.
- G estimate is in units of 1 000 000 000 bytes.
- T estimate is in units of 1 000 000 000 000 bytes.
- P estimate is in units of 1 000 000 000 000 000 bytes.

totconns is the number of active EE connections associated with the local HOSTNAME entered as input on the DISPLAY EE command.

IST2044I
**totconns** is the number of active EE connections associated with the local IP address (IPADDR) entered as input on the DISPLAY EE command.

**IST2119I**

This is an optional message that is issued when the DISPLAY EE command contains HOSTNAME filters.

The *correlator* value is a unique display correlator associated with this DISPLAY EE command, which requires host name resolution. This correlator can be used to locate the various message groups associated with this DISPLAY EE command.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Source:** z/OS Communications Server SNA

**Module:** You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

**Routing code:** 2

**Descriptor code:** 5

---

**IST2003I**  
ENTERPRISE EXTENDER XCA MAJOR NODE NAME = name

**Explanation:** VTAM issues this message as part of a group in response to a DISPLAY EE command. The first message in the group is [IST2000I](#). See the explanation of that message for a complete description.

**Routing code:** 2

**Descriptor code:** 5

---

**IST2004I**  
LIVTIME = (init_value,max_value) SRQTIME = srqtime SRQRETRY = srqretry

**Explanation:** VTAM issues this message for the following reasons:

- As part of a group in response to a DISPLAY EE command. The first message in the group is [IST2000I](#). See the explanation of that message for a complete description.
- As part of a group during the activation of an EE XCA major node group that experienced problems associated with the LDLC timer operands. In this case, the first message in the group is [IST2188I](#). See the explanation of that message for a complete description.
- As part of a group in response to a DISPLAY EE command with the following values:
  - A local IP address on the IPADDR operand or a local host name on the HOSTNAME operand is specified.
  - A remote IP address on the IPADDR operand or a remote host name on the HOSTNAME operand is not specified.
  - The ID operand is not specified.

The first message in the group is [IST2002I](#). See the explanation of that message for a complete description.

**As part of a group in response to a DISPLAY EEDIAG command with the SRQRETRY operand specified. The first message in the group is [IST2066I](#). See the explanation of that message for a complete description.

**Routing code:** 2

**Descriptor code:** 5

---

**IST2005I**  
IPRESOLV = ipresolv

**Explanation:** VTAM issues this message as part of a group in response to a DISPLAY EE command. The first message in the group is [IST2000I](#). See the explanation of that message for a complete description.

**Routing code:** 2

**Descriptor code:** 5
IST2006I • IST2012I

IST2006I  PORT PRIORITY = SIGNAL NETWORK HIGH MEDIUM LOW

Explanation: VTAM issues this message as part of a group in response to a DISPLAY EE command. The first
message in the group is IST2000I See the explanation of that message for a complete description.
Routing code: 2
Descriptor code: 5

IST2007I  IPPORT NUMBER = portsig portnet porthigh portmed portlow

Explanation: VTAM issues this message as part of a group in response to a DISPLAY EE command. The first
message in the group is IST2000I See the explanation of that message for a complete description.
Routing code: 2
Descriptor code: 5

IST2008I  IPTOS VALUE = sigtos nettos hightos medtos lowtos

Explanation: VTAM issues this message as part of a group in response to a DISPLAY EE command. The first
message in the group is IST2000I See the explanation of that message for a complete description.
Routing code: 2
Descriptor code: 5

IST2009I  RTP PIPES = rtppipes LU-LU SESSIONS = sessions

Explanation: VTAM issues this message as part of a group in response to a DISPLAY EE command. The output of
the DISPLAY EE command varies depending on the format of the command. The message groups that contain this
message begin with message IST2000I IST2001I and IST2002I See the explanations of those messages for complete
descriptions.
Routing code: 2
Descriptor code: 5

IST2010I  INOPS DUE TO SRQRETRY EXPIRATION = inopcount

Explanation: VTAM issues this message as part of a group in response to a DISPLAY EE command. The output of
the DISPLAY EE command varies depending on the format of the command. The message groups that contain this
message begin with message IST2000I and IST2002I See the explanations of those messages for complete
descriptions.
Routing code: 2
Descriptor code: 5

IST2011I  AVAILABLE LINES FOR THIS EE VRN = vrnlines

Explanation: VTAM issues this message as part of a group in response to a DISPLAY EE command. The output of
the DISPLAY EE command varies depending on the format of the command. The message groups that contain this
message begin with message IST2000I and IST2002I See the explanations of those messages for complete
descriptions.
Routing code: 2
Descriptor code: 5

IST2012I  ACTIVE CONNECTIONS USING THIS EE VRN = vrnconns

Explanation: VTAM issues this message as part of a group in response to a DISPLAY EE command. The output of
the DISPLAY EE command varies depending on the format of the command. The message groups that contain this
message begin with message IST2000I and IST2002I See the explanations of those messages for complete
descriptions.
IST2013I • IST2018I

Routing code: 2
Descriptor code: 5

IST2013I  AVAILABLE LINES FOR PREDEFINED EE CONNECTIONS = predeflines
Explanation: VTAM issues this message as part of a group in response to a DISPLAY EE command. The output of the DISPLAY EE command varies depending on the format of the command. The message groups that contain this message begin with message IST2000I and IST2002I. See the explanations of those messages for complete descriptions.

Routing code: 2
Descriptor code: 5

IST2014I  ACTIVE PREDEFINED EE CONNECTIONS = predefconns
Explanation: VTAM issues this message as part of a group in response to a DISPLAY EE command. The output of the DISPLAY EE command varies depending on the format of the command. The message groups that contain this message begin with message IST2000I and IST2002I. See the explanations of those messages for complete descriptions.

Routing code: 2
Descriptor code: 5

IST2015I  ACTIVE LOCAL VRN EE CONNECTIONS = lvrcconns
Explanation: VTAM issues this message as part of a group in response to a DISPLAY EE command. The output of the DISPLAY EE command varies depending on the format of the command. The message groups that contain this message begin with message IST2000I and IST2002I. See the explanations of those messages for complete descriptions.

Routing code: 2
Descriptor code: 5

IST2016I  ACTIVE GLOBAL VRN EE CONNECTIONS = gvrncconns
Explanation: VTAM issues this message as part of a group in response to a DISPLAY EE command. The output of the DISPLAY EE command varies depending on the format of the command. The message groups that contain this message begin with message IST2000I and IST2002I. See the explanations of those messages for complete descriptions.

Routing code: 2
Descriptor code: 5

IST2017I  TOTAL RTP PIPES = totrrpipes  LU-LU SESSIONS = totsessions
Explanation: VTAM issues this message as part of a group in response to a DISPLAY EE command. The first message in the group is IST2000I. See the explanation of that message for more information.

Routing code: 2
Descriptor code: 5

IST2018I  TOTAL ACTIVE PREDEFINED EE CONNECTIONS = totpredefconns
Explanation: VTAM issues this message as part of a group in response to a DISPLAY EE command. The first message in the group is IST2000I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5
IST2019I • IST2025I

IST2019I  TOTAL ACTIVE LOCAL VRN EE CONNECTIONS = totlvrnconns
Explanation:  VTAM issues this message as part of a group in response to a DISPLAY EE command. The first message in the group is IST2000I. See the explanation of that message for a complete description.
Routing code:  2
Descriptor code:  5

IST2020I  TOTAL ACTIVE GLOBAL VRN EE CONNECTIONS = totgvrnconns
Explanation:  VTAM issues this message as part of a group in response to a DISPLAY EE command. The first message in the group is IST2000I. See the explanation of that message for a complete description.
Routing code:  2
Descriptor code:  5

IST2021I  TOTAL ACTIVE EE CONNECTIONS = totconns
Explanation:  VTAM issues this message as part of a group in response to a DISPLAY EE command. The first message in the group is IST2000I. See the explanation of that message for a complete description.
Routing code:  2
Descriptor code:  5

IST2022I  EE CONNECTION ACTIVATED ON date AT time
Explanation:  VTAM issues this message as part of a group in response to a DISPLAY EE command. The first message in the group is IST2001I. See the explanation of that message for a complete description.
Routing code:  2
Descriptor code:  5

IST2023I  CONNECTED TO LINE linename
Explanation:  VTAM issues this message as part of a group in response to a DISPLAY EE or DISPLAY EEDIAG command. The first message in the group is IST2001I, IST2065I, IST2066I, or IST2119I. See the explanations of those messages for complete descriptions.
Routing code:  2
Descriptor code:  5

IST2024I  CONNECTED TO SWITCHED PU puname
Explanation:  VTAM issues this message as part of a group in response to a DISPLAY EE or DISPLAY EEDIAG command. The first message in the group is IST2001I, IST2065I, or IST2066I. See the explanations of those messages for complete descriptions.
Routing code:  2
Descriptor code:  5

IST2025I  LDLC SIGNALS RETRANSMITTED AT LEAST ONE TIME = numsignals
Explanation:  VTAM issues this message as part of a group in response to a DISPLAY EE command. The first message in the group is IST2001I. See the explanation of that message for a complete description.
Routing code:  2
Descriptor code:  5
IST2026I  LDLC SIGNALS RETRANSMITTED SRQRETRY TIMES = numsignals

Explanation: VTAM issues this message as part of a group in response to a DISPLAY EE command. The first message in the group is IST2001I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST2027I  DWINOP = dwinop REDIAL = redial REDDELAY = reddelay

Explanation: VTAM issues this message as part of a group in response to a DISPLAY EE command. The first message in the group is IST2001I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST2028I  KEEPACT = keepact

Explanation: VTAM issues this message as part of a group in response to a DISPLAY EE command. The first message in the group is IST2001I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST2029I  MTU SIZE = mtusize

Explanation: VTAM issues this message as part of a group in response to a DISPLAY EE command. The output of the DISPLAY EE command varies depending on the format of the command. The message group that contains this message begins with IST2001I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST2030I  PORT PRIORITY = SIGNAL

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY EE command. The output of the DISPLAY EE command varies depending on the format of the command. The message groups that contain this message begin with IST2001I and IST2002I.

VTAM also issues this message as part of a group of messages in response to a DISPLAY EEDIAG command. This message group begins with message IST2065I.

See the explanations of those messages for complete descriptions.

Routing code: 2
Descriptor code: 5

IST2031I  PORT PRIORITY = NETWORK

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY EE command. The output of the DISPLAY EE command varies depending on the format of the command. The message groups that contain this message begin with IST2001I and IST2002I.

VTAM also issues this message as part of a group of messages in response to a DISPLAY EEDIAG command. This message group begins with message IST2065I.

See the explanations of those messages for complete descriptions.

Routing code: 2
Descriptor code: 5
IST2032I • IST2036I

IST2032I PORT PRIORITY = HIGH

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY EE command. The output of the DISPLAY EE command varies depending on the format of the command. The message groups that contain this message begin with message IST2001I and IST2002I.

VTAM also issues this message as part of a group of messages in response to a DISPLAY EEDIAG command. This message group begins with message IST2065I.

See the explanations of those messages for complete descriptions.

Routing code: 2
Descriptor code: 5

IST2033I PORT PRIORITY = MEDIUM

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY EE command. The output of the DISPLAY EE command varies depending on the format of the command. The message groups that contain this message begin with message IST2001I and IST2002I.

VTAM also issues this message as part of a group of messages in response to a DISPLAY EEDIAG command. This message group begins with message IST2065I.

See the explanations of those messages for complete descriptions.

Routing code: 2
Descriptor code: 5

IST2034I PORT PRIORITY = LOW

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY EE command. The output of the DISPLAY EE command varies depending on the format of the command. The message groups that contain this message begin with message IST2001I and IST2002I.

VTAM also issues this message as part of a group of messages in response to a DISPLAY EEDIAG command. This message group begins with message IST2065I.

See the explanations of those messages for complete descriptions.

Routing code: 2
Descriptor code: 5

IST2035I TOTALS FOR ALL PORT PRIORITIES

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY EE command. The output of the DISPLAY EE command varies depending on the format of the command. The message groups that contain this message begin with message IST2001I and IST2002I.

VTAM also issues this message as part of a group of messages in response to a DISPLAY EEDIAG command. This message group begins with message IST2065I.

See the explanations of those messages for complete descriptions.

Routing code: 2
Descriptor code: 5

IST2036I NLPS SENT = nlps_sent (estimate)

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY EE command. The output of the DISPLAY EE command varies depending on the format of the command. The message groups that contain this message begin with message IST2001I and IST2002I.

VTAM also issues this message as part of a group of messages in response to a DISPLAY EEDIAG command. This message group begins with message IST2065I.
See the explanations of those messages for complete descriptions.

**Routing code:** 2  
**Descriptor code:** 5

### IST2037I  
**BYTES SENT =** `bytes_sent (estimate)`

**Explanation:** VTAM issues this message as part of a group in response to a DISPLAY EE command. The output of the DISPLAY EE command varies depending on the format of the command. The message groups that contain this message begin with message IST2001I and IST2002I. See the explanations of those messages for complete descriptions.

**Routing code:** 2  
**Descriptor code:** 5

### IST2038I  
**NLPS RETRANSMITTED =** `nlps_retransmitted (estimate)`

**Explanation:** VTAM issues this message as part of a group in response to a DISPLAY EE command. The output of the DISPLAY EE command varies depending on the format of the command. The message groups that contain this message begin with message IST2001I and IST2002I. VTAM also issues this message as part of a group of messages in response to a DISPLAY EEDIAG command. This message group begins with message IST2065I.

See the explanations of those messages for complete descriptions.

**Routing code:** 2  
**Descriptor code:** 5

### IST2039I  
**BYTES RETRANSMITTED =** `bytes_retransmitted (estimate)`

**Explanation:** VTAM issues this message as part of a group in response to a DISPLAY EE command. The output of the DISPLAY EE command varies depending on the format of the command. The message groups that contain this message begin with message IST2001I and IST2002I. See the explanations of those messages for complete descriptions.

**Routing code:** 2  
**Descriptor code:** 5

### IST2040I  
**NLPS RECEIVED =** `nlps_received (estimate)`

**Explanation:** VTAM issues this message as part of a group in response to a DISPLAY EE command. The output of the DISPLAY EE command varies depending on the format of the command. The message groups that contain this message begin with message IST2001I and IST2002I. See the explanations of those messages for complete descriptions.

**Routing code:** 2  
**Descriptor code:** 5

### IST2041I  
**BYTES RECEIVED =** `bytes_received (estimate)`

**Explanation:** VTAM issues this message as part of a group in response to a DISPLAY EE command. The output of the DISPLAY EE command varies depending on the format of the command. The message groups which contain this message begin with message IST2001I and IST2002I. See the explanations of those messages for complete descriptions.

**Routing code:** 2  
**Descriptor code:** 5
**IST2042I • IST2046I**

**IST2042I**  
**count** OF **total** EE CONNECTIONS DISPLAYED  

**Explanation:** VTAM issues this message as part of a group in response to a DISPLAY EE or DISPLAY EEDIAG command. The first message in the group is either IST2001I IST2065I or IST2066I. See the explanations of those messages for complete descriptions.

Routing code: 2  
Descriptor code: 5

**IST2043I**  
TOTAL ACTIVE EE CONNECTIONS FOR LOCAL HOSTNAME = totconns  

**Explanation:** VTAM issues this message as part of a group in response to a DISPLAY EE command. The first message in the group is IST2002I. See the explanation of that message for a complete description.

Routing code: 2  
Descriptor code: 5

**IST2044I**  
TOTAL ACTIVE EE CONNECTIONS FOR LOCAL IPADDR = totconns  

**Explanation:** VTAM issues this message as part of a group in response to a DISPLAY EE command. The first message in the group is IST2002I. See the description of that message for more information.

Routing code: 2  
Descriptor code: 5

**IST2045I**  
ENTERPRISE EXTENDER XCA MAJOR NODE NOT ACTIVE  

**Explanation:** This message is issued in response to a DISPLAY EE or a DISPLAY EEDIAG command if the Enterprise Extender XCA major node is not active.

**System action:** The DISPLAY EE or DISPLAY EEDIAG command is not performed.

**Operator response:** Activate the Enterprise Extender XCA major node if you want Enterprise Extender connectivity.

**System programmer response:** None.

**Source:** z/OS Communications Server SNA

**Module:** You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

Routing code: 2  
Descriptor code: 5

**IST2046I**  
MNPS FORCED TAKEOVER TIMER EXPIRED FOR applname  

**Explanation:** An MNPS forced takeover request was received and accepted for the MNPS application applname owned by the VTAM issuing this message, but the processing necessary to transfer ownership of the application to the requesting node did not complete in the anticipated amount of time.

applname is the name of the application requested to move as part of forced takeover processing.

**System action:** Ownership of the application is transferred unconditionally to the requesting node. Access to the MNPS coupling facility data structure is restricted for the copy of the application on the VTAM issuing this message, so that any coupling facility updates attempted at the VTAM issuing this message will not affect the data in the structure.

**Operator response:** Issue VARY INACT,ID=applname to attempt to clean up the local information about the application.

**System programmer response:** Collect VTAM internal traces at the VTAM issuing this message and contact IBM Service to determine why the CLOSE ACB processing did not complete as anticipated.

**Source:** z/OS Communications Server SNA
Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.

Routing code: 2
Descriptor code: 4

IST2047I name DOES NOT HAVE AN ACTIVE EE CONNECTION

Explanation: The LINE or PU name entered on the ID operand of the DISPLAY EE or DISPLAY EEDIAG command does not have an active Enterprise Extender connection at this time. No Enterprise Extender specific information is available.

System action: The DISPLAY EE or DISPLAY EEDIAG command is not performed.

Operator response: Verify the name supplied on the ID operand of the DISPLAY EE or DISPLAY EEDIAG command is correct. Issue a DISPLAY ID= name E command to verify the current state of this LINE or PU. See z/OS Communications Server: SNA Operation for more information about commands or command syntax.

System programmer response: None.
Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.

Routing code: 2
Descriptor code: 5

IST2048I LOCAL IPADDR IS NOT VALID WITH LOCAL HOSTNAME

Explanation: A DISPLAY EE or DISPLAY EEDIAG command was entered that specified both a local IPADDR and a local HOSTNAME. Only one local input is allowed.

System action: The DISPLAY EE or DISPLAY EEDIAG command was not performed.

Operator response: Issue the DISPLAY EE or DISPLAY EEDIAG command again specifying either a local IPADDR or a local HOSTNAME, but not both. See z/OS Communications Server: SNA Operation for more information about commands or command syntax.

System programmer response: None.
Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.

Routing code: 2
Descriptor code: 5

IST2049I REMOTE IPADDR IS NOT VALID WITH REMOTE HOSTNAME

Explanation: A DISPLAY EE or DISPLAY EEDIAG command was entered that specified both a remote IPADDR and a remote HOSTNAME. Only one remote input is allowed.

System action: The DISPLAY EE or DISPLAY EEDIAG command is not performed.

Operator response: Issue the DISPLAY EE or DISPLAY EEDIAG command again specifying either a remote IPADDR or a remote HOSTNAME, but not both. See z/OS Communications Server: SNA Operation for more information about commands or command syntax.

System programmer response: None.
Source: z/OS Communications Server SNA
Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

Routing code: 2
Descriptor code: 5

**IST2050I**  THIS PATH WILL NOT BE SELECTED FOR UNRCHTIM = seconds SECONDS

Explanation: VTAM issues this message as part of a group of messages when a dial failure or a connection INOP occurs on a network node for a connection over an Enterprise Extender Virtual Routing Node (VRN) to a specific partner node. The first message in the group is [IST1903I](#). See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

**IST2052I**  ORIGIN NODE PARTNER NODE UNRCHTIM EXPIRES

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO,LIST=UNRCHTIM command. The first message in the group is [IST2057I](#). See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

**IST2054I**  VIRTUAL NODE PARTNER NODE UNRCHTIM EXPIRES

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO,LIST=UNRCHTIM command. The first message in the group is [IST2057I](#). See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

**IST2055I**  vrn_or_orig_name partner_name unrchtim time

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO,LIST=UNRCHTIM command. The first message in the group is [IST2057I](#). See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

**IST2056I**  NO MATCHING UNREACHABLE PARTNER INFORMATION EXISTS

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO,LIST=UNRCHTIM command. The first message in the group is [IST2057I](#). See the explanation of that message for a complete description.

This message can also be issued as a single-line message in response to a MODIFY TOPO,FUNCTION=CLRUNRCH command. It indicates that there is no unreachable partner information that matches the values specified on the ORIG, VRN, and DEST operands on the command, so no information can be cleared.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option.
option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.

Routing code: 2
Descriptor code: 5

IST2057I UNREACHABLE PARTNER INFORMATION:

Explanation: VTAM issues this message as the first message of a group of messages in response to a DISPLAY TOPO, LIST=UNRCHTIM command. The description of the message group follows:

IST2057I UNREACHABLE PARTNER INFORMATION:
[IST924I ---------------------------------------------------------------]
[IST2150I VIRTUAL NODE vrn_name - count UNREACHABLE PARTNERS]
[IST2151I PARTNER LIMIT EXCEEDED - UNUSABLE UNTIL COUNT IS BELOW lowerlim]
[IST2052I ORIGIN NODE PARTNER NODE UNRCHTIM EXPIRES]
[IST2055I orig_name partner_name unrchtim time]
;
[IST314I DISPLAY TRUNCATED AT keyword = number]
[IST924I ---------------------------------------------------------------]
[IST2056I NO MATCHING UNREACHABLE PARTNER INFORMATION EXISTS]
IST314I END

IST924I
This message is a separator message.

IST1315I
• VTAM issues this message when the number of unreachable partner paths to be displayed exceeds the value specified for the MAX operand.
• In the message text:
  keyword
  The keyword value is always MAX.
  number
  The value specified for the MAX operand.

IST2052I
This message is a header message for unreachable partner information associated with the Enterprise Extender virtual routing node (VRN) named in message IST2150I.

IST2055I
orig_name is the network-qualified name of the origin node in the path to the unreachable partner node.
partner_name is the network qualified name of the partner node that is unreachable on the path through an Enterprise Extender virtual routing node (VRN).

unrchtim is the time in seconds that a path through the VRN will not be considered as a possible session path to an unreachable partner. The path is identified by origin node, intermediate VRN, and unreachable destination partner node. This is the unreachable time value of UNRCHTIM specified for the Enterprise Extender VRN in the node that detected the path through the VRN to the unreachable partner. See the UNRCHTIM start option in z/OS Communications Server: SNA Resource Definition Reference for more information about the unreachable time value of the UNRCHTIM start option or the UNRCHTIM operand in the XCA major node.

It is possible for unrchtim in the node that detected the problem to be different in other nodes that have learned the unreachable partner information through TDU flows. This happens if topology that includes unreachable partner information is exchanged when a CP-CP session is established between two network nodes or between an end node and its network node server. The time until the unreachable information expires is calculated from the unrchtim value, so when a topology exchange is done after the initial detection of the unreachable partner, it is necessary to alter the unrchtim value sent in the topology information to make sure the expiration time is consistent on all nodes. In this case, unrchtim is not meaningful in the nodes that learned the unreachable partner information through TDU flows and the unrchtim value will display as five asterisks (*****).
time is the time that the unreachable time will expire. When the time expires, if this path still has the lowest weight of any available path to the partner node, the path over this particular Enterprise Extender VRN will be selected on the next attempt to redial the partner node. The dial attempt will result in failure if the underlying problem with the connection has not been corrected. That dial failure will cause the unreachable time to be set again to prevent selection of the path through this Enterprise Extender VRN to the unreachable partner node for the period of time specified for the VRN. This will continue until the problem with the connection path is corrected.

The time is expressed in 24-hour system format (hh:mm:ss). For example, 1:00 p.m. is displayed as 13:00:00. The expiration time might appear to be earlier than the time the DISPLAY TOPO command was entered if the unreachable time value causes the time to expire the following day (after 24:59:59 on the day the command was entered). For example, if the DISPLAY TOPO command is entered at 23:45:00 and the unreachable time expires at 1:15 a.m., time will be 01:15:00.

This message is issued as many times as necessary to display all of the unreachable partner information that matches the values specified on the ORIG, VRN, and DEST operands of the DISPLAY TOPO, LIST=UNRCHTIM command. The unreachable path is from the name specified by the orig_name value to the name specified by the vrn_name value (from message IST2150I) to the name specified by the partner_name value. See z/OS Communications Server: SNA Network Implementation Guide for more information about this display.

IST2056I

This message is issued when there is no unreachable partner information that matches the values specified on the ORIG, VRN, and DEST operands of the DISPLAY command.

IST2150I

In the message text:

vrn_name

The network-qualified name of the Enterprise Extender virtual routing node (VRN) that is the intermediate node in a path to an unreachable partner.

count

The total number of unreachable partner paths that are associated with the named Enterprise Extender VRN in the topology database.

The count value might differ from the number of unreachable partner paths displayed for the VRN in message IST2055I messages if the ORIG, VRN, or DEST operand is used on the DISPLAY TOPO, LIST=UNRCHTIM command to limit the scope of unreachable partner paths displayed or if the message display is truncated with message IST1315I.

IST2151I

This message is issued when the number of unreachable partner paths associated with the VRN in message IST2150I exceeds the unreachable partner limit.

A user-specified limit of unreachability records associated with an Enterprise Extender VRN can be set on the UNRCHTIM start option. When the count of unreachable partner paths through an Enterprise Extender VRN exceeds this limit, the VRN is no longer used for session route selection. The VRN remains unusable until enough unreachability records that are associated with the VRN are deleted to make the count less than 80% of the limit set in the UNRCHTIM start option. An unreachability record is deleted when the unreachable time that is associated with that record expires, or when the unreachability records are manually cleared with the MODIFY TOPO, FUNCTION=CLRUNRCH command. See the UNRCHTIM start option in z/OS Communications Server: SNA Resource Definition Reference for more information.

In the message text:

lowerlim

When the number of unreachable partner paths through an EE VRN falls below the number specified by the lowerlim value, the unreachable partner limit is no longer considered to be exceeded.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Source: z/OS Communications Server SNA
Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.

Routing code: 2
Descriptor code: 5

IST2058I UNREACHABLE PARTNER LIMIT EXCEEDED FOR VRN cpname

Explanation: This message is issued when the addition of an unreachable partner record to the topology database caused the number of unreachable partner paths that are associated with the Enterprise Extender virtual routing node (VRN) to exceed the unreachable partner limit for the VRN.

A user-specified limit of unreachable records associated with an Enterprise Extender VRN can be set on the UNRCHTIM start option. When the count of unreachable partner paths through an Enterprise Extender VRN exceeds this limit, the VRN is no longer used for session route selection. The VRN remains unusable until enough unreachability records that are associated with the VRN are deleted to make the count less than 80% of the limit set in the UNRCHTIM start option. As long as the number of unreachable partner paths remains above or equal to 80% of this limit, the unreachable partner limit is considered to be exceeded. An unreachability record is deleted when the unreachable time that is associated with that record expires, or when the unreachability records are cleared with the MODTOPO,FUNCT=CLRUNRCH command. See the UNRCHTIM start option in z/OS Communications Server: SNA Resource Definition Reference for more information about the unreachable partner limit on the UNRCHTIM start option.

The cpname value is the network-qualified name of the Enterprise Extender VRN associated with the unreachable partner information. The VRN is the intermediate node on a path to an unreachable partner node. See z/OS Communications Server: SNA Network Implementation Guide for more information.

System action: Processing continues.

Operator response: Unreachable partner information represents a path through an Enterprise Extender VRN to an unreachable partner. The unreachable partner information is created to enable VTAM to route around a problem with the underlying IP connection between the origin node and the unreachable partner. IST2058I is issued when the limit of unreachable partner paths associated with an Enterprise Extender VRN has been exceeded. This is an indication that multiple nodes are unreachable and the problem is widespread and probably not transient.

Issue the DISPLAY TOPO,LIST=UNRCHTIM command to display the information about unreachable partner paths that are associated with the Enterprise Extender VRN. This information can help you determine where in the network the problem exists. A route through this Enterprise Extender VRN will not be considered for a session path until the unreachable time expires for enough unreachable partner nodes to bring the number of unreachable partner paths that are associated with the Enterprise Extender VRN below 80% of the unreachable partner limit specified or defaulted on the UNRCHTIM start option. Unreachable partner records can also be cleared with the MODTOPO,FUNCT=CLRUNRCH command. See the information about the MODTOPO command in z/OS Communications Server: SNA Operation for more information.

System programmer response: None.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.

Routing code: 2
Descriptor code: 3

IST2059I NUMBER OF NLPS RECEIVED = count (estimate)

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is IST1968I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5
IST2061I  NO FORCED TAKEOVER REQUESTS ARE ACCEPTABLE

**Explanation:** VTAM issues this message in response to a DISPLAY ID command for an application that supports persistent sessions for one of these situations:

- The application is found on the VTAM on which the command is issued, and the application has indicated that neither multinode persistent (MNPS) nor single node persistent (SNPS) forced takeover requests will be accepted for this application.
- An application that supports MNPS is specified, the application is found in the MNPS coupling facility structure, and the application has indicated that neither MNPS nor SNPS forced takeover requests will be accepted for this application.

This message indicates the support level that was last requested by the application. See [z/OS Communications Server: SNA Programming](#) for more information about forced takeover processing.

**System action:** Processing continues.

**Operator response:** Contact the system programmer.

**System programmer response:** If the setting displayed is not correct, modify the application behavior so that when SETLOGON OPTCD=PERSIST is issued by the application, the correct value for the PARMS=(FORCETKO=) operand is specified.

**Source:** z/OS Communications Server SNA

**Module:** You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.

**Routing code:** 2

**Descriptor code:** 4

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IST2062I  *type* FORCED TAKEOVER REQUESTS ARE ACCEPTABLE

**Explanation:** VTAM issues this message in response to a DISPLAY ID command for an application that supports persistent sessions.

- This message is displayed with type=SNPS when:
  - The application is found on the VTAM on which the command is issued and the application has indicated that single node persistent (SNPS) forced takeover requests will be accepted, but that multinode persistent (MNPS) forced takeover requests will not be accepted.
  - An application that supports MNPS is specified, the application is found in the MNPS coupling facility structure, and the application has indicated that SNPS forced takeover requests will be accepted for this application, but that MNPS forced takeover requests will not be accepted.

- This message is displayed with type=MNPS when:
  - The application is found on the VTAM on which the command is issued and the application has indicated that multinode persistent (MNPS) forced takeover requests will be accepted, but that single node persistent (SNPS) forced takeover requests will not be accepted.
  - An application that supports MNPS is specified, the application is found in the MNPS coupling facility structure, and the application has indicated that MNPS forced takeover requests will be accepted for this application, but that SNPS forced takeover requests will not be accepted.

This message indicates the support level that was last requested by the application. An application must still be enabled for persistence before a forced takeover will successfully complete. See [z/OS Communications Server: SNA Programming](#) for more information on enabling an application for persistence, and for information on forced takeover processing in general.

**Type** specifies one of the following values:

- **MNPS** Indicates that multinode persistent forced takeover requests are permitted, but single node persistent forced takeover requests are not permitted.
- **SNPS** Indicates that single node persistent forced takeover requests are permitted, but multinode persistent forced takeover requests are not permitted.
IST2063I  ALL FORCED TAKEOVER REQUESTS ARE ACCEPTABLE

Explanation: VTAM issues this message in response to a DISPLAY ID command for an application that supports persistent sessions for one of these situations:

- The application is found on the VTAM on which the command is issued, and the application has indicated that both single node persistent (SNPS) and multinode persistent (MNPS) forced takeover requests will be accepted for this application.
- An application that supports MNPS is specified, the application is found in the MNPS coupling facility structure, and the application has indicated that both MNPS and SNPS forced takeover requests will be accepted for this application.

This message indicates the support level that was last requested by the application. An application must still be enabled for persistence before a forced takeover will successfully complete. See z/OS Communications Server: SNA Programming for more information about enabling an application for persistence, and for information about forced takeover processing in general.

System action: Processing continues.

Operator response: Contact the system programmer.

System programmer response: If the setting displayed is not correct, modify the application behavior so that when SETLOGON OPTCD=PERSIST is issued by the application, the correct value for the PARMS=(FORCETKO=) operand is specified.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

Routing code: 2

Descriptor code: 4

IST2064I  PLU TO SLU RU SIZE = plu_to_slu_rusize SLU TO PLU RU SIZE = slu_to_plu_rusize

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY SESSIONS,SID command. The first message of the group is IST879I. See the explanation of that message for a complete description.

Routing code: 2

Descriptor code: 5
IST2065I

IST2065I ENTERPRISE EXTENDER CONNECTION REXMIT INFORMATION

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY EEDIAG command for Enterprise Extender connection retransmission information. This message is the first in a group of messages. The display output might consist of multiple Enterprise Extender connections being displayed. Each matching connection will be displayed in a subgroup beginning with message IST1680I. The full description of the message group follows the example.

IST2065I ENTERPRISE EXTENDER CONNECTION REXMIT INFORMATION
IST2119I ENTERPRISE EXTENDER DISPLAY CORRELATOR: correlator
IST2067I EEDIAG DISPLAY ISSUED ON date AT time
IST924I -------------------------------------------------------------
IST1680I type IP ADDRESS ip_address
IST1910I LOCAL HOSTNAME value
IST1911I value
IST1680I type IP ADDRESS ip_address
IST1909I REMOTE HOSTNAME value
IST1911I value
IST2023I CONNECTED TO LINE linename
IST2024I CONNECTED TO SWITCHED PU puname
IST924I -------------------------------------------------------------
IST2030I PORT PRIORITY = SIGNAL
IST2036I NLPS SENT = nlps_sent ( estimate )
IST2038I NLPS RETRANSMITTED = nlps_retransmitted ( estimate )
IST2068I NLP RETRANSMIT RATE = nlp_retransmit_rate
IST924I -------------------------------------------------------------
IST2031I PORT PRIORITY = NETWORK
IST2036I NLPS SENT = nlps_sent ( estimate )
IST2038I NLPS RETRANSMITTED = nlps_retransmitted ( estimate )
IST2068I NLP RETRANSMIT RATE = nlp_retransmit_rate
IST924I -------------------------------------------------------------
IST2032I PORT PRIORITY = HIGH
IST2036I NLPS SENT = nlps_sent ( estimate )
IST2038I NLPS RETRANSMITTED = nlps_retransmitted ( estimate )
IST2068I NLP RETRANSMIT RATE = nlp_retransmit_rate
IST924I -------------------------------------------------------------
IST2033I PORT PRIORITY = MEDIUM
IST2036I NLPS SENT = nlps_sent ( estimate )
IST2038I NLPS RETRANSMITTED = nlps_retransmitted ( estimate )
IST2068I NLP RETRANSMIT RATE = nlp_retransmit_rate
IST924I -------------------------------------------------------------
IST2034I PORT PRIORITY = LOW
IST2036I NLPS SENT = nlps_sent ( estimate )
IST2038I NLPS RETRANSMITTED = nlps_retransmitted ( estimate )
IST2068I NLP RETRANSMIT RATE = nlp_retransmit_rate
IST924I -------------------------------------------------------------
IST2035I TOTALS FOR ALL PORT PRIORITIES
IST2036I NLPS SENT = nlps_sent ( estimate )
IST2038I NLPS RETRANSMITTED = nlps_retransmitted ( estimate )
IST2068I NLP RETRANSMIT RATE = nlp_retransmit_rate
IST2069I REXMIT COUNTERS LAST CLEARED ON date AT time
IST2071I ALL DIAGNOSTIC COUNTERS CLEARED FOR count EE CONNECTIONS
IST2072I REXMIT COUNTERS CLEARED FOR count EE CONNECTIONS
IST2073I SRQRETRY COUNTERS CLEARED FOR count EE CONNECTIONS
IST1315I DISPLAY TRUNCATED AT MAX = number
IST2042I count OF total EE CONNECTIONS DISPLAYED
IST314I END

IST924I
This message is a line separator between subgroups.

IST1315I
This message is issued when the number of EE connections displayed exceeds the value specified for the MAX operand.

number is the value specified for the MAX operand.
IST1680I

- This is the first message of a message subgroup. For DISPLAY EEDIAG commands that result in multiple EE connections being displayed, this subgroup is displayed for each matching EE connection. When LIST=DETAIL is specified, five optional subgroups, beginning with the IST2030I subgroup and ending with the IST2034I subgroup, are also displayed.
- *type* is either LOCAL or REMOTE, indicating which IP address is being displayed.
- *ip_address* is the IP address.
- The complete message subgroup (LIST=SUMMARY) follows:

  IST1680I type IP ADDRESS ip_address
  [IST1909I LOCAL HOSTNAME value]
  [IST1911I value]
  IST1680I type IP ADDRESS ip_address
  [IST1909I REMOTE HOSTNAME value]
  [IST1911I value]
  [IST2023I CONNECTED TO LINE linename ]
  [IST2024I CONNECTED TO SWITCHED PU puname ]
  IST924I-------------------------------------------------------------
  IST2035I TOTALS FOR ALL PORT PRIORITIES
  IST2036I NLPS SENT = nlps_sent ( estimate )
  IST2038I NLPS RETRANSMITTED = nlps_retransmitted ( estimate )
  IST2068I NLP RETRANSMIT RATE = nlp_retransmit_rate

IST1909I

*value* is the host name used to acquire the remote IP address associated with this connection to the remote node. If the host name is longer than 44 characters, then the first 44 characters are displayed as *value* and the remaining characters are displayed in one or more IST1911I messages.

IST1910I

*value* is the host name used to acquire the local static VIPA address displayed in message IST1680I. If the host name is longer than 45 characters, then the first 45 characters are displayed as *value* and the remaining characters are displayed in one or more IST1911I messages.

IST1911I

*value* is the continuation of *value* on messages IST1909I and IST1910I. IST1911I is repeated as many times as necessary to display the entire character string.

IST2023I

This message is issued when the ID operand is specified with a switched PU name that has an active Enterprise Extender connection.

*linename* is the name of the Enterprise Extender line used for this Enterprise Extender connection.

IST2024I

This message is not issued in the case where the ID operand is specified with a switched PU name that has an active Enterprise Extender connection. In this case, message IST2023I is issued. For all other cases, this message is issued as part of the DISPLAY EEDIAG connection display.

*puname* is the name of the switched PU used for this Enterprise Extender connection.

IST2030I, IST2031I, IST2032I, IST2033I, IST2034I, IST2035I

- Messages IST2030I through IST2034I are header messages for optional message subgroups. One subgroup is displayed for each port priority when LIST=DETAIL is specified. Each header message is followed by messages IST2036I, IST2038I, and IST2068I.
- IST2035I is a header message for a subgroup that displays a summary of all port priorities. This subgroup includes the same messages as listed for each port priority subgroup.
- Each of these subgroups is also associated with a subgroup of messages that begins with message IST1680I.
- A sample of one of the subgroups follows:
IST2065I

This message is the header message for the Enterprise Extender connection retransmission information display output.

IST2067I

The date and time values specify when this DISPLAY EEDIAG command was issued. See "DATE and TIME formats" on page 6 for information about the date and time values.

IST2068I

This message is associated with a subgroup of messages that begins with message IST2030I, IST2031I, IST2032I, IST2033I, IST2034I, or IST2035I.

nlp_retransmit_rate is the current network layer packet (NLP) retransmission rate for this EE connection. This rate is maintained for each specific priority. Issuing the LIST=DETAIL on the DISPLAY EEDIAG,REXMIT command
displays the current retransmission rate for each priority level. The LIST=SUMMARY output displays the average retransmission rate for all priorities associated with this EE connection. This value is maintained from the time this connection was activated, or since the last DISPLAY EEDIAG command was issued specifying the CLEAR= ALL | REXMIT parameter.

It is in the form xxx %, where xxx is the numeric value of the retransmission rate, specified as a percentage.

IST2069I

The date and time values specify when the retransmission counters were last cleared for this EE connection. The date and time values displayed in this message, combined with the date and time values displayed in message IST2067I, provide the time interval during which the retransmission metrics were collected. See "DATE and TIME formats" on page 6 for information about the date and time values.

IST2071I

count is the number of EE connections that had both their REXMIT and SRQRETRY counters cleared as a result of the CLEAR=ALL parameter.

IST2072I

count is the number of EE connections that had their retransmission counters cleared as a result of the CLEAR=REXMIT parameter.

IST2073I

count is the number of EE connections that had their SRQRETRY counters cleared as a result of the CLEAR=SRQRETRY parameter.

IST2119I

This is an optional message that is issued when the DISPLAY EEDIAG command contains HOSTNAME filters. The correlator value is a unique display correlator associated with this DISPLAY EEDIAG command, which requires host name resolution. This correlator can be used to locate the various message groups associated with this DISPLAY EEDIAG command.

System action: Processing continues.

Operator response: If the nlp_retransmit_rate value displayed in message IST2068I is unusually high, the Enterprise Extender network might need to be diagnosed to determine why the packets are being discarded or lost. If the nlp_retransmit_rate value displayed in message IST2068I is unacceptable, and an alternate non-EE path to the partner exists, the EE connection might need to be deactivated so RTP pipes can pathswitch to the non-EE path.

System programmer response: None.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.

Routing code: 2

Descriptor code: 5
IST2066I

[IST1911I value]
IST1680I type IP ADDRESS ip_address
[IST1909I REMOTE HOSTNAME value]
[IST1911I value]
[IST2004I LIVTIME = (init_value,max_value) SRQTIME = srqtime SRQRETRY = srqretry]
[IST2023I CONNECTED TO LINE linename]
[IST2024I CONNECTED TO SWITCHED PU pname]
IST2074I SUCCESSFUL SRQRETRY ATTEMPT = attempt OCCURRENCES = occurrences
IST2070I SRQRETRY COUNTERS LAST CLEARED ON date AT time
[IST2071I ALL DIAGNOSTIC COUNTERS CLEARED FOR count EE CONNECTIONS]
[IST2072I REXMIT COUNTERS CLEARED FOR count EE CONNECTIONS]
[IST2073I SRQRETRY COUNTERS CLEARED FOR count EE CONNECTIONS]
IST2042I count OF total EE CONNECTIONS DISPLAYED
IST314I END

IST924I
This message is a line separator between subgroups.

IST1315I
This message is issued when the number of EE connections displayed exceeds the value specified for the MAX operand.

number is the value specified for the MAX operand.

IST1680I
This is the first message of a message subgroup. For DISPLAY EEDIAG commands that result in multiple EE connections being displayed, this subgroup is displayed for each matching EE connection. When LIST=SUMMARY is specified, message IST2074I is repeated for each SRQRETRY attempt that meets or exceeds the specified input value. When LIST=DETAIL is specified, message IST2074I is repeated for all SRQRETRY attempts.

type is either LOCAL or REMOTE, indicating which IP address is being displayed.

ip_address is the IP address.

IST1909I
value is the host name used to acquire the remote IP address associated with this connection to the remote node. If the host name is longer than 44 characters, then the first 44 characters are displayed as value and the remaining characters are displayed in one or more IST1911I messages.

IST1910I
value is the host name used to acquire the local static VIPA address displayed in message IST1680I. If the host name is longer than 45 characters, then the first 45 characters are displayed as value and the remaining characters are displayed in one or more IST1911I messages.

IST1911I
value is the continuation of value on messages IST1909I and IST1910I. IST1911I is repeated as many times as necessary to display the entire character string.

IST2004I
This message displays the LDLC timer operands that are associated with the local static VIPA address displayed in IST1680I. See the external communication adapter (XCA) major node information in z/OS Communications Server: SNA Resource Definition Reference for more information about the LIVTIME operand for Enterprise Extender.

init_value is the initial value, in seconds, of an Enterprise Extender logical data link control (LDLC) liveness timer interval.

max_value is the maximum value, in seconds, of an Enterprise Extender LDLC liveness timer interval.

srqtime is the value, in seconds, of the Enterprise Extender LDLC short request timer interval. The short request timer interval represents the amount of time the LDLC layer will wait, without receipt of a response from the connection partner, before sending the LDLC signal again.
srqretry is the number of times the short request timer is tried again before the Enterprise Extender port becomes inoperative.

IST2023I
This message is issued when the ID operand is specified with a switched PU name that has an active Enterprise Extender connection.

linename is the name of the Enterprise Extender line that is being used for this Enterprise Extender connection.

IST2024I
This message is not issued in the case where the ID operand is specified with a switched PU name that has an active Enterprise Extender connection. In this case, message IST2023I is issued. For all other cases, this message is issued as part of the DISPLAY EEDIAG connection display.

puname is the name of the switched PU that is being used for this Enterprise Extender connection.

IST2042I
count is the number of matching EE connections displayed in the output.

total is the total number of EE connections that match the parameters specified on the DISPLAY EEDIAG command. The total might be larger than the displayed count because the number of EE connections displayed is governed by the MAX parameter.

IST2066I
This message is the header message for the Enterprise Extender connection SRQRETRY information display output.

IST2067I
The date and time values specify when this DISPLAY EEDIAG command was issued. See “DATE and TIME formats” on page 6 for information about the date and time values.

IST2070I
The date and time values specify when the SRQRETRY counters were last cleared for this EE connection. The date and time values displayed in this message, combined with the date and time values displayed in message IST2067I, provide the time interval during which the SRQRETRY metrics were collected. See “DATE and TIME formats” on page 6 for information about the date and time values.

IST2071I
count is the number of EE connections that had both their REXMIT and SRQRETRY counters cleared as a result of the CLEAR=ALL parameter.

IST2072I
count is the number of EE connections that had their retransmission counters cleared as a result of the CLEAR=REXMIT parameter.

IST2073I
count is the number of EE connections that had their SRQRETRY counters cleared as a result of the CLEAR=SRQRETRY parameter.

IST2074I
attempt is the number of times an LDLC TEST command (SRQRETRY attempt) had to be tried again prior to receiving a response from the EE partner.

occurrences is the number of times it took attempt number of retry attempts to receive a response from the EE partner.

Rule: When LIST=DETAIL is specified, the first IST2074I message displays attempt as 0. A value of 0 means this is the first time the LDLC TEST command was sent to the partner. If a TEST response is received from the EE partner on this occurrence, this means there were no problems encountered in the network and no retry attempts were necessary.
IST219I

This is an optional message that is issued when the DISPLAY EEDIAG command contains HOSTNAME filters. The correlator value is a unique display correlator associated with this DISPLAY EEDIAG command, which requires host name resolution. This correlator can be used to locate the various message groups associated with this DISPLAY EEDIAG command.

System action: Processing continues.

Operator response: None.

System programmer response: Use the display results to determine whether Enterprise Extender timer values are coded appropriately for network conditions. See the information about the DISPLAY EEDIAG command in z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.

Routing code: 2
Descriptor code: 5

IST2067I EEDIAG DISPLAY ISSUED ON date AT time

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY EEDIAG command. The output of the DISPLAY EEDIAG command varies depending on the format of the command. The first message in the groups is either IST2065I, IST2066I, IST2119I, or IST2119I. See the explanations of those messages for complete descriptions.

Routing code: 2
Descriptor code: 5

IST2068I NLP RETRANSMIT RATE = nlp_retransmit_rate

Explanation: VTAM issues this message as part of a group in response to a DISPLAY EEDIAG command that specified the REXMIT parameter. The first message in the group is IST2065I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST2069I REXMIT COUNTERS LAST CLEARED ON date AT time

Explanation: VTAM issues this message as part of a group in response to a DISPLAY EEDIAG command that specified the REXMIT parameter. The first message in the group is IST2065I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST2070I SRQRETRY COUNTERS LAST CLEARED ON date AT time

Explanation: VTAM issues this message as part of a group in response to a DISPLAY EEDIAG command that specified the SRQRETRY parameter. The first message in the group is IST2066I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5
IST2071I ALL DIAGNOSTIC COUNTERS CLEARED FOR count EE CONNECTIONS

**Explanation:** VTAM issues this message in response to a DISPLAY EEDIAG command that specified CLEAR=ALL. The output of the DISPLAY EEDIAG command varies depending on the format of the command. If the DISPLAY EEDIAG command specified either the REXMIT or SRQRETRY operands, the first message in those groups is IST2065I and IST2066I respectively. See the explanations of those messages for complete descriptions.

$count$ is the number of EE connections that had both their REXMIT and SRQRETRY counters cleared as a result of the CLEAR=ALL parameter.

**System action:** For the EE connections affected by the scope of the DISPLAY EEDIAG command, all associated diagnostic counters have been cleared.

**Operator response:** None.

**System programmer response:** None.

**Source:** z/OS Communications Server SNA

**Module:** You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

**Routing code:** 2

**Descriptor code:** 5

---

IST2072I REXMIT COUNTERS CLEARED FOR count EE CONNECTIONS

**Explanation:** VTAM issues this message in response to a DISPLAY EEDIAG command that specified CLEAR=REXMIT. The output of the DISPLAY EEDIAG command varies depending on the format of the command. If the DISPLAY EEDIAG command specified either the REXMIT or SRQRETRY operands, the first message in those groups is IST2065I and IST2066I respectively. See the explanations of those messages for complete descriptions.

$count$ is the number of EE connections that had their retransmission counters cleared as a result of the CLEAR=REXMIT parameter.

**System action:** For the EE connections affected by the scope of the DISPLAY EEDIAG command, all associated REXMIT diagnostic counters have been cleared.

**Operator response:** None.

**System programmer response:** None.

**Source:** z/OS Communications Server SNA

**Module:** You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

**Routing code:** 2

**Descriptor code:** 5

---

IST2073I SRQRETRY COUNTERS CLEARED FOR count EE CONNECTIONS

**Explanation:** VTAM issues this message in response to a DISPLAY EEDIAG command that specified CLEAR=SRQRETRY. The output of the DISPLAY EEDIAG command varies depending on the format of the command. If the DISPLAY EEDIAG command specified either the REXMIT or SRQRETRY operands, the first message in those groups is IST2065I and IST2066I respectively. See the explanations of those messages for complete descriptions.

$count$ is the number of EE connections that had their SRQRETRY counters cleared as a result of the CLEAR=SRQRETRY parameter.

**System action:** For the EE connections affected by the scope of the DISPLAY EEDIAG command, all associated SRQRETRY diagnostic counters have been cleared.

**Operator response:** None.
**System programmer response:** None.

**Source:** z/OS Communications Server SNA

**Module:** You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

**Routing code:** 2

**Descriptor code:** 5

**IST2074I** SUCCESSFUL SRQRETRY ATTEMPT = attempt OCCURRENCES = occurrences

**Explanation:** VTAM issues this message as part of a group in response to a DISPLAY EEDIAG command that specified the SRQRETRY operands. The first message in the group is IST2066I. See the explanation of that message for a complete description.

**Routing code:** 2

**Descriptor code:** 5

**IST2075I** DISPLAY RTPS SUMMARY INFORMATION

**Explanation:** VTAM issues this message as part of a group of messages in response to a DISPLAY RTPS, LIST=SUMMARY command. This message is the first in a group of messages. The LIST=SUMMARY format of the DISPLAY RTPS command provides a condensed format of the RTP pipe information that matched the scope of the display command. The full description of the message group follows the example.

IST2075I DISPLAY RTPS SUMMARY INFORMATION
IST2076I TOTAL MATCHING PIPES = num_pipes
IST2077I CPSVCMG PIPES = num_cpsvcmg
IST2078I RSETUP PIPES = num_rsetup
IST2079I LU-LU PIPES = num_lulu
IST2080I PATH SWITCHING PIPES = num_switching
IST2081I CONGESTED PIPES = num_congested
IST2082I STALLED PIPES = num_stalled
IST2083I SESSIONS = num_sessions
IST3141 END

IST2075I

This message is the header message for the Enterprise Extender connection retransmission information display output.

IST2076I

num_pipes is the total number of pipes that match the scope of the DISPLAY RTPS command.

IST2077I

num_cpsvcmg is the total number of CP-CP session (CPSVCMG) RTP pipes that match the scope of the DISPLAY RTPS command.

IST2078I

num_rsetup is the total number of route setup (RSETUP) RTP pipes that match the scope of the DISPLAY RTPS command.

IST2079I

num_lulu is the total number of LU-LU RTP pipes that match the scope of the DISPLAY RTPS command.

IST2080I

num_switching is the total number of RTP pipes that match the scope of the DISPLAY RTPS command, which are currently in path switch state.

IST2081I
num_congested is the total number of RTP pipes that match the scope of the DISPLAY RTPS command, which are currently congested.

IST2082I

num_stalled is the total number of RTP pipes that match the scope of the DISPLAY RTPS command, which are currently stalled.

IST2083I

num_sessions is the total number of sessions associated with the RTP pipes that match the scope of the DISPLAY RTPS command.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

Routing code: 2

Descriptor code: 5

IST2076I TOTAL MATCHING PIPES = num_pipes

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY RTPS,LIST=SUMMARY command. The first message in the group is [IST2075I]. See the explanation of that message for a complete description.

Routing code: 2

Descriptor code: 5

IST2077I CPSVCMG PIPES = num_cpsvcmg

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY RTPS,LIST=SUMMARY command. The first message in the group is [IST2075I]. See the explanation of that message for a complete description.

Routing code: 2

Descriptor code: 5

IST2078I RSETUP PIPES = num_rsetup

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY RTPS,LIST=SUMMARY command. The first message in the group is [IST2075I]. See the explanation of that message for a complete description.

Routing code: 2

Descriptor code: 5

IST2079I LU-LU PIPES = num_lulu

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY RTPS,LIST=SUMMARY command. The first message in the group is [IST2075I]. See the explanation of that message for a complete description.

Routing code: 2

Descriptor code: 5
IST2080I • IST2086I

IST2080I  PATH SWITCHING PIPES = num_switching

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY RTPS, LIST=SUMMARY command. The first message in the group is IST2075I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST2081I  CONGESTED PIPES = num_congested

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY RTPS, LIST=SUMMARY command. The first message in the group is IST2075I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST2082I  STALLED PIPES = num_stalled

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY RTPS, LIST=SUMMARY command. The first message in the group is IST2075I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST2083I  SESSIONS = num_sessions

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY RTPS, LIST=SUMMARY command. The first message in the group is IST2075I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST2084I  count OF total MATCHING RTP PIPES DISPLAYED

Explanation: VTAM issues this message as part of a group in response to a DISPLAY RTPS command. The first message in the group is IST1695I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST2085I  NUMBER OF NLPS ON OUTBOUND WORK QUEUE = num_nlps

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a rapid transport protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is IST1968I. See the description of that message for more information.

Routing code: 2
Descriptor code: 5

IST2086I  MAXIMUM NUMBER OF NLPS ON OUTBOUND WORK QUEUE = max_num_nlps

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a rapid transport protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is IST1968I. See the description of that message for more information.

Routing code: 2
IST2087I OUTBOUND WORK QUEUE MAX REACHED ON date AT time

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a rapid transport protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is IST1968I. See the description of that message for more information.

Routing code: 2
Descriptor code: 5

IST2088I CDRSCS DEFINED USING THIS MODEL:

Explanation: VTAM issues this message as part of a subgroup in response to a DISPLAY ID command when the resource identified by ID is a model CDRSC and clone CDRSCs exist, using this model, that meet the specified SCOPE criteria. A complete description of the message subgroup follows the example.

IST2088I CDRSCS DEFINED USING THIS MODEL:
IST1276I cdrscname status CDRM = cdrmname

IST1276I

This message lists the resource name, its status, and the name of the controlling CDRM.
VTAM repeats this message as many times as needed to list all the clone CDRSCs associated with this model CDRSC.

cdrscname is the name of the resource. The name will be network qualified in the form netid.name if the resource is a real CDRSC. The name will not be network qualified if the resource is an alias CDRSC.
status is the status of the resource. See z/OS Communications Server: IP and SNA Codes for a description of status.
cdrmname is the name of the controlling CDRM. If the CDRM is not available, cdrmname is ***NA***.

IST2088I

IST2088I is the header message for the IST1276I messages.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

Routing code: 2
Descriptor code: 5

IST2089I NO CDRSCS DEFINED USING THIS MODEL

Explanation: VTAM issues this message in response to a DISPLAY ID command when the resource identified by ID is a model CDRSC and no clone CDRSCs exist using this model.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.
IST2090I • IST2091I

option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

Routing code: 2
Descriptor code: 5

IST2090I  TRACE INITIATED FOR number CLONE CDRSCS

Explanation: VTAM issues this message in response to a MODIFY TRACE command with all of the following:
- The ID operand specified as a model CDRSC
- The SCOPE operand specified as ALL
- The TYPE operand specified as IO or BUF

This MODIFY TRACE command initiates the IO trace or buffer trace on the model CDRSC and all the existing clone CDRSCs associated with the model. If there is at least one clone CDRSC associated with the model, this message will be issued to display the number of clone CDRSCs affected by the command.

number is the number of clone CDRSCs whose IO trace or buffer trace is initiated by this MODIFY TRACE command.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Source: z/OS Communications Server SNA
Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.
Routing code: 2
Descriptor code: 5

IST2091I  TRACE ENDED FOR number CLONE CDRSCS

Explanation: VTAM issues this message in response to a MODIFY NOTRACE command with all of the following:
- The ID operand specified as a model CDRSC name
- The SCOPE operand specified as ALL
- The TYPE operand specified as IO or BUF

This MODIFY NOTRACE command ends the IO trace or buffer trace on the model CDRSC and all the existing clone CDRSCs associated with the model. If there is at least one clone CDRSC associated with the model, this message will be issued to display the number of clone CDRSCs affected by the command.

number is the number of clone CDRSCs whose IO trace or buffer trace is ended by this MODIFY NOTRACE command.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Source: z/OS Communications Server SNA
Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.
Routing code: 2
Descriptor code: 5
IST2092I  NO CLONE CDRSCS EXIST FOR SCOPE scope

Explanation: VTAM issues this message in response to a DISPLAY ID command when the resource identified by ID is a model CDRSC and no clone CDRSCs exist that meet the specified SCOPE criteria.

scope is the SCOPE specified on the command.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

Routing code: 2
Descriptor code: 5

IST2093I  AUTOLOGON SEARCH INITIATED FOR number APPLICATIONS

Explanation: This message is issued in response to a VARY AUTOLOG operator command. The message contains the number of controlling applications for which autologon searches will be initiated.

number is the number of controlling applications.

System action: None.

Operator response: None.

System programmer response: None.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

Routing code: 2
Descriptor code: 5

IST2094I  MODEL CDRSC WAS NOT DELETED - CLONE CDRSCS EXIST

Explanation: A model CDRSC was the subject of a VARY INACT,DELETE=YES command, but it had clone CDRSCs associated with it. The model CDRSC could not be deleted because of the presence of the clone CDRSCs.

System action: Processing continues.

Operator response: After the last clone CDRSC associated with the model CDRSC is deleted, re-issue the VARY INACT command against the model CDRSC. If you want the model CDRSC to be deleted immediately, you can add SCOPE=ALL to the VARY INACT command to delete the model CDRSC and all the clone CDRSCs associated with it.

System programmer response: None.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

Routing code: 2
Descriptor code: 5
IST2095I • IST2096I

IST2095I  MODEL CDRSC DELETE = delete_value

Explanation: VTAM issues this message in response to a DISPLAY ID command when the resource identified by ID is a model CDRSC or a clone CDRSC. If the resource is a model CDRSC, the current value of the DELETE parameter on this model CDRSC's definition is displayed. If the resource is a clone CDRSC, the model CDRSC used to build this clone CDRSC is found and the current value of the model CDRSC's DELETE parameter is displayed.

delete_value is the current value of the DELETE keyword on the model CDRSC definition. Its value can be YES or NO.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.

Routing code: 2

Descriptor code: 5

IST2096I  AUTOLOGON SEARCH COMPLETED FOR APPLICATION pluname

Explanation: This is the first message of a group of messages that VTAM issues when a response is received to a search initiated by a VARY AUTOLOG command. A complete description of the message group follows.

IST2096I AUTOLOGON SEARCH COMPLETED FOR APPLICATION pluname
[IST2097I STATUS - CANNOT BE LOCATED]
[IST2098I STATUS - UNABLE TO ACCEPT LOGONS]
[IST2099I STATUS - AUTOLOGON SESSIONS INITIATED FOR number LUS]
IST314I END

IST2096I

This message is always issued upon receiving a response to a search that was initiated by a VARY AUTOLOG command. It will be followed by one of the status messages, IST2097I, IST2098I, or IST2099I.

pluname is the name of the controlling application for which a response to a VARY AUTOLOG command-initiated search was received. pluname is in the form of netid.pluname.

IST2097I

The search was unable to locate the controlling application named in the preceding IST2096I message. No sessions will be initiated for LUs waiting for automatic logon sessions to this controlling application.

IST2098I

The search located the controlling application named in the preceding IST2096I message. The status of the controlling application indicated that it was not able to accept sessions at this time. A single session is initiated, which will establish a notification path between the controlling application host and this host. This will allow the controlling application's host to send this VTAM a notification of the application's ability to accept logons. When the notification is received, this VTAM will generate initiation requests for all LUs waiting for automatic logon sessions to that application.

IST2099I

The search located the controlling application named in the preceding IST2096I message. The status of the controlling application indicated that it is able to accept sessions at this time. VTAM initiates sessions for all LUs waiting for automatic logon sessions to that application.

number is the number of session initiation requests that will be generated for the controlling application.

System action: For message IST2097I processing continues.

For message IST2098I VTAM initiates a single session to the application named in the preceding IST2096I message.
For message IST2099I VTAM initiates sessions for LUs waiting for automatic logon sessions to the application named in the preceding IST2096I message.

**Operator response:** None.

**System programmer response:** None.

**Source:** z/OS Communications Server SNA

**Module:** You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.

**Routing code:** 2

**Descriptor code:** 5

### IST2097I
**STATUS = CANNOT BE LOCATED**

**Explanation:** This message is part of a group of messages that VTAM issues when a response is received to a search initiated by a VARY AUTOLOG command. The first message of that group is IST2096I. See the explanation of that message for a complete description of the message group.

**Routing code:** 2

**Descriptor code:** 5

### IST2098I
**STATUS = UNABLE TO ACCEPT LOGONS**

**Explanation:** This message is part of a group of messages that VTAM issues when a response is received to a search initiated by a VARY AUTOLOG command. The first message of that group is IST2096I. See the explanation of that message for a complete description of the message group.

**Routing code:** 2

**Descriptor code:** 5

### IST2099I
**STATUS = AUTOLOGON SESSIONS INITIATED FOR number LUS**

**Explanation:** This message is part of a group of messages that VTAM issues when a response is received to a search initiated by a VARY AUTOLOG command. The first message of that group is IST2096I. See the explanation of that message for a complete description of the message group.

**Routing code:** 2

**Descriptor code:** 5

### IST2100l
**pluname - NORMALLY LOGGED OFF LUS**

**Explanation:** This message is part of a message group that is issued in response to a DISPLAY AUTOLOG command. The first message of the group is IST1990I. See the explanation of that message for a complete description.

**Routing code:** 2

**Descriptor code:** 5

### IST2101I
**NO LUS EXIST IN A STATE TO INITIATE AN AUTOLOGON SESSION**

**Explanation:** This message is issued in response to a VARY AUTOLOG command when there are no LUs that require generation of a session initiation request for one or more controlling applications specified by the ID= operand. An LU would require generation of a session initiation request if it were currently session capable but was not in session with its controlling application.

**Source:** z/OS Communications Server SNA

**Module:** You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.
Explanation: This message is part of a subgroup of messages that VTAM issues in response to a session setup failure. This message subgroup is displayed in a message group headed by IST663I.

This message indicates that the messages that follow describe part or all of the session path for this session as it was calculated during session initiation. The session path information describes the portion of the route originating in the direction of the CP (PLU) and extending towards the CP (SLU). This message subgroup will be displayed only if the CP (PLU) is not this node or a subarea node connected to this ICN, session path data was saved during session initiation, and the session initiation failed for either of the following reasons:

- Trial and error routing using an adjacent SSCP table failed. The destination LU was found by an SSCP, but that SSCP rejected the session initiation with a non-reroutable sense code.
- Trial and error routing using an adjacent SSCP table exhausted the table. All adjacent SSCPs were tried, but the destination LU was not known to any of the SSCPs.

A complete description of the message subgroup follows.

IST2102I RSCV FROM PLU
IST1460I TGN CPNAME TG TYPE HPR
IST1461I tgn cpname tgytype hpr

IST1460I

This message is a header message for information displayed in message IST1461I.

IST1461I

- The route selection control vector (RSCV) is displayed showing a portion of the route towards the CP (SLU). Multiple IST1461I messages might be needed to display the portion of the route known by this node.
- tgn is the transmission group number.
- cpname is the destination CP name for the transmission group.
- tgytype is the transmission group type. The values for tgytype can be:
  - APPN Indicates that this TG is an APPN-based TG.
  - INTERCHANGE Indicates that this TG represents a TG from an interchange node to a subarea node.
  - VRTG Indicates that this TG is a virtual-route-based TG.
  - ISL Indicates that this TG is an intersubnet TG.
- hpr corresponds with the HPR start option. The values for hpr can be:
  - RTP Indicates that this node provides RTP-level HPR support.
  - ANR Indicates that this node provides ANR-level HPR support.
  - *NA* Indicates that this node provides no HPR support.

IST2102I

This message is a header message for information displayed in messages IST1460I and IST1461I.

System action: The session initiation failed.

Operator response: Save the system log for problem determination.

System programmer response: Use the output to determine the cause of the problem. Work with the system programmers for other networks to determine the cause of failures for resources located in other networks.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start
IST2103I

option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.

Routing code:  8
Descriptor code:  4

IST2103I   RSCV TOWARDS SLU

Explanation:  This message is part of a subgroup of messages that VTAM issues in response to a session setup failure. This message subgroup is displayed in a message group headed by IST663I.

This message indicates that the messages that follow describe part or all of the session path for this session as it was calculated during session initiation. The session path information describes the portion of the route originating at this node, or a subarea node connected to this ICN, and extending towards the CP (SLU). This message subgroup is displayed only if session path data was saved during session initiation and the session initiation fails for either of the following reasons:

- Trial and error routing using an adjacent SSCP table failed. The destination LU was found by an SSCP, but that SSCP rejected the session initiation with a non-reroutable sense code.
- Trial and error routing using an adjacent SSCP table exhausted the table. All adjacent SSCPs were tried, but the destination LU was not known to any of the SSCPs.

A complete description of the message subgroup follows.

IST2103I   RSCV TOWARDS SLU
IST1460I   TGN  CPNAME  TG TYPE  HPR
IST1461I   tgn  cpname  tgtype  hpr

IST1460I

This message is a header message for information displayed in message IST1461I.

IST1461I

- The route selection control vector (RSCV) is displayed showing a portion of the route towards the CP (SLU). Multiple IST1461I messages might be needed to display the portion of the route known by this node.
- tgn is the transmission group number.
- cpname is the destination CP name for the transmission group.
- tgtype is the transmission group type. The values for tgtype can be:
  - APPN  Indicates that this TG is an APPN-based TG.
  - INTERCHANGE  Indicates that this TG represents a TG from an interchange node to a subarea node.
  - VRTG  Indicates that this TG is a virtual-route-based TG.
  - ISL  Indicates that this TG is an intersubnet TG.
- hpr corresponds with the HPR start option. The values for hpr can be:
  - RTP  Indicates that this node provides RTP-level HPR support.
  - ANR  Indicates that this node provides ANR-level HPR support.
  - *NA*  Indicates that this node provides no HPR support.

IST2103I

This message is a header message for information displayed in messages IST1460I and IST1461I.

System action:  The session initiation failed.

Operator response:  Save the system log for problem determination.

System programmer response:  Use the output to determine the cause of the problem. Work with the system programmers for other networks to determine the cause of failures for resources located in other networks.
You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.

Routing code: 8
Descriptor code: 4

IST2104I RSCV TOWARDS DLUR

Explanation: This message is part of a subgroup of messages that VTAM issues in response to a session setup failure. This message subgroup is displayed in a message group headed by IST663I.

This message indicates that the messages that follow describe part or all of the session path for this session as it was calculated during session initiation. The session path information represents a view of the session from the dependent LU requester (DLUR) node which is acting as CP (SLU). This message group is displayed only if the following conditions are true:

- The session involves a DLUR-owned dependent SLU.
- This node is the dependent LU server (DLUS) for the SLU.
- The DLUR node reports the session path information for the session on the SESSST RU.
- The session initiation was rejected after the SLU sent the BIND response.

A complete description of the message subgroup follows.

IST2104I RSCV TOWARDS DLUR
IST1460I TGN CPNAME TG TYPE HPR
IST1461I tgn cpname tgtpe hpr

IST1460I
This message is a header message for information displayed in message IST1461I.

IST1461I
- The route selection control vector (RSCV) is displayed showing a portion of the route towards the CP (SLU). Multiple IST1461I messages might be needed to display the portion of the route known by this node.
- TGN is the transmission group number.
- CPNAME is the destination CP name for the transmission group.
- TGTPE is the transmission group type. The values for TGTPE can be:
  - APPN Indicates that this TG is an APPN-based TG.
  - INTERCHANGE Indicates that this TG represents a TG from an interchange node to a subarea node.
  - VRTG Indicates that this TG is a virtual-route-based TG.
  - ISL Indicates that this TG is an intersubnet TG.
- HPR corresponds with the HPR start option. The values for HPR can be:
  - RTP Indicates that this node provides RTP-level HPR support.
  - ANR Indicates that this node provides ANR-level HPR support.
  - NA Indicates that this node provides no HPR support.

IST2104I
This message is a header message for information displayed in messages IST1460I and IST1461I.

System action: The session initiation failed.

Operator response: Save the system log for problem determination.

System programmer response: Use the output to determine the cause of the problem. Work with the system
programmers for other networks to determine the cause of failures for resources located in other networks.

**Source:** z/OS Communications Server SNA

**Module:** You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

**Routing code:** 8

**Descriptor code:** 4

---

**IST2105I**  
**name** ACTIVATION FAILED - HPR/IP XCA NODE ALREADY ACTIVE

**Explanation:** VTAM issues this message in response to a VARY ACT command for an XCA major node when there is already an XCA major node active with the PORT statement defining the shared access transport facility (SATF) as MEDIUM=HPRIP (Enterprise Extender). There can be only one active HPR/IP XCA major node in VTAM.

**name** is the name of the major node for which the activation failed.

**System action:** The activation of the XCA major node fails. Processing continues.

**Operator response:** Issue the DISPLAY NET,MAJNODES command to find the HPR/IP XCA major node that is already active.

**System programmer response:** None.

**Source:** z/OS Communications Server SNA

**Module:** You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

**Routing code:** 2

**Descriptor code:** 5

---

**IST2106I**  
MODIFY GR DELETE FAILED FOR **generic_resource**

**Explanation:** This message is the first in a group of messages in response to a MODIFY GR DELETE command that cannot complete successfully. A complete description of the message group follows:

```
IST2106I MODIFY GR DELETE FAILED FOR generic_resource
[IST2107I LOCAL GR ACB IS OPEN]
[IST2108I LOCAL APPLICATION OWNED GR AFFINITY EXISTS]
[IST2109I NON-LOCAL GR INSTANCE SELECTABLE]
[IST2110I NON-LOCAL APPLICATION OWNED GR AFFINITY EXISTS]
[IST2111I NON-LOCAL GR SESSION ACTIVE]
IST314I END
```

**generic_resource** is the generic resource name. The name will be network qualified in the form netid.name

**IST2106I**

This message indicates that the ACB for at least one instance of the generic resource on this host is still open. The generic resource was not deleted.

**IST2107I**

This message indicates that an application-owned affinity exists for a generic resource on this host. The generic resource was not deleted.

**IST2108I**

This message indicates that at least one instance of the generic resource is selectable on another host in the sysplex. Processing of the MODIFY GR DELETE command was completed for instances of the generic resource that reside on this host. The information in the generic resource coupling facility structure was not deleted.
This message indicates that an application-owned affinity exists for a generic resource that resides on another host in the sysplex. Processing of the MODIFY GR DELETE command was completed for instances of the generic resource that reside on this host. The information in the generic resource coupling facility structure was not deleted.

This message indicates that a session is active to an instance of the generic resource on another host in the sysplex. Processing of the MODIFY GR DELETE command was completed for instances of the generic resource that reside on this host. The information in the generic resource coupling facility structure was not deleted.

System action: Processing continues.

Operator response:
1. Issue DISPLAY NET,ID=generic_resource,IDTYPE=GENERIC to list all instances of the generic resource.
2. End all sessions with all instances of the generic resource.
3. Issue DISPLAY NET,GRAFFIN,LU=*,GNAME=generic_resource to display all affinities with the generic resource.
4. Delete all affinities, then close the ACB of all instances of the generic resource. The application is responsible for deleting application-owned affinities after the session is ended. Deleting application-owned affinities might require the application to be active and invocation of an application unique command, or termination of the application. See application-specific documentation to determine how to delete application-owned affinities. VTAM deletes VTAM-owned affinities when sessions end or the application closes its ACB.
5. See the information about removing a generic resource in z/OS Communications Server: SNA Network Implementation Guide for a complete description of generic resource deletion procedure.

System programmer response: For message IST2107I, IST2109I and IST2111I, no action is required.

For message IST2108I and IST2110I, ensure that the application deletes the application-owned affinities using the VTAM API CHANGE ENDAFFIN command. See the information about closing an application program that is a member of a generic resource in z/OS Communications Server: SNA Programming for more information about the VTAM API CHANGE ENDAFFIN command.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

Routing code: 8
Descriptor code: 5

**IST2107I LOCAL GR ACB IS OPEN**

Explanation: This message is part of a group of messages that VTAM issues when a MODIFY GR DELETE command fails. The first message of that group is IST2106I. See the explanation of that message for a complete description of the message group.

Routing code: 8
Descriptor code: 5

**IST2108I LOCAL APPLICATION OWNED GR AFFINITY EXISTS**

Explanation: This message is part of a group of messages that VTAM issues when a MODIFY GR DELETE command fails. The first message of that group is IST2106I. See the explanation of that message for a complete description of the message group.

Routing code: 8
Descriptor code: 5
IST2109I  NON-LOCAL GR INSTANCE SELECTABLE

Explanation:  This message is part of a group of messages that VTAM issues when a MODIFY GR DELETE command fails. The first message of that group is IST2106I. See the explanation of that message for a complete description of the message group.

Routing code:  8
Descriptor code:  5

IST2110I  NON-LOCAL APPLICATION OWNED GR AFFINITY EXISTS

Explanation:  This message is part of a group of messages that VTAM issues when a MODIFY GR DELETE command fails. The first message of that group is IST2106I. See the explanation of that message for a complete description of the message group.

Routing code:  8
Descriptor code:  5

IST2111I  NON-LOCAL GR SESSION ACTIVE

Explanation:  This message is part of a group of messages that VTAM issues when a MODIFY GR DELETE command fails. The first message of that group is IST2106I. See the explanation of that message for a complete description of the message group.

Routing code:  8
Descriptor code:  5

IST2113I  %luame SESSION DEACTIVATED - EXPFLTRM THRESHOLD EXCEEDED

Explanation:  This message is issued when VTAM detects an LU-LU session that has met or exceeded the threshold defined by the EXPFLTRM start option. The EXPFLTRM start option defines the number of expedited data flow control (DFC) and session control (SC) request units (RU) that a boundary-attached LU can send without receiving a response from the partner LU.

%luame is the name of the LU whose LU-LU session is deactivated

System action:  The LU-LU session is deactivated.

Operator response:  Contact the system programmer.

System programmer response:  If this message is issued repeatedly for the same LU, the LU should be investigated for possible emulator or hardware problems. Alternatively, if the EXPFLTRM start option value is too small for your environment, you can increase the defined value of the EXPFLTRM threshold in the ATCSTRxx start option file used to initialize VTAM. See the EXPFLTRM start option information in z/OS Communications Server: SNA Resource Definition Reference for more information.

The EXPFLTRM start option value can be modified to a larger value with the MODIFY VTAMOPTS command. See the MODIFY VTAMOPTS command information in z/OS Communications Server: SNA Operation

Source:  z/OS Communications Server SNA

Module:  You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 8 for more information about the MSGMOD start option.

Routing code:  2
Descriptor code:  5

IST2114I  LIVTIME: INITIAL = init_value MAXIMUM = max_value CURRENT = cur_value

Explanation:  VTAM issues this message in response to a DISPLAY ID command for a switched PU associated with an Enterprise Extender connection. VTAM also issues this message as part a message group in response to a DISPLAY EE command. This message group begins with message IST2001I. See the explanation of that message for a complete description.
IST2116I

This message displays the initial, maximum and current LIVTIME values for an Enterprise Extender connection. See the information about the external communication adapter (XCA) major node in z/OS Communications Server: SNA Resource Definition Reference for more information about the LIVTIME operand for Enterprise Extender.

init_value is the initial LIVTIME value, in seconds, defined for Enterprise Extender connections.

max_value is the maximum LIVTIME value, in seconds, defined for Enterprise Extender connections.

cur_value is the current LIVTIME value, in seconds, being used by this Enterprise Extender connection.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.

Routing code: 2

Descriptor code: 5

IST2116I STALL DETECTED FOR XCF TRLE trlename TO cpname

Explanation: This unsolicited message is issued when VTAM detects that outbound data flow for an XCF connection stalled for more than 180 seconds. The data flow is considered stalled because this node sent a pacing request to the partner node and a response was not received. This might be an indication of an unresponsive partner or an internal software problem.

trlename is the name of the XCF TRLE.

cpname is the CP name of the partner node for this XCF connection.

System action: All outbound data flow across this XCF connection is suspended until the stall is alleviated. If the stall persists, message IST2117I is issued every 60 seconds until the stall is alleviated. If the pacing response is received from the partner node, the stall is considered alleviated and message IST2118I is issued.

When more than 15 minutes has elapsed since a pacing request was transmitted to the partner node, the XCF connection will be ended. When the connection is ended, message IST1578I is issued to indicate that an inoperative condition was detected. VTAM automatically attempts to re-establish connectivity to the XCF partner.

Operator response: If the XCF data flow stall persists, VTAM or CSM storage might increase. To alleviate the storage problem, deactivate all of the users of this XCF connection by performing the following actions:

1. Locate users of the device by issuing the D NET,ID=trlename command to obtain a list of the upper-layer protocols (ulp_id) using the XCF facility. Obtain the ulp_id from message IST1717I in the display output.
   - If VTAM is using this XCF TRLE for SNA traffic, the ulp_id represents SNA XCF PU name.
   - If TCP/IP is using the XCF TRLE for IP traffic, the ulp_id represents the TCP/IP job name.

2. Deactivate the device for SNA traffic by issuing the V NET,INACT,ID=ulp_id,TYPE=FORCE command.

3. Deactivate the device for IP traffic by performing the following steps on each TCP/IP stack that uses this device:
   - For predefined and dynamic IPv4 XCF connections, issue the V TCPIP,ulp_id,STOP,cpname command.
   - For predefined IPv6 XCF connections, issue the V TCPIP,ulp_id,STOP,intf_name command where intf_name is the user defined INTERFACE name for the IPv6 XCF connection. If the intf_name is not known, issue the D TCPIP,ulp_id,NETSTAT,DEVLINKS command. Locate the "DEVNAME: cpname" line of output. If found, locate the associated "INTFNAME: intf_name" line in the output, which follows the DEVNAME line.
   - For dynamic IPv6 XCF connections, issue the V TCPIP,ulp_id,STOP,EZ6XCFnn command where nn is the value of the MVS system symbol (SYSCLONE) of the partner node for this XCF connection.

System programmer response: First, investigate if the partner node is overloaded or involved in activity that will prevent it from responding. If XCF data flow stalls are prevalent and persistent, take a dump of both nodes at the next occurrence and contact the IBM software support center.

Source: z/OS Communications Server SNA
Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

Routing code: 2
Descriptor code: 4

IST2117I  STALL CONTINUES FOR XCF TRLE trlename TO cpname

Explanation: This unsolicited message is issued at 60-second intervals as long as data flow continues to be stalled for an XCF connection. The stall was originally reported in an IST2116I message. The data flow is considered stalled because this node sent a pacing request to the partner node and a response has not been received. This might be an indication of an unresponsive partner or an internal software problem.

trlename is the name of the XCF TRLE.

cpname is the CP name of the partner node for this XCF connection.

System action: All outbound data flow across this XCF connection is suspended until the stall is alleviated. If the stall persists, this message is issued every 60 seconds until the stall is alleviated. If the pacing response is received from the partner node, the stall is considered alleviated and message IST2118I is issued.

When more than 15 minutes has elapsed since a pacing request was transmitted to the partner node, the XCF connection will be ended. When the connection is ended, message IST1578I is issued to indicate that an inoperative condition was detected. VTAM automatically attempts to re-establish connectivity to the XCF partner.

Operator response: If the XCF data flow stall persists, VTAM or CSM storage might increase. To alleviate the storage problem, deactivate all of the users of this XCF connection by performing the following actions:

1. Locate users of the device by issuing the D NET,ID=trlename command to obtain a list of the upper-layer protocols (ulp_id) using the XCF facility. Obtain the ulp_id from message IST1717I in the display output.
   • If VTAM is using this XCF TRLE for SNA traffic, the ulp_id represents SNA XCF PU name.
   • If TCP/IP is using the XCF TRLE for IP traffic, the ulp_id represents the TCP/IP job name.

2. Deactivate the device for SNA traffic by issuing the V NET,INACT,ID=ulp_id,TYPE=FORCE command.

3. Deactivate the device for IP traffic by performing the following steps on each TCP/IP stack that uses this device:
   • For predefined and dynamic IPv4 XCF connections, issue the V TCPIP,ulp_id,STOP,cpname command.
   • For predefined IPv6 XCF connections, issue the V TCPIP,ulp_id,STOP,intf_name command where intf_name is the user defined INTERFACE name for the IPv6 XCF connection. If the intf_name is not known, issue the D TCPIP,ulp_id,NETSTAT,DEVLINKS command. Locate the "DEVNAME: cpname" line of output. If found, locate the associated "INTERFACE: intf_name" line in the output, which follows the DEVNAME line.
   • For dynamic IPv6 XCF connections, issue the V TCPIP,ulp_id,STOP,EZ6XCFnn command where nn is the value of the MVS system symbol (SYSCONE) of the partner node for this XCF connection.

System programmer response: First, investigate if the partner node is overloaded or involved in activity that will prevent it from responding. If XCF data flow stalls are prevalent and persistent, take a dump of both nodes at the next occurrence, then contact the IBM software support center.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

Routing code: 2
Descriptor code: 4

IST2118I  STALL ALLEVIATED FOR XCF TRLE trlename TO cpname

Explanation: This unsolicited message is issued when XCF detects that a data flow stall for an XCF connection has been alleviated. The stall was originally reported in an IST2116I message.

trlename is the name of the XCF TRLE.

cpname is the CP name of the partner node for this XCF connection.
IST2119I

System action: Outbound data flow for this XCF connection is resumed.

Operator response: None.

System programmer response: None.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "[Adding the originating module to the message text]" for more information about the MSGMOD start option.

Routing code: 2

Descriptor code: 4

IST2119I ENTERPRISE EXTENDER DISPLAY CORRELATOR: correlator

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY EE or DISPLAY EEDIAG command that specifies HOSTNAME filters, or in response to a DISPLAY EEDIAG, TEST=YES command. This message is the first in various message groups. This message can also be contained in other message groups headed by message IST2001I, IST2002I, IST2065I, IST2066I, or IST2130I. See the explanation of those messages for a complete description. A complete description of the message groups headed by this message follows.

The following message group is issued when VTAM accepts the DISPLAY EE or DISPLAY EEDIAG command that specifies HOSTNAME filters:

IST2119I ENTERPRISE EXTENDER DISPLAY CORRELATOR: correlator
[IST2067I EEDIAG DISPLAY ISSUED ON date AT time]
IST2120I HOSTNAME RESOLUTION IN PROGRESS
IST314I END

The following message group is issued by VTAM when host name resolution processing successfully completes for a DISPLAY EE command that specifies HOSTNAME filters:

IST2119I ENTERPRISE EXTENDER DISPLAY CORRELATOR: correlator
IST2121I HOSTNAME RESOLUTION COMPLETE
[IST1680I type IP ADDRESS ip_address]
[IST1910I LOCAL HOSTNAME value]
[IST1911I value]
[IST1680I type IP ADDRESS ip_address]
[IST1909I REMOTE HOSTNAME value]
[IST1911I value]
IST314I END

The following message group is issued by VTAM when host name resolution processing successfully completes for a DISPLAY EEDIAG command that specifies HOSTNAME filters:

IST2119I ENTERPRISE EXTENDER DISPLAY CORRELATOR: correlator
IST2121I HOSTNAME RESOLUTION COMPLETE
[IST1680I type IP ADDRESS ip_address]
[IST1910I LOCAL HOSTNAME value]
[IST1911I value]
[IST1680I type IP ADDRESS ip_address]
[IST1909I REMOTE HOSTNAME value]
[IST1911I value]
[IST2023I CONNECTED TO LINE linename]
[IST2126I CONNECTIVITY TEST IN PROGRESS]
IST314I END

The following message group is issued by VTAM when host name resolution failure occurs for a DISPLAY EE or DISPLAY EEDIAG command that specifies HOSTNAME filters:

IST2119I ENTERPRISE EXTENDER DISPLAY CORRELATOR: correlator
IST2121I HOSTNAME RESOLUTION COMPLETE
[IST1893I NAME-TO-ADDRESS RESOLUTION FAILED]
[IST1680I type IP ADDRESS ip_address]
[IST1910I LOCAL HOSTNAME value]
[IST1911I value]
The following message group is issued by VTAM when it accepts a DISPLAY EEDIAG,TEST=YES command that did not specify HOSTNAME filters:

IST2119I ENTERPRISE EXTENDER DISPLAY CORRELATOR: correlator
IST2067I EEDIAG DISPLAY ISSUED ON date AT time
IST1680I type IP ADDRESS ip_address
IST2023I CONNECTED TO LINE linename
IST2126I CONNECTIVITY TEST IN PROGRESS
IST314I END

IST1680I

• This message is displayed for the following reasons:
  - When host name resolution is required to process the display command and the name-to-address function fails for the local host name, this message is issued to display the remote IP address. This IP address might have been specified as input using the IPADDR filter, or it might have been acquired through the host name resolution function.
  - When host name resolution is required to process the display command and the name-to-address function fails for the remote host name, this message is issued to display the local IP address. This IP address might have been specified as input using the IPADDR filter, or it might have been acquired through the host name resolution function.
  - When a D NET,EEDIAG,TEST=YES command is entered that did not specify host name filters, this message is issued to display the local and remote IP addresses used for the EE connectivity test. In this case, the first occurrence of this message identifies the local IP address and the second occurrence identifies the remote IP address.
• In the message text:
  - type
    Indicates which IP address is being displayed. The value is either LOCAL or REMOTE.
  - ip_address
    Indicates the IP address.

IST1893I

• This message is the first in a group of messages displayed when resolution of a host name into an IP address is attempted but was unsuccessful.
• The following message group is issued by VTAM when host name resolution fails for the local host name:

IST1893I NAME-TO-ADDRESS RESOLUTION FAILED
IST1910I LOCAL HOSTNAME value
[IST1911I value]
[IST1680I type IP ADDRESS ip_address]
[IST1909I REMOTE HOSTNAME value]
[IST1911I value]
IST314I END

Result: If host name resolution fails for the local host name, VTAM also displays the information available for the REMOTE filter. This information is presented in the optional messages IST1680I, IST1909I, and IST1911I.
• The following message group is issued by VTAM when host name resolution fails for the remote host name:

IST1893I NAME-TO-ADDRESS RESOLUTION FAILED
IST1909I REMOTE HOSTNAME value
[IST1911I value]
IST314I END
**Result:** If host name resolution fails for the remote host name, VTAM also displays the information available for the LOCAL filter. This information is presented in optional messages IST1680I, IST1910I, and IST1911I.

**IST1909I**
- In the message text:
  
  value
  The host name supplied to the name-to-address function that is used to acquire the remote IP address. The remote IP address is then used to process the display command. If the host name is longer than 44 characters, then the first 44 characters are displayed as the value value and the remaining characters are displayed in one or more IST1911I messages.

**IST1910I**
- In the message text:
  
  value
  The host name supplied to the name-to-address function that is used to acquire the local IP address. The local IP address is then used in the processing of the display command. If the host name is longer than 45 characters, then the first 45 characters are displayed as the value value and the remaining characters are displayed in one or more IST1911I messages.

**IST1911I**
- In the message text:
  
  value
  The continuation of the value value on messages IST1909I and IST1910I. Message IST1911I is repeated as many times as necessary to display the entire character string.

**IST2023I**
- In the message text:
  
  linename
  The name of the Enterprise Extender line that VTAM is using to perform an Enterprise Extender connectivity test.

**IST2067I**

The date and time values specify when this DISPLAY EEDIAG command was issued. See the DATE and TIME formats on page 6 for information about the date and time values.

**IST2119I**
- In the message text:
  
  correlator
  A unique display correlator associated with this DISPLAY EE or DISPLAY EEDIAG command, which requires host name resolution. This correlator can be used to locate the various message groups associated with this display command.

**IST2120I**

This message indicates that name-to-address resolution for the host name filters has been initiated. When the host name resolution completes, another IST2119I message group is issued, which includes message IST2121I.

**IST2121I**

This message indicates that name-to-address resolution for the host name filters has completed.

**IST2126I**

This message is issued when VTAM initiates an Enterprise Extender connectivity test. When the connectivity test completes, a message group headed by IST2130I is issued.

**System action:** If message IST1893I is issued to report a host name resolution failure, the DISPLAY EE or DISPLAY EEDIAG command is not performed. Otherwise, the DISPLAY EE or DISPLAY EEDIAG command processing continues.
Operator response: If message IST1893I is issued to report a host name resolution failure, save the system log for problem determination if the correct host name value is being resolved. If you specified an incorrect host name, specify the correct host name and issue the display command again.

System programmer response: If message IST1893I is issued to report a host name resolution failure, and the correct host name is being specified on the display command, ensure the following:

- The name-to-address resolution mapping for the host name yields the correct static VIPA address (if on a z/OS host) of the node that owns the host name.
- If network address translation (NAT) is in use, the name-to-address resolution mapping for the host name yields the correct NAT address to ultimately reach the target static VIPA address of the node that owns the host name.

If the resolution is not correct, update the DNS zone files or the appropriate local hosts files with the corrected name-to-address resolution. If the resolution is intended to yield an IPv6 address, ensure that the TCP/IP stack is enabled for IPv6 processing so that the resolver searches for IPv6 addresses. See the information about resolvers in z/OS Communications Server: IP Configuration Guide for more information about the resolver function.

User response: Not applicable.

Problem determination: Not applicable.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

Routing code: 2

Descriptor code: 5

Example: None.

IST2120I HOSTNAME RESOLUTION IN PROGRESS

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY EE or DISPLAY EEDIAG command that specified HOSTNAME filters. This message indicates that name-to-address resolution of the host name filters has been initiated. The first message in this message group is IST2119I. See the explanation of that message for a complete description.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

Routing code: 2

Descriptor code: 5

IST2121I HOSTNAME RESOLUTION COMPLETE

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY EE or DISPLAY EEDIAG command that specified HOSTNAME filters. This message indicates that name-to-address resolution of the host name filters has completed. The first message in this message group is IST2119I. See the explanation of that message for a complete description.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

Routing code: 2

Descriptor code: 5
**IST2122I • IST2123I**

**IST2122I**  
EE DISPLAY REJECTED - MAXHNRES LIMIT EXCEEDED

**Explanation:** A DISPLAY EE or DISPLAY EEDIAG command that specified HOSTNAME filters was entered. The number of host name resolutions required to process this display command would cause VTAM to exceed the MAXHNRES start option value.

**System action:** The DISPLAY EE or DISPLAY EEDIAG command is not performed.

**Operator response:** Wait until some of the previous display commands requiring host name resolution complete, then issue the display command again. The following commands might also be useful:

- The D NET,VTAMOPTS,OPTION=MAXHNRES command displays the current value of this start option. If the value is not defined large enough for your system, contact your system programmer to increase the value defined for the MAXHNRES start option.
- The D NET,EEDIAG,TEST=PENDING command queries the display commands that are pending host name resolution results.


**System programmer response:** If the defined or defaulted value of the MAXHNRES start option is not large enough for your system needs, code your preferred MAXHNRES start option value in the ATCSTRxx start list and restart VTAM. See the MAXHNRES start option in the [z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com/docs/en/zos?topic=ist2122i-maxhnres-limit-exceeded) for more information.

**User response:** Not applicable.

**Problem determination:** Not applicable.

**Source:** z/OS Communications Server SNA

**Module:** You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page [3](#) for more information about the MSGMOD start option.

**Routing code:** 2

**Descriptor code:** 5

**Example:** None.

**IST2123I**  
DIAL FAILED FOR EE PU puname - EXISTING CONNECTION FOUND

**Explanation:** This message is the first in a group of messages that VTAM issues when a dial fails for an Enterprise Extender connection. The complete description of the message group follows.

IST2123I DIAL FAILED FOR EE PU puname - EXISTING CONNECTION FOUND
IST1680I type IP ADDRESS ip_address
IST1680I type IP ADDRESS ip_address
IST314I END

IST1680I

- This message is issued to display the IP addresses of the failing connection. In the message text:
  
  **type**
  
  Indicates which IP address is being displayed. The value is either LOCAL or REMOTE.

  **ip_address**
  
  The IP address.

IST2123I

- This message is issued when a dial request for a new EE connection fails. An existing connection was found with the same local and remote IP addresses. In the message text:
  
  **puname**
  
  The name of the predefined switch PU that initiated the dial.

**System action:** The EE dial request fails, but the existing EE connection is unaffected.

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Operator response: Contact the system programmer.

**System programmer response:** Correct the switch major node PU definitions so that multiple connections are not defined to have the same local and remote IP addresses between two EE hosts. See [Rule for multiple EE connections in z/OS Communications Server: SNA Network Implementation Guide](https://www.ibm.com) for more information about how to correctly define multiple EE connections between two adjacent CPs.

User response: Not applicable.

**Problem determination:** Not applicable.

**Source:** z/OS Communications Server SNA

**Module:** You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](https://www.ibm.com) for more information about the MSGMOD start option.

Routing code: 2

Descriptor code: 5

Example: None.

-------

**IST2124I** REMOTE IPADDR OR HOSTNAME IS ALSO REQUIRED

**Explanation:** VTAM issues this message in response to a DISPLAY EEDIAG,TEST=YES command that specified only a local IPADDR filter or local HOSTNAME filter. To perform an EE connectivity test, the EEDIAG command filters specified on the EE connectivity test must uniquely identify the EE endpoints you want to test.

**System action:** The DISPLAY EEDIAG,TEST=YES command is not performed.

**Operator response:** Specify a remote IPADDR filter or remote HOSTNAME filter in addition to the EEDIAG filter already specified on the DISPLAY EEDIAG,TEST=YES command. Optionally, you can specify the ID filter on the DISPLAY EEDIAG,TEST=YES command instead of the IPADDR and HOSTNAME filters. See [z/OS Communications Server: SNA Operation](https://www.ibm.com) for more information about commands and command syntax.

**System programmer response:** None.

User response: Not applicable.

**Problem determination:** Not applicable.

**Source:** z/OS Communications Server SNA

**Module:** You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [“Adding the originating module to the message text” on page 5](https://www.ibm.com) for more information about the MSGMOD start option.

Routing code: 2

Descriptor code: 5

Example: None.

-------

**IST2125I** LOCAL IPADDR OR HOSTNAME IS ALSO REQUIRED

**Explanation:** VTAM issues this message in response to a DISPLAY EEDIAG,TEST=YES command that specified only a remote IPADDR filter or remote HOSTNAME filter. To perform an EE connectivity test, the EEDIAG command filters specified on the EE connectivity test must uniquely identify the EE endpoints you want to test.

**System action:** The DISPLAY EEDIAG,TEST=YES command is not performed.

**Operator response:** Specify a local IPADDR filter or local HOSTNAME filter in addition to the EEDIAG filter already specified on the DISPLAY EEDIAG,TEST=YES command. You can specify the ID filter on the DISPLAY EEDIAG,TEST=YES command instead of the IPADDR and HOSTNAME filters. See [z/OS Communications Server: SNA Operation](https://www.ibm.com) for more information about commands and command syntax.

**System programmer response:** None.

User response: Not applicable.
Problem determination: Not applicable.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.

Routing code: 2

Descriptor code: 5

Example: None.

IST2126I  CONNECTIVITY TEST IN PROGRESS

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY EEDIAG,TEST=YES command. This message indicates that the EE connectivity test request has been initiated. The first message in this message group is IST2119I. See the explanation of that message for a complete description.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.

Routing code: 2

Descriptor code: 5

IST2127I  CONNECTIVITY TEST FAILED - NO DIAL OUT LINE AVAILABLE FOR EE

Explanation: A DISPLAY EEDIAG,TEST=YES command was issued to perform an Enterprise Extender connectivity test, but no dial out line was available. At least one EE line associated with the local static VIPA address you are testing must be active and available for use. The EE connectivity test requires an available line to conduct the test even if the connection you are testing has an active EE connection over another EE line.

System action: The DISPLAY EEDIAG,TEST=YES command is not performed.

Operator response: To use the EE connectivity test, perform the following actions to activate an Enterprise Extender line:

- If EE lines in the EE XCA major node group associated with the local static VIPA address are defined but not currently active, issue a V NET,ACT,ID=groupname,SCOPE=ALL command to activate these lines.
- If lines were activated, issue the DISPLAY EEDIAG,TEST=YES command again.
- If no lines are available to perform the EE connectivity test, contact your system programmer.

System programmer response: Update the EE XCA major node to define additional lines that you need to use the EE connectivity test.

- If you defined a new group with additional lines, the operator can dynamically activate a new group in the EE XCA major node. Issue the V NET,ACT,ID=eexcmajornode,UPDATE=ALL command. See z/OS Communications Server: SNA Operation for more information about using the VARY command.
- If you defined additional lines to an existing group, activating the new lines might be disruptive to existing EE connections. If this is acceptable, the operator can perform one of the following to activate the newly defined lines:
  - To dynamically update an EE XCA major node group, issue the V NET,INACT,ID=eegroupname,F command to deactivate all existing lines in the modified group. When the EE group is inactive, issue the V NET,ACT,ID=eexcmajornode,UPDATE=ALL command to dynamically update the group. Issue a V NET,INACT,ID=eexcmajornode,F command to deactivate Enterprise Extender. See z/OS Communications Server: SNA Operation for more information about using the VARY command.
  - Issue a V NET,ACT,ID=eexcmajornode,SCOPE=ALL command to activate the modified Enterprise Extender definitions.

When the lines are defined and activated, the operator can issue the DISPLAY EEDIAG,TEST=YES command again.

User response: Not applicable.
Problem determination: Not applicable.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.

Routing code: 2

Descriptor code: 5

Example: None.

IST2128I CONNECTIVITY TEST FAILED - EE NOT AVAILABLE FOR LOCAL IPADDR

Explanation: A DISPLAY EEDIAG,TEST=YES command was issued to perform an Enterprise Extender connectivity test. VTAM detected that no EE lines associated with the local static VIPA address have been activated. At least one EE line associated with the local static VIPA address you are testing must be active and available for use.

System action: The DISPLAY EEDIAG,TEST=YES command is not performed.

Operator response: To use the EE connectivity test, perform the following actions to activate an Enterprise Extender line:

- If a group in the EE XCA major node associated with the local static VIPA address is defined but is not active, issue a V NET,ACT,ID=groupname,SCOPE=ALL command to activate these lines.
- If a group was successfully activated, issue the DISPLAY EEDIAG,TEST=YES command again.
- If a group in the EE XCA major node is not defined, contact the system programmer.

System programmer response: If no group exists in the EE XCA major node that is associated with the local static VIPA address, update the EE XCA major node to define such a group. Then the operator can issue one the following commands to activate the new definitions:

- To dynamically update the EE XCA major node group, issue the V NET,ACT,ID=eexcamajornode,UPDATE=ALL command. See z/OS Communications Server: SNA Operation for more information about using the VARY command.
- This method for activating the new group might be disruptive if existing EE connections are active. Issue a V NET,INACT,ID=eexcamajornode,F command to deactivate Enterprise Extender. Issue a V NET,ACT,ID=eexcamajornode,SCOPE=ALL command to activate your modified Enterprise Extender definitions.

User response: Not applicable.

Problem determination: Not applicable.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.

Routing code: 2

Descriptor code: 5

Example: None.

IST2129I CONNECTIVITY TEST FAILED - MISMATCH OF IP ADDRESS FAMILY

Explanation: A DISPLAY EEDIAG,TEST=YES command was issued to perform an Enterprise Extender connectivity test. This message is the first message in a group of messages displayed when the test fails because the remote IP address is not in the same IP address family as the local IP address; for example, the local IP address is an IPv4 address and the remote IP address is an IPv6 address. If the addresses are in different families, the Enterprise Extender connection cannot be established. A complete description of the message group follows.

IST2129I CONNECTIVITY TEST FAILED - MISMATCH OF IP ADDRESS FAMILY
IST1680I type IP ADDRESS ip_address
IST1909I REMOTE HOSTNAME value
IST1911I value

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IST2129I

IST1680I  type IP ADDRESS ip_address
[IST1910I  LOCAL HOSTNAME value]
[IST1911I  value]
IST314I  END

IST1680I
• In the message text:
  
  type
  Identifies the IP address that is displayed. The type value is either LOCAL or REMOTE..

  ip_address
  Either the remote IP address or the local IP address. The first instance of the IST1680I message displays the local IP address, and the second instance of the IST1680I message displays the remote IP address.

IST1909I
• In the message text:
  
  value
  The host name, owned by a target remote node, that was used to acquire the remote IP address as part of name-to-address resolution. If the host name is longer than 44 characters, then the first 44 characters are displayed as the value value and the remaining characters are displayed in one or more IST1911I messages.

IST1910I
• In the message text:
  
  value
  The host name used to acquire the local static VIPA address that is used as part of the attempted route determination. If the host name is longer than 45 characters, then the first 45 characters are displayed as the value value and the remaining characters are displayed in one or more IST1911I messages.

IST1911I
• In the message text:
  
  value
  The continuation of the value value on message IST1909I or IST1910I. Message IST1911I is repeated as many times as necessary to display the entire character string.

System action:  The DISPLAY EEDIAG,TEST=YES command is not performed.

Operator response:  If both a local and remote IP address are supplied as input to the D NET,EEDIAG,TEST=YES command, enter the command again specifying both IPADDR filters from the same IP address family. Otherwise, save the console log for problem determination.

System programmer response:  The Enterprise Extender connectivity test cannot be performed if the local and remote IP addresses are not in the same address family. If the correct host name is being specified on the display command, verify the following:
• The name-to-address resolution mapping for the host name yields the expected static VIPA address (if on a z/OS host) of the node that owns the host name.
• If network address translation (NAT) is in use, the name-to-address resolution mapping for the host name yields the correct NAT address to ultimately reach the target static VIPA address of the node that owns the host name.

If the resolution is not correct, update the DNS zone files or the appropriate local host files with the corrected name-to-address resolution. If the resolution is intended to yield an IPv6 address, ensure that the TCP/IP stack is enabled for IPv6 processing so that the resolver searches for IPv6 addresses. See the information about resolvers in z/OS Communications Server: IP Configuration Guide for more information about the resolver function.

User response:  Not applicable.

Problem determination:  Not applicable.

Source:  z/OS Communications Server SNA

Module:  You can display the module that issues a SNA message in the message by setting the MSGMOD start
option to YES. See "Adding the originating module to the message text" on page 5 for more information about the
MSGMOD start option.

Routing code: 2
Descriptor code: 5
Example: None.

IST2130I ENTERPRISE EXTENDER CONNECTIVITY TEST INFORMATION

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY
EEDIAG,TEST=YES command. This message is the first in a group of messages. The full description of the message
group follows the example.

IST2130I ENTERPRISE EXTENDER CONNECTIVITY TEST INFORMATION
IST2119I ENTERPRISE EXTENDER DISPLAY CORRELATOR: correlator
IST2131I EEDIAG DISPLAY COMPLETED ON date AT time
IST2132I LDLC PROBE VERSIONS: VTAM = local_version PARTNER = remote_version
IST680I type IP ADDRESS ip_address
IST680I type IP ADDRESS ip_address
[IST2224I ENTERPRISE EXTENDER ROUTING POLICY INFORMATION]
[IST2225I PORT ROUTE TABLE ROUTING RULE]
[IST2226I portnum route_table routing_rule]
IST924I -------------------------------------------------------------
IST2133I INTFNAME: intfname INTFTYPE: intftype
IST2134I Connectivity successful PORT: portnum
IST2135I Connectivity Unsuccessful SENSE: sense PORT: portnum
IST2136I Connectivity test ended - maximum time limit exceeded
IST2137I Connectivity not tested - route not applicable PORT: portnum
IST2138I hop ipv4address flags RTT: time
IST2139I hop ipv6address flags RTT: time
IST924I -------------------------------------------------------------
IST2139I Connectivity test results displayed for tested_routes OF total_routes ROUTES
IST314I END

IST924I
This message is a line separator between message IST2133I subgroups.

IST1680I
• The first occurrence of this message identifies the local IP address used for the Enterprise Extender (EE)
  connectivity test. The second occurrence identifies the remote IP address used for the EE connectivity test.
• In the message text:
  - type
    Indicates which IP address is being displayed. The type value is either LOCAL or REMOTE.
  - ip_address
    The IP address.

IST2119I
• In the message text:
  - correlator
    A unique display correlator associated with this DISPLAY EEDIAG command. This correlator can be used to
    locate the various message groups associated with this DISPLAY EEDIAG command.

IST2131I
The date and time values specify when the EE connectivity test completed. See "DATE and TIME formats" on page
6 for information about the date and time values.

IST2132I
• In the message text:
**local_version**

The version of the Logical Data Link Control (LDLC) probe command supported by Communications Server for the EE connectivity test.

**remote_version**

The version of the Logical Data Link Control (LDLC) probe command supported by the partner EE endpoint.

**IST2133I**

- This is the first message of a message subgroup. The message subgroup is displayed for each TCP/IP interface that has a valid path to the remote IP address. When LIST=DETAIL is specified, message IST2137I (IPv4) or IST2138I (IPv6) is repeated for each time-to-live (TTL) hop for which an LDLC probe command was sent. When LIST=SUMMARY is specified or is the default value on the DISPLAY EEDIAG command, message IST2137I or IST2138I is displayed only once with the information related to the last hop that sent a reply to the LDLC probe command.

- In the message text:

  **intfname**

  The name of the TCP/IP interface that was used to perform the EE connectivity test.

  **intftype**

  The device type that was configured on the TCP/IP profile DEVICE statement or that was generated based on the INTERFACE statement.

- The IST2133I message subgroup has various formats. The following examples show both IPv4 and IPv6 formats.

  • Successful IPv4 IST2133I message subgroup format:

    IST2133I INTFNAME: intfname INTFTYPE: intftype
    IST2134I CONNECTIVITY SUCCESSFUL PORT: portnum
    IST2137I hop ipv4address flags RTT: time

  • Unsuccessful IPv4 IST2133I message subgroup format:

    IST2133I INTFNAME: intfname INTFTYPE: intftype
    IST2135I CONNECTIVITY UNSUCCESSFUL SENSE: sense PORT: portnum
    [IST2136I CONNECTIVITY TEST ENDED - MAXIMUM TIME LIMIT EXCEEDED]
    IST2137I hop ipv4address flags RTT: time

  • Successful IPv6 IST2133I message subgroup format:

    IST2133I INTFNAME: intfname INTFTYPE: intftype
    IST2134I CONNECTIVITY SUCCESSFUL PORT: portnum
    IST2138I hop ipv6address flags RTT: time

  • Unsuccessful IPv6 IST2133I message subgroup format:

    IST2133I INTFNAME: intfname INTFTYPE: intftype
    IST2135I CONNECTIVITY UNSUCCESSFUL SENSE: sense PORT: portnum
    [IST2136I CONNECTIVITY TEST ENDED - MAXIMUM TIME LIMIT EXCEEDED]
    IST2138I hop ipv6address flags RTT: time

**IST2134I**

- This message indicates that the EE connectivity test to the partner EE endpoint was successful for this specific EE port and TCP/IP interface.

- In the message text:

  **portnum**

  The Enterprise Extender User Datagram Protocol (UDP) port that was tested. The default EE port numbers are as follows:

  12000 - Signal Priority
  12001 - Network Priority
  12002 - High Priority
  12003 - Medium Priority
  12004 - Low Priority

**IST2135I**
This message indicates that the EE connectivity test to the partner EE endpoint was unsuccessful for this specific EE port and TCP/IP interface. This message might be issued if the test was unable to contact the partner EE node, or if a TTL hop in the route returned an unexpected Internet Control Message Protocol (ICMP) message in response to the LDLC probe command.

In the message text:

**sense**

The SNA sense code that was sent in the LDLC probe response from the Enterprise Extender partner. The sense might display as ***NA*** if a response to the LDLC probe is not received from the EE partner. If a SNA sense code is displayed, see SNA sense codes in z/OS Communications Server: IP and SNA Codes for more information about this sense code.

**portnum**

The Enterprise Extender User Datagram Protocol (UDP) port that was tested. The default EE port numbers are as follows:

12000 - Signal Priority
12001 - Network Priority
12002 - High Priority
12003 - Medium Priority
12004 - Low Priority

**IST2136I**

This is an optional message in the IST2133I message subgroup that is issued when the EE connectivity test is unsuccessful. This message indicates that the EE connectivity test exceeded the amount of time allowed for the test to run. This time limit is specified or is the default value on the MAXTIME operand on the D NET,EEDIAG,TEST=YES command.

**IST2137I**

- This message displays information gathered during the EE connectivity test over an IPv4 route.
- When LIST=SUMMARY is specified or is the default value on the DISPLAY EEDIAG command, this message is displayed only once with the information related to a reply to the LDLC probe command.
- When LIST=DETAIL is specified on the DISPLAY EEDIAG command, this message is displayed for each TTL hop in the route to the EE partner. To reduce repetitive information in the detailed display, when a TTL hop is unresponsive to the LDLC probe, message IST2137I is displayed only for the first unresponsive hop and the last unresponsive hop. In these cases, all hops in between were also unresponsive to the LDLC probe command.
- In the message text:

**hop**

The TTL hop count used in the LDLC probe command. The TTL hop count is *NA (not applicable) when LIST=SUMMARY is specified.

**ipv4addr**

The source IPv4 address from the ICMP response. The source IPv4 address might display as an asterisk (*) if the TTL hop did not respond to the LDLC probes.

**flags**

This is an optional field. The flags field has one of two forms:

**t-ccc**

The t value is a representative character of the error detected in response to the LDLC probe and the ccc value is the specific code associated with an ICMP message type (if the error detected is not associated with an ICMP message then the code value will be 0).

The error message type is displayed as one of the following:

- D - Destination unreachable ICMP type 3
- P - Parameter problem ICMP type 12
- Q - Source quench ICMP type 4
- H - Hop limit was exceeded. A maximum of 255 hops can be tested when performing the EE connectivity test. The EE connectivity test will terminate for the route being tested.
L - A route loop condition was detected. This specific hop was already found as a previous hop for this route being tested. Because a route loop condition was detected the EE connectivity test will terminate for the route being tested.

For a list of the ICMP types and codes, go to .

(a) The a value is the number of LDLC probe attempts, if more than one.

time
One of the following:
– The round-trip time required for the LDLC probe to be sent to an intermediate hop for which an ICMP response was received
– The round-trip time required for the LDLC probe to be sent to the destination hop for which either an ICMP response or LDLC probe response was received.

This field is displayed in milliseconds (ms). If the time field displays as 0, the round-trip time was less than 1 millisecond.

Result: The round-trip time for intermediate hops is computed when an ICMP message is received from the intermediate hop. Even though the round-trip time calculated to the Enterprise Extender remote partner is based on the receipt of a UDP datagram responding to the query that was received, intermediate hops might delay the returning of an ICMP message. The remote Enterprise Extender partner should always respond immediately to the query received. Therefore, in some instances the round-trip time to the remote Enterprise Extender node might be less than the value computed to intermediate hops.

IST2138I
• This message displays information gathered during the EE connectivity test over an IPv6 route.
• When LIST=SUMMARY is specified or is the default value on the DISPLAY EEDIAG command, this message is displayed only once. The information displayed is related to the reply from the last hop that received the LDLC probe command.
• When LIST=DETAIL is specified on the DISPLAY EEDIAG command, this message is displayed for each TTL hop in the route to the EE partner. To reduce repetitive information in the detailed display, when a TTL hop is unresponsive to the LDLC probe, message IST2138I is displayed only for the first unresponsive hop and the last unresponsive hop. In these cases, all hops in between were also unresponsive to the LDLC probe command.
• In the message text:

hop
The TTL hop count used in the LDLC probe command. The TTL hop count is *NA when LIST=SUMMARY is specified.

ipv6addr
The source IPv6 address from the ICMPv6 response. The source IPv6 address might display as an asterisk (*) if the TTL hop did not respond to the LDLC probes.

flags
This is an optional field. The flags field has one of two forms:

\text{t-ccc} \quad \text{The t value is a representative character of the ICMPv6 message type returned in response to the LDLC probe and the ccc value is the specific code associated with the ICMPv6 message type.}

The ICMP message type is displayed as one of the following:
B - Packet too big ICMPv6 Type 2
D - Destination unreachable ICMPv6 Type 1
P - Parameter problem ICMPv6 Type 4

For a list of the ICMPv6 types and codes, go to .

(a) The a value is the number of LDLC probe attempts, if more than one.

time
One of the following:
- The round-trip time required for the LDLC probe to be sent to an intermediate hop for which an ICMPv6 response was received
- The round-trip time required for the LDLC probe to be sent to the destination hop for which either an ICMPv6 response or LDLC probe response was received.

This field is displayed in milliseconds (ms). If the time field displays as 0, the round-trip time was less than 1 millisecond.

**Result:** The round-trip time for intermediate hops is computed when an ICMP message is received from the intermediate hop. Even though the round-trip time calculated to the Enterprise Extender remote partner is based on the receipt of a UDP datagram responding to the query that was received, intermediate hops might delay the returning of an ICMP message. The remote Enterprise Extender partner should always respond immediately to the query received. Therefore, in some instances the round-trip time to the remote Enterprise Extender node might be less than the value computed to intermediate hops.

**IST2139I**

- In the message text:
  - tested_routes
    The number of TCP/IP routes that were tested and displayed in the EE connectivity test output.
  - total_routes
    The number of valid TCP/IP routes that were found between the EE endpoints.

**IST2205I**

This message is a line separator between various sections of the message group.

**IST2224I**

This message is displayed when policy-based routing is being used to determine an IPv4 route between two Enterprise Extender endpoints.

**IST2225I**

This message is displayed as a heading for displaying EE UDP port numbers and their associated route tables and policy-based routing rules.

**IST2226I**

- In the message text:
  - portnum
    The EE UDP port number.
  - route_table
    The route table being used for IPv4 route calculations. If the main routing table is being used, then the value EZBMA1N is displayed. If the value *NONE* is displayed, then no route could be calculated between the EE endpoints for this specific EE UDP port and the EE connectivity test was unsuccessful.
  - routing_rule
    The policy-based routing rule associated with this EE UDP port. If no policy-based routing rule is associated with the port, then the value NONE is displayed.

**IST2227I**

- This message is an optional message in the IST2133I message subgroup that is issued when the EE connectivity test is not performed because the route is not associated with the specific EE UDP port. This message does not indicate an error. The EE connectivity test is not performed because the policy-based routing rule has indicated that this route is not associated with the EE UDP port that is being tested.
- In the message text:
  - portnum
    The Enterprise Extender User Datagram Protocol (UDP) port that was tested.

**System action:** Processing continues.
**Operator response:** Review the Enterprise Extender Connectivity Test output for any unsuccessful test results. See [DISPLAY EEDIAG,TEST=YES](https://www.ibm.com) in z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures for information about analyzing the test output.

**System programmer response:** None.

**User response:** Not applicable.

**Problem determination:** Not applicable.

**Source:** z/OS Communications Server SNA

**Module:** You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.

**Routing code:** 2

**Descriptor code:** 5

**Example:** None.

---

**IST2131I**  
EEDIAG DISPLAY COMPLETED ON date AT time

**Explanation:** VTAM issues this message as part of a group of messages in response to a DISPLAY EEDIAG command. The output of the DISPLAY EEDIAG command varies depending on the format of the command. The first message in the group is either [IST2065I](https://www.ibm.com) or [IST2130I](https://www.ibm.com) See the explanation of those messages for a complete description.

**Source:** z/OS Communications Server SNA

**Module:** You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.

**Routing code:** 2

**Descriptor code:** 5

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**IST2132I**  
LDLC PROBE VERSIONS: VTAM = local_version PARTNER = remote_version

**Explanation:** VTAM issues this message as part of a group of messages in response to a DISPLAY EEDIAG,TEST=YES command. The first message in the group is [IST2130I](https://www.ibm.com) See the explanation of that message for a complete description.

**Source:** z/OS Communications Server SNA

**Module:** You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.

**Routing code:** 2

**Descriptor code:** 5

---

**IST2133I**  
INTFNAME: intfname INTFTYPE: intftype

**Explanation:** VTAM issues this message as part of a group of messages in response to a DISPLAY EEDIAG,TEST=YES command. The first message in the group is [IST2130I](https://www.ibm.com) See the explanation of that message for a complete description.

**Source:** z/OS Communications Server SNA

**Module:** You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.

**Routing code:** 2

**Descriptor code:** 5
IST2134I  CONNECTIVITY SUCCESSFUL PORT: portnum

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY EEDIAG,TEST=YES command. The first message in the group is IST2130I. See the explanation of that message for a complete description.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

Routing code: 2
Descriptor code: 5

IST2135I  CONNECTIVITY UNSUCCESSFUL SENSE: sense PORT: portnum

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY EEDIAG,TEST=YES command. The first message in the group is IST2130I. See the explanation of that message for a complete description.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

Routing code: 2
Descriptor code: 5

IST2136I  CONNECTIVITY TEST ENDED - MAXIMUM TIME LIMIT EXCEEDED

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY EEDIAG,TEST=YES command. The first message in the group is IST2130I. See the explanation of that message for a complete description.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

Routing code: 2
Descriptor code: 5

IST2137I  hop ipv4address flags RTT: time

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY EEDIAG,TEST=YES command. The first message in the group is IST2130I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST2138I  hop ipv6address flags RTT: time

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY EEDIAG,TEST=YES command. The first message in the group is IST2130I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5
IST2139I • IST2141I

IST2139I CONNECTIVITY TEST RESULTS DISPLAYED FOR tested_routes OF total_routes ROUTES

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY EEDIAG,TEST=YES command. The first message in the group is IST2130I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST2140I CONNECTIVITY TEST FAILED - LINE linename IS INACTIVATING

Explanation: A DISPLAY EEDIAG,TEST=YES command was previously issued to perform an Enterprise Extender connectivity test. Before the command completed, the line being used to perform this test was deactivated. The EE connectivity test fails as a result. VTAM issues this message as part of a message group headed by IST2119I. Message IST2119I identifies the display correlator assigned when the EE connectivity test command was entered.

System action: The DISPLAY EEDIAG,TEST=YES command processing ends.

Operator response: If this message is unexpectedly issued, perform the following actions:

• Investigate the console log from the time the DISPLAY EEDIAG,TEST=YES command was issued to the time this error message was issued. You can use the display correlator identified in message IST2119I to locate the relevant message groups associated with this connectivity test.

• Locate any messages or operator commands that list the specified linename value to assist in understanding why the line was deactivated. The following are some known reasons for this error message to be issued:
  – The line being used by the EE connectivity test was deactivated by the operator.
  – The VTAM-to-TCP/IP samehost interface (JUTSAMEH) was deactivated while the EE connectivity test was being performed.

System programmer response: None
User response: Not applicable.
Problem determination: Not applicable.
Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

Routing code: 2
Descriptor code: 5
Example: None.

IST2141I CONNECTIVITY TEST FAILED - SWITCHED PU IS NOT ENABLED FOR EE

Explanation: A DISPLAY EEDIAG,ID=puname,TEST=YES command was issued to perform an Enterprise Extender connectivity test. The command specified a switched PU name on the ID operand. The connectivity test was failed because the switched PU definition statements did not have the correct definitions necessary for VTAM to attempt to establish an EE connection.

System action: The DISPLAY EEDIAG,ID=puname,TEST=YES command processing is not performed.

Operator response: The switched PU name specified on the ID operand of the DISPLAY EEDIAG,TEST=YES command is not correctly coded for VTAM to establish an outbound EE connection. If the incorrect PU name was specified, specify the correct switched PU name and issue the display command again. Alternatively, you can uniquely identify the EE connection to test by specifying any combination of the IPADDR and HOSTNAME filters, which provide both a local and remote input. See Display EEDIAG in z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures for more information about the DISPLAY EEDIAG,TEST=YES command.

System programmer response: The switched PU definition statements did not have the correct definitions necessary for VTAM to attempt to establish an EE connection. If the correct switched PU name was specified on the ID operand of the DISPLAY EEDIAG,TEST=YES command, then perform the following actions:
Verify that the GRPNM operand is specified on the switched PATH definition statement and that the group name defined on the GRPNM definition statement points to an active group in the Enterprise Extender XCA major node.

Verify that either the IPADDR operand or the HOSTNAME operand is specified on the switched PATH definition statement.

User response: Not applicable.

Problem determination: Not applicable.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

Routing code: 2

Descriptor code: 5

Example: None.

IST2142I  CONNECTIVITY TEST REJECTED - SAME TEST ALREADY IN PROGRESS

Explanation: VTAM issues this message as the first of a group of messages in response to a DISPLAY EEDIAG,TEST=YES command. A DISPLAY EEDIAG,TEST=YES command was previously issued to perform an Enterprise Extender connectivity test to the same EE endpoint you are trying to test. VTAM permits only one EE connectivity test to a specific EE connection at a time. The full description of the message group follows:

IST2142I CONNECTIVITY TEST REJECTED - SAME TEST ALREADY IN PROGRESS
IST2143I IN PROGRESS ENTERPRISE EXTENDER DISPLAY CORRELATOR: correlator
IST314I END

IST2143I

• In the message text:

  correlator

  The unique display correlator associated with a previous DISPLAY EEDIAG,TEST=YES command that is still in progress. This correlator can be used to locate the output associated with the previous DISPLAY EEDIAG,TEST=YES command.

System action: The DISPLAY EEDIAG,TEST=YES command is rejected.

Operator response: You can perform the following actions:

• Issue a D NET,EEDIAG,TEST=PENDING command to display all outstanding EE connectivity tests.

• Locate the message IST2147I in the output that contains the same message correlator as the one listed in message IST2143I. Message IST2147I is followed by message IST2148I, which states when the original EE connectivity test is due to expire. See the message IST2147I for a complete description of this message group.

System programmer response: None.

User response: Not applicable.

Problem determination: Not applicable.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

Routing code: 2

Descriptor code: 5

Example: None.
IST2143I • IST2145I

IST2143I IN PROGRESS ENTERPRISE EXTENDER DISPLAY CORRELATOR: correlator

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY EEDIAG,TEST=YES command. The first message in the message group is IST2142I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST2144I CONNECTIVITY TEST REJECTED - MAXEETST LIMIT EXCEEDED

Explanation: A DISPLAY EEDIAG,TEST=YES command was issued that would have caused VTAM to exceed the MAXEETST start option value.

System action: The DISPLAY EEDIAG,TEST=YES command is not performed.

Operator response: Issue a D NET,VTAMOPTS,OPTION=MAXEETST command to display the current value of this start option.

- If the displayed value is defined large enough for your system, or it is defined to the maximum limit, then you must wait until at least one of the previous EE connectivity tests complete. When those commands complete, issue the display command again.
- If the displayed value is not large enough for your system, you can issue the F proclname,VTAMOPTS,MAXEETST=max_e_connectivity_tests command to increase this limit. When the limit is increased, issue the display command again. To permanently change the value of the MAXEETST start option, contact the system programmer.

Issue a D NET,EEDIAG,TEST=PENDING command to query the outstanding EE connectivity tests.

For more information about commands or command syntax, see z/OS Communications Server: SNA Operation.

See MAXEETST in z/OS Communications Server: SNA Resource Definition Reference for more information about the MAXEETST start option.

System programmer response: If the defined or default value of the MAXEETST start option is not large enough for your system needs, code the MAXEETST start option value that you want to use in the ATCSTRxx start list and restart VTAM.

User response: Not applicable.

Problem determination: Not applicable.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.

Routing code: 2
Descriptor code: 5
Example: None.

IST2145I PENDING ENTERPRISE EXTENDER DISPLAY COMMANDS

Explanation: VTAM issues this message as the first in a group of messages in response to a DISPLAY EEDIAG,TEST=PENDING command. This message group displays current information about the DISPLAY EE and DISPLAY EEDIAG commands that are pending host name resolution. This message group also displays information about DISPLAY EEDIAG,TEST=YES commands that are in progress. The full description of the message group follows:

IST2145I PENDING ENTERPRISE EXTENDER DISPLAY COMMANDS
IST2067I EEDIAG DISPLAY ISSUED ON date AT time
[IST2041I .........................................................]
[IST2141I CORRELATOR: correlator LINE: linename STATUS: status]
[IST2067I EEDIAG DISPLAY ISSUED ON date AT time]

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IST924I

This message is a line separator between message IST2147I subgroups.

IST1315I

• VTAM issues this message when the number of Enterprise Extender correlators to be displayed exceeds the value specified for the MAX operand.
• In the message text:

  number

  The value specified or the default value for the MAX operand.

IST1358I

VTAM issues this message when there are no pending Enterprise Extender display commands.

IST1680I

• This message is displayed in the IST2147I message subgroup for the following reasons:
  – When the status value in the preceding IST2147I message displays as PFAIL-LOCAL, this message is issued to display the remote IP address that might have been specified as input on the display command, or that it might have acquired through the host name resolution function.
  – When the status value in the preceding IST2147I message displays as PFAIL-REMOTE, this message is issued to display the local IP address that might have been specified as input on the display command, or that it might have acquired through the host name resolution function.
  – When the status value in the preceding IST2147I message displays as TEST-IN-PROGRESS, this message displays the local and the remote IP addresses being used to conduct the EE connectivity test. The first occurrence of this message displays the local IP address. The second occurrence of this message displays the remote IP address.
• In the message text:

  type

  Indicates which IP address is being displayed. The type value is either LOCAL or REMOTE.

  ip_address

  The IP address.

IST1909I

• This message is displayed in the IST2147I message subgroup when a remote host name filter is specified on the DISPLAY EE or DISPLAY EEDIAG command.
• In the message text:

  value

  The host name supplied to the name-to-address function, which is used to acquire the remote IP address. The remote IP address is then used in the processing of the display command. If the host name is longer than 44 characters, then the first 44 characters are displayed as the value value and the remaining characters are displayed in one or more IST1911I messages.

IST1910I
• This message is displayed in the IST2147I message subgroup when a local host name filter is specified on the DISPLAY EE or DISPLAY EEDIAG command.

• In the message text:

  value
  The host name supplied to the name-to-address function, which is used to acquire the local IP address. The local IP address is then used in the processing of the display command. If the host name is longer than 45 characters, then the first 45 characters are displayed as the value value and the remaining characters are displayed in one or more IST1911I messages.

IST1911I

• In the message text:

  value
  The continuation of the value value on messages IST1909I and IST1910I. Message IST1911I is repeated as many times as necessary to display the entire character string.

IST2067I

The date and time values specify when the DISPLAY EEDIAG command was issued. The first occurrence of this message in the output is when the DISPLAY EEDIAG,TEST=PENDING command was issued. All subsequent occurrences represent the date and time when the pending DISPLAY EEDIAG commands were issued. See "DATE and TIME formats" on page 6 for information about the date and time values.

IST2146I

The date and time values specify when the pending DISPLAY EE command was issued. See "DATE and TIME formats" on page 6 for information about the date and time values.

IST2147I

• This is the first message of various message subgroups. These subgroup are repeated for each Enterprise Extender display command that is pending host name resolution or EE connectivity test results. A complete description of the message groups headed by this message follows.

• The following message group is issued for each DISPLAY EE command pending host name resolution:

  IST2147I CORRELATOR: correlator LINE: linename STATUS: status
  IST2146I EE DISPLAY ISSUED ON date AT time
  [IST1680I type IP ADDRESS ip_address]
  [IST1910I LOCAL HOSTNAME value]
  [IST1911I value]
  [IST1680I type IP ADDRESS ip_address]
  [IST1909I REMOTE HOSTNAME value]
  [IST1911I value]

• The following message group is issued for each DISPLAY EEDIAG command pending host name resolution:

  IST2147I CORRELATOR: correlator LINE: linename STATUS: status
  IST2067I EEDIAG DISPLAY ISSUED ON date AT time
  [IST1680I type IP ADDRESS ip_address]
  [IST1910I LOCAL HOSTNAME value]
  [IST1911I value]
  [IST1680I type IP ADDRESS ip_address]
  [IST1909I REMOTE HOSTNAME value]
  [IST1911I value]

• The following message group is issued for each DISPLAY EEDIAG,TEST=YES command that is pending EE connectivity test results:

  IST2147I CORRELATOR: correlator LINE: linename STATUS: status
  IST2148I EE CONNECTIVITY TEST REACHES MAXTIME ON date AT time
  IST1680I type IP ADDRESS ip_address
  [IST1910I LOCAL HOSTNAME value]
  [IST1911I value]
  [IST1680I type IP ADDRESS ip_address]
  [IST1909I REMOTE HOSTNAME value]
  [IST1911I value]

• In the message text:
correlator
A unique display correlator associated with the pending DISPLAY EE or DISPLAY EEDIAG command. This correlator can be used to locate the various message groups associated with these display commands.

linename
The name of the Enterprise Extender line that VTAM is using to perform an Enterprise Extender connectivity test. If the pending EE display command is not associated with an EE connectivity test, or the EE connectivity test has not selected a line, the linename value might be displayed as ***NA***.

status
The current status of the pending Enterprise Extender display command. Possible values are:

- PGAIN - LOC/REM
  The Enterprise Extender display command that was issued is waiting for host name resolution to complete for both a local and remote HOSTNAME filter.

- PGAIN - LOCAL
  The Enterprise Extender display command that was issued is waiting for host name resolution to complete for a local HOSTNAME filter.

- PGAIN - REMOTE
  The Enterprise Extender display command that was issued is waiting for host name resolution to complete for a remote HOSTNAME filter.

Result: The PGAIN states can vary in duration depending on how long it takes for the resolver to resolve the host name, or for the request to fail (timeout using resolver configuration definitions).

TEST-IN-PROGRESS
The Enterprise Extender connectivity test command entered is currently testing the specified EE connection. The results of the test are displayed when the test completes, or when the time allowed for the test exceeds the MAXTIME value. See IST2148I for the date and time the connectivity test expires.

IST2148I
This message displays the estimated date and time when the DISPLAY EEDIAG,TEST=YES command is due to expire. The estimated date and time are calculated by adding the MAXTIME value to the time when VTAM invokes the TCP/IP stack to perform the EE connectivity test. See “DATE and TIME formats” on page 6 for information about the date and time values.

IST2149I
- In the message text:
  
  count
  The number of pending EE correlators displayed in the output.

  total
  The total number of EE correlators that are pending either host name resolution or EE connectivity test results. The total might be larger than the displayed count because the number of EE correlators displayed is governed by the MAX parameter.

System action: Processing continues.

Operator response: If there are many Enterprise Extender display requests that are pending for host name resolution results, and they are not completing in a timely manner, investigate the TCP/IP stack providing the name-to-address resolution support to discover why these requests are not completing sooner.

System programmer response: None

User response: Not applicable.

Problem determination: Not applicable.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.
**IST2146I • IST2151I**

Routing code: 2  
Descriptor code: 5  
Example: None.

**IST2146I**  
**EE DISPLAY ISSUED ON** *date* **AT** *time*

**Explanation:** VTAM issues this message as part of a group of messages in response to a DISPLAY EEDIAG,TEST=PENDING command. The first message in this message group is **IST2145I**. See the explanation of that message for a complete description.

Routing code: 2  
Descriptor code: 5

**IST2147I**  
**CORRELATOR:** *correlator*  
**LINE:** *linename*  
**STATUS:** *status*

**Explanation:** VTAM issues this message as part of a group of messages in response to a DISPLAY EEDIAG,TEST=PENDING command. The first message in this message group is **IST2145I**. See the explanation of that message for a complete description.

Routing code: 2  
Descriptor code: 5

**IST2148I**  
**EE CONNECTIVITY TEST REACHES MAXTIME ON** *date* **AT** *time*

**Explanation:** VTAM issues this message as part of a group of messages in response to a DISPLAY EEDIAG,TEST=PENDING command. The first message in this message group is **IST2145I**. See the explanation of that message for a complete description.

Routing code: 2  
Descriptor code: 5

**IST2149I**  
**count** **OF** *total* **CORRELATORS DISPLAYED**

**Explanation:** VTAM issues this message as part of a group of messages in response to a DISPLAY EEDIAG,TEST=PENDING command. The first message in this message group is **IST2145I**. See the explanation of that message for a complete description.

Routing code: 2  
Descriptor code: 5

**IST2150I**  
**VIRTUAL NODE** *vln_name*  
**- count** **UNREACHABLE PARTNERS**

**Explanation:** VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO,LIST=UNRCHTIM command. The first message in the group is **IST2057I**. See the explanation of that message for a complete description.

Routing code: 2  
Descriptor code: 5

**IST2151I**  
**PARTNER LIMIT EXCEEDED - UNUSABLE UNTIL COUNT IS BELOW** *lowerlim*

**Explanation:** VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO,LIST=UNRCHTIM command. The first message in the group is **IST2057I**. See the description of that message for more information.

Routing code: 2  
Descriptor code: 5
IST2152I  MODIFY TOPO COMMAND FAILED

Explanation: This message is the first in a group of messages that VTAM issues when a MODIFY TOPO command fails. A complete description of the message group follows the example.

IST2152I  MODIFY TOPO COMMAND FAILED
IST2153I  ORIG, VRN, OR DEST OPERAND REQUIRED
IST314I  END

IST2153I

This message is issued when the MODIFY TOPO,FUNCTION=CLRURCH operator command is entered without specifying at least one of the ORIG, VRN, or DEST operands.

System action: The topology database is not changed. Other processing continues.

Operator response: Re-enter the command with at least one of the ORIG, VRN, and DEST operands specified. See [z/OS Communications Server: SNA Operation] for more information about VTAM commands and their operands.

System programmer response: None

User response: Not applicable.

Problem determination: Not applicable.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [Adding the originating module to the message text] on page 5 for more information about the MSGMOD start option.

Routing code: 2

Descriptor code: 5

Example: None.

IST2154I  ROUTE SELECTION TRACE IS ACTIVE - BFRNUM = number_of_buffers

Explanation: VTAM issues this message as part of a group of messages in response to a MODIFY TOPO,FUNCTION=CLRURCH command failure. The first message in the group is IST2152I. See the explanation of that message for a complete description.

Routing code: 2

Descriptor code: 5

IST2154I  ROUTE SELECTION TRACE IS ACTIVE - BFRNUM = number_of_buffers

Explanation: VTAM issues this message as part of a group of messages in response to the following commands:

- DISPLAY TRACES,TYPE=ROUTE
- MODIFY TRACE,TYPE=ROUTE
- MODIFY TRACE,TYPE=ROUTE,BFRNUM=number_ofBuffers

A complete description of the message group follows the example.

IST350I  DISPLAY TYPE = TRACES,TYPE=ROUTE
IST2154I  ROUTE SELECTION TRACE IS ACTIVE - BFRNUM = number_of_buffers
IST2156I  STORAGE ALLOCATED TO ROUTE SELECTION TRACE = storage_amount
IST314I  END

IST350I

This message is issued in response to a DISPLAY TRACES,TYPE=ROUTE command. It identifies the type of information in the display and is always TRACES,TYPE=ROUTE for this message group.

IST2154I

- This message is issued to indicate that the APPN route selection trace is active.
- In the message text:
**IST2155I**

*number_of_buffers*

The maximum number of 40 KB buffers to be allocated for the APPN route selection trace table.

- See the [MODIFY TRACE command information](z/OS Communications Server: SNA Operation) and the [APPN route selection trace information](z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures) for more information about the APPN route selection trace.

**IST2156I**

*In the message text:*

*storage_amount*

The total number of bytes that is currently allocated to the APPN route selection trace table. This value is in the form *xxxxxK*, where K is a unit of measure in units of 1024 bytes. Storage for the APPN route selection trace is not all allocated when the trace is activated, but is allocated in 40 K buffers as it is needed. If all of the storage allowed for the APPN route selection trace is not yet allocated, then the *storage_amount* value is less than 40 K multiplied by the *number_of_buffers* value displayed in message IST2154I. For example, if the *number_of_buffers* value in message IST2154I is 100 and only 50 buffers are currently allocated, then the *storage_amount* value is 2000 K.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**User response:** Not applicable.

**Problem determination:** Not applicable.

**Source:** z/OS Communications Server SNA

**Module:** You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

**Routing code:** 2

**Descriptor code:** 5

**Example:**

IST350I DISPLAY TYPE = TRACES,TYPE=ROUTE
IST2154I ROUTE SELECTION TRACE IS ACTIVE - BFRNUM = 100
IST2156I STORAGE ALLOCATED TO ROUTE SELECTION TRACE = 2000K
IST314I END

**IST2155I**

**ROUTE SELECTION TRACE IS INACTIVE**

**Explanation:** VTAM issues this message as part of a group of messages in response to the following commands:

- DISPLAY TRACES,TYPE=ROUTE
- MODIFY NOTRACE,TYPE=ROUTE

A complete description of the message group follows the example.

[IST350I DISPLAY TYPE = TRACES,TYPE=ROUTE]
IST2155I ROUTE SELECTION TRACE IS INACTIVE
IST2156I STORAGE ALLOCATED TO ROUTE SELECTION TRACE = storage_amount
IST314I END

**IST350I**

This message is issued in response to a DISPLAY TRACES,TYPE=ROUTE command. It identifies the type of information in the display and is always TRACES,TYPE=ROUTE for this message group.

**IST2155I**

This message is issued to indicate that the APPN route selection trace is inactive.

**IST2156I**
In the message text:

storage_amount

The total number of bytes that is currently allocated to the APPN route selection trace table. This value is in the form XXXXXK, where K is a unit of measure in units of 1024 bytes.

System action: Processing continues.

Operator response: The APPN route selection trace is used to diagnose the selection of incorrect routes through the APPN network for LU-LU sessions and for directed searches used to locate resources. If you have captured the documentation needed for diagnosis by dumping VTAM, you can free the APPN route selection trace storage with the MODIFY NOTRACE,TYPE=ROUTE,FREE=YES command.

See the MODIFY NOTRACE command in z/OS Communications Server: SNA Operation and the APPN route selection trace in z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures for more information about the APPN route selection trace.

System programmer response: None.

User response: Not applicable.

Problem determination: Not applicable.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

Routing code: 2

Descriptor code: 5

Example:

IST3501 DISPLAY TYPE = TRACES,TYPE=ROUTE
IST2155I ROUTE SELECTION TRACE IS INACTIVE
ST2156I STORAGE ALLOCATED TO ROUTE SELECTION TRACE = 20000K
IST3141 END

IST2156I STORAGE ALLOCATED TO ROUTE SELECTION TRACE = storage_amount

Explanation: VTAM issues this message as part of a group of messages in response to the following commands:

• DISPLAY TRACES,TYPE=ROUTE
• MODIFY TRACE,TYPE=ROUTE
• MODIFY NOTRACE,TYPE=ROUTE

See IST2154I or IST2155I for a complete description of the message group.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

Routing code: 2

Descriptor code: 5

IST2157I ALIASRCH = searchoption

Explanation: This message is part of a group of messages that VTAM issues in response to the following commands:

• DISPLAY ID=adjcpname command; see IST1100I for a complete description of this message group.
• DISPLAY ADJCP command; see IST1101I and IST1197I for a complete description of possible message groups.

Routing code: 2

Descriptor code: 5
IST2158I  VTAM HAS JOINED THE SYSPLEX GROUP *groupname*

Explanation: This message is issued when VTAM joins a sysplex group. VTAM will communicate with other VTAM nodes in the sysplex that join the same group.

In the message text:

*groupname*
   The name of the sysplex group that VTAM joined.

System action: Processing continues.

Operator response: None.

System programmer response: None.

User response: Not applicable.

Problem determination: Not applicable.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

Routing code: 2

Descriptor code: 4

Example: None.

---

IST2159I  XCF GROUP: *xcfgroup* CFS GROUP: *cfsgroup*

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY ID=VTAM command. It displays the sysplex groups that this VTAM has joined.

In the message text:

*xcfgroup*
   The name of the sysplex group that VTAM joined for dynamic XCF connectivity.

*cfsgroup*
   The name of the sysplex group that VTAM joined for Coupling Facility Services (CFS) communication.

System action: Processing continues.

Operator response: None.

System programmer response: None.

User response: Not applicable.

Problem determination: Not applicable.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

Routing code: 2

Descriptor code: 5

Example: None.
**IST2160I**  
*command FAILED : ULP IS USING TRLE nodename*

**Explanation:** This message is issued by VTAM when a VARY INACT command for a TRLE major node is rejected because the resource specified by the *nodename* value is being used by at least one Upper-layer Protocol (ULP). For some TRLEs, more than one ULP might be using the TRLE.

- For TCP/IP ULPs, ULP is a job name.
- For ANNC ULPs, ULP is a SNA PU.
- For ATM or EE ULPs, ULP is an XCA major node name.

In the message text:

- **nodename**
  A TRLE in the TRL major node. If a network-qualified name was entered on the command line, VTAM issues the *nodename* value in the form netid.name.

- **command**
  The VARY INACT,ID=trl_major_node_name command. See Chapter 16, “Command and RU types in VTAM messages,” on page 1083 for a description of *command*.

**System action:** VTAM rejects the command.

**Operator response:** Issue the DISPLAY ID=nodename command to display the TRLE identified in the message. This display includes message IST1715I to indicate whether there can be one or more ULPs. See IST1715I for more information. The display might also include message IST1717I to identify the ULPs. See IST1717I for more information. After finding and inactivating the ULPs, issue the command again.

**Source:** z/OS Communications Server SNA

**Module:** You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

**Routing code:** 2

**Descriptor code:** 5

**IST2161I**  
**BLOCKED TIME = btime**

**Explanation:** VTAM issues this message as part of a group of messages in response to a DISPLAY CONVID command. The first message in the group is IST1040I. See IST1040I for more information about the message text.

**Routing code:** 8

**Descriptor code:** 5

**IST2162I**  
**INCONSISTENT UNRCHTIM VALUES DEFINED FOR vrn_name**

**Explanation:** An additional TG was activated to a virtual node that already had active TGs. The UNRCHTIM value associated with the additional TG was different from the UNRCHTIM value associated with the first TG that was activated to the virtual node. When different UNRCHTIM values are defined for TGs to the same virtual node, the UNRCHTIM value of the first TG to be activated is used.

In the message text:

- **vrn_name**
  The name of the virtual node.

**System action:** The UNRCHTIM value configured for the additional TG to the connection network is ignored. The UNRCHTIM value for the connection network continues to be the value configured for the first TG activated to the connection network.

**Operator response:** Contact the system programmer.

**System programmer response:** Update all PORT and GROUP statements in the EE XCA major node that are associated with the virtual node specified by the *vrn_name* value so that they all have the same UNRCHTIM value.

**User response:** Not applicable.
Problem determination: Not applicable.
Routing code: 2
Descriptor code: 5
Example: None.

IST2163I  REBUILD FOR STRUCTURE structure STOPPED

Explanation: VTAM issues this message when it is stopping the rebuild of the coupling facility structure for any of the following reasons:

- Lost connection to new structure
- Lost connection to original structure
- Structure failure

This message is the first of a group of messages. A description of the message group follows.

IST2164I FAILURE REASON - LOST CONNECTION TO NEW STRUCTURE
IST2165I FAILURE REASON - LOST CONNECTION TO ORIGINAL STRUCTURE
IST2166I FAILURE REASON - STRUCTURE FAILURE
IST314I END

IST2163I
- In the message text:

  structure
  The name of the coupling facility structure.

IST2164I
The rebuild failed because VTAM lost connectivity to the new structure.

IST2165I
The rebuild failed because VTAM lost connectivity to the original structure.

IST2166I
The rebuild failed because VTAM received a Structure Failure Event in the Coupling Facility Event Exit. The coupling facility detected a problem.

System action:

IST2164I
VTAM continues to use the original structure. Processing continues.

IST2165I
As long as one VTAM in the group is connected to the original structure, rebuild continues from the connected VTAM. Processing continues on the new structure for the VTAM that lost connectivity to the original structure.

IST2166I
The structure rebuild stops. VTAM might continue with a local repopulation of the new structure or continue processing on the original structure depending on which structure failed.

Operator response:

IST2164I
Save the system log for problem determination. Use the VARY CFS command to connect VTAM to the new structure when the problem is corrected. See the SNA Operation for a description of the VARY CFS command. If you cannot resolve the problem, contact the system programmer.

IST2165I
Save the system log for problem determination. If you cannot resolve the problem, contact the system programmer.
IST2166I
Save the system log for problem determination. Make sure that all VTAMs in the sysplex have connectivity to the coupling facility. You can try a rebuild again by issuing the SETXCF START, REBUILD command. See the SETXCF command in z/OS MVS System Commands for a description of the SETXCF command.

System programmer response: Review the system log for problem determination.

User response: Not applicable.

Problem determination: Not applicable.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

Routing code: 2
Descriptor code: 5
Example: None.

IST2164I FAILURE REASON - LOST CONNECTION TO NEW STRUCTURE

Explanation: This message is part of a group of messages issued when a coupling facility structure rebuild fails. The first message in the group is IST2163I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST2165I FAILURE REASON - LOST CONNECTION TO ORIGINAL STRUCTURE

Explanation: This message is part of a group of messages issued when a coupling facility structure rebuild fails. The first message in the group is IST2163I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST2166I FAILURE REASON - STRUCTURE FAILURE

Explanation: This message is part of a group of messages issued when a coupling facility structure rebuild fails. The first message in the group is IST2163I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST2167I DISCONNECT REASON - OPERATOR COMMAND

Explanation: This message is part of a group of messages issued when VTAM disconnects from the coupling facility structure. The first message in the group is IST1380I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST2168I DISCONNECT REASON - NORMAL DISCONNECT

Explanation: This message is part of a group of messages issued when VTAM disconnects from the coupling facility structure. The first message in the group is IST1380I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5
IST2169I • IST2175I

IST2169I  FAILURE REASON - SUBTASK ABEND
Explanation: This message is part of a group of messages issued when VTAM disconnects from the coupling facility structure. The first message in the group is [IST1380I]. See the explanation of that message for a complete description.
Routing code: 2
Descriptor code: 5

IST2170I  DISCONNECT REASON - VTAM HALTING
Explanation: This message is part of a group of messages issued when VTAM disconnects from the coupling facility structure. The first message in the group is [IST1380I]. See the explanation of that message for a complete description.
Routing code: 2
Descriptor code: 5

IST2171I  FAILURE REASON - LOST CONNECTIVITY
Explanation: This message is part of a group of messages issued when VTAM disconnects from the coupling facility structure. The first message in the group is [IST1380I]. See the explanation of that message for a complete description.
Routing code: 2
Descriptor code: 5

IST2172I  FAILURE REASON - STRUCTURE TYPE NOT VALID
Explanation: This message is part of a group of messages issued when VTAM disconnects from the coupling facility structure. The first message in the group is [IST1380I]. See the explanation of that message for a complete description.
Routing code: 2
Descriptor code: 5

IST2173I  FAILURE REASON - INTERNAL COUPLING FACILITY STRUCTURE ERROR
Explanation: This message is part of a group of messages issued when VTAM disconnects from the coupling facility structure. The first message in the group is [IST1380I]. See the explanation of that message for a complete description.
Routing code: 2
Descriptor code: 5

IST2174I  FAILURE REASON - CONNECTION NAME NOT VALID
Explanation: This message is part of a group of messages issued when VTAM disconnects from the coupling facility structure. The first message in the group is [IST1380I]. See the explanation of that message for a complete description.
Routing code: 2
Descriptor code: 5

IST2175I  FAILURE REASON - PROCESS TIMED OUT
Explanation: This message is part of a group of messages issued when VTAM disconnects from the coupling facility structure. The first message in the group is [IST1380I]. See the explanation of that message for a complete description.
Routing code: 2
Descriptor code: 5
### IST2176I  FAILURE REASON - MVS EVENT

**Explanation:** This message is part of a group of messages issued when VTAM disconnects from the coupling facility structure. The first message in the group is [IST1380I](#). See the explanation of that message for a complete description.

- **Routing code:** 2
- **Descriptor code:** 5

### IST2177I  FAILURE REASON - UNSUPPORTED COUPLING FACILITY LEVEL

**Explanation:** This message is part of a group of messages issued when VTAM disconnects from the coupling facility structure. The first message in the group is [IST1380I](#). See the explanation of that message for a complete description.

- **Routing code:** 2
- **Descriptor code:** 5

### IST2178I  RPNCR ADDRESS = rpncb_addr

**Explanation:** VTAM issues this message in response to a DISPLAY ID command for a PU type 2.1 that represents a rapid transport protocol (RTP) route.

This message identifies the node control block that represents the PU being displayed.

In the message text:

- `rpncb_addr`  
  The hexadecimal address of the node control block.

- **System action:** Processing continues.
- **Operator response:** None.
- **System programmer response:** None.
- **User response:** Not applicable.
- **Problem determination:** Not applicable.
- **Source:** z/OS Communications Server SNA

**Module:** You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.

- **Routing code:** 2
- **Descriptor code:** 5

### IST2179I  NO DIAL-OUT LINE FOUND FOR SWITCHED PU puname

**Explanation:** This message is issued in response to an Enterprise Extender dial failure. A switched connection cannot be established because no Enterprise Extender line is available for the PU name specified by the `puname` value.

- **System action:** The process that initiated the dial fails.
- **Operator response:** Issue the D NET,PATHS,ID=`puname` command to examine the EE XCA major node group associated with the local static VIPA address. If any EE lines are defined but currently not active, issue the V NET,ACT,ID=`groupname`,SCOPE=ALL command to activate these lines, then reissue the process that failed. If no lines are available, contact the system programmer.

- **System programmer response:** Update the EE XCA major node to define additional lines on which to dial out in one of the following ways:
  - If you defined a new group with additional lines, you can dynamically activate a new group in the EE XCA major node by issuing the V NET,ACT,ID=`exccmajornode`,UPDATE=ADD command.
  - If you defined additional lines to an existing group, activating the new lines might be disruptive to existing EE connections. If this is acceptable, you can perform one of the following actions to activate the newly defined lines:
To dynamically update an EE XCA major node group, deactivate all existing lines in the modified group. Issue the V NET,INACT,ID=eegroupname,F command to deactivate these lines. When the EE group is inactive, you can issue the V NET,ACT,ID=eegroupname,UPDATE=ADD command to dynamically update the group.

To deactivate Enterprise Extender, issue a V NET,INACT,ID=eexcamajornode,F command. Then activate your modified Enterprise Extender definitions with the V NET,ACT,ID=eegroupname,SCOPE=ALL command. Once the lines are defined and activated, instruct the operator to reissue the process that generated the dial.


**User response:** Not applicable.

**Problem determination:** Not applicable.

**Source:** z/OS Communications Server SNA

**Module:** You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.

**Routing code:** 2

**Descriptor code:** 5

IST2180I

**Explanation:** VTAM issues this message when the DYNLU value associated with an adjacent node is set. DYNLU specifies whether cross-domain resources (CDRSCs) using adjacent link stations (ALS) attached to the adjacent node can be defined dynamically. The DYNLU value for an adjacent node will be set from one of the following:

- The DYNLU keyword on the corresponding ADJCP definition statement in a predefined adjacent control point (ADJCP) major node.
- The CDRSC keyword on the corresponding CDRM definition statement in a cross-domain resource manager (CDRM) major node, when the first connection activated to the adjacent node is a virtual route transmission group (VRTG).
- The DYNLU keyword, if specified, on the first PU used to establish a connection from this node to the adjacent node, when the first connection activated to the adjacent node is not a VRTG.
- The DYNLU start option if the DYNLU value is not obtained elsewhere.

The DYNLU value is associated with an adjacent APPN node when the first link to that adjacent node is activated. When the DYNLU value is associated with the adjacent node, that value will be propagated to all APPN links to the adjacent node as they are activated, regardless of the DYNLU value specified for each link. See the DYNLU Combinations table in the description of the adjacent control point major node DYNLU operand in z/OS Communications Server: SNA Resource Definition Reference for more information about how to determine the source of the DYNLU value assigned to an adjacent CP and attached resources.

**In the message text:**

**dylnu_value**

The DYNLU value associated with the adjacent node, adjacent_node, which will be propagated to all resources attached to the adjacent node. The dylnu_value value can be one of the following:

**YES**

Specifies that dynamic definition of CDRSCs is allowed for sessions to or through this adjacent node. You are not required to redefine resources that use adjacent link stations attached to the node indicated by the adjacent_node value.

**NO**

Specifies that dynamic definition of CDRSCs is not allowed for sessions to or through this adjacent node. You must redefine resources that use adjacent link stations attached to the node indicated by the adjacent_node value. If you do not redefine the resources, session requests for sessions with the node indicated by the adjacent_node value will fail with sense code 08970015 or 08970016.
adjacent_node
The network-qualified CP name of the adjacent node.

source
The source of the DYNLU value being associated with the adjacent_node. Possible values are:

**ADJCP**
Specifies that the DYNLU value associated with the adjacent node, which will be propagated to all resources that attach to that adjacent node, was learned from a predefined ADJCP definition statement in an ADJCP major node.

**CDRM**
Specifies that the DYNLU value associated with the adjacent node, which will be propagated to all resources that attach to that adjacent node, was learned from the CDRSC keyword on a predefined CDRM definition statement for that adjacent node in a CDRM major node. The DYNLU value is learned from a CDRM definition statement when the first connection activated to that adjacent node is a VRTG.

puname
The name of the first PU that connects to the adjacent node value, when no predefined ADJCP exists for that adjacent node, or a predefined ADJCP without DYNLU specified exists for the adjacent node. If a DYNLU value is specified on the PU definition for the PU specified by the puname value, it is the source of the DYNLU value being associated with the adjacent node. Otherwise, the DYNLU start option value is associated with the adjacent node and set in the PU.

**System action:** Processing continues.

**Operator response:** If message IST663I is received following this message indicating that session requests for sessions with adjacent_node fail with sense code 08970015 or 08970016, contact the system programmer. Otherwise, none. See [sense code 08970015 or sense code 08970016](https://www.ibm.com) for more information.

**Programmer response:** If the DYNLU value for the adjacent node is not the setting that you want, do the following to reset the value for this adjacent node:
1. If an ADJCP major node exists with an ADJCP definition for the adjacent node, without DYNLU specified or with DYNLU specified with the incorrect value, first deactivate the ADJCP major node.
2. To ensure predictable results, you should code the desired DYNLU value on the ADJCP definition statement for the adjacent node in an ADJCP major node. See the adjacent control point major node information in [z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com) for more information about coding an ADJCP.
3. Deactivate all PU connections, VRTG (CDRM) connections, and the CP-CP sessions to the adjacent node.
4. Enter a DISPLAY NET,RTPS,CPNAME=adjacent_node and make sure there are no RTPs active to the adjacent node. If active RTPs to the adjacent node exist, they must be deactivated. See the [DISPLAY RTPS command](https://www.ibm.com) in [z/OS Communications Server: SNA Operation](https://www.ibm.com) for more information about this command.
5. Reactivate the ADJCP major node.
6. Reactivate the desired PU connections, VRTG (CDRM) connections, and the CP-CP sessions to adjacent_node.

**Source:** z/OS Communications Server SNA

**Routing code:** 2

**Descriptor code:** 6

---

**IST2181I**

**struct_type** STRUCTURE NAME IS **struct_name**

**Explanation:** This message is part of a group of messages that VTAM issues in response to a DISPLAY ID=VTAM command. It displays the name of the MNPS or Generic Resource structure that will be accessed by this VTAM node. In the message text:
struct_type
The type of structure to be accessed. The struct_type value is one of the following:
- GR Indicates that the structure is for Generic Resources
- MNPS Indicates that the structure is for MultiNode Persistent Sessions

struct_name
The name of the structure to be accessed, including the subplex group ID (specified with the XCFGRPID start option).

System action: Processing Continues
Operator response: None.
System programmer response: None.
User response: None.
Problem determination: Not applicable.

Source: z/OS Communications Server SNA
Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.
Routing code: 2
Descriptor code: 5
Example: See the displaying the host (this command works for any host) information in z/OS Communications Server: SNA Operation for an example. This display shows an interchange node

IST2182I

Explanation: VTAM issues this message as part of a message group in response to a DISPLAY ID command that is displaying either an Extended Communications Adapter (XCA) major node that defines Enterprise Extender or a GROUP in an Enterprise Extender XCA major node. This message is issued when the UNRCHTIM operand was specified on the PORT or GROUP definition statement that defines a VRN in the XCA major node.

In the message text:
unrchtim
Indicates what was specified for the UNRCHTIM operand on the PORT or GROUP definition statement that defines the VRN. On a network node, it is the value in seconds specified for the UNRCHTIM operand. On an end node, it is NO when a zero value was specified for the UNRCHTIM operand or YES when a non-zero value was specified for the UNRCHTIM operand. See UNRCHTIM in z/OS Communications Server: SNA Resource Definition Reference for information about the UNRCHTIM parameter on the PORT and GROUP definition statements.

System action: Processing continues.
Operator response: None.
User response: None.
Problem determination: Not applicable.

Source: z/OS Communications Server SNA
Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.
Routing code: 2
Descriptor code: 5
Example: Not applicable.
IST2183I  QDIOSYNC = armstate - SYNCID = syncid - SAVED = saved_state

Explanation: VTAM issues this message as part of a message group. See the explanation of message IST1041I for a complete description of the group.

Routing code: 2
Descriptor code: 5

IST2184I  QDIOSYNC = armstate - SYNCID = syncid - SAVED = saved_state

Explanation: VTAM issues this message as part of a message subgroup. See “IST1221I” on page 467 for a complete description.

Routing code: 2
Descriptor code: 5

IST2185I  FRINVCTO = frinvcto FRINVCT = frinvct

Explanation: VTAM issues this message as part of a group of messages that displays tuning statistics for multipath channel (MPC) attached resources. The first message in the group is “IST1230I” on page 479. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST2186I  THIS PATH WILL NOT BE SELECTED FOR UNRCHTIM SECONDS

Explanation: VTAM issues this message as part of a group of messages when a dial failure or a connection INOP occurs on an end node for a connection over an Enterprise Extender Virtual Routing Node (VRN) to a specific partner node. The first message in the group is IST1903I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST2187I  XCF SEND FAILURE ON TRLE trlename MESSAGE TYPE: type

Explanation: This message is the first message in a group of messages that VTAM issues when an XCF Message Out (IXCMSGO) operation fails for a specific XCF connection. This message group is issued to provide the return code and reason code set by the MVS cross-system coupling facility (XCF).

A complete description of the message group follows the example.

IST2187I XCF SEND FAILURE ON TRLE trlename MESSAGE TYPE: type
IST1684I RETURN CODE = return_value REASON CODE = errno
IST314I END

IST1684I

This message provides the return code and reason code set by the MVS cross-system coupling facility (XCF) in response to an XCF Message Out (IXCMSGO) invocation.

In the message text:

return_value
The hexadecimal return code returned by the MVS cross-system coupling facility (XCF) in response to the IXCMSGO invocation.

errno
The hexadecimal reason code returned by the MVS cross-system coupling facility (XCF) in response to the IXCMSGO invocation.
IST2188I

See [z/OS MVS Programming: Sysplex Services Reference](#) for the codes specific to the IXCMSGO invocation.

IST2187I

In the message text:

*trlename*

The name of the XCF TRLE. This name displays as ***NA*** if it is unavailable at the time of the failure.

*type*

The specific XCF message type that VTAM was attempting to send to the partner XCF node when the XCF Message Out operation failed. The message type can be one of the following:

<table>
<thead>
<tr>
<th>Message type</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATA</td>
<td>Normal data operation</td>
</tr>
<tr>
<td>DISC</td>
<td>Disconnect signal</td>
</tr>
<tr>
<td>HELLO</td>
<td>Activation signal</td>
</tr>
<tr>
<td>INACT</td>
<td>Inactivation signal</td>
</tr>
<tr>
<td>INOP</td>
<td>Inoperative signal</td>
</tr>
<tr>
<td>KEEPALIVE</td>
<td>KeepAlive signal</td>
</tr>
<tr>
<td>PACING</td>
<td>XCF Pacing signal</td>
</tr>
<tr>
<td>XID</td>
<td>XID activation signal</td>
</tr>
</tbody>
</table>

**System action:** VTAM deactivates the XCF connection because of the inoperative condition. VTAM automatically attempts to re-establish connectivity with the XCF partner.

**Operator response:** Save the console log for problem determination. Contact the system programmer.

**System programmer response:** Determine whether the partner node is overloaded or involved in an activity that will prevent the XCF Message Out operation from completing successfully. See [z/OS MVS Programming: Sysplex Services Reference](#) for the codes specific to the IXCMSGO invocation failure. If the XCF Message Out operation failures are unexpected and persistent, take a dump of both nodes at the next occurrence, then contact IBM support.

**User response:** Not applicable.

**Problem determination:** Not applicable.

**Source:** z/OS Communications Server SNA

**Module:** You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See ["Adding the originating module to the message text" on page 5](#) for more information about the MSGMOD start option.

**Routing code:** 2

**Descriptor code:** 5

**Example:**

IST2187I XCF SEND FAILURE ON TRLE ISTT0201 MESSAGE TYPE: DATA
IST1684I RETURN CODE = 0000000C REASON CODE = 00000004
IST314I END

IST2188I  LDLC TIMER OPERANDS ON GROUP groupname2 IGNORED

**Explanation:** This is the first message of a message group. VTAM issues this message when the first line of the EE XCA major node GROUP definition statement is activated, and all of the following conditions are true:

- At least one other EE XCA major node GROUP definition statement that specified the same local static VIPA address (IPADDR) or the same domain name (HOSTNAME) keyword was previously activated.
- One or more of the LDLC timer operands (LIVTIME, SRQRETRY, or SRQTIME) associated with this GROUP definition statement differ from those associated with the other GROUP definition statement.
When this error condition occurs, the LDLC timer keyword values for a local static VIPA are set by the first group that is activated. The LDLC timer operands values specified on all other groups with the same local static VIPA address are ignored.

This message is the first message of the following message group:

IST2188I LDLC TIMER OPERANDS ON GROUP groupname2 IGNORED
IST2189I LDLC TIMER OPERANDS ALREADY SET BY groupname1
IST1680I type IP ADDRESS ip_address
IST2004I LIVTIME = (init_value,max_value) SRQTIME = srqtime SRQRETRY = srqretry
IST314I END

IST1680I
- This message displays the IP address.
- In the message text:
  - type
    - The value is always LOCAL for this message group.
  - ip_address
    - The IP address associated with the group being activated.

IST2004I
- This message displays the LDLC timer operands that are associated with the local static VIPA address displayed in message IST1680I. These values differ from those specified on the group being activated. See the communication adapter (XCA) major node information in z/OS Communications Server: SNA Resource Definition Reference for more information about the LIVTIME operand for Enterprise Extender.
- In the message text:
  - init_value
    - The initial duration, in seconds, of an Enterprise Extender logical data link control (LDLC) liveness timer interval.
  - max_value
    - The maximum duration, in seconds, of an Enterprise Extender LDLC liveness timer interval.
  - srqtime
    - The duration, in seconds, of the Enterprise Extender LDLC short request timer interval. The short request timer interval represents the amount of time the LDLC layer waits, without receipt of a response from the connection partner, before sending the LDLC signal again.
  - srqretry
    - The number of times the short request timer is tried again before the Enterprise Extender port becomes inoperative.

IST2188I
- In the message text:
  - groupname2
    - The group that has a first line that was activated after the first line of another group with the same IP address. The LDLC timer operands specified on this group are ignored.

IST2189I
- In the message text:
  - groupname1
    - The group whose first line that was activated before the other groups with the same IP address. The LDLC timer operands specified on this GROUP definition statement or sifted down from PORT definition statement are set for the group specified by the groupname2 value in message IST2188I and its associated lines.

System action: Processing continues. The LDLC timer operands were set previously and the new values are ignored.

Operator response: Save the system log for problem determination and contact the system programmer.
IST2189I • IST2191I

System programmer response: To avoid this error, specify the same values on all groups with the same local VIPA address.

User response: Not applicable.

Problem determination: Not applicable.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

Routing code: 2
Descriptor code: 5

Example:

IST2188I LDLC TIMER OPERANDS ON GROUP GP1A2A IGNORED
IST2189I LDLC TIMER OPERANDS ALREADY SET BY GROUP GP1A2A1
IST1680I LOCAL IP ADDRESS 9.1.1.1
IST2004I LIVTIME = (10,20) SRQTIME = 15 SRQRETRY = 3
IST314I END

IST2189I LDLC TIMER OPERANDS ALREADY SET BY GROUP groupname1

Explanation: VTAM issues this message as a part of a group of messages when it activates the group and it ignores the LDLC timer operands either coded on the GROUP definition statement or sifted down from the PORT definition statement. The first message in this message group is IST2188I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST2190I DEVICEID PARAMETER FOR OSAENTA TRACE COMMAND = deviceid

Explanation: VTAM issues this message as part of a message subgroup. The first message in the group is IST221I on page 467. See the explanation of that message for a complete description of the subgroup.

Routing code: 2
Descriptor code: 5

IST2191I HPR PATH SWITCH SUMMARY FROM date AT time

Explanation: VTAM issues this message as part of an HPR path switch summary message group. This message group is issued only if the HPR path switch message reduction function is enabled. This message is the first in a group of messages. The message group displays summary information about path switch events that occurred during the current HPR path switch message reduction interval. The full description of the message group follows the example.

IST2191I HPR PATH SWITCH SUMMARY FROM date AT time
IST2192I STARTED = started
IST2193I TGINOP = tginop SRQTIME = srgtimer PSRETRY = psretry
IST2194I PARTNER = partner MNPS = mncps UNAVAILABLE = unavailable
IST2336I STALLED = stalled
IST2195I NETWORK = network HIGH = high MEDIUM = medium LOW = low
IST924I -------------------------------------------------------------
IST2196I COMPLETED = completed
IST2195I NETWORK = network HIGH = high MEDIUM = medium LOW = low
IST924I -------------------------------------------------------------
IST2197I FAILED = failed
IST2195I NETWORK = network HIGH = high MEDIUM = medium LOW = low
IST924I -------------------------------------------------------------
IST2198I NETID STARTED COMPLETED FAILED
IST2199I CPNAME NET HI MED LOW NET HI MED LOW NET HI MED LOW
IST2205I --------------------------- ---------------------------

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Chapter 10. IST messages for VTAM network operators IST2001I – IST2417I

IST2191I

This message is a line separator between various sections of the HPR path switch summary.

IST2191I

The *date* and *time* values specify when the HPR path switch event interval was started. The information displayed in this message summary is valid from this date and time. See "DATE and TIME formats" on page 6 for information about the *date* and *time* values.

IST2192I

In the message text:

*started*

The total number of RTP pipes that entered path switch.

This is the first message of a subgroup of messages. The complete message subgroup follows:

IST2192I STARTED = started
IST2193I TGINOP = tginop SRTIMER = srtimer PSRETRY = psretry
IST2194I PARTNER = partner MNPS = mnps UNAVAILABLE = unavailable
IST2336I STALLED = stalled
IST2195I NETWORK = network HIGH = high MEDIUM = medium LOW = low

Messages IST2193I, IST2194I and IST2336I identify the various path switch reasons, along with the number of RTP pipes that entered path switch for each of these reasons. Message IST2195I lists the number of RTP pipes that entered path switch by priority.

**Results:**

- The *started* value is the sum of the path switch reason counts that are listed in messages IST2193I, IST2194I and IST2336I.
- The *started* value is the sum of the RTP pipe priority counts listed in the message IST2195I in this message subgroup.
- Usually, the HPR path switch started count is the sum of the associated HPR path switch completed and failed counts. The associated HPR path switch completed or failed counts might be listed in this same display, or they might be associated with subsequent HPR path switch summary displays because of different HPRPST time values assigned to each priority. If the partner path switch started reason listed in message IST2194I is a nonzero value, it is possible that the associated HPR path switch completed or failed counts might not add up to the path switch started count. When both RTP partners initiate a path switch at approximately the same time, the started count might display higher by the value listed in the partner field of message IST2194I. This can cause two path switch started events in which only one completes successfully or unsuccessfully.

IST2193I

In the message text:

*tginop*

The number of RTP pipes that entered path switch because an inoperative condition occurred on the physical TG. See IST1819I for a complete description of this path switch reason.

*srtimer*

The number of RTP pipes that entered path switch because the short request retry limit was exhausted. See IST1818I for a complete description of this path switch reason.
**IST2191I**

-psretry-
The number of RTP pipes that entered path switch because of the PSRETRY function. See IST1821I for a complete description of this path switch reason.

**IST2194I**

In the message text:

-partner-
The number of RTP pipes that entered path switch because the partner initiated path switch. See IST1937I for a complete description of this path switch reason.

-mnps-
The number of RTP pipes that entered path switch because of the recovery of an MNPS application. See IST2239I for a complete description of this path switch reason.

-unavailable-
The number of RTP pipes that entered path switch because either the underlying physical connection or the RTP pipe itself is not suitable for RTP traffic. See IST1817I for a complete description of this path switch reason.

**IST2195I**

This message is included in various message subgroups headed by message IST2192I, IST2196I, or IST2197I. See the description of those messages for a complete description.

In the message text:

-network-
The number of network priority RTP pipes that started, successfully completed, or failed to path switch.

-high-
The number of high priority RTP pipes that started, successfully completed, or failed to path switch.

-medium-
The number of medium priority RTP pipes that started, successfully completed, or failed to path switch.

-low-
The number of low priority RTP pipes that started, successfully completed, or failed to path switch.

**IST2196I**

In the message text:

-completed-
The total number of RTP pipes that successfully completed a path switch.

This is the first message of a subgroup of messages. The complete message subgroup follows:

IST2196I COMPLETED = completed
IST2195I NETWORK = network HIGH = high MEDIUM = medium LOW = low

Message IST2195I lists the number of RTP pipes by priority that successfully completed a path switch.

**Results:**

- The completed value is the sum of the RTP pipe priority counts listed in the message IST2195I in this message subgroup.
- Usually, the HPR path switch started count is the sum of the associated HPR path switch completed and failed counts. The associated HPR path switch completed or failed counts might be listed in this same display, or they might be associated with subsequent HPR path switch summary displays because of different HPRPST time values assigned to each priority. If the partner path switch started reason listed in message IST2194I is a nonzero value, it is possible that the associated HPR path switch completed or failed counts might not add up to the path switch started count. When both RTP partners initiate a path switch at approximately the same time, the started count might display higher by the value listed in the partner field of message IST2194I. This might cause two path switch started events in which only one completes successfully or unsuccessfully.
In the message text:

**failed**

The total number of RTP pipes that failed to path switch.

This is the first message of a subgroup of messages. The complete message subgroup follows:

IST2197I FAILED = failed
IST2195I NETWORK = network HIGH = high MEDIUM = medium LOW = low

Message IST2195I lists the number of RTP pipes by priority that failed to path switch.

**Results:**

- The **failed** value is the sum of the RTP pipe priority counts listed in message IST2195I in this message subgroup.
- Usually, the HPR path switch started count is the sum of the associated HPR path switch completed and failed counts. The associated HPR path switch completed or failed counts might be listed in this same display, or they might be associated with subsequent HPR path switch summary displays because of different HPRPST time values assigned to each priority. If the partner path switch started reason listed in message IST2194I is a nonzero value, it is possible that the associated HPR path switch completed or failed counts might not add up to the path switch started count. When both RTP partners initiate a path switch at approximately the same time, the started count might display higher by the value listed in the partner field of message IST2194I. This might cause two path switch started events in which only one completes successfully or unsuccessfully.

IST2198I

This message is the first of two header messages for the information displayed in messages IST2200I and IST2201I.

IST2199I

This message is the second of two header messages for the information displayed in messages IST2200I and IST2201I.

IST2200I

This is the first message of a subgroup of messages. One IST2200I message is issued for each partner NETID affected by the reported HPR path switch events. This message subgroup provides HPR path switch information unique to the reported NETID. This message subgroup can be issued for up to 10 partner NETIDs.

The complete message subgroup follows the example.

```
IST2200I netid snn snh smn1 cnn cnh cmn1 fnm fnh fnm fnl
[IST2201I cpname scn sch scm scl ccn cch ccm ccl fcn fch fcm fcl]
```

In the message text:

**netid**

The name of the partner NETID.

**Results:**

- Usually, the NETID-specific HPR path switch counts are the sum of CP-specific counts reported in the associated IST2201I messages. However, when the HPR path switch events are associated with more than 50 partner CPs, the NETID-specific counts might report higher values than the sum of the CP-specific counts.
- If any of the reported counts display as 999, this indicates that at least 999 RTP pipes started, successfully completed, or failed to path switch.

The following describes the contents of the STARTED, COMPLETED and FAILED columns under message IST2196I:

**STARTED:**

The **snn** value is the total number of network-priority RTP pipes that entered path switch.

The **snh** value is the total number of high-priority RTP pipes that entered path switch.
The **snm** value is the total number of medium-priority RTP pipes that entered path switch.
The **sln** value is the total number of low-priority RTP pipes that entered path switch.

**COMPLETED:**
The **cnn** value is the total number of network-priority RTP pipes that successfully completed path switch.
The **chn** value is the total number of high-priority RTP pipes that successfully completed path switch.
The **cmn** value is the total number of medium-priority RTP pipes that successfully completed path switch.
The **cln** value is the total number of low-priority RTP pipes that successfully completed path switch.

**FAILED:**
The **fnn** value is the total number of network-priority RTP pipes that failed to path switch.
The **fnh** value is the total number of high-priority RTP pipes that failed to path switch.
The **fnn** value is the total number of medium-priority RTP pipes that failed to path switch.
The **fnl** value is the total number of low-priority RTP pipes that failed to path switch.

**IST2201I**

This message is included in a message group headed by message IST2200I. One IST2201I message is issued for each partner CP affected by the reported HPR path switch events. The IST2200I message preceding this message identifies the NETID of this partner CP. This message provides HPR path switch information unique to this partner CP. This message subgroup can be issued for up to 50 partner CPs in 10 NETIDs.

In the message text:

* cpname
  The name of the partner CP.

Results:
- If any of the reported counts display as 999, it indicates that at least 999 RTP pipes started, successfully completed, or failed to path switch.

The following describes the contents of the STARTED, COMPLETED and FAILED columns under message IST2196I:

**STARTED:**
The **scn** value is the total number of network-priority RTP pipes that entered path switch.
The **sch** value is the total number of high-priority RTP pipes that entered path switch.
The **scm** value is the total number of medium-priority RTP pipes that entered path switch.
The ** scl** value is the total number of low-priority RTP pipes that entered path switch.

**COMPLETED:**
The **ccn** value is the total number of network-priority RTP pipes that successfully completed path switch.
The **cch** value is the total number of high-priority RTP pipes that successfully completed path switch.
The **ccm** value is the total number of medium-priority RTP pipes that successfully completed path switch.
The **ccl** value is the total number of low-priority RTP pipes that successfully completed path switch.

**FAILED:**
The **fcn** value is the total number of network-priority RTP pipes that failed to path switch.
The **fch** value is the total number of high-priority RTP pipes that failed to path switch.
The **fcm** value is the total number of medium-priority RTP pipes that failed to path switch.
The **fcl** value is the total number of low-priority RTP pipes that failed to path switch.

**IST2205I**

This message is a line separator between various sections of the HPR path switch summary.

**IST2206I**

In the message text:
The sum of the values displayed as started, completed, and failed in messages IST2192I, IST2196I and IST2197I, respectively.

cps
The total number of RTP partner CPs affected by the reported HPR path switch events. If the cps value displays > 50, more than 50 partner CPs were associated with the reported HPR path switch events.

netids
The total number of partner NETIDs affected by the reported HPR path switch events. If the netids value displays > 10, more than 10 partner NETIDs were associated with the reported HPR path switch events.

In the message text:

stalled
The number of RTP pipes that entered path switch because VTAM entered the transmit (XMIT) stalled state. An XMIT stall condition occurs after VTAM retransmits an NLP for the sixth time and at least 10 seconds has elapsed since the NLP was first retransmitted.

System action: Processing continues.

Operator response: Save the system log for problem determination and contact the system programmer.

System programmer response: Review the system log associated with the HPR path switch events. The IST2191I message group is being issued as part of the HPR path switch message reduction function. Obtain the date and time from message IST2191I to identify the beginning of the current HPR path switch message reduction interval. Review the system log generated near this date and time to locate other relevant information that might identify the reason for the HPR path switch activity (for example, INOPs or ABENDs).

User response: Not applicable.

Problem determination: See the System Programmer Response.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.

Routing code: 2

Descriptor code: 5

Example:

IST2191I HPR PATH SWITCH SUMMARY FROM 03/21/06 AT 09:45:14
IST924I -----------------------------------------
IST2192I STARTED = 20
IST2193I TGINOP = 20 SRQTIMER = 0 PSRETRY = 0
IST2194I PARTNER = 0 MNPS = 0 UNAVAILABLE = 0
IST2195I STALLED = 0
IST2195I NETWORK = 5 HIGH = 5 MEDIUM = 5 LOW = 5
IST924I -----------------------------------------
IST2196I COMPLETED = 20
IST2195I NETWORK = 5 HIGH = 5 MEDIUM = 5 LOW = 5
IST924I -----------------------------------------
IST2197I FAILED = 0
IST2195I FAILED = 0 HIGH = 0 MEDIUM = 0 LOW = 0
IST924I -----------------------------------------
IST2198I NETID STARTED COMPLETED FAILED
IST2199I CPNAME NET HI MED LOW NET HI MED LOW NET HI MED LOW
IST2205I ----------------- ----------------- -----------------
IST2200I NETA 5 5 5 5 5 5 5 0 0 0 0 0
IST2201I SSCP7A 1 1 1 1 1 1 1 1 1 0 0 0 0
IST2201I SSCP3A 1 1 1 1 1 1 1 1 1 0 0 0 0
IST2201I SSCP7B 1 1 1 1 1 1 1 1 1 0 0 0 0
IST2201I SSCP2AB 1 1 1 1 1 1 1 1 1 0 0 0 0

Chapter 10. IST messages for VTAM network operators IST2000I – IST2417I 919
IST2192I • IST2197I

IST2192I STARTED = started
Explanation: VTAM issues this message as part of an HPR path switch summary message group. This message group is issued only if the HPR path switch message reduction function is enabled. The first message in this message group is IST2191I. See the explanation of that message for a complete description.
Routing code: 2
Descriptor code: 5

IST2193I TGINOP = tginop SRQTIMER = srqtimer PSRETRY = psretry
Explanation: VTAM issues this message as part of an HPR path switch summary message group. This message group is issued only if the HPR path switch message reduction function is enabled. The first message in this message group is IST2191I. See the explanation of that message for a complete description.
Routing code: 2
Descriptor code: 5

IST2194I PARTNER = partner MNPS = mnps UNAVAILABLE = unavailable
Explanation: VTAM issues this message as part of an HPR path switch summary message group. This message group is issued only if the HPR path switch message reduction function is enabled. The first message in this message group is IST2191I. See the explanation of that message for a complete description.
Routing code: 2
Descriptor code: 5

IST2195I NETWORK = network HIGH = high MEDIUM = medium LOW = low
Explanation: VTAM issues this message as part of an HPR path switch summary message group. This message group is issued only if the HPR path switch message reduction function is enabled. The first message in this message group is IST2191I. See the explanation of that message for a complete description.
Routing code: 2
Descriptor code: 5

IST2196I COMPLETED = completed
Explanation: VTAM issues this message as part of an HPR path switch summary message group. This message group is issued only if the HPR path switch message reduction function is enabled. The first message in this message group is IST2191I. See the explanation of that message for a complete description.
Routing code: 2
Descriptor code: 5

IST2197I FAILED = failed
Explanation: VTAM issues this message as part of an HPR path switch summary message group. This message group is issued only if the HPR path switch message reduction function is enabled. The first message in this message group is IST2191I. See the explanation of that message for a complete description.
Routing code: 2
Descriptor code: 5
IST2198I  NETID STARTED COMPLETED FAILED

Explanation: VTAM issues this message as part of an HPR path switch summary message group. This message group is issued only if the HPR path switch message reduction function is enabled. The first message in this message group is IST2191I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST2199I  CPNAME NET HI MED LOW NET HI MED LOW NET HI MED LOW

Explanation: VTAM issues this message as part of an HPR path switch summary message group. This message group is issued only if the HPR path switch message reduction function is enabled. The first message in this message group is IST2191I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST2200I  netid snn snh snm snl cnn cnh cnm cnl fnn fnh fnm fnl

Explanation: VTAM issues this message as part of an HPR path switch summary message group. This message group is issued only if the HPR path switch message reduction function is enabled. The first message in this message group is IST2191I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST2201I  cpname scn sch scm scl ccn cch ccm ccl fcn fch fcm fcl

Explanation: VTAM issues this message as part of an HPR path switch summary message group. This message group is issued only if the HPR path switch message reduction function is enabled. The first message in this message group is IST2191I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST2202I  GREXIT = grexit WLM = wlm LOCLU = loclu

Explanation: This message is part of a subgroup of messages that is issued in the following situations:

• In response to a D NET,ID=name,IDTYPE=GENERIC command. The first message in this message group is IST1359I. See the explanation of that message for a complete description.
• In response to a D NET,GRPREFS command. See the explanation of IST2210I for a complete description of the message group.

Routing code: 2
Descriptor code: 5

IST2203I  CHARACTER SET Char_Set - CODE PAGE Code_Page

Explanation: VTAM issues this message as part of a message group in response to a DISPLAY TSOUSER command for an application, CDRSC, or LU resource. This message contains the character set and code page values in use for this TSO user. The value *NA* indicates that character set and code page values were not available when the session was initiated or CODEPAGE=NO is specified in TSOKEY00. A character set and code page combination is commonly referred to as a coded graphic character set global identifier (CGCSGID). The CGCSGID values are documented in the 3174 Character Set Reference GA27-3831.

In the message text:

Char_Set
  The hexadecimal value of the Character Set.
**IST2204I • IST2206I**

*Code_Page*

The hexadecimal value of the Code Page.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**User response:** Not applicable.

**Problem determination:** Not applicable.

**Source:** z/OS Communications Server SNA

**Module:** You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.

**Routing code:** 2

**Descriptor code:** 5

**Example:**

IST097I DISPLAY ACCEPTED
IST075I NAME = USER1, TYPE = TSO USERID
IST486I STATUS= ACTIV, DESIRED STATE= N/A
IST576I TSO TRACE = OFF
IST262I ACBNAME = TS00001, STATUS = ACT/S
IST262I LUNAME = TCPM1011, STATUS = ACT/S
IST1727I DNS NAME: ASDF127.TCP.YOURCITY.YOURNAME.COM
IST1669I IPADDR..PORT 2001:0DB8::1234..1027
IST2203I CHARACTER SET 0065 - CODE PAGE 0025
IST314I END

**IST2204I**  

**LOCAPPL = locappl PASSOLU = passolu**

**Explanation:** This message is part of a subgroup of messages that is issued in the following situations:

- **In response to a D NET,ID=** name,**IDTYPE=** GENERIC command. The first message in this message group is IST1359I. See the explanation of that message for a complete description.
- **In response to a D NET,GRPREFS command.** See the explanation of IST2210I for a complete description of the message group.

**Routing code:** 2

**Descriptor code:** 5

**IST2205I**  

**dashed_line**

**Explanation:** This message is a line separator and is part of several different message groups. It is used to improve readability or to separate types of information. See the explanation of the first message in the group for an example of how this message is used in each group.

**Routing code:** 2

**Descriptor code:** 5

**IST2206I**  

**events PATH SWITCH EVENTS FOR cps CPS in netids NETIDS**

**Explanation:** VTAM issues this message as part of an HPR path switch summary message group. This message group is issued only if the HPR path switch message reduction function is enabled. The first message in this message group is IST2191I. See the explanation of that message for a complete description.

**Routing code:** 2

**Descriptor code:** 5
IST2207I  table TABLE FOR netid

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ADJCLUST command. A complete description of the message group follows the example.

IST350I  DISPLAY TYPE = ADJACENT CLUSTER TABLE
IST2207I  table TABLE FOR netid

[IST2208I  sc_option = sc_value FROM START OPTION]
[IST2209I  sc_option = sc_value FROM ADJCLUST TABLE]
IST1326I  CP NAME  TYPE  STATE  STATUS  SNVC
IST1327I  cpname  type  state  status  snvc
;
IST314I  END

The IST2207I subgroup is repeated for each target network.

IST350I
This message identifies the type of information shown in the display. The DISPLAY TYPE value is always ADJACENT CLUSTER TABLE for this message group.

IST2207I
• In the message text:

  table
  The type of table being displayed. The table values depend on the extent to which you have defined entries for the adjacent cluster table. Possible values are:

  DEFINED
  The user defined entries for the specified NETID in the adjacent cluster table.

  DEFAULT
  The user did not define any entries for the displayed NETID, but a DEFAULT_NETID entry was defined.

  DYNAMIC
  The user did not define any entries for the displayed NETID, no default table was coded, but dynamics are allowed (BNDYN=FULL or BNDYN=LIMITED).

  netid
  The network identifier of the network that the search is targeting. The default is DEFAULT_NETID. VTAM uses DEFAULT_NETID if the NETID operand is omitted from the network definition statement. See the adjacent cluster routing definitions information in z/OS Communications Server: SNA Resource Definition Reference for more information about the network definition statement.

IST2208I or IST2209I
• In the message text:

  sc_option
  A search control option associated with the search being displayed. Possible values are: BNORD and BNDYN. When VTAM is enabled as a border node, both search control options are displayed. Either message IST2208I or IST2209I is issued for each search control option displayed.

  sc_value
  The value of the search control option associated with the table being displayed. When the option is BNORD, possible values are: PRIORITY and DEFINED. When the option is BNDYN, possible values are: NONE, LIMITED and FULL. See the z/OS Communications Server: SNA Resource Definition Reference for a description of the values.

IST1326I and IST1327I
• These messages provide status information about the border nodes that can be used to reach the target network.
• In the message text:

  cpname
  The network-qualified name of the border node in the form netid.name.
**IST2208I • IST2209I**

**type**
The type of CP being displayed. Possible values are: DEFINED or DYNAMIC.
- If the `table` value in message IST2207I is DEFINED or DEFAULT, then the `type` value is either DEFINED or DYNAMIC.
- If the `table` value in message IST2207I is DYNAMIC, then the `type` value can be only DYNAMIC.

**state**
The current state of the border node. Possible values are: ACTIVE, NOT ACTIVE, or OMITTED.

**status**
The result of the most recent search for this particular border node. Possible values are: FOUND, NOT FOUND, or NOT SEARCHED.

**snvc**
The APPN topology subnetwork visit count. The `snvc` value indicates the maximum number of subnetworks that can be crossed while attempting to locate the target resource. An APPN topology subnetwork is a collection of nodes that share the same topology database.

- Message IST1327I is repeated for each border node that exists in the adjacent cluster table.

**System action:** Processing continues.

**Operator response:** No action needed.

**System programmer response:** No action needed.

**User response:** No action needed.

**Problem determination:** Not applicable.

**Source:** z/OS Communications Server SNA

**Module:** You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

**Routing code:** 2

**Descriptor code:** 5

**Example:**
```
d net,adjclust,netid=neta
IST097I DISPLAY ACCEPTED
IST350I DISPLAY TYPE = ADJACENT CLUSTER TABLE
IST2207I TYPE = DEFINED TABLE FOR NETA
IST2208I BNDYN = FULL FROM START OPTION
IST2209I BNDRD = PRIORITY FROM ADJCLUST TABLE
IST1326I CP NAME   TYPE   STATE   STATUS   SNVC
IST1327I NETA.BN3  DEFINED ACTIVE FOUND   003
IST1327I NETA.BN2  DEFINED NOT ACTIVE NOT SEARCHED 003
IST1327I NETA.BN1  DYNAMIC ACTIVE NOT SEARCHED N/A
IST314I END
```

**Explanation:** This message is displayed as part of several message groups. These message groups begin with IST2207I or IST663I. See the explanations of these messages for a complete description.

**Routing code:** 2

**Descriptor code:** 5

**Example:**
```
IST2208I  sc_option = sc_value FROM START OPTION
IST2209I  sc_option = sc_value FROM ADJCLUST TABLE
```

**Explanation:** This message is displayed as part of several message groups. These message groups begin with IST2207I or IST663I. See the explanations of these messages for a complete description.

**Routing code:** 2
IST2210I  GR PREFERENCE TABLE ENTRY = entryname

Explanation:  This message is part of a group of messages that VTAM issues in the following situations:
  • In response to a D NET,ID=name,IDTYPE=GENERIC command. The first message in this message group is IST1359I. See the explanation of that message for a complete description.
  • In response to a D NET,GRPREFS command.

A complete description of the message group follows.

D NET,GRPREFS

IST075I NAME = GRPREF03, TYPE = GR PREFERENCES
IST924I -----------------------------------------------
IST2210I GR PREFERENCE TABLE ENTRY = **DEFAULT**
IST2202I GREXIT = NO  WLM = YES  LOCLU = YES
IST2204I LOCAPPL = YES  PASSOLU = NO
IST924I -----------------------------------------------
IST2210I GR PREFERENCE TABLE ENTRY = APPLGR
IST2202I GREXIT = NO  WLM = YES  LOCLU = NO
IST2204I LOCAPPL = NO  PASSOLU = YES
IST314I END

IST075I  
  • This message identifies the type of information in the display. The type is always GR PREFERENCES for this message group.
  • In the message text:

    tablename

    The name of the Generic Resources Preferences Table that is displayed. See Chapter 17, “Node and ID types in VTAM messages,” on page 1097 for more information.

IST350I  
This message identifies the type of information in the display and is always GR PREFERENCES TABLE for this message group.

IST924I  
This message is a line separator between subgroups.

IST2202I  
  • This message lists the generic resource preferences for GREXIT, WLM, and LOCLU.
  • In the message text:

    grexit

    Indicates whether the Generic Resource exit is called during generic resource resolution. Valid values are:

    YES
    The Generic Resource exit is called during generic resource resolution.

    NO
    The Generic Resource exit is not called during generic resource resolution.

    wlm

    Indicates whether the MVS Workload Manager is called during generic resource resolution. Valid values are:

    YES
    The MVS Workload Manager is called during generic resource resolution.

    NO
    The MVS Workload Manager is not called during generic resource resolution.

    loclu

    Indicates whether generic resource resolution for sessions initiated from a local LU that is part of a local SNA or local non-SNA major node on this host prefers generic resource instances on this host. Valid values are:
YES
Generic resource resolution for sessions initiated from a local LU that is part of a local SNA or local non-SNA major node on this host prefers generic resource instances on this host.

NO
Generic resource resolution for sessions initiated from a local LU that is part of a local SNA or local non-SNA major node on this host does not prefer generic resource instances on this host.

IST2204I

• This message lists the generic resource preferences for LOCAPPL and PASSOLU.

• In the message text:

locappl
Indicates whether generic resource resolution for sessions initiated from an application on this host prefers generic resource instances on this host. Valid values are:

YES
Generic resource resolution for sessions initiated from an application on this host prefers generic resource instances on this host.

NO
Generic resource resolution for sessions initiated from an application on this host does not prefer generic resource instances on this host.

passolu
Indicates whether generic resource resolution for third-party-initiated (CLSDST PASS) sessions prefers generic resource instances located on the OLU host. Valid values are:

YES
Generic resource resolution for third-party-initiated (CLSDST PASS) sessions prefers generic resource instances located on the OLU host.

NO
Generic resource resolution for third-party-initiated (CLSDST PASS) sessions does not prefer generic resource instances located on the OLU host.

IST2210I

• This message is the first line of a subgroup. This message is a header message for messages IST2202I and IST2204I. One subgroup is issued for either the VTAM or nameless default generic resource preferences and each named entry in the Generic Resource Preferences Table.

• In the message text:

entryname
The name of the Generic Resource Preferences Table entry that defines the subsequent GR preferences. Valid values are:

**DEFAULT**
The VTAM default generic resource preferences.

**NAMELESS**
The defined nameless Generic Resource Preferences Table entry that identifies the default generic resource preferences.

entryname
The defined name of the Generic Resource Preferences Table entry. This name also corresponds to the generic resource to which the generic resource preferences apply.

System action: Processing continues.

Operator response: See the z/OS Communications Server: SNA Operation for more information about the Generic Resource Preference Table.

System programmer response: None.

User response: None.

Problem determination: None.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start...
option to YES. See "Adding the originating module to the message text" on page 5 for more information about the
MSGMOD start option.

Routing code: 2
Descriptor code: 5

Example:

D NET,GRPREFS
IST075I NAME = GRPREF03, TYPE = GR PREFERENCES
IST924I ---------------------------------------------
IST220I GR PREFERENCE TABLE ENTRY = **DEFAULT**
IST220I GEXIT = NO WLM = YES LOCLU = YES
IST220I LOCAPPL = YES PASSOLU = NO
IST924I ---------------------------------------------
IST220I GR PREFERENCE TABLE ENTRY = APPLGR
IST220I GEXIT = NO WLM = YES LOCLU = NO
IST220I LOCAPPL = NO PASSOLU = YES
IST314I END

IST2211I ACK QUEUE MAX

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for
a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first
message in the group is IST1968I. See the description of that message for more information.

Routing code: 2
Descriptor code: 5

IST2212I ackqmax

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for
a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first
message in the group is IST1968I. See the description of that message for more information.

Routing code: 2
Descriptor code: 5

IST2213I LAST BACKPRESSURE APPLIED ON date AT time

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for
a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first
message in the group is IST1968I. See the description of that message for more information.

Routing code: 2
Descriptor code: 5

IST2214I BACKPRESSURE REASON: PATHSWITCH

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for
a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first
message in the group is IST1968I. See the description of that message for more information.

Routing code: 2
Descriptor code: 5

IST2215I BACKPRESSURE REASON: SEND QUEUE MAXIMUM REACHED

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for
a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first
message in the group is IST1968I. See the description of that message for more information.

Routing code: 2
IST2216I • IST2219I

Descriptor code: 5

IST2216I  BACKPRESSURE REASON: STORAGE FAILURE

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is IST1968I. See the description of that message for more information.

Routing code: 2
Descriptor code: 5

IST2217I  BACKPRESSURE REASON: STALLED PIPE

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is IST1968I. See the description of that message for more information.

Routing code: 2
Descriptor code: 5

IST2218I  BACKPRESSURE REASON: WAITING-FOR-ACK QUEUE MAXIMUM REACHED

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is IST1968I. See the description of that message for more information.

Routing code: 2
Descriptor code: 5

IST2219I  resource ACTIVATION WAITING FOR MINIMUM NUMBER OF DEVICES

Explanation: This message is issued during the activation of a Multipath Channel (MPC) group because VTAM could not allocate at least one read device and one write device.

In the message text:
resource  
The name of the TRLE or MPC subarea line that defines the MPC group.

VTAM also issues this message as part of a message group in response to the following:
• A DISPLAY ID command for an MPC line or a transport resource list entry (TRLE).
• A DISPLAY TRL command for an active TRL entry.

See "IST1221I" on page 467 for a description of those displays.

System action: Activation of the MPC group is suspended until either the minimum required number of devices comes online or the MPC group is deactivated. In the former case, message IST2220I is issued to signal that activation of the MPC group has resumed.

Operator response: Issue the D NET,ID=resource,E command. If message IST2219I does not appear in the display output, no further response is needed. Otherwise, review all of the IST1221I messages that contained in the display that have the chtyp value WRITE or READ. For each chtyp value that lacks a subchannel with the system_state value ONLINE, make at least one of those subchannels in the offline system state available. See "IST1221I" on page 467 for more information about the chtyp value.

Issue the MVS VARY ONLINE command to make a subchannel available. If the result indicates that the channel is already online, then ensure that a valid path to the connecting host exists.

When the minimum required number of subchannels is available, VTAM automatically allocates the devices and resumes activation of the MPC group.

System programmer response: If you do not want automatic recovery of MPC group activations, modify the
MPCACT start option to a value of NOWAIT to enable you to try the activation of MPC groups again manually; this message will no longer appear.

**User response:** Not applicable.

**Problem determination:** Not applicable.

**Source:** z/OS Communications Server SNA

**Module:** You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

**Routing code:** 2

**Descriptor code:** 5

**Example:**

```
V NET,ACT,ID=MPCLN1,E
IST097I VARY ACCEPTED
IST2219I MPCLN1 ACTIVATION WAITING FOR MINIMUM NUMBER OF DEVICES
...,
D NET, ID=MPCLN1,E
IST097I DISPLAY ACCEPTED
IST075I NAME = MPCLN1, TYPE = LINE
...,
IST2219I MPCLN1 ACTIVATION WAITING FOR MINIMUM NUMBER OF DEVICES
...,
IST314I END
```

IST2220I

**Explanation:** This message is issued during activation of a Multipath Channel (MPC) that had previously been suspended because VTAM could not allocate at least one read device and one write device. When the minimum required number of devices comes online, this message is issued to signal that activation of the MPC group has automatically resumed.

In the message text:

*resource*

The name of the TRLE or MPC subarea line that defines the MPC group.

**System action:** Activation of the MPC group resumes.

**Operator response:** Not applicable.

**System programmer response:** If you do not want automatic recovery of MPC group activations, modify the MPCACT start option to a value of NOWAIT to enable you to try activation of MPC groups again manually; this message will no longer appear.

**User response:** Not applicable.

**Problem determination:** Not applicable.

**Source:** z/OS Communications Server SNA

**Module:** You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

**Routing code:** 2

**Descriptor code:** 5

**Example:**

```
V NET,ACT,ID=MPCLN1,E
IST097I VARY ACCEPTED
IST2219I MPCLN1 ACTIVATION RESUMING - ONLINE DEVICES DETECTED
```

**IST2220I**

**Explanation:** This message is issued during activation of a Multipath Channel (MPC) that had previously been suspended because VTAM could not allocate at least one read device and one write device. When the minimum required number of devices comes online, this message is issued to signal that activation of the MPC group has automatically resumed.

In the message text:

*resource*

The name of the TRLE or MPC subarea line that defines the MPC group.

**System action:** Activation of the MPC group resumes.

**Operator response:** Not applicable.

**System programmer response:** If you do not want automatic recovery of MPC group activations, modify the MPCACT start option to a value of NOWAIT to enable you to try activation of MPC groups again manually; this message will no longer appear.

**User response:** Not applicable.

**Problem determination:** Not applicable.

**Source:** z/OS Communications Server SNA

**Module:** You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

**Routing code:** 2

**Descriptor code:** 5

**Example:**

```
V NET,ACT,ID=MPCLN1,E
IST097I VARY ACCEPTED
IST2219I MPCLN1 ACTIVATION RESUMING - ONLINE DEVICES DETECTED
```
IST2221I • IST2223I

IST2221I  EXPLICITBINDPORTRANGE - START: begin_port  END: end_port

Explanation:  This message is part of a group of messages VTAM issues in response to a DISPLAY STATS,TYPE=CFS command. The first message in the group is IST1370I. See the explanation of that message for a complete description.

Routing code:  2
Descriptor code:  5

IST2222I  QDIOSYNC CAPTURE INITIATED FOR TRLE trlename

Explanation:  VTAM issues this message immediately after a capture signal has been sent to an armed OSA-Express2 or later adapter. The OSA-Express2 or later adapter is expected to capture its diagnostic data by creating a console log on the service element (SE).

In the message text:

trlename  
  The name of the OSA-Express2 or later adapter, as defined on the TRLE definition statement in the TRL major node.

System action:  Processing continues.
Operator response:  Contact system programmer.

System programmer response:  Use the timestamp of the message to correlate with the OSA-Express2 or later documentation (console logs) on the SE. Collect the diagnostic data from the SE and contact IBM OSA system support services.

User response:  Not applicable.
Problem determination:  Not applicable.
Source:  z/OS Communications Server SNA

Module:  You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See ["Adding the originating module to the message text" on page 5] for more information about the MSGMOD start option.

Routing code:  2
Descriptor code:  5

Example:
IST2222I  QDIOSYNC CAPTURE INITIATED FOR TRLE NSQDIO11

IST2223I  QDIOSYNC STATE ARMED FOR TRLE trlename AT TIME OF INOP

Explanation:  VTAM issues this message when an OSA-Express2 or later adapter enters an inoperative condition and that adapter is armed for QDIOSYNC. IST2223I always follows IST222I. The OSA-Express2 or later adapter is expected to capture its diagnostic data by creating a console log on the service element (SE).

In the message text:

trlename  
  The name of the OSA-Express2 or later adapter, as defined on the TRLE definition statement in the TRL major node.

System action:  Processing continues.
Operator response:  Contact system programmer.

System programmer response:  Use the timestamp of the VTAM INOP messages to correlate with the OSA-Express2 or later documentation (console logs) on the SE. Collect the diagnostic data from the SE and contact IBM OSA system support services.

User response:  Not applicable.
Problem determination:  Not applicable.
Source:  z/OS Communications Server SNA

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Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

Routing code: 2
Descriptor code: 5

Example:
IST2231 QDIOSYNC STATE ARMED FOR TRLE NSQDI011 AT TIME OF INOP

IST2224I    ENTERPRISE EXTENDER ROUTING POLICY INFORMATION

Explanation: VTAM issues this message as part of a group in response to a DISPLAY EEDIAG,TEST=YES command. The first message in the group is IST2130I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST2225I    PORT ROUTE TABLE ROUTING RULE

Explanation: VTAM issues this message as part of a group in response to a DISPLAY EEDIAG,TEST=YES command. The first message in the group is IST2130I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST2226I    port route_table routing_rule

Explanation: VTAM issues this message as part of a group in response to a DISPLAY EEDIAG,TEST=YES command. The first message in the group is IST2130I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST2227I    CONNECTIVITY NOT TESTED - ROUTE NOT APPLICABLE PORT: port

Explanation: VTAM issues this message as part of a group in response to a DISPLAY EEDIAG,TEST=YES command. The first message in the group is IST2130I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

IST2229I    REFIFO TIMER = refifo MILLISECONDS

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is IST1968I. See the description of that message for more information.

Routing code: 2
Descriptor code: 5

IST2230I    MAXIMUM NUMBER OF NLPS ON OUT-OF-SEQUENCE QUEUE = maxoutofsequence

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is IST1968I. See the description of that message for more information.

Routing code: 2
Descriptor code: 5
IST2231I • IST2237I

IST2231I  CURRENT HPR CLOCK RATE = current
Explanation: VTAM issues this message as part of a group in response to a DISPLAY EE command. The first message in the group is IST2000I. See the explanation of that message for a complete description.
Descriptor code: 2

IST2232I  HPR CLOCK RATE LAST SET TO HIGH ON date AT time
Explanation: VTAM issues this message as part of a group in response to a DISPLAY EE command. The first message in the group is IST2000I. See the explanation of that message for a complete description.
Routing code: 2
Descriptor code: 5

IST2233I  HPR CLOCK RATE LAST EXITED HIGH ON date AT time
Explanation: VTAM issues this message as part of a group in response to a DISPLAY EE command. The first message in the group is IST2000I. See the explanation of that message for a complete description.
Routing code: 2
Descriptor code: 5

IST2234I  MESSAGE TRIGGER: TCPNAME = tcpjobname
Explanation: VTAM issues this message as part of a message group in response to a DISPLAY CSDUMP command. See IST1871I for a complete description of the message group.
Routing code: 2
Descriptor code: 5

IST2235I  REMOTE DUMP FOR XCF LINK INOP: remote_dump
Explanation: VTAM issues this message as part of a message group in response to a DISPLAY CSDUMP command. See IST1871I for a complete description of the message group.
Routing code: 2
Descriptor code: 5

IST2236I  LAST NLP RETRANSMITTED ON date AT time
Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 representing a Rapid Transport Protocol (RTP) route when HPRDIAG=YES is specified. The first message in the group is IST1968I. See the description of that message for more information.
Routing code: 2
Descriptor code: 5

IST2237I  purname CURRENTLY REPRESENTS A LIMITED RESOURCE
Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a RU type 2.1 representing a Rapid Transport Protocol (RTP) route. See IST1476I for a complete description of the message group.
Routing code: 2
Descriptor code: 5
IST2238I  DISCNT = discntval - FINAL USE = finalval

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a switched PU type 2 or 2.1.

In the message text:

discntval
The DISCNT value coded on the PU statement for the PU being displayed. This operand specifies when VTAM should terminate its SSCP-LU and SSCP-PU sessions and whether to indicate final-use status in the DACTPU request unit when it deactivates a PU.

finalval
The associated final-use setting:
- If F is coded as part of the DISCNT operand, the finalval value is FINAL.
- If NF is coded as part of the DISCNT operand, the finalval value is NOT FINAL.
- If the final-use setting is not applicable, the finalval value is *NA*.

The associated delay time setting, if applicable, is displayed in message IST1392I. See the description of that message for more information.

See the DISCNT parameter information in z/OS Communications Server: SNA Resource Definition Reference for more information.

System action: Processing continues.

Operator response: None.

System programmer response: None.

User response: Not applicable.

Problem determination: Not applicable.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

Routing code: 2

Descriptor code: 5

Example:
IST2238I DISCNT = DELAY - FINAL USE = NOT FINAL

IST2239I  PATH SWITCH REASON: MNPS ENDPOINT RECOVERY

Explanation: This message is part of a group of messages that VTAM issues in response to an RTP path switch. The first message in the group is either IST1494I or IST1968I. See the description of those messages for more information.

Routing code: 2

Descriptor code: 5

IST2240I  SENSE TRIGGER: TCPNAME = tcpjobname

Explanation: VTAM issues this message as part of a message group in response to a DISPLAY CSDUMP command. See IST1871I for a complete description of the message group.

Routing code: 2

Descriptor code: 5
IST2241I • IST2243I

IST2241I  TIME ISL

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY
TOPO,ORIG=orig_cp_name,DEST=dest_cp_name or DISPLAY TOPO,ORIG=orig_cp_name,TGN=tgn command. See
IST1299I for a complete description of this message group.
Routing code: 2
Descriptor code: 5

IST2242I  SIGMCNTO = sigmcnto SIGMCNT = sigmcnt

Explanation: VTAM issues this message as part of a group of messages that displays tuning statistics for multipath
channel (MPC) attached resources. The first message in the group is IST1230I on page 479. See the explanation of
that message for a complete description.
Routing code: 2
Descriptor code: 5

IST2243I  CP-CP SESSION WITH cp_name ENDING DUE TO MAXLOCAT

Explanation: This unsolicited message is issued when VTAM initiates the inactivation of the CP-CP session with an
adjacent control point (CP) because the number of queued requests plus the number of queued replies to the adjacent
CP exceeds 200% of the MAXLOCAT value after a minimum time interval elapsed.

Before VTAM issues this message, it issues message IST1601I to indicate that it suspended routing to the adjacent
node because of severe network congestion and that VTAM ceased sending APPN search requests to the adjacent CP.
Although VTAM suspends sending APPN search requests to an adjacent CP, it continues to queue APPN search
replies to the adjacent CP.

For information about the minimum and maximum congestion thresholds or the minimum time interval, see the
MAXLOCAT start option information in z/OS Communications Server: SNA Resource Definition Reference.

In the message text:

*cp_name*

The name of the adjacent CP.

System action: VTAM deactivates the CP-CP session to the adjacent CP with sense code 80030004 and tries the
CP-CP session again.
Operator response: Notify the system programmer about the adjacent CP and monitor the adjacent CP to verify that
the CP-CP session is recovered. The following sequence of messages related to the adjacent CP indicates that the
CP-CP session has recovered:
IST2243I CP-CP SESSION WITH cp_name ENDING DUE TO MAXLOCAT

IST1097I CP-CP SESSION WITH cp_name TERMINATED
IST1280I SESSION TYPE = CONWINNER - SENSE = 80030004
IST314I END
IST1097I CP-CP SESSION WITH cp_name TERMINATED
IST1280I SESSION TYPE = CONLOSER - SENSE = 80030004
IST314I END

System programmer response: Determine whether there are network connectivity problems between this node and
the adjacent CP and, if possible, correct the problems. If connectivity is not a problem, determine whether the
maximum threshold value is appropriate for the network. If the value needs to be adjusted, change the value of the
MAXLOCAT start option.

User response: Not applicable.

Problem determination: None.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start
option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.

Routing code: 2
Descriptor code: 4
Automation: Not applicable.

Example:
IST2243I CP-CP SESSION WITH NETA.SSCP2A ENDING DUE TO MAXLOCAT

IST2244I  HPRDIAG DISPLAY ISSUED ON date AT time

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command. This message is issued when both HPRDIAG=YES is specified and when the value of the ID parameter is a PU type 2.1 that represents a Rapid Transport Protocol (RTP) pipe. The date and time values specify when this DISPLAY ID command was issued. See "DATE and TIME formats" on page 6 for information about the date and time values.

System action: Processing continues.
Operator response: None.
System programmer response: None.
User response: None.
Problem determination: Not applicable.
Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.

Routing code: 2
Descriptor code: 5
Automation: Not applicable.

Example:
IST2244I HPRDIAG DISPLAY ISSUED ON 03/30/07 AT 10:30:19

IST2245I  XMIT STALL DETECTED FOR RTP name TO cpname

Explanation: This unsolicited message is issued when HPR detects a transmission stall for an RTP pipe. A transmission stall occurs when the RTP partner continuously requests transmission of the same network layer packet (NLP). VTAM honors the request each time by transmitting the NLP, but the partner does not receive it. This message is issued after VTAM retransmits the NLP for the sixth time and at least 4-10 seconds has elapsed since the NLP was first retransmitted.

In the message text:

name
The name of the HPR PU.
cpname
The name of the CP at the other end of the pipe.

System action: When a specific NLP is retransmitted 6 times without being acknowledged by the RTP partner, and at least 10 seconds has elapsed since the NLP was first retransmitted, VTAM notifies the operator with this message. The system actions vary depending on whether the RTP pipe traverses an Enterprise Extender (EE) link.

• If the RTP pipe traverses EE, VTAM provides RTP transmission stall recovery support. If the RTP connection is multiple hops with at least one refifo connection, an HPR path switch is started. If the RTP connection is one hop over EE or an EE connection network, the RTP endpoint immediately lowers its NLP size to the minimum 768 bytes allowed by the HPR architecture. All outbound data is then re-segmented to this value to resolve the
transmission stall. If the stall persists, VTAM issues message IST2246I every 30 seconds until the stall is alleviated.

If a path switch was initiated to alleviate the stall and the stall persists, VTAM lowers the NLP size to 768 bytes when message IST2246I is issued. If the stall is alleviated, VTAM issues message IST2247I and normal data flow resumes. After 20 minutes of operating with the reduced NLP size, the original NLP size of the RTP pipe is restored to increase RTP throughput. If the network still does not allow transport of the larger packets, the stall detection and alleviation process repeats.

- If the RTP pipe does not traverse EE, VTAM does not provide RTP transmission stall recovery support. In these configurations, the maximum NLP size is calculated for the path when the RTP pipe is established. The underlying NLP size for the RTP path should not change during the life of the RTP pipe, unless a path switch occurs. VTAM alerts the operator of a transmission stall and continues to honor the retransmission requests sent by the RTP partner. If the stall persists, VTAM issues message IST2246I every 30 seconds until the stall is alleviated. If the stall is alleviated, VTAM issues message IST2247I and normal data flow resumes.

If the stall persists beyond the time limit specified by the HPRSTALL start option, VTAM automatically deactivates the RTP pipe. See the information about the HPRSTALL start option in z/OS Communications Server: SNA Resource Definition Reference.

**Operator response:** Perform the following steps to alleviate the transmission stall:

1. If the RTP pipe traverses EE and the following conditions are true, verify that the firewalls are configured to allow ICMP errors to flow on all hops of the connection:
   - Path MTU discovery is enabled for either IPv4 or IPv6 EE connections. See the PMTUD start option information in z/OS Communications Server: SNA Resource Definition Reference.
   - Firewalls are used in the configuration.

     If the firewalls are not allowing ICMP errors to flow, this could be the cause of the transmission stall. Disable path MTU discovery for EE connections until the firewalls are configured to allow ICMP errors to flow:
   - Issue the MODIFY proclname,VTAMOPTS, PMTUD=NO command to temporarily disable path MTU discovery.
   - Contact the system programmer to permanently disable path MTU discovery for IPv4 and IPv6 EE connections.

2. If the transmission stall persists, consider ending the stalled sessions by issuing the VARY net,LINCT,ID=rtp_pu_name,TYPE=FORCE command to deactivate the HPR PU. If you want VTAM to automatically end stalled RTP pipes after a specified amount of time, use the HPRSTALL start option. See the HPRSTALL start option information in z/OS Communications Server: SNA Resource Definition Reference.

**System programmer response:** If you want path MTU discovery for IPv4 and IPv6 Enterprise Extender connections to be permanently disabled, specify PMTUD=NO in the appropriate ATCSTRxx VTAM start list. If you want path MTU discovery for IPv4 and IPv6 Enterprise Extender connections to be enabled, ensure that all firewalls in the network path are configured to allow ICMP errors to flow.

**User response:** Not applicable.

**Problem determination:** If transmission stalls are prevalent and persistent, contact VTAM support for instructions about gathering documentation for problem determination.

- If you have access to IBMLink, search for known problems with similar symptoms.
- If no applicable matches are found, or if you do not have access to IBMLink, obtain a diagnostic dump for this error and report the problem to IBM. If you have access to IBMLink, the problem can be reported to IBM using the Electronic Technical Report (ETR) option on IBMLink.

**Source:** z/OS Communications Server SNA

**Module:** You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.

**Routing code:** 2

**Descriptor code:** 4

**Automation:** Not applicable.

**Example:**

IST2245I XMIT STALL DETECTED FOR RTP CNR0002F TO NETA.SSCP1A
IST2246I XMIT STALL CONTINUES FOR RTP puname TO cpname

**Explanation:** This unsolicited message is issued at 30 second intervals as long as data flow continues to be stalled for an RTP pipe.

In the message text:

- **puname**
  - The name of the HPR PU.

- **cpname**
  - The name of the CP at the other end of the pipe.

**System action:** HPR continues to wait for the RTP partner to acknowledge receipt of the network layer packets (NLPs) identified as causing the transmission stall. When all of those NLPs are acknowledged, the transmission stall is considered alleviated and message IST2247I is issued.

**Operator response:** Perform the following steps to alleviate the transmission stall:

1. If the RTP pipe traverses EE and the following conditions are true, verify that the firewalls are configured to allow ICMP errors to flow on all hops of the connection:
   - Path MTU discovery is enabled for either IPv4 or IPv6 EE connections. See the PMTUD start option information in z/OS Communications Server: SNA Resource Definition Reference.
   - Firewalls are used in the configuration.

   If the firewalls are not allowing ICMP errors to flow, this could be the cause of the transmission stall. Disable path MTU discovery for EE connections until the firewalls are configured to allow ICMP errors to flow:
   - Issue the MODIFY procname,VTAMOPTS, PMTUD=NO command to temporarily disable path MTU discovery.
   - Contact the system programmer to permanently disable path MTU discovery for IPv4 and IPv6 EE connections.

2. If the transmission stall persists, force an RTP path switch by issuing the MODIFY procname,RTP, ID=rtp_pu_name command.

3. If the RTP path switch does not relieve the transmission stall, consider ending the stalled sessions by issuing the VARY procname,INACT,ID=rtp_pu_name,TYPE=FORCE command to deactivate the HPR PU. If you want VTAM to automatically end stalled RTP pipes after a specified amount of time, use the HPRSTALL start option. See the HPRSTALL start option information in z/OS Communications Server: SNA Resource Definition Reference.

**System programmer response:** If you want path MTU discovery for IPv4 and IPv6 Enterprise Extender connections permanently disabled, specify PMTUD=NO in the appropriate ATCSTRxx VTAM start list.

**User response:** Not applicable.

**Problem determination:** If transmission stalls are prevalent and persistent, contact VTAM support for instructions about gathering documentation for problem determination.

- If you have access to IBMLink, search for known problems with similar symptoms.
- If no applicable matches are found, or if you do not have access to IBMLink, obtain a diagnostic dump for this error and report the problem to IBM. If you have access to IBMLink, the problem can be reported to IBM using the Electronic Technical Report (ETR) option on IBMLink.

**Source:** z/OS Communications Server SNA

**Module:** You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

**Routing code:** 2

**Descriptor code:** 4

**Automation:** Not applicable.

**Example:**

IST2246I XMIT STALL CONTINUES FOR RTP CNR0002F TO NETA.SSCP1A
IST2247I  XMIT STALL ALLEVIATED FOR RTP  pname TO cpname

Explanation:  This unsolicited message is issued when HPR detects that a transmission stall for an RTP pipe has been alleviated. The RTP pipe data flow is back to normal.

In the message text:

pname

The name of the HPR PU.

cpname

The name of the CP at the other end of the pipe.

System action:  The system action varies depending on whether the RTP pipe traverses an Enterprise Extender (EE) link.

If the RTP pipe traverses EE, after 20 minutes of normal operation with the reduced MTU size, the original NLP size of this RTP pipe is restored to increase RTP throughput. If the network still does not allow transport of the larger packets, the stall detection and alleviation process repeats.

If the RTP pipe does not traverse EE, processing continues.

Operator response:  None.

System programmer response:  None.

User response:  Not applicable.

Problem determination:  Not applicable.

Source:  z/OS Communications Server SNA

Module:  You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 3 for more information about the MSGMOD start option.

Routing code:  2

Descriptor code:  4

Automation:  Not applicable.

Example:

IST2247I  XMIT STALL ALLEVIATED FOR RTP CNR0002F TO NETA.SSCP1A

IST2248I  ALL DIAGNOSTIC COUNTERS CLEARED FOR number RTP PIPES

Explanation:  VTAM issues this message in response to one of the following:

• A DISPLAY ID command for a Rapid Transport Protocol PU that specifies HPRDIAG=YES and CLEAR=ALL
• A DISPLAY RTPS command that specifies CLEAR=ALL

If the DISPLAY ID command was specified, this message is part of a group of messages that begins with message IST1968I. If the DISPLAY RTPS command was specified with the REXMIT operand, this message is part of a group of messages that begins with message IST1695I. See the explanations of those messages for complete descriptions.

If the DISPLAY RTPS command was specified without the REXMIT operand, this message is issued alone.

In the message text:

number

The total number of RTP pipes whose diagnostic counters are cleared.

System action:  For the RTP pipes affected by the scope of the DISPLAY command, all associated diagnostic counters are cleared. Processing continues.

Operator response:  None.

System programmer response:  None.
User response: None.

Problem determination: Not applicable.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.

Routing code: 2

Descriptor code: 5

Automation: Not applicable.

Example:

IST2248I ALL DIAGNOSTIC COUNTERS CLEARED FOR 4 RTP PIPES

IST2249I NLP RETRANSMIT RATE = percentage

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command. This message is issued when both HPRDIAG=YES is specified and when the value of the ID parameter is a PU type 2.1 that represents a Rapid Transport Protocol (RTP) pipe. The first message in the group is IST1968I. See the description of that message for more information.

Routing code: 2

Descriptor code: 5

IST2250I ALL DIAGNOSTIC COUNTERS CLEARED ON  date AT  time

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command. This message is issued when both HPRDIAG=YES is specified and when the value of the ID parameter is a PU type 2.1 that represents a Rapid Transport Protocol (RTP) pipe. The first message in the group is IST1968I. See the description of that message for more information.

Routing code: 2

Descriptor code: 5

IST2251I AUTHORIZED NETID LIST FOR BORDER NODE SEARCHING:

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID=adjacent_CP_major_node_name command or a DISPLAY ADJCP command.

- For a DISPLAY ID=adjacent_CP_major_node_name command, see the explanation of message IST1100I for a complete description of this message group.
- For a DISPLAY ADJCP command, see the explanation of message IST1101I and message IST1197I for a complete description of possible message groups.

Routing code: 2

Descriptor code: 5

IST2252I netid [netid] [netid] [netid] [netid] [netid]

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID=adjacent_CP_major_node_name command or a DISPLAY ADJCP command.

- For a DISPLAY ID=adjacent_CP_major_node_name command, see the explanation of message IST1100I for a complete description of this message group.
- For a DISPLAY ADJCP command, see the explanation of message IST1101I and message IST1197I for a complete description of possible message groups.

Routing code: 2

Descriptor code: 5
IST2253I

IST2253I   HPRSTALL TIME EXCEEDED FOR RTP *puname* TO *cpname*

Explanations: This unsolicited message is issued when HPR has determined that an RTP pipe has encountered a stall condition that could not be alleviated in the time period specified by the HPRSTALL start option. The RTP pipe had been stalled for one of the following reasons:

- The partner RTP requested retransmission of at least one network layer packet (NLP), but the request could not be honored. This condition is known as a data flow stall.
- The partner RTP repeatedly requested transmission of the same NLP. This condition is known as a transmission stall.

In the message text:

*puname*
  The name of the HPR PU.

*cpname*
  The name of the CP at the other end of the pipe.

See the [HPRSTALL start option](https://www.ibm.com) information in [z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com).

System action: HPR deactivates the RTP pipe to end the hung sessions.

Operator response: For information about why the RTP pipe was stalled and to possibly prevent future stalls, refer to the related messages that were issued for the *puname* and *cpname* combination:

- To check for a data flow stall, find an occurrence of message IST1955I that is not followed by an associated IST1957I message to indicate that the stall was alleviated.
- To check for a transmission stall, find an occurrence of message IST2245I that is not followed by an associated IST2247I message to indicate that the stall was alleviated.

If both conditions are found, the one that occurs first caused the timeout indicated by this message.

If you no longer want VTAM to automatically deactivate stalled RTP pipes or if you want VTAM to wait longer before doing so, use the MODIFY VTAMOPTS command to change the value of the HPRSTALL start option.

If stalls are prevalent and persistent, save the system log and request a dump for problem determination, then contact the system programmer.

System programmer response: If you no longer want VTAM to automatically deactivate stalled RTP pipes or if you want VTAM to wait longer before doing so, change the value of HPRSTALL in the appropriate ATCSTRxx start list.

User response: Not applicable.

Problem determination: If transmission stalls are prevalent and persistent, take the following actions:

- If you have access to IBMLink, search for known problems with similar symptoms. If no similar problems are found, report the problem to IBM by using the Electronic Technical Report (ETR) option on IBMLink.
- If you do not have access to IBMLink, report the problem to the IBM software support center.

Source: 

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.

Routing code: 2

Descriptor code: 4

Automation: Not applicable.

Example:

IST2253I HPRSTALL TIME EXCEEDED FOR RTP CNR0002F TO NETA.SSCP1A
IST2254I  TOPOLOGY RESOURCE ERROR FOR NODE: ID = node_name

Explanation: This unsolicited message is issued when an internal error is detected for a topology resource that represents a node.

In the message text:

node_name
   The CP name of the node with the internal error.

System action: Processing continues.

Operator response: Save the system log and request a dump for problem determination. Contact the system programmer.

System programmer response: See problem determination.

User response: Not applicable.

Problem determination: Take the following actions:

- If you have access to IBMLink, search for known problems with similar symptoms. If no similar problems are found, report the problem to IBM by using the Electronic Technical Report (ETR) option on IBMLink.
- If you do not have access to IBMLink, report the problem to the IBM software support center.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See [Adding the originating module to the message text](page 5) for more information about the MSGMOD start option.

Routing code: 2,10

Descriptor code: 4

Automation: Not applicable.

Example:

IST2254I TOPOLOGY RESOURCE ERROR FOR NODE: ID = NETA.CPS05

IST2255I  TOPOLOGY RESOURCE ERROR FOR TG: TGN = tg_number

Explanation: This message is the first of a group of messages that is issued when an internal error is detected for a topology resource that represents a transmission group (TG). A complete description of the message group follows the example.

IST2255I TOPOLOGY RESOURCE ERROR FOR TG: TGN = tg_number
IST2256I ORIG = origin_node - DEST = dest_node
IST314I END

IST2255I

- This message identifies the TG number of the TG with the internal error.
- In the message text:

  tg_number
     The TG number of the TG with the internal error.

IST2256I

- This message identifies the origin and destination of the TG with the internal error.
- In the message text:

  origin_node
     The CP name of the origin node of the TG with the internal error.

  dest_node
     The CP name of the destination node of the TG with the internal error.

System action: Processing continues.
Operator response:  Save the system log and request a dump for problem determination. Contact the system programmer.

System programmer response:  See problem determination.

User response:  Not applicable.

Problem determination:  Take the following actions:

- If you have access to IBMLink, search for known problems with similar symptoms. If no similar problems are found, report the problem to IBM by using the Electronic Technical Report (ETR) option on IBMLink.
- If you do not have access to IBMLink, report the problem to the IBM software support center.

Source:  z/OS Communications Server SNA

Module:  You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.

Routing code:  2,10

Descriptor code:  4

Automation:  Not applicable.

Example:

IST2255I TOPOLOGY RESOURCE ERROR FOR TG: TGN = 21
IST2256I ORIG = NETA.CPS05 - DEST = NETA.CPS10

IST2256I ORIG = origin_node - DEST = dest_node

Explanation:  VTAM issues this message as part of a group of messages under the following conditions:

- An internal topology resource error is detected. See [IST2255I] for a complete description of this message group.
- A TG reaches the TDUDIAG threshold. See [IST2299I] for a complete description of this message group.
- In response to a DISPLAY TOPO, LIST=TDUDIAG, ORIG=orig_cp_name, DEST=dest_cp_name, TGN=tgn command. See [IST2311I] for a complete description of this message group.

Routing code:  2,10

Descriptor code:  4

IST2257I CSDUMP MUST BE FOLLOWED BY MESSAGE OR SENSE OPERAND

Explanation:  VTAM issues this message when the CSDUMP start option was specified and an operand other than the MESSAGE or SENSE operand was specified as the first operand after CSDUMP. The CSDUMP start option is ignored.

System action:  The CSDUMP start option is ignored. VTAM issues message IST1311A to prompt you to enter the CSDUMP start option again with the correct format.

Operator response:  Correct the CSDUMP start option by responding to message IST1311A or ignore the error by entering a blank. If the CSDUMP start option was specified in an ATCSTRxx file, contact the system programmer. See the information about the CSDUMP start option in z/OS Communications Server: SNA Resource Definition Reference.

System programmer response:  Modify the VTAM start options in ATCSTRxx to add a MESSAGE operand for the message trigger or a SENSE operand for the sense code trigger to the CSDUMP start option.

User response:  Not applicable.

Problem determination:  See the system programmer response.

Source:  z/OS Communications Server SNA

Module:  You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.

Routing code:  2
IST2258I operand CAN ONLY BE SPECIFIED AFTER CSDUMP OPTION

Explanation: VTAM issues this message when a CSDUMP start option operand is specified and it is not preceded by the CSDUMP start option. CSDUMP start option operands can be specified only after the CSDUMP start option.

In the message text:

operand

The CSDUMP start option operand that was specified incorrectly. Possible values are:
- MESSAGE
- SENSE
- MATCHLIM
- REMOTE
- RU
- TCPNM

System action: The operand is ignored. VTAM issues message IST1311A to prompt you for the correct format of the CSDUMP start option.

Operator response: Correct the CSDUMP start option by responding to message IST1311A or ignore the error by entering a blank. If the CSDUMP start option was specified in an ATCSTRxx file, contact the system programmer. See the information about the CSDUMP start option in z/OS Communications Server: SNA Resource Definition Reference.

System programmer response: Take one of the following actions to modify the VTAM start options in ATCSTRxx:
- Specify the operand after the CSDUMP start option.
- Remove the failing operand from the start option list.

User response: Not applicable.

Problem determination: See the system programmer response.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

Routing code: 2

Descriptor code: 5

Automation: Not applicable.

Example:
IST2258I MATCHLIM CAN ONLY BE SPECIFIED AFTER CSDUMP OPTION

IST2259I operand1 OPERAND MUST BE SPECIFIED AFTER operand2

Explanation: VTAM issues this message when two operands of the CSDUMP start option are specified out of order.

In the message text:

operand1

Possible values are:
- MATCHLIM
- REMOTE
- RU
**IST2260I**

TCPNM

`operand2`

Possible values are:

MESSAGE
SENSE

**System action:** The CSDUMP start option is ignored. VTAM issues message IST1311A to prompt you to enter the CSDUMP start option again with the correct format.

**Operator response:** Correct the CSDUMP start option by responding to message IST1311A or ignore the error by entering a blank. If the CSDUMP start option was specified in an ATCSTR`xx` file, contact the system programmer. See the information about the CSDUMP start option in `z/OS Communications Server: SNA Resource Definition Reference`.

**System programmer response:** Modify the VTAM start options in ATCSTR`xx`; move the operand `operand1` after the operand `operand2` of the CSDUMP start option.

**Operator response:** Not applicable.

**Problem determination:** Not applicable.

**Source:** `z/OS Communications Server SNA`

**Module:** You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

**Routing code:** 2

**Descriptor code:** 5

**Automation:** Not applicable.

**Example:**

IST2259I RU OPERAND MUST BE SPECIFIED AFTER SENSE OPERAND

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**IST2260I** CSDUMP `operand` OPERAND VALUE `value` IS NOT VALID

**Explanation:** VTAM issues this message when the value specified for the CSDUMP start option operand is not valid.

In the message text:

`operand`

Possible values are:

- MESSAGE
- RU
- SENSE

`value`

Possible values are:

- An invalid message ID
- A long message variable text
- An invalid RU
- An invalid SENSE code

**System action:** The CSDUMP start option is ignored. VTAM issues message IST1311A to prompt you to enter the CSDUMP start option again with the correct format.

**Operator response:** Correct the CSDUMP start option by responding to message IST1311A or ignore the error by entering a blank. If the CSDUMP start option was specified in an ATCSTR`xx` file, contact the system programmer. See the information about the CSDUMP start option in `z/OS Communications Server: SNA Resource Definition Reference`.

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**System programmer response:** Modify the VTAM start options contained in ATCSTRxx and correct the value of the operand on the CSDUMP start option.

**User response:** Not applicable.

**Problem determination:** Not applicable.

**Source:** z/OS Communications Server SNA

**Module:** You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.

**Routing code:** 2

**Descriptor code:** 5

**Automation:** Not applicable.

**Example:**

IST2260I CSDUMP MESSAGE OPERAND VALUE L7201A12345 IS NOT VALID

IST2261I CSDUMP MESSAGE OPERAND HAS TOO MANY VALUES

**Explanation:** VTAM issues this message when more values are specified for the CSDUMP start option MESSAGE operand than there are variable text fields in the message.

**System action:** The CSDUMP start option is ignored. VTAM issues message IST1311A to prompt you to enter the CSDUMP start option again with the correct format.

**Operator response:** Correct the CSDUMP start option by responding to message IST1311A or ignore the error by entering a blank. If the CSDUMP start option was specified in an ATCSTRxx file, contact the system programmer. See the information about the CSDUMP start option in z/OS Communications Server: SNA Resource Definition Reference.

**System programmer response:** Modify the VTAM start options in ATCSTRxx and correct the number of values for the MESSAGE operand of the CSDUMP start option.

**User response:** Not applicable.

**Problem determination:** Not applicable.

**Source:** z/OS Communications Server SNA

**Module:** You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.

**Routing code:** 2

**Descriptor code:** 5

**Automation:** Not applicable.

**Example:**

IST2261I CSDUMP MESSAGE OPERAND HAS TOO MANY VALUES

IST2262I REMOTE OPERAND NOT VALID WITH CSDUMP MESSAGE msgid

**Explanation:** VTAM issues this message when the REMOTE operand was specified on the CSDUMP start option with a message other than IST1504I.

In the message text:

msgid

The VTAM message that was specified.

**System action:** The CSDUMP start option is ignored. VTAM issues message IST1311A to prompt you to enter the CSDUMP start option again with the correct format.

**Operator response:** Correct the CSDUMP start option by responding to message IST1311A or ignore the error by
entering a blank. If the CSDUMP start option was specified in an ATCSTRxx file, contact the system programmer. See the information about the CSDUMP start option in z/OS Communications Server: SNA Resource Definition Reference.

System programmer response: Modify the CSDUMP start option in ATCSTRxx:

- If you want message IST1504I to be the trigger message, change the message ID on the MESSAGE operand to IST1504I.
- If you want the msgid value to be the trigger message, remove the REMOTE operand from the MESSAGE operand.

User response: Not applicable.

Problem determination: Not applicable.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

Routing code: 2

Descriptor code: 5

Automation: Not applicable.

Example:

IST2262I REMOTE OPERAND NOT VALID WITH CSDUMP MESSAGE IST089I

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IST2263I PORTNAME = port_name PORTNUM = port_num OSA CODE LEVEL = code_level

Explanation: VTAM issues this message as part of a message subgroup. See IST1221I on page 467 for a complete description.

Routing code: 2

Descriptor code: 5

Automation: Not applicable.

Example:

IST2264I CSDUMP OPTION SPECIFIED MULTIPLE TRIGGERS

Explanation: VTAM issues this message when the CSDUMP start option is specified with multiple triggers.

System action: The CSDUMP start option is ignored. VTAM issues message IST1311A to prompt you to enter the CSDUMP start option again with the correct format.

Operator response: Correct the CSDUMP start option by responding to message IST1311A or ignore the error by entering a blank. If the CSDUMP start option was specified in an ATCSTRxx file, contact the system programmer. See the information about the CSDUMP start option in z/OS Communications Server: SNA Resource Definition Reference.

System programmer response: Modify the VTAM start options contained in ATCSTRxx to specify the trigger you want. Only one trigger can be specified on the CSDUMP start option. You can specify the CSDUMP start option twice to set both message and sense code triggers.

User response: Not applicable.

Problem determination: See the system programmer response.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

Routing code: 2

Descriptor code: 5

Automation: Not applicable.

Example:
IST2265I CSDUMP OPTION SPECIFIED MULTIPLE TRIGGERS

IST2265I resource service FAILED FOR device_address CODE = return_code REASON = reason_code

Explanation: This message is issued during activation of a multipath channel (MPC) when a system service that was invoked for a particular subchannel fails.

In the message text:

resource
   The name of the TRLE or MPC subarea line that defines the MPC group.

service
   The name of the system service that failed.

device_address
   The hexadecimal subchannel address for which the system service was invoked.

return_code
   The return code received from the service.

reason_code
   The reason code received from the service.

System action: If this message is followed by message IST1631I for the address specified by the device_address value, activation of the subchannel fails; otherwise, activation of the subchannel continues.

Operator response: If message IST1631I is issued for the address specified by the device_address value, see that message for additional instructions; otherwise, no further action is necessary.

System programmer response: If message IST1631I is issued for the address specified by the device_address value, use the output from this IST2265I message to assist you in correcting the problem. See the z/OS MVS Programming: Authorized Assembler Services Guide for a description of the service, return_code, and reason_code values. If you cannot determine the reason for the failure, take the following actions:

- If you have access to IBMLink, search for known problems in this area. If no applicable matches are found, report the problem to IBM by using the Electronic Technical Report (ETR) option on IBMLink.
- If you do not have access to IBMLink, report the problem to the IBM software support center.

User response: Not applicable.

Problem determination: Not applicable.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.

Routing code: 2

Descriptor code: 5

Example:
IST2265I TRLE1A IOSPTHV FAILED FOR 050A CODE 04 REASON = 0004

IST2266I STORAGE POOL poolname AT PAGE ALLOCATION LIMIT

Explanation: VTAM issues this message when a storage request fails because the allocation storage limit of x'FFFF' pages was reached for the storage pool.

In the message text:

poolname
   The name of the storage pool.

System action: Processing continues. Future storage requests for the specified pool will continue to fail until storage is available.

Operator response: Issue the DISPLAY STORUSE command to display the storage usage of storage pools. Save the
system log and request a dump for problem determination. See the DISPLAY STORUSE command in z/OS Communications Server: SNA Operation.

System programmer response: See the z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT for information about analyzing dumps and about analyzing storage using the VIT analysis tool, if external trace is active.

User response: Not applicable.

Problem determination: If you cannot determine the cause of the problem from the output provided, take the following actions:

• If you have access to IBMLink, search for known problems with similar symptoms. If no similar problems are found, report the problem to IBM by using the Electronic Technical Report (ETR) option on IBMLink.
• If you do not have access to IBMLink, report the problem to the IBM software support center.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 3 for more information about the MSGMOD start option.

Routing code: 2
Descriptor code: 6

Example: IST2266I STORAGE POOL UECB AT PAGE ALLOCATION LIMIT

IST2267I RTP PACING ALGORITHM = ARB PROGRESSIVE MODE

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 that represents a Rapid Transport Protocol (RTP) route. The first message in the group is either IST1476I or IST1968I. See IST1476I or IST1968I for more information.

Routing code: 2
Descriptor code: 5

IST2268I NUMBER OF BYTES ON WAITING-FOR-ACK QUEUE = waitforackbytes

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 that represents a Rapid Transport Protocol (RTP) route. The first message in the group is IST1968I. See IST1968I for more information.

Routing code: 2
Descriptor code: 5

IST2269I MAXIMUM NUMBER OF BYTES ON WAITING-FOR-ACK QUEUE = maxwaitforack

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 that represents a Rapid Transport Protocol (RTP) route. The first message in the group is IST1968I. See IST1968I for more information.

Routing code: 2
Descriptor code: 5

IST2270I debug_text

Explanation: This solicited message is for IBM internal use only. This message has various formats that have meaning only to the IBM personnel that develop and service z/OS Communications Server.

System action: Processing continues.

Operator response: Not applicable.

System programmer response: Not applicable.
User response:  Not applicable.

Problem determination:  Not applicable.

Source:  z/OS Communications Server SNA

Module:  You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

Routing code:  2

Descriptor code:  5

Automation:  Not applicable.

Example:  Not applicable.

---

**IST2271I**  PATH SWITCH DELAY = ps_delay_value

**Explanation:**  VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 that represents a Rapid Transport Protocol (RTP) route. The first message in the group is IST1968I. See [IST1968I](#) for more information.

Routing code:  2

Descriptor code:  5

---

**IST2272I**  PATH SWITCH DELAYED UNTIL date AT time

**Explanation:**  VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 that represents a Rapid Transport Protocol (RTP) route. The first message in the group is IST1968I. See [IST1968I](#) for more information.

Routing code:  2

Descriptor code:  5

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**IST2273E**  PACKETS DISCARDED FOR jobname - READ QUEUE CONGESTION

**Explanation:**  This unsolicited message is issued when a storage block address list (SBAL) is discarded as the result of congestion on the inbound data staging queue. An SBAL is a read buffer that can contain up to 64 KB of TCP/IP packets. SBALs are discarded to protect against the overuse of system resources, specifically ECSA storage. This message might mean that there is a TCP/IP stack contention or dispatching problem.

This message remains on the screen until congestion is alleviated or until the message is manually deleted.

In the message text:

`jobname`  
The 1–8 character TCP/IP job name used to start the TCP/IP address space.

**System action:**  If congestion subsides for at least 30 seconds, this message is automatically deleted. If congestion persists, message IST2273E is deleted and re-issued every 5 minutes.

**Operator response:**  You can use the DISPLAY NET,TRL and DISPLAY NET,TRL,TRLE=trlename commands to determine which interfaces or devices are experiencing congestion. Message IST2305I provides the number of SBALs that are discarded. These interfaces or devices can be stopped or recycled in an attempt to eliminate the congestion.

**System programmer response:**  If the condition is persistent, take the following actions:

1. Study and possibly adjust the TCP/IP dispatching priority
2. If the condition continues to persist:
   - If you have access to IBMLink, search for known problems in this area. If no applicable matches are found, take a dump of the TCP/IP address space and the VTAM address space and report the problem to IBM using the Electronic Technical Report (ETR) option on IBMLink.
   - If you do not have access to IBMLink, take a dump of the TCP/IP address space and the VTAM address space and report the problem to the IBM software support center.
**IST2274I**

**User response:** Not applicable.

**Problem determination:** Not applicable.

**Source:** z/OS Communications Server SNA

**Module:** You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.

**Routing code:** 2

**Descriptor code:** 11

**Automation:** Automation is recommended because persistent discarding of inbound data can have a significant impact on latency and throughput.

**Example:**

IST2273E PACKETS DISCARDED FOR TCPCS - READ QUEUE CONGESTION

---

**IST2274I**  
**TDU DIAGNOSTIC SUMMARY:**

**Explanation:** VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO, LIST=TDUDIAG summary command. Possible message groups follow:

- This message group is issued if you allow the FORMAT command to default or you specify FORMAT=SHORT:

  IST350I DISPLAY TYPE = TDU DIAGNOSTICS  
  IST2274I TDU DIAGNOSTIC SUMMARY:  
  IST1700I TOPOLOGY RESOURCES WITH MOST FREQUENT TDU ACTIVITY  
  IST2308I THAT HAVE SAVED TDUDIAG RSN UPDATES  
  IST2275I TDU INFORMATION SINCE LAST RESET ON date AT time  
  IST2290I TDUDIAG START OPTION = tdudiag_value  
  [IST2283I NO TDUDIAG RSN UPDATES EXIST]  
  [IST2276I NO CORRUPTION OF TOPOLOGY CONTROL VECTORS DETECTED]  
  [IST924I -------------------------------------------------------------]  
  [IST2277I POSSIBLE CORRUPTION OF TOPOLOGY CONTROL VECTORS DETECTED]  
  [IST2284I SINCE VTAM START ON start_date AT start_time]  
  [IST2285I FOR THE FOLLOWING NODES AND TGs]  
  [IST2286I cp_name DESTINATION CP TGN TIME DETECTED]  
  [IST2287I cp_name rsn destination_cp tgn date_detected time_detected]  
  ...  
  [IST3201I num OF total TOPOLOGY RESOURCES DISPLAYED]  
  [IST924I -------------------------------------------------------------]  
  [IST2288I NO TDUDIAG RSN UPDATES EXIST]  
  [IST2289I TDUS RECEIVED:)  
  [IST1777I cp_name rsn DESTINATION CP TGN ACC REJ]  
  [IST1778I cp_name rsn destination_cp tgn count count2]  
  ...  
  [IST3201I num OF total TOPOLOGY RESOURCES DISPLAYED]  
  [IST924I -------------------------------------------------------------]  
  [IST2288I TDUS SENT:)  
  [IST1778I cp_name rsn DESTINATION CP TGN SENT REC]  
  [IST1779I cp_name rsn destination_cp tgn count count2]  
  ...  
  [IST3201I num OF total TOPOLOGY RESOURCES DISPLAYED]  
  [IST924I -------------------------------------------------------------]  
  [IST2289I RESOURCE SEQUENCE NUMBERS UPDATED BY THIS NODE:)  
  [IST2290I cp_name rsn DESTINATION CP TGN UPDATED]  
  [IST2295I cp_name rsn destination_cp tgn updated]  
  ...  
  [IST3201I num OF total TOPOLOGY RESOURCES DISPLAYED]  
  IST314I END

- If you specify FORMAT=LONG on the DISPLAY TOPO command, the display sections for TDUs received, TDUs sent, and RSNs updated by this node are replaced with the following:
This message identifies the type of information in the display and is always TDU DIAGNOSTICS for this message group.

This is a header message for the information about topology resources in the TDUs that were received most frequently and that have TDUDIAG resource sequence number (RSN) update information saved in the topology database. The topology resources are displayed in the IST1778I messages that follow. These messages are displayed when FORMAT=SHORT is specified or the default FORMAT value is taken.

ACC is the abbreviation for ACCEPTED.

REJ is the abbreviation for REJECTED.

One IST1778I is issued for each topology resource that is displayed in a subgroup when the FORMAT=SHORT operand is specified or the default FORMAT value is taken.

The NUM operand can be specified on the DISPLAY command to limit the number of topology resources that are displayed. The default value is 10 and the maximum value is 50. If the number of topology resources on the list since the TDU information and TDU counters were last reset is smaller than the number requested on the display command, the number of IST1778I messages that are displayed in the subgroup will be smaller than the NUM value that was specified.

cp_name is the network-qualified CP name of the node, if the resource that is displayed is a node. If the resource that is displayed is a TG, cp_name is the network-qualified CP name of the TG origin node.

rsn is the resource sequence number (RSN) expressed in decimal.

destination_cp is the network-qualified CP name of the TG’s destination node if the resource that is displayed is a TG. If the resource is a node, "***NA***" is displayed.

tgn is the transmission group number that is associated with the TG that is displayed. If the resource is a node, NA is displayed.

If the subgroup displays the information about topology resources in the TDUs that were received most frequently:
- count1 is the total number of inbound TDUs that were accepted for this resource at the time that the displayed TDU was received. Inbound TDUs are accepted when they contain new information that causes the resource record to be updated.
- count2 is the total number of inbound TDUs that were rejected for this resource at the time that the displayed TDU was received. Inbound TDUs are rejected when they contain inconsistent information that causes outbound TDUs to be sent as corrections.
If the subgroup displays the information about topology resources in the TDUs that were sent most frequently:

- **count1** is the total number of outbound TDUs that were sent for this resource at the time that the displayed TDU was sent.
- **count2** is the total number of inbound TDUs that were received for this resource at the time that the displayed TDU was sent.

**Tip:** A RSN value of ******** or TDU counter values of ***** indicates that the values are greater than the available space for those values to be displayed in message IST1778I. You can enter the command with the FORMAT=LONG operand to display these values in a format that includes two lines of output for each resource.

IST1780I, IST2308I

These messages indicate that the TDU diagnostic information is about topology resources that were included in topology database updates (TDUs) most frequently, and that have saved TDUDIAG resource sequence number (RSN) update information.

IST2274I

This is a header message for TDU diagnostic summary information.

IST2275I

This message contains the date and time when all the TDU information and TDU counters were reset. All TDU information and TDU counters are reset every 24 hours when garbage collection runs, or when a DISPLAY NET,TOPO,LIST=TDUINFO,CLEAR=YES or a DISPLAY NET,TOPO,LIST=TDUDIAG,CLEAR=YES command is entered. See “DATE and TIME formats” on page 6 for information about the date and time values.

IST2276I

This message indicates that no corruption of topology control vectors was detected since VTAM was started.

IST2277I

This is a header message for a message subgroup that displays information about topology resources that have control vectors in the topology database that have possibly been corrupted.

Because the topology control vectors contain the resource sequence number (RSN) for a node or TG, which determines the processing of a TDU, it is possible that control vector corruption could cause a TDU war. The most probable cause of control vector corruption is a storage overlay.

IST2278I

This message displays the date and time that VTAM was started. See “DATE and TIME formats” on page 6 for information about the date and time values.

Unlike the lists of topology resources in the TDUs that were received or sent most frequently, or with RSNs that were updated by this node, the list of topology resources with possible topology control vector corruption is never cleared and includes any possible corruption detection since the start of VTAM.

IST2279I

This is a header message for the information about topology resources with possible topology control vector corruption that is displayed in the IST2280I messages that follow.

IST2280I

One IST2280I is displayed for each topology resource that has control vectors that have possibly been corrupted. Information about possible corrupted control vectors is maintained from the start of VTAM and is not deleted when TDU information is reset. All topology resources with possible corrupted control vectors are displayed in this subgroup, regardless of the reset of TDU information.

The NUM operand can be specified on the DISPLAY command to limit the number of topology resources that are displayed. The default value is 10 and the maximum value is 50. If the number of topology resources on the list since the start of VTAM is smaller than the number requested on the display command, the number of IST2280I messages that are displayed in the subgroup will be smaller than the NUM value that was specified.

**cp_name** is the network-qualified CP name of the node, if the resource that is displayed is a node. If the resource that is displayed is a TG, **cp_name** is the network-qualified CP name of the TG origin node.
destination_cp is the network-qualified CP name of the TG’s destination node if the resource that is displayed is a TG. If the resource that is displayed is a node, ***NA*** is displayed.

tgn is the transmission group number that is associated with the TG that is displayed. If the resource is a node, NA is displayed.

Time detected is the date and time possible corruption of control vectors for the topology resource was detected. See "DATE and TIME formats" on page 6 for information about the date and time values.

IST2283I
This message is displayed when no TDUDIAG RSN update information exists for any of the topology resources that have been received, sent, or had RSNs updated since the TDU information and TDU counters were last reset. Message IST2275I displays the date and time of the last reset.

IST2284I
This message indicates that possible topology control vector corruption was detected for a node or TG.

IST2286I
This is a header message for message subgroups that display information about topology resources in the TDUs that were received in inbound TDUs most frequently and have TDUDIAG RSN update information saved in the topology database.

The first topology resource that is displayed in the subgroup is the resource with the most frequent TDU activity. The last topology resource that is displayed in the subgroup is the resource with the least frequent TDU activity.

IST2287I
This is a header message for message subgroups that display information about topology resources in the TDUs that were sent most frequently and have TDUDIAG RSN update information saved in the topology database. The topology resources are displayed in the IST1778I messages that follow. These messages are displayed when FORMAT=SHORT is specified or the default FORMAT value is taken.

REC is the abbreviation for RECEIVED.

IST2288I
This is a header message for the information about topology resources in the TDUs that were sent most frequently and have TDUDIAG RSN update information saved in the topology database. The topology resources are displayed in the IST1778I messages that follow. These messages are displayed when FORMAT=SHORT is specified or the default FORMAT value is taken.

IST2289I
This is a header message for information about topology resources with RSNs that were updated by this node and that have TDUDIAG RSN update information saved in the topology database.

The first topology resource that is displayed in the subgroup is the resource with a RSN that was updated most frequently. The last topology resource that is displayed in the subgroup is the resource with a RSN that was updated least frequently.

IST2290I

- **tdudiag_value** is the user-defined TDUDIAG start option value, specified on the START command or in the start list, and specifies when TDU diagnostic information is included with node or TG control vectors within a TDU. See the TDUDIAG start option information in z/OS Communications Server: SNA Resource Definition Reference. Possible values can be one of the following:

  **A decimal value in the range of 1-65535**

  This is a threshold number of times that this network node has updated the resource sequence number (RSN) for a topology resource since the last time that TDU information was reset. When this threshold value is reached for a node or TG, TDU diagnostic information is included in the outbound TDU if the RSN is updated.

  **ALWAYS**

  TDU diagnostic information is always appended with the topology control vectors included in a TDU for a topology resource when the RSN for that resource is updated by this network node.
NEVER
TDU diagnostic information is never appended with the topology control vectors included in a TDU.

IST2291I
This message follows message IST2358I and this message pair displays the information about topology resources that have a RSN that was updated by this node and have TDUDIAG RSN update information saved in the topology database, when the FORMAT=LONG operand is specified.

updated is the number of times the topology resource had been updated at the time of the last RSN update.

IST2292I
This is a header message for the information about topology resources with RSNs that were updated by this node and that have TDUDIAG RSN update information saved in the topology database. The topology resources are displayed in the IST2293I messages that follow. These messages are displayed when FORMAT=SHORT is specified or the default FORMAT value is taken.

IST2293I
One IST2293I is issued for each topology resource that has a RSN that was updated by this node and has TDUDIAG RSN update information saved in the topology database. The first IST2293I message in this message subgroup describes the topology resource whose RSN was updated by this node most frequently.
The NUM operand can be specified on the DISPLAY command to limit the number of topology resources that are displayed. The default value is 10 and the maximum value is 50. If the number of topology resources on the list since the TDU information and TDU counters were last reset is smaller than the number requested on the display command, the number of IST2293I messages that are displayed in the subgroup will be smaller than the NUM value that was specified.

cp_name is the network-qualified CP name of the nod, if the resource that is displayed is a node. If the resource that is displayed is a TG, cp_name is the network-qualified CP name of the TG origin node.

rsn is the updated RSN expressed in decimal.

destination_cp is the network-qualified CP name of the TG's destination node if the resource that is displayed is a TG. If the resource is a node, ***NA*** is displayed.

trgn is the transmission group number that is associated with the TG that is displayed. If the resource is a node, NA is displayed.

updated is the number of times that the topology resource has been updated at the time of the last RSN update.

Tip: A RSN value of ******** or update counter value of ***** indicates the value is greater than the available space for the value to be displayed in message IST2293I. You can enter the command with the FORMAT=LONG operand to display these values in a format that includes two lines of output for each resource.

IST2301I
This message displays the number of topology resources that are in a message subgroup.

num is the total number of topology resources that are displayed.

total is the total number of topology resource records that are on the displayed list.

IST2352I
This message follows message IST2358I when the FORMAT=LONG operand is specified. This message pair displays the information about topology resources in the TDUs that were sent most frequently and have TDUDIAG RSN update information saved in the topology database.

sent is the total number of TDUs that were sent for this resource at the time that the displayed TDU was sent.

received is the total number of TDUs that were received for this resource at the time that the displayed TDU was sent.

IST2353I
This message follows message IST2358I when the FORMAT=LONG operand is specified. The message pair displays the information about topology resources in the TDUs that were received most frequently and have TDUDIAG RSN update information saved in the topology database.
accepted is the total number of inbound TDUs that were accepted for this resource at the time that the displayed TDU was received. Inbound TDUs are accepted when they contain new information that causes the resource record to be updated.

rejected is the total number of inbound TDUs that were rejected for this resource at the time that the displayed TDU was received. Inbound TDUs are rejected when they contain inconsistent information that causes outbound TDUs to be sent as corrections.

IST2357I

• This is a header message for the information about topology resources that is displayed in message pairs when FORMAT=LONG is specified. The information is displayed in three sections:
  – topology resources in the TDUs that were received most frequently and have TDUDIAG RSN update information saved in the topology database
  – topology resources in the TDUs that were sent most frequently and have TDUDIAG RSN update information saved in the topology database
  – topology resources with RSNs that were updated by this node and have TDUDIAG RSN update information saved in the topology database

IST2358I

This is the first of two messages that display the information about a topology resource when the FORMAT=LONG operand is specified.

The NUM operand can be specified on the DISPLAY command to limit the number of topology resources that are displayed. The default value is 10 topology resources, or message pairs, and the maximum value is 50. If the number of topology resources on the list since the last TDU count reset is smaller than the number requested on the display command, the number of topology resources that are displayed in the subgroup will be smaller than the NUM value that was specified.

**cp_name** is the network-qualified CP name of the node if the resource that is displayed is a node. If the resource that is displayed is a TG, **cp_name** is the network-qualified CP name of the TG origin node.

**rsn** is the resource sequence number (RSN) expressed in decimal.

**destination_cp** is the network-qualified CP name of the TG’s destination node if the resource that is displayed is a TG. If the resource is a node, *****NA***** is displayed.

**tgn** is the transmission group number that is associated with the TG that is displayed. If the resource is a node, **NA** is displayed.

**System action:** Processing continues.

**Operator response:** If you are displaying TDU diagnostic information because of performance degradation of the APPN network, use the information about display TDU information in z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures and do the following:

1. Repeat the display several times to see if there is a pattern of excessive TDU activity for a topology resource.
2. Enter the DISPLAY NET,TOPO,LIST=TDUINFO,SCOPE=ACTIVITY command to see the topology resources that have the most frequent TDU activity.
3. If a node or TG is identified that has excessive TDU activity, the following displays might provide information about the network nodes that are causing the performance degradation (TDU war):
   • DISPLAY NET,TOPO,LIST=TDUDIAG provides a summary of nodes and TGs that have saved TDU diagnostic information.
   • DISPLAY NET,TOPO,LIST=TDUDIAG,ID=**cp_name** provides details about the saved TDU diagnostic information for a node.
   • DISPLAY NET,TOPO,LIST=TDUDIAG,ORIG=**orig_cp**,DEST=**dest_cp**,TGN=**tgn** provides details about saved TDU diagnostic information for a TG.
4. If you can identify the network nodes that are involved in the TDU war, bring down the CP-CP sessions from one of the network nodes involved to all other network nodes in the network or subnetwork.
5. If you cannot stop the TDU war, save the system log and request a dump for problem determination. Contact the system programmer.

**Tip:** On the DISPLAY NET,TOPO,LIST=TDUDIAG summary command output, a RSN value of ******** or TDU counter values of ***** indicates that the value is greater than the available space for the value to be displayed in message IST1778I or IST2293I. You can clear the TDU counters, but not the RSN, with the CLEAR=YES operand.
IST2274I

specified on either the DISPLAY TOPO, LIST=TDUINFO command or the DISPLAY TOPO, LIST=TDUDIAG summary command. Alternately, you can enter the command with the FORMAT=LONG operand to display these values in a format that includes two lines of output for each resource.

System programmer response: Take the following actions:

- If the operator provides output from the DISPLAY NET, TOPO, LIST=TDUINFO and the DISPLAY NET, TOPO, LIST=TDUDIAG commands, use the information about display TDU information in z/OS Communications Server: SNA Diagnosis Vol I, Techniques and Procedures to analyze the TDU activity. If possible, identify the topology resource that is in contention and the network nodes that are involved in the TDU war.
- If you have access to IBMLink, search for known problems in this area. If no applicable matches are found, report the problem to IBM by using the Electronic Technical Report (ETR) option on IBMLink.
- If you do not have access to IBMLink, report the problem to the IBM software support center.

User response: Not applicable.

Problem determination: See the system programmer response.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

Routing code: 2

Descriptor code: 5

Automation: Not recommended.

Example: The following is an example of the display output from a DISPLAY NET, TOPO, LIST=TDUDIAG, NUM=5, FORMAT=SHORT command:

IST350I DISPLAY TYPE = TDU DIAGNOSTICS
IST2274I TDU DIAGNOSTIC SUMMARY:
IST1780I TOPOLOGY RESOURCES WITH MOST FREQUENT TDU ACTIVITY
IST2308I THAT HAVE SAVED TDUDIAG RSN UPDATES
IST2275I TDU INFORMATION SINCE LAST RESET ON 01/29/10 AT 11:43:05
IST2290I TDUDIAG START OPTION = 1000
IST2276I NO CORRUPTION OF TOPOLOGY CONTROL VECTORS DETECTED
IST924I -----------------------------------------------------------
IST2286I TDUS RECEIVED:
IST1777I CP NAME RSN DESTINATION CP TGN ACC REJ
IST1778I NETA.SSCP2A 6 NETA.SSCP1A 21 2 0
IST1778I CNRA.LVRN4A 2 NETA.SSCP2A 21 1 0
IST1778I NETA.SSCP2A 2 CNRA.LVRN4A 21 1 0
IST1778I NETA.SSCPAA 4 NETA.SSCP1A 21 1 0
IST1778I NETA.SCPPAA 2 ***NA*** NA 1 0
IST2301I 5 OF 6 TOPOLOGY RESOURCES DISPLAYED
IST924I -----------------------------------------------------------
IST2287I TDUS SENT:
IST2288I CP NAME RSN DESTINATION CP TGN SENT REC
IST1778I NETA.SSCP2A 6 NETA.SSCP1A 21 3 3
IST1778I NETA.SSCP1A 6 NETA.SSCP2A 21 3 1
IST1778I NETA.SSCP2A 2 ***NA*** NA 2 1
IST1778I NETA.SSCP1A 2 ***NA*** NA 2 0
IST1778I CNRA.LVRN4A 2 NETA.SSCP2A 21 1 1
IST2301I 5 OF 11 TOPOLOGY RESOURCES DISPLAYED
IST924I -----------------------------------------------------------
IST2289I RESOURCE SEQUENCE NUMBERS UPDATED BY THIS NODE:
IST2290I CP NAME RSN DESTINATION CP TGN UPDATED
IST2291I NETA.SSCP1A 6 NETA.SSCP2A 21 1
IST2293I CNRA.LVRN4A 2 NETA.SSCP1A 21 1
IST2293I NETA.SSCP1A 2 CNRA.LVRN4A 21 1
IST2301I 3 OF 3 TOPOLOGY RESOURCES DISPLAYED
IST314I END
IST2275I  TDU INFORMATION SINCE LAST RESET ON date AT time

Explanation: VTAM issues this message as part of a group of messages in response to the following commands:
- DISPLAY TOPO,LIST=TDUINFO,SCOPE=RECENT. See message IST1776I for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUINFO,SCOPE=ACTIVITY. See message IST1780I for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG summary command. See message IST2274I for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG,ID=cp_name. See message IST2306I for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG,ORIG=orig_cp_name,DEST=dest_cp_name,TGN=tgn. See message IST2311I for a complete description of this message group.
- DISPLAY TOPO,ID=cp_name,LIST=ALL. See message IST1295I for a complete description of this message group.
- DISPLAY TOPO,ORIG=orig_cp_name,DEST=dest_cp_name,TGN=tgn. See message IST1299I for a complete description of this message group.

Routing code: 2
Descriptor code: 5

IST2276I  NO CORRUPTION OF TOPOLOGY CONTROL VECTORS DETECTED

Explanation: VTAM issues this message as part of a group of messages in response to the following commands:
- DISPLAY TOPO,LIST=TDUINFO,SCOPE=RECENT. See message IST1776I for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUINFO,SCOPE=ACTIVITY. See message IST1780I for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG summary command. See message IST2274I for a complete description of this message group.

Routing code: 2
Descriptor code: 5

IST2277I  POSSIBLE CORRUPTION OF TOPOLOGY CONTROL VECTORS DETECTED

Explanation: VTAM issues this message as part of a group of messages in response to the following commands:
- DISPLAY TOPO,LIST=TDUINFO,SCOPE=RECENT. See message IST1776I for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUINFO,SCOPE=ACTIVITY. See message IST1780I for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG summary command. See message IST2274I for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG,ID=cp_name. See message IST2306I for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG,ORIG=orig_cp_name,DEST=dest_cp_name,TGN=tgn. See message IST2311I for a complete description of this message group.
- DISPLAY TOPO,ID=cp_name,LIST=ALL. See message IST1295I for a complete description of this message group.
- DISPLAY TOPO,ORIG=orig_cp_name,DEST=dest_cp_name,TGN=tgn. See message IST1299I for a complete description of this message group.

Routing code: 2
Descriptor code: 5

Chapter 10. IST messages for VTAM network operators IST2000I – IST2417I  957
**IST2278I • IST2281I**

**IST2278I**

**Since VTAM Start On**  
*start_date* **At**  *start_time*

**Explanation:** VTAM issues this message as part of a group of messages in response to the following commands:
- DISPLAY TOPO,LIST=TDUINFO,SCOPE=RECENT. See message IST1776I for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUINFO,SCOPE=ACTIVITY. See message IST1780I for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG summary command. See message IST2274I for a complete description of this message group.

**Routing code:** 2  
**Descriptor code:** 5

---

**IST2279I**

**CP Name Destination CP TGN Time Detected**

**Explanation:** VTAM issues this message as part of a group of messages in response to the following commands:
- DISPLAY TOPO,LIST=TDUINFO,SCOPE=RECENT. See message IST1776I for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUINFO,SCOPE=ACTIVITY. See message IST1780I for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG summary command. See message IST2274I for a complete description of this message group.

**Routing code:** 2  
**Descriptor code:** 5

---

**IST2280I**

*cp_name* destination_cp tgn *date_detected* time_detected

**Explanation:** VTAM issues this message as part of a group of messages in response to the following commands:
- DISPLAY TOPO,LIST=TDUINFO,SCOPE=RECENT. See message IST1776I for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUINFO,SCOPE=ACTIVITY. See message IST1780I for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG summary command. See message IST2274I for a complete description of this message group.

**Routing code:** 2  
**Descriptor code:** 5

---

**IST2281I**

**LAST TDU SENT - date time**

**Explanation:** VTAM issues this message as part of a group of messages in response to the following commands:
- DISPLAY TOPO,LIST=TDUDIAG,ID=cp_name. See message IST2306I for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG,ORIG=orig_cp_name,DEST=dest_cp_name,TGN=tgn. See message IST2311I for a complete description of this message group.
- DISPLAY TOPO,ID=cp_name,LIST=ALL. See message IST1295I for a complete description of this message group.
- DISPLAY TOPO,ORIG=orig_cp_name,DEST=dest_cp_name or DISPLAY TOPO,ORIG=orig_cp_name,TGN=tgn. See message IST1299I for a complete description of this message group.

**Routing code:** 2  
**Descriptor code:** 5
IST2282I  TDU COUNTS:

Explanation: VTAM issues this message as part of a group of messages in response to the following commands:

- DISPLAY TOPO,LIST=TDUDIAG,ID=cp_name. See message IST2306I for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG,ORIG=orig_cp_name,DEST=dest_cp_name,TGN=tgn. See message IST2311I for a complete description of this message group.
- DISPLAY TOPO,ID=cp_name,LIST=ALL. See message IST1295I for a complete description of this message group.
- DISPLAY TOPO,ORIG=orig_cp_name,DEST=dest_cp_name or DISPLAY TOPO,ORIG=orig_cp_name,TGN=tgn. See message IST1299I for a complete description of this message group.

Routing code: 2
Descriptor code: 5

IST2283I  NO TDUDIAG RSN UPDATES EXIST

Explanation: VTAM issues this message as part of a group of messages in response to the following commands:

- DISPLAY TOPO,LIST=TDUDIAG summary command. See message IST2274I for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG,ID=cp_name. See message IST2306I for a complete description of this message group.
- DISPLAY TOPO,ORIG=orig_cp_name,DEST=dest_cp_name or DISPLAY TOPO,ORIG=orig_cp_name,TGN=tgn. See message IST2311I for a complete description of this message group.

Routing code: 2
Descriptor code: 5

IST2284I  FOR THE FOLLOWING NODES AND TGS

Explanation: VTAM issues this message as part of a group of messages in response to the following commands:

- DISPLAY TOPO,LIST=TDUINFO,SCOPE=RECENT. See message IST1776I for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUINFO,SCOPE=ACTIVITY. See message IST1780I for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG summary command. See message IST2274I for a complete description of this message group.

Routing code: 2
Descriptor code: 5

IST2285I  TDUS SENT BETWEEN first_tdu_date first_tdu_time - last_tdu_date last_tdu_time

Explanation: VTAM issues this message as part of a group of messages in response to the DISPLAY TOPO,LIST=TDUINFO,SCOPE=RECENT command. See message IST1776I for a complete description of this message group.

Routing code: 2
Descriptor code: 5

IST2286I  TDUS RECEIVED:

Explanation: VTAM issues this message as part of a group of messages in response to the following commands:

- DISPLAY TOPO,LIST=TDUINFO,SCOPE=ACTIVITY. See message IST1780I for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG summary command. See message IST2274I for a complete description of this message group.

Routing code: 2
IST2287I • IST2291I

Descriptor code: 5

IST2287I TDUS SENT:

Explanation: VTAM issues this message as part of a group of messages in response to the following commands:
• DISPLAY TOPO, LIST=TDUINFO, SCOPE=ACTIVITY. See message [IST1780I] for a complete description of this message group.
• DISPLAY TOPO, LIST=TDUDIAG summary command. See message [IST2274I] for a complete description of this message group.

Routing code: 2
Descriptor code: 5

IST2288I CP NAME RSN DESTINATION CP TGN SENT REC

Explanation: VTAM issues this message as part of a group of messages in response to the following commands:
• DISPLAY TOPO, LIST=TDUINFO, SCOPE=RECENT. See message [IST1776I] for a complete description of this message group.
• DISPLAY TOPO, LIST=TDUINFO, SCOPE=ACTIVITY. See message [IST1780I] for a complete description of this message group.
• DISPLAY TOPO, LIST=TDUDIAG summary command. See message [IST2274I] (hotlink) for a complete description of this message group.

Routing code: 2
Descriptor code: 5

IST2289I RESOURCE SEQUENCE NUMBERS UPDATED BY THIS NODE:

Explanation: VTAM issues this message as part of a group of messages in response to the following commands:
• DISPLAY TOPO, LIST=TDUINFO, SCOPE=ACTIVITY. See message [IST1780I] for a complete description of this message group.
• DISPLAY TOPO, LIST=TDUDIAG summary command. See message [IST2274I] for a complete description of this message group.

Routing code: 2
Descriptor code: 5

IST2290I TDUDIAG START OPTION = tdudiag_value

Explanation: VTAM issues this message as part of a group of messages in response to the following commands:
• DISPLAY TOPO, LIST=TDUINFO, SCOPE=RECENT. See message [IST1776I] for a complete description of this message group.
• DISPLAY TOPO, LIST=TDUINFO, SCOPE=ACTIVITY. See message [IST1780I] for a complete description of this message group.
• DISPLAY TOPO, LIST=TDUDIAG summary command. See message [IST2274I] for a complete description of this message group.

Routing code: 2
Descriptor code: 5

IST2291I UPDATED = updated

Explanation: VTAM issues this message as part of a group of messages in response to the following commands:
• DISPLAY TOPO, LIST=TDUINFO, SCOPE=ACTIVITY, FORMAT=LONG. See message [IST1780I] for a complete description of this message group.
• DISPLAY TOPO, LIST=TDUDIAG, FORMAT=LONG summary command. See message [IST2274I] for a complete description of this message group.

Routing code: 2
Descriptor code: 5
Routing code: 2
Descriptor code: 5

**IST2292I**  
CP NAME RSN DESTINATION CP TGN UPDATED

Explanation: VTAM issues this message as part of a group of messages in response to the following commands:
- DISPLAY TOPO,LIST=TDMIINFO,SCOPE=ACTIVITY. See message IST1780I for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG summary command. See message IST2274I for a complete description of this message group.

Routing code: 2
Descriptor code: 5

**IST2293I**  
cp_name rsn destination_cp tgn updated

Explanation: VTAM issues this message as part of a group of messages in response to the following commands:
- DISPLAY TOPO,LIST=TDMIINFO,SCOPE=ACTIVITY. See message IST1780I for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG summary command. See message IST2274I for a complete description of this message group.

Routing code: 2
Descriptor code: 5

**IST2294I**  
TDUDIAG RSN UPDATES:

Explanation: VTAM issues this message as part of a group of messages in response to the following commands:
- DISPLAY TOPO,LIST=TDUDIAG,ID=cp_name. See message IST2306I for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG,ORIG=orig_cp_name,DEST=dest_cp_name,TGN=tgn. See message IST2311I for a complete description of this message group.

Routing code: 2
Descriptor code: 5

**IST2295I**  
TIME HEX RSN HEX RSN

Explanation: VTAM issues this message as part of a group of messages in response to the following commands:
- DISPLAY TOPO,LIST=TDUDIAG,ID=cp_name. See message IST2306I for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG,ORIG=orig_cp_name,DEST=dest_cp_name,TGN=tgn. See message IST2311I for a complete description of this message group.

Routing code: 2
Descriptor code: 5

**IST2296I**  
CP NAME UPDATED BEFORE AFTER REASON

Explanation: VTAM issues this message as part of a group of messages in response to the following commands:
- DISPLAY TOPO,LIST=TDUDIAG,ID=cp_name. See message IST2306I for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG,ORIG=orig_cp_name,DEST=dest_cp_name,TGN=tgn. See message IST2311I for a complete description of this message group.

Routing code: 2
Descriptor code: 5
IST2297I  •  IST2298I

IST2297I  cp_name time before_rsn after_rsn reason

Explanation: VTAM issues this message as part of a group of messages in response to the following commands:
• DISPLAY TOPO,LIST=TDUDIAG,ID=cp_name. See message IST2306I for a complete description of this message group.
• DISPLAY TOPO,LIST=TDUDIAG,ORIG=orig_cp_name,DEST=dest_cp_name,TGN=tgn. See message IST2311I for a complete description of this message group.

Routing code: 2
Descriptor code: 5

IST2298I  TDUDIAG THRESHOLD REACHED FOR NODE: ID = cp_name

Explanation: VTAM issues this unsolicited message when the TDUDIAG threshold is reached for a node. The TDUDIAG threshold is a numeric value specified on the TDUDIAG start option.

Three counters are monitored to determine when the threshold is reached for a node:
• A count of the number of times that the host network node updates the resource sequence number (RSN) for the node.
• A count of TDUs that are received and accepted for the node. A TDU is accepted when it contains new information about the node, and the topology database is updated with the new information.
• A count of TDUs that are received and rejected for the node. A TDU is rejected when it contains outdated information about the node. A new TDU is built from the local topology database and is sent to correct the information.

When the node identified in this message reaches the threshold value, TDU diagnostic information is appended to the node record in the topology database. This action occurs every time the RSN is updated by the host network node or when a TDU that contains TDU diagnostic information is received for that node.

See the TDUDIAG start option information in z/OS Communications Server: SNA Resource Definition Reference.

In the message text:

cp_name  The network-qualified CP name of the node that reached the TDUDIAG threshold.

System action: Processing continues.

Operator response: To determine whether this node might be a topology resource that is in contention in a TDU war, use the information about display TDU information in z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures and do the following:
1. Issue the DISPLAY NET,TOPO,LIST=TDUINFO,SCOPE=ACTIVITY command to determine whether the node is one of the topology resources with the most frequent TDU activity.
2. Repeat the display several times to determine whether there is a pattern of excessive TDU activity for the node.
3. Issue the DISPLAY NET,TOPO,LIST=TDUINFO,SCOPE=RECENT command to determine whether the node is one of the topology resources with the most recent TDU activity.
4. If the previous displays indicate excessive TDU activity for the node, the following displays might provide information about the network nodes that are causing the performance degradation (TDU war):
   • DISPLAY NET,TOPO,LIST=TDUDIAG provides a summary of nodes and TGs with saved TDU diagnostic information.
   • DISPLAY NET,TOPO,LIST=TDUDIAG,ID=cp_name provides details about saved TDU diagnostic information for the node.
5. If you can identify the network nodes that are involved in the TDU war, end the CP-CP sessions between one of the network nodes involved and all other network nodes in the network or subnetwork.
6. If you cannot stop the TDU war, save the system log and request a dump for problem determination. Contact the system programmer.

Tip: On the DISPLAY TOPO,LIST=TDUINFO and DISPLAY TOPO,LIST=TDUDIAG summary command output, a RSN value of ******** or TDU counter values of ***** indicates the value is greater than the available space for the
value to be displayed in messages IST1778I or IST2293I. You can clear the TDU counters, but not the RSN, with the CLEAR=YES operand specified on either the DISPLAY TOPO,LIST=TDUINFO command or the DISPLAY TOPO,LIST=TDUDIAG summary command. Alternately, you can enter the command with the FORMAT=LONG operand to display these values in a format that includes two lines of output for each resource.

**System programmer response:** Take the following actions:

- If the operator provides output from the DISPLAY TOPO,LIST=TDUINFO or DISPLAY TOPO,LIST=TDUDIAG, use the information about display TDU information in [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](#) to analyze the TDU activity. If possible, identify the topology resource that is in contention and the network nodes that are involved in the TDU war.
- If you have access to IBMLink, search for known problems in this area. If no applicable matches are found, report the problem to IBM by using the Electronic Technical Report (ETR) option on IBMLink.
- If you do not have access to IBMLink, report the problem to the IBM software support center.

**User response:** Not applicable.

**Problem determination:** See the system programmer response.

**Source:** z/OS Communications Server SNA

**Module:** You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.

**Routing code:** 2,8

**Descriptor code:** 4

**Automation:** If the TDUDIAG start option is set to the default of 1000 or higher, this message might be an indication of a TDU war and automation is suggested.

**Example:**

```
IST2298I TDUDIAG THRESHOLD REACHED FOR NODE: ID = NETA.CPS05
```

**IST2299I**  
**TDUDIAG THRESHOLD REACHED FOR TG: TGN = tg_num**

**Explanation:** This message is the first of a group of unsolicited messages that VTAM issues when the TDUDIAG threshold is reached for a TG. The TDUDIAG threshold is a numeric value specified on the TDUDIAG start option. If you receive this message, it might be an indication of a TDU war, which is an endless exchange of TDUs in contention over the same topology resource, resulting in continuous performance degradation of the APPN network.

Three counters are monitored to determine when the threshold is reached for a TG:

- A count of the number of times that the host network node updates the resource sequence number (RSN) for the TG.
- A count of TDUs that are received and accepted for the TG. A TDU is accepted when it contains new information about the TG, and the topology database is updated with the new information.
- A count of TDUs that are received and rejected for the TG. A TDU is rejected when it contains outdated information about the TG. A new TDU is built from the local topology database and is sent to correct the information.

When the TG identified in this message reaches the threshold value, TDU diagnostic information is appended to the TG record in the topology database. This action occurs every time the RSN is updated by the host network node or when a TDU that contains TDU diagnostic information is received for that TG.

See the [TDUDIAG start option](#) information in [z/OS Communications Server: SNA Resource Definition Reference](#)

A complete description of the message group follows the example.

```
IST2299I TDUDIAG THRESHOLD REACHED FOR TG: TGN = tg_num
IST2256I ORIG = origin_node - DEST = dest_node
IST314I END
```

**IST2299I**

This message identifies the TG number of the TG that reached the TDUDIAG threshold.
The `tg_num` value is the TG number of the TG that reached the TDUDIAG threshold.

**IST2256I**

This message identifies the origin and destination of the TG that reached the TDUDIAG threshold.

The `origin_node` value is the network-qualified CP name of the origin node of the TG that reached the TDUDIAG threshold.

The `dest_node` value is the network-qualified CP name of the destination node of the TG that reached the TDUDIAG threshold.

**System action:** Processing continues.

**Operator response:** To determine whether this TG might be a topology resource that is in contention in a TDU war, use the information about display TDU information in z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures and do the following:

1. Issue the `DISPLAY NET,TOPO,LIST=TDUINFO,SCOPE=ACTIVITY` command to determine whether the TG is one of the topology resources with the most frequent TDU activity.
2. Repeat the display several times to determine whether there is a pattern of excessive TDU activity for the TG.
3. Issue the `DISPLAY NET,TOPO,LIST=TDUINFO,SCOPE=RECENT` command to determine whether the TG is one of the topology resources with the most recent TDU activity.
4. If the previous displays indicate excessive TDU activity for the TG, the following displays might provide information about the network nodes that are causing the performance degradation (TDU war):
   - The `DISPLAY NET,TOPO,LIST=TDUDIAG` command provides a summary of nodes and TGs with saved TDU diagnostic information.
   - The `DISPLAY NET,TOPO,LIST=TDUDIAG,ORIG=origin_node,DEST=dest_node,TGN=tg_num` command provides details about saved TDU diagnostic information for the TG.
5. If you can identify the network nodes that are involved in the TDU war, end the CP-CP sessions between one of the network nodes involved and all other network nodes in the network or subnetwork.
6. If you cannot stop the TDU war, save the system log and request a dump for problem determination. Contact the system programmer.

**Tip:** On the `DISPLAY TOPO,LIST=TDUINFO` and `DISPLAY TOPO,LIST=TDUDIAG` summary command output, a RSN value of ******** or TDU counter values of ***** indicates the value is greater than the available space for the value to be displayed in messages IST1778I or IST2293I. You can clear the TDU counters, but not the RSN, with the CLEAR=YES operand specified on either the `DISPLAY TOPO,LIST=TDUINFO` command or the `DISPLAY TOPO,LIST=TDUDIAG` summary command. Alternately, you can enter the command with the FORMAT=LONG operand to display these values in a format that includes two lines of output for each resource.

**System programmer response:** Take the following actions:

- If the operator provides output from the `DISPLAY TOPO,LIST=TDUINFO` or `DISPLAY TOPO,LIST=TDUDIAG` command, use the information about display TDU information in z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures to analyze the TDU activity. If possible, identify the topology resource that is in contention and the network nodes that are involved in the TDU war.
- If you have access to IBMLink, search for known problems in this area. If no applicable matches are found, report the problem to IBM by using the Electronic Technical Report (ETR) option on IBMLink.
- If you do not have access to IBMLink, report the problem to the IBM software support center.

**User response:** Not applicable.

**Problem determination:** See the system programmer response.

**Source:** z/OS Communications Server SNA

**Module:** You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.

**Routing code:** 2,8

**Descriptor code:** 4

**Automation:** If the TDUDIAG start option is set to the default value 1000 or higher, this message might be an indication of a TDU war and automation is suggested.
Example:
IST2299I TDUDIAG THRESHOLD REACHED FOR TG: TGN = 21
IST2256I ORIG = NETA.CPS05 - DEST = NETA.CPS10
IST314I END

IST2300I RECEIVED FROM: adjacent_node

Explanation: VTAM issues this message as part of a group of messages in response to the following commands:
- DISPLAY TOPO,LIST=TDUDIAG,ID=cp_name. See message IST2306I for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG,ORIG=orig_cp_name,DEST=dest_cp_name,TGN=tgn. See message IST2311I for a complete description of this message group.

Routing code: 2
Descriptor code: 5

IST2301I num OF total TOPOLOGY RESOURCES DISPLAYED

Explanation: VTAM issues this message as part of a group of messages in response to the following commands:
- DISPLAY TOPO,LIST=TDUINFO,SCOPE=RECENT. See message IST1776I for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUINFO,SCOPE=ACTIVITY. See message IST1780I for a complete description of this message group.
- DISPLAY TOPO,LIST=TDUDIAG summary command. See message IST2274I for a complete description of this message group.

Routing code: 2
Descriptor code: 5

IST2302I MODEL modelname IS THE BEST ACTIVE MATCH FOR applname

Explanation: This message is part of a group of messages that VTAM issues in response to a DISPLAY MODELS,APPL= command. The full description of the message group follows:
IST350I DISPLAY TYPE = MODELS
[IST2302I MODEL modelname IS THE BEST ACTIVE MATCH FOR applname]
[IST2303I THERE IS NO ACTIVE MODEL MATCH FOR applname]
[IST2304I rscname ALREADY EXISTS, TYPE=type]
IST314I END

IST350I This message serves as a header message for the display and identifies the type of information shown in the display.

IST2302I This message is issued if an active model application definition is found that is a match for the name specified on the APPL operand. The best active match is displayed.
modelname is the name of the model application definition.
applname is the name specified on the APPL operand.

IST2303I This message is issued when no active model application definition is found that would be a match for the name specified on the APPL operand.
applname is the name specified on the APPL operand.

IST2304I This message is issued when the name specified on the APPL operand is already defined to VTAM.
**IST2303I • IST2305I**

`rscname` is the name of the resource using the name specified by the APPL operand. See [Chapter 17, “Node and ID types in VTAM messages,” on page 1097](#) for a description of type.

**System action:** Processing continues.

**Operator response:** If IST2304I is issued, investigate whether the existence of this resource will cause a conflict when trying to open an application with the same name.

**System programmer response:** None.

**User response:** Not applicable.

**Problem determination:** Not applicable.

**Source:** z/OS Communications Server SNA

**Module:** You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

**Routing code:** 2

**Descriptor code:** 5

**Automation:** Not applicable.

**Example:** When the model application definition that will be used by a specific application is displayed, even if the application name is already in use:

```
d net,models,appl=applany
IST097I DISPLAY ACCEPTED
IST350I DISPLAY TYPE = MODELS
IST2302I MODEL APPL* IS THE BEST ACTIVE MATCH FOR APPLANY
IST2304I APPLANY ALREADY EXISTS, TYPE=APPL SEGMENT
IST314I END
```

When the model application definition that will be used by a specific application is displayed, when no model can be found:

```
d net,models,appl=applany
IST097I DISPLAY ACCEPTED
IST350I DISPLAY TYPE = MODELS
IST2303I THERE IS NO ACTIVE MODEL MATCH FOR APPLANY
IST314I END
```

**IST2303I • THERE IS NO ACTIVE MODEL MATCH FOR applname**

**Explanation:** This message is part of a group of messages that VTAM issues in response to a DISPLAY MODELS,APPL= command. See IST2302I for a complete description.

**Routing code:** 2

**Descriptor code:** 5

**IST2304I • rscname ALREADY EXISTS, TYPE = type**

**Explanation:** This message is part of a group of messages that VTAM issues in response to a DISPLAY MODELS,APPL= command. See IST2302I for a complete description.

**Routing code:** 2

**Descriptor code:** 5

**IST2305I • NUMBER OF DISCARDED INBOUND READ BUFFERS = sbalcnt**

**Explanation:** This message is part of several message groups that VTAM issues in response to a DISPLAY ID or DISPLAY TRL command for a TRLE that is configured with the MPC level QDIO, which represents an OSA-Express adapter, and for HiperSockets. See IST1221I “on page 467” for a complete description.

**Routing code:** 2

966  z/OS V2R1.0 Communications Server: SNA Messages
VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO, LIST=TDUDIAG, ID=cp_name. A complete description of the message group follows:

IST350I DISPLAY TYPE = TDU DIAGNOSTICS
IST2306I TDU DIAGNOSTIC INFORMATION FOR NODE: ID = cp_name
IST2312I CURRENT RSN = decimal_rsn - HEX RSN = hex_rsn
IST2356I PLATFORM = platform
IST2355I TDUDIAG THRESHOLD REACHED ON date AT time
IST2371I THIS NODE DOES NOT SUPPORT UNKNOWN TOPOLOGY VECTORS
IST2771I POSSIBLE CORRUPTION OF TOPOLOGY CONTROL VECTORS DETECTED
IST924I -------------------------------------------------------------
IST2275I TDU INFORMATION SINCE LAST RESET ON date AT time
IST1769I LAST TDU RECEIVED - date time FROM adjacent_cp
IST1784I LAST TDU RECEIVED - NONE
IST2281I LAST TDU SENT - date time
IST2315I LAST TDU SENT - NONE
IST2282I TDU COUNTS:
IST2352I SENT = sent RECEIVED = received
IST2353I ACCEPTED = accepted REJECTED = rejected
IST2354I IGNORED = ignored
IST2313I TOTAL RSN UPDATES BY LOCAL HOST NODE = rsn_count
IST2283I NO TDUDIAG RSN UPDATES EXIST
IST924I -------------------------------------------------------------
IST2294I TDUDIAG RSN UPDATES:
IST2295I TIME HEX RSN HEX RSN
IST2296I CP NAME UPDATED BEFORE AFTER REASON
IST2297I cp_name time befor_rsn after_rsn reason
IST2300I RECEIVED FROM: adjacent_node
;...;
IST2314I num OF total RSN UPDATES DISPLAYED
IST314I END

This message identifies the type of information in the display and is always TDU DIAGNOSTICS for this message group.

IST1769I

The date and time values specify when the last topology database update (TDU) was received for this node. See "DATE and TIME formats" on page 6 for information about the date and time values.

adjacent_cp is the network-qualified CP name of the adjacent node that sent the last TDU that was received.

IST1784I

This message is issued if no TDU about this resource was received.

IST2275I

The date and time values specify when all the TDU information and TDU counters were reset. The TDU information and TDU counters for a node are reset every 24 hours when garbage collection runs, or when one of the following commands is entered:

- DISPLAY NET, TOPO, LIST=TDUIINFO, CLEAR=YES
- DISPLAY NET, TOPO, LIST=TDUDIAG, CLEAR=YES
- DISPLAY NET, TOPO, LIST=TDUDIAG, ID=cp_name, CLEAR=YES

See "DATE and TIME formats" on page 6 for information about the date and time values.

IST2277I
This message indicates that possible topology control vector corruption was detected for the node. Because the topology control vectors contain the resource sequence number (RSN) for the node, which determines how a TDU is processed, it is possible that control vector corruption could cause a TDU war. The most probable cause of control vector corruption is a storage overlay.

The date and time values specify when the last topology database update (TDU) was sent for this node. See "DATE and TIME formats" on page 6 for information about the date and time values.

This message subgroup displays topology database update (TDU) counts for this node. A description of the message subgroup follows:

IST2282I TDU COUNTS:
IST2352I SENT = sent RECEIVED = received
IST2353I ACCEPTED = accepted REJECTED = rejected
IST2354I IGNORED = ignored

This is a header message for topology database update (TDU) counts for this node.

This message displays the counts of TDUs that were sent and received for this node.

sent is the number of TDUs about the node that were sent since the last time that the TDU counts were reset.
received is the number of TDUs about the node that were received since the last time that the TDU counts were reset.

This message displays counts of TDUs that were accepted and rejected for this node.

accepted is the number of TDUs about the node that were accepted since the last time that the TDU counts were reset. The TDUs contain new information about the node and the topology database was updated.
rejected is the number of TDUs about the node that were rejected since the last time that the TDU counts were reset. The TDUs were rejected because the TDUs contain outdated information about the node. TDUs that are built from the local topology database information for the node were sent as corrections.

This message displays counts of TDUs ignored for this node.

ignored is the number of TDUs about the node that were ignored since the last time that TDU counts were reset. The TDUs were discarded because the TDUs contained no new information.

This message indicates that no resource sequence number (RSN) updates exist for this node.

This message subgroup displays information about the TDUDIAG resource sequence number (RSN) update information that was saved in the topology database for this node. A description of the message subgroup follows:

IST2294I TDUDIAG RSN UPDATES:
IST2295I TIME HEX RSN HEX RSN
IST2296I CP_NAME UPDATED BEFORE AFTER REASON
IST2297I cp_name time befor_rsn after_rsn reason
IST2300I RECEIVED FROM: adjacent_node
IST2314I num OF total RSN UPDATES DISPLAYED

This is a header message for information about the TDUDIAG resource sequence number (RSN) update information that was saved in the topology database for this node.

These are header messages for the information that is displayed in the IST2297I and IST2300I subgroup messages that follow.
One IST2297I message is issued for each TDUDIAG RSN update that was saved in the topology database for
this node. The first IST2297I in this message subgroup describes the most recent TDUDIAG RSN update.

The NUM keyword can be specified on the DISPLAY command to limit the number of topology resources that
are displayed. The default value is 10 and the maximum value is 50. If the number of TDUDIAG RSN updates
that are saved for this node is smaller than the number of RSN updates that were requested on the display
command, the number of IST2297I messages that are displayed in this subgroup can be smaller than the value
that was specified in the NUM keyword.

cp_name is the network-qualified CP name of the network node that updated the RSN for this node.
time is the time when the TDUDIAG RSN update for this node was saved in the topology database. See “DATE
and TIME formats” on page 6 for information about the date and time values.
before_rsn is the RSN for the node before the RSN update. It is expressed in hexadecimal.
after_rsn is the RSN for the node after the RSN update. It is expressed in hexadecimal.
reason is the reason that the RSN was updated for this node. Possible values are:

****NA****
RSN update reason is unknown.

BN EXCHANGE
The RSN was updated for a non-native border node that was sent in a topology exchange.

BN STATUS
The RSN was updated for the host node when an intersubnet link (ISL) was activated or deactivated,
changing the border node (BN) status of the host node.

CHANGE ROLE
The RSN was updated for an adjacent node when the node type changed from an NN to an EN.

COMMAND
The RSN was updated for the node as the result of a command other than those specifically listed.

F DELETE
The RSN was updated when a MODIFY TOPO,FUNCTION=DELETE,SCOPE=NETWORK command was
entered to delete the node.

F NORMAL
The RSN was updated when a MODIFY TOPO,FUNCTION=NORMAL,SCOPE=NETWORK command was
entered to change the node status from quiesced to normal.

F QUIESCE
The RSN was updated when a MODIFY TOPO,FUNCTION=QUIESCE,SCOPE=NETWORK command was
entered to change the node status to quiesced.

NODE UPDATE
The RSN was updated when one of the following occurred:
- A MODIFY VTAMOPTS,ROUTERES=value command was entered to change the node's route resistance.
- A CDRM-CDRM session was activated, changing the node from a pure APPN node to an interchange
node (ICN).

GARBAGE
The RSN was updated during topology garbage collection to inform the rest of the network of the
impending node deletion.

TDU EQUAL
The RSN was updated when an input TDU was received for the node with a RSN equal to the RSN in the
topology database, but with inconsistent information included.

TDU GREATER
The RSN was updated when an input TDU was received for the host node with a RSN greater than the
RSN in the topology database. Because the receiving host node maintains the RSN, this is inconsistent
information.

TDU VECTOR
The RSN for the node was updated from an input TDU vector.
IST2306I

WEEKLY
The RSN for the host node was updated during the weekly broadcast of the node and all TGs owned by
the node.

• IST2300I
One IST2300I message is issued following each IST2297I message that describes a TDUDIAG RSN update that
was made by a node other than the host node.

*adjacent_node* is the network-qualified CP name of the adjacent node that sent the input TDU that contains the
TDUDIAG RSN update information. This might not be the same node that updated the RSN.

**Result:** Only the first copy of a TDUDIAG RSN update that was made by a node other than the host node is
displayed. Duplicate RSN updates received from other adjacent nodes are not saved unless the host node must
update the RSN in response to the input TDU information.

• IST2314I
This message displays the number of TDUDIAG RSN updates that are displayed in this message subgroup.

*num* is the total number of IST2297I messages that are displayed in the message subgroup.

*total* is the total number of TDUDIAG RSN updates that currently exist for this node.

IST2306I
This is a header message for the topology database update (TDU) diagnostic information for a node.

*cp_name* is the network-qualified CP name of the node.

IST2307I
This message indicates that the displayed node is an adjacent node that does not support the receipt of unknown
topology vectors in TDUs. Network nodes adjacent to the displayed node can send only the originally architected
control vectors, X'44', X'45', X'46', and X'47', in TDUs to the displayed node.

IST2312I
This message displays the current resource sequence number (RSN) for this node.

*decimal_rsn* is the current RSN in decimal format.

*hex_rsn* is the current RSN in hexadecimal format.

IST2313I
This message displays information about resource sequence number (RSN) updates made for this node.

*rsn_count* is the total number of times that the host node has updated the RSN for this node since the last time
that the TDU counts were reset.

IST2315I
This message is issued if no TDU about this resource was sent.

IST2355I
This message contains the date and time when the TDUDIAG threshold was reached for this resource. See the
TDUDIAG start option information in z/OS Communications Server: SNA Resource Definition Reference for more
information about the TDUDIAG threshold. See "DATE and TIME formats" on page 6 for information about the
date and time values.

IST2356I
• platform is the platform identifier this node. Possible values are:

  ****NA****
  Platform identifier is unknown

  ****NA****
  Platform identifier is unknown

  CS/2
  IBM Communications Server for OS/2
System action: Processing continues.

Operator response: If you are displaying TDU diagnostic information because of performance degradation of the APPN network, use the information about display TDU information in z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures, and do the following:

1. If the DISPLAY TOPO,LIST=TDUINFO commands indicate that this node has excessive TDU activity, and TDUDIAG RSN update information is saved for the node in the topology database, this display might provide information about the network nodes that are causing the performance degradation (TDU war).

2. If you can identify the network nodes that are involved in the TDU war, bring down the CP-CP sessions from one of the network nodes involved to all other network nodes in the network or subnetwork.

3. If you cannot stop the TDU war, save the system log and request a dump for problem determination. Contact the system programmer.

System programmer response: Take the following actions:

- If the operator provides output from the DISPLAY TOPO,LIST=TDUINFO or DISPLAY TOPO,LIST=TDUDIAG, use the display TDU information in z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures to learn how to diagnose a TDU war. If possible, identify the topology resource that is in contention and the network nodes that are involved in the TDU war.

- If you have access to IBMLink, search for known problems in this area. If no applicable matches are found, report the problem to IBM by using the Electronic Technical Report (ETR) option on IBMLink.

- If you do not have access to IBMLink, report the problem to the IBM software support center.

User response: Not applicable.

Problem determination: See the system programmer response.

Source: z/OS Communications Server SNA
IST3501I  DISPLAY TYPE = TDU DIAGNOSTICS
IST2306I  TDU DIAGNOSTIC INFORMATION FOR NODE: ID = NETA.SSCP1A
IST2312I  CURRENT RSN = 1024100 - HEX RSN = 000FA064
IST2356I  PLATFORM = Z/OS VTAM
IST2355I  TDU DIAG THRESHOLD REACHED ON 01/29/10 AT 15:42:08
IST924I  ---------------------------------------------
IST2275I  TDU INFORMATION SINCE LAST RESET ON 01/29/10 AT 11:43:47
IST1769I  LAST TDU RECEIVED - 01/29/10 15:43:25 FROM NETA.SSCP2A
IST2281I  LAST TDU SENT - 01/29/10 15:43:25
IST2282I  TDU COUNTS:
IST2352I  SENT = 496565  RECEIVED = 541498
IST2353I  ACCEPTED = 42795  REJECTED = 450422
IST2354I  IGNORED = 48281
IST2313I  TOTAL RSN UPDATES BY LOCAL HOST NODE = 502059
IST924I  ---------------------------------------------
IST2294I  TDUDIAG RSN UPDATES:
IST2295I  TIME  HEX RSN  HEX RSN
IST2296I  CP NAME UPDATED BEFORE AFTER REASON
IST2297I  NETA.SSCP1A  15:43:25  000FA062  000FA064  TDU GREATER
IST2298I  NETA.SSCP1A  15:43:25  000FA060  000FA062  TDU GREATER
IST2300I  RECEIVED FROM: NETA.SSCP2A
IST2297I  NETA.SSCP1A  15:43:19  000FA05E  000FA060  TDU GREATER
IST2297I  NETA.SSCP1A  15:43:18  000FA05C  000FA05E  TDU GREATER
IST2300I  RECEIVED FROM: NETA.SSCPAA
IST2297I  NETA.SSCP1A  15:43:02  000FA05A  000FA05C  TDU GREATER
IST2297I  NETA.SSCP1A  15:43:02  000FA058  000FA05A  TDU GREATER
IST2300I  RECEIVED FROM: NETA.SSCPAA
IST2314I  6 OF 50 RSN UPDATES DISPLAYED
IST314I  END

IST2307I  THIS NODE DOES NOT SUPPORT UNKNOWN TOPOLOGY VECTORS

Explanation: VTAM issues this message as part of a group of messages in response to the following commands:

- DISPLAY TOPO,LIST=TDUDIAG,ID=cp_name. See message IST2306I for a complete description of this message group.
- DISPLAY TOPO,ID=cp_name,LIST=ALL. See message IST1295I for a complete description of this message group.

Routing code: 2
Descriptor code: 5

IST2308I  THAT HAVE SAVED TDUDIAG RSN UPDATES

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO,LIST=TDUDIAG summary command. See message IST2274I for a complete description of this message group.

Routing code: 2
Descriptor code: 5

IST2309I  ACCELERATED ROUTING ENABLED

Explanation: This message is part of several message groups that VTAM issues in response to a DISPLAY ID or DISPLAY TRL command. See "IST1221I on page 467" for a complete description.

Routing code: 2
Descriptor code: 5

IST2310I  ACCELERATED ROUTING DISABLED

Explanation: This message is part of several message groups that VTAM issues in response to a DISPLAY ID or DISPLAY TRL command. See "IST1221I on page 467" for a complete description.

Routing code: 2
IST2311I  TDU DIAGNOSTIC INFORMATION FOR TG: TGN = tg_number

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY TOPO,LIST=TDUDIAG,ORIG=origin_node,DEST=dest_node,TGN=tg_number. A complete description of the message group follows:

IST350I DISPLAY TYPE = TDU DIAGNOSTICS
IST2311I TDU DIAGNOSTIC INFORMATION FOR TG: TGN = tg_number
IST2256I ORIG = origin_node - DEST = dest_node
IST2312I CURRENT RSN = decimal_rsn - HEX RSN = hex_rsn
IST2355I TDUDIAG THRESHOLD REACHED ON date AT time
IST2277I POSSIBLE CORRUPTION OF TOPOLOGY CONTROL VECTORS DETECTED
IST924I -------------------------------------------------------------
IST2275I TDU INFORMATION SINCE LAST RESET ON date AT time
IST1769I LAST TDU RECEIVED - date time FROM adjacent_cp
IST1784I LAST TDU RECEIVED - NONE
IST2281I LAST TDU SENT - date time
IST2315I LAST TDU SENT - NONE
IST2282I TDU COUNTS:
IST2352I SENT = sent RECEIVED = received
IST2353I ACCEPTED = accepted REJECTED = rejected
IST2354I IGNORED = ignored
IST2313I TOTAL RSN UPDATES BY LOCAL HOST NODE = rsn_count
IST2283I NO TDUDIAG RSN UPDATES EXIST
IST924I -------------------------------------------------------------
IST2314I num OF total RSN UPDATES DISPLAYED
IST314I END

IST350I
This message identifies the type of information in the display and is always TDU DIAGNOSTICS for this message group.

IST1769I
The date and time values specify when the last topology database update (TDU) was received for this TG. See “DATE and TIME formats” on page 6 for information about the date and time values.

adjacent_cp is the network-qualified CP name of the adjacent node that sent the last TDU that was received.

IST1784I
This message is issued if no TDU about this resource was received.

IST2275I
• The date and time values specify when all the TDU information and TDU counters were reset. The TDU information and TDU counters for a TG are reset every 24 hours when garbage collection runs, or when one of the following commands is entered:
  – DISPLAY NET,TOPO,LIST=TDUINFO,CLEAR=YES or a
  – DISPLAY NET,TOPO,LIST=TDUDIAG,CLEAR=YES
  – DISPLAY NET,TOPO,LIST=TDUDIAG,ORIG=cpname,DEST=destcpname,TGN=tg,CLEAR=YES
See “DATE and TIME formats” on page 6 for information about the date and time values.

IST2277I
IST2311I

This message indicates that possible topology control vector corruption was detected for the TG. Because the topology control vectors contain the resource sequence number (RSN) for the node, which determines how a TDU is processed, it is possible that control vector corruption could cause a TDU war. The most probable cause of control vector corruption is a storage overlay.

IST2281I

The date and time values specify when the last topology database update (TDU) was sent for this TG. See "DATE and TIME formats" on page 6 for information about the date and time values.

IST2282, IST2352I, IST2353I, IST2354I

• This message subgroup displays topology database update (TDU) counts for this TG. A description of the message subgroup follows:

  IST2282I  TDU COUNTS:
  IST2352I  SENT = sent  RECEIVED = received
  IST2353I  ACCEPTED = accepted  REJECTED = rejected
  IST2354I  IGNORED = ignored

• IST2282I

  This is a header message for topology database update (TDU) counts for this TG.

IST2313I

This message displays information about resource sequence number (RSN) updates made for this TG.

rsn_count is the total number of times that the host node has updated the RSN for this TG since the last time that the TDU counts were reset.

IST2315I

This message is issued if no TDU about this resource was sent.

• IST2352I

  This message displays the counts of TDUs that were sent and received for this TG
  sent is the number of TDUs about the TG that were sent since the last time that the TDU counts were reset.
  received is the number of TDUs about the TG that were received since the last time that the TDU counts were reset.

• IST2353I

  This message displays counts of TDUs that were accepted and rejected for this TG.
  accepted is the number of TDUs about the TG that were accepted since the last time that the TDU counts were reset. The TDUs contain new information about the node and the topology database was updated.
  rejected is the number of TDUs about the TG that were rejected since the last time that the TDU counts were reset. The TDUs were rejected because the TDUs contain outdated information about the node. TDUs that are built from the local topology database information for the node were sent as corrections.

• IST2354I

  This message displays counts of TDUs ignored for this TG.
  ignored is the number of TDUs about the TG that were ignored since the last time that TDU counts were reset. The TDUs were discarded because the TDUs contained no new information.

IST2283I

This message indicates that no resource sequence number (RSN) updates exist for this TG.

IST2294I, IST2295I, IST2296I, IST2297I, IST2300I, IST2314I

• This message subgroup displays information about the TDUDIAG resource sequence number (RSN) update information that was saved in the topology database for this TG. A description of the message subgroup follows:

  IST2294I  TDUDIAG RSN UPDATES:
  IST2295I  TIME  HEX RSN  HEX RSN
  IST2296I  CP NAME  UPDATED  BEFORE  AFTER  REASON
  IST2297I  cp_name  time  befor_rsn  after_rsn  reason
  IST2300I  RECEIVED FROM: adjacent_node
  IST2314I  num OF total RSN UPDATES DISPLAYED

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• IST2294I
  This is a header message for information about the TDUDIAG resource sequence number (RSN) update information that was saved in the topology database for this TG.

• IST2295I, IST2296I
  These are header messages for the information that is displayed in the IST2297I and IST2300I subgroup messages that follow.

• IST2297I
  – One IST2297I message is issued for each TDUDIAG RSN update that was saved in the topology database for this TG. The first IST2297I in this message subgroup describes the most recent TDUDIAG RSN update.
  – The NUM keyword can be specified on the DISPLAY command to limit the number of topology resources that are displayed. The default value is 10 and the maximum value is 50. If the number of TDUDIAG RSN updates that are saved for this TG is smaller than the number of RSN updates that were requested on the display command, the number of IST2297I messages that are displayed in this subgroup can be smaller than the value that was specified in the NUM keyword.
  – cp_name is the network-qualified CP name of the network node that updated the RSN for this TG.
  – time is the time when the TDUDIAG RSN update for this TG was saved in the topology database. See “DATE and TIME formats” on page 6 for information about the date and time values.
  – before_rsn is the RSN for the TG before the RSN update. It is expressed in hexadecimal.
  – after_rsn is the RSN for the TG after the RSN update. It is expressed in hexadecimal.
  – reason is the reason that the RSN was updated for this TG. Possible values are:

    *****NA*****
    RSN update reason is unknown.

    COMMAND
    The RSN was updated for the TG as the result of a command other than those specifically listed.

    CW ACTIVE
    The RSN was updated when the contention winner CP-CP session was activated over the TG.

    CW INACTIVE
    The RSN was updated when the contention winner CP-CP session over the TG was deactivated.

    F CLRUNRCH
    The RSN was updated when a MODIFY TOPO,FUNCTION=CLRUNRCH,SCOPE=NETWORK command was entered to clear unreachable partner records.

    F DELETE
    The RSN was updated when a MODIFY TOPO,FUNCTION=DELETE,SCOPE=NETWORK command was entered to delete the TG.

    F NORMAL
    The RSN was updated when a MODIFY TOPO,FUNCTION=NORMAL,SCOPE=NETWORK command was entered to change the TG status from quiesced to normal.

    F QUIESCE
    The RSN was updated when a MODIFY TOPO,FUNCTION=QUIESCE,SCOPE=NETWORK command was entered to change the TG status to quiesced.

    GARBAGE
    The RSN was updated during topology garbage collection to inform the rest of the network of the impending TG deletion.

    TDU EN TG
    The RSN was updated when an input TDU was received for a TG owned by the receiving host node because the partner node changed from an NN to an EN. The host node sets the TG to an INOP status and broadcasts it to all adjacent nodes to prevent the use of the endpoint TG for intermediate routing.

    TDU EQUAL
    The RSN was updated when an input TDU was received for the TG with a RSN equal to the RSN in the topology database, but with inconsistent information included.
IST2311I

TDU GREATER
The RSN was updated when an input TDU was received for the TG owned by the receiving host node with a RSN greater than the RSN in the topology database. Because the TG's owning node maintains the RSN, this is inconsistent information.

TDU ISL/BEX
The RSN was updated when an input TDU was received for an intersubnet link (ISL) or branch extender (BEX) TG that is owned by the receiving host node and the input status of the TG was rejected for one of the following reasons:
- The input TDU has the garbage collection indicator (GCI) on, but the TG in the local database is operational and its RSN has an even value.
- The input status of the TG is not quiesced; an ISL or BEX TG is always broadcast to non-owning nodes as quiesced.

The host node broadcasts the correct status of the TG to all adjacent nodes.

TDU NEW TG
The RSN was updated when an input TDU was received for a TG that is owned by the receiving host node, but that TG does not exist. The host node broadcasts the TG with an INOP status to all adjacent nodes to prevent the use of the non-existent TG.

TDU VECTOR
The RSN for the TG was updated from an input TDU vector.

TG ACTIVE
The RSN was updated when the TG was activated.

TG CREATE
The RSN was set to the start RSN when the TG record was created at TG activation.

TG INACTIVE
The RSN was updated when the TG was deactivated.

TG LOCAL
The RSN was updated for a TG that originates in the host node, with a destination partner node that changed its node type from NN to EN.

TG REVERSE
The RSN was updated for a TG that originates in a partner node that changed its node type from NN to EN. This is the reverse TG of a TG that originates in the host node.

WEEKLY
The RSN for the TG was updated during the weekly broadcast of the host node and all TGs owned by the host node.

• IST2300I
One IST2300I message is issued following each IST2297I message that describes a TDUDIAG RSN update for the TG that was made by a node other than the host node.

adjacent_node is the network-qualified CP name of the adjacent node that sent the input TDU that contains the TDUDIAG RSN update information. This might not be the same node that updated the RSN.

Result: Only the first copy of a TDUDIAG RSN update that was made by a node other than the host node is displayed. Duplicate RSN updates received from other adjacent nodes are not saved unless the host node must update the RSN in response to the input TDU information.

• IST2314I
This message displays the number of TDUDIAG RSN updates that are displayed in this message subgroup.

num is the total number of IST2297I messages that are displayed in the message subgroup.

total is the total number of TDUDIAG RSN updates that currently exist for this node.

IST2311I, IST2256I
• This is a header message subgroup for the topology database update (TDU) diagnostic information for the TG. A description of the message subgroup follows:
IST2311I TDU DIAGNOSTIC INFORMATION FOR TG: TGN = tg_number
IST2256I ORIG = origin_node - DEST = dest_node

- **IST2311I**
  
  This header message displays the TG number for the TG.
  
  `tg_number` is the TG number of the TG.

- **IST2256I**
  
  This header message displays the origin and destination of the TG.
  
  `origin_node` is the network-qualified CP name of the origin node of the TG.
  
  `dest_node` is the network-qualified CP name of the destination node of the TG.

IST2312I

This message displays the current resource sequence number (RSN) for this TG.

`decimal_rsn` is the current RSN in decimal format.

`hex_rsn` is the current RSN in hexadecimal format.

IST2355I

This message contains the date and time when the TDUDIAG threshold was reached for this TG. See the [TDUDIAG start option](https://www.ibm.com/support/knowledgecenter/SSS77U_7.2.1/com.ibm.zos.v7r2.env.sna guides.sna.rsrc_102.pdf) information in z/OS Communications Server: SNA Resource Definition Reference for more information about the TDUDIAG threshold. See “DATE and TIME formats” on page 6 for information about the date and time values.

**System action:** Processing continues.

**Operator response:** If you are displaying TDU diagnostic information because of performance degradation of the APPN network, use the information about display TDU information in [z/OS Communications Server: SNA Diagnosis](https://www.ibm.com/support/knowledgecenter/SSS77U_7.2.1/com.ibm.zos.v7r2.env.sna guides.sna.rsrc_102.pdf) Vol 1, Techniques and Procedures, and do the following:

1. If the DISPLAY TOPO,LIST=TDUINFO commands indicate that this TG has excessive TDU activity, and
   TDUDIAG RSN update information is saved for the TG in the topology database, this display might provide
   information about the network nodes that are causing the performance degradation (TDU war).
2. If you can identify the network nodes that are involved in the TDU war, bring down the CP-CP sessions from one
   of the network nodes involved to all other network nodes in the network or subnetwork.
3. If you cannot stop the TDU war, save the system log and request a dump for problem determination. Contact the
   system programmer.

**System programmer response:** Take the following actions:

- If the operator provides output from the DISPLAY TOPO,LIST=TDUINFO or DISPLAY TOPO,LIST=TDUDIAG, use
  the display TDU information in [z/OS Communications Server: SNA Diagnosis](https://www.ibm.com/support/knowledgecenter/SSS77U_7.2.1/com.ibm.zos.v7r2.env.sna guides.sna.rsrc_102.pdf) Vol 1, Techniques and Procedures to learn how to diagnose a TDU war. If possible, identify the topology resource that is in contention and the network
  nodes that are involved in the TDU war.
- If you have access to IBMLink, search for known problems in this area. If no applicable matches are found, report
  the problem to IBM by using the Electronic Technical Report (ETR) option on IBMLink.
- If you do not have access to IBMLink, report the problem to the IBM software support center.

**User response:** Not applicable.

**Problem determination:** See the system programmer response.

**Source:** z/OS Communications Server SNA

**Module:** You can display the module that issues a SNA message in the message by setting the MSGMOD start
option to YES. See “Adding the originating module to the message text” on page 5 for more information about the
MSGMOD start option.

**Routing code:** 2

**Descriptor code:** 5

**Automation:** Not recommended.

**Example:** The following is an example of the display output from a DISPLAY TOPO,LIST=TDUDIAG,ORIG=SSCP1A,DEST=SSCPBA,TGN=2,NUM=3 command:
CURRENT RSN = decimal_rsn - HEX RSN = hex_rsn

Explanation: VTAM issues this message as part of a group of messages in response to the following commands:

- DISPLAY TOPO, LIST=TDUDIAG, ID=cp_name. See message IST2306I for a complete description of this message group.
- DISPLAY TOPO, LIST=TDUDIAG, ORIG=orig_cp_name, DEST=dest_cp_name, TGN=tgn. See message IST2311I for a complete description of this message group.

Routing code: 2
Descriptor code: 5

TOTAL RSN UPDATES BY LOCAL HOST NODE = rsn_count

Explanation: VTAM issues this message as part of a group of messages in response to the following commands:

- DISPLAY TOPO, LIST=TDUDIAG, ID=cp_name. See message IST2306I for a complete description of this message group.
- DISPLAY TOPO, LIST=TDUDIAG, ORIG=orig_cp_name, DEST=dest_cp_name, TGN=tgn. See message IST2311I for a complete description of this message group.

Routing code: 2
Descriptor code: 5

num OF total RSN UPDATES DISPLAYED

Explanation: VTAM issues this message as part of a group of messages in response to the following commands:

- DISPLAY TOPO, LIST=TDUDIAG, ID=cp_name. See message IST2306I for a complete description of this message group.
- DISPLAY TOPO, LIST=TDUDIAG, ORIG=orig_cp_name, DEST=dest_cp_name, TGN=tgn. See message IST2311I for a complete description of this message group.

Routing code: 2
Descriptor code: 5
IST2315I LAST TDU SENT - NONE

Explanation: VTAM issues this message as part of a group of messages in response to the following commands:
- DISPLAY TOPO, LIST=TDUDIAG, ID=cp_name. See message IST2306I for a complete description of this message group.
- DISPLAY TOPO, LIST=TDUDIAG, ORIG=orig_cp_name, DEST=dest_cp_name, TGN=tgn. See message IST2311I for a complete description of this message group.
- DISPLAY TOPO, ID=cp_name, LIST=ALL. See message IST1295I for a complete description of this message group.
- DISPLAY TOPO, ORIG=orig_cp_name, DEST=dest_cp_name or DISPLAY TOPO, ORIG=orig_cp_name, TGN=tgn. See message IST1299I for a complete description of this message group.

Routing code: 2
Descriptor code: 5

IST2316I EARLYINO = earlyino EARLYINT = earlyint

Explanation: VTAM issues this message as part of a group of messages that displays tuning statistics for multipath channel (MPC) attached resources. The first message in the group is IST1230I. See “IST1230I” on page 479 for more information.

Routing code: 2
Descriptor code: 5

IST2317I ULPRETUO = ulpretuo ULPRETU = ulpretu

Explanation: VTAM issues this message as part of a group of messages that displays tuning statistics for multipath channel (MPC) attached resources. The first message in the group is IST1230I. See “IST1230I” on page 479 for more information.

Routing code: 2
Descriptor code: 5

IST2318I UNABLE TO OPEN applname - NETWORK ADDRESS LIMIT REACHED

Explanation: While creating a dynamic APPL RDTE during an OPEN ACB, VTAM attempted to allocate a network address for the resource. However, VTAM had already allocated the maximum number of network addresses in the host subarea. Therefore, VTAM failed to define a new network address for the resource.

System action: VTAM fails the OPEN ACB. The ACBERFLG field is set to X’14’.

Operator response: Deactivate any unneeded major nodes in the host subarea to free network addresses, and then have the application OPEN the ACB again. If VTAM continues to issue this message, save the system log for problem determination. See the VARY INACT command in z/OS Communications Server: SNA Operation for more information.

System programmer response: Check the output provided by the operator to ensure that all requirements for VTAM are correct for your system.

Because the maximum number of elements that can be assigned by VTAM in the host subarea has been reached, examine the possibility of allocating devices and applications to other subareas.

You can increase the number of available host subarea element addresses by allowing the use of high-order element addresses for some resources. To enable the use of high-order element addresses, specify YES for the ENHADDR start option. Modify the start options file (ATCSTRxx) and restart VTAM to use the start option. See the information about increasing host subarea element addresses in z/OS Communications Server: SNA Network Implementation Guide.

User response: Not applicable.

Problem determination: Not applicable.

Source: z/OS Communications Server TCP/IP: SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start
IST2319I • IST2321I

option to YES. See “Adding the originating module to the message text” on page 5 for more information about the
MSGMOD start option.
Routing code: 2
Descriptor code: 5
Automation: Not applicable.
Example:
IST2318I UNABLE TO OPEN APPL1 - NETWORK ADDRESS LIMIT REACHED

IST2319I  IQD NETWORK ID = netid

Explanation: This message is part of several message groups that VTAM issues in response to a DISPLAY ID or
DISPLAY TRL command. See message “IST1221I” on page 467 for a complete description.
Routing code: 2
Descriptor code: 5

IST2320I  WTOR msg_num FROM CONSOLE console DELETED DUE TO VTAM HALT

Explanation: VTAM issues this unsolicited message when a HALT or HALT,QUICK command was entered to end
VTAM; however, HALT processing detected an outstanding write-to-operator with reply (WTOR) message that is
waiting for a reply. The outstanding WTOR message is deleted so that VTAM HALT processing can continue.
In the message text:

msg_num
The message number of the WTOR message that is deleted.

console
The console ID of the operating system console that is waiting for the response to the WTOR message. If the
console ID is not available, ***NA*** is displayed.

System action: VTAM HALT processing continues.
Operator response: None.
System programmer response: None.
User response: Not applicable.
Problem determination: Not applicable.
Source: z/OS Communications Server SNA
Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start
option to YES. See “Adding the originating module to the message text” on page 5 for more information about the
MSGMOD start option.
Routing code: 2
Descriptor code: 7,12
Automation: Not recommended.
Example:
IST2320I WTOR IST1660A FROM CONSOLE 01000040 DELETED DUE TO VTAM HALT

IST2321I  TDUDIAG VALUE MUST BE NUMERIC, 'ALWAYS', OR 'NEVER'

Explanation: VTAM issues this message during START processing or in response to a MODIFY VTAMOPTS
command when the value of the TDUDIAG start option is not correct. Valid values for TDUDIAG are ALWAYS,
NEVER, or a numeric value.
See the TDUDIAG start option information in z/OS Communications Server: SNA Resource Definition Reference
System action: 
• If the error occurred during START processing, VTAM issues message IST1311A to prompt you for the correct value of the TDUDIAG start option.
• If the error occurred in response to a MODIFY VTAMOPTS command, VTAM ignores the TDUDIAG start option and processing continues

Operator response:
1. If the error occurred during START processing, enter a valid value for the TDUDIAG start option in response to IST1311A. You can also enter a blank if you want to accept the default value for the TDUDIAG start option.
2. If the error occurred in response to a MODIFY VTAMOPTS command, enter the command again with a valid value for the TDUDIAG start option.

System programmer response:
1. If the error occurred during START processing, correct the value for the TDUDIAG start option if TDUDIAG is coded in an ATCSTRxx file.
2. If the error occurred in response to a MODIFY VTAMOPTS command, no further action is required

User response: Not applicable.

Problem determination: Not applicable.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.

Routing code: 2

Descriptor code: 5

Automation: Not recommended.

Example:
IST2321I TDUDIAG VALUE MUST BE NUMERIC, 'ALWAYS', OR 'NEVER'

IST2322I   WTOR msg_num FROM POA poa_name DELETED DUE TO VTAM HALT

Explanation: VTAM issues this unsolicited message when a HALT or HALT,QUICK command was entered to end VTAM; however, HALT processing detected an outstanding write-to-operator with reply (WTOR) message that is waiting for a reply. The outstanding WTOR message is deleted so that VTAM HALT processing can continue.

In the message text:

msg_num
The message number of the WTOR message that is deleted.

poa_name
The program operator application (POA) that is waiting for the response to the WTOR message. If the POA name is not available, ***NA*** is displayed.

System action: VTAM HALT processing continues.

Operator response: None.

System programmer response: None.

User response: Not applicable.

Problem determination: Not applicable.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.

Routing code: 2

Descriptor code: 7,12
**IST2323E • IST2324I**

**Automation:** Not recommended.

**Example:**

IST2322I WTOR IST1660A FROM POA A0600PPT DELETED DUE TO VTAM HALT

---

**IST2323E  EE HEALTH VERIFICATION FAILED FOR ONE OR MORE CONNECTIONS**

**Explanation:** VTAM sent a Logical Data Link Control (LDLC) probe to the remote partner on one or more active EE connections to verify the health of the EE connection. VTAM did not receive the response from one or more remote partners of the LDLC probe. This message remains on the system console until all active EE connections receive successful EE health verifications or until the message is manually deleted.

**System action:** Processing continues.

**Operator response:** Use the DISPLAY NET,EE,LIST=EVERIFY command to determine which EE connections are experiencing EE health verification failures. Message IST2325I will be displayed for each line or PU that failed health verification on last LDLC probe to their remote partner. Use the DISPLAY NET,ID=linename or DISPLAY NET,ID=puname command for more information about local and remote IP addresses. If you cannot determine the cause of the problem, contact the system programmer.

**System programmer response:** Determine the network connectivity problems between this node and the remote partners. Use the DISPLAY NET,EEDIAG,TEST=YES command to determine the reason for the failure. See the information about the DISPLAY EEDIAG,TEST=YES command in z/OS Communications Server: SNA Diagnosis Vol I, Techniques and Procedures and the information about troubleshooting EE problems in z/OS Communications Server: SNA Network Implementation Guide.

**User response:** Not applicable.

**Problem determination:** Not applicable.

**Source:** z/OS Communications Server SNA

**Module:** You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 3 for more information about the MSGMOD start option.

**Routing code:** 2

**Descriptor code:** 11

**Automation:** This message is a good candidate for automation.

**Example:**

IST2323E EE HEALTH VERIFICATION FAILED FOR ONE OR MORE CONNECTIONS

---

**IST2324I  EE HEALTH VERIFICATION: FAILED CONNECTION INFORMATION**

**Explanation:** This message is displayed in response to the D NET,EE,LIST=EVERIFY command. A complete description of the message group follows.

IST2324I EE HEALTH VERIFICATION: FAILED CONNECTION INFORMATION

IST2325I LINE linename PU puname ON date AT time

IST2326I EE HEALTH VERIFICATION TOTAL CONNECTION FAILURES = number

**IST2324I**

This message is displayed in response to a D NET,EE,LIST=EVERIFY command

**IST2325I**

This message is displayed to show each failed EE connection.

In the message text:

*linename*

The name of the line for the EE connection that failed health verification.
**puname**

The name of the PU that is associated with the EE connection that failed health verification.

**date and time**

The date and time when the EE health verification failed. See “DATE and TIME formats” on page 6 for information about the date and time values.

**IST2326I**

This message provides the total number of EE connections that failed health verification.

In the message text:

**number**

The number of EE lines that failed verification. A value of 0 indicates that no EE lines failed verification.

**System action:** Processing continues

**Operator response:** If IST2326I shows that there are failed EE connections then contact the system programmer.

**System programmer response:** Issue the DISPLAY NET,EE,DIAG,ID=linename,TEST=YES command to test the EE connection. See the information about understanding the EE connectivity test output in z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures.

**User response:** Not applicable.

**Problem determination:** None.

**Source:** z/OS Communications Server SNA

**Module:** You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

**Routing code:** 2

**Descriptor code:** 5

**Automation:** Not applicable.

**Example:**

```
IST2324I EE HEALTH VERIFICATION FAILED CONNECTION INFORMATION
IST2325I LINE LNEE1000 PU PU1000 ON 04/16/09 AT 14:01:00
IST2325I LINE LNEE2000 PU PU2000 ON 04/16/09 AT 14:02:00
IST2326I EE HEALTH VERIFICATION TOTAL CONNECTION FAILURES = 2
```

**Explanation:** This message is part of a group of messages displayed in response to the D NET,EE,LIST=EEVERIFY command. The first message in the group is IST2324I. See IST2324I for a complete description.

**Routing code:** 2

**Descriptor code:** 5

**Example:**

```
IST2325I EE HEALTH VERIFICATION FAILED CONNECTION INFORMATION
IST2326I EE HEALTH VERIFICATION TOTAL CONNECTION FAILURES = number
```

**Explanation:** This message is part of a group of messages displayed in response to the D NET,EE,LIST=EEVERIFY command. The first message in the group is IST2324I. See IST2324I for a complete description.

**Routing code:** 2

**Descriptor code:** 5
IST2327I

IST2327I     EE HEALTH VERIFICATION OPTION - EEVERIFY = number MINUTES

Explanation: VTAM issues this message subgroup to report the results of the last EE health verification on the displayed line or PU that represent an EE connection. This subgroup is a part of the IST2001I message group. This subgroup is issued when a DISPLAY EE command that uses the ID parameter with the line or PU that has an active EE connection, and VTAM is verifying the health of the EE connection periodically. This message group is not issued if VTAM is not verifying the health of the EE connection periodically or the PU/line does not support EE health verification function with an active EE connection.

The following is the subgroup that is issued when the most recent EE health verification indicated a failure:

IST2327I EE HEALTH VERIFICATION OPTION - EEVERIFY = number MINUTES
[IST2328I EE HEALTH VERIFICATION FAILED ON date AT time]
[IST2339I EE HEALTH VERIFICATION LAST SUCCESS ON date AT time]

The following is the subgroup that is issued when the most recent EE health verification indicated a success and we have had a previous failure:

IST2327I EE HEALTH VERIFICATION OPTION - EEVERIFY = number MINUTES
[IST2329I EE HEALTH VERIFICATION SUCCESSFUL ON date AT time]
[IST2340I EE HEALTH VERIFICATION LAST FAILED ON date AT time]

The following is the subgroup that is issued when the most recent EE health verification indicated a success and we have never had a previous failure:

IST2327I EE HEALTH VERIFICATION OPTION - EEVERIFY = number MINUTES
[IST2329I EE HEALTH VERIFICATION SUCCESSFUL ON date AT time]
[IST2341I EE HEALTH VERIFICATION HAS NEVER FAILED FOR THIS CONNECTION]

IST2327I

This message is displayed if EE health verification is active for the displayed PU or line.

In the message text:

number
The number value indicates, in minutes, how often VTAM performs a health verification on the EE connection.

IST2328I

This message is issued to report the date and time that the most recent EE health verification failed.

In the message text:

date and time
The date and time when the most recent EE health verification failed. See "DATE and TIME formats" on page 6 for information about the date and time values.

IST2329I

This message is issued to report the date and time that the most recent EE health verification was successful.

In the message text:

date and time
The date and time that the most recent EE health verification was successful. See "DATE and TIME formats" on page 6 for information about the date and time values. The time value is in the 24 hour format.

IST2339I

This message is issued to report the date and time that the most recent EE health verification failed.

date and time
The date and time that the most recent EE health verification failed. See "DATE and TIME formats" on page 6 for information about the date and time values. The time value is in the 24 hour format.
IST2340I

This message is issued to report the date and time that the most recent EE health verification attempt failed.

\textit{date and time}

The date and time that the most recent EE health verification attempt failed. See "\textit{DATE and TIME formats} on page 6" for information about the date and time values. The time value is in the 24 hour format.

IST2341I

This message is issued to report that the EE health verification never failed for this connection.

\textbf{System action:} Processing continues.

\textbf{Operator response:} If IST2329I is issued, then no action is necessary. If IST2328I is issued, then contact the system programmer.

\textbf{System programmer response:} Issue the DISPLAY NET,EEDIAG,ID=resource\_name,TEST=YES to test the EE connection. The \textit{resource\_name} is the same value that was used in the DISPLAY NET,ID= command that generated the IST2328I message. See the information about understanding the EE connectivity test output in \textit{z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures}.

\textbf{User response:} Not applicable.

\textbf{Problem determination:} None.

\textbf{Source:} \textit{z/OS} Communications Server SNA

\textbf{Module:} You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.

\textbf{Routing code:} 2

\textbf{Descriptor code:} 5

\textbf{Automation:} Not applicable.

\textbf{Example:} Not applicable.

---

\textbf{IST2328I} EE HEALTH VERIFICATION FAILED ON date AT time

\textbf{Explanation:} This message is part of a subgroup of messages that is displayed in response to a DISPLAY EE command for a line or PU that has an active EE connection, and VTAM is verifying the health of the EE connection periodically. The first message is IST2327I. See IST2327I for a complete description.

\textbf{Routing code:} 2

\textbf{Descriptor code:} 5

---

\textbf{IST2329I} EE HEALTH VERIFICATION SUCCESSFUL ON date AT time

\textbf{Explanation:} This message is part of a subgroup of messages that is displayed in response to a DISPLAY EE command for a line or PU with an active EE connection, and VTAM is verifying the health of the EE connection periodically. The first message is IST2327I. See IST2327I for a complete description.

\textbf{Routing code:} 2

\textbf{Descriptor code:} 5

---

\textbf{IST2330I} EE HEALTH VERIFICATION FAILED FOR puname AT time

\textbf{Explanation:} This message is the first in a group of messages that VTAM issues when the activation of an EE connection fails EE health verification. EE health verification is specified with the EEVERIFY start option. See the EEVERIFY start option information in \textit{z/OS Communications Server: SNA Resource Definition Reference}.

VTAM sends a Logical Data Link Control (LDLC) probe to the remote partner to determine if all ports are accessible during the activation of the EE connection. EE health verification for this connection activation failed because VTAM
did not receive a response, or received an error response, from the remote partner.

A complete description of the message group follows:
IST2330I EE HEALTH VERIFICATION FAILED FOR puname AT time
IST1680I type IP ADDRESS ip_address
IST1680I type IP ADDRESS ip_address
IST314I END

IST2330I
• In the message text:
  
puname
    The name of the switched physical unit.

  time
    The time when the EE health verification failed. See "DATE and TIME formats" on page 6 for information about the time value. The time value is in the 24 hour format.

IST1680I
• In the message text:
  
type
    The type value identifies the IP address that is displayed. Possible values are LOCAL and REMOTE.

  ip_address
    Either the remote IP address or the local IP address. The first instance of message IST1680I displays the local IP address, and the second instance of message IST1680I displays the remote IP address.

System action: The EE connection is not established. An INOP is generated when EE health verification fails and the EE connection is not established.

Operator response: Issue the DISPLAY EEDIAG,TEST=YES command using the local and remote IP addresses to determine the Enterprise Extender connectivity. Review the Enterprise Extender Connectivity Test output for any unsuccessful test results. If the reason for the failure could not be determined, contact the system programmer with the DISPLAY EEDIAG,TEST=YES command output.

System programmer response: Review the Enterprise Extender Connectivity Test output for any unsuccessful test results further. See Display EEDIAG in z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures for information about analyzing the test output.

User response: Not applicable.

Problem determination: Not applicable.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.

Routing code: 2
Descriptor code: 5

Automation: The automation tool can issue the DISPLAY EEDIAG,TEST=YES command when it detects the message IST2330I.

Example:
IST2330I EE HEALTH VERIFICATION FAILED FOR SWPU0001 AT 10:20:02
IST1680I LOCAL IP ADDRESS 2000::67:1:1
IST1680I REMOTE IP ADDRESS 2000::67:1:2
IST314I END
IST2331I  QUEUE QUEUE READ QUEUE

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID or DISPLAY TRL command. See message "IST1221I" on page 467 for a complete description of the message group.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.

Routing code: 2
Descriptor code: 5

IST2332I  ID TYPE STORAGE STATUS

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID or DISPLAY TRL command. See message "IST1221I" on page 467 for a complete description of the message group.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.

Routing code: 2
Descriptor code: 5

IST2333I  qid qtype storage_amount qstat

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID or DISPLAY TRL command. See message "IST1221I" on page 467 for a complete description of the message group.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.

Routing code: 2
Descriptor code: 5

IST2334I  EEVERIFY MUST BE 'ACTIVATE', 'NEVER', OR A NUMERIC VALUE

Explanation: VTAM issues this message during START processing or in response to a MODIFY VTAMOPTS command when the value of the EEVERIFY start option is not correct. Valid values for EEVERIFY are ACTIVATE, NEVER or a numeric value.

See the EEVERIFY start option information in z/OS Communications Server: SNA Resource Definition Reference.

System action: One of the following occurred:

• If the error occurred during START processing, VTAM issues message IST1311A to prompt you for the correct value of the EEVERIFY start option.
• If the error occurred in response to a MODIFY VTAMOPTS command, VTAM ignores the EEVERIFY VALUE and processing continues.

Operator response: Take one of the following actions:

• If the error occurred during START processing, enter a valid value for the EEVERIFY start option in response to IST1311A. You can also enter a blank if you want to accept the default value of ACTIVATE for the EEVERIFY start option or an earlier valid value of the EEVERIFY start option.
• If the error occurred in response to a MODIFY VTAMOPTS command, enter the command again with a valid value for the EEVERIFY start option.

System programmer response: Take one of the following actions:
If the error occurred during START processing, correct the value for the EEVERIFY start option if EEVERIFY is coded in an ATCSTRxx file.

If the error occurred in response to a MODIFY VTAMOPTS command, no further action is required.

User response: Not applicable.

Problem determination: Not applicable.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.

Routing code: 2
Descriptor code: 5

Automation: Not applicable.

Example:
IST2334I EEVERIFY MUST BE 'ACTIVATE', 'NEVER', OR A NUMERIC VALUE

---

**IST2335I • PATH SWITCH REASON: XMIT STALL RECOVERY**

Explanation: This message is part of a group of messages that VTAM issues in response to an RTP path switch. The first message in the group is either IST1494I or IST1968I. See the description of those messages for more information.

Routing code: 2
Descriptor code: 5

---

**IST2336I • STALLED = stalled**

Explanation: VTAM issues this message as part of an HPR path switch summary message group. This message group is issued only if the HPR path switch message reduction function is enabled. The first message in this message group is IST2191I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

---

**IST2337I • CHPID TYPE = chpid_type CHPID = chpid_num PNETID = net_id**

Explanation: This message is part of several message groups that VTAM issues in response to a DISPLAY ID or DISPLAY TRL command. See IST1221I on page 467 for a complete description.

Routing code: 2
Descriptor code: 5

---

**IST2338I • NACPROBE MUST BE 'DUMP', 'NODUMP', OR A NUMERIC VALUE**

Explanation: VTAM issues this message during START processing or in response to a MODIFY VTAMOPTS command when the value of the NACPROBE start option is not correct. Valid values for NACPROBE are DUMP, NODUMP, or a numeric value.

See NACPROBE start option in z/OS Communications Server: SNA Resource Definition Reference.

System action: One of the following occurred:

- If the error occurred during START processing, VTAM issues message IST1311A to prompt you for the correct value of the NACPROBE start option.
- If the error occurred in response to a MODIFY VTAMOPTS command, VTAM ignores the NACPROBE value and processing continues.

Operator response: Take one of the following actions:
If the error occurred during START processing, enter a valid value for the NACPROBE start option in response to message IST1311A. You can also enter a blank if you want to accept the default value of NODUMP for the NACPROBE start option or an earlier valid value of the NACPROBE start option.

If the error occurred in response to a **MODIFY VTAMOPTS** command, enter the command again with a valid value for the NACPROBE start option.

**System programmer response:** Take one of the following actions:

- If the error occurred during START processing and NACPROBE is coded in an ATCSTRxx file, correct the value for the NACPROBE start option.
- If the error occurred in response to a **MODIFY VTAMOPTS** command, no further action is required.

**User response:** Not applicable.

**Problem determination:** Not applicable.

**Source:** z/OS Communications Server SNA

**Module:** You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.

**Routing code:** 2

**Descriptor code:** 5

**Automation:** Not applicable.

**Example:**

IST2338I NACPROBE MUST BE 'DUMP', 'NODUMP', OR A NUMERIC VALUE

---

**IST2339I**  
**EE HEALTH VERIFICATION LAST SUCCESS ON**  
*date*  
*time*  

**Explanation:** This message is part of a subgroup of messages that is displayed in response to a DISPLAY EE command for a line or PU that has an active EE connection, and VTAM is verifying the health of the EE connection periodically. See message IST2327I for a complete description.

**Routing code:** 2

**Descriptor code:** 5

---

**IST2340I**  
**EE HEALTH VERIFICATION LAST FAILED ON**  
*date*  
*time*  

**Explanation:** This message is part of a subgroup of messages that is displayed in response to a DISPLAY EE command for a line or PU with an active EE connection, and VTAM is verifying the health of the EE connection periodically. See message IST2327I for a complete description.

**Routing code:** 2

**Descriptor code:** 5

---

**IST2341I**  
**EE HEALTH VERIFICATION HAS NEVER FAILED FOR THIS CONNECTION**

**Explanation:** This message is part of a subgroup of messages that is displayed in response to a DISPLAY EE command for a line or PU that has an active EE connection, and VTAM is verifying the health of the EE connection periodically. See message IST2327I for a complete description.

**Routing code:** 2

**Descriptor code:** 5

---

**IST2342I**  
**EE HEALTH VERIFICATION NOT SUPPORTED BY**  
*puname*  

**Explanation:** During the activation of the EE connection, VTAM sent Logical Data Link Control (LDLC) probes to the remote partner to determine if all five ports are accessible. VTAM did not receive a response to any of the LDLC probe requests. VTAM continued with the activation of the EE connection between this node and the remote partner.
Because VTAM received no replies to its LDLC probe requests, VTAM determined that the remote partner does not support EE health verification.

In the message text:

puname
The name of the switched physical unit.

**System action:** VTAM continues with the activation of the EE connection.

**Operator response:** Contact the system programmer.

**System programmer response:** If EE health verification is required for this PU, contact the remote PU owner about upgrading the PU to support EE health verification probes.

**User response:** Not applicable.

**Problem determination:** Not applicable.

**Source:** z/OS Communications Server SNA: SNA

**Module:** You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.

**Routing code:** 2

**Descriptor code:** 5

**Automation:** None

**Example:**

IST2342I EE HEALTH VERIFICATION NOT SUPPORTED BY SWIP1A1

---

IST2343I EE HEALTH VERIFICATION NOT SUPPORTED BY REMOTE EE PARTNER

**Explanation:** This message is part of a group of messages that is issued in response to a DISPLAY EE command for Enterprise Extender connection information. See message IST2001I for a complete description.

**Routing code:** 2

**Descriptor code:** 5

---

IST2344I NODE ROLE CHANGE FROM from_role TO to_role FAILED - SENSE: sense

**Explanation:** This message is part of a group of unsolicited messages that VTAM issues when an attempt is made to change the role of an APPN node. Valid APPN node roles are network node (NN), end node (EN), virtual routing node (VRN), and global virtual routing node (GVRN). The role of a node can be changed in two ways:

- A link is activated to another node that has changed roles. In this case, it is the role of the destination node of a TG that changes.
- A topology database update (TDU) is received and the role of the node identified in the TDU does not match the role of the node in the topology database.

A complete description of the message group follows:

[IST2344I NODE ROLE CHANGE FROM from_type TO to_type FAILED - SENSE: sense]
[IST2345I NODE ROLE CHANGE FROM from_type TO to_type SUCCEEDED]

IST2346I CP NAME = cp_name
IST2347I TDU RECEIVED FROM ADJACENT NODE adj_cp

**Example:**

IST2344I NODE ROLE CHANGE FROM EN TO NN FAILED - SENSE: 990

IST2345I NODE ROLE CHANGE FROM EN TO NN SUCCEEDED

---

IST2346I CP NAME = SWIP1A1
IST2347I TDU RECEIVED FROM ADJACENT NODE SWIP1A2
to_role
   The role of the node in the input TDU or the new role of the destination node of the TG being activated.
   Values can be EN, NN, VRN, or GVRN.

sense_code
   The sense code set for the node role change failure.
• A node role change is not valid and will fail when the following changes are attempted:
  – The change in roles is for the host node.
  – The change in roles is from a virtual node (VRN or GVRN) to a real node (NN or EN).
  – The change in roles is from a real node to a virtual node.
  – The change in roles is attempted with a TDU, but there is already an active link to that node.
  – The change in roles is attempted with a TDU for a non-adjacent DLUR EN, but the new role is not an EN.
• In addition to the messages, an alert with ID X'A6C6D1D5' is generated for the failed node role change.

IST2345I
• This message identifies the roles involved in a node role change that succeeded.
• In the message text:

   from_role
   The existing role of the node in the topology database. Values can be EN or NN.

   to_role
   The role of the node in the input TDU or the new role of the destination node of the TG that is being
   activated. Values can be EN or NN.

IST2346I
• This message identifies the node whose role change succeeded or failed.
• In the message text:

   cp_name
   The network-qualified CP name of the node.

IST2347I
• This message is issued when VTAM attempts to change the role of an APPN node because VTAM received a TDU
  with a node role that differs from the role in the topology database. This TDU contains the control vectors that
  identify the node for the role change. The message identifies the adjacent node from which the TDU was received.
• In the message text:

   adj_cp
   The network-qualified CP name of the adjacent node.

System action: Processing continues.

Operator response: If these messages are not expected, do the following:
1. Message IST2346I identifies the node of concern. Enter a command to obtain additional information about the
   node.
2. Save the system log and request a dump for problem determination.
3. Contact the system programmer.

System programmer response:
• If message IST2347I was issued, then VTAM attempted to change the role of the node from an input TDU.
• If message IST2347I was not issued, then VTAM attempted to change the role of the node as the result of
  activating a link to an adjacent node.
• This problem is often the result of user definitions that are not valid.
• When message IST2344I indicates that the role change is from a real node (EN or NN) to a virtual routing node
  (VRN or GVRN), the new virtual node name is defined in the XCA major node. Ensure that the VRNAME
  operand on the PORT definition statement or the GROUP definition statement (EE XCA major node only) specifies
  a unique CP name.
When message IST2344I indicates that the role change is from a virtual routing node to a real node, you must
determine the correct role of the node with the CP name in IST2346I.

When IST2344I is issued indicating that the role change for a node failed and the node is known throughout
the network with an incorrect role, or if you cannot resolve the problem, you need to contact IBM for assistance.

If you have access to IBMLink, contact IBM for assistance by using the Electronic Technical Report (ETR) option on
IBMLink.

If you do not have access to IBMLink, contact IBM for assistance through the IBM software support center.

User response: Not applicable.

Problem determination: Not applicable.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start
option to YES. See “Adding the originating module to the message text” on page 5 for more information about the
MSGMOD start option.

Routing code: 2,8

Descriptor code: 12

Automation: Automation on these messages can aid in the detection of unauthorized node role changes.

Example:

IST2344I NODE ROLE CHANGE FROM EN TO VRN FAILED - SENSE: 08954409
IST2346I CP NAME = NETA.CPAA
IST2347I TDU RECEIVED FROM ADJACENT NODE NETA.CP2A
IST314I END

IST2345I NODE ROLE CHANGE FROM from_role TO to_role SUCCEEDED

Explanation: This message is part of a group of unsolicited messages that VTAM issues when an attempt is made to
change the role of an APPN node. See IST2344I for a complete description.

System action: Processing continues.

Operator response: Not applicable.

System programmer response: Not Applicable.

User response: Not applicable.

Problem determination: Not applicable.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start
option to YES. See “Adding the originating module to the message text” on page 5 for more information about the
MSGMOD start option.

Routing code: 2,8

Descriptor code: 12

Automation: Not applicable.

Example: None.

IST2346I CP NAME = cp_name

Explanation: VTAM issues this message as part of a group of unsolicited messages in response to an attempt to
change the role of an APPN node during APPN topology update processing. See IST2344I for a complete description.

VTAM also issues this message as part of a group of messages in response to a DISPLAY EE command. See IST2001I
for a complete description.

System action: Processing continues.

Operator response: Not applicable.
IST2347I  •  IST2348I

**System programmer response:**  Not Applicable.
**User response:**  Not applicable.
**Problem determination:**  Not applicable.
**Source:**  z/OS Communications Server SNA

**Module:**  You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 9 for more information about the MSGMOD start option.

**Routing code:**  2,8
**Descriptor code:**  12
**Automation:**  Not applicable.
**Example:**  None.

---

**IST2347I  TDU RECEIVED FROM ADJACENT NODE adj_cp**

**Explanation:**  This message is part of a group of unsolicited messages that VTAM issues when an attempt is made to change the role of an APPN node. See IST2344I for a complete description.

**System action:**  Processing continues.
**Operator response:**  Not applicable.
**System programmer response:**  Not Applicable.
**User response:**  Not applicable.
**Problem determination:**  Not applicable.
**Source:**  z/OS Communications Server SNA

**Module:**  You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 9 for more information about the MSGMOD start option.

**Routing code:**  2,8
**Descriptor code:**  12
**Automation:**  Not applicable.
**Example:**  None.

---

**IST2348I  ACTIVATED BY SHARED ACB shared_ACB_name**

**Explanation:**  VTAM issues this message in response to a DISPLAY ID command for a subordinate application that was activated by an application program that is using a shared ACB.

In the message text:

`shared_ACB_name`

The name of the shared ACB that is used by the application program to activate this subordinate application. For Telnet, the format of shared ACB names is `ypppp-tt` where:

- `y` is an internal index that uniquely identifies the Telnet server that opened the ACB.
- `pppp` is the Telnet server port number expressed in hexadecimal.
- `tt` is a task instance number.

**System action:**  Processing continues.
**Operator response:**  None.
**System programmer response:**  None.
**User response:**  Not applicable.
**Problem determination:**  None.
**IST2349I**

**Source:** z/OS Communications Server SNA

**Module:** You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.

**Routing code:** 2

**Descriptor code:** 5

**Automation:** Not applicable.

**Example:**

IST2348I ACTIVATED BY SHARED ACB I0017-01

---

**IST2349I**  SUBORDINATE APPLICATIONS SHARING THIS ACB:

**Explanation:** VTAM issues this message as part of a subgroup in response to a DISPLAY ID command for an application program that activates subordinate applications that use a shared ACB. A complete description of the message subgroup follows.

```
[IST2349I SUBORDINATE APPLICATIONS SHARING THIS ACB:
[IST080I nodename status nodename status nodename status
 : ;
[IST2350I count SUBORDINATE APPLICATIONS SHARE THIS ACB
[IST2351I MULTIPLE SUBORDINATE APPLICATIONS SHARE THIS ACB]
```

**IST080I**

This message lists the subordinate applications that share this ACB and that match the SCOPE operand specified on the D ID command. If there are more than three subordinate applications, this message is repeated as many times as necessary to display all the subordinate applications.

`nodename` is the name of a subordinate application that is activated by this shared ACB.

`status` is the status of the subordinate application that is displayed. See Resource Status Codes and Modifiers in z/OS Communications Server: IP and SNA Codes for a description of these status codes.

**IST2349I**

This message is a header for message IST080I. If there are no subordinate applications that share this ACB and match the SCOPE operand specified on the D ID command, this message and message IST080I are not issued.

**IST2350I**

This message indicates the number of subordinate applications that share this ACB with the application that opened the ACB. This message is issued whenever there are less than two subordinate applications that share this ACB or when SCOPE=ALL, SCOPE=ACT, SCOPE=ACTONLY, SCOPE=ACTSESS, or SCOPE=PENDING are used on the DISPLAY ID command. Otherwise, message IST2351I is issued.

`count` is the number of subordinate applications that share this ACB.

**IST2351I**

This message indicates that two or more subordinate applications share this ACB. This message is issued if SCOPE=ONLY, SCOPE=CONCT, SCOPE=INACT, SCOPE=INACTONLY, SCOPE=RELSD, or SCOPE=RESET are used on the DISPLAY ID. Otherwise, message IST2350I is issued with the count of subordinate applications that share this ACB.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**User response:** Not applicable.

**Problem determination:** None.

**Source:** z/OS Communications Server SNA

**Module:** You can display the module that issues a SNA message in the message by setting the MSGMOD start option.
option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.

Routing code: 2
Descriptor code: 5
Automation: Not applicable.

Example: When you display an application program that activates subordinate applications using a shared ACB when there are five subordinate applications:

- The status of all five subordinate applications match the SCOPE specified:
  
  ```
  d net, id=I0017-04, scope=all
  ```
  
  IST2349I SUBORDINATE APPLICATIONS SHARING THIS ACB:
  IST0801 TCPM1006 ACTIV TCPM1005 ACTIV TCPM1004 ACTIV
  IST0801 TCPM1003 ACT/S TCPM1002 ACT/S
  IST23501 5 SUBORDINATE APPLICATIONS SHARE THIS ACB

- The status of two subordinate applications match the SCOPE specified:
  
  ```
  d net, id=I0017-04, scope=actsess
  ```
  
  IST2349I SUBORDINATE APPLICATIONS SHARING THIS ACB:
  IST0801 TCPM1003 ACT/S TCPM1002 ACT/S
  IST23501 5 SUBORDINATE APPLICATIONS SHARE THIS ACB

- The status of subordinate applications do not match the SCOPE specified:
  
  ```
  d net, id=I0017-04, scope=pending
  ```
  
  IST2350I 5 SUBORDINATE APPLICATIONS SHARE THIS ACB

- The SCOPE that is specified does not cause the status of the subordinate applications to be checked:
  
  ```
  d net, id=I0017-04, scope=only
  ```
  
  IST2351I MULTIPLE SUBORDINATE APPLICATIONS SHARE THIS ACB

---

**IST2350I**

**count** SUBORDINATE APPLICATIONS SHARE THIS ACB

**Explanation:** VTAM issues this message as part of a subgroup in response to a DISPLAY ID command for an application program that activates subordinate applications using a shared ACB. See message IST2349I for a complete description.

Routing code: 2
Descriptor code: 5

**IST2351I**

MULTIPLE SUBORDINATE APPLICATIONS SHARE THIS ACB

**Explanation:** VTAM issues this message as part of a subgroup in response to a DISPLAY ID command for an application program that activates subordinate applications using a shared ACB. See message IST2349I for a complete description.

Routing code: 2
Descriptor code: 5

**IST2352I**

SENT = sent RECEIVED = received

**Explanation:** VTAM issues this message as part of a group of messages in response to the following DISPLAY TOPO commands:

- DISPLAY TOPO,ID=cp_name, LIST=ALL command for a node. See message IST2305I for a complete description of this message group.
- DISPLAY TOPO,ORIG=origin_node, DEST=dest_node, TGN=tg_number command. See message IST2399I for a complete description of this message group.
- DISPLAY TOPO, LIST=TDUDIAG,ID=cp_name command for a node. See message IST2306I for a complete description of this message group.
IST2353I • IST2355I

- DISPLAY TOPO, LIST=TDUDIAG, ORIG=origin_node, DEST=dest_node, TGN=tg_number command for a TG. See message [IST2311I] for a complete description of this message group.
- DISPLAY TOPO, LIST=TDUINFO, SCOPE=ACTIVITY, FORMAT=LONG. See message [IST1780I] for a complete description of this message group.
- DISPLAY TOPO, LIST=TDUINFO, SCOPE=RECENT, FORMAT=LONG. See message [IST1776I] for a complete description of this message group.
- DISPLAY TOPO, LIST=TDUDIAG, FORMAT=LONG summary command. See message [IST2274I] for a complete description of this message group.

Routing code: 2
Descriptor code: 5

IST2353I  ACCEPTED = accepted  REJECTED = rejected

Explanation: VTAM issues this message as part of a group of messages in response to the following DISPLAY TOPO commands:
- DISPLAY TOPO, ID=cp_name, LIST=ALL command for a node. See message [IST1295I] for a complete description of this message group.
- DISPLAY TOPO, ORIG=origin_node, DEST=dest_node, TGN=tg_number command. See message [IST1299I] for a complete description of this message group.
- DISPLAY TOPO, LIST=TDUDIAG, ID=cp_name command for a node. See message [IST2306I] for a complete description of this message group.
- DISPLAY TOPO, LIST=TDUDIAG, ORIG=origin_node, DEST=dest_node, TGN=tg_number command for a TG. See message [IST2311I] for a complete description of this message group.
- DISPLAY TOPO, LIST=TDUINFO, SCOPE=ACTIVITY, FORMAT=LONG. See message [IST1780I] for a complete description of this message group.
- DISPLAY TOPO, LIST=TDUINFO, SCOPE=RECENT, FORMAT=LONG. See message [IST1776I] for a complete description of this message group.
- DISPLAY TOPO, LIST=TDUDIAG, FORMAT=LONG summary command. See message [IST2274I] for a complete description of this message group.

Routing code: 2
Descriptor code: 5

IST2354I  IGNORED = ignored

Explanation: VTAM issues this message as part of a group of messages in response to the following DISPLAY TOPO commands:
- DISPLAY TOPO, ID=cp_name, LIST=ALL command for a node. See message [IST1295I] for a complete description of this message group.
- DISPLAY TOPO, ORIG=origin_node, DEST=dest_node, TGN=tg_number command. See message [IST1299I] for a complete description of this message group.
- DISPLAY TOPO, LIST=TDUDIAG, ID=cp_name command for a node. See message [IST2306I] for a complete description of this message group.
- DISPLAY TOPO, LIST=TDUDIAG, ORIG=origin_node, DEST=dest_node, TGN=tg_number command for a TG. See message [IST2311I] for a complete description of this message group.

Routing code: 2
Descriptor code: 5

IST2355I  TDUDIAG THRESHOLD REACHED ON date AT time

Explanation: VTAM issues this message as part of a group of messages in response to the following DISPLAY TOPO commands:
- DISPLAY TOPO, ID=cp_name, LIST=ALL command for a node. See message [IST1295I] for a complete description of this message group.
• DISPLAY TOPO, ORIG=origin_node, DEST=dest_node, TGN=tg_number command. See message IST1299I for a complete description of this message group.
• DISPLAY TOPO, LIST=TDUDIAG, ID=cp_name command for a node. See message IST2306I for a complete description of this message group.
• DISPLAY TOPO, LIST=TDUDIAG, ORIG=origin_node, DEST=dest_node, TGN=tg_number command for a TG. See message IST2311I for a complete description of this message group.

Routing code: 2
Descriptor code: 5

IST2356I  PLATFORM = platform

Explanation: VTAM issues this message as part of a group of messages in response to the following DISPLAY TOPO commands:
• DISPLAY TOPO, ID=cp_name, LIST=ALL command for a node. See message IST1295I for a complete description of this message group.
• DISPLAY TOPO, LIST=TDUDIAG, ID=cp_name command for a node. See message IST2306I for a complete description of this message group.

Routing code: 2
Descriptor code: 5

IST2357I  CP NAME RSN DESTINATION CP TGN

Explanation: VTAM issues this message as part of a group of messages in response to the following DISPLAY TOPO commands:
• DISPLAY TOPO, LIST=TDUINFO, SCOPE=ACTIVITY, FORMAT=LONG. See message IST1780I for a complete description of this message group.
• DISPLAY TOPO, LIST=TDUINFO, SCOPE=RECENT, FORMAT=LONG. See message IST1776I for a complete description of this message group.
• DISPLAY TOPO, LIST=TDUDIAG, FORMAT=LONG summary command. See message IST2274I for a complete description of this message group.

Routing code: 2
Descriptor code: 5

IST2358I  cp_name rsn destination_cp tgn

Explanation: VTAM issues this message as part of a group of messages in response to the following DISPLAY TOPO commands:
• DISPLAY TOPO, LIST=TDUINFO, SCOPE=ACTIVITY, FORMAT=LONG. See message IST1780I for a complete description of this message group.
• DISPLAY TOPO, LIST=TDUINFO, SCOPE=RECENT, FORMAT=LONG. See message IST1776I for a complete description of this message group.
• DISPLAY TOPO, LIST=TDUDIAG, FORMAT=LONG summary command. See message IST2274I for a complete description of this message group.

Routing code: 2
Descriptor code: 5

IST2359I  NO TDU INFORMATION EXISTS

Explanation: VTAM issues this message as part of a group of messages in response to the following DISPLAY TOPO commands:
• DISPLAY TOPO, LIST=TDUINFO, SCOPE=ACTIVITY, FORMAT=LONG. See message IST1780I for a complete description of this message group.
IST2360I • IST2361I

• DISPLAY TOPO, LIST=TDUINFO, SCOPE=RECENT, FORMAT=LONG. See message IST1776I for a complete description of this message group.

Routing code: 2
Descriptor code: 5

IST2360I ROUTING TREES LAST CLEARED AT clear_date clear_time BY clear_process

Explanation: VTAM issues this message as part of a group messages in response to a DISPLAY TOPO, LIST=SUMMARY command. See IST1306I for a complete description of the message group.

System action: Processing continues.
Operator response: None.
System programmer response: None.
User response: Not applicable.
Problem determination: None.
Source: z/OS Communications Server SNA

Module: Use the modifiable VTAM start option MSGMOD=YES (for procname,vtamopts,msgmod=yes or f procname,msgmod=yes) to display the issuing module when a message is issued. See z/OS Communications Server: SNA Operation and z/OS Communications Server: SNA Resource Definition Reference for more information about start options.

Routing code: 2
Descriptor code: 5
Automation: Not applicable.
Example: Not applicable.

IST2361I SMCR PFID = pfid PCHID = pchid PNETID = network_id

Explanation: VTAM issues this message as part of a message group in response to a DISPLAY ID or DISPLAY TRL command for a TRLE that is associated with an IBM 10GbE RoCE Express interface.

A complete description of the message group follows the example:

| IST075I NAME = nodename, TYPE = TRLE |
| IST1954I TRL MAJOR NODE = trl_major_node_name |
| IST466I STATUS= current_status, DESIRED STATE= desired_state |
| IST087I TYPE = *NA*, CONTROL = ROCE, HPDT = *NA* |
| IST2361I SMCR PFID = pfid PCHID = pchid PNETID = network_id |
| IST2362I PORTNUM = port RNIC CODE LEVEL = code_level |
| IST2389I PFIP = pci_path |
| [IST2417I VFN = virtual_function_number] |
| IST924I -------------------------------------------- |
| IST1717I ULPID = ulp_id ULP INTERFACE = ulp_interface |
| IST1724I I/O TRACE = iotrc TRACE LENGTH = length |
| [IST924I --------------------------------------------] |
| [IST1717I ULPID = ulp_id ULP INTERFACE = ulp_interface] |
| [IST1724I I/O TRACE = iotrc TRACE LENGTH = length] |

IST075I

This message displays the resource name and resource type.

nodename

The name of the resource that was entered on the DISPLAY command.

nodetype

The resource type of the major or minor node. The nodetype value is always TRLE for this message group.

IST087I
This message displays line information associated with nodename.

**line_type**
The line_type value is always *NA* for this message group.

**line_control**
The line_control value is always ROCE (RDMA over Converged Ethernet) for this message group.

**hpdtvalue**
The hpdtvalue is always *NA* for this message group.

**IST486I**

This message displays status information for nodename.

**current_status**
The current status of the node. See the [z/OS Communications Server: IP and SNA Codes](https://www.ibm.com/support/manuals/zos-comm-server-ipvsnacodes) for status information.

**desired_state**
The node state that is desired. See the [z/OS Communications Server: IP and SNA Codes](https://www.ibm.com/support/manuals/zos-comm-server-ipvsnacodes) for status information. If VTAM cannot determine the desired state, desiredstate is ***NA***.

**IST1717I**

This message is displayed for all TRLEs that are currently being used by at least one Upper-layer Protocol (ULP). A separate IST1717I message is displayed for each ULP that is using the 10GbE RoCE Express TRLE.

**ulp_id**
The name of a z/OS Communications Server ULP that is using the 10GbE RoCE Express TRLE. In this message group, the ulp_id value is always the TCP/IP job name.

**ulp_interface**
The name of the interface associated with the 10GbE RoCE Express TRLE.

**IST1724I**

This message displays trace information for nodename.

**iotrc**
Specifies whether I/O Trace is active for this 10GbE RoCE Express interface (ON or OFF).

**length**
Specifies the number of bytes being recorded for I/O Trace for this 10GbE RoCE Express interface.

**IST1954I**

This message displays the TRL major node name.

**trl_major_node_name**
The name of the TRL major node defining the 10GbE RoCE Express TRLE.

**IST2361I**

This message provides configuration information for the adapter associated with nodename.

**pfid**
The 2-byte hexadecimal Peripheral Component Interconnect Express (PCIe) function ID for the 10GbE RoCE Express feature associated with nodename.

**pchid**
The 2-byte hexadecimal physical channel ID (PCHID) for the 10GbE RoCE Express feature associated with nodename.

**network_id**
The physical network identifier for the 10GbE RoCE Express interface associated with nodename.

**IST2362I**

This message provides configuration and operational information about the adapter associated with nodename.
port  A decimal representation of the 10GbE RoCE Express port number associated with nodename.

code_level  
The processor code level of the 10GbE RoCE Express feature. The code level is in the form
xxxxx.yyyyy.zzzzz if the 10GbE RoCE Express feature is operating a dedicated RoCE environment.

xxxxx  Major version.

yyyyy  Minor version.

zzzzz  Subminor version.

The code level is **NA** if the 10GbE RoCE Express feature is operating in a shared RoCE environment.

IST2389I

This message displays additional configuration information for the adapter associated with nodename.

pci_path  
The PCI-function internal path (PFIP) value for the 10GbE RoCE Express feature associated with nodename.

IST2417I

This message displays the virtual function number (VFN) that is associated with nodename. This message is displayed only when the 10GbE RoCE Express feature operates in a shared RoCE environment.

virtual_function_number  
The VFN value for the 10GbE RoCE Express feature that is associated with nodename.

System action:  Processing continues.

Operator response:  None.

System programmer response:  None.

User response:  None.

Problem determination:  Not applicable.

Source:  z/OS Communications Server SNA

Module:  Use the modifiable VTAM start option MSGMOD=YES (f procname,vtamopts,msgmod=yes or f procname,msgmod=yes) to display the issuing module when a message is issued. See z/OS Communications Server SNA Operation and z/OS Communications Server: SNA Resource Definition Reference for more information about start options.

Routing code:  2

Descriptor code:  5

Automation:  This message is not a candidate for automation.

Example:

<table>
<thead>
<tr>
<th>IST097I  DISPLAY ACCEPTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>IST075I  NAME = IUT2001D, TYPE = TRLE</td>
</tr>
<tr>
<td>IST1954I  TRL MAJOR NODE = ISTTRL</td>
</tr>
<tr>
<td>IST4861I  STATUS= ACTIV, DESIRED STATE= ACTIV</td>
</tr>
<tr>
<td>IST087I  TYPE = <em>NA</em>, CONTROL = ROCE, HPDT = <em>NA</em></td>
</tr>
<tr>
<td>IST2361I  SMCR PFID = 001D  PCHID = 0138  PNETID = NETWORK1</td>
</tr>
<tr>
<td>IST2362I  PORTNUM = 2  RNIC CODE LEVEL = <em>NA</em></td>
</tr>
<tr>
<td>IST2389I  PFIP = 00040101</td>
</tr>
<tr>
<td>IST2417I  VFN = 0002</td>
</tr>
<tr>
<td>IST924I  -------------------------------------------------------------</td>
</tr>
<tr>
<td>IST1717I  ULPID = TCPCS ULP INTERFACE = EZARIUT2001D</td>
</tr>
<tr>
<td>IST1724I  I/O TRACE = OFF  TRACE LENGTH = <em>NA</em></td>
</tr>
<tr>
<td>IST314I  END</td>
</tr>
</tbody>
</table>
IST2362I PORTNUM = port RNIC CODE LEVEL = code_level

Explanation: VTAM issues this message as part of a message group in response to a DISPLAY ID or DISPLAY TRL command for a TRLE that is associated with an IBM 10GbE RoCE Express interface. See IST2361I on page 998 for an explanation of the message group.

System action: Processing continues.

Operator response: None.

System programmer response: None.

User response: None.

Problem determination: Not applicable.

Source: z/OS Communications Server SNA

Module: Use the modifiable VTAM start option MSGMOD=YES (f procname,vtamopts,msgmod=yes or f procname,msgmod=yes) to display the issuing module when a message is issued. See z/OS Communications Server: SNA Operation and z/OS Communications Server: SNA Resource Definition Reference for more information about start options.

Routing code: 2

Descriptor code: 5

Automation: This message is not a candidate for automation.

Example:
IST2362I PORTNUM = 1 RNIC CODE LEVEL = 2.8.4822

IST2364I CLOSE ACB OF applname DID NOT COMPLETE IN A TIMELY MANNER

Explanation: VTAM issues this message when the VTAM application program applname issued a CLOSE ACB macro, but CLOSE ACB processing did not complete in a timely manner, and one of the following is true for the NACPROBE start option:

- The value NODUMP was specified.
- The default value of NODUMP was used.
- A numeric value was specified on the NACPROBE start option and the time since the last FFST probe dump for a CLOSE ACB timeout does not exceed the number of minutes specified.

applname is the ACBNAME if ACBNAME is coded in the APPL definition. If ACBNAME is not coded, applname is the NAME as coded on the APPL definition statement.

The NACPROBE start option controls whether this message or the FFST probe ISTNAC01 dump is produced. For more information about the NACPROBE start option, see z/OS Communications Server: SNA Resource Definition Reference.

System action: Processing continues and VTAM forces the completion of the CLOSE ACB.

Operator response: Contact the system programmer. If the system programmer determines that a dump is required, use the MODIFY VTAMOPTS command to change the value of the NACPROBE start option.

System programmer response: If the probe dump is needed, add or modify the value for the NACPROBE start option in the ATCSTRxx file. See NACPROBE start option in z/OS Communications Server: SNA Resource Definition Reference.

User response: Not applicable.

Problem determination: Not applicable.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See "Adding the originating module to the message text" on page 5 for more information about the MSGMOD start option.
IST2365I • IST2366I

Routing code:  2
Descriptor code:  5
Automation:  Not applicable.
Example:
IST2364I CLOSE ACB OF VTAMAPPL DID NOT COMPLETE IN A TIMELY MANNER

IST2365I   MODIFY TRACE COMMAND REJECTED - DSPSIZE NO LONGER SUPPORTED

Explanation:  VTAM issues this message in response to a MODIFY TRACE,TYPE=VTAM,DSPSIZE= command.
System action:  The MODIFY TRACE command is rejected. Processing continues.
Operator response:  Reenter the MODIFY TRACE,TYPE=VTAM command without the DSPSIZE operand. See [z/OS Communications Server: SNA Operation] for the correct command syntax.
System programmer response:  None.
User response:  Not applicable.
Problem determination:  Not applicable.
Source:  z/OS Communications Server SNA
Module:  Use the modifiable VTAM start option MSGMOD=YES (f procname,vtamopts,msgmod=yes or f procname,msgmod=yes) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation] and [z/OS Communications Server: SNA Resource Definition Reference] for more information about start options.

Routing code:  2
Descriptor code:  5
Automation:  Not applicable.
Example:
IST2365I MODIFY TRACE COMMAND REJECTED - DSPSIZE NO LONGER SUPPORTED

IST2366I   POLLEQO = polleqo POLLEQ = polleq

Explanation:  VTAM issues this message as part of a group of messages that display tuning statistics for 10GbE RoCE Express ports.

A complete description of the message group follows:

IST2363I  TIME = time  DATE = date  ID = trlename
IST1719I  PCIREALO = pcirealo  PCIREAL = pcireal
IST1751I  PCIUNPRO = pcunpro  PCIUNPRD = pcunprd
IST2366I  POLLEQO = polleqo  POLLEQ = polleq
IST2367I  POLLEQEO = polleqeo  POLLEQE = polleqe
IST2368I  ULP_ID = tcpname
IST2369I  POLLCQO = pollcqo  POLLCQ = pollcq
IST2370I  POLLCQU = pollcqu  POLLCQU = pollcqu
IST2371I  POLLCQEO = pollcqeo  POLLCQE = pollecq
IST2372I  SRSCHDO = srbschdo  SRSCHD = srbschd
IST2373I  SRSCHSO = srbschs0  SRSCHS = srbschs
IST2374I  INBBYTLO = bytecntlo  INBBYTEL = bytecntl
IST2375I  INBBYTM = bytecntno  INBBYTEM = bytecntm
IST2376I  INBBYTN = bytecntno  INBBYTNM = bytecntn
IST2377I  DATAREQO = datareqo  DATAREQ = datareq
IST2378I  POSTO = posto  POST = post
IST2379I  POSTEO = posteleo  POSTELEM = postelem
IST2380I  POSTQUEO = postqueo  POSTQUED = postqued
IST2381I  OUTBTL = bytecntlo  OUTBYTEL = bytecntl
IST2382I  OUTBTO = bytecntno  OUTBYTEM = bytecntm
IST2383I  OUTBTO = bytecntno  OUTBYTEN = bytecntn
Message subgroup IST2368I - IST12383I is repeated for each TCP/IP stack that has activated the 10GbE RoCE Express port.

Many messages in this group contain both a count and an overflow. Both the count and overflow are maintained in unsigned 32-bit variables, unless otherwise indicated. Because an unsigned 32-bit variable can contain only a value up to and including 4294967295 ('FFFFFFFF'), the variable will wrap through 0 if an increment results in exceeding this value. When such a wrap occurs, the overflow is incremented by 1. Therefore the total count is determined as follows:

\[
\text{Total} = (\text{overflow} \times 4294967296) + \text{count}
\]

IST1230I

In the message text:

date and time
The date and time values specify when the record was reported. See DATE and TIME formats for information about the date and time values.

trlename
The name of the internally generated TRLE name that represents the 10GbE RoCE Express port for which tuning statistics are being recorded. See Resources automatically activated by VTAM in z/OS Communications Server: SNA Network Implementation Guide for information about the TRLE name.

IST1719I

In the message text:

pcirealo
The real program controlled interrupt (PCI) overflow.

pcireal
The real PCI count. This value represents the accumulated number of real PCI interrupts that are fielded by the device interrupt exit for the 10GbE RoCE Express port.

A real PCI interrupt is a dispatch of the device interrupt exit as a result of a call from the system interrupt handler.

IST1751I

In the message text:

pciumpro
The unproductive RDMA over converged Ethernet (RoCE) polls of the 10GbE RoCE Express event queue (Poll_EQ) overflow.

pciumprd
The unproductive RoCE Poll_EQ count. This value represents the accumulated number of unproductive RoCE Poll_EQ requests for this 10GbE RoCE Express port.

An unproductive RoCE Poll_EQ request is a request for which the 10GbE RoCE Express port did not provide any event notifications. An event notification indicates that data was received on this 10GbE RoCE Express port and can be processed. An unproductive RoCE Poll_EQ indicates unnecessary processing by the system interrupt handler.

IST2366I

In the message text:

pollero
The RoCE Poll_EQ overflow.

pollerq
The RoCE Poll_EQ count. This value represents the accumulated number of productive RoCE Poll_EQ requests for this 10GbE RoCE Express port.
A productive RoCE Poll_EQ request is a request for which at least one event notification was returned. A higher ratio of productive RoCE Poll_EQ requests to real PCIs indicates that VTAM is minimizing unnecessary processing by the system interrupt handler required to service the 10GbE RoCE Express port, resulting in more efficient CPU utilization.

In the message text:

polleqo  The RoCE Poll_EQ overflow.
polleqe  The RoCE Poll_EQ event notification count. This value represents the accumulated number of event notifications that are returned on all productive RoCE Poll_EQ requests for this 10GbE RoCE Express port. A higher ratio of RoCE Poll_EQ entries to real PCIs indicates that more data is being processed per real interrupt, which results in more efficient CPU utilization.

In the message text:

tcpname  The name of a TCP/IP stack that activated the 10GbE RoCE Express port for which tuning statistics are being reported.

In the message text:

pollcqo  The RoCE Poll of the 10GbE RoCE Express completion queue (Poll_CQ) overflow.
pollcq  The RoCE Poll_CQ count. This value represents the accumulated number of productive RoCE Poll_CQ requests by tcpname for this 10GbE RoCE Express port. A productive RoCE Poll_CQ request is a request for which at least one completion event was returned. A completion event represents the receipt of TCP connection notification data or Shared Memory Communication (SMC) link control data.

In the message text:

pollcquo  The unproductive RoCE Poll_CQ overflow.
pollcqu  The unproductive RoCE Poll_CQ count. This value represents the accumulated number of unproductive RoCE Poll_CQ requests by tcpname for this 10GbE RoCE Express port. An unproductive RoCE Poll_CQ request is a request for which no completion events were returned. An unproductive RoCE Poll_CQ indicates that tcpname was dispatched to process data when no data was available to be processed.

In the message text:

pollcqeo  The RoCE Poll_CQ operations overflow.
pollcqe  The RoCE Poll_CQ operations count. This value represents the accumulated number of completion events returned for all productive RoCE Poll_CQ requests initiated by tcpname for this 10GbE RoCE Express port.
A higher ratio of RoCE Poll_CQ operations to service request block (SRB) dispatches indicates that more data is being processed per dispatch of tcpname, which results in more efficient CPU utilization.

**IST2372I**

In the message text:

*srbschdo* The interrupt handler SRB dispatch overflow.

*srbschl* The interrupt handler SRB dispatch count. This value represents the accumulated number of times an SRB was scheduled by the interrupt handler for tcpname to process inbound data for this 10GbE RoCE Express port.

**IST2373I**

In the message text:

*srbrscho* The additional SRB dispatch overflow.

*srbrschd* The additional SRB dispatch count. This value represents the accumulated number of times that an additional SRB was scheduled from within an existing SRB on tcpname. The additional SRB was scheduled because more inbound data is available to be processed for this 10GbE RoCE Express port than the existing SRB could efficiently manage.

A high additional SRB dispatch value indicates that multiple processors are required to process all inbound data from this 10GbE RoCE Express port for tcpname.

**IST2374I**

In the message text:

*bytecntlo* The inbound RoCE inline data bytes overflow.

*bytecntl* The inbound RoCE inline data bytes count. This value represents the accumulated number of bytes of SMC link control data that was received by tcpname for this 10GbE RoCE Express port.

**IST2375I**

In the message text:

*bytecntmo* The inbound RoCE immediate data bytes overflow.

*bytecntm* The inbound RoCE immediate data bytes count. This value represents the accumulated number of bytes of TCP connection notification data that was received by tcpname for this 10GbE RoCE Express port.

**IST2376I**

In the message text:

*bytecntno* The inbound RDMA bytes overflow.

*bytecntn* The inbound RDMA bytes count. This value represents the accumulated number of bytes of TCP connection data that was received by tcpname for this 10GbE RoCE Express port.

**IST2377I**

In the message text:
IST2366I

datareqo The outbound data request overflow.
datareq The outbound data request count. This value represents the accumulated number of data requests received by VTAM from tcpname over this 10GbE RoCE Express port. Data requests are used to send TCP connection data or TCP connection notification data.

IST2378I

In the message text:
posto The RoCE Post request overflow.
post The RoCE Post request count. This value represents the accumulated number of RoCE Post requests processed to transfer data sent by tcpname for this 10GbE RoCE Express port.

IST2379I

In the message text:
postelemo The RoCE Post operation overflow.
postelem The RoCE Post operation count. This value represents the accumulated number of RoCE Post operations that successfully transferred data provided by tcpname for this 10GbE RoCE Express port.

A RoCE Post operation represents a discreet transfer of TCP connection data, TCP connection notification data, or SMC link control data. A single RoCE Post request might require two or more RoCE Post operations to transfer the data provided by tcpname on an outbound data request. A higher ratio of RoCE Post operations to RoCE Post requests indicates more efficient utilization of CPU resources when transferring data.

IST2380I

In the message text:
postqueo The queued RoCE Post request overflow.
postqued The queued RoCE Post request count. This value represents the accumulated number of queued RoCE Post requests initiated by tcpname for this 10GbE RoCE Express port.

A queued RoCE Post request is a request that was not transmitted on the first attempt because of hardware resource constraints.

IST2381I

In the message text:
bytecntlo The outbound RoCE inline data bytes overflow.
bytecntl The outbound RoCE inline data bytes count. This value represents the accumulated number of bytes of SMC link control data that was sent by tcpname for this 10GbE RoCE Express port.

IST2382I

In the message text:
bytecntmo The outbound RoCE immediate data bytes overflow.
The outbound RoCE immediate data bytes count. This value represents the accumulated number of bytes of TCP connection notification data that was sent by tcpname for this 10GbE RoCE Express port.

IST2383I

In the message text:

bytecntno

The outbound RDMA bytes overflow.

bytecntm

The outbound RDMA bytes count. This value represents the accumulated number of bytes of TCP connection data that was sent by tcpname for this 10GbE RoCE Express port.

System action: Processing continues.

Operator response: To discontinue recording of statistics, issue the MODIFY NOTNSTAT command.

System programmer response: For additional information about tuning and analyzing tuning statistics, see z/OS Communications Server: SNA Network Implementation Guide.

User response: Not applicable.

Problem determination: None.

Source: z/OS Communications Server SNA

Example: This message group displays tuning statistics for the 10GbE RoCE Express port with Peripheral Component Interconnect Express (PCIe) function ID (PFID) 0018:

IST2366I

IST2368I

IST2369I

IST2370I

IST2371I

IST2372I

IST2373I

IST2374I

IST2375I

IST2376I

IST2377I

IST2378I

IST2379I

IST2380I

IST2381I

IST2382I

IST2383I

IST2417I

Chapter 10. IST messages for VTAM network operators IST2000I – IST2417I 1007
IST2367I • IST2369I

IST2367I  POLLEQEO = polleqo  POLLEQE = polleq

Explanation: VTAM issues this message as part of a group of messages that displays tuning statistics for 10GbE RoCE Express resources. The first message in the group is IST1230I. See message IST2366I for a complete description.

System action: Not applicable.
Operator response: Not applicable.
System programmer response: Not applicable.
User response: Not applicable.
Problem determination: Not applicable.
Source: z/OS Communications Server SNA

Module: Use the modifiable VTAM start option MSGMOD=YES (f procname,vtamopts,msgmod=yes or f procname,msgmod=yes) to display the issuing module when a message is issued. See z/OS Communications Server: SNA Operation and z/OS Communications Server: SNA Resource Definition Reference for more information about start options.
Routing code: 2
Descriptor code: 5
Automation: Not applicable.
Example: Not applicable.

IST2368I  ULP_ID = tcpname

Explanation: VTAM issues this message as part of a group of messages that displays tuning statistics for 10GbE RoCE Express resources. The first message in the group is IST1230I. See message IST2366I for a complete description.

System action: Not applicable.
Operator response: Not applicable.
System programmer response: Not applicable.
User response: Not applicable.
Problem determination: Not applicable.
Source: z/OS Communications Server SNA

Module: Use the modifiable VTAM start option MSGMOD=YES (f procname,vtamopts,msgmod=yes or f procname,msgmod=yes) to display the issuing module when a message is issued. See z/OS Communications Server: SNA Operation and z/OS Communications Server: SNA Resource Definition Reference for more information about start options.
Routing code: 2
Descriptor code: 5
Automation: Not applicable.
Example: Not applicable.

IST2369I  POLLCQO = pollcqo  POLLCQ = pollcq

Explanation: VTAM issues this message as part of a group of messages that displays tuning statistics for 10GbE RoCE Express resources. The first message in the group is IST1230I. See message IST2366I for a complete description.

System action: Not applicable.
Operator response: Not applicable.
System programmer response: Not applicable.
User response: Not applicable.
Problem determination: Not applicable.

Source: z/OS Communications Server SNA

Module: Use the modifiable VTAM start option MSGMOD=YES (if procnamemsgmod=yes or f procnamemsgmod=yes) to display the issuing module when a message is issued. See z/OS Communications Server SNA Operation and z/OS Communications Server: SNA Resource Definition Reference for more information about start options.

Routing code: 2
Descriptor code: 5
Automation: Not applicable.
Example: Not applicable.

IST2370I POLLCQUO = pollcquo POLLCQU = pollcqu

Explanation: VTAM issues this message as part of a group of messages that displays tuning statistics for 10GbE RoCE Express resources. The first message in the group is IST1230I. See message IST2366I for a complete description.

System action: Not applicable.
Operator response: Not applicable.
System programmer response: Not applicable.
User response: Not applicable.

Problem determination: Not applicable.

Source: z/OS Communications Server SNA

Module: Use the modifiable VTAM start option MSGMOD=YES (if procnamemsgmod=yes or f procnamemsgmod=yes) to display the issuing module when a message is issued. See z/OS Communications Server SNA Operation and z/OS Communications Server: SNA Resource Definition Reference for more information about start options.

Routing code: 2
Descriptor code: 5
Automation: Not applicable.
Example: Not applicable.

IST2371I POLLCQEO = pollcqeo POLLCQE = pollcqe

Explanation: VTAM issues this message as part of a group of messages that displays tuning statistics for 10GbE RoCE Express resources. The first message in the group is IST1230I. See message IST2366I for a complete description.

System action: Not applicable.
Operator response: Not applicable.
System programmer response: Not applicable.
User response: Not applicable.

Problem determination: Not applicable.

Source: z/OS Communications Server SNA

Module: Use the modifiable VTAM start option MSGMOD=YES (if procnamemsgmod=yes or f procnamemsgmod=yes) to display the issuing module when a message is issued. See z/OS Communications Server SNA Operation and z/OS Communications Server: SNA Resource Definition Reference for more information about start options.

Routing code: 2
Descriptor code: 5
IST2372I • IST2374I

Automation: Not applicable.
Example: Not applicable.

IST2372I  SRBSCHDO = srbschdo SRBSCHD = srbschd

Explanation: VTAM issues this message as part of a group of messages that displays tuning statistics for 10GbE RoCE Express resources. The first message in the group is IST1230I. See message IST2366I for a complete description.

System action: Not applicable.
Operator response: Not applicable.
System programmer response: Not applicable.
User response: Not applicable.
Problem determination: Not applicable.
Source: z/OS Communications Server SNA

Module: Use the modifiable VTAM start option MSGMOD=YES (f procname,vtamopts,msgmod=yes or f procname,msgmod=yes) to display the issuing module when a message is issued. See z/OS Communications Server: SNA Operation and z/OS Communications Server: SNA Resource Definition Reference for more information about start options.

Routing code: 2
Descriptor code: 5
Automation: Not applicable.
Example: Not applicable.

IST2373I  SRBRSCO = srbrscho SRBRSCDH = srbrschd

Explanation: VTAM issues this message as part of a group of messages that displays tuning statistics for 10GbE RoCE Express resources. The first message in the group is IST1230I. See message IST2366I for a complete description.

System action: Not applicable.
Operator response: Not applicable.
System programmer response: Not applicable.
User response: Not applicable.
Problem determination: Not applicable.
Source: z/OS Communications Server SNA

Module: Use the modifiable VTAM start option MSGMOD=YES (f procname,vtamopts,msgmod=yes or f procname,msgmod=yes) to display the issuing module when a message is issued. See z/OS Communications Server: SNA Operation and z/OS Communications Server: SNA Resource Definition Reference for more information about start options.

Routing code: 2
Descriptor code: 5
Automation: Not applicable.
Example: Not applicable.

IST2374I  INBBYTLO = bytecntlo INBBYTEL = bytecntl

Explanation: VTAM issues this message as part of a group of messages that displays tuning statistics for 10GbE RoCE Express resources. The first message in the group is IST1230I. See message IST2366I for a complete description.

System action: Not applicable.
Operator response: Not applicable.
System programmer response: Not applicable.
User response: Not applicable.
Problem determination: Not applicable.
Source: z/OS Communications Server SNA
Module: Use the modifiable VTAM start option MSGMOD=YES (f procname,vtamopts,msgmod=yes or f procname,msgmod=yes) to display the issuing module when a message is issued. See z/OS Communications Server: SNA Operation and z/OS Communications Server: SNA Resource Definition Reference for more information about start options.
Routing code: 2
Descriptor code: 5
Automation: Not applicable.
Example: Not applicable.

IST2375I INBBYTM0 = bytecntmo INBBYTEM = bytecntm

Explanation: VTAM issues this message as part of a group of messages that displays tuning statistics for 10GbE RoCE Express resources. The first message in the group is IST1230I. See message IST2366I for a complete description.
System action: Not applicable.
Operator response: Not applicable.
System programmer response: Not applicable.
User response: Not applicable.
Problem determination: Not applicable.
Source: z/OS Communications Server SNA
Module: Use the modifiable VTAM start option MSGMOD=YES (f procname,vtamopts,msgmod=yes or f procname,msgmod=yes) to display the issuing module when a message is issued. See z/OS Communications Server: SNA Operation and z/OS Communications Server: SNA Resource Definition Reference for more information about start options.
Routing code: 2
Descriptor code: 5
Automation: Not applicable.
Example: Not applicable.

IST2376I INBBYTN0 = bytecntno INBBYTN = bytecntn

Explanation: VTAM issues this message as part of a group of messages that displays tuning statistics for 10GbE RoCE Express resources. The first message in the group is IST1230I. See message IST2366I for a complete description.
System action: Not applicable.
Operator response: Not applicable.
System programmer response: Not applicable.
User response: Not applicable.
Problem determination: Not applicable.
Source: z/OS Communications Server SNA
Module: Use the modifiable VTAM start option MSGMOD=YES (f procname,vtamopts,msgmod=yes or f procname,msgmod=yes) to display the issuing module when a message is issued. See z/OS Communications Server: SNA Operation and z/OS Communications Server: SNA Resource Definition Reference for more information about start options.
IST2377I • IST2378I

Routing code: 2
Descriptor code: 5
Automation: Not applicable.
Example: Not applicable.

**IST2377I**  
**DATAREQO = datareqo DATAREQ = datareq**  
Explanation: VTAM issues this message as part of a group of messages that displays tuning statistics for 10GbE RoCE Express resources. The first message in the group is IST1230I. See message IST2366I for a complete description.  
System action: Not applicable.
Operator response: Not applicable.
System programmer response: Not applicable.
User response: Not applicable.
Problem determination: Not applicable.
Source: z/OS Communications Server SNA

Module: Use the modifiable VTAM start option MSGMOD=YES (f procname,vtamopts,msgmod=yes or f procname,msgmod=yes) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](http://www.ibm.com) and [z/OS Communications Server: SNA Resource Definition Reference](http://www.ibm.com) for more information about start options.

Routing code: 2
Descriptor code: 5
Automation: Not applicable.
Example: Not applicable.

**IST2378I**  
**POSTO = posto POST = post**  
Explanation: VTAM issues this message as part of a group of messages that displays tuning statistics for 10GbE RoCE Express resources. The first message in the group is IST1230I. See message IST2366I for a complete description.  
System action: Not applicable.
Operator response: Not applicable.
System programmer response: Not applicable.
User response: Not applicable.
Problem determination: Not applicable.
Source: z/OS Communications Server SNA

Module: Use the modifiable VTAM start option MSGMOD=YES (f procname,vtamopts,msgmod=yes or f procname,msgmod=yes) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](http://www.ibm.com) and [z/OS Communications Server: SNA Resource Definition Reference](http://www.ibm.com) for more information about start options.

Routing code: 2
Descriptor code: 5
Automation: Not applicable.
Example: Not applicable.
**IST2379I** POSTEO = postelmo POSTELEM = postelem

**Explanation:** VTAM issues this message as part of a group of messages that displays tuning statistics for 10GbE RoCE Express resources. The first message in the group is IST1230I. See message IST2366I for a complete description.

**System action:** Not applicable.

**Operator response:** Not applicable.

**System programmer response:** Not applicable.

**User response:** Not applicable.

**Problem determination:** Not applicable.

**Source:** z/OS Communications Server SNA

**Module:** Use the modifiable VTAM start option MSGMOD=YES (if proname,vtamopts,msgmod=yes or if proname,msgmod=yes) to display the issuing module when a message is issued. See z/OS Communications Server: SNA Operation and z/OS Communications Server: SNA Resource Definition Reference for more information about start options.

**Routing code:** 2

**Descriptor code:** 5

**Automation:** Not applicable.

**Example:** Not applicable.

**IST2380I** POSTQUEO = postqueo POSTQUED = postqued

**Explanation:** VTAM issues this message as part of a group of messages that displays tuning statistics for 10GbE RoCE Express resources. The first message in the group is IST1230I. See message IST2366I for a complete description.

**System action:** Not applicable.

**Operator response:** Not applicable.

**System programmer response:** Not applicable.

**User response:** Not applicable.

**Problem determination:** Not applicable.

**Source:** z/OS Communications Server SNA

**Module:** Use the modifiable VTAM start option MSGMOD=YES (if proname,vtamopts,msgmod=yes or if proname,msgmod=yes) to display the issuing module when a message is issued. See z/OS Communications Server: SNA Operation and z/OS Communications Server: SNA Resource Definition Reference for more information about start options.

**Routing code:** 2

**Descriptor code:** 5

**Automation:** Not applicable.

**Example:** Not applicable.

**IST2381I** OUTBYTLO = bytcntlo OUTBYTEL = bytcntl

**Explanation:** VTAM issues this message as part of a group of messages that displays tuning statistics for 10GbE RoCE Express resources. The first message in the group is IST1230I. See message IST2366I for a complete description.

**System action:** Not applicable.

**Operator response:** Not applicable.

**System programmer response:** Not applicable.

**User response:** Not applicable.
**IST2382I • IST2383I**

**Problem determination:** Not applicable.

**Source:** z/OS Communications Server SNA

**Module:** Use the modifiable VTAM start option MSGMOD=YES (f procname,vtamopts,msgmod=yes or f procname,msgmod=yes) to display the issuing module when a message is issued. See z/OS Communications Server: SNA Operation and z/OS Communications Server: SNA Resource Definition Reference for more information about start options.

**Routing code:** 2

**Descriptor code:** 5

**Automation:** Not applicable.

**Example:** Not applicable.

**IST2382I**

**Explanation:** VTAM issues this message as part of a group of messages that displays tuning statistics for 10GbE RoCE Express resources. The first message in the group is IST1230I. See message IST2366I for a complete description.

**System action:** Not applicable.

**Operator response:** Not applicable.

**System programmer response:** Not applicable.

**User response:** Not applicable.

**Problem determination:** Not applicable.

**Source:** z/OS Communications Server SNA

**Module:** Use the modifiable VTAM start option MSGMOD=YES (f procname,vtamopts,msgmod=yes or f procname,msgmod=yes) to display the issuing module when a message is issued. See z/OS Communications Server: SNA Operation and z/OS Communications Server: SNA Resource Definition Reference for more information about start options.

**Routing code:** 2

**Descriptor code:** 5

**Automation:** Not applicable.

**Example:** Not applicable.

**IST2383I**

**Explanation:** VTAM issues this message as part of a group of messages that displays tuning statistics for 10GbE RoCE Express resources. The first message in the group is IST1230I. See message IST2366I for a complete description.

**System action:** Not applicable.

**Operator response:** Not applicable.

**System programmer response:** Not applicable.

**User response:** Not applicable.

**Problem determination:** Not applicable.

**Source:** z/OS Communications Server SNA

**Module:** Use the modifiable VTAM start option MSGMOD=YES (f procname,vtamopts,msgmod=yes or f procname,msgmod=yes) to display the issuing module when a message is issued. See z/OS Communications Server: SNA Operation and z/OS Communications Server: SNA Resource Definition Reference for more information about start options.

**Routing code:** 2

**Descriptor code:** 5
IST2384E • IST2386I

Automation: Not applicable.
Example: Not applicable.

**IST2384E** PACKETS DISCARDED FOR *jobname* - *trlename* is CONGESTED

Explanation: This unsolicited message is issued when a write buffer is discarded as the result of congestion on the outbound data staging queue. A write buffer can contain up to 64 KB of TCP/IP packets. Write buffers are discarded to protect against the overuse of system resources, specifically ECSA storage. This message might mean that a TCP/IP stack contention or dispatching problem exists.

This message remains on the screen until congestion is alleviated or until the message is manually deleted.

In the message text:

*jobname*

The 1 – 8 character TCP/IP job name that is used to start the TCP/IP address space.

*trlename*

The name of the TRLE that is experiencing congestion.

System action: If congestion subsides for at least 30 seconds, this message is automatically deleted. If congestion persists, message IST2384E is deleted and reissued every 5 minutes.

Operator response: You can use the **DISPLAY NET,TRL** and **DISPLAY NET,TRL,TRLE=trlename** commands to determine which interfaces or devices are experiencing congestion. Message IST2386I provides the number of write buffers that are discarded. These interfaces or devices can be stopped or recycled in an attempt to eliminate the congestion.

System programmer response: If the condition is persistent, take the following actions:
1. Study and possibly adjust the TCP/IP dispatching priority.
2. If the condition continues to persist, take the following actions:
   - If you have access to IBMLink, search for known problems in this area. If no applicable matches are found, take a dump of the TCP/IP address space and the VTAM address space, and report the problem to IBM by using the Electronic Technical Report (ETR) option on IBMLink.
   - If you do not have access to IBMLink, take a dump of the TCP/IP address space and the VTAM address space, and report the problem to the IBM software support center.

User response: Not applicable.

Problem determination: Not applicable.

Source: z/OS Communications Server SNA

Module: Use the modifiable VTAM start option MSGMOD=yes (f procname,vtanopts,msgmod=yes or f procname,msgmod=yes) to display the issuing module when a message is issued. See **z/OS Communications Server: SNA Operation** and **z/OS Communications Server: SNA Resource Definition Reference** for more information about start options.

Routing code: 2

Descriptor code: 11

Automation: Automation is recommended because persistent discarding of outbound data can have a significant impact on latency and throughput.

Example:

IST2384E PACKETS DISCARDED FOR TCPCS - NSQDI011 IS CONGESTED

**IST2386I** NUMBER OF DISCARDED OUTBOUND WRITE BUFFERS = *wbufcnt*

Explanation: This message is part of several message groups that VTAM issues in response to a DISPLAY ID or DISPLAY TRL command for a TRLE that is configured with the MPC level QDIO, which represents an OSA-Express adapter, and for HiperSockets. See [IST221] for a complete description.

System action: Processing continues.

Operator response: Not applicable.
IST2387I

System programmer response: Not applicable.
User response: Not applicable.
Problem determination: Not applicable.
Source: z/OS Communications Server SNA
Module: Use the modifiable VTAM start option MSGMOD=yes (f procname,vtamopts,msgmod=yes or f procname,msgmod=yes) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation] and [z/OS Communications Server: SNA Resource Definition Reference] for more information about start options.
Routing code: 2
Descriptor code: 5
Automation: Not applicable.
Example:
IST2386I NUMBER OF DISCARDED OUTBOUND WRITE BUFFERS = 5

IST2387I DIAL FAILED - DUPLICATE IP ADDRESSES ON EXISTING CONNECTION

Explanation: This message is the first in a group of messages that VTAM issues when a dial fails for an Enterprise Extender (EE) connection across a connection network. The complete description of the message group follows:

IST2387I DIAL FAILED - DUPLICATE IP ADDRESSES ON EXISTING CONNECTION
IST2388I EE VRN = vrn_name
IST1680I type IP ADDRESS ip_address
IST1680I type IP ADDRESS ip_address
IST1680I END

IST1680I

This message displays the IP addresses of the failing connection. In the message text:

type Indicates which IP address is being displayed. The value is either LOCAL or REMOTE.

ip_address The IP address.

IST2387I

This message is issued when a dial request for an EE connection across a connection network fails. An existing connection network was found with the same local and remote IP addresses. For a connection network, the IP address applies to one of the following conditions:
• Specified on the IPADDR operand on the EE XCA GROUP statement that defines the connection network (VNNNAME)
• Inherited from the IPADDR start option
• Resolved from the HOSTNAME value specified on the EE XCA GROUP statement that defines the connection network

IST2388I

This message displays the name of the virtual routing node (VRN) of the existing EE connection network that has the same local and remote IP addresses. In the message text:

vrn_name The name of the VRN of the existing EE connection network found with the duplicate IP addresses.

System action: The EE dial request fails, but the existing EE connection is unaffected.
Operator response: Contact the system programmer.
System programmer response: Correct the EE XCA major node GROUP definitions so that multiple connection networks do not have the same local and remote IP addresses between two EE hosts. If you are using the TCP/IP
resolver to perform name-to-address resolution, ensure that the HOSTNAME value on the GROUP definition for each connection network resolves to a unique IP address. See Configuring the EE connection network in z/OS Communications Server: SNA Network Implementation Guide for more information about defining multiple EE connection networks between two adjacent CPs. See z/OS Communications Server: IP Configuration Guide for more information about defining name servers to the resolver.

User response: Not applicable.

Problem determination: Not applicable.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

Routing code: 2

Descriptor code: 5

Automation: Not recommended.

Example:
IST2387I DIAL FAILED - DUPLICATE IP ADDRESSES ON EXISTING CONNECTION
IST2388I EE VRN = NET2.VN2
IST1680I LOCAL IP ADDRESS 9.67.1.1
IST1680I REMOTE IP ADDRESS 9.67.1.2
IST314I END

IST590I CONNECTOUT FAILED FOR PU CNV00004 ON LINE LNIVPN1B
IST380I ERROR FOR ID = CNV00004 - REQUEST: CONNOUT, SENSE: FFC80004
IST1903I FAILURE OVER VRN NET1.VN1 TO CP NETA.SSCP2A
IST105I CNV00004 NODE NOW INACTIVE
IST871I RESOURCE CNV00004 DELETED
IST663I AM RESUME REQUEST FAILED, SENSE=00600027
IST664I REAL OLU=NETA.APPL1 REAL DLU=NETA.NETAPPL1
IST890I SID = EAABEEC364101D14
IST2103I RSCV TOWARDS SLU
IST1460I TGN CPNAME TG TYPE HPR
IST1461I 21 NET1.VN1 APPN RTP
IST1461I 21 NETA.SSCP2A APPN RTP
IST314I END

IST2388I EE VRN = vrn_name

Explanation: VTAM issues this message when a dial fails for an Enterprise Extender connection request across a connection network. This message group begins with message IST2387I. See the explanation of IST2387I for a complete description.

System action: None.

Operator response: None.

System programmer response: None.

User response: Not applicable.

Problem determination: Not applicable.

Source: z/OS Communications Server SNA

Module: You can display the module that issues a SNA message in the message by setting the MSGMOD start option to YES. See “Adding the originating module to the message text” on page 5 for more information about the MSGMOD start option.

Routing code: 2

Descriptor code: 5

Automation: None.
IST2390I • IST2390I

Example: Not applicable.

IST2390I PFIP = pci_path

Explanation: VTAM issues this message as part of a message group in response to a DISPLAY ID or DISPLAY TRL command for a TRLE that is associated with an IBM 10GbE RoCE Express interface. See message IST2361I for an explanation of the message group.

System action: Processing continues.

Operator response: None.

System programmer response: None.

User response: None.

Problem determination: Not applicable.

Source: z/OS Communications Server SNA

Module: Use the modifiable VTAM start option MSGMOD=YES (f procname,vtamopts,msgmod=yes or f procname,msgmod=yes) to display the issuing module when a message is issued. See z/OS Communications Server: SNA Operation and z/OS Communications Server: SNA Resource Definition Reference for more information about start options.

Routing code: 2

Descriptor code: 5

Automation: This message is not a candidate for automation.

Example:
IST2389I PFIP = 08040101

IST2390I IQP1REG PCIE SERVICE FAILURE

Explanation: This is the first message in a message group that VTAM issues when an attempt to register a Peripheral Component Interconnect Express (PCIe) device fails. VTAM uses PCIe services as part of managing an IBM 10GbE RoCE Express interface, and part of that management is registering the underlying devices before activating a 10GbE RoCE Express interface.

A complete description of the message group follows:
IST2390I IQP1REG PCIE SERVICE FAILURE
IST1684I RETURN CODE = return_code REASON CODE = reason_code
IST314I END

IST1684I

This message provides the specific return code and reason code information that the failing PCIe service returns.

In the message text:

return_code
  The hexadecimal return code that the PCIe IQP1REG invocation returns.

reason_code
  The hexadecimal reason code that the PCIe IQP1REG invocation returns.

IST2390I

This message is the first message in the message group.

System action: Processing continues. VTAM will again attempt to register the 10GbE RoCE Express feature the next time a TCP/IP stack issues an activation request for a 10GbE RoCE Express interface.

Operator response: Contact the system programmer.
**System programmer response:** Collect VTAM internal traces at the VTAM that issued this message and contact IBM service to determine the reason for the registration failure.

**User response:** Not applicable.

**Problem determination:** None.

**Source:** z/OS Communications Server SNA

**Module:** Use the modifiable VTAM start option MSGMOD=YES (if proctype,vtramopt,msgmod=yes or if proctype,msgmod=yes) to display the issuing module when a message is issued. See z/OS Communications Server SNA Operation and z/OS Communications Server: SNA Resource Definition Reference for more information about start options.

**Routing code:** 2

**Descriptor code:** 5

**Automation:** This message is a candidate for automation to detect errors that occur during activation of 10GbE RoCE Express interfaces.

**Example:**

IST2390I IQP1REG PCIE SERVICE FAILURE
IST1684I RETURN CODE = 18 REASON CODE = 5035
IST314I END

**ISM3911 service_name PCIE SERVICE FAILURE ON TRLE trle_name**

**Explanation:** This is the first message in a message group that VTAM issues when an attempt to use a Peripheral Component Interconnect Express (PCIe) service fails. VTAM uses PCIe services as part of managing an IBM 10GbE RoCE Express feature.

A complete description of the message group follows:

IST2391I service_name PCIE SERVICE FAILURE ON TRLE trlename
IST1684I RETURN CODE = return_code REASON CODE = reason_code
IST314I END

**IST1684I**

This message provides the specific return code and reason code information that the failing PCIe service returns.

In the message text:

- `return_code`
  - The hexadecimal return code that the PCIe `service_name` invocation returns.

- `reason_code`
  - The hexadecimal reason code that the PCIe `service_name` invocation returns.

**IST2391I**

This message identifies the PCIe service that failed.

In the message text:

- `service_name`
  - The PCIe service that failed.

- `trle_name`
  - The name of the associated transport resource list entry (TRLE) that VTAM was managing when the PCIe service failed. The TRLE name represents an individual 10GbE RoCE Express port. VTAM automatically generates the TRLE name when the TCP/IP stack starts the 10GbE RoCE Express interface.

**System action:** Processing continues.

**Operator response:** Contact the system programmer.

**System programmer response:** Collect VTAM internal traces at the VTAM that is issuing this message and contact
**IST2392I**

IBM service to determine the reason for the PCIe service failure.

**User response:** Not applicable.

**Problem determination:** None.

**Source:** z/OS Communications Server SNA

**Module:** Use the modifiable VTAM start option MSGMOD=YES (f procname,vtamopts,msgmod=yes or f procname,msgmod=yes) to display the issuing module when a message is issued. See z/OS Communications Server SNA Operation and z/OS Communications Server: SNA Resource Definition Reference for more information about start options.

**Routing code:** 2

**Descriptor code:** 5

**Automation:** This message is a candidate for automation to detect errors that occur during activation of 10GbE RoCE Express interfaces.

**Example:**

IST2391I IQP4ALL PCIE SERVICE FAILURE ON TRLE IUT10018
IST1684I RETURN CODE = 18 REASON CODE = 5035
IST314I END

**IST2392I PFID pfid_value ALLOCATION FAILURE - PFID IS NOT DEFINED**

**Explanation:** VTAM issues this message when it attempts to activate a 10GbE RoCE Express interface, but the Peripheral Component Interconnect Express (PCIe) function ID (PFID) value is not defined for this LPAR.

In the message text:

*pfid_value*

The PFID value that VTAM used in the failed activation attempt.

**System action:** Processing continues.

**Operator response:** Issue the **D PCIE** command and generate a Netstat CONFIG/-f report, and then provide the output to the system programmer.

**System programmer response:**

1. Determine the correct PFID value for this system.
2. Use the **D PCIE** command output to verify that the PFID value has been correctly defined in the HCD. If the PFID is not defined properly, update the HCD configuration to include the correct PFID value.
3. If the PFID is defined correctly in the HCD, use the Netstat CONFIG/-f report to verify that the correct PFID is defined to TCP/IP. If the PFID is not defined correctly, change the SMCR parameter on the GLOBALCONFIG statement in the TCP/IP profile of the TCP/IP stack that is attempting to activate this 10GbE RoCE Express interface to specify the correct PFID value.
4. Instruct the operator to issue the necessary commands to activate the changes that were made to the HCD or the TCP/IP profile.

**User response:** Not applicable.

**Problem determination:** None.

**Source:** z/OS Communications Server SNA

**Module:** Use the modifiable VTAM start option MSGMOD=YES (f procname,vtamopts,msgmod=yes or f procname,msgmod=yes) to display the issuing module when a message is issued. See z/OS Communications Server SNA Operation and z/OS Communications Server: SNA Resource Definition Reference for more information about start options.

**Routing code:** 2

**Descriptor code:** 5

**Automation:** This message is a candidate for automation to detect errors that occur during activation of 10GbE RoCE Express interfaces.
Example:

**IST2392I** PFID 0018 ALLOCATION FAILURE - PFID IS NOT DEFINED

**IST2393I** PFID pfid_value ALLOCATION FAILURE - PFID IS NOT ONLINE

**Explanation:** VTAM issues this message when it attempts to activate an IBM 10GbE RoCE Express interface by using the correct Peripheral Component Interconnect Express (PCIe) function ID (PFID) value, but the interface that is associated with that PFID is not online.

In the message text:

- `pfid_value` - The PFID value that VTAM used in the failed activation attempt.

**System action:** Processing continues.

**Operator response:**

1. Issue the **CF PFID** command to bring the 10GbE RoCE Express interface that is associated with the **pfid_value** online.
2. Issue the **VARY START** command to start the 10GbE RoCE Express interface.

**System programmer response:** None.

**User response:** Not applicable.

**Problem determination:** None.

**Source:** z/OS Communications Server SNA

**Module:** Use the modifiable VTAM start option MSGMOD=YES (*procname*,vtamopts,msgmod=yes or *procname*,msgmod=yes) to display the issuing module when a message is issued. See z/OS Communications Server: SNA Operation and z/OS Communications Server: SNA Resource Definition Reference for more information about start options.

**Routing code:** 2

**Descriptor code:** 5

**Automation:** This message is a candidate for automation to detect errors that occur during initialization of your system.

**Example:**

**IST2393I** PFID 0018 ALLOCATION FAILURE - PFID IS NOT ONLINE

**IST2394I** PFID pfid_value IS ALREADY ACTIVE ON stack_name USING TRLE trle_name

**Explanation:** VTAM issues this message when it attempts to activate an RDMA Network Interface Card (RNIC) adapter, but the interface that this Peripheral Component Interconnect Express (PCIe) function ID (PFID) value represents has been activated by a different TCP/IP stack. Only one stack can activate an individual PFID at a time.

In the message text:

- `pfid_value` - The PFID value that VTAM used in the failed activation attempt.

- `stack_name` - The TCP/IP stack that has previously activated the interface that is associated with this PFID value.

- `trle_name` - The name of the transport resource list entry (TRLE) that is associated with `pfid_value`. VTAM automatically generates the TRLE name when an RNIC adapter is activated.

**System action:** Processing continues.

**Operator response:** Contact the system programmer.

**System programmer response:**

1. Determine which TCP/IP stack is using the incorrect PFID value.
2. Correct the SMCR parameter on the GLOBALCONFIG statement in the TCP/IP profile of the TCP/IP stack that is using the incorrect PFID value.

3. Instruct the operator to first issue the **VARY OBEFYFILE** command to enable the profile changes, and then to issue the **VARY START** command to start the RNIC adapter.

User response: Not applicable.

Problem determination: None.

Source: z/OS Communications Server SNA

Module: Use the modifiable VTAM start option MSGMOD=YES (f procmname,vtamopts,msgmod=yes or f procmname,msgmod=yes) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](https://www.ibm.com/support/knowledgecenter/SSLTBW_2.2.0/com.ibm.zos.v2r1.sna_zosedu/res/itshm1.pdf) and [z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com/support/knowledgecenter/SSLTBW_2.2.0/com.ibm.zos.v2r1.sna_zosedu/res/itshrg1.pdf) for more information about start options.

Routing code: 2

Descriptor code: 5

Automation: This message is a candidate for automation to detect errors that occur during initialization of your system.

Example:

IST2394I PFID 0018 IS ALREADY ACTIVE ON TCPCS1 USING TRLE IUT10018

**IST2395I**  
**RTP PACING ALGORITHM = ARB BASE MODE**

Explanation: VTAM issues this message as part of a group of messages in response to a DISPLAY ID command for a PU type 2.1 that represents a Rapid Transport Protocol (RTP) route. The first message in the group is IST1476I or IST1968I. See [IST1476I](https://www.ibm.com/support/knowledgecenter/SSLTBW_2.2.0/com.ibm.zos.v2r1.sna_zosedu/res/itshmr1.pdf) or [IST1968I](https://www.ibm.com/support/knowledgecenter/SSLTBW_2.2.0/com.ibm.zos.v2r1.sna_zosedu/res/itshmr1.pdf) for more information.

System action: Processing continues.

Operator response: None.

System programmer response: None.

User response: Not applicable.

Problem determination: None.

Source: z/OS Communications Server SNA

Module: Use the modifiable VTAM start option MSGMOD=YES (f procmname,vtamopts,msgmod=yes or f procmname,msgmod=yes) to display the issuing module when a message is issued. See [z/OS Communications Server: SNA Operation](https://www.ibm.com/support/knowledgecenter/SSLTBW_2.2.0/com.ibm.zos.v2r1.sna_zosedu/res/itshm1.pdf) and [z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com/support/knowledgecenter/SSLTBW_2.2.0/com.ibm.zos.v2r1.sna_zosedu/res/itshrg1.pdf) for more information about start options.

Routing code: 2

Descriptor code: 5

Automation: Not applicable.

Example: Not applicable.

**IST2396I**  
**RNIC STATISTICS FOR trlename**

Explanation: VTAM issues this group of messages in response to a DISPLAY TRL,TRLE=trlename,DEVSTATS command when trlename represents an IBM 10GbE RoCE Express interface.

A complete description of the message group follows:

IST2396I RNIC STATISTICS FOR trlename
IST2397I DESCRIPTION OVERFLOW COUNT
IST2398I description overflow count
...
IST3141I END
Many of the statistics reported using message IST2398I have both a count and an overflow. Both the count and overflow are maintained in unsigned 32-bit variables (unless otherwise indicated). Because an unsigned 32-bit variable can contain only a value up to and including 4294967295 (FFFFFFFF), the variable will wrap through 0 if an increment results in exceeding this value. When such a wrap occurs, the overflow is incremented by 1. Therefore, the total count is determined as follows:

\[ \text{Total} = (\text{overflow} \times 4294967296) + \text{count} \]

IST2398I

This is the first message in the message group.

\textit{trilename}

The name of the resource that was specified on the DISPLAY TRL command. Use this value to correlate the 10GbE RoCE Express statistics in this message group with the message group IST2361I output generated by the DISPLAY TRL,TRLE=trilename command.

IST2397I

This message is a header message for the statistics displayed with message IST2398I.

IST2398I

This message displays the number of occurrences for the statistic described by \textit{description}. The possible combinations of \textit{overflow}, \textit{count}, and \textit{description} are:

- **INBOUND FRAMES DROPPED** = \textit{overflow count}
  
  Represents the number of inbound Ethernet frames that were dropped on this 10GbE RoCE Express interface.

- **INBOUND FRAME ERRORS** = \textit{overflow count}
  
  Represents the number of inbound Ethernet frames that had errors on this 10GbE RoCE Express interface.

  \textbf{Restriction:} This value is always 0 when the 10GbE RoCE Express adapter operates in a shared RoCE environment.

- **INBOUND RDMA FRAMES** = \textit{overflow count}
  
  Represents the number of Ethernet frames received on this 10GbE RoCE Express interface.

- **INBOUND RDMA OCTETS** = \textit{overflow count}
  
  Represents the number of Ethernet octets received on this 10GbE RoCE Express interface.

- **OUTBOUND FRAMES DROPPED** = \textit{overflow count}
  
  Represents the number of outbound Ethernet frames that were dropped on this 10GbE RoCE Express interface.

- **OUTBOUND FRAME ERRORS** = \textit{overflow count}
  
  Represents the number of outbound Ethernet frames that had errors on this 10GbE RoCE Express interface.

  \textbf{Restriction:} This value is always 0 when the 10GbE RoCE Express adapter operates in a shared RoCE environment.

- **OUTBOUND RDMA FRAMES** = \textit{overflow count}
  
  Represents the number of Ethernet frames sent on this 10GbE RoCE Express interface.

- **OUTBOUND RDMA OCTETS** = \textit{overflow count}
  
  Represents the number of Ethernet octets sent on this 10GbE RoCE Express interface.

- **LINK OUTAGE NOTIFICATIONS** = \textit{overflow count}
  
  Represents the number of times that VTAM was notified of lost connectivity to the 10GbE RoCE Express port.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**User response:** None.

**Problem determination:** None.
IST2397I • IST2398I

Source: z/OS Communications Server SNA

Module: Use the modifiable VTAM start option MSGMOD=YES (f procname,vtamopts,msgmod=yes or f procname,msgmod=yes) to display the issuing module when a message is issued. See z/OS Communications Server SNA Operation and z/OS Communications Server: SNA Resource Definition Reference for more information about start options.

Routing code: 2
Descriptor code: 5
Automation: Not applicable.

Example: This message group displays statistics for the 10GbE RoCE Express port 2 on the adapter that operates in a dedicated RoCE environment and is represented by Peripheral Component Interconnect Express (PCIe) function ID (PFID) 001D:

```
IST2396I RNIC STATISTICS FOR IUT2001D
IST2397I DESCRIPTION OVERFLOW COUNT
IST2398I INBOUND RDMA FRAMES 1 65535
IST2398I INBOUND RDMA OCTETS 65535 4294967295
IST2398I INBOUND FRAME ERRORS 0 1
IST2398I INBOUND DROPPED FRAMES 0 3
IST2398I OUTBOUND RDMA FRAMES 3 4042322160
IST2398I OUTBOUND RDMA OCTETS 1 1414812756
IST2398I OUTBOUND FRAME ERRORS 0 2
IST2398I OUTBOUND DROPPED FRAMES 0 4
IST2398I LINK OUTAGE NOTIFICATIONS 0 3
IST314I END
```

IST2397I DESCRIPTION OVERFLOW COUNT

Explanation: VTAM issues this message as part of a group of messages that displays statistics for the IBM 10GbE RoCE Express interfaces in response to a DISPLAY TRL,TRLE=trlename,DEVSTATS command. The first message in the group is IST2396I. See message "IST2396I" on page 1022 for a complete description.

System action: Not applicable.
Operator response: Not applicable.
System programmer response: Not applicable.
User response: Not applicable.
Problem determination: Not applicable.

Source: z/OS Communications Server SNA

Module: Use the modifiable VTAM start option MSGMOD=YES (f procname,vtamopts,msgmod=yes or f procname,msgmod=yes) to display the issuing module when a message is issued. See z/OS Communications Server SNA Operation and z/OS Communications Server: SNA Resource Definition Reference for more information about start options.

Routing code: 2
Descriptor code: 5
Automation: Not applicable.

Example:

```
IST2397I DESCRIPTION OVERFLOW COUNT
```

```
IST2398I Description overflow count
```

Explanation: VTAM issues this message as part of a group of messages that displays statistics for the IBM 10GbE RoCE Express interfaces in response to a DISPLAY TRL,TRLE=trlename,DEVSTATS command. The first message in the group is IST2396I. See message "IST2396I" on page 1022 for a complete description.

System action: Not applicable.
**Operator response:** Not applicable.

**System programmer response:** Not applicable.

**User response:** Not applicable.

**Problem determination:** Not applicable.

**Source:** z/OS Communications Server SNA

**Module:** Use the modifiable VTAM start option MSGMOD=YES (\texttt{f procname,vtamopts,msgmod=yes} or \texttt{f procname,msgmod=yes}) to display the issuing module when a message is issued. See \textit{z/OS Communications Server SNA Operation} and \textit{z/OS Communications Server: SNA Resource Definition Reference} for more information about start options.

**Routing code:** 2

**Descriptor code:** 5

**Automation:** Not applicable.

**Example:**

```
IST2398I INBOUND RDMA FRAMES 1 65535
IST2398I INBOUND RDMA OCTETS 65535 4294967295
IST2398I INBOUND FRAME ERRORS 0 1
IST2398I INBOUND DROPPED FRAMES 0 3
IST2398I OUTBOUND RDMA FRAMES 3 4042322160
IST2398I OUTBOUND RDMA OCTETS 1 1414812756
IST2398I OUTBOUND FRAME ERRORS 0 2
IST2398I OUTBOUND DROPPED FRAMES 0 4
IST2399I LINK OUTAGE NOTIFICATIONS 0 3
```

**IST2399I** MESSAGE TRIGGER: RNICTRLE = \texttt{rnic_trlename}

**Explanation:** VTAM issues this message as part of a message group in response to a DISPLAY CSDUMP command. See "IST1871I" on page 768 for an explanation of the message group.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**User response:** None.

**Problem determination:** Not applicable.

**Source:** z/OS Communications Server SNA

**Module:** Use the modifiable VTAM start option MSGMOD=YES (\texttt{f procname,vtamopts,msgmod=yes} or \texttt{f procname,msgmod=yes}) to display the issuing module when a message is issued. See \textit{z/OS Communications Server SNA Operation} and \textit{z/OS Communications Server: SNA Resource Definition Reference} for more information about start options.

**Routing code:** 2

**Descriptor code:** 5

**Automation:** This message is not a candidate for automation.

**Example:**

```
IST2399I MESSAGE TRIGGER: RNICTRLE = IUT1001D
```

**IST2400I** NO ADAPTER DIAGNOSTICS PRODUCED FOR \texttt{resource: reason}

**Explanation:** VTAM issues this message when a CSDUMP was taken but diagnostics for the associated IBM 10GbE RoCE Express interface could not be taken.

In the message text:

\texttt{resource} The value specified as the RNICTRLE trigger for CSDUMP processing.
The reason the diagnostics could not be taken and can be one of the following:

**TRLE NOT FOUND**
- `resource` does not exist.

**TRLE NOT AN RNIC**
- `resource` exists and was found, but the TRLE does not represent a 10GbE RoCE Express interface. Diagnostics can be produced only when at least one TCP/IP stack has an active connection to the 10GbE RoCE Express interface.

**TRLE NOT ACTIVE**
- `resource` represents a 10GbE RoCE Express TRLE, but the TRLE is not in a state where diagnostics can be produced.

**UNSUPPORTED ENVIRONMENT**
- The message specified as a trigger for a CSDUMP and a 10GbE RoCE Express diagnostic dump is issued in an execution environment which prevents VTAM from generating the 10GbE RoCE Express diagnostic dump.

**System action:** Processing continues.

**Operator response:** Depending on the value of `reason`, take the following action:

- **TRLE NOT FOUND, TRLE NOT AN RNIC, and UNSUPPORTED ENVIRONMENT**
  - Contact the system programmer.

- **TRLE NOT ACTIVE**
  - Ensure that the CSDUMP is requested when at least one stack has connectivity to the 10GbE RoCE Express interface.

**System programmer response:** Depending on the value of `reason`, take the following action:

**TRLE NOT FOUND and TRLE NOT AN RNIC**
1. Determine the correct TRLE name to use for the 10GbE RoCE Express interface.
2. Instruct the operator to correct the RNICTRLE trigger value by using the MODIFY CSDUMP command.

**UNSUPPORTED ENVIRONMENT**
- Diagnostics for the 10GbE RoCE Express interface cannot be produced if the message that triggers a CSDUMP and a 10GbE RoCE Express diagnostic dump is issued in certain environments.
  - If an alternate message can be used as the trigger, instruct the operator to issue a MODIFY CSDUMP,MESSAGE=alternate_message, RNICTRLE=resource command to change the message trigger.
  - If only this message can be used as the trigger, instruct the operator to issue a MODIFY CSDUMP,RNICTRLE=resource command to take an immediate 10GbE RoCE Express diagnostic dump, or create automation to take the immediate dump, when the message is seen.

**User response:** None.

**Problem determination:** Not applicable.

**Source:** z/OS Communications Server SNA

**Module:** Use the modifiable VTAM start option MSGMOD=YES (f procname,vtamopts,msgmod=yes or f procname,msgmod=yes) to display the issuing module when a message is issued. See z/OS Communications Server: SNA Operation and z/OS Communications Server: SNA Resource Definition Reference for more information about start options.

**Routing code:** 2

**Descriptor code:** 5

**Automation:** This message is not a candidate for automation.

**Example:**

IST2400I NO ADAPTER DIAGNOSTICS PRODUCED FOR IUT1001D: TRLE NOT FOUND
IST2401I  DEVSTATS REJECTED FOR TRLE  trlename - DEVICE NOT ACTIVE

Explanation: VTAM issues this message in response to a DISPLAY TRL,TRLE=trlename,DEVSTATS command when
trlename represents an IBM 10GbE RoCE Express interface, but the 10GbE RoCE Express interface is not in use by a
z/OS Communications Server upper-layer protocol (ULP).

In the message text:

trlename

The name of the resource that was specified on the DISPLAY TRL command.

System action: Processing continues. No 10GbE RoCE Express statistics for trlename are displayed.

Operator response: None.

System programmer response: None.

User response: None.

Problem determination: None.

Source: z/OS Communications Server SNA

Module: Use the modifiable VTAM start option MSGMOD=YES (if procname,vtamopts,msgmod=yes or f
procname,msgmod=yes) to display the issuing module when a message is issued. See z/OS Communications Server:
SNA Operation and z/OS Communications Server: SNA Resource Definition Reference for more information about
start options.

Routing code: 2

Descriptor code: 5

Automation: Not applicable.

Example:
IST2401I  DEVSTATS REJECTED FOR TRLE IUT2001D - DEVICE NOT ACTIVE

IST2402I  DEVSTATS FAILED FOR TRLE  trlename - DEVICE NOT OPERATIONAL

Explanation: VTAM issues this message in response to a DISPLAY TRL,TRLE=trlename,DEVSTATS command when
trlename represents an IBM 10GbE RoCE Express interface. VTAM attempted to collect 10GbE RoCE Express statistics
for trlename, but failed to do so because of timing conditions or because the hardware could not successfully process
the request.

In the message text:

trlename

The name of the resource that was specified on the DISPLAY TRL command.

System action: Processing continues. No 10GbE RoCE Express statistics for trlename are displayed.

Operator response: Take the following actions:

1. Save the console log.
2. Review the network activity when the DISPLAY TRL,TRLE=trlename,DEVSTATS command was issued.
3. Perform the problem determination steps below.

System programmer response: None.

User response: None.

Problem determination: Review the console log to see whether you can determine the reason for the command
failure.

• The problem might be that the last TCP/IP stack that was using the 10GbE RoCE Express interface issued a VARY
  TCPIP,STOP command for the 10GbE RoCE Express interface. If this is the case, activate the 10GbE RoCE Express
  interface and issue the DISPLAY TRL,TRLE=trlename,DEVSTATS command again.
• Other command failures might indicate a hardware failure. If this problem is persistent, perform the following
  steps:
1. If a VTAM internal trace is not active, start a VTAM internal trace by using the MODIFY TRACE,TYPE=VTAM,OPT=TCPOPTS,MODE=INT command.
2. Enable a CSDUMP trigger for the next occurrence of message IST2402I by using the MODIFY CSDUMP,MESSAGE=IST2402I command.
3. Issue the DISPLAY TRL,TRL=trlename,DEVSTATS command to cause message IST2402I to be issued again.
4. Save the console log and the dump generated by CSDUMP. Contact the IBM support center.

Source: z/OS Communications Server SNA

Module: Use the modifiable VTAM start option MSGMOD=YES (f procname,vtamopts,msgmod=yes or f procname,msgmod=yes) to display the issuing module when a message is issued. See z/OS Communications Server SNA Operation and z/OS Communications Server: SNA Resource Definition Reference for more information about start options.

Routing code: 2
Descriptor code: 5
Automation: Not applicable.

Example:
IST2402I DEVSTATS FAILED FOR TRL IUT2001D - DEVICE NOT OPERATIONAL

IST2403I

**64-BIT STORAGE TYPE CURRENT MAXIMUM LIMIT**

**Explanation:** This message is the first message in a message group that VTAM issues in response to a DISPLAY BFRUSE command. This message is a header message for the 64-bit storage usage display of storage above the bar. A complete description of the message follows.

IST2404I

In the message text:

- **curhvcomm**
  The current amount of 64-bit high virtual common (HVCOMM) storage above the bar allocated by VTAM.

- **maxhvcomm**
  The maximum amount of 64-bit HVCOMM storage above the bar allocated by VTAM.

- **limhvcomm**
  The maximum amount of 64-bit HVCOMM storage above the bar that can be allocated by VTAM.

IST2405I

In the message text:

- **chvcommtr**
  The current amount of HVCOMM storage allocated for the VTAM internal trace table.

- **mhvcommtr**
  The maximum amount of HVCOMM storage allocated for the VTAM internal trace table since the last DISPLAY BFRUSE command.
The maximum amount of HVCOMM storage that can be allocated for the VTAM internal trace table.

In the message text:

- `chvcfixed`
  - The current amount of 64-bit HVCOMM fixed storage allocated by VTAM.

- `mhcvcfixed`
  - The maximum amount of 64-bit HVCOMM fixed storage allocated by VTAM.

- `lhvcfixed`
  - The maximum amount of 64-bit HVCOMM fixed storage that VTAM can allocate.

In the message text:

- `curhvpriv`
  - The current amount of 64-bit high virtual private storage allocated by VTAM.

- `maxhvpriv`
  - The maximum amount of 64-bit high virtual private storage allocated by VTAM.

- `limhvpriv`
  - The maximum amount of 64-bit high virtual private storage that VTAM can allocate.

In the message text:

- `cpvtfixed`
  - The current amount of 64-bit high virtual private fixed storage allocated by VTAM.

- `mpvtfixed`
  - The maximum amount of 64-bit high virtual private fixed storage allocated by VTAM.

- `lpvtfixed`
  - The maximum amount of 64-bit high virtual private fixed storage that VTAM can allocate.

In the message text:

- `ctotfixed`
  - The current total amount of 64-bit high virtual fixed storage allocated by VTAM. `ctotfixed` is the sum of the `chvcfixed` value from the message IST2412I and the `cpvtfixed` value from the message IST2414I.

- `mtotfixed`
  - The maximum amount of 64-bit high virtual fixed storage allocated by VTAM.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**User response:** Not applicable.

**Problem determination:** Not applicable.

**Source:** z/OS Communications Server SNA

**Module:** Use the modifiable VTAM start option MSGMOD=YES (if `procname vtamopts msgmod=yes` or `procname msgmod=yes`) to display the issuing module when a message is issued. See z/OS Communications Server: SNA Operation and z/OS Communications Server: SNA Resource Definition Reference for more information about start options.
**IST240I • IST2405I**

Routing code: 2
Descriptor code: 5
Automation: Not applicable.

Example:

<table>
<thead>
<tr>
<th>IST241</th>
<th>64-BIT STORAGE TYPE CURRENT MAXIMUM LIMIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>IST2403I</td>
<td>HVCOMMON</td>
</tr>
<tr>
<td>IST2412I</td>
<td>FIXED HVCOMMON</td>
</tr>
<tr>
<td>IST2405I</td>
<td>TRACE HVCOMMON</td>
</tr>
<tr>
<td>IST2413I</td>
<td>PRIVATE</td>
</tr>
<tr>
<td>IST2414I</td>
<td>FIXED PRIVATE</td>
</tr>
<tr>
<td>IST2415I</td>
<td>TOTAL FIXED</td>
</tr>
</tbody>
</table>

**IST2404I**  
HVCOMMON curhvcomm maxhvcomm limhvcomm

**Explanation:** This message is part of a message group that VTAM issues in response to a DISPLAY BFRUSE command. The first message in the group is IST2403I. See message “IST2403I” on page 1028 for a complete description of the message group.

**System action:** Not applicable.
**Operator response:** Not applicable.
**System programmer response:** Not applicable.
**User response:** Not applicable.
**Problem determination:** Not applicable.
**Source:** z/OS Communications Server SNA
**Module:** Use the modifiable VTAM start option MSGMOD=YES (f procname,vtamopts,msgmod=yes or f procname,msgmod=yes) to display the issuing module when a message is issued. See z/OS Communications Server: SNA Operation and z/OS Communications Server: SNA Resource Definition Reference for more information about start options.

Routing code: 2
Descriptor code: 5
Automation: Not applicable.

Example:

| IST2404I | HVCOMMON | 1M | 1M | NOLIMIT |

**IST2405I**  
TRACE HVCOMMON chvcommtr mhvcommtr lhvcommtr

**Explanation:** This message is part of a message group that VTAM issues in response to a DISPLAY BFRUSE command. The first message in the group is IST2403I. See message “IST2403I” on page 1028 for a complete description of the message group.

**System action:** Not applicable.
**Operator response:** Not applicable.
**System programmer response:** Not applicable.
**User response:** Not applicable.
**Problem determination:** Not applicable.
**Source:** z/OS Communications Server SNA
**Module:** Use the modifiable VTAM start option MSGMOD=YES (f procname,vtamopts,msgmod=yes or f procname,msgmod=yes) to display the issuing module when a message is issued. See z/OS Communications Server: SNA Operation and z/OS Communications Server: SNA Resource Definition Reference for more information about start options.
Routing code: 2
Descriptor code: 5
Automation: Not applicable.
Example:
IST2405I TRACE HVCOMMON 2M 4M 2048M

**IST2406I** SMC-R LINK FAILURE ON TRLE trlename CODE = rsn_code

Explanation: VTAM issues this group of messages when a Shared Memory Communications - Remote Direct Memory Access (SMC-R) link failure is detected.

A complete description of the message group follows:

IST2406I SMC-R LINK FAILURE ON TRLE trlename CODE = rsn_code
IST1717I ULPID = ulp_id ULP INTERFACE = ulp_interface
IST2407I LOCAL LINK ID = local_id REMOTE LINK ID = remote_id
IST2408I LOCAL MAC = local_mac REMOTE MAC = remote_mac
IST2409I type GID = gid_value
IST2410I LOCAL QP = local_qp_num REMOTE QP = remote_qp_num
[IST2411I VLAN = vlan_id]
IST314I END

**IST1717I**

This message is displayed to identify the Upper-layer Protocol (ULP) associated with the failing SMC-R link.

*ulp_id* The name of a z/OS Communications Server ULP. In this message group, the *ulp_id* value is always the TCP/IP job name.

*ulp_interface* The name of the 10GbE RoCE Express interface that was used by the failing SMC-R link.

**IST2406I**

This is the first message in the message group.

*trlename* The name of the TRLE that represents the 10GbE RoCE Express interface that was used by the failing SMC-R link.

*rsn_code* The reason code generated by z/OS Communications Server to assist in identifying the reason for the SMC-R link failure.

**IST2407I**

This message displays the SMC-R link identification values assigned to the failing SMC-R link.

*local_id* The SMC-R link ID value assigned by this node for the failing SMC-R link.

*remote_id* The SMC-R link ID value assigned by the remote SMC-R peer for the failing SMC-R link.

**IST2408I**

This message displays the Media Access Control (MAC) address values for the failing SMC-R link.

*local_mac* The MAC value assigned by this node for the 10GbE RoCE Express interface that was used by the failing SMC-R link.

*remote_mac* The MAC value assigned by the remote SMC-R peer for 10GbE RoCE Express interface that was used by the failing SMC-R link.
IST2406I

This message displays a group ID (GID) value for the failing SMC-R link.

type Indicates which SMC-R link peer generated this GID value. Possible values are:

   LOCAL
       The GID value was assigned by this node.

   REMOTE
       The GID value was assigned by the remote SMC-R peer.

gid_value
       The GID value assigned by the SMC-R peer for the failing SMC-R link.

IST2409I

This message displays the queue pair (QP) values for the failing SMC-R link.

local_qp_num
       The QP number assigned by this node for the failing SMC-R link.

remote_qp_num
       The QP number assigned by the remote SMC-R peer for the failing SMC-R link.

IST2410I

This message displays the queue pair (QP) values for the failing SMC-R link.

local_qp_num
       The QP number assigned by this node for the failing SMC-R link.

remote_qp_num
       The QP number assigned by the remote SMC-R peer for the failing SMC-R link.

IST2411I

This optional message is displayed when a virtual LAN (VLAN) is associated with the failing SMC-R link.

vlan_id
       The VLAN value associated with the failing SMC-R link.

System action: Processing continues. The TCP/IP stack attempts to switch the TCP connections that are using the failing SMC-R link to another SMC-R link, if one exists, within the SMC-R link group. This switch occurs automatically and the TCP connections continue over the alternate SMC-R link. If no alternate SMC-R link exists within the link group, the TCP connections end.

Operator response: Contact the system programmer.

System programmer response: For more information about Data Link Control (DLC) status codes and about the error that the value of rsn_code reports, see z/OS Communications Server: IP and SNA Codes. Perform the necessary corrections, if any. If there are no corrections to make, or the corrections do not fix the condition, take these steps:

1. If the error occurs infrequently and the TCP connections switch successfully to the alternate SMC-R link in the link group, the error might be a transient network condition. These errors can be ignored.

2. If the error occurs repeatedly during SMC-R link activation with rsn_code= X'0830500C', the error might be a configuration issue with the Ethernet switch. For suggestions on how to correct the switch configuration issues, see z/OS Communications Server: IP Diagnosis Guide in z/OS Communications Server: IP Diagnosis Guide.

3. If the error occurs repeatedly, or the TCP connections do not switch to the alternate SMC-R link in the link group, instruct the operator to issue either of these commands:
   * MODIFY CSDUMP,MESSAGE=IST2406I to collect a VTAM dump the next time this message group is displayed.
   * MODIFY CSDUMP,MESSAGE=IST2406I,RNICTRLE=trlename to collect both a VTAM dump and a 10GbE RoCE Express diagnostic dump the next time this message group is generated for an SMC-R link associated with trlename. The diagnostic dump is disruptive to all TCP/IP stacks that activate the 10GbE RoCE Express interface, so this option should be used only when a VTAM dump provides insufficient information to diagnose the problem. In addition, you should ensure that an alternate SMC-R link is available so that the TCP connections remain active when the diagnostic dump is taken.
   When the diagnostic information is collected, contact IBM Service.

User response: Not applicable.

Problem determination: Not applicable.

Source: z/OS Communications Server SNA

Module: Use the modifiable VTAM start option MSGMOD=YES (f procmname,vtamopts,msgmod=yes or f

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**IST2407I**

**LOCAL LINK ID = local_id REMOTE LINK ID = remote_id**

**Explanation:** VTAM issues this message as part of a group of messages when a Shared Memory Communications - Remote Direct Memory Access (SMC-R) link failure is detected. See message [IST2406I on page 1031](#) for an explanation of the message group.

**System action:** See message IST2406I for details.

**Operator response:** See message IST2406I for details.

**System programmer response:** See message IST2406I for details.

**User response:** Not applicable.

**Problem determination:** Not applicable.

**Source:** z/OS Communications Server SNA

**Module:** Use the modifiable VTAM start option MSGMOD=YES (if procname,vtamopts,msgmod=yes or
f procname,msgmod=yes) to display the issuing module when a message is issued. See [z/OS Communications Server](#) and [z/OS Communications Server: SNA Resource Definition Reference](#) for more information about start options.

**Routing code:** 2

**Descriptor code:** 5

**Automation:** This message is not a good candidate for automation.

**Example:**

IST2406I SMC-R LINK FAILURE ON TRLE IUT10018 CODE = 8014510B
IST1717I ULPID = TCPCS1 ULP INTERFACE = EZARIUT10018
IST2407I LOCAL LINK ID = 2DBF0100 REMOTE LINK ID = 729D0101
IST2408I LOCAL MAC = 02000012F030 REMOTE MAC = 02000112F030
IST2409I LOCAL GID = FE80::200:1FF:FE12:F030
IST2409I REMOTE GID = FE80::200:FF:FE12:F030
IST2410I LOCAL QP = 40 REMOTE QP = 41
IST2411I VLAN = 100
IST314I END

IST2407I LOCAL MAC = local_mac REMOTE MAC = remote_mac

**Explanation:** VTAM issues this message as part of a group of messages when a Shared Memory Communications - Remote Direct Memory Access (SMC-R) link failure is detected. See message [IST2406I on page 1031](#) for an explanation of the message group.

**System action:** See message IST2406I for details.

**Operator response:** See message IST2406I for details.

**System programmer response:** See message IST2406I for details.

**User response:** Not applicable.

**Problem determination:** Not applicable.

**Source:** z/OS Communications Server SNA
IST2409I • IST2410I

Module: Use the modifiable VTAM start option MSGMOD=YES (f procname,vtamopts,msgmod=yes or f procname,msgmod=yes) to display the issuing module when a message is issued. See z/OS Communications Server: SNA Operation and z/OS Communications Server: SNA Resource Definition Reference for more information about start options.

Routing code: 2
Descriptor code: 5
Automation: This message is not a candidate for automation.

Example:
IST2408I LOCAL MAC = 02000012F030 REMOTE MAC = 02000012F030

IST2409I type GID = gid_value

Explanation: VTAM issues this message as part of a group of messages when a Shared Memory Communications - Remote Direct Memory Access (SMC-R) link failure is detected. See message “IST2406I” on page 1031 for an explanation of the message group.

System action: See message IST2406I for details.
Operator response: See message IST2406I for details.
System programmer response: See message IST2406I for details.
User response: Not applicable.
Problem determination: Not applicable.
Source: z/OS Communications Server SNA

Module: Use the modifiable VTAM start option MSGMOD=YES (f procname,vtamopts,msgmod=yes or f procname,msgmod=yes) to display the issuing module when a message is issued. See z/OS Communications Server: SNA Operation and z/OS Communications Server: SNA Resource Definition Reference for more information about start options.

Routing code: 2
Descriptor code: 5
Automation: This message is not a candidate for automation.

Example:
IST2409I LOCAL GID = FE80::200:1FF:FE12:F030

IST2410I LOCAL QP = local_qp_num REMOTE QP = remote_qp_num

Explanation: VTAM issues this message as part of a group of messages when a Shared Memory Communications - Remote Direct Memory Access (SMC-R) link failure is detected. See message “IST2406I” on page 1031 for an explanation of the message group.

System action: See message IST2406I for details.
Operator response: See message IST2406I for details.
System programmer response: See message IST2406I for details.
User response: Not applicable.
Problem determination: Not applicable.
Source: z/OS Communications Server SNA

Module: Use the modifiable VTAM start option MSGMOD=YES (f procname,vtamopts,msgmod=yes or f procname,msgmod=yes) to display the issuing module when a message is issued. See z/OS Communications Server: SNA Operation and z/OS Communications Server: SNA Resource Definition Reference for more information about start options.

Routing code: 2
IST2411I • IST2412I

**Descriptor code:** 5

**Automation:** This message is not a candidate for automation.

**Example:**
IST2410I LOCAL QP = 40 REMOTE QP = 41

---

IST2411I VLAN = vlan_id

**Explanation:** VTAM issues this message as part of a group of messages when a Shared Memory Communications - Remote Direct Memory Access (SMC-R) link failure is detected. See message IST2406I on page 1031 for an explanation of the message group.

**System action:** See message IST2406I for details.

**Operator response:** See message IST2406I for details.

**System programmer response:** See message IST2406I for details.

**User response:** Not applicable.

**Problem determination:** Not applicable.

**Source:** z/OS Communications Server SNA

**Module:** Use the modifiable VTAM start option MSGMOD=YES (if `procname,vtnamet.socketmsgmod=es` or `procname,socketmsgmod=es`) to display the issuing module when a message is issued. See z/OS Communications Server SNA Operation and z/OS Communications Server: SNA Resource Definition Reference for more information about start options.

---

IST2412I FIXED HVCOMMON chvcfixed mhvcfixed lhvcfixed

**Explanation:** This message is part of a message group that VTAM issues in response to a DISPLAY BFRUSE command. The first message in the subgroup is IST2403I. See message IST2403I for a complete description of the message group.

**System action:** Not Applicable.

**Operator response:** Not Applicable.

**System programmer response:** Not Applicable.

**User response:** Not Applicable.

**Problem determination:** Not applicable.

**Source:** z/OS Communications Server SNA

**Module:** Use the modifiable VTAM start option MSGMOD=YES (if `procname,vtnamet.socketmsgmod=es` or `procname,socketmsgmod=es`) to display the issuing module when a message is issued. See z/OS Communications Server SNA Operation and z/OS Communications Server: SNA Resource Definition Reference for more information about start options.

---

**Routing code:** 2

---

**Descriptor code:** 5

**Automation:** This message is not a candidate for automation.

**Example:**
IST2411I VLAN = 100

---

---
IST2413I • IST2415I

IST2413I  PRIVATE  curhpriv  maxhpriv  limhpriv

Explanation: This message is the part of a message group that VTAM issues in response to a DISPLAY BFRUSE command. The first message in the subgroup is IST2403I. See message IST2403I for a complete description of the message group.

System action: Not Applicable.
Operator response: Not Applicable.
System programmer response: Not Applicable.
User response: Not Applicable.
Problem determination: Not applicable.
Source: z/OS Communications Server SNA
Module: Use the modifiable VTAM start option MSGMOD=YES (f procname,vtamopts,msgmod=yes or f procname,msgmod=y) to display the issuing module when a message is issued. See z/OS Communications Server: SNA Operation and z/OS Communications Server: SNA Resource Definition Reference for more information about start options.
Routing code: 2
Descriptor code: 5
Automation: Not Applicable.
Example:
IST2413I  PRIVATE  1M  1M  NOLIMIT

IST2414I  FIXED PRIVATE  cpfixed  mnpfixed  lpfixed

Explanation: This message is the part of a message group that VTAM issues in response to a DISPLAY BFRUSE command. The first message in the subgroup is IST2403I. See message IST2403I for a complete description of the message group.

System action: Not Applicable.
Operator response: Not Applicable.
System programmer response: Not Applicable.
User response: Not Applicable.
Problem determination: Not applicable.
Source: z/OS Communications Server SNA
Module: Use the modifiable VTAM start option MSGMOD=YES (f procname,vtamopts,msgmod=yes or f procname,msgmod=y) to display the issuing module when a message is issued. See z/OS Communications Server: SNA Operation and z/OS Communications Server: SNA Resource Definition Reference for more information about start options.
Routing code: 2
Descriptor code: 5
Automation: Not Applicable.
Example:
IST2414I  FIXED PRIVATE  1M  1M  NOLIMIT

IST2415I  TOTALFIXED  ctotfixed  mtotfixed  lptotfixed

Explanation: This message is the part of a message group that VTAM issues in response to a DISPLAY BFRUSE command. The first message in the subgroup is IST2403I. See message IST2403I for a complete description of the message group.

System action: Not Applicable.
IST2416I • IST2417I

Operator response:  Not Applicable.
System programmer response:  Not Applicable.
User response:  Not Applicable.
Problem determination:  Not applicable.
Source:  z/OS Communications Server SNA
Module:  Use the modifiable VTAM start option MSGMOD=YES (f procname,vtamopts,msgmod=yes or f procname,msgmod=yes) to display the issuing module when a message is issued. See [z/OS Communications Server][SNA Operation] and [z/OS Communications Server: SNA Resource Definition Reference][start options] for more information about start options.
Routing code:  2
Descriptor code:  5
Automation:  Not Applicable.
Example:

| IST2415I | TOTAL FIXED | 1M | 1M | **NA** |

IST2416I  count type PROCESSED
Explanation:  VTAM issues this message to respond to a VARY INACT,TYPE=GIVEBACK command where wildcard values are used for the ID operand. The ID operand specifies the dependent LU requesters (DLURs) that will be deactivated. This message is issued only when the GVBKDLY and VARYWLD start options are both enabled.

- **count**  The number of resources that the command processes.
- **type**  The same type as in the INACT command that is issued. The following value is valid:
  - **GIVEBACKS**
  - VARY INACT,TYPE=GIVEBACK processing for DLURs was performed.
System action:  Processing continues.
Operator response:  Use the IST2416I message as an indicator that VTAM has finished scheduling the last batch of subcommands for processing. If additional wildcard ID values will be processed, issue another VARY INACT,TYPE=GIVEBACK command and specify the next wildcard pattern on the ID operand.
System programmer response:  None.
User response:  Not applicable.
Problem determination:  Not applicable.
Source:  z/OS Communications Server SNA
Module:  Use the modifiable VTAM start option MSGMOD=YES (f procname,vtamopts,msgmod=yes or f procname,msgmod=yes) to display the issuing module when a message is issued. See [z/OS Communications Server][SNA Operation] and [z/OS Communications Server: SNA Resource Definition Reference][start options] for more information about start options.
Routing code:  2
Descriptor code:  5
Automation:  Not applicable.
Example:

| IST2416I | 1852 GIVEBACKS PROCESSED |

IST2417I  VFN = virtual_function_number
Explanation:  VTAM issues this message as part of a message group in response to a DISPLAY ID or DISPLAY TRL command for a TRLE that is associated with an IBM 10GbE RoCE Express interface, which operates in a shared RoCE environment.
IST2417I

See message IST2361I for an explanation of the message group.

System action: Processing continues.

Operator response: None.

System programmer response: None.

User response: None.

Problem determination: Not applicable.

Source: z/OS Communications Server SNA

Module: Use the modifiable VTAM start option MSGMOD=YES (if procname,vtamopts,msgmod=yes or f procname,msgmod=yes) to display the issuing module when a message is issued. See z/OS Communications Server SNA Operation and z/OS Communications Server: SNA Resource Definition Reference for more information about start options.

Routing code: 2

Descriptor code: 5

Automation: This message is not a candidate for automation.

Example:

IST2417I VFN = 0002
Chapter 11. ISTH messages for IBM Health Checker for z/OS

This chapter lists the messages beginning with ISTH. These messages are issued by IBM Health Checker for z/OS.

ISTH001I  Communications storage manager (CSM) FIXED and ECSA storage maximums satisfy the *deftype* specified limits

**Explanation:** Check CSVTAM_CSM_STG_LIMIT ran successfully and found no exceptions. The check determined that the value specified for the maximum amount of CSM storage in the CSM Parmlib member IVTPRM00 for both FIXED and ECSA storage is in the limit specified for this check.

In the message text:

*deftype*

One of the following:

- **owner**: The check parameters for this check have not been overridden.
- **installation**: The check parameters for this check have been overridden.

**System action:** The system continues processing.

**Operator response:** Not applicable.

**System programmer response:** None.

**User response:** Not applicable.

**Problem determination:** Not applicable.

**Source:** z/OS Communications Server

**Module:** ISTHCCK1

**Routing code:** Not applicable.

**Descriptor code:** Not applicable.

**Example:** ISTH001I Communications storage manager (CSM) FIXED and ECSA storage maximums satisfy the owner specified limits

ISTH002I  Communications storage manager (CSM) *stor_type* storage max *max_val* is less than the *def_type* specified value *min_val*

**Explanation:** Check CSVTAM_CSM_STG_LIMIT determined that the value specified for the maximum CSM storage of the type specified as defined in the CSM Parmlib member IVTPRM00 is less than the minimum value specified for the check. This message is followed by message ISTH017E in the message buffer.

In the message text:

*stor_type*

The type of CSM storage. The *stor_type* value is either FIXED or ECSA.

*max_val*

The current maximum value specified for the CSM storage type in the IVTPRM00 PARMLIB member.

*def_type*

One of the following:

- **owner**: The check parameters for this check have not been overridden.
- **installation**: The check parameters for this check have been overridden.
**ISTH005I • ISTH006E**

The check parameter value against which the maximum `stor_type` value is compared.

**System action:** The system continues processing.

**Operator response:** Contact the system programmer.

**System programmer response:** See the System programmer response in message ISTH017E.

**User response:** Not applicable.

**Problem determination:** Not applicable.

**Source:** z/OS Communications Server

**Module:** ISTHCCK1

**Routing code:** Not applicable.

**Descriptor code:** Not applicable.

**Example:** ISTH002I Communications storage manager (CSM) ECSA storage max 80M is less than the installation specified value 120M

**ISTH005I** VTAM Internal Trace (VIT) PSS and SMS options are active. IBM suggests that these options always be active for VIT tracing for optimal problem determination.

**Explanation:** Check CSVTAM_VIT_OPT_PSSSMS ran successfully and found no exceptions. Both the PSS and SMS VIT options were found to be active.

**System action:** The system continues processing.

**Operator response:** Not applicable.

**System programmer response:** Not applicable.

**User response:** Not applicable.

**Problem determination:** Not applicable.

**Source:** z/OS Communications Server

**Module:** ISTHCCK1

**Routing code:** Not applicable.

**Descriptor code:** Not applicable.

**Example:** Not applicable.

**ISTH006E** VTAM Internal Trace (VIT) options for PSS and SMS are not both active

**Explanation:** Check CSVTAM_VIT_OPT_PSSSMS determined that the VIT PSS option, the SMS option, or both are not active. IBM suggests that these options should always be active for VIT tracing for optimal problem determination.

**System action:** The system continues processing.

**Operator response:** Issue a MODIFY TRACE,TYPE=VTAM,MODE=INT,OPTION=(PSS,SMS) command to activate PSS and SMS tracing. You should use the MODIFY NOTRACE command to deactivate the PSS or SMS options only if requested to do so by IBM support.

See the MODIFY TRACE command information in z/OS Communications Server: SNA Operation for information about the MODIFY TRACE command.

See the TRACE for MODULE, STATE (with OPTION), or VTAM internal trace information in z/OS Communications Server: SNA Resource Definition Reference for more information about setting the VIT start option values.

**System programmer response:** Not applicable.

**User response:** Not applicable.
Problem determination: To display the VIT trace options that are currently active, issue the D NET,TRACES,TYPE=VTAM command.

Source: z/OS Communications Server

Module: IsthCck1

Routing code: Not applicable.

Descriptor code: 12

Example: Not applicable.

ISTH009I Not all VTAM Internal Trace (VIT) options are active. When all VIT options are concurrently active, performance might be less than optimal.

Explanation: Check CSVTAM_VIT_OPT_ALL ran successfully and found no exceptions. The check determined that not all VIT options are concurrently active.

System action: The system continues processing.

Operator response: Not applicable.

System programmer response: Not applicable.

User response: Not applicable.

Problem determination: Not applicable.

Source: z/OS Communications Server

Module: IsthCck1

Routing code: Not applicable.

Descriptor code: Not applicable.

Example: Not applicable.

ISTH010E All VTAM Internal Trace (VIT) options are active

Explanation: Check CSVTAM_VIT_OPT_ALL determined that all the VIT options are active. IBM suggests that having all VIT options active is not required for optimal problem analysis, unless it was requested by IBM service, because it might affect system performance.

System action: The system continues processing.

Operator response: Use the MODIFY NOTRACE,TYPE=VTAM,MODE=INT,OPTION= command to deactivate unneeded trace options. Only the default trace options (API, CIO, MSG, NMR, PIU, and SSCP) cannot be deactivated.

If all trace options are active when VTAM is started, contact the system programmer. See the MODIFY TRACE command in z/OS Communications Server: SNA Operation for information about the MODIFY TRACE command.

System programmer response: Change the VTAM start options to not specify OPTION=ALL for the VTAM trace. See the TRACE for MODULE, STATE (with OPTION), or VTAM internal trace information in z/OS Communications Server: SNA Resource Definition Reference for more information about setting the VIT start option values.

User response: Not applicable.

Problem determination: To display the currently active VIT options, issue D NET,TRACES,TYPE=VTAM.

Source: z/OS Communications Server

Module: IsthCck1

Routing code: Not applicable.

Descriptor code: 12

Example: Not applicable.
ISTH011I • ISTH013E

ISTH011I  The T1BUF and T2BUF buffer pool allocations are set above their default values, which is recommended for use with Enterprise Extender (EE). When the size of the T1BUF or T2BUF pool is too small, excessive buffer pool expansions and contractions might occur.

Explanation:  Check CSVTAM_T1BUF_T2BUF_EE ran successfully and found no exceptions. This check determined that the T1BUF and T2BUF buffer pool allocations are greater than the defaults for those pools. The default values assigned to these pools might cause performance degradation as a result of excessive buffer pool expansions and contractions when Enterprise Extender (EE) is being used.

System action:  The system continues processing.
Operator response:  Not applicable.
System programmer response:  Not applicable.
User response:  Not applicable.
Problem determination:  Not applicable.
Source:  z/OS Communications Server
Module:  ISTHCCK1
Routing code:  Not applicable.
Descriptor code:  Not applicable.
Example:  Not applicable.

ISTH012I  buf_pool buffer pool allocation of buf_num might be too low for use with Enterprise Extender

Explanation:  Check CSVTAM_T1BUF_T2BUF_EE determined that Enterprise Extender (EE) is being used and the allocation for the buf_pool buffer pool specified by the buf_num value is at its default value. This message is followed by message ISTH013E in the message buffer.

The default value might not be optimal for your system when using EE. Such a value assigned to this pool might cause performance degradation because of excessive buffer pool expansions and contractions.

In the message text:

buf_pool
  The name of the buffer pool. Possible values are: T1BUF or T2BUF.

buf_num
  The buffer allocation value assigned to the buffer pool on the start option for that buffer pool.

System action:  The system continues processing.
Operator response:  Not applicable.
System programmer response:  See the System programmer response in message ISTH013E.
User response:  Not applicable.
Problem determination:  Not applicable.
Source:  z/OS Communications Server
Module:  ISTHCCK1
Routing code:  Not applicable.
Descriptor code:  Not applicable.
Example:  Not applicable.

ISTH013E  T1BUF/T2BUF buffer pool allocation might not be optimal for use with Enterprise Extender

Explanation:  Check CSVTAM_T1BUF_T2BUF_EE determined that Enterprise Extender (EE) is being used (or is intended to be used) on this system and the T1BUF or T2BUF (or both) buffer pool allocation is at its default value. The default value might not be optimal for your system when using EE. Such a value assigned to this pool might
cause performance degradation as a result of excessive buffer pool expansions and contractions. The default value for
the T1BUF buffer pool is 16. The default value for the T2BUF buffer pool is 8.

Message ISTH012I is issued prior to this message for each buffer pool (T1BUF, T2BUF, or both) that has failed this
check.

System action: The system continues processing.
Operator response: Contact the system programmer.
System programmer response: IBM suggests that the T1BUF and T2BUF buffer pools be monitored and tuned to
minimize the number of expansions. Minimizing buffer pool expansions will decrease internal buffer overhead
processing which should increase throughput while reducing CPU consumption. These buffer pools can be monitored
using the D NET,BFRUSE,BUF=(T1,T2) command. Once the appropriate allocation values for the T1BUF and T2BUF
buffer pools have been determined, you can change the T1BUF and T2BUF Start option allocation values before next
starting VTAM. See the buffer pool information in z/OS Communications Server: SNA Resource Definition Reference
for more information about the T1BUF and T2BUF Start Options. See the Display BFRUSE command information in
z/OS Communications Server: SNA Operation for more information on the D NET,BFRUSE command.
User response: Not applicable.
Problem determination: Not applicable.
Source: z/OS Communications Server
Module: Isthcck1
Routing code: Not applicable.
Descriptor code: 12
Example: Not applicable.

ISTH014I T1BUF and T2BUF buffer pool allocations are sufficient for use without Enterprise Extender

Explanation: Check CSVTAM_T1BUF_T2BUF_NOEE ran successfully and found no exceptions. This check
determined that the T1BUF and T2BUF buffer pool allocations are set to the default value for those pools, which is
considered sufficient when Enterprise Extender is not being used.

System action: The system continues processing.
Operator response: Not applicable.
System programmer response: Not applicable.
User response: Not applicable.
Problem determination: Not applicable.
Source: z/OS Communications Server
Module: Isthcck1
Routing code: Not applicable.
Descriptor code: Not applicable.
Example: Not applicable.

ISTH015I buf_pool buffer pool allocation of buf_num might be too high if Enterprise Extender is not being used

Explanation: Check CSVTAM_T1BUF_T2BUF_NOEE determined that Enterprise Extender (EE) might not be in use
on this system and the allocation for the buf_pool buffer pool specified by the buf_num value is greater than its default
value. This message is followed by message ISTH016E in the message buffer.

A value greater than the default value might not be optimal for your system when not using EE. The T1BUF and
T2BUF buffer pools are designed to optimize HPR flows over Enterprise Extender connections. When EE is not being
used, the buffer allocation for these pools does not need to be set greater than the default values.

In the message text:
The name of the buffer pool. Possible values are: T1BUF or T2BUF.

buf_num

The buffer allocation value assigned to the buffer pool on the start option for that buffer pool.

System action: The system continues processing.
Operator response: Not applicable.
System programmer response: See the system programmer response in ISTH016E.
User response: Not applicable.
Problem determination: Not applicable.
Source: z/OS Communications Server
Module: ISTHCK1
Routing code: Not applicable.
Descriptor code: Not applicable.
Example: Not applicable.

ISTH016E  T1BUF/T2BUF buffer pool allocation might not be optimal if Enterprise Extender is not being used

Explanation: Check CSVTAM_T1BUF_T2BUF_NOEE determined that Enterprise Extender (EE) might not be in use on this system and the T1BUF or T2BUF (or both) buffer pool allocation is set above its default value.

A value above the default value might not be optimal for your system when not using EE. The T1BUF and T2BUF buffer pools are designed to optimize HPR flows over Enterprise Extender connections. When EE is not being used, the buffer allocation for these pools does not need to be set above the default values. The default value for the T1BUF buffer pool is 16. The default value for the T2BUF buffer pool is 8.

Message ISTH015I is issued prior to this message for each buffer pool (T1BUF, T2BUF, or both) that failed this check.

System action: The system continues processing.
Operator response: Contact the system programmer.
System programmer response: If you intend to use EE on this system, IBM suggests that the T1BUF and T2BUF buffer pools be monitored and tuned to minimize the number of expansions. Minimizing buffer pool expansions will decrease internal buffer overhead processing which should increase throughput while reducing CPU consumption. These buffer pools can be monitored using the D NET,BFRUSE,BUF=(T1,T2) command. Once the appropriate allocation values for the T1BUF and T2BUF buffer pools have been determined, you can change the T1BUF and T2BUF Start option allocation values before next starting VTAM. If you do not intend to use EE on this system, you can change the T1BUF and T2BUF Start option allocation values to the default values before next starting VTAM.

See the buffer pool information in z/OS Communications Server: SNA Resource Definition Reference for more information about the T1BUF and T2BUF Start Options. See the Display BFRUSE command information in z/OS Communications Server: SNA Operation for more information on the D NET,BFRUSE command.

User response: Not applicable.
Problem determination: Not applicable.
Source: z/OS Communications Server
Module: ISTHCK1
Routing code: Not applicable.
Descriptor code: 12
Example: Not applicable.
ISTH017E Communications storage manager (CSM) storage allocation definitions might not be optimal.

Explanation: Check CSVTAM_CSM_STG_LIMIT determined that the value specified for the maximum CSM storage for the FIXED or ECSA storage types (or both) as defined in the CSM Parmlib member IVTPRM00 is less than the minimum value specified for the check.

Message ISTH002I is displayed prior to this message for each CSM storage type that failed the check.

System action: The system continues processing. However, eventual action might need to be taken to prevent a critical depletion of CSM storage resources.

Operator response: Contact the system programmer.

System programmer response: The default values in IVTPRM00 are 100M for both FIXED and ECSA. However, IBM suggests that they initially be coded at 120M MAX ECSA and 120M MAX FIXED. Monitor the system for one week with DISPLAY CSM command to determine peak usage. Adjust IVTPRM00 MAX ECSA and MAX FIXED values to 1.5 times the highest value indicated in the DISPLAY CSM outputs. You must adjust your IEASYxx CSA ECSA subparameter to include the additional amounts of ECSA that CSM will be using. It is recommended that the CSA ECSA subparameter in IEASYxx be at least 20% more than the ECSA value specified for CSM use in IVTPRM00.

User response: Not applicable.

Problem determination: Not applicable.

Source: z/OS Communications Server

Module: ISTHCCK1

Routing code: Not applicable.

Descriptor code: 12

Example: Not applicable.

ISTH018I This check is not applicable in the current VTAM environment. Enterprise Extender (EE) lines have not been activated on this system and no VTAM Start Options associated with EE have been specified.

Explanation: Check CSVTAM_T1BUF_T2BUF_EE is not applicable in the current VTAM environment. This check compares the T1BUF and T2BUF buffer pool allocation values against the default values for each pool only if EE has been activated on this VTAM or the VTAM start options associated with EE (IPADDR or TCPNAME) have been specified.

System action: The system continues processing.

Operator response: Not applicable.

System programmer response: Not applicable.

User response: Not applicable.

Problem determination: Not applicable.

Source: z/OS Communications Server

Module: ISTHCCK1

Routing code: Not applicable.

Descriptor code: Not applicable.

Example: Not applicable.

ISTH019I This check is not applicable in the current VTAM environment. Enterprise Extender (EE) lines have been activated on this system or VTAM Start Options associated with EE have been specified.

Explanation: Check CSVTAM_T1BUF_T2BUF_NOEE is not applicable in the current VTAM environment. This check compares the T1BUF and T2BUF buffer pool allocation values against the default values for each pool only if EE has been activated on this VTAM or the VTAM start options associated with EE (IPADDR or TCPNAME) have been specified.

System action: The system continues processing.

Operator response: Not applicable.

System programmer response: Not applicable.

User response: Not applicable.

Problem determination: Not applicable.

Source: z/OS Communications Server

Module: ISTHCCK1

Routing code: Not applicable.

Descriptor code: Not applicable.

Example: Not applicable.
not been activated on this VTAM and the VTAM start options associated with EE (IPADDR or TCPNAME) have not been specified.

**System action:** The system continues processing.

**Operator response:** Not applicable.

**System programmer response:** Not applicable.

**User response:** Not applicable.

**Problem determination:** Not applicable.

**Source:** z/OS Communications Server

**Module:** ISTHCCK1

**Routing code:** Not applicable.

**Descriptor code:** Not applicable.

**Example:** Not applicable.
Chapter 12. ISTM messages for migration checks for IBM Health Checker for z/OS

This chapter lists the messages beginning with ISTM. These messages are issued by migration checks for IBM Health Checker for z/OS.

ISTM013I  GATEWAY statement is not in use on this system

Explanation:  Check ZOSMIGV2R1_CS_GATEWAY ran successfully and found no exceptions. The check determined that the GATEWAY statement is not in use on this system. Support for the GATEWAY statement will be removed in a future release of IBM z/OS Communications Server.

System action:  The system continues processing.

Operator response:  Not applicable.

System programmer response:  Not applicable.

User response:  Not applicable.

Problem determination:  Not applicable.

Source:  z/OS Communications Server Health Checker

Module:  Use the modifiable VTAM start option MSGMOD=yes (f proctabname,vtamopts,msgmod=yes or f proctabname,msgmod=yes) to display the issuing module when a message is issued. See z/OS Communications Server, SNA Operation, and z/OS Communications Server: SNA Resource Definition Reference for more information about start options.

Routing code:  Not applicable.

Descriptor code:  Not applicable.

Automation:  Not applicable.

Example:

ISTM013I  GATEWAY statement is not in use on this system

ISTM014E  GATEWAY statements are in use on this system during this IPL

Explanation:  Check ZOSMIGV2R1_CS_GATEWAY determined that GATEWAY statements are in use on this system during this IPL. Support for the GATEWAY statement will be removed in a future release of IBM z/OS Communications Server.

System action:  The system continues processing.

Operator response:  Contact the system programmer.

System programmer response:  Because the GATEWAY configuration statement will no longer be supported in the TCP/IP profile in a future release of z/OS Communications Server. IBM suggests that customers who currently use the GATEWAY statement migrate to the BEGINROUTES/ENDROUTES configuration block. One way to convert GATEWAY configuration statements to a BEGINROUTES/ENDROUTES configuration block is to use the TCPIP profile command on a dump of the TCP/IP address space. See TCPIP profile in z/OS Communications Server, IP Diagnosis Guide for more information.

User response:  Not applicable.

Problem determination:  Not applicable.

Source:  z/OS Communications Server Health Checker

Module:  Use the modifiable VTAM start option MSGMOD=yes (f proctabname,vtamopts,msgmod=yes or f proctabname,msgmod=yes) to display the issuing module when a message is issued. See z/OS Communications Server, SNA Operation, and z/OS Communications Server: SNA Resource Definition Reference for more information about start options.

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ISTM015I • ISTM016E

Routing code: Not applicable.
Descriptor code: Not applicable.
Automation: Not applicable.
Example:
ISTM014E GATEWAY statements are in use on this system during this IPL

---

**ISTM015I** Legacy device statements are not in use on this system

**Explanation:** Check ZOSMIGV2R1_CS_LEGACYDEVICE ran successfully and found no exceptions. The check determined that there are no legacy device type profile statements in use by any TCP/IP stacks on this system. Support for the DEVICE and LINK profile statements for the following TCP/IP legacy device types will be eliminated in a future release of IBM z/OS Communications Server:

- ATM
- CDLC
- CLAW
- HYPERchannel
- SNALINK (LU0 and LU6.2)
- X.25

Because support will be eliminated for the ATM device type in a future release, the following associated TCP/IP profile statements will no longer be supported:

- ATMARPSV
- ATMLIS
- ATMPVC

**System action:** The system continues processing.

**Operator response:** Not applicable.

**System programmer response:** Not applicable.

**User response:** Not applicable.

**Problem determination:** Not applicable.

**Source:** z/OS Communications Server Health Checker

**Module:** Use the modifiable VTAM start option MSGMOD=yes (f procname,vtamopts,msgmod=yes or f procname,msgmod=yes) to display the issuing module when a message is issued. See z/OS Communications Server: SNA Operation and z/OS Communications Server: SNA Resource Definition Reference for more information about start options.

Routing code: Not applicable.
Descriptor code: Not applicable.
Automation: Not applicable.
Example:
ISTM015I Legacy device statements are not in use on this system

---

**ISTM016E** Legacy device statements are in use on this system during this IPL

**Explanation:** Check ZOSMIGV2R1_CS_LEGACYDEVICE determined that legacy device type profile statements are in use on this system during this IPL. Support for the DEVICE and LINK profile statements for the following TCP/IP legacy device types will be eliminated in a future release of IBM z/OS Communications Server:

- ATM
- CDLC
- CLAW
- HYPERchannel
Because support will be eliminated for the ATM device type in a future release, the following associated TCP/IP profile statements will no longer be supported:

- ATMARPSV
- ATMLIS
- ATMPVC

**System action:** The system continues processing.

**Operator response:** Contact the system programmer.

**System programmer response:** When the TCP/IP stack processes a legacy device type profile statement, the stack issues message EZZ0717I. For information about the profile data set that contains the statements, see the EZZ0717I message and the associated profile processing messages. Because the profile statements for legacy device types will not be supported in the TCP/IP profile in a future release of z/OS Communications Server, it is recommended that you migrate to a later interface type, such as OSA-Express QDIO or HiperSockets. For more information about using OSA-Express QDIO or HiperSockets interfaces, see Considerations for networking hardware attachment in z/OS Communications Server: IP Configuration Guide.

**User response:** Not applicable.

**Problem determination:** Not applicable.

**Source:** z/OS Communications Server Health Checker

**Module:** Use the modifiable VTAM start option MSGMOD=yes (if procmname,vtaopts,mgmod=yes or procmname,mgmod=yes) to display the issuing module when a message is issued. See z/OS Communications Server: SNA Operation and z/OS Communications Server: SNA Resource Definition Reference for more information about start options.

**Routing code:** Not applicable.

**Descriptor code:** Not applicable.

**Automation:** Not applicable.

**Example:**

ISTM016E Legacy device statements are in use on this system during this IPL

**ISTM900I**

**Function:** mhc_function last mhc_usage on mhc_date at mhc_time.

**Explanation:** A preceding exception message of type ISTMxxxE was generated. See those messages for more information.

In the message text:

*mhc_function*

  The name of the function that was being checked.

*mhc_usage*

  Possible values are:

  **started**
  
  This value is displayed when checking applications.

  **used**
  
  This value is displayed when checking configuration statements.

*mhc_date*

  The date that the function was last started or used.

*mhc_time*

  The time that the function was last started or used.

**System action:** The system continues processing.

**Operator response:** Not applicable.
System programmer response: Not applicable.
User response: Not applicable.
Problem determination: Not applicable.
Source: z/OS Communications Server
Module: ISTHCK2
Routing code: Not applicable.
Descriptor code: Not applicable.
Automation: Not applicable.
Example: Not applicable.
Chapter 13. IUT messages for VTAM network operators

This chapter lists the VTAM messages beginning with IUT that can appear on a network operator’s console.

See Appendix E, “Message text for VTAM operator messages,” on page 1177 for a list of the text of all VTAM operator messages.

IUT5000I   trlename STILL ACTIVE: VTAM TERMINATION WAITING FOR ulpid

Explanation: VTAM issues this message when VTAM termination processing is waiting for the deactivation of a service access point (SAP).

System action: VTAM termination waits until all SAPs have been deactivated. VTAM will periodically reissue this message as long as the trlename remains active.

ulpid is the SAP owner.

trlename is the name of the TRLE being used by the ulpid.

Operator response: For the VTAM HALT command (without QUICK OR CANCEL), have the trlename deactivated by the owning program named in ulpid.

System programmer response: None.

Routing code: 2

Descriptor code: 4

IUT5001I   VTAM MPC CONNECTION MANAGER PROCESSING TERMINATED

Explanation: VTAM issues this message when VTAM MPC connection manager processing has terminated. This message is issued during VTAM HALT command processing.

System action: VTAM MPC connection manager functions are no longer available.

Operator response: None.

System programmer response: None.

Routing code: 2

Descriptor code: 6

IUT5002I   TASK FOR ULPID ulpid USING TRLE trlename TERMINATING

Explanation: VTAM issues this message when a z/OS Communications Server upper-layer protocol (ULP) task or memory terminates and causes VTAM to deactivate the ULP’s service access point (SAP).

ulpid is the SAP owner.

trlename is the name of the TRLE being used by ulpid.

System action: VTAM deactivates all ULP SAPs associated with the terminating task. When this is the last or only ULP SAP using this data link control (DLC), VTAM also deactivates the DLC associated with the trlename and deallocates the corresponding I/O devices.

Operator response: To determine the status or progress of SAP termination, issue a DISPLAY TRL command and determine the status of each I/O device.

System programmer response: None.

Routing code: 2

Descriptor code: 4
Chapter 14. IVT messages for VTAM network operators

This chapter lists the VTAM messages beginning with IVT that can appear on a network operator’s console.

See Appendix E, “Message text for VTAM operator messages,” on page 1177 for a list of the text of all VTAM operator messages.

IVT5501I  CSM PARMLIB MEMBER  *membername*  NOT FOUND - DEFAULT VALUES USED

**Explanation:** This message is issued during CSM initialization.

*membername* is the name of the CSM parmlib member.

**System action:** The default values for maximum fixed storage (100M) and maximum ECSA storage (100M) are used. Processing continues.

**Operator response:** If the default values for CSM storage limits are not acceptable, issue the MODIFY CSM command to update the parameter values.

**System programmer response:** None.

Routing code: 2
Descriptor code: 5

IVT5502I  READ ERROR ON PARMLIB MEMBER  *membername*  - DEFAULT VALUES USED

**Explanation:** An I/O error occurred while CSM was trying to read the CSM parmlib member. This message is issued during CSM initialization.

*membername* is the name of the CSM parmlib member.

**System action:** The default values for maximum fixed storage (100M) and maximum ECSA storage (100M) are used. Processing continues.

**Operator response:** If the default values for CSM storage limits are not acceptable, issue the MODIFY CSM command to update the parameter values. Save the system log for problem determination.

**System programmer response:** See z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures for more information.

Routing code: 2
Descriptor code: 5

IVT5503I  CSM PARMLIB PARAMETER NOT VALID -  *parametername*

**Explanation:** CSM issues this message as part of a message group. See IVT5507I for a complete description.

Routing code: 2
Descriptor code: 5

IVT5504I  ABEND  *abendcode*  OCCURRED IN  *modulename*  - SDUMP HAS BEEN ISSUED

**Explanation:** An abend occurred while processing a CSM request.

*abendcode* is the abend code. The values for *abendcode* are found in the applicable operating system documentation.

*modulename* is the name of the CSM module.

**System action:** The system attempts an SDUMP. CSM takes the dump if the system dump data set is usable. If the dump fails, message IVT5505I is issued with a return code of the dump request.
**IVT5505I • IVT5507I**

**Operator response:** Save the system log and the dump for problem determination.

**System programmer response:** Review the dump to determine the cause of the problem.

**Routing code:** 2

**Descriptor code:** 5

---

**IVT5505I**  
**CSM SDUMP FAILED WITH RETURN CODE** *code* **REASON X'reason'*

**Explanation:** CSM attempts an SDUMP for an abend and the system could not complete the dump successfully.

*code* indicates the reason for the failure and can be one of the following:

- **04** The system obtained only a partial dump. The dump data set or file is too small.
- **08** The system was unable to take an SDUMP. All dump data sets or files are full, a dump is already in progress, or the dump analysis elimination (DAE) function of MVS has determined that a dump has already been taken for the system string.

*reason* indicates the cause of the SDUMP failure.

For more information about return and reason codes for the SDUMP macro, see [z/OS MVS Programming](https://www.ibm.com/support/docview.wss?uid=swg21281693).

**System action:** CSM takes no further action to obtain a dump. Other processing continues.

**Operator response:** Save the system log for problem determination.

**System programmer response:** If *code* is 4, increase the size of the dump data set. If *code* is 8, check the availability of dump data sets and purge any unnecessary dumps.

**Routing code:** 2

**Descriptor code:** 5

---

**IVT5506I**  
**module name** STORAGE ALLOCATION FAILED IN CSM

**Explanation:** This message is issued when CSM is unable to satisfy a request for storage.

*module name* is the CSM module name where the request failed.

**System action:** CSM might not be able to continue. If this message is issued during CSM initialization, CSM issues abend code 4C4, return code 1001, and issues an FFST dump.

**Operator response:** Save the system log for problem determination.

**System programmer response:** See [z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures](https://www.ibm.com/support/docview.wss?uid=swg25067716) for more information.

**Routing code:** 2

**Descriptor code:** 5

---

**IVT5507I**  
**CSM PARMLIB INFORMATION FOUND IN MEMBER** *member name*

**Explanation:** This message is part of a group of messages that is issued either during CSM initialization or as the result of a MODIFY CSM command with no parameters specified. A complete description of the message group follows the example.

**IVT5507I** CSM PARMLIB INFORMATION FOUND IN MEMBER *member name*

[IVT5503I CSM PARMLIB PARAMETER NOT VALID - parameter name]

[IVT5599I END]

**member name** is the name of the CSM parmlib member.
IVT5503I

CSM issues this message when it finds a CSM storage parameter value in the parmlib that is not valid.

*parametername* is the first 26 characters of the line where the error occurred in the CSM parmlib member.

**System action:** If only IVT5507I is displayed, CSM storage limits from *membername* are used.

If IVT5503I is displayed in response to MODIFY CSM command with no parameters specified, the storage limits are unchanged.

If IVT5503I is displayed during CSM initialization, then storage limits are determined as follows:

- If the error was generated by the first CSM storage parameter, the default values for maximum fixed storage (100M) and maximum ECSA storage (100M) are used.
- If the error was generated by the second CSM storage parameter, only the second parameter value is replaced by the default.

**Operator response:** If IVT5503I is displayed and the default values for CSM storage parameters are not acceptable, issue the MODIFY CSM command to update CSM start parameters. Save the system log for the problem determination.

**System programmer response:** If IVT5503I is displayed, edit the CSM parameter data set and correct the parameter that is in error.

**Routing code:** 2

**Descriptor code:** 5

---

IVT5508I  DISPLAY ACCEPTED

**Explanation:** CSM accepted the DISPLAY CSM command for initial processing.

**System action:** The syntax of the command is correct and VTAM begins processing the DISPLAY CSM command.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

---

IVT5510I  MODIFY ACCEPTED

**Explanation:** CSM accepted the MODIFY CSM command for initial processing.

**System action:** The syntax of the command is correct and VTAM begins processing the MODIFY CSM command.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

---

IVT5511I  command  CSM COMMAND SYNTAX NOT VALID

**Explanation:** The *command* failed because of one or more of the following syntax errors:

- An operand is specified incorrectly
- A operand is specified more than once
- A keyword might be missing

*command* is one of the following CSM command types:

- DISPLAY
- MODIFY
**IVT5512I • IVT5517I**

**System action:** VTAM rejects the command. Other processing continues.

**Operator response:** Reenter the command with the correct syntax. See [z/OS Communications Server: SNA](https://www.ibm.com/support/docview> for correct command syntax.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

---

**IVT5512I** FIXED PARAMETER VALUE NOT VALID

**Explanation:** This message is issued when the FIXED value of a MODIFY CSM command is out of range or not valid.

**System action:** Processing continues. CSM fixed storage limits are not changed.

**Operator response:** Reenter the command with the correct syntax. See [z/OS Communications Server: SNA](https://www.ibm.com/support/docview> for correct command syntax.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

---

**IVT5513I** ECSA PARAMETER VALUE NOT VALID

**Explanation:** This message is issued when the requested ECSA value of a MODIFY CSM command is out of range or not valid.

**System action:** Processing continues. CSM ECSA storage limits are not changed.

**Operator response:** Reenter the command with the correct syntax. See [z/OS Communications Server: SNA](https://www.ibm.com/support/docview> for correct command syntax.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

---

**IVT5516I** ERROR OBTAINING CSM PARMLIB INFORMATION - LIMITS UNCHANGED

**Explanation:** This message is issued in response to a MODIFY CSM command with no operands specified. CSM could not read the storage limits defined in the CSM parmlib member and could not change the limits.

**System action:** Processing continues. CSM storage limits are not changed.

**Operator response:** To change the current storage limits, reissue the command and specify new storage limits on the FIXED or ECSA operands.

**System programmer response:** Edit the CSM parmlib member to determine the source of the problem.

**Routing code:** 2

**Descriptor code:** 5

---

**IVT5517I** CSM LIMITS PRIOR TO MODIFY CSM PROCESSING:

**Explanation:** This message is the first in a group of messages that is issued in response to a MODIFY CSM command with at least one operand specified. It displays the CSM storage limits before and after the MODIFY CSM command is issued. A complete description of the message group follows the example.

**Example:**

IVT5517I CSM LIMITS PRIOR TO MODIFY CSM PROCESSING:
IVT5519I ECSA MAXIMUM = maxecsa, FIXED MAXIMUM = maxfix
These messages are header messages for the information displayed in the message that follow these messages.

IVT5519I

$maxecsa$ is the maximum amount of ECSA storage, in megabytes (M) or kilobytes (K), that can be allocated by CSM.

$maxfix$ is the maximum amount of fixed storage, in megabytes (M) or kilobytes (K), that can be allocated by CSM.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

---

IVT5519I ECSA MAXIMUM = $maxecsa$ FIXED MAXIMUM = $maxfix$

**Explanation:** CSM issues this message as part of a message group. See IVT5517I for a complete description.

**Routing code:** 2

**Descriptor code:** 5

---

IVT5520I OWNERID VALUE NOT VALID

**Explanation:** This message is issued when a DISPLAY CSM command is issued with an OWNERID that is not a valid address space identifier (ASID).

**System action:** VTAM rejects the command. Other processing continues.

**Operator response:** Issue a display of all active jobs to obtain a list of valid ASIDs.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

---

IVT5521I NO CSM STORAGE IS CURRENTLY ALLOCATED TO OWNERID $asid$

**Explanation:** This message is issued for a DISPLAY CSM command with OWNERID specified.

If $asid$ is the name of a valid address space, the ASID exists, but does not have any storage allocated from the communications storage manager (CSM).

If $asid$ is ALL, there is no CSM storage allocated to any address space.

**System action:** Processing continues.

**Operator response:** To determine the ASID that has storage allocated in CSM, reissue the DISPLAY CSM command and specify OWNERID=ALL.
**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

---

**Explanation:** This message is the first in a group of messages that CSM issues in response to a DISPLAY CSM command when OWNERID is not specified. A complete description of the message group follows.

**IVT5529I** PROCESSING DISPLAY CSM COMMAND - OWNERID NOT SPECIFIED

**Note:** To determine the actual number of buffers in use for a pool, divide `curused` by `bufsiz`.

**IVT5599I** END

The message group that follows this message displays storage information for every possible combination of CSM buffer size and buffer source.

**IVT5530I and IVT5531I**

These messages are header messages for the information displayed in the messages that follow these messages.

**IVT5533I**

This message displays information about a CSM pool.

`bufsiz` is the size of the buffers in the pool. The values for `bufsiz` are 4K, 16K, 32K, 60K, and 180K.
Bufsource is the storage source from which buffers are allocated. The values for bufsource are:

ECSA
- Buffers are allocated from ECSA storage.

DATA SPACE 31
- Buffers are allocated from 31-bit backed data space storage.

DATA SPACE 64
- Buffers are allocated from 64-bit backed data space storage.

Curused is the amount of storage in the pool that is currently being used. The value is expressed in either megabytes (M) or kilobytes (K).

Note: When a problem with a pool extent is detected, this value might include buffer storage that is not actually allocated to a CSM user. The buffer storage in the extent can not be allocated to a CSM user.

Curfree is the amount of storage in the pool that is not being used. The value is expressed in either megabytes (M) or kilobytes (K).

Curtotal is the total amount of storage allocated for the pool. The value is expressed in either megabytes (M) or kilobytes (K).

IVT5534I
This message is displayed only when the pool represented by bufsize and bufsource has not been created.

IVT5535I
This message displays the total storage allocated for all CSM pools of a particular buffer source.

Bufsource is the storage source from which buffers are allocated. The values for bufsource are ECSA, DATA SPACE 31, and DATA SPACE 64.

Totused is the total amount of storage that is currently being used for bufsource.

Totfree is the total amount of storage that is not being used for bufsource.

Totstor is the total amount of storage allocated for all of the CSM bufsource pools.

IVT5536I
This message displays information about all storage allocated for the CSM Pools.

Totused is the total amount of CSM storage that is currently being used.

Totfree is the total amount of CSM storage that is not being used.

Totstor is the total amount of storage allocated for the CSM pools.

IVT5538I
Maxfix is the maximum amount of fixed storage that can be allocated by CSM.

Curfix is the current amount of fixed storage allocated by CSM.

IVT5539I
Maxcsa is the maximum amount of ECSA storage that can be allocated by CSM.

Curecsa is the current amount of ECSA storage allocated by CSM.
storage_type can be one of the following:

ECSA  Common Storage Area.

FIXED  Page Fixed Storage includes ECSA and 31-bit and 64-bit backed Data Space.

storage_value is the maximum amount of storage in use since the last time a Display CSM command was issued with OWNERID not specified.

IVT559I

This message is displayed for each CSM data space that exists. CSM can create up to five data spaces.

n is CSM data space number.

datspname is CSM data space name.

IVT5594I

storage_type can be one of the following:

ECSA  Extended Common Storage Area.

FIXED  Page Fixed Storage includes ECSA and 31-bit and 64-bit backed Data Space.

max_storage is the maximum amount of storage in use since the last IPL.

System action:  Processing continues.

Operator response:  None.

System programmer response:  None.

Routing code:  2

Descriptor code:  5

IVT5530I BUFFER BUFFER

Explanation:  CSM issues this message as part of a message group. The first message in the group is IVT5529I. See the explanation of that message for a complete description.

Routing code:  2

Descriptor code:  5

IVT5531I SIZE SOURCE INUSE FREE TOTAL

Explanation:  CSM issues this message as part of a message group. The first message in the group is IVT5529I. See the explanation of that message for a complete description.

Routing code:  2

Descriptor code:  5

IVT5532I --------------------------------------------

Explanation:  This message is a line separator and is part of several different message groups. It is used to improve readability or to separate types of information. See the explanation of the first message in the group for an example of how this message is used in each group.

Routing code:  2

Descriptor code:  5
**IVT5533I**

*bufsiz bufsource curused curfree curtotal*

**Explanation:** CSM issues this message as part of a message group. The first message in the group is IVT5529I. See the explanation of that message for a complete description.

**Routing code:** 2

**Descriptor code:** 5

**IVT5534I**

*bufsiz bufsource POOL DOES NOT EXIST*

**Explanation:** CSM issues this message as part of a message group. The first message in the group is IVT5529I. See the explanation of that message for a complete description.

**Routing code:** 2

**Descriptor code:** 5

**IVT5535I**

*TOTAL bufsiz bufsourced totused totfree totstor*

**Explanation:** CSM issues this message as part of a message group. The first message in the group is IVT5529I. See the explanation of that message for a complete description.

**Routing code:** 2

**Descriptor code:** 5

**IVT5536I**

*TOTAL ALL SOURCES totused totfree totstor*

**Explanation:** CSM issues this message as part of a message group. The first message in the group is IVT5529I. See the explanation of that message for a complete description.

**Routing code:** 2

**Descriptor code:** 5

**IVT5538I**

*FIXED MAXIMUM = maxfix FIXED CURRENT = curfix*

**Explanation:** CSM issues this message as part of a message group. The first message in the group is IVT5529I. See the explanation of that message for a complete description.

**Routing code:** 2

**Descriptor code:** 5

**IVT5539I**

*ECSA MAXIMUM = maxecsa ECSA CURRENT = curecsa*

**Explanation:** CSM issues this message as part of a message group. The first message in the group is IVT5529I. See the explanation of that message for a complete description.

**Routing code:** 2

**Descriptor code:** 5

**IVT5541I**

*storage_type MAXIMUM USED max_storage SINCE LAST DISPLAY CSM*

**Explanation:** CSM issues this message as part of a message group in response to a DISPLAY CSM command when OWNERID is not specified. The first message in the group is IVT5529I. See the explanation of IVT5529I for a complete description.

**Routing code:** 2

**Descriptor code:** 5
Explanation: This message is the first in a group of messages that CSM issues in response to a DISPLAY CSM command when OWNERID is specified. A complete description of the message group follows.

These messages are header messages for the information displayed in the messages that follow these messages.

This message displays information about storage allocated to the OWNERID from a CSM buffer pool.

bufsiz is the size of the buffers in the pool. The values for bufsiz are 4K, 16K, 32K, 60K, and 180K.

bufsource is the storage source from which buffers are allocated. The values for bufsource are:

**ECSA**
buffers are allocated from ECSA storage.

**DATA SPACE 31**
buffers are allocated from 31-bit backed data space storage.

**DATA SPACE 64**
buffers are allocated from 64-bit backed data space storage.

totstor is the total amount of CSM storage in the pool that has been allocated to the ASID. The value is expressed in either megabytes (M) or kilobytes (K).

This message displays information about all the CSM storage allocated to the ASID for bufsource.

bufsource is the storage source from which buffers are allocated. The values for bufsource are **ECSA, DATA SPACE 31**, and **DATA SPACE 64**.

totstor is the total amount of storage allocated to this ASID for bufsource. The value is expressed in either megabytes (M) or kilobytes (K).
totstor is the total amount of CSM storage allocated to the ASID. The value is expressed in either megabytes (M) or kilobytes (K).

Note: The sum of the total of the storage allocated to all users of a pool might be greater than the total amount of storage allocated from the pool. This is due to multiple owners of a buffer resulting from the creation of shared instances using IVTCSM ASSIGN_BUFFER request. The information by OWNERID indicates the amount of storage that must be freed by the user to enable the storage to be returned to the buffer pool.

IVT5557I

asid is the address space identifier (ASID) of the owner of the CSM storage, as specified on the OWNERID operand of the DISPLAY CSM command or on an IVTCSM GET_BUFFER, ASSIGN_BUFFER or CHANGE_OWNER request.

jobname is the name of the job associated with the ASID. If jobname cannot be determined, this field contains ***NA***.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

---

IVT5551I SIZE SOURCE STORAGE ALLOCATED TO OWNER

Explanation: CSM issues this message as part of a message group. The first message in the group is IVT5549I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

---

IVT5553I  bufisz bufsize totstor

Explanation: CSM issues this message as part of a message group. The first message in the group is IVT5549I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

---

IVT5554I  TOTAL bufsize totstor

Explanation: CSM issues this message as part of a message group. The first message in the group is IVT5549I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5

---

IVT5556I  TOTAL FOR OWNERID totstor

Explanation: CSM issues this message as part of a message group. The first message in the group is IVT5549I. See the explanation of that message for a complete description.

Routing code: 2
Descriptor code: 5
IVT5557I • IVT5561I

**IVT5557I**  
**OWNERID: ASID = asid  JOBNAME = jobname**

**Explanation:** CSM issues this message as part of a message group. The first message in the group is IVT5549I. See the explanation of that message for a complete description.

Routing code: 2  
Descriptor code: 5

**IVT5558I**  
**bufsz bufsource** **UNABLE TO DETERMINE BUFFER VALUES**

**Explanation:** This message is displayed only when CSM detects a problem in a pool which prevents information about the buffer from being determined.

Routing code: 2  
Descriptor code: 5

**IVT5559I**  
**CSM DATA SPACE n NAME: datspname**

**Explanation:** CSM issues this message as part of a message group. The first message in the group is IVT5529I. See the explanation of that message for a complete description.

System action: None.  
Operator response: None.  
System programmer response: None.  
Routing code: 2  
Descriptor code: 5

**IVT5560I**  
**CSM ECSA STORAGE LIMIT EXCEEDED**

**Explanation:** A CSM request for storage from extended common service area (ECSA) storage could not be satisfied. It would exceed the CSM ECSA storage limit value.

System action: The action depends on why the requested storage was needed. Other messages might follow identifying the effect this storage condition has on CSM and its applications. Subsequent requests for CSM storage might fail.

Operator response: Issue the DISPLAY CSM command without the OWNERID operand to determine current storage limits and usage. Issue a DISPLAY CSM command with OWNERID=ALL to determine how much storage is in use by each application. Save the system log and request a dump for problem determination.

System programmer response: Verify the ECSA storage limit value is correct. Increase storage as required using a MODIFY CSM command.

See [z/OS Communications Server: SNA Operation](#) for more information on the DISPLAY CSM and MODIFY CSM commands.

See [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps.

Routing code: 2  
Descriptor code: 5

**IVT5561I**  
**CSM FIXED STORAGE LIMIT EXCEEDED**

**Explanation:** A CSM request for storage from the fixed (REAL) storage could not be satisfied. It would exceed the CSM FIXED storage limit value.

System action: The action depends on how much storage is available for subsequent requests for storage. Other messages might follow identifying the effect this storage condition has on CSM and its applications. Subsequent requests for CSM storage might fail.

Operator response: Issue the DISPLAY CSM command without the OWNERID operand to determine current...
storage limits and usage. Issue a DISPLAY CSM command with OWNERID=ALL to determine how much storage is in use by each application. Save the system log and request a dump for problem determination.

**System programmer response:** Verify the FIXED storage limit value is correct. Increase storage as required using a MODIFY CSM command.

See [z/OS Communications Server: SNA Operation](#) for more information on the DISPLAY CSM and MODIFY CSM commands.

See [z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT](#) for information about analyzing dumps.

**Routing code:** 2

**Descriptor code:** 5

---

IVT5562I CSM ECSA STORAGE AT CRITICAL LEVEL

**Explanation:** This message is issued when CSM ECSA storage usage is at or higher than the CSM ECSA critical value (90% of CSM ECSA storage limit value).

**System action:** Processing continues. Subsequent requests for CSM storage might fail.

**Operator response:** Issue the DISPLAY CSM command without the OWNERID operand to determine current storage limits and usage. Issue a DISPLAY CSM command with OWNERID=ALL to determine how much storage is in use by each application. Save the system log for problem determination.

**System programmer response:** Verify the ECSA storage limit value is correct. Increase storage as required using a MODIFY CSM command.

See [z/OS Communications Server: SNA Operation](#) for more information on the DISPLAY CSM and MODIFY CSM commands.

**Routing code:** 2

**Descriptor code:** 5

---

IVT5563I CSM FIXED STORAGE AT CRITICAL LEVEL

**Explanation:** This message is issued when CSM fixed storage usage is at or higher than the CSM fixed critical value (90% of CSM fixed storage limit value).

**System action:** Processing continues. Subsequent requests for storage might fail.

**Operator response:** Issue the DISPLAY CSM command without the OWNERID operand to determine current storage limits and usage. Issue a DISPLAY CSM command with OWNERID=ALL to determine how much storage is in use by each application. Save the system log for problem determination.

**System programmer response:** Verify the fixed storage limit value is correct. Increase storage as required using a MODIFY CSM command.

See [z/OS Communications Server: SNA Operation](#) for more information on the DISPLAY CSM and MODIFY CSM commands.

**Routing code:** 2

**Descriptor code:** 5

---

IVT5564I CSM ECSA STORAGE SHORTAGE RELIEVED

**Explanation:** This message is issued when CSM ECSA storage usage has returned back to normal level (at or below 80% of ECSA storage limit value).

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2
IVT5565I  CSM FIXED STORAGE SHORTAGE RELIEVED

Explanation: This message is issued when CSM fixed storage usage has returned to normal level (at or below 80% of fixed storage limit value).

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2

Descriptor code: 5

IVT5566I  CSM MONITOR IS ACTIVE

Explanation: CSM issues this message in response to the MODIFY CSM,MONITOR=YES and DISPLAY CSM,MONITOR commands.

When the MODIFY CSM,MONITOR command is issued, this message indicates that CSM has successfully started the CSM monitoring of the CSM buffer storage.

When the DISPLAY CSM,MONITOR command is issued, this message indicates that CSM monitoring of the CSM buffer storage is already in progress.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2

Descriptor code: 5

IVT5567I  CSM MONITOR IS NOT ACTIVE

Explanation: CSM issues this message in response to the MODIFY CSM,MONITOR=NO and DISPLAY CSM,MONITOR commands.

When the MODIFY CSM,MONITOR=NO command is issued, this message indicates that CSM has successfully ended the CSM monitoring of the CSM buffer storage.

When the DISPLAY CSM,MONITOR command is issued, this message indicates that CSM monitoring of the CSM buffer storage is not in progress.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2

Descriptor code: 5

IVT5568I  MONITOR PARAMETER VALUE IS NOT VALID

Explanation: This message is issued when the MONITOR value of a MODIFY CSM command is not valid. The correct values for MONITOR are YES, NO or DYNAMIC. CSM MONITOR status is not changed.

System action: Processing continues.

Operator response: Reenter the command with the correct value. See z/OS Communications Server: SNA Operation for the correct command syntax.

System programmer response: None.
**IVT5569I**  
**CSM MONITOR IS DYNAMIC AND CURRENTLY ACTIVE**

**Explanation:**  
CSM issues this message in response to the MODIFY CSM,MONITOR=DYNAMIC and DISPLAY CSM,MONITOR commands.

When the MODIFY CSM,MONITOR=DYNAMIC command is issued, this message indicates that CSM has successfully processed the command. The status is dynamic and CSM is monitoring the CSM buffer storage.

When the DISPLAY CSM,MONITOR command is issued, this message indicates that CSM monitoring of the CSM buffer storage is dynamic and CSM is monitoring the CSM buffer storage.

**System action:**  
Processing continues.

**Operator response:**  
None.

**System programmer response:**  
None.

Routing code: 2  
Descriptor code: 5

---

**IVT5570I**  
**CSM MONITOR IS DYNAMIC AND CURRENTLY NOT ACTIVE**

**Explanation:**  
CSM issues this message in response to the MODIFY CSM,MONITOR=DYNAMIC and DISPLAY CSM,MONITOR commands.

When the MODIFY CSM,MONITOR=DYNAMIC command is issued, this message indicates that CSM has successfully processed the command. The status is dynamic and CSM is not monitoring the CSM buffer storage.

When the DISPLAY CSM,MONITOR command is issued, it indicates that CSM monitoring of the CSM buffer storage is dynamic and CSM is not monitoring the CSM buffer storage.

**System action:**  
Processing continues.

**Operator response:**  
None.

**System programmer response:**  
None.

Routing code: 2  
Descriptor code: 5

---

**IVT5571I**  
**MONITOR PARAMETER IS NOT VALID WITH parameter**

**Explanation:**  
CSM issues this message when it finds a MONITOR parameter with parameter. The MONITOR parameter and parameter are mutually exclusive.

**System action:**  
Processing continues.

**Operator response:**  
Reenter the command DISPLAY NET,CSM,MONITOR without parameter. If parameter is necessary, reenter the command without the MONITOR parameter. See z/OS Communications Server: SNA Operation for the correct command syntax.

**System programmer response:**  
None.

Routing code: 2  
Descriptor code: 5

---

**IVT5572I**  
**PROCESSING DISPLAY CSMUSE COMMAND - OWNERID NOT SPECIFIED**

**Explanation:**  
This message is the first in a group of messages that CSM issues in response to a DISPLAY CSMUSE command when OWNERID is not specified. A complete description of the message group follows the example.

IVT5572I PROCESSING DISPLAY CSMUSE COMMAND - OWNERID NOT SPECIFIED
IVT5532I -----------------------------------------------
IVT5575I USAGE SUMMARY - poolname POOL TOTAL (ALL USERS) = stoinuse

Chapter 14. IVT messages for VTAM network operators
The messages starting from IVT5575I through IVT5578I are for one CSM storage pool. These messages can be repeated up to 14 more times to include all CSM pools.

IVT5532I
This message is a line separator.

IVT5572I
This message is a header message for a summary of CSM storage usage for one or more storage pools that have buffers in use. The summary information shows storage usage by monitor ID and OWNERID.

IVT5575I
- This message displays summary information about a CSM storage pool. This is the first message of a subgroup of messages issued for each CSM storage pool. The subgroup of messages starting from IVT5575I through IVT5578I are for one CSM storage pool.
- poolname is the CSM pool. CSM pool names are as follows:
  4KECSA 4KB buffer size ECSA storage pool
  16KECSA 16KB buffer size ECSA storage pool
  32KECSA 32KB buffer size ECSA storage pool
  60KECSA 60KB buffer size ECSA storage pool
  180KECSA 180KB buffer size ECSA storage pool
  4KDS 4KB buffer size data space storage pool
  16KDS 16KB buffer size data space storage pool
  32KDS 32KB buffer size data space storage pool
  60KDS 60KB buffer size data space storage pool
  180KDS 180KB buffer size data space storage pool
  4KDS64 4KB buffer size data space backed by 64-bit real storage pool
  16KDS64 16KB buffer size data space backed by 64-bit real storage pool
  32KDS64 32KB buffer size data space backed by 64-bit real storage pool
  60KDS64 60KB buffer size data space backed by 64-bit real storage pool
  180KDS64 180KB buffer size data space backed by 64-bit real storage pool
- stoinuse is the total amount of storage in use in the pool. The value is expressed in either megabytes (M) or kilobytes (K).
This is the header message for the information displayed in the IVT5577I messages that follow.

This message displays the users of CSM storage that have allocated the largest amount of the storage for a pool by monitor ID and OWNERID. The message can be repeated up to four times.

*amount* is the total amount of CSM storage allocated to the monitor ID and OWNERID. The value is expressed in either megabytes (M) or kilobytes (K).

*monitorid* is the identifier of the component of z/OS Communications Server using the CSM buffer storage. It can be used by z/OS Communications Server service to diagnose CSM storage problems. The monitor function of CSM allows the operator to track the CSM buffer storage. If the CSM buffer is used by z/OS Communications Server, it will also have an owning component in z/OS Communications Server. This is the unique identifier of the component. See the [z/OS Communications Server: IP and SNA Codes](https://www.ibm.com/support/knowledgecenter/SSTV12_1.9.0/com.ibm.zos.v1r12.iseries.220/com.p6z01200/zoscomm20.htm) for the complete description of Monitor IDs.

*ownerid* (OWNERID) is the owning address space identifier (ASID) for this CSM buffer storage and it is a hexadecimal value in the range of 0000 - 7FFF.

*jobname* is the name of the job associated with the OWNERID. If *jobname* cannot be determined, this field contains ***NA***.

This message displays the total amount of storage listed in the IVT5577I messages for one storage pool.

*poolname* is the CSM pool. The CSM pool names are listed under the message IVT5575I.

*number* is the number of users using CSM storage displayed by the IVT5577I messages.

*totamount* is the sum of *amount* displayed in the IVT5577I messages issued with this group.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2

Descriptor code: 5

**Explanation:** This message is the first in a group of messages that CSM issues in response to a DISPLAY CSMUSE command when OWNERID is specified. A complete description of the message group follows the example.

```
IVT5573I PROCESSING DISPLAY CSMUSE COMMAND - OWNERID SPECIFIED
IVT5573I PROCESSING DISPLAY CSMUSE COMMAND - OWNERID SPECIFIED
IVT5557I OWNERID: ASID = 01F6  JOBNAME = TCPCS1
IVT5532I ----------------------------------------
IVT5575I USAGE SUMMARY - poolname POOL TOTAL (ALL USERS) = stoinuse
IVT5576I AMOUNT MONITOR ID OWNERID JOBNAME
IVT5577I amount monitorid ownerid jobname...
IVT5589I DISPLAY TOTAL FOR poolname POOL FOR THIS OWNERID = totamount
IVT5532I ----------------------------------------...
IVT5599I END
```

The messages starting from IVT5575I through IVT5578I are for one CSM storage pool. These messages can repeat up to 14 more times to include all CSM pools.

This message is a line separator.

*asid* is the address space identifier (ASID) of the owner of the CSM storage, as specified on the OWNERID operand of the DISPLAY CSMUSE command. *asid* is a hexadecimal value with a range of 0000 - 7FFF.
IVT5573I

*jobname* is the name of the job associated with the OWNERID. If *jobname* cannot be determined, this field contains ***NA***.

IVT5573I

This message is issued when the display CSMUSE command is issued with the OWNERID operand. The message group that follows this message displays the storage usage summary, by monitor ID and OWNERID, of all buffers in use for one or more CSM storage pools. This message is a header message for a summary of CSM storage usage for one or more storage pools that have buffers in use. The summary information shows storage usage by monitor ID for the OWNERID specified on the DISPLAY CSMUSE command.

IVT5575I

- This message displays summary information about a CSM storage pool. This is the first message of a subgroup of messages issued for each CSM storage pool. The subgroup of messages starting from IVT5575I through IVT5578I are for one CSM storage pool.
- *poolname* is the CSM pool. CSM pool names are as follows:
  - 4KECSA
    - 4KB buffer size ECSA storage pool
  - 16KECSA
    - 16KB buffer size ECSA storage pool
  - 32KECSA
    - 32KB buffer size ECSA storage pool
  - 60KECSA
    - 60KB buffer size ECSA storage pool
  - 180KECSA
    - 180KB buffer size ECSA storage pool
  - 4KDS
    - 4KB buffer size data space storage pool
  - 16KDS
    - 16KB buffer size data space storage pool
  - 32KDS
    - 32KB buffer size data space storage pool
  - 60KDS
    - 60KB buffer size data space storage pool
  - 180KDS
    - 180KB buffer size data space storage pool
  - 4KDS64
    - 4KB buffer size data space backed by 64-bit real storage pool
  - 16KDS64
    - 16KB buffer size data space backed by 64-bit real storage pool
  - 32KDS64
    - 32KB buffer size data space backed by 64-bit real storage pool
  - 60KDS64
    - 60KB buffer size data space backed by 64-bit real storage pool
  - 180KDS64
    - 180KB buffer size data space backed by 64-bit real storage pool
- *stoinuse* is the total amount of storage in use in the pool. The value is expressed in either megabytes (M) or kilobytes (K).

IVT5576I

This is the header message for the information displayed in the IVT5577I messages that follow.

IVT5577I

This message displays the users of CSM storage that have allocated the largest amount of the storage for a pool by monitor ID and OWNERID. The message can be repeated up to four times.
amount is the total amount of CSM storage allocated to the monitor ID and OWNERID. The value is expressed in either megabytes (M) or kilobytes (K).

monitorid is the identifier of the component of z/OS Communications Server using the CSM buffer storage. It can be used by z/OS Communications Server service to diagnose CSM storage problems. The monitor function of CSM allows the operator to track the CSM buffer storage. If the CSM buffer is used by z/OS Communications Server, it will also have an owning component in z/OS Communications Server. This is the unique identifier of the component. See the z/OS Communications Server: IP and SNA Codes for a complete description of Monitor IDs.

ownerid (OWNERID) is the owning address space identifier (ASID) for this CSM buffer storage and it is a hexadecimal value in the range of 0000 - 7FFF.

jobname is the name of the job associated with the OWNERID. If jobname cannot be determined, this field contains ***NA***.

IVT5589I
This message displays the total amount of storage listed in the IVT5577I messages for one storage pool.

poolname is the CSM pool. The CSM pool names are listed under the message IVT5575I.

totamount is the sum of amount displayed in the IVT5577I messages issued with this group.

System action: Processing continues.

Operator response: None.

System programmer response: None.

Routing code: 2

Descriptor code: 5

IVT5574I PROCESSING DISPLAY CSMUSE COMMAND - POOL SPECIFIED

Explanation: This message is the first in a group of messages that CSM issues in response to a DISPLAY CSMUSE command when POOL is specified. A complete description of the message group follows.

IVT5574I PROCESSING DISPLAY CSMUSE COMMAND - POOL SPECIFIED
IVT5532I -----------------------------------------------
IVT5576I AMOUNT MONITOR ID OWNERID JOBNAME
IVT5577I amount monitorid ownerid jobname
IVT5579I BUFFER USE FOR mid: USECNT USERDATA MONITOR HISTORY
IVT5580I usecount userdata monitor history

The messages starting from IVT5576I through IVT5580I are for one CSM monitor ID. These messages can repeat up to 3 more times to include up to four CSM Monitor IDs.

IVT5532I
This message is a line separator.

IVT5574I
This message is issued when the DISPLAY CSMUSE command is entered with the POOL operand. The message group that follows this message displays storage usage summary of all buffers in use for the user-specified pool with the buffers in use by monitor ID and OWNERID. This message is a header message for a detailed display of CSM storage usage for the CSM storage pool specified by the POOL operand of the Display CSMUSE command. It displays the user data value and history of the monitor ID.

IVT5576I
This is the header message for the information displayed in the IVT5577I messages that follow.
This message displays the users of CSM storage, by monitor ID and OWNERID, that have allocated the largest amount of storage for a pool. The message can be repeated up to four times.

*amount* is the total amount of CSM storage allocated to the monitor ID and OWNERID. The value is expressed in either megabytes (M) or kilobytes (K).

*monitorid* is the identifier of the component of z/OS Communications Server using the CSM buffer storage. It can be used by z/OS Communications Server service to diagnose CSM storage problems. The monitor function of CSM allows the operator to track the CSM buffer storage. If the CSM buffer is used by z/OS Communications Server, it will also have an owning component in z/OS Communications Server. This is the unique identifier of the component. See the **z/OS Communications Server: IP and SNA Codes** for the complete description of Monitor IDs.

*ownerid* (OWNERID) is the owning address space identifier (ASID) for this CSM buffer storage and it is a hexadecimal value in the range of 0000 - 7FFF.

*jobname* is the name of the job associated with the OWNERID. If jobname cannot be determined, this field contains ***NA***.

This is the header message for the detail information displayed in the IVT5580I messages that follow.

*mid* is the current monitor ID of the buffers with the user data fields and monitor history displayed in the messages that follow.

This message displays the detailed user information and monitor ID history for a buffer in a CSM storage pool. It can be repeated up to four times.

*usecount* is the number of primary buffers plus the images of buffers associated with the displayed user data field and monitor ID history for the monitor ID specified in the preceding IVT5579I message.

*userdata* is the user data field associated with this buffer by the monitor identified by the monitor ID specified in the preceding IVT5579I message. The user data field allows IBM service to correlate the current usage and history to a specific resource, such as a device, connection, route, and so on. This is a hexadecimal value.

*monitorhistory* is a word containing the monitor ID history for a buffer in CSM storage. The first 3 bytes are the previous monitor IDs and the last byte is the current monitor ID. This is a hexadecimal value.

This message displays detail information about a CSM storage pool.

*poolname* is the CSM pool. CSM pool names are as follows:

- **4KECSA**: 4KB buffer size ECSA storage pool
- **16KECSA**: 16KB buffer size ECSA storage pool
- **32KECSA**: 32KB buffer size ECSA storage pool
- **60KECSA**: 60KB buffer size ECSA storage pool
- **180KECSA**: 180KB buffer size ECSA storage pool
- **4KDS**: 4KB buffer size data space storage pool
- **16KDS**: 16KB buffer size data space storage pool
- **32KDS**: 32KB buffer size data space storage pool
- **60KDS**: 60KB buffer size data space storage pool
- **180KDS**: 180KB buffer size data space storage pool
4KDS64
4KB buffer size data space backed by 64-bit real storage pool

16KDS64
16KB buffer size data space backed by 64-bit real storage pool

32KDS64
32KB buffer size data space backed by 64-bit real storage pool

60KDS64
60KB buffer size data space backed by 64-bit real storage pool

180KDS64
180KB buffer size data space backed by 64-bit real storage pool

*stoinuse* is the total amount of storage in use in the pool. The value is expressed in either megabytes (M) or kilobytes (K).

**IVT5585I**
This message displays the total amount of storage listed in the IVT5577I messages for the storage pool.

*poolname* is the CSM pool. The CSM pool names are listed under the message IVT5575I.

*totamount* is the total of the amount of storage displayed by all IVT5577I messages of the pool.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Routing code:** 2

**Descriptor code:** 5

---

**IVT5575I**
**USAGE SUMMARY - poolname POOL TOTAL (ALL USERS) = stoinuse**

**Explanation:** CSM issues this message as part of several message groups in response to a DISPLAY CSMUSE command. See IVT5572I or IVT5573I for a complete description of the message group.

**Routing code:** 2

**Descriptor code:** 5

---

**IVT5576I**
**AMOUNT MONITOR ID OWNERID JOBNAME**

**Explanation:** CSM issues this message as part of a message group in response to a DISPLAY CSMUSE command. See IVT5572I, IVT5573I or IVT5574I for a complete description.

**Routing code:** 2

**Descriptor code:** 5

---

**IVT5577I**
*amount monitorid ownerid jobname*

**Explanation:** CSM issues this message as part of a message group in response to a DISPLAY CSMUSE command. See IVT5572I, IVT5573I or IVT5574I for a complete description.

**Routing code:** 2

**Descriptor code:** 5

---

**IVT5578I**
**DISPLAY TOTAL FOR poolname POOL (number USERS) = totamount**

**Explanation:** CSM issues this message as part of a message group in response to a DISPLAY CSMUSE command. See IVT5572I for a complete description.

**Routing code:** 2

**Descriptor code:** 5
IVT5579I • IVT5583I

IVT5579I  BUFFER USE FOR mid : USECNT USERDATA MONITOR HISTORY

Explanation:  CSM issues this message as part of a message group in response to a DISPLAY CSMUSE command. See the explanation of message IVT5574I for a complete description.

Routing code:  2
Descriptor code:  5

IVT5580I  usecount userdata monitorhistory

Explanation:  CSM issues this message as part of a message group in response to a DISPLAY CSMUSE command. See the explanation of message IVT5574I for a complete description.

Routing code:  2
Descriptor code:  5

IVT5581I  POOL NAME NOT VALID

Explanation:  This message is issued when a DISPLAY CSMUSE command is entered with a poolname on the POOL operand that is not a valid CSM pool name.

System action:  CSM rejects the command. Other processing continues.

Operator response:  Reenter the command with a valid pool name. See the z/OS Communications Server: SNA Operation for valid pool names.

System programmer response:  None.

Routing code:  2
Descriptor code:  5

IVT5582I  DISPLAY CSMUSE COMMAND SYNTAX NOT VALID

Explanation:  The DISPLAY CSMUSE command failed because one or more of its operands are specified incorrectly.

System action:  CSM rejects the DISPLAY CSMUSE command. Other processing continues.

Operator response:  Reenter the command with the correct syntax. See the z/OS Communications Server: SNA Operation for the correct command syntax.

System programmer response:  None.

Routing code:  2
Descriptor code:  5

IVT5583I  NO CSM STORAGE IS CURRENTLY IN USE FOR POOL poolname

Explanation:  This message is issued for a DISPLAY CSMUSE command with POOL specified. The specified CSM pool poolname does not have any storage allocated to any user.

poolname is the CSM storage pool.

System action:  Processing continues.

Operator response:  To determine the storage allocated to all CSM pools, issue the DISPLAY CSMUSE command without the POOL operand.

System programmer response:  None.

Routing code:  2
Descriptor code:  5
IVT5584I  USAGE DETAILS - poolname POOL - POOL TOTAL = stoinuse
Explanation: CSM issues this message as part of a message group in response to a DISPLAY CSMUSE command. See IVT5574I for a complete description of the message group.
Routing code: 2
Descriptor code: 5

IVT5585I  DETAIL TOTAL FOR poolname POOL = totamount
Explanation: CSM issues this message as part of a message group in response to a DISPLAY CSMUSE command. See IVT5574I for a complete description.
Routing code: 2
Descriptor code: 5

IVT5586I  DISPLAY CSMUSE SYNTAX NOT VALID - DUPLICATE OPERAND
Explanation: The DISPLAY CSMUSE command failed because one of the operands is specified twice.
System action: CSM rejects the DISPLAY CSMUSE command. Other processing continues.
Operator response: Reenter the command with the correct syntax. See the z/OS Communications Server: SNA Operation for the correct command syntax.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IVT5587I  parameter NOT VALID ON DISPLAY CSMUSE COMMAND
Explanation: CSM issues this message when parameter was specified on the DISPLAY CSMUSE command and it is not valid.
parameter is the operand specified on the DISPLAY CSMUSE command.
System action: CSM rejects the DISPLAY CSMUSE command. Other processing continues.
Operator response: Reenter the command with the correct syntax. See the z/OS Communications Server: SNA Operation for the correct command syntax.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IVT5588I  NO CSM STORAGE IS CURRENTLY IN USE FOR ANY USERS
Explanation: This message is issued for a DISPLAY CSMUSE command without any operands. CSM storage is not used by any users in the system.
System action: Processing continues.
Operator response: To determine the storage allocated to all CSM pools, issue the DISPLAY CSM command without any operands.
System programmer response: None.
Routing code: 2
Descriptor code: 5
**IVT5590I**  MAX ECSA VALUE ADJUSTED TO 90 PERCENT OF SYSTEM ECSA

**Explanation:** This message is issued if the MAX ECSA value from the CSM PARMLIB member IVTPRM00 is higher than 90% of the system ECSA value or the MAX ECSA value specified on the MODIFY CSM command is higher than 90% of the SYSTEM ECSA value during the following:

- CSM initialization.
- MODIFY CSM command processing.
- DISPLAY CSM command processing.

**System action:** Processing continues.

**Operator response:** If the adjusted MAX ECSA value is not acceptable, change the system ECSA value. See the CSA system parameter information in z/OS MVS Initialization and Tuning Reference for more information about updating the value of system CSA.

**System programmer response:** None.

**User response:** Not applicable.

**Problem determination:** Not applicable.

**Source:** z/OS Communications Server CSM

**Module:** Not applicable.

**Routing code:** 2

**Descriptor code:** 6

**Example:** Not applicable.

---

**IVT5591I**  CSM ECSA STORAGE AT CONSTRAINED LEVEL

**Explanation:** This message is issued when CSM ECSA storage usage is approaching the CSM ECSA constrained level (85% of CSM ECSA storage limit value) and it is above 80% of CSM ECSA storage limit value. CSM ECSA storage usage might reach the critical level.

**System action:** Processing continues. Subsequent requests for CSM storage might fail if the current storage growth rate continues.

**Operator response:** Issue the DISPLAY CSM command without the OWNERID operand to determine current storage limits and usage. Issue a DISPLAY CSM command with OWNERID=ALL to determine how much storage is in use by each application. See the DISPLAY CSM command information in z/OS Communications Server: SNA Operation for more information.

Save the system log for problem determination.

**System programmer response:** Verify that the ECSA storage limit value is correct. Increase storage as required using a MODIFY CSM command. See the MODIFY CSM command information in z/OS Communications Server: SNA Operation for more information.

**User response:** Not applicable.

**Problem determination:** Not applicable.

**Source:** Not applicable.

**Module:** Not applicable.

**Routing code:** 2
Descriptor code: 6

Example: Not applicable.

IVT5592I  CSM FIXED STORAGE AT CONSTRAINED LEVEL

Explanation: This message is issued when CSM fixed storage usage is approaching the CSM FIXED constrained level (85% of CSM FIXED storage limit value) and it is above 80% of the CSM FIXED storage limit value. CSM FIXED storage usage might reach the critical level.

System action: Processing continues. Subsequent requests for CSM storage might fail if the current storage growth rate continues.

Operator response: Issue the DISPLAY CSM command without the OWNERID operand to determine current storage limits and usage. Issue a DISPLAY CSM command with OWNERID=ALL to determine how much storage is in use by each application. See the DISPLAY CSM command information in z/OS Communications Server: SNA Operation for more information.

System programmer response: Verify that the fixed storage limit value is correct. Increase storage as required using a MODIFY CSM command. See the MODIFY CSM command information in z/OS Communications Server: SNA Operation for more information.

User response: Not applicable.

Problem determination: Not applicable.

Source: z/OS Communications Server CSM

Module: Not applicable.

Routing code: 2

Descriptor code: 6

Example: Not applicable.

IVT5593I  CSM CREATED AN ADDITIONAL DATA SPACE dspname

Explanation: CSM creates a CSM64001 data space for 64-bit backed fixed data space storage and a CSM31002 data space for 31-bit backed fixed data space storage. There is not enough storage available in the existing data space. CSM creates another data space, dspname, and issues this message.

dspname is the name of the recently created data space.

System action: Processing continues.

Operator response: Issue the DISPLAY CSM command without the OWNERID operand to determine current storage limits and usage. Issue a DISPLAY CSM command with OWNERID=ALL to determine how much storage is in use by each application. If TCP/IP is available, issue the D TCPIP,,STOR command to determine its storage usage. Save the system log and request a dump of VTAM and TCP/IP address spaces and CSM data spaces for problem determination. Contact the system programmer.

Note: CSM data spaces are associated with the address space 1 (Master Scheduler).

See DISPLAY CSM command in z/OS Communications Server: SNA Operation for more information.

See DISPLAY TCPIP,,STOR command in z/OS Communications Server: IP System Administrator's Commands for more information.

System programmer response: Look at the DISPLAY CSM command output and determine which application is using excessive data space storage including 64-bit or 31-bit back fixed data space storage. See the APARs II12657 and II12658 for VTAM and TCP/IP maintenance for CSM storage problems.

If external trace is active, see Analyzing storage in z/OS Communications Server: SNA Diagnosis Vol 1, Techniques and Procedures for information about analyzing storage by using the VIT analysis tool.

See Internal and external trace recording in z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT for more information.
IVT5594I • IVT5600I

If TCP/IP indicates excessive CSM data space storage usage, see Steps for reviewing a storage problem in z/OS Communications Server: IP Diagnosis Guide for more information.

User response: Not applicable.
Problem determination: Not applicable.
Source: z/OS Communications Server CSM
Module: Use the modifiable VTAM start option MSGMOD=YES (f procname,vtamopts,msgmod=yes or f procname,msgmod=yes) to display the issuing module when a message is issued. See z/OS Communications Server: SNA Operation and z/OS Communications Server: SNA Resource Definition Reference for more information about start options.

Routing code: 2
Descriptor code: 6
Automation: Automation can be written to complete the following operations when message IVT5593I is detected:
• Issue the DISPLAY CSM command without the OWNERID operand
• Issue the DISPLAY CSM command with OWNERID=ALL
• Issue the D TCPIP,,STOR command
• Request a dump

Example:
IVT5593I CSM CREATED AN ADDITIONAL DATA SPACE CSM64003

IVT5594I storage_type MAXIMUM USED = max_storage SINCE IPL

Explanation: CSM issues this message in response to a DISPLAY CSM command without OWNERID specified. The first message in the group is IVT5529I. See the explanation of that message for a complete description.

Routing code: 5
Descriptor code: 2

IVT5599I END

Explanation: This message marks the end of a message group. See previous messages in the group for more information.

System action: Processing continues.
Operator response: None.
System programmer response: None.
Routing code: 2
Descriptor code: 5

IVT5600I PROBE probname ATTEMPTED - FFST NOT AVAILABLE

Explanation: CSM encountered an anomaly and attempted to execute the FFST probe. FFST was not active or available to service the probe request. CSM handled the request by furnishing the identification of the probe. probname is the name of the probe.

System action: CSM processing continues.
Operator response: Save the System Log for problem determination.
System programmer response: Determine why FFST was not active or available, then start FFST. See the z/OS Communications Server: SNA Diagnosis Vol 2, FFST Dumps and the VIT to determine the anomaly encountered.

Routing code: 2
Descriptor code: 5
Chapter 15. USS messages

This chapter provides information on unformatted session services (USS) messages that are sent to the VTAM operator or a program operator, and USS messages that are sent to terminal users. For information on translating USS messages, see "User-selected message changes" on page 5.

See the z/OS Communications Server: SNA Resource Definition Reference for additional information.

USS messages sent to the VTAM operator or a program operator

The operation-level USS table contains definitions for USS messages that are sent to the VTAM operator or a program operator. These USS messages and their VTAM message equivalents are:

<table>
<thead>
<tr>
<th>USS message number</th>
<th>VTAM operator message</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>IST457I</td>
</tr>
<tr>
<td>1</td>
<td>IST450I</td>
</tr>
<tr>
<td>2</td>
<td>IST451I</td>
</tr>
<tr>
<td>3</td>
<td>IST452I</td>
</tr>
<tr>
<td>4</td>
<td>IST453I</td>
</tr>
<tr>
<td>6</td>
<td>IST792I</td>
</tr>
<tr>
<td>8</td>
<td>IST454I</td>
</tr>
<tr>
<td>11</td>
<td>IST455I</td>
</tr>
<tr>
<td>12</td>
<td>IST456I</td>
</tr>
<tr>
<td>14</td>
<td>IST458I</td>
</tr>
</tbody>
</table>

See Chapter 5, “IST messages for VTAM network operators IST001I – IST399I,” on page 43 for a description of the VTAM operator messages listed in the preceding chart.

USS messages sent to terminal users

The session-level USS table contains definitions for USS messages that are sent to terminal users. These messages consist of USSMSG00 through USSMSG14. VTAM issues these messages in response to commands sent by logical units (for example, a character-coded logon or logoff command).

The USS messages are described in the following section as they are defined in the IBM-supplied session-level USS table, ISTINCDT.

You can also define two messages of your own.

USSMSG00
The text you define for this message is issued after VTAM has accepted a USS command from a terminal user.

USSMSG10
The text you define for this message is issued after a logical unit is activated.
Note: For a BSC 3275 terminal, the following messages are not printed on the attached terminal. The message only appears on a 3275 display screen.

**USSMSG00 • USSMSG05**

USSMSG00  (user-defined message)

Explanation: You can define this message (with the USSMSG macro) to be issued after VTAM has accepted a USS command from a terminal user. See the [z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com/support/knowledgecenter/STXKQY_2.2.0/com.ibm.zos落到△/ccmref/comm.html) for more information on the USSMSG macro.

System action: Processing continues.

Operator response: None.

---

**USSMSG01  INVALID command COMMAND SYNTAX**

Explanation: The syntax of the entered command `command` is not valid. If the command cannot be determined, the `command` portion of the message is null.

System action: The command is not executed.

Operator response: Reenter the command with corrected syntax.

---

**USSMSG02  command COMMAND UNRECOGNIZED**

Explanation: Command `command` with parameter `parameter` is not supported.

System action: The command is not executed.

Operator response: Issue the desired command correctly.

---

**USSMSG03  parameter PARAMETER EXTRANEOUS**

Explanation: An extraneous parameter `parameter` has been specified for a USS command.

Notes:
1. Parameters on USS commands are not processed in the order they are provided in the command.
2. All positional parameters in a command that occur before the first positional keyword parameter will be labeled Px, starting with P1.

System action: The command is not executed.

Operator response: Correct and reenter the command.

---

**USSMSG04  parameter PARAMETER VALUE value NOT VALID**

Explanation: The parameter `parameter` has been specified with an invalid value. For example, if `parameter` is a logon mode entry name (LOGMODE), the name might be undefined in the logical unit’s logon mode table.

System action: The command is not executed.

Operator response: Correct and reenter the command.

---

**USSMSG05  UNSUPPORTED FUNCTION**

Explanation: The logical unit sent a command to VTAM improperly. If SSCPFM=USS3270 is specified for a logical unit, the logical unit can enter input using the ENTER key, the CLEAR key, the System Request key, or a magnetic card reader. If SSCPFM=USSSCS is specified for a logical unit, the logical unit must not issue a Clear, Cancel, or Signal request, and it cannot send a zero-length command. All logical units must send the character-coded command as a single-request chain.

System action: The command is not executed.

Operator response: Reenter the command. Some of the invalid commands mentioned above are sent when program function (PF) keys are pressed. Terminal users should avoid pressing these keys.
USSMSG06  SEQUENCE ERROR

Explanation: A USS command was entered at the wrong time. Either a USS command was issued before the processing of a prior USS command completed, or a LOGOFF command was issued when a session did not exist.

System action: None.

Operator response: None.

USSMSG07  luname UNABLE TO ESTABLISH SESSION — runame FAILED WITH SENSE sense

Explanation: This message is issued for one of the following reasons:

- A valid logon request was entered and forwarded to an application program, but one of the following occurred:
  - The application program rejected the logon request (by issuing a CLSDST instead of an OPNDST macro).
  - The logical unit rejected the application program’s OPNDST macro (by returning a negative response to the BIND request sent by OPNDST).
- The session initiation request was for a cross-domain session. The required SSCP-SSCP session is not active. This might be due to failure to define, activate, or define and activate the host CDRM statement or the CDRM statement for the external CDRM.
- The session initiation request was for a cross-domain session, and the required CDRSC definitions had not been activated.
- No route was available to support the requested session.
- The COS name requested for the session was not defined in the COS table associated with the PLU’s domain. (A COS name is selected from the logon mode used for the session.)
- The SSCP of either the PLU or the SLU detected a logic error that prevented session setup (for example, a duplicate network address has been assigned).
- The interpret table recognized an error involving a logon command. The logon command, as entered, cannot be used to establish a session with the application program.

luname is the node (known to VTAM) from which the logon request was entered.

runame is the type of initiation RU being processed. runame will be SETUP when the RU cannot be determined at the time of the failure. If runame is SETUP, the session could have been terminated during session setup. See Chapter 16, "Command and RU types in VTAM messages," on page 1083, for more information on RUs and command types.

sense is the 8-digit hexadecimal sense code set at failure time. See z/OS Communications Server: IP and SNA Codes for more information on sense codes.

System action: The command is not executed. No session is established between the application program and the logical unit.

Operator response: It is possible that the application program cannot accept the session parameters specified by the logon mode name in the LOGON command. It is also possible that the logical unit cannot accept the application program’s substituted session parameters. In this situation, a LOGON command specifying a different logon mode name might work. It is also possible that the LOGON command is unrecognized because a proper value was not defined in the interpret table.

This message is generally evidence of improper design of either the application program, the USS table, or the logical unit’s application program. Provide the luname, runame, and sense values to the system help desk.

USSMSG08  INSUFFICIENT STORAGE

Explanation: Not enough storage is available for successful processing of a command.

System action: The command is not executed.

Operator response: Reenter the command.
USSMSG09 • USSMSG14

USSMSG09 MAGNETIC CARD DATA ERROR

Explanation: A character-coded command from a logical unit for which SSCP FM=USS3270 is coded contains invalid magnetic card data. Either the card data was entered into a field that was too small, or a parity error occurred.

System action: The command is not executed.

Operator response: Reenter the command. If the magnetic card data has been entered into a field that was too small, press the CLEAR key and reenter the command, entering the magnetic card data into a larger field.

USSMSG10 (user-defined message)

Explanation: You can define this message (with the USSMSG macro) to be issued after a logical unit is activated. See the [z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com/support/knowledgecenter/en/SSLTBW_AIX_7.2.0/com.ibm.zos.v2r6.mh106uf/istinb10.html) for more information on the USSMSG macro.

If this message is not defined, users must enter Alt+SysRq to enter USS LOGON commands, unless the terminal is defined with SSCP FM=USS3270 or SSCP FM=USS3275.

System action: The logical unit is activated.

USSMSG11 parameters SESSIONS ENDED

Explanation: VTAM has received a TERM SELF RU (with the NOTIFY option specified) from a logical unit. parameters are the network-qualified names specified in the TERM SELF RU for the PLU and SLU. See SNA Format and Protocol Reference Manual: Architectural Logic for more information.

For example, if an LU-LU session is terminated by an RU specifying APPL1 and APPL2, the following text is displayed:

LU1=NETA.APPL1 LU2=NETA.APPL2 SESSIONS ENDED

System action: The session is ended.

Operator response: None.

USSMSG12 REQUIRED PARAMETER OMITTED

Explanation: A USS command was missing a required parameter. See the [z/OS Communications Server: SNA Resource Definition Reference](https://www.ibm.com/support/knowledgecenter/en/SSLTBW_AIX_7.2.0/com.ibm.zos.v2r6.mh106uf/istinb10.html) for more information on USS commands for terminal users.

System action: The command is not executed.

Operator response: Reenter the command with the required parameters.

USSMSG13 IBMECHO data

Explanation: This message is issued the specified number of times in response to a IBMTEST USS command. If the number of times to issue the message is not specified, the default of 10 times is used. If no data was entered in the USS command, the value for data is A–Z and 0–9.

USSMSG14 USS MESSAGE number NOT DEFINED

Explanation: One of the preceding USS messages was to be issued, but VTAM could not find the definition for this message. The value of number indicates which USS message was not located; see the description of that USS message to determine what condition occurred.

For example, an unrecognized command condition occurred, but VTAM could not locate USSMSG02 in ISTINC DT, the IBM-supplied session-level USS table. Since the IBM-supplied table defines all USS messages (except for 00 and 10), this message has been deleted. USSMSG14 is evidence that the USS tables have been has improperly defined or installed.

System action: The command is not executed.

Operator response: See the user response for USS message number.
Chapter 16. Command and RU types in VTAM messages

This chapter lists the command and request/response unit (RU) types that can appear in VTAM messages. See z/OS Communications Server: SNA Operation for additional information on commands. See SNA Formats for additional information on RUs.

There are two RU types that represent internal VTAM RU flows. These internal RU types are not documented in SNA publications and some are not included in VTAM Data Areas.

It is not required that users of the product know the meaning of these internal RUs. When required, the product support organization might use them to assist in internal flow diagnosis.

- **Access Method RU (AM type)**
  These internal RUs are requests that might be seen in the PIU trace and are a function of physical unit services (PUNS), configuration services, or session services.

- **Interprocess Signals (IPS type)**
  These internal signals are issued for APPN functions. They can be seen in APSEND trace entries.

### Command and RU type descriptions

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<td>RECMS</td>
<td>Record Maintenance Statistics</td>
</tr>
<tr>
<td>RECSTOR</td>
<td>Record Storage</td>
</tr>
<tr>
<td>RECTR</td>
<td>Record Test Results</td>
</tr>
<tr>
<td>REL IMMED</td>
<td>VARY REL, TYPE=IMMED command</td>
</tr>
<tr>
<td>REL GVBK</td>
<td>VARY REL, TYPE=GIVEBACK command</td>
</tr>
<tr>
<td>RELEASE</td>
<td>VARY REL command</td>
</tr>
<tr>
<td>RELQ</td>
<td>Release Quiesce</td>
</tr>
<tr>
<td>REQ ECHO</td>
<td>Request Echo Test</td>
</tr>
<tr>
<td>REQ RTTEST</td>
<td>Request Route Test</td>
</tr>
<tr>
<td>REQACTCDRM</td>
<td>Request ACTCDRM</td>
</tr>
<tr>
<td>REQACTPU</td>
<td>Request Activate PU</td>
</tr>
<tr>
<td>REQ QC</td>
<td>Request Contact</td>
</tr>
<tr>
<td>REQCONT</td>
<td>Request Contact</td>
</tr>
<tr>
<td>REQDACTPU</td>
<td>Request Deactivate PU</td>
</tr>
<tr>
<td>REQDISCONT</td>
<td>Request Discontact</td>
</tr>
<tr>
<td>REQDMP CSP</td>
<td>Request CSP Dump</td>
</tr>
<tr>
<td>REQDMP MOS</td>
<td>Request MOSS Dump</td>
</tr>
<tr>
<td>REQDUMP</td>
<td>Request Dump</td>
</tr>
<tr>
<td>REQDUMP DY</td>
<td>Request Dynamic Dump</td>
</tr>
<tr>
<td>REQLOAD</td>
<td>Request Load</td>
</tr>
<tr>
<td>Command or RU type</td>
<td>Function</td>
</tr>
<tr>
<td>-------------------</td>
<td>----------</td>
</tr>
<tr>
<td>REQMS</td>
<td>Request Maintenance Statistics</td>
</tr>
<tr>
<td>RESET LU</td>
<td>Reset LU</td>
</tr>
<tr>
<td>RMPO</td>
<td>Remote Power Off</td>
</tr>
<tr>
<td>RMT GAINFO</td>
<td>GetAddrInfo request for remote IP address</td>
</tr>
<tr>
<td>RNAA</td>
<td>Request Network Address Assignment</td>
</tr>
<tr>
<td>ROUTE_INOP</td>
<td>Network Services Route Inoperative</td>
</tr>
<tr>
<td>RQR</td>
<td>Request Recovery</td>
</tr>
<tr>
<td>RSHUTD</td>
<td>Request Shutdown</td>
</tr>
<tr>
<td>RTR</td>
<td>Ready to Receive</td>
</tr>
<tr>
<td>SBI</td>
<td>Stop Bracket Initiation</td>
</tr>
<tr>
<td>SCV</td>
<td>Set Control Vector</td>
</tr>
<tr>
<td>SDT</td>
<td>Start Data Traffic</td>
</tr>
<tr>
<td>SELECT VR</td>
<td>Virtual Route Select</td>
</tr>
<tr>
<td>SESS ENDED</td>
<td>Session Ended</td>
</tr>
<tr>
<td>SESS START</td>
<td>Session Started</td>
</tr>
<tr>
<td>SETCV</td>
<td>Set Control Vector</td>
</tr>
<tr>
<td>SETCV(NAU)</td>
<td>Set Control Vector Network Addressable Unit</td>
</tr>
<tr>
<td>SETCV(SAR)</td>
<td>Set Control Vector Subarea Routing</td>
</tr>
<tr>
<td>SETCV(SSS)</td>
<td>Set Control Vector SDLC Secondary Station ID</td>
</tr>
<tr>
<td>SETCV(STD)</td>
<td>Set Control Vector Set Time And Date</td>
</tr>
<tr>
<td>SETCV(DPU)</td>
<td>Set Control Vector Dynamic Path Update</td>
</tr>
<tr>
<td>SETCV(FRS)</td>
<td>Set Control Vector Frame Relay Switching</td>
</tr>
<tr>
<td>SETTIM CAN</td>
<td>Scheduled Cancel</td>
</tr>
<tr>
<td>SETUP</td>
<td>Generic Session Initiation</td>
</tr>
<tr>
<td>SHUTC</td>
<td>Shutdown Complete</td>
</tr>
<tr>
<td>SHUTDOWN</td>
<td>Shutdown</td>
</tr>
<tr>
<td>SIGNAL</td>
<td>Signal</td>
</tr>
<tr>
<td>SOFT INOP</td>
<td>Soft INOP</td>
</tr>
<tr>
<td>SSCP TKOVNR</td>
<td>SSCP Takeover</td>
</tr>
<tr>
<td>STSN</td>
<td>Set and Test Sequence Number</td>
</tr>
<tr>
<td>SW TO EP</td>
<td>Switch Line to EP Mode</td>
</tr>
<tr>
<td>SW TO NCP</td>
<td>Switch Line to NCP Mode</td>
</tr>
<tr>
<td>SYNTAX CHK</td>
<td>VARY ACT,SCOPE=SYNTAX</td>
</tr>
<tr>
<td>TERM OTHER</td>
<td>Terminate-Other RU</td>
</tr>
<tr>
<td>TERM SELF</td>
<td>Terminate-Self Format 0</td>
</tr>
<tr>
<td>TIMER REQ</td>
<td>Set Timer Request</td>
</tr>
<tr>
<td>TR_INQUIRY</td>
<td>Translate Inquiry</td>
</tr>
<tr>
<td>TR_REPLY</td>
<td>Translate Reply</td>
</tr>
<tr>
<td>UBIND FAIL</td>
<td>Unbind Failure</td>
</tr>
<tr>
<td>Command or RU type</td>
<td>Function</td>
</tr>
<tr>
<td>--------------------</td>
<td>----------</td>
</tr>
<tr>
<td>UNBIND</td>
<td>Unbind RU</td>
</tr>
<tr>
<td>VARY</td>
<td>VARY command</td>
</tr>
<tr>
<td>VARY ACQ</td>
<td>VARY ACQ or VARY ACT, ACQ command</td>
</tr>
<tr>
<td>VARY ACT</td>
<td>VARY ACT command</td>
</tr>
<tr>
<td>VARY ANS</td>
<td>VARY ANS command</td>
</tr>
<tr>
<td>VARY AUTOLOG</td>
<td>VARY AUTOLOG command</td>
</tr>
<tr>
<td>VARY DIAL</td>
<td>VARY DIAL command</td>
</tr>
<tr>
<td>VARY DRDS</td>
<td>VARY DRDS command</td>
</tr>
<tr>
<td>VARY HGUP</td>
<td>VARY HANGUP command</td>
</tr>
<tr>
<td>VARY INACT</td>
<td>VARY INACT or VARY INACT, TYPE=IMMED command</td>
</tr>
<tr>
<td>VARY INOP</td>
<td>VARY INOP command</td>
</tr>
<tr>
<td>VARY LOGON</td>
<td>VARY LOGON command</td>
</tr>
<tr>
<td>VARY NOLOG</td>
<td>VARY NOLOG command</td>
</tr>
<tr>
<td>VARY PATH</td>
<td>VARY PATH command</td>
</tr>
<tr>
<td>VARY REL</td>
<td>VARY REL command</td>
</tr>
<tr>
<td>V NOLOGON</td>
<td>VARY NOLOGON command</td>
</tr>
<tr>
<td>XID</td>
<td>Exchange ID</td>
</tr>
<tr>
<td>XID3</td>
<td>Exchange ID 3</td>
</tr>
</tbody>
</table>
Chapter 17. Node and ID types in VTAM messages

This table describes the node and ID types that can appear in VTAM operator messages.

<table>
<thead>
<tr>
<th>Node/ID type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADJ CLUSTER TABLE</td>
<td>Adjacent cluster table</td>
</tr>
<tr>
<td>ADJCP</td>
<td>Adjacent control point major node</td>
</tr>
<tr>
<td>ADJACENT CP</td>
<td>Adjacent control point</td>
</tr>
<tr>
<td>ADJCP MAJOR NODE</td>
<td>Adjacent control point major node</td>
</tr>
<tr>
<td>ADJSSCP TABLE</td>
<td>Adjacent SSCP table</td>
</tr>
<tr>
<td>APPL</td>
<td>Application program</td>
</tr>
<tr>
<td>APPL SEGMENT</td>
<td>Application program major node</td>
</tr>
<tr>
<td>APPN COS TABLE</td>
<td>APPN Class of Service table</td>
</tr>
<tr>
<td>BN COS MAP TABLE</td>
<td>BN Class of Service map table</td>
</tr>
<tr>
<td>CA MAJOR NODE</td>
<td>Channel-attachment major node</td>
</tr>
<tr>
<td>CDRM</td>
<td>Cross-domain resource manager</td>
</tr>
<tr>
<td>CDRM SEGMENT</td>
<td>Cross-domain resource manager major node</td>
</tr>
<tr>
<td>CDRSC</td>
<td>Cross-domain resource</td>
</tr>
<tr>
<td>CDRSC SEGMENT</td>
<td>Cross-domain resource major node</td>
</tr>
<tr>
<td>CLONE CDRSC</td>
<td>Clone cross-domain resource</td>
</tr>
<tr>
<td>CMIP APPL</td>
<td>CMIP application program</td>
</tr>
<tr>
<td>CP</td>
<td>Control point</td>
</tr>
<tr>
<td>DIRECTORY ENTRY</td>
<td>Entry in directory services database</td>
</tr>
<tr>
<td>DYNAMIC APPL</td>
<td>Dynamic application program</td>
</tr>
<tr>
<td>DYNAMIC FRSESET</td>
<td>Dynamically defined NCP frame relay switching equipment set (FRSESET)</td>
</tr>
<tr>
<td>EXIT</td>
<td>Session management exit</td>
</tr>
<tr>
<td>GENERIC RESOURCE</td>
<td>Generic resource name</td>
</tr>
<tr>
<td>GENERIC USERVAR</td>
<td>Generic resource USERVAR</td>
</tr>
<tr>
<td>GR PREFERENCES</td>
<td>Generic resource preferences</td>
</tr>
<tr>
<td>HOST CP</td>
<td>Host control point</td>
</tr>
<tr>
<td>ILU/CDRSC</td>
<td>Independent LU represented as a CDRSC</td>
</tr>
<tr>
<td>LCL SNA MAJ NODE</td>
<td>Channel-attached (local) major node consisting of one or more SNA cluster controllers</td>
</tr>
<tr>
<td>LCL 3270 MAJ NODE</td>
<td>Local 3270 major node</td>
</tr>
<tr>
<td>LINE</td>
<td>Communication line</td>
</tr>
<tr>
<td>LINE GROUP</td>
<td>Line group</td>
</tr>
<tr>
<td>LINK STATION</td>
<td>PU type 4 or 5 representing an NCP or host processor</td>
</tr>
<tr>
<td>Node/ID type</td>
<td>Description</td>
</tr>
<tr>
<td>----------------------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>LOGICAL UNIT</td>
<td>Logical unit</td>
</tr>
<tr>
<td>LUGROUP MAJ NODE</td>
<td>LU group major node</td>
</tr>
<tr>
<td>MODEL APPL</td>
<td>Model application program</td>
</tr>
<tr>
<td>MODEL CDRSC</td>
<td>Model cross-domain resource</td>
</tr>
<tr>
<td>MODEL LU</td>
<td>Model LU</td>
</tr>
<tr>
<td>MODEL LU GROUP</td>
<td>Model LU group</td>
</tr>
<tr>
<td>MODEL MAJOR NODE</td>
<td>Model major node</td>
</tr>
<tr>
<td>MODEL SEGMENT</td>
<td>Model major node</td>
</tr>
<tr>
<td>NN SERVER LIST</td>
<td>Network node server list</td>
</tr>
<tr>
<td>N/A</td>
<td>Indicates that the displayed major node represents an ID type, such as a list or table. Some ID types do not get displayed.</td>
</tr>
<tr>
<td>PATH TABLE</td>
<td>PATH table</td>
</tr>
<tr>
<td>PU_T1</td>
<td>Physical unit type 1</td>
</tr>
<tr>
<td>PU_T2</td>
<td>Physical unit type 2</td>
</tr>
<tr>
<td>PU_T2.1</td>
<td>Physical unit type 2.1</td>
</tr>
<tr>
<td>PU T4/5</td>
<td>Communication controller or a host with an SSCP</td>
</tr>
<tr>
<td>RTP MAJOR NODE</td>
<td>Major node that contains all the RTPs</td>
</tr>
<tr>
<td>RESOURCE</td>
<td>Resource that may not yet be defined to VTAM</td>
</tr>
<tr>
<td>SSCP</td>
<td>System services control point</td>
</tr>
<tr>
<td>STATIC FRSESET</td>
<td>Statically defined NCP frame relay switching equipment set (FRSESET)</td>
</tr>
<tr>
<td>SW SNA MAJ NODE</td>
<td>Switched SNA major node</td>
</tr>
<tr>
<td>TCP/IP MAJOR NODE</td>
<td>TCP/IP major node</td>
</tr>
<tr>
<td>TG PROFILE TABLE</td>
<td>APPN Transmission Group Profile</td>
</tr>
<tr>
<td>TRL MAJOR NODE</td>
<td>Transport resource list major node</td>
</tr>
<tr>
<td>TRL</td>
<td>Element in the active transport resource list</td>
</tr>
<tr>
<td>TSO USERID</td>
<td>TSO user ID that is being displayed.</td>
</tr>
<tr>
<td>XCA MAJOR NODE</td>
<td>External communication adapter (XCA) major node</td>
</tr>
</tbody>
</table>
Appendix A. Message additions and changes

This appendix contains the following sections:

- “Message additions”
- “Message text changes” on page 1100
- “Retired messages” on page 1100

See z/OS Summary of Message and Interface Changes for a list of all new, changed or deleted z/OS Communications Server messages.

Message additions

This section includes the text and variable field lengths of the new messages.

Note: in the message text, a percent sign (%) represents a character that is reserved for variable information. The maximum length of the variable is indicated by a percent sign and a number (for example, %8). In some messages, if the variable information is shorter than the variable field, the extra blanks might be suppressed, causing the message text to shift to the left.

New IST VTAM network operator messages

IST2338I NACPROBE MUST BE ‘DUMP’, ‘NODUMP’, OR A NUMERIC VALUE
IST2361I SMCR PFID = %4 PCHID = %4 PMETID = %16
IST2362I PORTNUM = %1 RNIC CODE LEVEL = %17
IST2364I CLOSE ACB OF %8 DID NOT COMPLETE IN A TIMELY MANNER
IST2365I MODIFY TRACE COMMAND REJECTED - DPSIZE NO LONGER SUPPORTED
IST2366I POLLEQO = %10 POLLEQ = %10
IST2367I POLLEQEO = %10 POLLEQE = %10
IST2368I ULP_ID = %8
IST2369I POLLCQO = %10 POLLCQ = %10
IST2370I POLLCQUO = %10 POLLCQU = %10
IST2371I POLLCQEO = %10 POLLCQE = %10
IST2372I SRBSCHDO = %10 SRBSCHD = %10
IST2373I SRBSCHDO = %10 SRBSCHD = %10
IST2374I INBBYTLO = %10 INBBYTEL = %10
IST2375I INBBYTM = %10 INBBYTEM = %10
IST2376I INBBYN = %10 INBBYTEM = %10
IST2377I DATAREQO = %10 DATAREQ = %10
IST2378I POSTO = %10 POST = %10
IST2379I POSTEO = %10 POSTELEM = %10
IST2380I POSTQUEO = %10 POSTQUED = %10
IST2381I OUTBYTLO = %10 OUTBYTEL = %10
IST2382I OUTBYTM = %10 OUTBYTEM = %10
IST2383I OUTBYTN = %10 OUTBYTEL = %10
IST2384E PACKETS DISCARDED FOR %8 - %8 IS CONGESTED
IST2386I NUMBER OF DISCARDED OUTBOUND WRITE BUFFERS = %10
IST2387I DIAL FAILED - DUPLICATE IP ADDRESSES ON EXISTING CONNECTION
IST2388I EE VRN = %17
IST2389I PFP = %8
IST2390I XXXREG PCIE SERVICE FAILURE
IST2391I %8 PCIE SERVICE FAILURE ON TRLE %8
IST2392I PFID %4 ALLOCATION FAILURE - PFID NOT DEFINED
IST2393I PFID %4 ALLOCATION FAILURE - PFID IS NOT ONLINE
IST2395I RTP PACING ALGORITHM = ARB BASE MODE
IST2396I RNIC STATISTICS FOR %8
IST2397I DESCRIPTION OVERFLOW COUNT
IST2398I %30 %10 %10
IST2399I MESSAGE TRIGGER: RNICTRLE = %8
IST2400I NO ADAPTER DIAGNOSTICS PRODUCED FOR %8: %23
IST2401I DEVSTATS REJECTED FOR TRLE %8 - DEVICE NOT ACTIVE
IST2402I DEVSTATS FAILED FOR TRLE %8 - DEVICE NOT OPERATIONAL
IST2403I 64-BIT STORAGE TYPE CURRENT MAXIMUM LIMIT
IST2404I HVCOMMON %9 %9 %9
IST2405I TRACE HVCOMMON %9 %9 %9
IST2406I SMC-R LINK FAILURE ON TRLE %8 CODE = %8
IST2407I LOCAL LINK ID = %8 REMOTE LINK ID = %8
IST2408I LOCAL MAC = %12 REMOTE MAC = %12
IST2409I %6 GID = %39
IST2410I LOCAL QP = %4 REMOTE QP = %4
IST2411I VLAN = %4
IST2412I FIXED HVCOMMON %9 %9 %9
IST2413I PRIVATE %9 %9 %9
IST2414I FIXED PRIVATE %9 %9 %9
IST2415I TOTAL FIXED %9 %9 %8
IST2416I %10 %16 PROCESSED
IST2417I VF = %4

Message text changes

This section includes the text and variable field lengths of messages with text changes.
old: IST2337I CHPID TYPE = %3 CHPID = %2
new: IST2337I CHPID TYPE = %3 CHPID = %2 PNETID = %16

old: ISTM900I Function: mhc_function last started on mhc_date at mhc_time.
ew: ISTM900I Function: mhc_function last mhc_usage on mhc_date at mhc_time.

Retired messages

This section includes the text and variable field lengths of messages that are no longer in use. Thus the following messages are deleted from the book.
ISTM011I No BIND9 DNS servers are in use on this system
ISTM012E One or more DNS servers are in use on this system during this IPL.
Appendix B. Message-flooding prevention

Certain messages in VTAM can be issued several times for an event without supplying new information to the operator (for example, IST264I is issued for each attempted logon from multiple terminals to an undefined application program). These repeating messages can overwhelm an operator console or program operator application, and critical messages could be concealed in this volume of information. To alleviate this occurrence, VTAM includes a message-flooding prevention mechanism.

VTAM uses a table containing a list of pre-designated messages that are candidates for flooding suppression. There is default IBM-supplied table, ISTMSFLD, or a user-defined message-flooding table can be defined. For more information on message-flooding prevention, defining your own message-flooding prevention table, and the IBM-supplied message-flooding prevention table, see the z/OS Communications Server: SNA Resource Definition Reference.

The message-flooding prevention table specifies, for each message, the criteria that must be met to prevent the message from being reissued. A message is a candidate for suppression if it is listed in the table and meets the following criteria:

1. Time-span: The message is issued a second time in the specified amount of time (the default is 30 seconds).
2. Suppressive variable-text fields: The specific variable fields listed in the table contain the same information for this issuance of the message as the previous issuance. Only fields listed in the table are checked. The message may have other variable fields which can have different values and still result in suppressing the message.

If the above criteria are met, the message is suppressed. When a message is suppressed it will not be routed to the program operator application or system console to which it was destined. However, the message may be sent to the system hardcopy log if it was destined for the system console, based on the HARDCOPY specification in the message-flooding prevention table (the default in ISTMSFLD is that the message be sent to the system hardcopy log).

Note: The message-flooding prevention table prevents specific messages from being issued by VTAM. This may affect network management application command lists and any automated operations facilities at your installation.
Appendix C. Message routing and suppression

This appendix contains the following sections:

- "Message formats"
- "Solicited messages" on page 1104
- "Unsolicited messages" on page 1105
- "Message rerouting and percolation" on page 1106
- "Message descriptor codes" on page 1107
- "Message routing codes" on page 1108
- "Message suppression levels" on page 1109
- "Codes and suppression levels" on page 1110
  - "ELM messages for Logon Manager" on page 1110
  - "IKT messages for TSO/VTAM" on page 1110
  - "IST VTAM operator messages" on page 1111

This information may help you diagnose problems in program operator applications, understand the way messages are issued, determine which start options to choose, or how to define VTAM.

Message formats

The message format of all messages is determined by the destination specified in the USS table.

In pre-Version 4 releases, messages sent to the primary program operator log (PPOLOG) or percolated to a primary program operator (PPO) are copies of messages formatted for the system console or secondary program operator (SPO). In the current version, copies of messages are no longer sent. Messages appear in the format defined in the USS table for the message destination.

The impact to automated operation procedures depends on which USS table is specified for your system console and each program operator application (POA), and whether those tables define messages with or without blank suppression.

- For information about message percolation, see "Message rerouting and percolation" on page 1106.
- See the z/OS Communications Server: SNA Resource Definition Reference for information about USS message tables.
- See the z/OS Communications Server: New Function Summary for information about impacts to automated operations.

Format differences

Message format differences are summarized in the following table:

<table>
<thead>
<tr>
<th>Formats messages for:</th>
<th>IBM-supplied default USS table (ISTINCNO)</th>
<th>Default USS table (ISTCFCM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>System console</td>
<td>PPO</td>
<td></td>
</tr>
</tbody>
</table>
### Table 1. Message format differences (continued)

<table>
<thead>
<tr>
<th></th>
<th>IBM-supplied default USS table (ISTINCNO)</th>
<th>Default USS table (ISTCFCMM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blank suppression available?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Number of blanks after message ID:</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

**Note:** ISTINCNO can be used for the POA if a message is not found in ISTCFCMM. User-defined tables can also be associated with the system console or POAs. For more information about the order of search for a message, see the [z/OS Communications Server: SNA Resource Definition Reference](#).

- **Pre-Version 4 Example**
  - In releases prior to Version 4, if you are using the default USS tables for your system console and POAs, and issue a MODIFY USERVAR command from the system console, the PPO will receive a percolated copy of message IST825I in the following format:
    
    ```
    IST825I USERVAR DEFINED - NAME = NAME1, VALUE = APPL1
    ```

    This message is identical to the original message built for the system console according to the IBM-supplied default table, ISTINCNO. It has extra blanks suppressed and has one blank following the message ID (IST825I).

  - If the MODIFY USERVAR command had been issued from an SPO, the original message IST825I for the SPO and the percolated copy of the message for the PPO would have been formatted according to the default USS table, ISTCFCMM. It would have two blanks following the message ID. Extra blanks would not be suppressed:
    
    ```
    IST825I USERVAR DEFINED - NAME = NAME1, VALUE = APPL1
    ```

    If the PPO was not available, an exact copy would have been sent to the system console.

- **Current Version Example**
  - In the current version, if you are using the default USS tables for your system console and POAs and issue a MODIFY USERVAR command from the system console, the system console will receive message IST825I formatted according to ISTINCNO. Extra blanks will be suppressed and one blank will follow the message ID:
    
    ```
    IST825I USERVAR DEFINED - NAME = NAME1, VALUE = APPL1
    ```

  - The PPO will receive the percolated message IST825I formatted according to ISTCFCMM. Two blanks will follow the message ID. Extra blanks will not be suppressed:
    
    ```
    IST825I USERVAR DEFINED - NAME = NAME1, VALUE = APPL1
    ```

### Solicited messages

Solicited messages are those messages that are normally issued in response to an operator command from the system console or from a program operator application (POA).

- **From the system console**
  - If a message is solicited from the system console, it is routed to the system console. A message may be sent to the primary program operator (PPO) for one of the following reasons:
    - The message is percolated.
PPOLOG=YES was specified as a start option or by the MODIFY PPOLOG command. If a message is percolated and PPOLOG=YES, the message is sent to the PPO twice.

For additional information on message percolation and a list of percolated messages, see "Message rerouting and percolation" on page 1106. For a description of the PPOLOG start option, see the z/OS Communications Server: SNA Resource Definition Reference. For a description of the MODIFY PPOLOG command, see z/OS Communications Server: SNA Operation.

- From a program operator application (POA)
  If a message is solicited from a POA, it is first routed to the POA. The POA can be a primary program operator (PPO) or a secondary program operator (SPO). If the POA is no longer available and the message requires a reply, the message is redirected to the system console. Messages that do not require a reply are converted to unsolicited messages. For additional information, see "Message rerouting and percolation" on page 1106.

  If the original message was solicited from an SPO and is percolated, it is also sent to the PPO. If it cannot be sent to the PPO and has not already been redirected to the system console, it is sent to the system console.

In addition to the normal messages that are solicited as the immediate result of a VTAM operator command, other messages are also considered by VTAM to be solicited:

- When resources are activated at VTAM startup, subsequent messages associated with those resources (other than those directly resulting from another VTAM operator command) will be considered to be solicited and will be returned to the system console or started task where the VTAM START command was issued. This is because VTAM internally saves the console ID of the system console or started task in the control block representing each resource, to be used in later messages. This is also true of resources activated by a VTAM operator command from a POA or system console. These resources can be:
  - Exit routines started at VTAM initialization.
  - Resources started at VTAM initialization via the configuration list.
  - Resources activated by a VTAM operator command from a POA or system console.

- An example is the case of an exit routine activated as a result of VTAM initialization. The IST984I indicating that the user exit is active will return to the system console or started task where the VTAM START command is issued. If the user exit routine goes inactive for some reason, an IST985I message indicating that the user exit failed will also return to the same location, even if VTAM had been started hours or days before the inactivation. The message, from the VTAM perspective, is solicited, not unsolicited.

- Message IST020I VTAM INITIALIZE COMPLETE is a special case. It is always sent to the master console as a solicited message.

Unsolicited messages

Unsolicited messages are usually those received as a result of an error condition such as an alert. If a message is not solicited, it is first routed to the PPO. If the PPO is not available, the message is redirected to the system console.

Percolated messages can also be received as unsolicited messages. For additional information, see "Message rerouting and percolation" on page 1106.
A solicited message (not a WTOR) that is destined for a program operator application (POA) that is not active will be converted to an unsolicited message and delivered as an unsolicited message. For additional information, see “Message rerouting and percolation.” There are also cases in which messages that may be expected to be solicited are changed to unsolicited due to an error condition. For example, INOPs override command processing, so the inactivation messages following an INOP are unsolicited. If a VARY INACT is done for an NCP and a hard INOP is received while it is inactivating, the messages about inactivation processing before the INOP will be solicited, but the messages after the INOP will be unsolicited.

Message rerouting and percolation

The following sections describe message rerouting and percolation.

Message rerouting

When a write-to-operator-with-reply (WTOR) is destined for a program operator application (POA) and cannot be delivered, it is rerouted to a system console using the routing codes defined in the appropriate USS message table.

When a message (not a WTOR) is destined for a program operator application (POA) and cannot be delivered, it is converted to an unsolicited message and rerouted to the primary program operator (PPO), if it is available. If the PPO is not available, the message is redirected to the system console using the routing codes defined in the appropriate USS message table.

Message percolation

Message percolation refers to the way that certain VTAM operator messages are routed. Percolation is determined internally by VTAM and cannot be modified by the user.

If the message is in response to a command issued by a secondary program operator (SPO) or a system console operator, it is routed (percolated) to both the originator of the command and the primary program operator (PPO). The PPO receives the message in the form of an unsolicited message.

- If the command was issued by an SPO and an active PPO is not available, the message is routed to the system console as well as to the SPO.
- If a network management application is the PPO, the percolated message may be broadcast to every network management application defined to the application receiving the message.

The following messages are percolated.

<table>
<thead>
<tr>
<th>Message ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>IST154I</td>
</tr>
<tr>
<td>IST813I</td>
</tr>
<tr>
<td>IST814I</td>
</tr>
<tr>
<td>IST825I</td>
</tr>
<tr>
<td>IST930I</td>
</tr>
<tr>
<td>IST959I</td>
</tr>
<tr>
<td>IST973I</td>
</tr>
<tr>
<td>IST1030I</td>
</tr>
<tr>
<td>IST1150I</td>
</tr>
<tr>
<td>IST1151I</td>
</tr>
</tbody>
</table>
Note: IST314I (END) is percolated only if it is part of a percolated message group such as IST1283I.

Message descriptor codes

Descriptor codes describe the kind of message being issued. These codes, with the routing codes, determine how the message is to be printed or displayed and how a message is to be deleted from a display device. Descriptor codes 1–7 are mutually exclusive; only one such code is assigned to a message. Descriptor codes 8–10 can appear with any other descriptor code.

See “Codes and suppression levels” on page 1110 for the list of messages and their codes and suppression levels.

<table>
<thead>
<tr>
<th>Code</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><strong>System Failure</strong>: This message indicates that an error occurred that could not be corrected. To continue, the operator must restart the system.</td>
</tr>
<tr>
<td>2</td>
<td><strong>Immediate Action Required</strong>: This message requires an immediate action by the operator. The action may be required because the message issuer is in a wait state until the action is performed, or because system performance is degraded until the action is taken.</td>
</tr>
<tr>
<td>3</td>
<td><strong>Eventual Action Required</strong>: This message requires an eventual action by the operator. The task does not await completion of the action.</td>
</tr>
<tr>
<td>4</td>
<td><strong>System Status</strong>: This message indicates the status of a system task or the status of a hardware unit.</td>
</tr>
<tr>
<td>5</td>
<td><strong>Immediate Command Response</strong>: This message is issued as an immediate response to a system command. The completion of the response is not dependent upon another system action or task.</td>
</tr>
<tr>
<td>6</td>
<td><strong>Job Status</strong>: This message contains status information regarding the job or job step.</td>
</tr>
<tr>
<td>7</td>
<td><strong>Application Program/Processor</strong>: This message is issued while a program is in problem mode.</td>
</tr>
<tr>
<td>8</td>
<td><strong>Out-of-Line Message</strong>: This message is one of a group of one or more messages to be displayed out of line. If the device support cannot print a message out of line, the code is ignored, and the message is printed in line with other messages.</td>
</tr>
<tr>
<td>9</td>
<td><strong>Operator’s Request</strong>: This message is written in response to an operator’s request for information by DEVSERV, MONITOR, and other operating system commands.</td>
</tr>
<tr>
<td>10</td>
<td>This message is issued in response to a TRACK command.</td>
</tr>
<tr>
<td>11</td>
<td><strong>Critical Eventual Action Required</strong>: This message indicates that a critical event has occurred which must eventually be followed by an action. The message will remain on the screen until the action is taken.</td>
</tr>
<tr>
<td>12</td>
<td><strong>Important Information</strong>: This message contains important information that must be displayed at the console, but does not require any action in response.</td>
</tr>
<tr>
<td>13–16</td>
<td>Reserved.</td>
</tr>
</tbody>
</table>
Routing codes determine where the message appears. These codes route VTAM and TSO/VTAM messages to selected functional consoles. More than one routing code may be assigned to the message. With multiple-console support, each console operator receives only the messages related to the commands entered at that console or to the functions assigned to that console, regardless of the routing codes assigned to those messages. If a message that is routed to a particular console cannot be issued at that console, that message is issued at the master console.

See "Codes and suppression levels" on page 1110 for the list of messages and their codes and suppression levels.

<table>
<thead>
<tr>
<th>Code</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><strong>Master Console Action</strong>: This message indicates a change in the system status, and demands action by the master console operator.</td>
</tr>
<tr>
<td>2</td>
<td><strong>Master Console Information</strong>: This message indicates a change in the system status. Such a message does not demand action, but alerts the master console operator to a condition that may require action. This routing code is used for any message that indicates job status, and also for processor and problem program messages to the master console operator.</td>
</tr>
<tr>
<td>3</td>
<td><strong>Tape Pool</strong>: This message specifies the status of a tape unit or reel, the disposition of a tape reel, or other tape-oriented information. For example, a message which requests that tapes be mounted.</td>
</tr>
<tr>
<td>4</td>
<td><strong>Direct Access Pool</strong>: This message specifies the status of a direct access unit or pack, the disposition of a disk pack, or other direct-access-oriented information. For example, a message which requests that disks be mounted.</td>
</tr>
<tr>
<td>5</td>
<td><strong>Tape Library</strong>: This message specifies tape library information. For example, a message which requests, by volume serial numbers, that tapes be obtained for system or programmer use.</td>
</tr>
<tr>
<td>6</td>
<td><strong>Disk Library</strong>: This message specifies disk library information. For example, a message which requests, by volume serial numbers, that disk packs be obtained for system or programmer use.</td>
</tr>
<tr>
<td>7</td>
<td><strong>Unit Record Pool</strong>: This message specifies unit-record equipment information. For example, a message which requests that printer trains be mounted.</td>
</tr>
<tr>
<td>8</td>
<td><strong>Teleprocessing Control</strong>: This message specifies the status or the disposition of data communication equipment. For example, a message which indicates line errors.</td>
</tr>
<tr>
<td>9</td>
<td><strong>System Security</strong>: This message is associated with security checking. For example, a message which requires a reply specifying a password.</td>
</tr>
<tr>
<td>10</td>
<td><strong>System Error Maintenance</strong>: This message indicates either a system error, or an input/output error that could not be corrected. It also indicates a message associated with system maintenance.</td>
</tr>
<tr>
<td>11</td>
<td><strong>Programmer Information</strong>: This message is for the problem programmer. This routing code is used only when the program issuing the message has no way of routing the message to the programmer using the system-output data set facility. The message appears in the job’s system output message class.</td>
</tr>
</tbody>
</table>
Note: Messages assigned routing code 11 will default to the master console if a secondary console, specified during the VTAM definition process to receive these messages, is not active. The messages will not default to the master console, however, if no secondary console was specified to receive these messages.

12 Emulators: This message is issued by an emulator program.

13 Reserved for customer use.

14 Reserved for customer use.

15 Reserved for customer use.

16 Reserved for future expansion.

Message suppression levels

The level at which VTAM can suppress a message is designated by either the SUPP start option or the MODIFY SUPP command. If a message is at the designated level or at a lower level, it is not written to the console or to the program operator. Messages at higher levels, as well as messages that cannot be suppressed, continue to go to the console and the program operator.

The following suppression levels are defined by IBM. If you design your own message suppression criteria, it is your responsibility to document any changes to the published message suppression levels. Suppression levels are listed from lowest to highest order.

See "Codes and suppression levels" on page 1110 for the list of messages and their codes and suppression levels.

Informational (INFO)

If VTAM suppression level is set to INFO, only messages defined with SUPP=INFO in the USS table will be suppressed.

Informational-level messages do not indicate error conditions and usually indicate that some VTAM processing has been started. These messages probably have little or no effect if omitted.

Warning (WARN)

If VTAM suppression level is set to WARN, messages defined with SUPP=INFO or with SUPP=WARN will be suppressed.

Warning-level messages indicate error conditions that do not cause commands to fail or to be rejected. These messages tell you that a problem exists, such as use of a command that is not valid or a condition in which a minor node cannot be activated. VTAM can continue to process other parts of the command or procedure.

Normal (NORM)

If VTAM suppression level is set to NORM, messages defined with SUPP=INFO, SUPP=WARN, or SUPP=NORM will be suppressed.

Normal-level messages contain all VTAM completion messages. For example, these messages tell you that commands have completed processing successfully or that a configuration has been activated successfully.

Serious (SER)

If VTAM suppression level is set to SER, messages defined with SUPP=INFO, SUPP=WARN, SUPP=NORM, or SUPP=SER will be suppressed.
Serious-level messages indicate error conditions that cause commands or procedures to fail. These messages tell you that commands must be re-entered or procedures must be re-initiated.

**Never (NOSUP or NEVER)**

If VTAM suppression level is set to NOSUPP, no messages will be suppressed. If a message is defined with SUPP=NEVER, it will not be suppressed at any VTAM suppression level.

Unsuppressible-level messages can never be suppressed. This level includes messages in any of the following categories:

- Messages indicating failure of the VTAM start procedure
- Messages included in a display resulting from the DISPLAY command
- Messages requesting an operator’s reply
- Messages indicating situations that cause or result from abnormal termination of VTAM.

**Note:** For message groups, if the first message in a group is suppressed, all messages in the group will be suppressed.

---

### Codes and suppression levels

The following tables list the descriptor codes, routing codes, and suppression levels for logon manager, TSO/VTAM, and VTAM operator messages.

#### ELM messages for Logon Manager

<table>
<thead>
<tr>
<th>Message identifier</th>
<th>Descriptor code</th>
<th>Routing codes</th>
<th>Suppression level</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALL ELM messages</td>
<td>6</td>
<td>2,8</td>
<td>NEVER</td>
</tr>
</tbody>
</table>

#### IKT messages for TSO/VTAM

<table>
<thead>
<tr>
<th>MVS identifier</th>
<th>Descriptor code</th>
<th>Routing codes</th>
<th>Suppression level</th>
</tr>
</thead>
<tbody>
<tr>
<td>IKT001D</td>
<td>***</td>
<td>1,8</td>
<td>NEVER</td>
</tr>
<tr>
<td>IKT002D</td>
<td>***</td>
<td>1,8</td>
<td>NEVER</td>
</tr>
<tr>
<td>IKT003D</td>
<td>***</td>
<td>1,8</td>
<td>NEVER</td>
</tr>
<tr>
<td>IKT004D</td>
<td>***</td>
<td>1,8</td>
<td>NEVER</td>
</tr>
<tr>
<td>IKT005I</td>
<td>***</td>
<td>1,8</td>
<td>NEVER</td>
</tr>
<tr>
<td>IKT006I</td>
<td>***</td>
<td>1,8</td>
<td>NEVER</td>
</tr>
<tr>
<td>IKT007I</td>
<td>***</td>
<td>1,8</td>
<td>NEVER</td>
</tr>
<tr>
<td>IKT008I</td>
<td>***</td>
<td>1,8</td>
<td>NEVER</td>
</tr>
<tr>
<td>IKT009I</td>
<td>***</td>
<td>1,8</td>
<td>NEVER</td>
</tr>
<tr>
<td>IKT010I</td>
<td>***</td>
<td>1,8</td>
<td>NEVER</td>
</tr>
<tr>
<td>IKT011I</td>
<td>***</td>
<td>1,8</td>
<td>NEVER</td>
</tr>
<tr>
<td>IKT012D</td>
<td>***</td>
<td>1,8</td>
<td>NEVER</td>
</tr>
<tr>
<td>IKT013I</td>
<td>***</td>
<td>1,8</td>
<td>NEVER</td>
</tr>
</tbody>
</table>
## IST VTAM operator messages

<table>
<thead>
<tr>
<th>Message identifier</th>
<th>Descriptor code</th>
<th>Routing code</th>
<th>Suppression level</th>
</tr>
</thead>
<tbody>
<tr>
<td>IST001I</td>
<td>5</td>
<td>2</td>
<td>NEVER</td>
</tr>
<tr>
<td>IST003I</td>
<td>5</td>
<td>2</td>
<td>SER</td>
</tr>
</tbody>
</table>

### MVS identifier

<table>
<thead>
<tr>
<th>MVS identifier</th>
<th>Descriptor code</th>
<th>Routing codes</th>
<th>Suppression level</th>
</tr>
</thead>
<tbody>
<tr>
<td>IKT014I</td>
<td>***</td>
<td>1,8</td>
<td>NEVER</td>
</tr>
<tr>
<td>IKT015I</td>
<td>***</td>
<td>1,8</td>
<td>NEVER</td>
</tr>
<tr>
<td>IKT016D</td>
<td>***</td>
<td>1,8</td>
<td>NEVER</td>
</tr>
<tr>
<td>IKT017I</td>
<td>***</td>
<td>1,8</td>
<td>NEVER</td>
</tr>
<tr>
<td>IKT018I</td>
<td>***</td>
<td>1,8</td>
<td>NEVER</td>
</tr>
<tr>
<td>IKT020I</td>
<td>***</td>
<td>1,8</td>
<td>NEVER</td>
</tr>
<tr>
<td>IKT026D</td>
<td>***</td>
<td>1,8</td>
<td>NEVER</td>
</tr>
<tr>
<td>IKT028I</td>
<td>***</td>
<td>1,8</td>
<td>NEVER</td>
</tr>
<tr>
<td>IKT029I</td>
<td>***</td>
<td>1,8</td>
<td>NEVER</td>
</tr>
<tr>
<td>IKT030I</td>
<td>***</td>
<td>1,8</td>
<td>NEVER</td>
</tr>
<tr>
<td>IKT031I</td>
<td>***</td>
<td>2,8</td>
<td>NEVER</td>
</tr>
<tr>
<td>IKT032I</td>
<td>***</td>
<td>1,8</td>
<td>NEVER</td>
</tr>
<tr>
<td>IKT033I</td>
<td>***</td>
<td>1,8</td>
<td>NEVER</td>
</tr>
<tr>
<td>IKT100I</td>
<td>4</td>
<td>2,8</td>
<td>NEVER</td>
</tr>
<tr>
<td>IKT103I</td>
<td>4</td>
<td>2,8</td>
<td>NEVER</td>
</tr>
<tr>
<td>IKT104I</td>
<td>4</td>
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<td>NEVER</td>
</tr>
<tr>
<td>IKT105I</td>
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<td>NEVER</td>
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<td>IKT106I</td>
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<tr>
<td>IKT109I</td>
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<td>2,8</td>
<td>NEVER</td>
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<td>IKT111I</td>
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<td>NEVER</td>
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<td>IKT112I</td>
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<td>NEVER</td>
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<tr>
<td>IKT115I</td>
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<td>2,8</td>
<td>NEVER</td>
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<tr>
<td>IKT116I</td>
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<td>NEVER</td>
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<tr>
<td>IKT117I</td>
<td>4</td>
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<td>NEVER</td>
</tr>
<tr>
<td>IKT118I</td>
<td>4</td>
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</tr>
<tr>
<td>IKT119I</td>
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<td>NEVER</td>
</tr>
<tr>
<td>IKT120I</td>
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<tr>
<td>IKT121I</td>
<td>4</td>
<td>2,8</td>
<td>NEVER</td>
</tr>
<tr>
<td>IKT122I</td>
<td>4</td>
<td>1,8</td>
<td>NEVER</td>
</tr>
<tr>
<td>IKT123I</td>
<td>5</td>
<td>2</td>
<td>NEVER</td>
</tr>
<tr>
<td>IKT124I</td>
<td>5</td>
<td>2</td>
<td>NEVER</td>
</tr>
<tr>
<td>IKT125I</td>
<td>4</td>
<td>1,8</td>
<td>NEVER</td>
</tr>
<tr>
<td>Message identifier</td>
<td>Descriptor code</td>
<td>Routing code</td>
<td>Suppression level</td>
</tr>
<tr>
<td>--------------------</td>
<td>----------------</td>
<td>--------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>IST009I</td>
<td>5</td>
<td>2</td>
<td>NEVER</td>
</tr>
<tr>
<td>IST010I</td>
<td>5</td>
<td>2</td>
<td>SER</td>
</tr>
<tr>
<td>IST011I</td>
<td>5</td>
<td>2</td>
<td>NORM</td>
</tr>
<tr>
<td>IST013I</td>
<td>4</td>
<td>2,10</td>
<td>INFO</td>
</tr>
<tr>
<td>IST014I</td>
<td>5</td>
<td>1</td>
<td>WARN</td>
</tr>
<tr>
<td>IST015A</td>
<td>2</td>
<td>1</td>
<td>NEVER</td>
</tr>
<tr>
<td>IST017I</td>
<td>5</td>
<td>2</td>
<td>WARN</td>
</tr>
<tr>
<td>IST018I</td>
<td>5</td>
<td>2</td>
<td>WARN</td>
</tr>
<tr>
<td>IST020I</td>
<td>5</td>
<td>2</td>
<td>NORM</td>
</tr>
<tr>
<td>IST025I</td>
<td>5</td>
<td>2</td>
<td>WARN</td>
</tr>
<tr>
<td>IST033I</td>
<td>5</td>
<td>2</td>
<td>SER</td>
</tr>
<tr>
<td>IST037I</td>
<td>5</td>
<td>2</td>
<td>SER</td>
</tr>
<tr>
<td>IST038I</td>
<td>5</td>
<td>2</td>
<td>SER</td>
</tr>
<tr>
<td>IST039I</td>
<td>5</td>
<td>2</td>
<td>NORM</td>
</tr>
<tr>
<td>IST040I</td>
<td>5</td>
<td>2</td>
<td>NEVER</td>
</tr>
<tr>
<td>IST043I</td>
<td>5</td>
<td>2</td>
<td>SER</td>
</tr>
<tr>
<td>IST046I</td>
<td>5</td>
<td>2</td>
<td>WARN</td>
</tr>
<tr>
<td>IST049I</td>
<td>5</td>
<td>2</td>
<td>NEVER</td>
</tr>
<tr>
<td>IST050I</td>
<td>5</td>
<td>2</td>
<td>SER</td>
</tr>
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**IUT VTAM operator messages**

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**IVT VTAM operator messages**

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Appendix D. Messages affected by the MSGLVL option

This appendix contains all messages affected by the MSGLVL Option.

General description

The MSGLVL start option or the MSGLVL operand on the USSMSG macro allows you to select the version of the message that VTAM issues.

- MSGLVL=BASE is the default and represents the pre-Version 4 message.
- MSGLVL=V4R1, MSGLVL=V4R2, or MSGLVL=V4R3 represents the new message or message group.

This option is valid only for those messages listed in this appendix.

See the z/OS Communications Server: SNA Resource Definition Reference for a description of the MSGLVL start option or the MSGLVL operand on the USSMSG macro.

Notes:

1. If you want the version 4 messages to be displayed, you must indicate MSGLVL=V4R1, V4R2, or V4R3.
2. If you use program operators that depend on the original BASE messages, you might want VTAM to issue the pre-Version 4 message to the program operators.

Differences between BASE and Version 4 messages

There are several differences between BASE and Version 4 messages:

Version 4 messages can display network-qualified resource names.

Resource variable fields were increased from 8 to 17 characters in the Version 4 messages to accommodate the display of network-qualified names. VTAM displays network-qualified names in the form netid.name.

BASE message might be replaced by more than one Version 4 message.

To provide more specific error information and to simplify automated operations, BASE messages might be replaced by more than one Version 4 message.

BASE messages IST059I, IST129I, and IST660I were replaced by more than one Version 4 message. See “Message text for BASE and Version 4 messages” on page 1166 for more information.

Node type was added in Version 4.

To provide more detailed information about the type of resource, a nodetype variable field was added to several Version 4 messages and message groups.

Text and variable field wording might not be identical in BASE and Version 4 messages.

In most cases, increasing the resource variable field to 17 characters caused the Version 4 message to exceed the desired length. Therefore, to prevent truncation of message text on some systems, the text and variable field wording of the new Version 4 message might not be identical to the BASE message it replaces.
In some cases, the BASE message wording has been changed so that the meaning of the text or variable field information is more specific or descriptive.

**Note:** The wording of most of the reasons in message IST225I (BASE) and message IST1137I (Version 4) are not identical. The following table maps reason in message IST225I to its Version 4 equivalent in message IST1137I.

**Table 2. Reasons in IST225I (BASE) and IST1137I (V4R1)**

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<tr>
<td>ALSNAME NOT VALID</td>
<td>ALSNAME NOT VALID</td>
</tr>
<tr>
<td>CALL SECURITY ERROR</td>
<td>SECURITY DATA ERROR</td>
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<tr>
<td>CURRENT LEVEL HIGHER</td>
<td>MUST BE MORE SECURE</td>
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<tr>
<td>DYNAMIC CDRSC NOT VALID</td>
<td>CDRSC IS DYNAMIC</td>
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<tr>
<td>INSUFFICIENT STORAGE</td>
<td>STORAGE SHORTAGE</td>
</tr>
<tr>
<td>INVALID MODEL LU</td>
<td>MODEL LU NOT VALID</td>
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<tr>
<td>INVALID STATE FOR CDRSC</td>
<td>CDRSC NOT ACTIVE</td>
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<td>NODE KEY_UNDEFINED</td>
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<td>RESOURCES NOT FOUND</td>
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<tr>
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<td>MUST BE APPLICATION</td>
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<td>INSTALL EXIT REJECT</td>
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**Message text for BASE and Version 4 messages**

The message explanation provides a description of the variable information in the message text. See Chapter 5, “IST messages for VTAM network operators IST001I – IST399I,” on page 43 for descriptions of the following messages.

**Notes:**

1. If you want the V4R1 messages to be displayed, you must indicate MSGLVL=V4R1 as a start option, even though you are running on a VTAM which is post-V4R1.

2. If MSGLVL=V4R2 is specified as a start option, the base messages that have no replacements will be displayed with the V4R1-level messages and the V4R2-level messages.
Message text for BASE and V4R2 or higher

BASE:

IST619I ID = %8 FAILED - RECOVERY IN PROGRESS

V4R2:

IST1416I ID = %17 FAILED - RECOVERY IN PROGRESS

Message text for BASE and Version 4

BASE:

IST059I %28 IGNORED - INSUFFICIENT STORAGE

Version 4:

IST1064I TRACE IGNORED, %17 - STORAGE SHORTAGE
IST1045I NODE TYPE = %17
IST314I END

BASE:

IST059I %28 IGNORED - INSUFFICIENT STORAGE

Version 4:

IST1128I PATH %8 IGNORED, %17 - STORAGE SHORTAGE
IST1045I NODE TYPE = %17
IST314I END

BASE:

IST072I %10 FOR ID = %8 FAILED DURING NETWORK DEFINITION

Version 4:

IST1264I %10 FOR %17 FAILED DURING DEFINITION
IST1045I NODE TYPE = %17
IST314I END

BASE:

IST073I %10 FOR ID = %8 FAILED - MORE POWERFUL REQUEST IN PROGRESS

Version 4:

IST1129I %10 FAILED, %17 - DEACTIVATE PENDING
IST1045I NODE TYPE = %17
IST314I END

BASE:
IST074I %10 FOR ID = %8 FAILED - INSUFFICIENT STORAGE

Version 4:
   IST1130I %10 FOR %17 FAILED - STORAGE SHORTAGE
   IST1045I NODE TYPE = %17
   IST314I END

BASE:
   IST082I DEVTYPE = %24 %27

Version 4:
   IST1131I DEVICE = %12 %35
   IST1045I NODE TYPE = %17
   IST314I END

BASE:
   IST093I %8 ACTIVE

Version 4:
   IST1132I %17 IS ACTIVE, TYPE = %17

BASE:
   IST105I %8 NODE NOW INACTIVE

Version 4:
   IST1133I %17 IS NOW INACTIVE, TYPE = %8 %9

BASE:
   IST113I %8 IS A USERVAR WITH VALUE %8 IN NETWORK %8

Version 4:
   IST1156I USERVAR %8 IN %8 HAS VALUE %17

BASE:
   IST120I NODE %8 NOW HAS CONTROLLING LU %8

Version 4:
   IST1134I %17 NOW HAS CONTROLLING LU %9 %8
BASE:
IST129I UNRECOVERABLE OR FORCED ERROR ON NODE %8 - VARY INACT SCHED

Version 4:
IST1135I FORCED VARY INACT SCHEDULED FOR %17

BASE:
IST129I UNRECOVERABLE OR FORCED ERROR ON NODE %8 - VARY INACT SCHED

Version 4:
IST1136I VARY INACT %17 SCHEDULED - UNRECOVERABLE ERROR

BASE:
IST186I %10 FOR ID = %8 CONTINUES COLD - CHECKPOINT DATA SET %15

Version 4:
IST1263I %10 FOR %17 FORCED COLD, %15

BASE:
IST187I %10 FOR ID = %8 FAILED - CHECKPOINT DATA SET %15

Version 4:
IST1265I %10 FOR %17 FAILED - %15

BASE:
IST225I %12 FOR ID = %8 FAILED - %30

Version 4:
IST1137I %11 FAILED, %17 - %19

BASE:
IST226I %10 FOR ID = %8 NOT EFFECTIVE DURING CURRENT OR QUEUED SESSIONS

Version 4:
IST1266I %10 FOR %17 AFFECTS NEW SESSIONS ONLY
BASE:

IST234I  I/O ERROR %23

Version 4:

IST1211I  I/O ERROR %17 %4 %4 %4

BASE:

IST262I  %8 = %8, STATUS = %10

Version 4:

IST1212I  %8 = %17 STATUS = %10

BASE:

IST264I  REQUIRED %13 %8 %15

Version 4:

IST1138I  REQUIRED %13 %32

BASE:

IST380I  ERROR FOR ID = %8 - REQUEST: %10, SENSE: %8

Version 4:

IST1139I  %10 FOR %17 FAILED - SENSE: %8

IST1045I  NODE TYPE = %17

IST314I  END

BASE:

IST381I  %10 FOR ID = %8 FAILED - CANNOT DEFINE NODE

Version 4:

IST1267I  %10 FAILED - CANNOT DEFINE %17

IST1045I  NODE TYPE = %17

IST314I  END

BASE:

IST382I  %10 FOR ID = %8 FAILED - STATE: %5 NOT VALID FOR REQUEST

Version 4:

IST1140I  %10 FAILED %17 - STATE %5 NOT VALID

IST1045I  NODE TYPE = %17

IST314I  END
BASE:
IST383I DEACTIVATION OF ID = %8 FAILED - REQUEST: %10 SENSE: %8

Version 4:
IST1268I %17 DEACTIVATION %10 FAILED: %8

BASE:
IST384I %10 FOR ID = %8 FAILED

Version 4:
IST1269I %10 FOR %17 FAILED

BASE:
IST414I %10 FOR ID = %8 FAILED - PROCESS UNAVAILABLE

Version 4:
IST1270I %10 FAILED - %17 NOT ACTIVE

BASE:
IST483I %8 %10, CDRM = %8, NETID = %8

Version 4:
IST1276I %17 %10 CDRM = %8

BASE:
IST487I %10 FOR ID = %8 SCHEDULED BY %10

Version 4:
IST1271I %10 FOR %17 SCHEDULED BY %10

BASE:
IST489I %10 FOR ID = %8 CONTINUES - CANNOT DEFINE NODE: %8

Version 4:
IST1272I %8 %8 CONTINUES - %17 UNDEFINED
BASE:
    IST490I %10 FOR ID = %8 FAILED - %10 IN PROGRESS

Version 4:
    IST1273I %10 %17 FAILED: %10 PENDING

BASE:
    IST493I %10 FOR ID = %8 OVERRIDEN BY %10

Version 4:
    IST1141I %10 FOR %17 OVERRIDEN BY %10

BASE:
    IST511I TRACE REQUEST FAILED - %8 INVALID

Version 4:
    IST1142I TRACE REQUEST FAILED - %17 NOT VALID
    IST1045I NODE TYPE = %17
    IST314I END

BASE:
    IST512I TRACE TERMINATED FOR NODE = %8 %18

Version 4:
    IST1143I TRACE TERMINATED FOR %17 %18
    IST1045I NODE TYPE = %17
    IST314I END

BASE:
    IST513I TRACE INITIATED FOR NODE %8 %18

Version 4:
    IST1144I TRACE INITIATED FOR %17 %18
    IST1045I NODE TYPE = %17
    IST314I END

BASE:
    IST530I %10 PENDING %38
Version 4:
  IST1436I RU PENDING:
  IST1278I %10 PENDING %21 %26

BASE:
  IST608I %10 FOR ID = %8 FAILED - HIGHER NODE: %8 NOT ACTIVE

Version 4:
  IST1274I %10 %17 FAILED: %8 NOT ACTIVE

BASE:
  IST627I %8 - INSUFFICIENT STORAGE

Version 4:
  IST1145I TRACE REQUEST FAILED, %17 - STORAGE SHORTAGE
  IST1045I NODE TYPE = %17
  IST314I END

BASE:
  IST660I %10 FOR ID = %8 FAILED - PARM: %15 NOT VALID

Version 4:
  IST1146I %17 %10 U=% 4 FAILED

BASE:
  IST660I %10 FOR ID = %8 FAILED - PARM: %15 NOT VALID

Version 4:
  IST1147I %17 %8 LOGON= %17 FAILED

BASE:
  IST660I %10 FOR ID = %8 FAILED - PARM: %15 NOT VALID

Version 4:
  IST1148I %17 %8 RNAME = %8 FAILED

BASE:
IST670I  VARY %4 PROCESSING FOR ID = %8 COMPLETE

Version 4:
  IST1149I  VARY %4 PROCESSING FOR NODE %17 COMPLETE

BASE:
  IST674I  %10 FOR ID = %8 CONTINUES - PARM: %15 IGNORED

Version 4:
  IST1275I  %15 IGNORED ON %10 %17

BASE:
  IST813I  USERVAR %8 CHANGED FROM %8 TO %8

Version 4:
  IST1150I  %8 CHANGED: %17 TO %17

BASE:
  IST825I  USERVAR DEFINED - NAME = %8, VALUE = %8

Version 4:
  IST1151I  USERVAR %8 DEFINED: VALUE = %17

BASE:
  IST886I  %11 %8 %8 %8 %11 %13 FAILED

Version 4:
  IST1277I  %11 %8 %8 %17 %11 %13 FAILED

BASE:
  IST919I  NODE %8 NO LONGER HAS CONTROLLING LU %8

Version 4:
  IST1152I  %17 CONTROLLING LU %17 REMOVED

BASE:
  IST930I  %16 - %16 SESSION USING %4 OF %2BUF
Version 4:
    IST1153I %17 %17 SESSION %2BUF USE %4

BASE:
    IST939I VARY NOLOGON HAD NO EFFECT - %8 NOT FOUND FOR %8

Version 4:
    IST1155I %17 VARY NOLOGON = %17 FAILED

BASE:
    IST970I LU-LU VERIFICATION ERROR %2 FOR %26

Version 4:
    IST1213I %35 LU-LU VERIFY ERROR %2

BASE:
    IST988I %8 %8 %8 %8 %8 %8

Version 4:
    IST1154I %17 %17 %17

BASE:
    IST1082I GENERATED ADDRESS FOR %8 %11 FROM %8

Version 4:
    IST1285I ADDRESS FOR %17 %11 FROM %8
Appendix E. Message text for VTAM operator messages

This appendix lists the text of VTAM operator messages for MVS.

For a description of variable information in the messages, see the individual message explanation.

Note: in the message text, a percent sign (%) represents a character that is reserved for variable information. The maximum length of the variable is indicated by a percent sign and a number (for example, %8). In some messages, if the variable information is shorter than the variable field, the extra blanks might be suppressed, causing the message text to shift to the left.

Message text for ELM logon manager network operator messages

The following table lists the message text for all ELM Logon Manager Network operator messages issued for MVS.

<table>
<thead>
<tr>
<th>Message number</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELM001I</td>
<td>REDEFINITION COMPLETE</td>
</tr>
<tr>
<td>ELM002I</td>
<td>LOGON MANAGER INITIALIZATION COMPLETED</td>
</tr>
<tr>
<td>ELM003I</td>
<td>NO SUBAREAS DETECTED IN CONFIGURATION DEFINITION</td>
</tr>
<tr>
<td>ELM004I</td>
<td>REDEFINITION IN PROGRESS —; COMMAND QUEUED</td>
</tr>
<tr>
<td>ELM005I</td>
<td>MEMBER REQUEST ACCEPTED</td>
</tr>
<tr>
<td>ELM006I</td>
<td>REDEFINITION IN PROGRESS</td>
</tr>
<tr>
<td>ELM007I</td>
<td>REDEFINITION UNSUCCESSFUL</td>
</tr>
<tr>
<td>ELM008I</td>
<td>REPLY TRUNCATED</td>
</tr>
<tr>
<td>ELM009I</td>
<td>STOP REQUEST ACCEPTED</td>
</tr>
<tr>
<td>ELM010I</td>
<td>INFO REQUEST ACCEPTED</td>
</tr>
<tr>
<td>ELM011I</td>
<td>MINLINK REQUEST ACCEPTED</td>
</tr>
<tr>
<td>ELM012I</td>
<td>SELECTED RESOURCE NOT FOUND</td>
</tr>
<tr>
<td>ELM013I</td>
<td>MINLINK REQUEST COMPLETED</td>
</tr>
<tr>
<td>ELM014I</td>
<td>NAME: TYP: STATUS: CURRENT: CONTROL: REASON: INITS:</td>
</tr>
<tr>
<td>ELM015I</td>
<td>NO PENDING RESOURCES FOUND</td>
</tr>
<tr>
<td>ELM016I</td>
<td>LOGON MANAGER CLOSEDOWN COMPLETED</td>
</tr>
<tr>
<td>ELM017I</td>
<td>REQUIRED STORAGE UNAVAILABLE</td>
</tr>
<tr>
<td>ELM018I</td>
<td>SA RECORD CAUSES MAXSUBA PARAMETER TO BE EXCEEDED</td>
</tr>
<tr>
<td>ELM019I</td>
<td>LMAPPL RECORD CAUSES MAXAPLC VALUE TO BE EXCEEDED</td>
</tr>
<tr>
<td>ELM020I</td>
<td>UNABLE TO ACCESS CONFIGURATION DEFINITION DATA SET MEMBER</td>
</tr>
<tr>
<td>ELM021I</td>
<td>ERROR ENCOUNTERED IN READING CONFIGURATION DEFINITION DATA SET MEMBER</td>
</tr>
<tr>
<td>ELM022I</td>
<td>HELP REQUEST ACCEPTED</td>
</tr>
<tr>
<td>ELM023I</td>
<td>VALID COMMAND PARAMETERS ARE:</td>
</tr>
<tr>
<td>ELM024I</td>
<td>HELP ...GET VALID COMMAND FORMATS</td>
</tr>
<tr>
<td>ELM025I</td>
<td>INFO,ID=NNNNNNNN ...GET STATUS FOR RESOURCE NAMENDED NNNNNNNNN</td>
</tr>
<tr>
<td>ELM026I</td>
<td>INFO,ID=CLU ...GET STATUS FOR EACH CONTROL LOGICAL UNIT</td>
</tr>
<tr>
<td>ELM027I</td>
<td>INFO,ID=CLU,PEND ...GET STATUS FOR EACH PENDING CLU</td>
</tr>
<tr>
<td>ELM028I</td>
<td>INFO,ID=APPL ...GET STATUS FOR EACH SUPPORTED APPLICATION</td>
</tr>
<tr>
<td>ELM029I</td>
<td>INFO,ID=APPL,PEND ...GET STATUS FOR EACH PENDING APPL</td>
</tr>
<tr>
<td>ELM030I</td>
<td>INFO,ID=ALL ...GET STATUS FOR EACH CLU AND APPL</td>
</tr>
<tr>
<td>ELM031I</td>
<td>INFO,ID=ALL,PEND ...GET STATUS FOR EACH PENDING CLU AND APPL</td>
</tr>
</tbody>
</table>
The following table lists the message text for all IKT TSO/VTAM Network Operator and Terminal User messages issued for MVS.

<table>
<thead>
<tr>
<th>Message number</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>IKT001D</td>
<td>nnnn USER(S) ACTIVE, REPLY ‘U’, ‘SIC’, OR ‘FSTOP’</td>
</tr>
<tr>
<td>IKT002I</td>
<td>TCAS IS TERMINATING, REASON CODE=code</td>
</tr>
<tr>
<td>IKT003D</td>
<td>TCAS UNABLE TO ACCEPT LOGONS, REASON CODE=code REPLY ‘RETRY’ OR ‘TERM’</td>
</tr>
<tr>
<td>IKT004D</td>
<td>INVALID PARAMETERS SPECIFIED, RESPECIFY OR REPLY ‘U’</td>
</tr>
<tr>
<td>IKT005I</td>
<td>TCAS IS INITIALIZED</td>
</tr>
<tr>
<td>IKT006I</td>
<td>TCAS ENDED</td>
</tr>
<tr>
<td>IKT007I</td>
<td>TCAS ACCEPTING LOGONS</td>
</tr>
<tr>
<td>IKT008I</td>
<td>TCAS NOT ACCEPTING LOGONS</td>
</tr>
<tr>
<td>IKT009I</td>
<td>TPEND HAS OCCURRED, TCAS TERMINATION IN PROGRESS</td>
</tr>
<tr>
<td>IKT010D</td>
<td>nnnn USER(S) ACTIVE, REPLY ‘SIC’ OR ‘FSTOP’</td>
</tr>
<tr>
<td>IKT011I</td>
<td>TCAS UNABLE TO [ACCEPT</td>
</tr>
<tr>
<td>IKT012D</td>
<td>TCAS TERMINATION IN PROGRESS — SPECIFY ‘U’ OR ‘DUMP’</td>
</tr>
<tr>
<td>IKT013I</td>
<td>PARAMETER FILE CANNOT BE OPENED - DEFAULT PARAMETERS USED</td>
</tr>
<tr>
<td>IKT014I</td>
<td>I/O ERROR READING MEMBER member_name - DEFAULT PARAMETERS USED</td>
</tr>
<tr>
<td>IKT015I</td>
<td>MODIFY COMMAND REJECTED, INVALID PARAMETERS SPECIFIED</td>
</tr>
<tr>
<td>IKT016D</td>
<td>INVALID REPLY — RESPECIFY</td>
</tr>
<tr>
<td>IKT017I</td>
<td>FILE FOR PRINTING TSO/VTAM TIME SHARING PARAMETERS CANNOT BE OPENED</td>
</tr>
<tr>
<td>IKT018I</td>
<td>I/O ERROR PRINTING TSO/VTAM TIME SHARING PARAMETERS, PRINTING STOPPED</td>
</tr>
<tr>
<td>IKT020I</td>
<td>TCAS CONSOLE COMMUNICATION TASK ABENDED, RECOVERY IN PROGRESS</td>
</tr>
<tr>
<td>Message number</td>
<td>Text</td>
</tr>
<tr>
<td>----------------</td>
<td>------</td>
</tr>
<tr>
<td>IKT026D</td>
<td>TCAS ABEND IN PROGRESS — SPECIFY ‘U’ OR ‘DUMP’</td>
</tr>
<tr>
<td>IKT028I</td>
<td>RC=aabbcc SENSE=code TERMINAL termid CANNOT BE CONNECTED OR RELEASED BY VTAM</td>
</tr>
<tr>
<td>IKT029I</td>
<td>RC=aabbcc SENSE=code TERMINAL termid ABOUT TO BE RELEASED BY VTAM</td>
</tr>
<tr>
<td>IKT030I</td>
<td>TCAS LOGON PROCESS FAILURE PLU=pluname SLU=sluname [SENSE=code]</td>
</tr>
<tr>
<td>IKT031I</td>
<td>PARAMETER(S) SPECIFIED IN MEMBER member_name NOT VALID</td>
</tr>
<tr>
<td>IKT032I</td>
<td>macro FAILED FOR gname RPLRTNCD=aa RPLFDB2=bb</td>
</tr>
<tr>
<td>IKT033I</td>
<td>TCAS USERMAX VALUE SET TO count</td>
</tr>
<tr>
<td>IKT100I</td>
<td>USERID userid CANCELED DUE TO UNCONDITIONAL LOGOFF</td>
</tr>
<tr>
<td>IKT103I</td>
<td>UNKNOWN ENTRY CODE code TO VTAM LOSTERM EXIT</td>
</tr>
<tr>
<td>IKT105I</td>
<td>LOGON REJECTED DUE TO INVALID APPLICATION ID</td>
</tr>
<tr>
<td>IKT106I</td>
<td>LOGON REJECTED, CANNOT OPEN ACB, ACBERFLG=X’m</td>
</tr>
<tr>
<td>IKT109I</td>
<td>TSO/VTAM LOSTERM FAILED DUE TO VTAM SHORTAGE OF UECB/VRPL</td>
</tr>
<tr>
<td>IKT111I</td>
<td>APPLNAME=applname FAILED DUE TO: reason</td>
</tr>
<tr>
<td>IKT112I</td>
<td>[SEND</td>
</tr>
<tr>
<td>IKT115I</td>
<td>TSO UNABLE TO DISCONNECT TERMINAL luname</td>
</tr>
<tr>
<td>IKT116I</td>
<td>userid [SEND</td>
</tr>
<tr>
<td>IKT117I</td>
<td>TSO/VTAM INITIALIZATION FAILED FOR APPLNAME=applname, LUNAME=luname</td>
</tr>
<tr>
<td>IKT118I</td>
<td>INVALID QUERY REPLY, TERMINAL ID: termid</td>
</tr>
<tr>
<td>IKT119I</td>
<td>langcode MESSAGES NOT AVAILABLE FOR LU luname, USING DEFAULT</td>
</tr>
<tr>
<td>IKT120I</td>
<td>CLOSE ACB FOR applname FAILED, CODE= returncodeERROR= acberflag</td>
</tr>
<tr>
<td>IKT121I</td>
<td>TCAS SEND/RECEIVE NOT POSTED FOR TERMINAL termid</td>
</tr>
<tr>
<td>IKT122I</td>
<td>IPADDR..PORT ipaddr..portno</td>
</tr>
<tr>
<td>IKT123I</td>
<td>DNS NAME: dns_name</td>
</tr>
<tr>
<td>IKT124I</td>
<td>dns_name_continued</td>
</tr>
<tr>
<td>IKT125I</td>
<td>TSO LOGON REJECTED: QUERY REPLY TOO LARGE - TERMINAL ID: termid</td>
</tr>
<tr>
<td>IKT00201I</td>
<td>MAXIMUM USERS LOGGED ON, TRY LATER</td>
</tr>
<tr>
<td>IKT00202I</td>
<td>INSUFFICIENT STORAGE AVAILABLE FOR REQUIRED CONTROL BLOCKS</td>
</tr>
<tr>
<td>IKT00203I</td>
<td>ADDRESS SPACE CREATION FAILED</td>
</tr>
<tr>
<td>IKT00204I</td>
<td>LOGON FAILED, NO USER APPLID AVAILABLE</td>
</tr>
<tr>
<td>IKT00300I</td>
<td>LOGON RECONNECT SUCCESSFUL, SESSION ESTABLISHED</td>
</tr>
<tr>
<td>IKT00301I</td>
<td>LOGON RECONNECT UNSUCCESSFUL DUE TO SYSTEM ERROR</td>
</tr>
<tr>
<td>IKT00400I</td>
<td>INPUT DATA LOST</td>
</tr>
<tr>
<td>IKT00401I</td>
<td>OUTPUT DATA LOST</td>
</tr>
<tr>
<td>IKT00402I</td>
<td>REENTER DATA BEGINNING WITH text</td>
</tr>
<tr>
<td>IKT00403I</td>
<td>ERROR ON OUTPUT, RETRY IN PROGRESS</td>
</tr>
<tr>
<td>IKT00405I</td>
<td>SCREEN ERASURE CAUSED BY ERROR RECOVERY PROCEDURE</td>
</tr>
</tbody>
</table>

**Message text for IST VTAM operator messages**

The following table lists the message text for all IST VTAM operator messages issued for MVS.

<table>
<thead>
<tr>
<th>Message number</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>IST001I</td>
<td>VTAM START REJECTED - %38</td>
</tr>
<tr>
<td>IST003I</td>
<td>ABEND OCCURRED DURING NETWORK DEFINITION OF CONFIG %8, CODE = %3</td>
</tr>
<tr>
<td>IST009I</td>
<td>VTAM ALREADY ACTIVE - START REJECTED</td>
</tr>
<tr>
<td>IST010I</td>
<td>%8 COMMAND INVALID</td>
</tr>
</tbody>
</table>

Appendix E. Message text for VTAM operator messages  1179
<table>
<thead>
<tr>
<th>Message number</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>IST011I</td>
<td>%10 FOR %8 %24</td>
</tr>
<tr>
<td>IST013I</td>
<td>I/O ERROR FOR %8 IN %8</td>
</tr>
<tr>
<td>IST015A</td>
<td>ERROR PROCESSING LIST IDENTIFIER - ENTER LIST ID OR BLANK</td>
</tr>
<tr>
<td>IST018I</td>
<td>CONFIG COULD NOT BE INITIALIZED - VTAM START CONTINUES</td>
</tr>
<tr>
<td>IST020I</td>
<td>VTAM INITIALIZATION COMPLETE FOR %6</td>
</tr>
<tr>
<td>IST025I</td>
<td>BDL FAILD FOR %8 IN %8</td>
</tr>
<tr>
<td>IST033I</td>
<td>%8 COMMAND CANCELLED</td>
</tr>
<tr>
<td>IST037I</td>
<td>%8 FAILED - SYNTAX ERROR</td>
</tr>
<tr>
<td>IST038I</td>
<td>VARY FAILED FOR ID = %8 - HOST CDRM IS NOT ACTIVE</td>
</tr>
<tr>
<td>IST039I</td>
<td>%8 FAILED - CANNOT IDENTIFY COMMAND TYPE</td>
</tr>
<tr>
<td>IST040I</td>
<td>START OPTION %8 REQUIRED - REENTER WHEN PROMPTED</td>
</tr>
<tr>
<td>IST043I</td>
<td>%8 INVALID VALUE FOR KEYWORD %8</td>
</tr>
<tr>
<td>IST049I</td>
<td>VTAM START REJECTED - %8 FOR %2 ACB FAILED</td>
</tr>
<tr>
<td>IST050I</td>
<td>%8 COMMAND REJECTED - OPEN FOR VTAM DATA SET %12 FAILED</td>
</tr>
<tr>
<td>IST051A</td>
<td>ENTER VTAM START PARAMETERS</td>
</tr>
<tr>
<td>IST052I</td>
<td>%8 IS AN INVALID START OPTION KEYWORD - IGNORED</td>
</tr>
<tr>
<td>IST054I</td>
<td>%8 IN %8 IS EMPTY - START PROCESSING CONTINUES</td>
</tr>
<tr>
<td>IST056A</td>
<td>LIST = %3 IS INVALID - ENTER LIST ID OR BLANK</td>
</tr>
<tr>
<td>IST057I</td>
<td>KEYWORD MISSING AFTER TRACE/NOTRACE OPTION ON START PARMS</td>
</tr>
<tr>
<td>IST058I</td>
<td>%8 AND %8 OPTIONS HAVE DUPLICATE VALUES</td>
</tr>
<tr>
<td>IST059I</td>
<td>%28 IGNORED - INSUFFICIENT STORAGE</td>
</tr>
<tr>
<td>IST061I</td>
<td>%10 FOR %17 FAILED - NODE UNKNOWN TO VTAM</td>
</tr>
<tr>
<td>IST066I</td>
<td>%10 FAILED - CONFLICTING OR INVALID OPTIONS</td>
</tr>
<tr>
<td>IST072I</td>
<td>%10 FOR ID = %8 FAILED DURING NETWORK DEFINITION</td>
</tr>
<tr>
<td>IST073I</td>
<td>%10 FOR ID = %8 FAILED - MORE POWERFUL REQUEST IN PROGRESS</td>
</tr>
<tr>
<td>IST074I</td>
<td>%10 FOR ID = %8 FAILED - INSUFFICIENT STORAGE</td>
</tr>
<tr>
<td>IST075I</td>
<td>NAME = %17, TYPE = %17</td>
</tr>
<tr>
<td>IST077I</td>
<td>S10 = %5 CUA = %4 %14</td>
</tr>
<tr>
<td>IST080I</td>
<td>%8 %10 %8 %10 %8 %10</td>
</tr>
<tr>
<td>IST081I</td>
<td>LINE NAME = %8, LINE GROUP = %8, MAJNOD = %8</td>
</tr>
<tr>
<td>IST082I</td>
<td>DEVTYPE = %24 %27</td>
</tr>
<tr>
<td>IST084I</td>
<td>NETWORK NODES:</td>
</tr>
<tr>
<td>IST085I</td>
<td>DISPLAY FAILED - INFORMATION NOT AVAILABLE</td>
</tr>
<tr>
<td>IST087I</td>
<td>TYPE = %19, CONTROL = %4</td>
</tr>
<tr>
<td>IST089I</td>
<td>%8 TYPE = %17, %10 %14</td>
</tr>
<tr>
<td>IST092I</td>
<td>REQUESTED %11 LESS THAN CURRENT ALLOCATION - REQUEST %8</td>
</tr>
<tr>
<td>IST093I</td>
<td>%8 ACTIVE</td>
</tr>
<tr>
<td>IST095A</td>
<td>OPTION TO DUMP %8 AVAILABLE - REPLY 'YES' OR 'NO' OR 'YES,DUMPSTA=LINKSTANAME'</td>
</tr>
<tr>
<td>IST096I</td>
<td>%8 FAILED - DUPLICATE %8 PARAMETERS SPECIFIED</td>
</tr>
<tr>
<td>IST097I</td>
<td>%8 ACCEPTED</td>
</tr>
<tr>
<td>IST101I</td>
<td>%8 FAILED - %8 NOT SPECIFIED</td>
</tr>
<tr>
<td>IST102I</td>
<td>VTAM IS NOW INACTIVE</td>
</tr>
<tr>
<td>IST105I</td>
<td>%8 NODE NOW INACTIVE</td>
</tr>
<tr>
<td>IST107I</td>
<td>TIME AND DATE NOT SET IN %8 DUE TO INVALID TIMER IN HOST</td>
</tr>
<tr>
<td>IST112I</td>
<td>VTAM INTERNAL TRACE MODIFY FAILED - CONFLICTING MODES</td>
</tr>
<tr>
<td>IST113I</td>
<td>%8 IS A USERVAR WITH VALUE %8 IN NETWORK %8</td>
</tr>
<tr>
<td>IST115I</td>
<td>INSUFFICIENT STORAGE TO READ %8 MEMBER OF VTAM DEFINITION LIBRARY</td>
</tr>
<tr>
<td>IST116I</td>
<td>MEMBER %8 NOT FOUND ON VTAM DEFINITION LIBRARY</td>
</tr>
<tr>
<td>IST117I</td>
<td>I/O ERROR READING %8 MEMBER OF VTAM DEFINITION LIBRARY</td>
</tr>
<tr>
<td>IST118I</td>
<td>ANOMALY FOUND NEAR RECORD %8 IN MEMBER %8 - CODE = %2</td>
</tr>
<tr>
<td>IST120I</td>
<td>NODE %8 NOW HAS CONTROLLING LU %8</td>
</tr>
<tr>
<td>IST122I</td>
<td>ATTACH OF VTAM SUBTASK %8 FAILED</td>
</tr>
</tbody>
</table>
Appendix E. Message text for VTAM operator messages
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<tr>
<th>Message number</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>IST225I</td>
<td>%12 FOR ID = %8 FAILED - %30</td>
</tr>
<tr>
<td>IST226I</td>
<td>%10 FOR ID = %8 NOT EFFECTIVE DURING CURRENT OR QUEUED SESSIONS</td>
</tr>
<tr>
<td>IST228I</td>
<td>ENCRYPTION = %11 , TYPE = %6</td>
</tr>
<tr>
<td>IST231I</td>
<td>%8 MAJOR NODE = %8</td>
</tr>
<tr>
<td>IST232I</td>
<td>%8 %10 %13</td>
</tr>
<tr>
<td>IST234I</td>
<td>I/O ERROR %23</td>
</tr>
<tr>
<td>IST238I</td>
<td>%10 %3 FOR ID = %8 RCVD %60</td>
</tr>
<tr>
<td>IST240A</td>
<td>WAIT STATE IN VTAM DUE TO INSUFFICIENT NUMBER OF I/O BUFFERS SPECIFIED BY USER</td>
</tr>
<tr>
<td>IST241I</td>
<td>%10 COMMAND COMPLETE FOR %17</td>
</tr>
<tr>
<td>IST242I</td>
<td>%10 COMMAND FAILED FOR ID = %8 SENSE = %8</td>
</tr>
<tr>
<td>IST243I</td>
<td>FRAMES SENT = %5, RCVD = %5, RCVD WITHOUT ERRORS = %5</td>
</tr>
<tr>
<td>IST244I</td>
<td>NCP %11 STORAGE FOR ID = %8</td>
</tr>
<tr>
<td>IST245I</td>
<td>%6 %8 %B %B</td>
</tr>
<tr>
<td>IST247I</td>
<td>LOAD/DUMP PROCEDURE STATUS = %5 %19</td>
</tr>
<tr>
<td>IST257I</td>
<td>VTAM SDUMP FAILED WITH RETURN CODE %2 REASON 'X'%'2'</td>
</tr>
<tr>
<td>IST258I</td>
<td>STMT IN ERROR = %80</td>
</tr>
<tr>
<td>IST259I</td>
<td>INOP RECEIVED FOR %8 CODE = %2 %50</td>
</tr>
<tr>
<td>IST260I</td>
<td>%8 - %8 SESSION LOST, SA %10 CODE %2</td>
</tr>
<tr>
<td>IST262I</td>
<td>%8 = %8, STATUS = %10</td>
</tr>
<tr>
<td>IST264I</td>
<td>REQUIRED %13 %8 %15</td>
</tr>
<tr>
<td>IST265I</td>
<td>%10 FOR ID = %8 FAILED - DUP %8 HL %8</td>
</tr>
<tr>
<td>IST266I</td>
<td>%8 STARTED</td>
</tr>
<tr>
<td>IST270I</td>
<td>LOAD OF %8 COMPLETE - LOAD MODULE = %7</td>
</tr>
<tr>
<td>IST271I</td>
<td>JOBNAME = %8, STEPNAME = %8, DSPNAME = %8</td>
</tr>
<tr>
<td>IST272A</td>
<td>NO INITIAL TEST FOR %8 - REPLY 'U' TO BYPASS - OR CANCEL</td>
</tr>
<tr>
<td>IST278A</td>
<td>INVALID REPLY FOR ID = %8 LOAD - ENTER 'U' - OR CANCEL</td>
</tr>
<tr>
<td>IST282A</td>
<td>INVALID REPLY FOR ID = %8 %10 %40</td>
</tr>
<tr>
<td>IST284A</td>
<td>OPTION TO RELOAD %8 AVAILABLE - REPLY 'YES' OR 'NO' OR 'YES,LOADSTA=LINKSTANAME'</td>
</tr>
<tr>
<td>IST285I</td>
<td>%8 DUMP OF %8 %34</td>
</tr>
<tr>
<td>IST302I</td>
<td>INVALID DEFINITION TYPE IN MEMBER %8 IN VTAM DEFINITION LIBRARY</td>
</tr>
<tr>
<td>IST303I</td>
<td>INSUFFICIENT STORAGE TO BUILD CONFIGURATION %8</td>
</tr>
<tr>
<td>IST309I</td>
<td>UNABLE TO LOAD MODULE %8 FROM LIBRARY %8</td>
</tr>
<tr>
<td>IST310I</td>
<td>INVALID SPACE REQUEST FOR CONFIGURATION %8</td>
</tr>
<tr>
<td>IST311I</td>
<td>NCP LOAD MODULE LIBRARY %8 - FAILED TO OPEN</td>
</tr>
<tr>
<td>IST314I</td>
<td>END</td>
</tr>
<tr>
<td>IST315I</td>
<td>VTAM INTERNAL TRACE ACTIVE - MODE = %3, SIZE = %4 %7</td>
</tr>
<tr>
<td>IST316I</td>
<td>%13 TRACE USER OPTIONS ARE NOT ACTIVE</td>
</tr>
<tr>
<td>IST317I</td>
<td>VTAM INTERNAL TRACE ACTIVATION FAILED - INSUFFICIENT STORAGE</td>
</tr>
<tr>
<td>IST319I</td>
<td>CONFIGURATION %8 FIRST SPECIFICATION USED %22</td>
</tr>
<tr>
<td>IST320I</td>
<td>CONFIGURATION %8 DEFINITION FAILED - %20</td>
</tr>
<tr>
<td>IST321I</td>
<td>CONFIGURATION %8 DEFAULT TAKEN - %22</td>
</tr>
<tr>
<td>IST322I</td>
<td>CONFIGURATION %8 ERROR IGNORED - %22</td>
</tr>
<tr>
<td>IST323I</td>
<td>LABEL = %8 - MACRO TYPE = %8 - KEYWORD = %8</td>
</tr>
<tr>
<td>IST324I</td>
<td>%8 IN PROGRESS WITH ID = %8 DUE TO %10 REQUEST</td>
</tr>
<tr>
<td>IST326I</td>
<td>REQUEST = %10 FAILED FOR %8 ID = %8, SENSE = %8</td>
</tr>
<tr>
<td>IST327I</td>
<td>%8 ID = %8 INCOMPLETE, REQUEST = %10, SENSE = %8</td>
</tr>
<tr>
<td>IST328I</td>
<td>COMMUNICATION WITH CDRM ID = %8 LOST</td>
</tr>
<tr>
<td>IST330I</td>
<td>TABLE TYPE = %8 NAME = %8</td>
</tr>
<tr>
<td>IST331I</td>
<td>CONFIG %8 BYPASSED - 'MAXSUBA' VALUES CONFLICT</td>
</tr>
<tr>
<td>IST333I</td>
<td>CONFIG %8 USING DUPLICATE RESOURCE NAME %8 - CODE %</td>
</tr>
<tr>
<td>IST336I</td>
<td>THIS NCP MAJOR NODE WAS %28</td>
</tr>
<tr>
<td>IST339I</td>
<td>CONFIG %8 BYPASSED - %8 UNKNOWN TO THE NCP</td>
</tr>
</tbody>
</table>
Appendix E. Message text for VTAM operator messages

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<th>Message number</th>
<th>Text</th>
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</thead>
<tbody>
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<td>IST348I</td>
<td>UNABLE TO PROCESS DISCONNECTION FOR PU = %8 DUE TO LACK OF STORAGE</td>
</tr>
<tr>
<td>IST350I</td>
<td>DISPLAY TYPE = %24</td>
</tr>
<tr>
<td>IST351I</td>
<td>LOCAL 3270 MAJOR NODE = %8</td>
</tr>
<tr>
<td>IST352I</td>
<td>LOCAL SNA MAJOR NODE = %8</td>
</tr>
<tr>
<td>IST353I</td>
<td>SWITCHED SNA MAJOR NODE = %8</td>
</tr>
<tr>
<td>IST354I</td>
<td>PU T4/5 MAJOR NODE = %8</td>
</tr>
<tr>
<td>IST355I</td>
<td>LOGICAL UNITS:</td>
</tr>
<tr>
<td>IST356I</td>
<td>%11 %6 %6 %12 %5 %5/%5 %5</td>
</tr>
<tr>
<td>IST359I</td>
<td>ATTACHMENT = %8</td>
</tr>
<tr>
<td>IST360I</td>
<td>APPLICATIONS:</td>
</tr>
<tr>
<td>IST361A</td>
<td>%19 FOUND LOADED WITH %19 REPLY 'YES' TO RELOAD OR 'NO' TO CANCEL ACTIVATION</td>
</tr>
<tr>
<td>IST362I</td>
<td>GROUP %8 DEVICES UNAVAILABLE - MISSING SYSCTRL OPTION</td>
</tr>
<tr>
<td>IST363I</td>
<td>CONFIG %8 NODES AND SUBNODES SET UNAVAILABLE - %22</td>
</tr>
<tr>
<td>IST366I</td>
<td>NO STORAGE TO DEFINE NODE %8 CONFIG %8</td>
</tr>
<tr>
<td>IST367I</td>
<td>FUNCTION GROUP %8 FAILED</td>
</tr>
<tr>
<td>IST380I</td>
<td>ERROR FOR ID = %8 - REQUEST: %10, SENSE: %8</td>
</tr>
<tr>
<td>IST381I</td>
<td>%10 FOR ID = %8 FAILED - CANNOT DEFINE NODE</td>
</tr>
<tr>
<td>IST382I</td>
<td>%10 FOR ID = %8 FAILED - STATE: %8 NOT VALID FOR REQUEST</td>
</tr>
<tr>
<td>IST383I</td>
<td>DEACTIVATION OF ID = %8 FAILED - REQUEST: %10 SENSE: %8</td>
</tr>
<tr>
<td>IST384I</td>
<td>%10 FOR ID = %8 FAILED</td>
</tr>
<tr>
<td>IST388I</td>
<td>DYNAMIC CDRSC DEFINITION SUPPORT = %3</td>
</tr>
<tr>
<td>IST389I</td>
<td>OFDSELECTION OF CDRSC = %3</td>
</tr>
<tr>
<td>IST391I</td>
<td>ADJ LINK STATION = %8, LINE = %8, NODE = %8</td>
</tr>
<tr>
<td>IST393I</td>
<td>PU T4/5 MAJOR NODE %8, SUBAREA = %10</td>
</tr>
<tr>
<td>IST394I</td>
<td>ADJACENT LINK STATIONS NOT OWNED BUT AWAITING ACTIVATION</td>
</tr>
<tr>
<td>IST395I</td>
<td>%8 %8 %8 %8 %8 %8 %8 %8</td>
</tr>
<tr>
<td>IST396I</td>
<td>LNKSTA STATUS CTG GTG ADJNODE ADJSA NETID ADJLS</td>
</tr>
<tr>
<td>IST397I</td>
<td>%8 %10 %3 %3 %8 %5 %8 %7%</td>
</tr>
<tr>
<td>IST398I</td>
<td>LOAD OF %8 FAILED - %8 HAS ZERO ENTRY POINT</td>
</tr>
<tr>
<td>IST399E</td>
<td>ISTSDCOS IS NOT A CLASS OF SERVICE TABLE - ISTSDCOS DELETED</td>
</tr>
<tr>
<td>IST400I</td>
<td>TERMINATION IN PROGRESS FOR APPLID %8</td>
</tr>
<tr>
<td>IST401I</td>
<td>%10 INITIATED FOR ID = %8</td>
</tr>
<tr>
<td>IST403I</td>
<td>%8 COMMAND FAILED - MULTIPLE OPTIONS FOR %8 NOT ALLOWED</td>
</tr>
<tr>
<td>IST410I</td>
<td>%4 BUFFER POOL COULD NOT BE BUILT - CODE %</td>
</tr>
<tr>
<td>IST411I</td>
<td>%8 COMMAND REJECTED DUE TO TERMINATION IN PROGRESS</td>
</tr>
<tr>
<td>IST412I</td>
<td>VTAM COMMAND PROCESSING TERMINATED</td>
</tr>
<tr>
<td>IST413I</td>
<td>VTAM DUMPING FOR %26</td>
</tr>
<tr>
<td>IST414I</td>
<td>%10 FOR ID = %8 FAILED - PROCESS UNAVAILABLE</td>
</tr>
<tr>
<td>IST416I</td>
<td>SDUMP ISSUED DUE TO ADDRESS SPACE TERMINATION</td>
</tr>
<tr>
<td>IST422I</td>
<td>1/0 ERROR ON DS %8 RTN CD = %2, %2</td>
</tr>
<tr>
<td>IST423I</td>
<td>UNABLE TO GET STORAGE FOR DS %8</td>
</tr>
<tr>
<td>IST424I</td>
<td>CLOSE FAILED ON DS %8 RTN CD = %2, %2</td>
</tr>
<tr>
<td>IST425I</td>
<td>OPEN FAILED ON DS %8 RTN CD = %2, %2</td>
</tr>
<tr>
<td>IST430I</td>
<td>%10 FOR ID = %8 DISCARDED</td>
</tr>
<tr>
<td>IST433I</td>
<td>COMMAND REJECTED - TUNING STATISTICS TASK NOT ATTACHED</td>
</tr>
<tr>
<td>IST435I</td>
<td>STORAGE NOT AVAILABLE FOR TUNING STATISTICS DATA</td>
</tr>
<tr>
<td>IST440I</td>
<td>TIME = %8 DATE = %5 ID = %8</td>
</tr>
<tr>
<td>IST441I</td>
<td>DLRMAX = %10 CHWR = %10 CHRD = %10</td>
</tr>
<tr>
<td>IST442I</td>
<td>ATTN = %10 RDATN = %10 IPIU = %10</td>
</tr>
<tr>
<td>IST443I</td>
<td>OPIU = %10 RDBUF = %10 SLODN = %10</td>
</tr>
<tr>
<td>Message number</td>
<td>Text</td>
</tr>
<tr>
<td>---------------</td>
<td>------</td>
</tr>
<tr>
<td>IST447I</td>
<td>BUFFER SIZE WAS IGNORED FOR ONE OR MORE POOLS</td>
</tr>
<tr>
<td>IST448I</td>
<td>%8 OPTION IGNORED - %29</td>
</tr>
<tr>
<td>IST449I</td>
<td>%11 = %8, CURRENT = %8, MAXIMUM = %8</td>
</tr>
<tr>
<td>IST450I</td>
<td>INVALID %8 COMMAND SYNTAX</td>
</tr>
<tr>
<td>IST451I</td>
<td>%8 COMMAND UNRECOGNIZED, PARAMETER=%8</td>
</tr>
<tr>
<td>IST452I</td>
<td>%8 PARAMETER EXTRANEOUS</td>
</tr>
<tr>
<td>IST453I</td>
<td>%8 PARAMETER VALUE %17 NOT VALID</td>
</tr>
<tr>
<td>IST454I</td>
<td>%8 COMMAND FAILED, INSUFFICIENT STORAGE</td>
</tr>
<tr>
<td>IST455I</td>
<td>%43 SESSIONS ENDED</td>
</tr>
<tr>
<td>IST456I</td>
<td>%8 REQUIRED PARAMETER OMITTED</td>
</tr>
<tr>
<td>IST457I</td>
<td>POSITIVE %8 COMMAND RESPONSE</td>
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<tr>
<td>IST458I</td>
<td>USS MESSAGE %3 NOT DEFINED</td>
</tr>
<tr>
<td>IST459I</td>
<td>%10 FAILED - ID = %8 - ADJ NODE %55</td>
</tr>
<tr>
<td>IST460I</td>
<td>%10 FOR U/RNAME ENTRY ID = %8 FAILED: %40</td>
</tr>
<tr>
<td>IST461I</td>
<td>%10 FOR U/RNAME ENTRY ID = %8 STARTED</td>
</tr>
<tr>
<td>IST462I</td>
<td>ACTIVATION OF LINK STATION %8 IS DEFERRED PENDING HIGHER LEVEL NODE ACTIVATION</td>
</tr>
<tr>
<td>IST463I</td>
<td>LINK STATION %8 HAS CONTACTED %8 SA %10</td>
</tr>
<tr>
<td>IST464I</td>
<td>%10 FOR ID = %8 FAILED - NO %4 STATION AVAILABLE</td>
</tr>
<tr>
<td>IST465I</td>
<td>%10 FOR ID = %8 CONTINUES - UNABLE TO DO %40</td>
</tr>
<tr>
<td>IST466I</td>
<td>CONTACTED ERROR TYPE %3 FOR ID = %8</td>
</tr>
<tr>
<td>IST467I</td>
<td>CONNECTIVITY TEST TO %8 TERMINATED AFTER %3 ECHOES DUE TO I/O ERROR, SENSE = %8</td>
</tr>
<tr>
<td>IST468I</td>
<td>%8 FAILED FOR %8 REQUEST %10 SENSE %8</td>
</tr>
<tr>
<td>IST469I</td>
<td>CDRM TYPE = %8 %20</td>
</tr>
<tr>
<td>IST470I</td>
<td>CDRSM:</td>
</tr>
<tr>
<td>IST471I</td>
<td>CDRSCS:</td>
</tr>
<tr>
<td>IST472I</td>
<td>CDRM NAME = %8, VERIFY OWNER = %3</td>
</tr>
<tr>
<td>IST473I</td>
<td>%8 %5, SA %10, EL %5, NETID = %8</td>
</tr>
<tr>
<td>IST474I</td>
<td>%8 %10, CDRM = %8, NETID = %8</td>
</tr>
<tr>
<td>IST475I</td>
<td>SUBAREA = %10 %26</td>
</tr>
<tr>
<td>IST476I</td>
<td>CURRENT STATE = %10, DESIRED STATE = %5</td>
</tr>
<tr>
<td>IST477I</td>
<td>%10 FOR ID = %8 SCHEDULED BY %10</td>
</tr>
<tr>
<td>IST478I</td>
<td>%10 FOR ID = %8 FAILED - DUPLICATE NODE: %8</td>
</tr>
<tr>
<td>IST479I</td>
<td>%10 FOR ID = %8 CONTINUES - CANNOT DEFINE NODE: %8</td>
</tr>
<tr>
<td>IST480I</td>
<td>%10 FOR ID = %8 FAILED - %10 IN PROGRESS</td>
</tr>
<tr>
<td>IST481I</td>
<td>%10 FOR ID = %8 OVERRIDEN BY %10</td>
</tr>
<tr>
<td>IST482I</td>
<td>%10 FOR ID = %8 FAILED - ALREADY IN DESIRED STATE</td>
</tr>
<tr>
<td>IST483I</td>
<td>%11 HAS BEEN SET TO %8</td>
</tr>
<tr>
<td>IST484I</td>
<td>%22 FUNCTION INOPERATIVE DUE TO ABEND</td>
</tr>
<tr>
<td>IST485I</td>
<td>DISK FUNCTIONS FOR %8 NOT PERFORMED</td>
</tr>
<tr>
<td>IST486I</td>
<td>%8 NOT ACTIVE, TSO TRACE REQUEST IGNORED</td>
</tr>
<tr>
<td>IST487I</td>
<td>ROUTE TEST %3 FAILED - %35</td>
</tr>
<tr>
<td>IST488I</td>
<td>TRACE REQUEST FAILED - %8 INVALID</td>
</tr>
<tr>
<td>IST489I</td>
<td>TRACese TERMINATED FOR NODE = %8 %18</td>
</tr>
<tr>
<td>IST490I</td>
<td>TRACE INITIATED FOR NODE %8 %18</td>
</tr>
<tr>
<td>IST491I</td>
<td>DESTSUB ADJSUB TGN ER ER STATUS VR(S)</td>
</tr>
<tr>
<td>IST492I</td>
<td>%7 %7 %3 %2 %6 %24</td>
</tr>
<tr>
<td>IST493I</td>
<td>UNABLE TO PROCESS %44</td>
</tr>
<tr>
<td>IST494I</td>
<td>GBIND %6 FOR COS %8 %25</td>
</tr>
<tr>
<td>IST495I</td>
<td>%2 %2 %5 %8 SA %10 TO SA %10 %7</td>
</tr>
<tr>
<td>IST496I</td>
<td>REASON = %53</td>
</tr>
<tr>
<td>IST497I</td>
<td>REVERSE ER MASK = %4</td>
</tr>
<tr>
<td>IST498I</td>
<td>REJECTING SA %10 USING TG %3 ADJACENT SA %10</td>
</tr>
<tr>
<td>Message number</td>
<td>Text</td>
</tr>
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</tr>
<tr>
<td>IST526I</td>
<td>ROUTE FAILED FROM %10 TO %10 - DSA %10 - NETID %8</td>
</tr>
<tr>
<td>IST528I</td>
<td>VIRTUAL ROUTE NUMBER %32</td>
</tr>
<tr>
<td>IST529I</td>
<td>VR SELECTION EXIT %24 %19</td>
</tr>
<tr>
<td>IST530I</td>
<td>%10 PENDING %38</td>
</tr>
<tr>
<td>IST531I</td>
<td>%62</td>
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<tr>
<td>IST533I</td>
<td>ER %2 %9 IN ROUTE TEST %3</td>
</tr>
<tr>
<td>IST534I</td>
<td>%10 %3 %10 %10 %3 %3 %3 %3</td>
</tr>
<tr>
<td>IST535I</td>
<td>ROUTE DISPLAY %3 FROM SA %10 TO SA %10</td>
</tr>
<tr>
<td>IST536I</td>
<td>VR TP STATUS ER ADJSUB TGN STATUS CUR MIN MAX</td>
</tr>
<tr>
<td>IST537I</td>
<td>%2 %2 %6 %2 %10 %3 %6 %3 %3 %3</td>
</tr>
<tr>
<td>IST538I</td>
<td>ROUTE TEST %3 IN PROGRESS</td>
</tr>
<tr>
<td>IST539I</td>
<td>DISPLAY ROUTE COMMAND FAILED, COS CANNOT BE RESOLVED</td>
</tr>
<tr>
<td>IST540I</td>
<td>DISPLAY ROUTE COMMAND FAILED, SENSE = %8</td>
</tr>
<tr>
<td>IST541I</td>
<td>FOLLOWING PATH DEFINITION IS IGNORED</td>
</tr>
<tr>
<td>IST542I</td>
<td>INVALID DESTSA %10 FOR PATH DEFINITION - IGNORED</td>
</tr>
<tr>
<td>IST543I</td>
<td>PATH %36 IS REDEFINED AS FOLLOWS</td>
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<tr>
<td>IST544I</td>
<td>PATH %36</td>
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<tr>
<td>IST546I</td>
<td>UNABLE TO PROCESS %41</td>
</tr>
<tr>
<td>IST547I</td>
<td>EXPLICIT ROUTE MASK %4</td>
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<tr>
<td>IST548I</td>
<td>%10 FAILED %48</td>
</tr>
<tr>
<td>IST549I</td>
<td>LL2 TEST FOR ID = %8 ENDED %24</td>
</tr>
<tr>
<td>IST561I</td>
<td>STORAGE UNAVAILABLE: %4 BUFFER POOL</td>
</tr>
<tr>
<td>IST562I</td>
<td>STORAGE UNAVAILABLE: %11 REACHED</td>
</tr>
<tr>
<td>IST563I</td>
<td>STORAGE UNAVAILABLE: MAXPVT REACHED FOR %8 %8</td>
</tr>
<tr>
<td>IST564I</td>
<td>STORAGE UNAVAILABLE: COMMON AREA SUBPOOL %3</td>
</tr>
<tr>
<td>IST565I</td>
<td>STORAGE UNAVAILABLE: VTAM PRIVATE AREA SUBPOOL %3</td>
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<tr>
<td>IST566I</td>
<td>STORAGE UNAVAILABLE: %8 %8 SUBPOOL %3</td>
</tr>
<tr>
<td>IST567I</td>
<td>%10 OF %8 FOR %8 %13</td>
</tr>
<tr>
<td>IST571I</td>
<td>LOAD FAILED FOR ID = %8 REQ: %10, SENSE: %8</td>
</tr>
<tr>
<td>IST572I</td>
<td>REJECTING TG ADJACENT ER MASK</td>
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<tr>
<td>IST574E</td>
<td>START I/O TIMEOUT OCCURRED FOR %8</td>
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<tr>
<td>IST576I</td>
<td>TSO TRACE = %3</td>
</tr>
<tr>
<td>IST577I</td>
<td>TIME = %8 DATE = %5 ID = %8</td>
</tr>
<tr>
<td>IST578I</td>
<td>CHNRM = %10 CHMAX = %10 RDBUF = %10</td>
</tr>
<tr>
<td>IST579I</td>
<td>ATTN = %10 TIMERS = %10 QDPTH = %10</td>
</tr>
<tr>
<td>IST580I</td>
<td>BUF CAP = %10 PRI = %10 SLODN = %10</td>
</tr>
<tr>
<td>IST581I</td>
<td>IPIU = %10 OPIU = %10 DLRMAX = %10</td>
</tr>
<tr>
<td>IST582I</td>
<td>'EVERY' INVALID FOR TRACE OF ID = %8 - OPERAND IGNORED</td>
</tr>
<tr>
<td>IST583I</td>
<td>CONFIG %8 NOT PROCESSED - SYSDEF TASK NOT ATTACHED</td>
</tr>
<tr>
<td>IST585E</td>
<td>VTAM UNABLE TO CLOSE %8 - RESOURCES MAY BE LOST TO VTAM</td>
</tr>
<tr>
<td>IST587I</td>
<td>IRN STORAGE %8 CAUSED BY SLOWDOWN OF NODE %8</td>
</tr>
<tr>
<td>IST588I</td>
<td>SIT TRACE STATUS = %5</td>
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<tr>
<td>IST589I</td>
<td>ERROR FOR ID = %8, CODE = %, NET = %8</td>
</tr>
<tr>
<td>IST590I</td>
<td>CONNECT%3 %11 FOR PU %8 ON LINE %8</td>
</tr>
<tr>
<td>IST591E</td>
<td>VTAM COMMAND CANCELED DUE TO VTAM TASK ABEND - %3 - RETRY COMMAND</td>
</tr>
<tr>
<td>IST592I</td>
<td>VTAM MAIN TASK ABEND - CODE %3 - VTAM IS BEING TERMINATED</td>
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<tr>
<td>IST593I</td>
<td>ISTPDCLU %17 SESSION ENDED</td>
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<tr>
<td>IST594I</td>
<td>ISTPDCLU %9 FAILED %3 %3</td>
</tr>
<tr>
<td>IST595I</td>
<td>IRN LIMIT = %8, CURRENT = %8, MAXIMUM = %8</td>
</tr>
<tr>
<td>IST596I</td>
<td>IRN TRACE = %3</td>
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<td>IST597I</td>
<td>CAPABILITY-PLU %9,SLU %9,SESSION LIMIT %8</td>
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<tr>
<td>IST599I</td>
<td>REAL NAME = %17</td>
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<td>Message number</td>
<td>Text</td>
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<tr>
<td>IST602I</td>
<td>%8 FAILED ID = %8 - HIGHER NODE HAS BECOME INACTIVE</td>
</tr>
<tr>
<td>IST605I</td>
<td>ERROR FOR ID = %8 - %8 : %10, DATA INVALID FOR THIS NODE</td>
</tr>
<tr>
<td>IST607I</td>
<td>%10 FOR %17 FAILED - INVALID NODE TYPE OR STATE</td>
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<tr>
<td>IST608I</td>
<td>%10 FOR ID = %8 FAILED - HIGHER NODE: %8 NOT ACTIVE</td>
</tr>
<tr>
<td>IST610I</td>
<td>LINE %8 - STATUS %10</td>
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<tr>
<td>IST611I</td>
<td>ADJACENT SSCP TABLE FOR %8 %11</td>
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<tr>
<td>IST617I</td>
<td>DEACTIVATION IN PROGRESS FOR %8</td>
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<tr>
<td>IST619I</td>
<td>ID = %8 FAILED - RECOVERY IN PROGRESS</td>
</tr>
<tr>
<td>IST621I</td>
<td>%22 FOR NETWORK NODE %8</td>
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<tr>
<td>IST623I</td>
<td>%7 ADJACENT SSCP TABLE %12</td>
</tr>
<tr>
<td>IST624I</td>
<td>%8 %8 %5 %7</td>
</tr>
<tr>
<td>IST627I</td>
<td>%8 - INSUFFICIENT STORAGE</td>
</tr>
<tr>
<td>IST632I</td>
<td>BUFF BUFF CURR CURR MAX MAX TIMES EXP/CONT EXP</td>
</tr>
<tr>
<td>IST633I</td>
<td>ID SIZE TOTAL AVAIL TOTAL USED EXP THRESHOLD INCR</td>
</tr>
<tr>
<td>IST634I</td>
<td>NAME STATUS SID SEND RECV VR TP NETID</td>
</tr>
<tr>
<td>IST635I</td>
<td>%8 %10 %16 %8 %2 %2 %7 %7</td>
</tr>
<tr>
<td>IST636I</td>
<td>CDRSCS OWNED BY %8 -</td>
</tr>
<tr>
<td>IST637I</td>
<td>SUBAREA= %10 ELEMENT= %5</td>
</tr>
<tr>
<td>IST638I</td>
<td>ADJNETSA = %10, ADJNETEL = %5</td>
</tr>
<tr>
<td>IST639I</td>
<td>GWN = %8, ADJNET = %8</td>
</tr>
<tr>
<td>IST640I</td>
<td>%8 ADDR IN ADJNET - SA = %10, EL = %5</td>
</tr>
<tr>
<td>IST641I</td>
<td>GATEWAY PATH SELECTION LIST - %15</td>
</tr>
<tr>
<td>IST642I</td>
<td>ADJNET GWN SUBAREA ELEM ADJNETSA ADJNETEL</td>
</tr>
<tr>
<td>IST643I</td>
<td>%8 %8 %10 %5 %10 %5 %5</td>
</tr>
<tr>
<td>IST644I</td>
<td>%8 TG %8 %8</td>
</tr>
<tr>
<td>IST645I</td>
<td>%8 DEFINITION FAILED - NO VALID %8 MACRO</td>
</tr>
<tr>
<td>IST650I</td>
<td>POLL = %3, NEGPOLL = %3, SESSION(S) = %3</td>
</tr>
<tr>
<td>IST651I</td>
<td>%8 IS A DUPLICATE KEYWORD IN THE TRACE/NOTRACE OPTION</td>
</tr>
<tr>
<td>IST654I</td>
<td>I/O TRACE = %3, BUFFER TRACE = %3 %18</td>
</tr>
<tr>
<td>IST655I</td>
<td>%8 TRACE STATUS = %5</td>
</tr>
<tr>
<td>IST656I</td>
<td>ACTIVATE REJECTED FROM UNEDEFINED CDRM, SA %10 EL %5</td>
</tr>
<tr>
<td>IST658I</td>
<td>%8 COMMAND FAILED - %8 NOT FOUND</td>
</tr>
<tr>
<td>IST660I</td>
<td>%10 FOR ID = %8 FAILED - PARM: %15 NOT VALID</td>
</tr>
<tr>
<td>IST663I</td>
<td>%10 REQUEST %22, SENSE= %8</td>
</tr>
<tr>
<td>IST664I</td>
<td>%5 %3=%17 %5 %3=%17</td>
</tr>
<tr>
<td>IST670I</td>
<td>VARY %4 PROCESSING FOR ID = %8 COMPLETE</td>
</tr>
<tr>
<td>IST674I</td>
<td>%10 FOR ID = %8 CONTINUES - PARM: %15 IGNORED</td>
</tr>
<tr>
<td>IST675I</td>
<td>VR = %2, TP = %2</td>
</tr>
<tr>
<td>IST678I</td>
<td>INSUFFICIENT STORAGE TO SCHEDULE TPEND EXIT FOR %8</td>
</tr>
<tr>
<td>IST679A</td>
<td>PLEASE DIAL LINE = %8, NUMBER = %32</td>
</tr>
<tr>
<td>IST680I</td>
<td>CONNECTION REQUEST DENIED - ID = %8 %20</td>
</tr>
<tr>
<td>IST683I</td>
<td>CONNECTION REQUEST DENIED, ID = %8</td>
</tr>
<tr>
<td>IST684I</td>
<td>I/O ERR, CSW = %16, SENSE = %4</td>
</tr>
<tr>
<td>IST688I</td>
<td>VARY FAILED FOR ID = %8 - INSUFFICIENT STORAGE</td>
</tr>
<tr>
<td>IST690I</td>
<td>CONNECTION REQUEST DENIED - INVALID STATION ID = %12</td>
</tr>
<tr>
<td>IST693I</td>
<td>UNABLE TO DISCONNECT ID = %8</td>
</tr>
<tr>
<td>IST700I</td>
<td>INVALID %5 - SKIPPING TO NEXT NETWORK STMT OR EOF</td>
</tr>
<tr>
<td>IST701I</td>
<td>CONFIG %8 LABEL = %8 STMT TYPE = %8</td>
</tr>
<tr>
<td>IST702I</td>
<td>CONFIG %8 - UNEXPECTED %22</td>
</tr>
<tr>
<td>IST703I</td>
<td>CONFIG %8 ADJSSCP DEFINITIONS IGNORED - NO ADJCDRM STMT</td>
</tr>
<tr>
<td>IST706I</td>
<td>ADJSSCP TABLE FOR %8 IGNORED - INSUFFICIENT STORAGE</td>
</tr>
<tr>
<td>IST707I</td>
<td>ADJSSCP TABLE BEING MODIFIED BY ACTIVATION OF %8</td>
</tr>
<tr>
<td>Message number</td>
<td>Text</td>
</tr>
<tr>
<td>---------------</td>
<td>------</td>
</tr>
<tr>
<td>IST708I</td>
<td>%16 %18 %15</td>
</tr>
<tr>
<td>IST709I</td>
<td>CONFIG %8 FAILED-%30</td>
</tr>
<tr>
<td>IST710I</td>
<td>CONFIG %8 NETWORK %8 %22</td>
</tr>
<tr>
<td>IST712I</td>
<td>CONFIG %8 GWPATH %8 IGNORED - MISSING OPERANDS</td>
</tr>
<tr>
<td>IST713I</td>
<td>CONFIG %8 GWPATH %8 - %8 OPERAND IGNORED</td>
</tr>
<tr>
<td>IST714I</td>
<td>CONFIG %8 GWPATH %8 IGNORED - INVALID STMT</td>
</tr>
<tr>
<td>IST715I</td>
<td>CONFIG %8 CDRM %8 IGNORED - GWPATH STMT MISSING</td>
</tr>
<tr>
<td>IST716I</td>
<td>%10 FOR %8 FAILED</td>
</tr>
<tr>
<td>IST717I</td>
<td>NETID %8 ID %8 SA %10 %27</td>
</tr>
<tr>
<td>IST718I</td>
<td>ADDRESS INVALID FOR NETID=%8 CDRM=%8 CODE=X'2'</td>
</tr>
<tr>
<td>IST719I</td>
<td>%63</td>
</tr>
<tr>
<td>IST720I</td>
<td>%8 HAS CONTACTED %8 IN %8, SA %10</td>
</tr>
<tr>
<td>IST721I</td>
<td>SESSION SETUP FOR CDRM %8 USING GWN %8 FAILED</td>
</tr>
<tr>
<td>IST723I</td>
<td>SSCPID %12 ALREADY IN USE BY CDRM %8</td>
</tr>
<tr>
<td>IST725I</td>
<td>GWN %8, SUBAREA %10, CDRM ALIAS ELEMENT %5</td>
</tr>
<tr>
<td>IST726I</td>
<td>ADJNET %8, ADJNETSA %10, ADJNETEL %5</td>
</tr>
<tr>
<td>IST727I</td>
<td>COMMUNICATION WITH CDRM %8 LOST - REASON = X'52'</td>
</tr>
<tr>
<td>IST728I</td>
<td>GWPATHS FOR GWN %8 ARE NOW %8 FOR THESE CDRMS</td>
</tr>
<tr>
<td>IST732I</td>
<td>%10 REJECTED DUE TO %20</td>
</tr>
<tr>
<td>IST734I</td>
<td>ACTIVATION OF CDRM %8 USING GWN %8 FAILED</td>
</tr>
<tr>
<td>IST735I</td>
<td>NO ADDRESS TRANSFORMS - REQACTCDRM SENT</td>
</tr>
<tr>
<td>IST737I</td>
<td>DEFAULT VR LIST USED FOR CDRM %8 USING GWN %8</td>
</tr>
<tr>
<td>IST740I</td>
<td>UNABLE TO FREE ALIAS ADDRESSES FOR CDRM %8 GWN %8</td>
</tr>
<tr>
<td>IST741I</td>
<td>ACTIVATION OF CDRM %8 - GW PATH NOT AVAILABLE</td>
</tr>
<tr>
<td>IST744I</td>
<td>CROSS-NETWORK SESSION SETUP FAILED, NETWORK = %8</td>
</tr>
<tr>
<td>IST745I</td>
<td>ACTCDRM TO CDRM = %8 FAILED, SENSE = %8</td>
</tr>
<tr>
<td>IST746I</td>
<td>BIND FAILED FROM %8 TO %8, SENSE = %8</td>
</tr>
<tr>
<td>IST751I</td>
<td>S10 = %8, ERROR CT = %8, CUA = %4</td>
</tr>
<tr>
<td>IST752I</td>
<td>GPT TRACE STATUS = %11 %18</td>
</tr>
<tr>
<td>IST755I</td>
<td>ALERT FROM PU %8 (IBM)</td>
</tr>
<tr>
<td>IST756E</td>
<td>ALERT FROM PU %8 (IBM)</td>
</tr>
<tr>
<td>IST757E</td>
<td>MOSS UNAVAILABLE - HARDWARE ERROR</td>
</tr>
<tr>
<td>IST758E</td>
<td>MOSS RELOADED - HARDWARE ERROR</td>
</tr>
<tr>
<td>IST759E</td>
<td>MOSS DISKETTE UNUSABLE</td>
</tr>
<tr>
<td>IST760E</td>
<td>MOSS DISKETTE HARDWARE ERROR</td>
</tr>
<tr>
<td>IST761E</td>
<td>MOSS CONSOLE UNAVAILABLE</td>
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<tr>
<td>IST762I</td>
<td>MOSS IN MAINTENANCE MODE</td>
</tr>
<tr>
<td>IST763I</td>
<td>PHYSICAL UNIT RELOADED - HARDWARE ERROR</td>
</tr>
<tr>
<td>IST764I</td>
<td>PHYSICAL UNIT RELOADED - PRIOR ABEND CODE WAS %8</td>
</tr>
<tr>
<td>IST765E</td>
<td>CHANNEL ADAPTER %8 UNAVAILABLE - HARDWARE ERROR</td>
</tr>
<tr>
<td>IST766I</td>
<td>DUMP FAILED - NO %4 DUMP ON %8 DISK(ETTE)</td>
</tr>
<tr>
<td>IST767E</td>
<td>SCANNER %8 (%8-%8) UNAVAILABLE - HARDWARE ERROR</td>
</tr>
<tr>
<td>IST768E</td>
<td>SCANNER %8 (%8-%8) UNAVAILABLE - HARDWARE ERROR</td>
</tr>
<tr>
<td>IST769E</td>
<td>SCANNER %8 (%8-%8) UNAVAILABLE - SOFTWARE ERROR</td>
</tr>
<tr>
<td>IST770E</td>
<td>SCANNER %8 (%8-%8) UNAVAILABLE - SOFTWARE ERROR</td>
</tr>
<tr>
<td>IST771E</td>
<td>SCANNER %8 LINE %8 UNAVAILABLE - HARDWARE ERROR</td>
</tr>
<tr>
<td>IST772I</td>
<td>UAC = %2 %42</td>
</tr>
<tr>
<td>IST773I</td>
<td>SESSION WITH %8 IN PROCESS OF BEING TERMINATED</td>
</tr>
<tr>
<td>IST778I</td>
<td>%8 %8 %8 %8 %8 %8</td>
</tr>
<tr>
<td>IST784I</td>
<td>SESSION(S) EXIST(S) WITH UNKNOWN PARTNER(S)</td>
</tr>
<tr>
<td>IST786I</td>
<td>%8 COMMAND REJECTED - %2B</td>
</tr>
<tr>
<td>IST787I</td>
<td>SSCP TAKEOVER FOR NODE %8 IN PROGRESS</td>
</tr>
<tr>
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<td>Text</td>
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</tr>
<tr>
<td>IST789I</td>
<td>%10 FAILED FOR ID = %8, CA / NCP CONFLICT</td>
</tr>
<tr>
<td>IST790I</td>
<td>MAXIMUM %5 USED = %7K</td>
</tr>
<tr>
<td>IST792I</td>
<td>NO SUCH SESSION EXISTS</td>
</tr>
<tr>
<td>IST793E</td>
<td>SESSION MANAGEMENT ERROR, CODE %29</td>
</tr>
<tr>
<td>IST796I</td>
<td>HOSTSA VALUE EXCEEDS %0</td>
</tr>
<tr>
<td>IST797I</td>
<td>FROM VIA ADJACENT DEST ER LENGTH</td>
</tr>
<tr>
<td>IST798I</td>
<td>%8</td>
</tr>
<tr>
<td>IST799I</td>
<td>%15 %4 IN PROGRESS</td>
</tr>
<tr>
<td>IST803I</td>
<td>VTAM TERMINATION TASK TERMINATED-OPEN FAILED</td>
</tr>
<tr>
<td>IST804I</td>
<td>CLOSE IN PROGRESS FOR %8 OPENED BY %8 %8</td>
</tr>
<tr>
<td>IST805I</td>
<td>VTAM CLOSE COMPLETE FOR %8</td>
</tr>
<tr>
<td>IST807I</td>
<td>%10 FOR ID = %8 FAILED - NODE IS IN TEST MODE</td>
</tr>
<tr>
<td>IST808I</td>
<td>ORIGIN PU = %8 DEST PU = %8 %16</td>
</tr>
<tr>
<td>IST809I</td>
<td>XRF SESSIONS - PRIMARY = %5 BACKUP = %5</td>
</tr>
<tr>
<td>IST812I</td>
<td>%8 COMMAND NOT ACCEPTED</td>
</tr>
<tr>
<td>IST813I</td>
<td>USERVAR %8 CHANGED FROM %8 TO %8</td>
</tr>
<tr>
<td>IST814I</td>
<td>USERVAR %8 DELETED</td>
</tr>
<tr>
<td>IST815I</td>
<td>AUTOMATIC RECOVERY IS SUPPORTED</td>
</tr>
<tr>
<td>IST816I</td>
<td>%10 %3 %10 %4</td>
</tr>
<tr>
<td>IST819I</td>
<td>CDRM %8 COMMUNICATION LOST - RECOVERY IN PROGRESS</td>
</tr>
<tr>
<td>IST820I</td>
<td>%5 RSP DATA DISCARDED FOR ID = %8 - INSUFF STORAGE</td>
</tr>
<tr>
<td>IST822I</td>
<td>CDRM %8 RECOVERY FAILED - INSUFFICIENT STORAGE</td>
</tr>
<tr>
<td>IST825I</td>
<td>USERVAR DEFINED - NAME = %8, VALUE = %8</td>
</tr>
<tr>
<td>IST826I</td>
<td>VTAM START REJECTED--START COMMAND NOT USED FOR VTAM INITIALIZATION</td>
</tr>
<tr>
<td>IST830I</td>
<td>ORIGINATING SSCP NAME = %8, NETID = %8</td>
</tr>
<tr>
<td>IST831I</td>
<td>DUPLICATE ADJCDRM NAME %8 IN %8</td>
</tr>
<tr>
<td>IST832I</td>
<td>UNLABELED %8 STMT IN %8</td>
</tr>
<tr>
<td>IST833I</td>
<td>SKIPPING TO NEXT %37</td>
</tr>
<tr>
<td>IST834I</td>
<td>%4 BACKUP SESSION(S) EXIST(S) WITH UNKNOWN PARTNERS</td>
</tr>
<tr>
<td>IST838I</td>
<td>TRACE STATUS DISPLAY FOR ID = %8</td>
</tr>
<tr>
<td>IST839I</td>
<td>PU NAME LINE NAME</td>
</tr>
<tr>
<td>IST840I</td>
<td>%8 %8</td>
</tr>
<tr>
<td>IST841I</td>
<td>NO RESOURCES ARE BEING TRACED FOR %8</td>
</tr>
<tr>
<td>IST842I</td>
<td>UNABLE TO FIND BUFFERS IN %2 POOL - DUMP IN PROGRESS</td>
</tr>
<tr>
<td>IST844I</td>
<td>VTAM START REJECTED - %8 IS DUPLICATE NAME</td>
</tr>
<tr>
<td>IST846I</td>
<td>REAL I/O NOT SUPPORTED BECAUSE %32</td>
</tr>
<tr>
<td>IST849I</td>
<td>%8 INCONSISTENT WITH USE OF %8 IN %8</td>
</tr>
<tr>
<td>IST860I</td>
<td>DEACTIVATION OF %8 INCOMPLETE - INSUFFICIENT STORAGE</td>
</tr>
<tr>
<td>IST861I</td>
<td>MODETAB=%8 USSTAB=%8 LOGTAB=%8</td>
</tr>
<tr>
<td>IST862I</td>
<td>NETID = %8 COSTABLE = %19</td>
</tr>
<tr>
<td>IST863I</td>
<td>MODIFY TABLE COMMAND FAILED-%33</td>
</tr>
<tr>
<td>IST864I</td>
<td>NEWTAB=%8, OLDTAB=%8, OPT=%9, TYPE=%7</td>
</tr>
<tr>
<td>IST865I</td>
<td>%12 COMMAND COMPLETE-%29</td>
</tr>
<tr>
<td>IST866I</td>
<td>%10 HAD NO EFFECT - %40</td>
</tr>
<tr>
<td>IST867I</td>
<td>SIT TRACE FOR %8 FAILED TO ACTIVATE</td>
</tr>
<tr>
<td>IST869I</td>
<td>USERID = %8</td>
</tr>
<tr>
<td>IST870I</td>
<td>NETWORK ADDRESS RECEIVED FOR %8 IN USE BY %8</td>
</tr>
<tr>
<td>IST871I</td>
<td>RESOURCE %8 %11</td>
</tr>
<tr>
<td>IST872I</td>
<td>DR MOVE MISMATCH DETECTED FOR %8</td>
</tr>
<tr>
<td>IST873I</td>
<td>PLU SLU SID STATUS</td>
</tr>
<tr>
<td>IST874I</td>
<td>%17 %17 %16 %8</td>
</tr>
<tr>
<td>IST875I</td>
<td>%7 TOWARDS %3 = %8 %28</td>
</tr>
<tr>
<td>Message number</td>
<td>Text</td>
</tr>
<tr>
<td>---------------</td>
<td>------</td>
</tr>
<tr>
<td>IST876I</td>
<td>SIGNALS NEEDED TO COMPLETE SESSION %8</td>
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<tr>
<td>IST877I</td>
<td>%14 %14 %14 %14</td>
</tr>
<tr>
<td>IST878I</td>
<td>NUMBER OF %7 SESSIONS = %10</td>
</tr>
<tr>
<td>IST879I</td>
<td>%7 REAL = %17 ALIAS = %17</td>
</tr>
<tr>
<td>IST880I</td>
<td>SETUP STATUS = %8 %26</td>
</tr>
<tr>
<td>IST881I</td>
<td>%17 LINK STATION %8</td>
</tr>
<tr>
<td>IST882I</td>
<td>WAITING FOR DEVICE END FROM DEVICE</td>
</tr>
<tr>
<td>IST883I</td>
<td>%9 OF SAW BUFFERS USED %27</td>
</tr>
<tr>
<td>IST886I</td>
<td>%11 %8 %8 %8 %11 %13 FAILED</td>
</tr>
<tr>
<td>IST887I</td>
<td>NO COS TABLE FOR %8 - %17 MAY BE USED</td>
</tr>
<tr>
<td>IST888I</td>
<td>ADDR + LENGTH VALUES EXCEED STORAGE - LENGTH SET TO %3</td>
</tr>
<tr>
<td>IST889I</td>
<td>SID = %16</td>
</tr>
<tr>
<td>IST890I</td>
<td>AUTOLOGIN SESSION SETUP FAILED</td>
</tr>
<tr>
<td>IST891I</td>
<td>%26 GENERATED FAILURE NOTIFICATION</td>
</tr>
<tr>
<td>IST892I</td>
<td>%17 ORIGINATED FAILURE NOTIFICATION</td>
</tr>
<tr>
<td>IST893I</td>
<td>ORIGINAL FAILING REQUEST IS %10</td>
</tr>
<tr>
<td>IST894I</td>
<td>ADJSSCPs TRIED FAILURE SENSE ADJSSCPs TRIED FAILURE SENSE</td>
</tr>
<tr>
<td>IST895I</td>
<td>%8 %8 %8 %8</td>
</tr>
<tr>
<td>IST896I</td>
<td>AUTOLOGIN WILL BE RETRIED WHEN CONTROLLING PLU IS AVAILABLE</td>
</tr>
<tr>
<td>IST897I</td>
<td>LOAD OF %8 STARTED</td>
</tr>
<tr>
<td>IST898I</td>
<td>GWSELECT = %3</td>
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<tr>
<td>IST899I</td>
<td>RETRY OF AUTOLOGIN(S) TO %17 %14</td>
</tr>
<tr>
<td>IST919I</td>
<td>NO LONGER HAS CONTROLLING LU %8</td>
</tr>
<tr>
<td>IST920I</td>
<td>%4 %4 %4 BUFF SIZE %5 EXP INCREMENT %5</td>
</tr>
<tr>
<td>IST921I</td>
<td>TIMES EXP %10 EXP/CONT THRESH %5 %5</td>
</tr>
<tr>
<td>IST922I</td>
<td>CURR TOTAL %11 CURR AVAILABLE %11</td>
</tr>
<tr>
<td>IST923I</td>
<td>MAX TOTAL %11 MAX USED %11</td>
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<tr>
<td>IST924I</td>
<td>-------------------------------------------------------------</td>
</tr>
<tr>
<td>IST925I</td>
<td>DYNAMIC PATH DEFINITION %8 STATUS = %5</td>
</tr>
<tr>
<td>IST926I</td>
<td>PATH FOR %8 IGNORED - NODE %8 NOT FOUND/INVALID</td>
</tr>
<tr>
<td>IST927I</td>
<td>ERROR FOR %17 DSA %10 %15 CODE %2</td>
</tr>
<tr>
<td>IST928I</td>
<td>DELETER KEYWORD FOR %8 IGNORED</td>
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<tr>
<td>IST929I</td>
<td>LOAD OF DYNAMIC PATH DEFINITION %17 COMPLETE</td>
</tr>
<tr>
<td>IST930I</td>
<td>%16 - %16 SESSION USING %4 OF %2BUF</td>
</tr>
<tr>
<td>IST931I</td>
<td>SYMPTOM STRING = %44</td>
</tr>
<tr>
<td>IST932I</td>
<td>FAILURE OCCURRED DURING TAKEOVER OF %8, SENSE=%8</td>
</tr>
<tr>
<td>IST933I</td>
<td>LOGMODE=%8, COS=%8 %10</td>
</tr>
<tr>
<td>IST934I</td>
<td>DLOGMOD=%8 USS LANGTAB=%8</td>
</tr>
<tr>
<td>IST935I</td>
<td>ORIGIN=%8, NETID=%8, ID=%17</td>
</tr>
<tr>
<td>IST936I</td>
<td>ANSWER MODE = %28</td>
</tr>
<tr>
<td>IST937A</td>
<td>%8 CORRELATOR MISMATCH %17 %17 REPLY 'RELOAD'</td>
</tr>
<tr>
<td>IST938I</td>
<td>OPEN ACB REJECTED, CANNOT LOAD %8</td>
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<tr>
<td>IST939I</td>
<td>VARY NOLOGIN COMMAND HAD NO EFFECT - %8 NOT FOUND FOR %8</td>
</tr>
<tr>
<td>IST940I</td>
<td>%64</td>
</tr>
<tr>
<td>IST941I</td>
<td>BASENO %5 GREATER OR EQUAL TO XPANLIM %10 BUFFERS</td>
</tr>
<tr>
<td>IST947I</td>
<td>STATIC BUFFERING ASSUMED FOR %2BUF</td>
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<tr>
<td>IST948I</td>
<td>XPANLIM TOO SMALL FOR %2BUF - CHANGED TO %10 BUFFERS</td>
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<tr>
<td>IST949I</td>
<td>ISTMGC10 IN VTAMLIB %10 - VTAM PROCESSING CONTINUES</td>
</tr>
<tr>
<td>IST950I</td>
<td>VCNS = %10</td>
</tr>
<tr>
<td>IST951I</td>
<td>DISPLAY DISK INFORMATION FOR %8</td>
</tr>
<tr>
<td>IST952I</td>
<td>DUMP NAME DATE TIME</td>
</tr>
<tr>
<td>IST953I</td>
<td>%8 %8 %8</td>
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Appendix E. Message text for VTAM operator messages 1189
<table>
<thead>
<tr>
<th>Message number</th>
<th>Text</th>
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<tbody>
<tr>
<td>IST954I</td>
<td>LOAD MODULE DATE TIME STORE STATUS [ACTIVE]</td>
</tr>
<tr>
<td>IST955I</td>
<td>%8 %8 %8 %9 %3</td>
</tr>
<tr>
<td>IST956I</td>
<td>%4 SAP=%3 MAC=%12 %13 %12</td>
</tr>
<tr>
<td>IST957I</td>
<td>NO NCP LOAD MODULE OR DUMP ON DISK</td>
</tr>
<tr>
<td>IST958I</td>
<td>INBND=%8 OUTBND=%5 PENDING=%3 ATTN=%5 CUA=%4</td>
</tr>
<tr>
<td>IST959I</td>
<td>INVALID PIU RECEIVED FROM %8 - VARY INACT SCHEDULED</td>
</tr>
<tr>
<td>IST960I</td>
<td>DISPLAY TABLE FAILED - %8 NOT FOUND</td>
</tr>
<tr>
<td>IST961I</td>
<td>LOAD OF %8 12 FAILED</td>
</tr>
<tr>
<td>IST962I</td>
<td>INOP X%2 RECEIVED FOR PU UNDER SWITCHED LINE %8</td>
</tr>
<tr>
<td>IST963I</td>
<td>LOAD MODULE = %7</td>
</tr>
<tr>
<td>IST965I</td>
<td>AUTO DUMP/LOAD: %3</td>
</tr>
<tr>
<td>IST966I</td>
<td>USER=VCNS</td>
</tr>
<tr>
<td>IST967I</td>
<td>%20 FAILED FOR %8; RC %2 RS%8</td>
</tr>
<tr>
<td>IST968I</td>
<td>INTERFACE INITIALIZATION FAILED - REASON %2</td>
</tr>
<tr>
<td>IST970I</td>
<td>LU-LU VERIFICATION ERROR %2 FOR %26</td>
</tr>
<tr>
<td>IST971I</td>
<td>ADJ LINK STATION %8 USING %8 IN %8</td>
</tr>
<tr>
<td>IST972I</td>
<td>SIT TRACE FOR %8 TERMINATED - %8</td>
</tr>
<tr>
<td>IST973I</td>
<td>USERVAR %8 %47</td>
</tr>
<tr>
<td>IST976I</td>
<td>ENTRY %8 DEFINED BUT NO %6 DEFINED FOR %8</td>
</tr>
<tr>
<td>IST977I</td>
<td>MDLTAB=%8 ASLTAB=%8</td>
</tr>
<tr>
<td>IST979I</td>
<td>BUILD FAILED FOR TABLE %8</td>
</tr>
<tr>
<td>IST981I</td>
<td>PRIVATE: CURRENT = %8, MAXIMUM USED = %8</td>
</tr>
<tr>
<td>IST982I</td>
<td>%10 %10 REQUEST(S) PENDING TO SUBAREA %10</td>
</tr>
<tr>
<td>IST983E</td>
<td>%8 MESSAGE QUEUE LIMIT EXCEEDED - FURTHER MESSAGES WILL BE DISCARDED</td>
</tr>
<tr>
<td>IST984I</td>
<td>USER EXIT %17 IS %8</td>
</tr>
<tr>
<td>IST985I</td>
<td>USER EXIT %17 %14 FAILED-CODE %2</td>
</tr>
<tr>
<td>IST986I</td>
<td>TABLE=%8 TYPE=%8 USE COUNT=%8</td>
</tr>
<tr>
<td>IST987I</td>
<td>THE RESOURCES THAT USE THE TABLE ARE:</td>
</tr>
<tr>
<td>IST988I</td>
<td>%8 %8 %8 %8 %8</td>
</tr>
<tr>
<td>IST989I</td>
<td>EXP LIMIT %8 BUFFS REQUESTED %8</td>
</tr>
<tr>
<td>IST990E</td>
<td>CORRELATOR MISMATCH FOR %8 IGNORED - ACTIVATION CONTINUES</td>
</tr>
<tr>
<td>IST991I</td>
<td>CORRELATOR MISMATCH FOR %8 FOUND-RELOAD SCHEDULED</td>
</tr>
<tr>
<td>IST998E</td>
<td>VTAM MESSAGE %5 ISSUED BUT DOES NOT EXIST</td>
</tr>
<tr>
<td>IST999E</td>
<td>VTAM MESSAGE LOST - INSUFFICIENT STORAGE</td>
</tr>
<tr>
<td>IST1000I</td>
<td>ID=%8 %15 %16</td>
</tr>
<tr>
<td>IST1002I</td>
<td>RCPRI=%4 RCSEC=%4</td>
</tr>
<tr>
<td>IST1003I</td>
<td>%7 CNOS=%8 DEFINE=%8</td>
</tr>
<tr>
<td>IST1004I</td>
<td>%10 FOR %8 FAILED - %28</td>
</tr>
<tr>
<td>IST1005I</td>
<td>%17 %17 %17</td>
</tr>
<tr>
<td>IST1006I</td>
<td>%8 NAMES DEFINED %23 FOR %8</td>
</tr>
<tr>
<td>IST1007I</td>
<td>PARTNER = %17, LOGMODE = %8</td>
</tr>
<tr>
<td>IST1008I</td>
<td>CONVID = %8, STATUS = %9, ETIME = %5</td>
</tr>
<tr>
<td>IST1009I</td>
<td>SID = %16</td>
</tr>
<tr>
<td>IST1010I</td>
<td>NO CONVERSATION(S) FOUND FOR %8</td>
</tr>
<tr>
<td>IST1011I</td>
<td>ENTRY %8 NOT FOUND IN %6 %8 FOR %8</td>
</tr>
<tr>
<td>IST1012I</td>
<td>NO PARTNER LU(S) DEFINED FOR %8</td>
</tr>
<tr>
<td>IST1013I</td>
<td>NO LOGMODE(S) DEFINED IN LU %8 FOR %8</td>
</tr>
<tr>
<td>IST1015I</td>
<td>APPLICATION SUPPLIED %21=%16</td>
</tr>
<tr>
<td>IST1016I</td>
<td>DYNAMIC DEFINITION OF %8 FAILED</td>
</tr>
<tr>
<td>IST1017I</td>
<td>MODELS:</td>
</tr>
<tr>
<td>IST1018I</td>
<td>MODEL MAJOR NODE = %8</td>
</tr>
<tr>
<td>IST1019I</td>
<td>USERVERVAR VALUE CLASS TYPE EXIT APPC</td>
</tr>
</tbody>
</table>
Appendix E. Message text for VTAM operator messages
IST1076I  VALUE DEFINED FOR HOSTPU, %8, IS A RESERVED KEYWORD
IST1077I  OPTION %8 AFTER %8 %8 IS NOT VALID
IST1078I  LIST START OPTION CANNOT BE IN START FILE-OPTION IGNORED
IST1079I  %8 ACTIVATION CONTINUES - CANNOT ASSOCIATE %8
IST1080I  %4 STATION NAME = %8
IST1081I  ADJACENT LINK STATION = %8
IST1082I  GENERATED ADDRESS FOR %8 %11 FROM %8
IST1083I  ERROR ACTivating ADJCP %17 SENSE = %8
IST1084I  START LIST IGNORED - %13 WILL BE USED
IST1085I  %5 ACTIVATION ERROR %20 SENSE = %8
IST1086I  APPN CONNECTION FOR %17 IS ACTIVE - TGN = %3
IST1088I  ADJCP %17 HAS BEEN DEACTIVATED
IST1089I  MODIFY FAILED-TGP %8 DOES NOT EXIST
IST1090I  TGP FOR %6 %22 IS SET TO %8
IST1091I  MODIFY TGP FAILED - %6 %22 IS UNKNOWN
IST1092I  MODIFY TGP FAILED, INSUFFICIENT STORAGE
IST1093I  %8 IS IGNORED-ONLY VALID WHEN %11 IS SPECIFIED
IST1094I  GWSSCP VALUE FORCED TO NO-NODETYPE IS EN
IST1095I  INITIATION FAILED FOR %17 - NO LINK TO ADJCP
IST1096I  CP-CP SESSIONS WITH %17 ACTIVATED
IST1097I  CP-CP SESSION WITH %17 TERMINATED
IST1098I  %8 DEACTIVATED, DEPLETING IO BUFFER POOL
IST1099I  SESSION TERMINATED, DEPLETING %4 BUFFER POOL
IST1100I  ADJACENT CONTROL POINTS FROM MAJOR NODE %8
IST1101I  ADJCP DISPLAY SUMMARY FOR %17
IST1102I  NODENAME NODETYPE CONNECTIONS CP CONNECTIONS NATIVE
IST1103I  %17 %4 %3 %3 %4
IST1104I  CONNECTION SUMMARY FOR %17
IST1105I  RESOURCE STATUS TGN CP-CP TG CHARACTERISTICS
IST1106I  %8 %6 %3 %5 %32
IST1107I  TGP NAME TG CHARACTERISTICS
IST1108I  %8 %32
IST1109I  ACTIVATION OF CP-CP SESSION WITH %17 FAILED
IST1110I  ADJACENT NODE DOES NOT SUPPORT UNSOLICITED BINDS
IST1111I  CP ALREADY HAS A CP-CP SESSION WITH A NETWORK NODE
IST1112I  EN-EN SESSION IS NOT VALID
IST1113I  %8 START OPTION IGNORED - NOT VALID FOR %12
IST1114I  CDRM NAME %8 IS DIFFERENT THAN SSCPNAME START OPTION
IST1115I  SSCP NAME %8 IS USED
IST1116I  PHYSICAL RESOURCE (PHYSRSC) %8 %12 INTERFACE = %16
IST1117I  LINK DEFINITION FAILURE, CP = %17 TGN = %3
IST1118I  FAILURE REASON - INSUFFICIENT STORAGE
IST1119I  %8 %8 DEFINITION FAILED-INSUFFICIENT STORAGE
IST1120I  COSAPPN IN %11 %9 - PROCESSING CONTINES
IST1121I  CHKPT TO DATASET %8 WAS NOT SUCCESSFUL, CODE= %2
IST1122I  MODIFY CHKPT TO DATASET %8 WAS SUCCESSFUL
IST1123I  UNABLE TO REGISTER RESOURCES WITH %17
IST1124I  END NODE IS NOT AUTHORIZED
IST1125I  END NODE NETID REJECTED
IST1126I  UNRECOGNIZED REGISTRATION REQUEST
IST1127I  PATH %8 IGNORED, %17 - STORAGE SHORTAGE
IST1128I  %10 FAILED, %17 - DEACTIVATE PENDING
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<thead>
<tr>
<th>Message number</th>
<th>Text</th>
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<tbody>
<tr>
<td>IST1130I</td>
<td>%10 FOR %17 FAILED - STORAGE SHORTAGE</td>
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<tr>
<td>IST1131I</td>
<td>DEVICE = %12 %35</td>
</tr>
<tr>
<td>IST1132I</td>
<td>%17 IS ACTIVE, TYPE = %17</td>
</tr>
<tr>
<td>IST1133I</td>
<td>%17 IS NOW INACTIVE, TYPE = %17</td>
</tr>
<tr>
<td>IST1134I</td>
<td>%17 NOW HAS CONTROLLING LU %17</td>
</tr>
<tr>
<td>IST1135I</td>
<td>FORCED VARY INACT SCHEDULED FOR %17</td>
</tr>
<tr>
<td>IST1136I</td>
<td>VARY INACT %17 SCHEDULED - UNRECOVERABLE ERROR</td>
</tr>
<tr>
<td>IST1137I</td>
<td>%11 FAILED, %17 - %19</td>
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<tr>
<td>IST1138I</td>
<td>REQUIRED %13 %32</td>
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<tr>
<td>IST1139I</td>
<td>%10 FOR %17 FAILED - SENSE: %8</td>
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<td>IST1140I</td>
<td>%10 FAILED %17 - STATE %5 NOT VALID</td>
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<td>IST1141I</td>
<td>%10 FOR %17 OVERRUNNED BY %10</td>
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<td>IST1142I</td>
<td>TRACE REQUEST FAILED - %17 NOT VALID</td>
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<td>IST1143I</td>
<td>TRACE TERMINATED FOR %17 %18</td>
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<td>IST1144I</td>
<td>TRACE INITIATED FOR %17 %18</td>
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<td>IST1145I</td>
<td>TRACE REQUEST FAILED, %17 - STORAGE SHORTAGE</td>
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<tr>
<td>IST1146I</td>
<td>%17 %10 U = %4 FAILED</td>
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<tr>
<td>IST1147I</td>
<td>%18 LOGON= %17 FAILED</td>
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<td>IST1148I</td>
<td>%17 %8 RNAME = %8 FAILED</td>
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<td>IST1149I</td>
<td>VARY %4 PROCESSING FOR NODE %17 COMPLETE</td>
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<td>IST1150I</td>
<td>%8 CHANGED: %17 TO %17</td>
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<td>IST1151I</td>
<td>USRVAR %8 DEFINED: VALUE = %17</td>
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<tr>
<td>IST1152I</td>
<td>%17 CONTROLLING LU %17 REMOVED</td>
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<tr>
<td>IST1153I</td>
<td>%17 %17 SESSION %2BUF USE %4</td>
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<tr>
<td>IST1154I</td>
<td>%17 %17 %17</td>
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<tr>
<td>IST1155I</td>
<td>%17 VARY NOLOGON = %17 FAILED</td>
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<tr>
<td>IST1156I</td>
<td>USRVAR %8 IN %8 HAS VALUE %17</td>
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<tr>
<td>IST1157I</td>
<td>DUPLICATE REGISTRATION %17 %17</td>
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<tr>
<td>IST1158I</td>
<td>MODIFY TOPO COMMAND FAILED, ID = %17 %9</td>
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<td>IST1159I</td>
<td>HOST NODE DATABASE ENTRY CANNOT BE DELETED</td>
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<tr>
<td>IST1160I</td>
<td>TYPE=FORCE MUST BE SPECIFIED FOR LOCAL TG OR ADJACENT NODE</td>
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<td>IST1161I</td>
<td>SSCP SESSIONS</td>
</tr>
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<td>IST1162I</td>
<td>%15 = %10</td>
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<td>IST1163I</td>
<td>RSN = HPR</td>
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<tr>
<td>IST1164I</td>
<td>%10 %3</td>
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<tr>
<td>IST1165I</td>
<td>VIRTUAL NODE %17 CONNECTION ACTIVATION FAILED</td>
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<td>IST1166I</td>
<td>VN %17 CONNECTION DEACTIVATION FAILED</td>
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<tr>
<td>IST1168I</td>
<td>VIRTUAL NODE %17 CONNECTION ACTIVE</td>
</tr>
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<td>IST1169E</td>
<td>%8 REPLY ID FOR MESSAGE %8 NOT AVAILABLE</td>
</tr>
<tr>
<td>IST1176I</td>
<td>BASIC FROZEN</td>
</tr>
<tr>
<td>IST1177I</td>
<td>% %7 %7 %7</td>
</tr>
<tr>
<td>IST1183I</td>
<td>%8 EXIT RETURNED A CODE OF %2 %21 %2</td>
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<td>IST1184I</td>
<td>CPNAME = %17 - NETSRVR = %17</td>
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<tr>
<td>IST1185I</td>
<td>NAME = %17 - DIRECTORY ENTRY = %10 %2</td>
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<tr>
<td>IST1186I</td>
<td>DIRECTORY ENTRY = %10 %2</td>
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<td>IST1187I</td>
<td>%10 NOT VALID-APPN NOT SUPPORTED BY %17</td>
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<td>IST1188I</td>
<td>VTAM %6 STARTED AT %8 ON %8</td>
</tr>
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<td>IST1189I</td>
<td>%28 %26</td>
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<tr>
<td>IST1190I</td>
<td>OPEN FAILED FOR %8 ABEND = %3 RC = %2</td>
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<tr>
<td>IST1191I</td>
<td>I/O ERROR ON %8 %23</td>
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<tr>
<td>IST1192I</td>
<td>CLOSE FAILED FOR %8 ABEND = %3 RC= %2</td>
</tr>
<tr>
<td>IST1193I</td>
<td>%6 SESSION DEACTIVATION FAILURE FOR %17</td>
</tr>
<tr>
<td>Message number</td>
<td>Text</td>
</tr>
<tr>
<td>----------------</td>
<td>------</td>
</tr>
<tr>
<td>IST1194I</td>
<td>DUPLICATE RESOURCE IS %17</td>
</tr>
<tr>
<td>IST1196I</td>
<td>APPN CONNECTION FOR %17 INACTIVE - TGN = %3</td>
</tr>
<tr>
<td>IST1197I</td>
<td>ADJCP MAJOR NODE = %17</td>
</tr>
<tr>
<td>IST1198I</td>
<td>%17 DELETED FROM DIRECTORY</td>
</tr>
<tr>
<td>IST1199I</td>
<td>%10 FOR %17 FAILED, UNKNOWN RESOURCE</td>
</tr>
<tr>
<td>IST1200I</td>
<td>%8 TSO USERID TRACE = %3</td>
</tr>
<tr>
<td>IST1201I</td>
<td>COMMAND REJECTED BY ISTCMND EXIT</td>
</tr>
<tr>
<td>IST1202I</td>
<td>VALUE %17 FOR %8 IS NOT A VALID NAME</td>
</tr>
<tr>
<td>IST1203I</td>
<td>VALUE %17 FOR %8 IS UNKNOWN RESOURCE</td>
</tr>
<tr>
<td>IST1204I</td>
<td>VALUE %17 FOR %8 NOT VALID FOR REQUEST</td>
</tr>
<tr>
<td>IST1205I</td>
<td>MANAGEMENT SERVICES TRANSPORT UNAVAILABLE</td>
</tr>
<tr>
<td>IST1206I</td>
<td>LOAD FAILED FOR THE PROGRAM-TO-PROGRAM INTERFACE</td>
</tr>
<tr>
<td>IST1207I</td>
<td>NETWORK MANAGEMENT IS INACTIVE</td>
</tr>
<tr>
<td>IST1208I</td>
<td>PROGRAM-TO-PROGRAM INTERFACE MODULE IS INACTIVE</td>
</tr>
<tr>
<td>IST1209I</td>
<td>PROGRAM-TO-PROGRAM INTERFACE MODULE STORAGE SHORTAGE</td>
</tr>
<tr>
<td>IST1211I</td>
<td>I/O ERROR %17 %4 %4 %4</td>
</tr>
<tr>
<td>IST1212I</td>
<td>%8 = %17 STATUS = %10</td>
</tr>
<tr>
<td>IST1213I</td>
<td>%35 LU-LU VERIFY ERROR %2</td>
</tr>
<tr>
<td>IST1214I</td>
<td>FFST %38</td>
</tr>
<tr>
<td>IST1215I</td>
<td>ERROR IN START LIST %8 - %22</td>
</tr>
<tr>
<td>IST1216A</td>
<td>ENTER 1 TO CONTINUE-2 TO REENTER LIST-3 TO TERMINATE VTAM</td>
</tr>
<tr>
<td>IST1217A</td>
<td>RESPONSE NOT VALID: REENTER 1, 2, OR 3</td>
</tr>
<tr>
<td>IST1218I</td>
<td>ACB ERROR FIELD = %2</td>
</tr>
<tr>
<td>IST1219I</td>
<td>RTNCD = %2, FDB2 = %2</td>
</tr>
<tr>
<td>IST1220I</td>
<td>SSCPNAME NETID CURRENT STATE ROUTING STATUS</td>
</tr>
<tr>
<td>IST1221I</td>
<td>%5 DEV = %4 STATUS = %10 STATE = %12</td>
</tr>
<tr>
<td>IST1222I</td>
<td>%5 DEVICE %4 IS INOPERATIVE, NAME IS %8</td>
</tr>
<tr>
<td>IST1223I</td>
<td>BN NATIVE TIME LEFT LOCATE SIZE</td>
</tr>
<tr>
<td>IST1224I</td>
<td>%3 %4 %2 %4</td>
</tr>
<tr>
<td>IST1225I</td>
<td>VIRTUAL NODE %17 CONNECTION INACTIVE</td>
</tr>
<tr>
<td>IST1226I</td>
<td>TOPOLOGY UPDATE FAILED, INSUFFICIENT STORAGE</td>
</tr>
<tr>
<td>IST1227I</td>
<td>%5 %10 = %41</td>
</tr>
<tr>
<td>IST1228I</td>
<td>%10 FOR %17 FAILED, CODE = %</td>
</tr>
<tr>
<td>IST1229I</td>
<td>%10 FAILED, %17 IS NOT A %2</td>
</tr>
<tr>
<td>IST1230I</td>
<td>TIME = %8 DATE = %5 ID = %8</td>
</tr>
<tr>
<td>IST1231I</td>
<td>IPDU = %10 ODPDU = %10</td>
</tr>
<tr>
<td>IST1232I</td>
<td>TSweep = %7 OSWEEP = %8</td>
</tr>
<tr>
<td>IST1233I</td>
<td>DEV = %7 DIR = %8</td>
</tr>
<tr>
<td>IST1234I</td>
<td>BSIZE = %7 MAXBYTES = %8</td>
</tr>
<tr>
<td>IST1235I</td>
<td>SIO = %7 SLOWDOWN = %8</td>
</tr>
<tr>
<td>IST1236I</td>
<td>BYTECTNT = %10 BYTECNT = %10</td>
</tr>
<tr>
<td>IST1237I</td>
<td>%8 = %10 %21</td>
</tr>
<tr>
<td>IST1238I</td>
<td>DSPNAME CURRENT MAXIMUM QUEUED</td>
</tr>
<tr>
<td>IST1239I</td>
<td>%8 %7 %7 %7</td>
</tr>
<tr>
<td>IST1240I</td>
<td>DSPNAME CURRENT MAXIMUM JOBNAME APPL COUNT</td>
</tr>
<tr>
<td>IST1241I</td>
<td>%8 %7 %7 %8 %8 %10</td>
</tr>
<tr>
<td>IST1242I</td>
<td>POOL CURRENT MAXIMUM %4 %7 %7</td>
</tr>
<tr>
<td>IST1243I</td>
<td>%8 %7 %7 %8 %7 %7</td>
</tr>
<tr>
<td>IST1244I</td>
<td>TOTAL %8 POOL STORAGE USAGE: %7 %7</td>
</tr>
<tr>
<td>IST1245I</td>
<td>NO NETWORK NODE SERVER IS AVAILABLE FOR CP-CP SESSIONS</td>
</tr>
<tr>
<td>IST1246I</td>
<td>NO ADJACENT NETWORK NODES ALLOWED BY SERVER LIST</td>
</tr>
<tr>
<td>IST1247I</td>
<td>ALL ATTEMPTS TO ESTABLISH A SESSION WERE UNSUCCESSFUL</td>
</tr>
</tbody>
</table>
DEACTIVATE LOCAL LINK BEFORE DELETING
IST1241
IST1242
SYNTAX ERROR AT RECORD %8 IN MEMBER %8
IST1243
NAME LEVEL MODULE STATUS
IST1244
%8 %8 %8 %24
IST1245
DEFINED NETWORK NODE SERVER LIST, NAME = %8
IST1246
%17 %13
IST1247
SERVER LIST PROCESSED ORDER = %5
IST1248
OTHER NETWORK NODES ALLOWED AS SERVERS
IST1249
CURRENT NETWORK NODE SERVER
IST1250
SEQUENCE NOT VALID, STATEMENT IGNORED, SKIPPING TO EOF
IST1251
%15 IS NOT VALID FOR %2
IST1252
VBUILD TYPE = %8 IS ONLY VALID FOR %4
IST1253
%24 TRUNCATED - INSUFFICIENT STORAGE
IST1254
ABEND OCCURRED DURING LINK DEFINITION
IST1255
MODULE %8 LOAD FAILED - %26
IST1256
%10 FOR %17 FORCED COLD, %12 %2
IST1257
%10 FOR %17 FAILED DURING DEFINITION
IST1258
%10 FOR %17 FAILED - %15
IST1259
%10 FOR %17 AFFECTS NEW SESSIONS ONLY
IST1260
%10 FAILED - CANNOT DEFINE %17
IST1261
%17 DEACTIVATION %10 FAILED: %8
IST1262
%10 FOR %17 FAILED
IST1263
%10 FAILED - %17 NOT ACTIVE
IST1264
%10 FOR %17 SCHEDULED BY %10
IST1265
%8 %8 CONTINUES - %17 UNDEFINED
IST1266
%10 %17 FAILED: %10 PENDING
IST1267
%10 %17 FAILED: %8 NOT ACTIVE
IST1268
%15 IGNORED ON %10 %17
IST1269
%17 %10 CDRM = %8
IST1270
%11 %8 %8 %17 %11 %13 FAILED
IST1271
%10 %47
IST1272
%17 NOT UPDATED, %8 AND CDRSC CONFLICT
IST1273
SESSION TYPE = %9 - SENSE = %8
IST1274
%8 ON %8 MUST BE NETWORK QUALIFIED
IST1275
MODIFY USERVERV COMMAND COMPLETE
IST1276
LUALIAS %8 IS %17 FOR APPLICATIONS
IST1277
ADDRESS FOR %17 %11 FROM %8
IST1278
SHADOW PROCESSING FAILED, %8 - %17 RESET
IST1279
FAILURE REASON IS LUALIAS %8 ALREADY IN USE
IST1280
TOPOLOGY DATASET RETRIEVAL WAS NOT SUCCESSFUL, CODE = %2
IST1281
FRSESET %8 PHYSICAL UNITS:
IST1282
FRSESET HAS BEEN SUCCESSFULLY SENT TO NCP %8
IST1283
FRSESET WILL BE SENT TO THE NCP DURING PU ACTIVATION
IST1284
FRSESET WILL NOT BE SENT TO THE NCP DUE TO DEFINITION ERROR
IST1285
CMIP SERVICES IS ACTIVE
IST1286
FRSESET HAS BEEN SENT TO NCP %8 BUT FAILURE OCCURRED
IST1287
CP NAME NODETYPE ROUTERES CONGESTED CP-CP WEIGHT
IST1288
%17 %7 %4 %8 %5
IST1289
ICH/MDH CDSVRVR RSN HPR
IST1290
%3 %3 %10 %4
IST1291
TRANSMISSION GROUPS ORIGINATING AT CP %17
IST1292
DESTINATION CP TGN STATUS TGTYPE VALUE WEIGHT
IST1293
Appendix E. Message text for VTAM operator messages 1195
RESOURCE WAS NOT FOUND IN THE TOPLOGY DATABASE

ENTER START OPTION OVERIDES OR ENTER HALT TO EXIT VTAM

NO TRACES ACTIVE FOR %17

TRLE = %8 STATUS = %10 CONTROL = %4

DISPLAY TRUNCATED AT %3 = %10

PU NAME = %8 STATUS = %10 TRLE = %8

DLCADDR SUBFIELDS FOR PID: %3 %5

PU NAME = %8 STATUS = %10 TRLE = %8

DLCADDR SUBFIELDS FOR PID: %3 %5

DNSUFX = %50

ID VALUE DESCRIPTION

NCP DOES NOT SUPPORT CONNECTION NETWORK FUNCTION

INSUFFICIENT STORAGE TO DELAY DISCONNECTOF %8

VTAM STARTED AS %19

COMPONENT ID IS %14

DEFINITION ERROR: %42

DLURNAME DIALNUMBER PID GID CNT

DLUR NAME DLUS CONWINNER STATE DLUS CONLOSER STATE

DLUR NAME = %17 MAJNODE = %17

PHYSICAL UNITS SUPPORTED BY DLUR %17

NETWORK NODE DOES NOT PROVIDE REQUIRED SERVER FUNCTION

CPCP

CMIP SERVICES LOAD FAILED FOR %8 IN %8

ADJLIST = %8

TGN NOT AVAILABLE

%8 HAS NO ADJCDRM STATEMENT FOR ADJLIST %8

%8 ACTIVATION FAILED = CONFLICTING%8 VALUES

%6 ON %8 IGNORED - ONLY VALID FOR BN

%8 VALUE ON %17 IGNORED-VALUES CONFLICT

DNSUFX = %50

ID VALUE DESCRIPTION

NCP DOES NOT SUPPORT CONNECTION NETWORK FUNCTION

INSUFFICIENT STORAGE TO DELAY DISCONNECTOF %8

VTAM STARTED AS %19

COMPONENT ID IS %14

DEFINITION ERROR: %42

DLURNAME DIALNUMBER PID GID CNT

DLUR NAME DLUS CONWINNER STATE DLUS CONLOSER STATE

DLUR NAME = %17 MAJNODE = %17

PHYSICAL UNITS SUPPORTED BY DLUR %17

NETWORK NODE DOES NOT PROVIDE REQUIRED SERVER FUNCTION

CPCP
Appendix E. Message text for VTAM operator messages
<table>
<thead>
<tr>
<th>Message number</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>IST1419I</td>
<td>DUPLICATE SESSION INFORMATION REPORTED FOR %17</td>
</tr>
<tr>
<td>IST1420I</td>
<td>UNABLE TO ASSOCIATE THE FOLLOWING SESSION(S) WITH %8</td>
</tr>
<tr>
<td>IST1421I</td>
<td>%17 %17 HAS DUPLICATE ADDRESS</td>
</tr>
<tr>
<td>IST1422I</td>
<td>SAVED TRACE REQUESTS FOR %17</td>
</tr>
<tr>
<td>IST1423I</td>
<td>%17 REJECTED BECAUSE DSPLYWLD = %8</td>
</tr>
<tr>
<td>IST1424I</td>
<td>APPLICATIONS DEFINED USING THIS MODEL:</td>
</tr>
<tr>
<td>IST1425I</td>
<td>DEFINED USING MODEL %17</td>
</tr>
<tr>
<td>IST1426I</td>
<td>NO APPLICATIONS DEFINED USING THIS MODEL</td>
</tr>
<tr>
<td>IST1427I</td>
<td>NAME = %17 FOUND TYPE = %9</td>
</tr>
<tr>
<td>IST1430I</td>
<td>REASON FOR INOP IS %41</td>
</tr>
<tr>
<td>IST1432I</td>
<td>DYNLU AND CORSC VALUES FOR %17 CONFLICT</td>
</tr>
<tr>
<td>IST1433I</td>
<td>%17 REJECTED - DSPLYWLD = NO FOR APPL %8</td>
</tr>
<tr>
<td>IST1434I</td>
<td>DLUR ANS SUPPORT CONFLICT FOR PU %8 - SET TO ANS=STOP</td>
</tr>
<tr>
<td>IST1435I</td>
<td>LEVEL INPUT OUTPUT</td>
</tr>
<tr>
<td>IST1436I</td>
<td>RU PENDING:</td>
</tr>
<tr>
<td>IST1438I</td>
<td>LOGMODE %8 UNKNOWN IN THIS DOMAIN, DEFAULT IS ISTCOSDF</td>
</tr>
<tr>
<td>IST1439I</td>
<td>IST1439I %3 PERCENT OF %8 USED FOR STRUCTURE %16</td>
</tr>
<tr>
<td>IST1440I</td>
<td>USE = %42</td>
</tr>
<tr>
<td>IST1441I</td>
<td>VARY ACT FOR %8 FAILED, USE=SPARE</td>
</tr>
<tr>
<td>IST1442I</td>
<td>MODIFY LINEDEF FAILED, %8 CANNOT BE REDEFINED</td>
</tr>
<tr>
<td>IST1443I</td>
<td>ACYDDF LOADED = NO ACCESS AUTHORITY CHECKING</td>
</tr>
<tr>
<td>IST1444I</td>
<td>%8 NOT LOADED = %35</td>
</tr>
<tr>
<td>IST1445I</td>
<td>RESOURCE %17 FOR USRVAR %8 NOT FOUND</td>
</tr>
<tr>
<td>IST1446I</td>
<td>SYMBOLIC SUBSTITUTION NOT AVAILABLE IN THIS RELEASE OF MVS</td>
</tr>
<tr>
<td>IST1447I</td>
<td>REGISTRATION TYPE = %7</td>
</tr>
<tr>
<td>IST1449I</td>
<td>DEFAULT(S) WILL BE USED IF NO OVERRIDE IS SPECIFIED</td>
</tr>
<tr>
<td>IST1450I</td>
<td>GLOBAL TNSTAT = %8 CNSL = %3 TIME = %4</td>
</tr>
<tr>
<td>IST1451I</td>
<td>TRLE = %8 TNSTAT = %8</td>
</tr>
<tr>
<td>IST1452I</td>
<td>%10 MISMATCH IGNORED FOR %8</td>
</tr>
<tr>
<td>IST1453I</td>
<td>VARY INACT FOR %17 FAILED - FRSESET PU ACTIVE</td>
</tr>
<tr>
<td>IST1454I</td>
<td>%10 %12 DISPLAYED [FOR ID = %24</td>
</tr>
<tr>
<td>IST1455I</td>
<td>ERROR DETECTED BY EXIT SERVICES FOR %8 IN %8</td>
</tr>
<tr>
<td>IST1456I</td>
<td>FUNCTION %8 - REASON: %32</td>
</tr>
<tr>
<td>IST1457I</td>
<td>VTAM APING VERSION %5 (PARTNER TP VERSION %5)</td>
</tr>
<tr>
<td>IST1458I</td>
<td>ORIGIN ADJSUB VR TP ER REVERSE ER</td>
</tr>
<tr>
<td>IST1459I</td>
<td>%5 %5 %3 %3 %3 %3</td>
</tr>
<tr>
<td>IST1460I</td>
<td>TGNAME CPNAME TG TYPE HPR</td>
</tr>
<tr>
<td>IST1461I</td>
<td>%3 %17 %11 %4</td>
</tr>
<tr>
<td>IST1462I</td>
<td>ECHO IS %6</td>
</tr>
<tr>
<td>IST1463I</td>
<td>ALLOCATION DURATION: %8 MILLISECONDS</td>
</tr>
<tr>
<td>IST1464I</td>
<td>PROGRAM STARTUP AND VERSION EXCHANGE: %8 MILLISECONDS</td>
</tr>
<tr>
<td>IST1465I</td>
<td>DURATION DATA SENT DATA RATE DATA RATE (MILLISECONDS) (BYTES) (KBYTE/SEC) (MBIT/SEC)</td>
</tr>
<tr>
<td>IST1467I</td>
<td>%8 %8 %8 %8</td>
</tr>
<tr>
<td>IST1468I</td>
<td>TOTALS: %8 %8 %8 %8</td>
</tr>
<tr>
<td>IST1469I</td>
<td>DURATION STATISTICS:</td>
</tr>
<tr>
<td>IST1470I</td>
<td>MINIMUM = %8 AVERAGE = %8 MAXIMUM = %8</td>
</tr>
<tr>
<td>IST1471I</td>
<td>SESSION UNAVAILABLE FOR APING</td>
</tr>
<tr>
<td>IST1472I</td>
<td>APING %11 ERROR</td>
</tr>
<tr>
<td>IST1473I</td>
<td>SENSE = %8</td>
</tr>
<tr>
<td>IST1474I</td>
<td>APINGD TP CONCURRENT INSTANCE LIMIT = %9</td>
</tr>
<tr>
<td>IST1475I</td>
<td>EXIT %17 IN USE: REENTER COMMAND TO FORCE</td>
</tr>
</tbody>
</table>
Message number | Text
---|---
IST1476I | TCID X'\%16' - REMOTE TCID X'\%15'
IST1477I | ALLOWED DATA FLOW RATE = %6 %9
IST1478I | NUMBER OF UNACKNOWLEDGED BUFFERS = %5
IST1479I | RTP CONNECTION STATE = %15
IST1480I | RTP END TO END ROUTE - RSCV PATH
IST1481I | DESTINATION CP %17 - NCE X
IST1482I | HPR = %3 - OVERRIDE = %3 - CONNECTION = %3
IST1483I | DTEAD = %15 VNREVCHG = %6
IST1484I | %17 %8
IST1485I | DLCADDR SUBFIELDS FOR %8
IST1486I | RTP NAME STATE DESTINATION CP
IST1487I | %8 %15 %17
IST1488I | 1/12 FOR RTP %8 AS %7 TO %17
IST1489I | APIING SESSION INFORMATION
IST1490I | DLU=%17 SID=%16
IST1491I | RTP SUMMARY FOR %17 COUNT = %5 RTONLY = %3
IST1492I | PATH SWITCH %9 FOR RTP %8 TO %17
IST1493I | NO ALTERNATE ROUTE AVAILABLE
IST1494I | DISPLAY APIING FAILED - PRIOR DISPLAY APIING IS EXECUTING
IST1495I | LOADING NCP FROM %13
IST1496I | AHHC SUBCHANNEL %4 %15
IST1497I | STATE TRACE = %19
IST1500I | XCF TOKEN = %16
IST1501I | ADJACENT CP = %17
IST1502I | XCF TOKEN = %16 STATUS = %10
IST1503I | XCF CONNECTION WITH %17 IS OPERATIVE
IST1504I | TYPE = %4 TOKEN = %16
IST1505I | %8 FAILED FOR %17 - MEMBER LEAVING GROUP
IST1506I | VR-BASED TG NOT SUPPORTED
IST1507I | CP-CP SESSIONS ON VR-BASED TG NOT SUPPORTED
IST1508I | %8 UNKNOWN BUT ACCEPTED -- PREVIOUS VALUE WAS %8
IST1509I | LLERP = %8 - RECEIVED = %8
IST1510I | MAXIMUM NETWORK LAYER PACKET SIZE = %6 BYTES
IST1511I | %27 FAILED - CODE X'\%4' - CUA %4
IST1512I | %14 FAILED - %36
IST1513I | SUBAREA COS APPNCOS
IST1514I | %8 TRACE ACTIVE
IST1515I | INITIAL DATA FLOW RATE = %6 %9
IST1516I | LIST HEADERS = %10 - LOCK HEADERS= %10
IST1517I | BASE STRUCTURE IS %16
IST1518I | ALTERNATE STRUCTURES ARE:
IST1519I | SUBAREA SEARCH INFORMATION:
IST1520I | %8 NAME CDINIT DSRLST IOCD INTOTH TOTAL
IST1521I | %8 %5 %5 %5 %6
IST1522I | OLU DLU SID RU
IST1523I | %17 %17 %16 %6
IST1524I | TOTAL NUMBER OF OUTSTANDING SEARCHES =%10
IST1525I | APPN SEARCH INFORMATION:
IST1526I | %6 NAME TYPE STATUS BROADCAST DIRECTED TOTAL
IST1527I | %17 %2 %4 %5 %5 %6
IST1528I | OLU DLU SID LOCATE
IST1529I | %17 %17 %16 %5
IST1530I | %17 %17 %16 %5

Appendix E. Message text for VTAM operator messages  1199
**Message number** | **Text**
---|---
IST1531I | SID = %16 CP(OLU) = %17
IST1532I | OLU = %17 DLU = %17
IST1533I | SEARCH CONCENTRATED = %3 RDS = %3
IST1534I | SSCP/CP IN OLU DIRECTION = %17
IST1535I | REPLY RETURNED TO ORIGINATING CP = %3
IST1536I | CONCENTRATED BEHIND %16 %20
IST1537I | AWAITING REPLY FROM THE FOLLOWING NODE(S):
IST1538I | %17 %34
IST1539I | PCID MODIFIER = %20
IST1540I | SEARCH STATUS = %10 SSCP(OLU) = %8
IST1541I | LOCATES PENDING = %10 CURRENTTASK = %5
IST1542I | NO ADJSSCP ROUTING INFORMATION AVAILABLE
IST1543I | REQUESTS CONCENTRATED BEHIND THIS SEARCH = %5
IST1544I | DIAL OUT PURGE IN PROGRESS - ID = %8
IST1545I | NODE ROLE VECTOR = %7
IST1546I | CDRM STATUS SUBAREA ELEMENT NETIDSSCPID
IST1547I | %8 %5 %10 %5 %8 %5
IST1548I | BROADCAST = %3 DIRECTED = %3
IST1549I | OWNER = %17 MNPS STATE = %21
IST1550I | MNPS STATE = %21
IST1551I | %51
IST1552I | MAC = %11 MACTYPE = %4
IST1553I | %47 %4
IST1554I | PVCNAME = %8
IST1555I | VPCI/VCI = %6
IST1556I | ATM %7 FAILURE: ID = %8 STATUS = %8
IST1557I | MEDIUM = %3, PORT NAME = %8
IST1558I | DIAG = %8 %8 %8 %8 %8
IST1559I | ATM ADDRESS TYPE FORMAT
IST1560I | VARY ACT %8 CHANGE FAILED
IST1561I | PORTNAME ON TRLE NOT VALID
IST1562I | CAUSE = %3
IST1563I | CKEYNAME = %8 CKEY = %9
IST1564I | TSO NOT ACTIVE
IST1565I | %7 MODULES = %7K
IST1566I | MODULE %8 IS NOT LOADED INTO CSA/ECSA
IST1567I | %16 %16 %16
IST1568I | INLP = %10 ONLP = %10 BFNL = %10
IST1569I | INLP = %10 ONLP = %10
IST1570I | NBYTECTO = %10 NBYTECT = %10
IST1571I | %8 ENTRY POINT IS %8 LEVEL IS %7
IST1572I | MODULE %8 CANNOT BE LOCATED
IST1573I | %12 STORAGE DISPLAY BEGINS AT LOCATION %8
IST1574I | %4 %8 %8 %8 %8 %8
IST1575I | DIALNO FOR PID: %3 %5
IST1576I | DYNAMIC SWITCHED MAJOR NODE %8 CREATED
IST1577I | HEADER SIZE = %5 DATA SIZE = %7 STORAGE = %9
IST1578I | %6 INOP DETECTED FOR %8 BY %8 CODE = %3
IST1579I | ------------------------------
IST1580I | XID RECEIVED BY VTAM:
IST1582I | CONTROL VECTOR X'22' ANALYSIS:
IST1583I | BYTE OFFSET OF FIRST BYTE IN ERROR =%7
<table>
<thead>
<tr>
<th>Message number</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>IST1584I</td>
<td>BIT OFFSET OF FIRST BIT IN ERROR = %5</td>
</tr>
<tr>
<td>IST1585I</td>
<td>SENSE CODE = %11</td>
</tr>
<tr>
<td>IST1586I</td>
<td>XID SENT BY VTAM:</td>
</tr>
<tr>
<td>IST1587I</td>
<td>ORIGIN NCE X'16'</td>
</tr>
<tr>
<td>IST1588I</td>
<td>RTP END TO END ROUTE - COMPUTED SESSION PATH</td>
</tr>
<tr>
<td>IST1590I</td>
<td>PU NETID DIFFERENT THAN HOST AND CONTACTED REQUEST</td>
</tr>
<tr>
<td>IST1591I</td>
<td>NCP NOT LOADED</td>
</tr>
<tr>
<td>IST1592I</td>
<td>NETID IN XID DID NOT MATCH NETID OF PU</td>
</tr>
<tr>
<td>IST1593I</td>
<td>RESOURCE TYPE NOT VALID</td>
</tr>
<tr>
<td>IST1594I</td>
<td>CPNAME IN CONTACTED REQUEST SAME AS SSCPNAME</td>
</tr>
<tr>
<td>IST1595I</td>
<td>LINK STATION NOT ASSOCIATED WITH AN NCP</td>
</tr>
<tr>
<td>IST1596I</td>
<td>SWITCHED LINK STATION STATE PCTD2 NOT VALID FOR LOAD</td>
</tr>
<tr>
<td>IST1597I</td>
<td>SWITCHED CALL=IN NCP NOT VALID</td>
</tr>
<tr>
<td>IST1598I</td>
<td>LEASED LINK STATION STATE PCTD2 NOT VALID FOR LOAD</td>
</tr>
<tr>
<td>IST1599I</td>
<td>NCP INDICATES LOAD REQUIRED BUT LOAD=NO</td>
</tr>
<tr>
<td>IST1600I</td>
<td>LOAD MODULE MISMATCH - LOAD=NO</td>
</tr>
<tr>
<td>IST1602I</td>
<td>RU ERROR: EXTRA CV X'42'</td>
</tr>
<tr>
<td>IST1603I</td>
<td>RU ERROR: INVALID POSITIVE RESPONSE</td>
</tr>
<tr>
<td>IST1604I</td>
<td>RU ERROR: LENGTH, FORMAT, OR TYPE NOT VALID</td>
</tr>
<tr>
<td>IST1605I</td>
<td>RU ERROR: MISSING CV X'0B'</td>
</tr>
<tr>
<td>IST1606I</td>
<td>DIAL RETRY FAILED</td>
</tr>
<tr>
<td>IST1607I</td>
<td>RU ERROR: RESPONSE TOO LONG</td>
</tr>
<tr>
<td>IST1608I</td>
<td>RU ERROR: RESPONSE TOO SHORT</td>
</tr>
<tr>
<td>IST1609I</td>
<td>CV X'0B' INDICATES ADJACENT LINK STATION NOT SUPPORTED</td>
</tr>
<tr>
<td>IST1610I</td>
<td>CORRELATOR MISMATCH - LOAD=NO</td>
</tr>
<tr>
<td>IST1611I</td>
<td>CORRELATOR MISMATCH - NCP ACQUIRED BEFORE ACTIVATION</td>
</tr>
<tr>
<td>IST1612I</td>
<td>LOAD MODULE MISMATCH - EXPECTED %8 FOUND %8</td>
</tr>
<tr>
<td>IST1613I</td>
<td>TYPE = %4 ATTN = %8</td>
</tr>
<tr>
<td>IST1614I</td>
<td>RS10 = %8 INPACKET = %8 INBYTE = %8</td>
</tr>
<tr>
<td>IST1615I</td>
<td>ARPACKE = %8 ARBYTE = %8 MAXRCVD = %8</td>
</tr>
<tr>
<td>IST1616I</td>
<td>WS10 = %8 OTPACKET = %8 OUTBYTE = %8</td>
</tr>
<tr>
<td>IST1617I</td>
<td>AWPACKE = %8 AWBYTE = %8 MAXSENT = %8</td>
</tr>
<tr>
<td>IST1618I</td>
<td>READCCW = %8 PCICNT = %8</td>
</tr>
<tr>
<td>IST1619I</td>
<td>WRITECCW = %8 APPEND = %8</td>
</tr>
<tr>
<td>IST1621I</td>
<td>DUPLICATE CP NAME: %17 FORID = %8</td>
</tr>
<tr>
<td>IST1622I</td>
<td>DLCADDR SUBFIELD %2 NOT VALID - %20</td>
</tr>
<tr>
<td>IST1623I</td>
<td>DUPLICATE DLCADDR SUBFIELD %2 - %20</td>
</tr>
<tr>
<td>IST1624I</td>
<td>DLCADDR SUBFIELD %2 NOT SPECIFIED - %23</td>
</tr>
<tr>
<td>IST1625I</td>
<td>STORAGE ADDRESS %8 IS UNAVAILABLE</td>
</tr>
<tr>
<td>IST1626I</td>
<td>ALL DATA IN %16 FOR %17 REMOVED</td>
</tr>
<tr>
<td>IST1627I</td>
<td>MULTI-NODE PERSISTENT SESSION TIMER EXPIRED</td>
</tr>
<tr>
<td>IST1628I</td>
<td>DATA WAS IN AN UNRECOVERABLE STATE - %21</td>
</tr>
<tr>
<td>IST1649I</td>
<td>ORIGIN = %8 TARGET = %8 STATUS = %10</td>
</tr>
<tr>
<td>IST1650I</td>
<td>IDX INITIALIZATION FAILED FOR %8 DEVICE %4 CODE %2</td>
</tr>
<tr>
<td>IST1651I</td>
<td>IDX RECEIVED BY VTAM:</td>
</tr>
<tr>
<td>IST1652I</td>
<td>IDX SENT BY VTAM:</td>
</tr>
<tr>
<td>IST1653I</td>
<td>RWS10 = %8 CHWR = %8 CHRD = %8</td>
</tr>
<tr>
<td>IST1654I</td>
<td>INPACKET = %8 INBYTE = %8 MAXRCVD = %8</td>
</tr>
<tr>
<td>IST1655I</td>
<td>OTPACKET = %8 OBYTE = %8 MAXSENT = %8</td>
</tr>
<tr>
<td>IST1656I</td>
<td>VTAMTOPO = %8, NODE REPORTED - %3</td>
</tr>
<tr>
<td>IST1657I</td>
<td>MAJOR NODE VTAMTOPO = %8</td>
</tr>
<tr>
<td>IST1658I</td>
<td>XID3 NEGOTIATION ERROR - DEVICE %8 - SENSE %8</td>
</tr>
<tr>
<td>Message number</td>
<td>Text</td>
</tr>
<tr>
<td>---------------</td>
<td>------</td>
</tr>
<tr>
<td>IST1660A</td>
<td>ENTER PASSWORD FOR %8 %8</td>
</tr>
<tr>
<td>IST1661I</td>
<td>%8 PARAMETER NOT VALID FROM PROGRAM OPERATOR</td>
</tr>
<tr>
<td>IST1662I</td>
<td>%8 PARAMETER VALUE NOT ALLOWED</td>
</tr>
<tr>
<td>IST1663I</td>
<td>%8 %8 COMMAND FAILED - %20</td>
</tr>
<tr>
<td>IST1664I</td>
<td>PASSWORD MUST BE 1-8 CHARACTERS</td>
</tr>
<tr>
<td>IST1668I</td>
<td>LUNAME: IPADDR..PORT</td>
</tr>
<tr>
<td>IST1669I</td>
<td>IPADDR..PORT %46</td>
</tr>
<tr>
<td>IST1670I</td>
<td>%17 %21</td>
</tr>
<tr>
<td>IST1671I</td>
<td>Entry Subarea Exit Subarea</td>
</tr>
<tr>
<td>IST1672I</td>
<td>CURRENT NETWORK NODE SERVER NOT FOUND IN ACTIVE NETSRVR LIST</td>
</tr>
<tr>
<td>IST1673I</td>
<td>SWITCH TO PREFERRED NETWORK NODE SERVER IS COMPLETE</td>
</tr>
<tr>
<td>IST1674I</td>
<td>PREFERRED NETWORK NODE SERVER = %18</td>
</tr>
<tr>
<td>IST1675I</td>
<td>ACTIVE NETSRVR LIST AND PREFERRED NN SERVER ARE MERGED</td>
</tr>
<tr>
<td>IST1676I</td>
<td>SWITCH TO PREFERRED NETWORK NODE SERVER FAILED - CODE = %2</td>
</tr>
<tr>
<td>IST1677I</td>
<td>PREFERRED NETWORK NODE SERVER</td>
</tr>
<tr>
<td>IST1679I</td>
<td>MEDIUM = %5</td>
</tr>
<tr>
<td>IST1680I</td>
<td>%6 IP ADDRESS %39</td>
</tr>
<tr>
<td>IST1681I</td>
<td>LOCAL SAP = %3 REMOTE SAP = %3</td>
</tr>
<tr>
<td>IST1682I</td>
<td>HPR/IP %8 FAILURE: ID = %8</td>
</tr>
<tr>
<td>IST1683I</td>
<td>HPR/IP %7 FAILURE: ID = %8 STATUS = %8</td>
</tr>
<tr>
<td>IST1684I</td>
<td>RETURN CODE = %8 REASON CODE = %8</td>
</tr>
<tr>
<td>IST1685I</td>
<td>TCP/IP JOB NAME = %8</td>
</tr>
<tr>
<td>IST1686I</td>
<td>NO USABLE TCP/IP JOB AVAILABLE FOR HPR/IP</td>
</tr>
<tr>
<td>IST1687I</td>
<td>HPR/IP PORT NOT AVAILABLE</td>
</tr>
<tr>
<td>IST1688I</td>
<td>EXCESSIVE TIME %5 DETECTED FOR STRUCTURE %16</td>
</tr>
<tr>
<td>IST1689I</td>
<td>%10 FAILED - NOT CONNECTED TO %16</td>
</tr>
<tr>
<td>IST1690I</td>
<td>VARY CFS FAILED - ALREADY CONNECTED TO %16</td>
</tr>
<tr>
<td>IST1691I</td>
<td>VARY CFS FAILED - %16 IS NOT AVAILABLE</td>
</tr>
<tr>
<td>IST1692I</td>
<td>TCB = %2 TCP PORT = %3</td>
</tr>
<tr>
<td>IST1693I</td>
<td>NETWORK ADDRESS RECEIVED FOR %17 IN USE</td>
</tr>
<tr>
<td>IST1694I</td>
<td>REASON = SEQUENCE NUMBER ERROR</td>
</tr>
<tr>
<td>IST1695I</td>
<td>PU NAME CP NAME COSNAME SWITCH CONGEST STALL SESS</td>
</tr>
<tr>
<td>IST1696I</td>
<td>%8 %17 %8 %3 %3 %10</td>
</tr>
<tr>
<td>IST1697I</td>
<td>RTP PACING ALGORITHM = ARB RESPONSIVE MODE</td>
</tr>
<tr>
<td>IST1698I</td>
<td>PROBE %8 ATTEMPTED - FFST NOT AVAILABLE</td>
</tr>
<tr>
<td>IST1700I</td>
<td>%9 CONFLICTS WITH %17 %17</td>
</tr>
<tr>
<td>IST1701I</td>
<td>CP NAME LOCATE SIZE</td>
</tr>
<tr>
<td>IST1702I</td>
<td>%17 %4</td>
</tr>
<tr>
<td>IST1703I</td>
<td>DESIRED LOCATE SIZE = %4 LAST LOCATE SIZE = %4</td>
</tr>
<tr>
<td>IST1704I</td>
<td>%8 = %8 FROM ADJACENT SSCP TABLE</td>
</tr>
<tr>
<td>IST1705I</td>
<td>%8 = %8 FROM START OPTION</td>
</tr>
<tr>
<td>IST1706I</td>
<td>PARTNER NAME GENERIC RESOURCE MEMBER ATTRIBUTES</td>
</tr>
<tr>
<td>IST1707I</td>
<td>%17 %17 %8 %8</td>
</tr>
<tr>
<td>IST1708I</td>
<td>%10 FAILED - GENERIC RESOURCES NOT AVAILABLE</td>
</tr>
<tr>
<td>IST1709I</td>
<td>%10 FAILED - NOT CONNECTED TO %16</td>
</tr>
<tr>
<td>IST1710I</td>
<td>RSCV FROM PLU SAVED AT SESSION ACTIVATION</td>
</tr>
<tr>
<td>IST1711I</td>
<td>RSCV TOWARDS SLU SAVED AT SESSION ACTIVATION</td>
</tr>
<tr>
<td>IST1713I</td>
<td>RTP RSCV IN THE DIRECTION OF THE %3</td>
</tr>
<tr>
<td>IST1714I</td>
<td>NO PATH INFORMATION EXISTS</td>
</tr>
<tr>
<td>IST1715I</td>
<td>MPCLEVEL = %6 MPCUSAGE = %9</td>
</tr>
<tr>
<td>IST1716I</td>
<td>PORTNAME = %8 LINKNUM = %3 OSA CODE LEVEL = %4</td>
</tr>
<tr>
<td>IST1717I</td>
<td>ULPID = %8 ULP INTERFACE = %16</td>
</tr>
<tr>
<td>Message number</td>
<td>Text</td>
</tr>
<tr>
<td>---------------</td>
<td>------</td>
</tr>
<tr>
<td>IST1718I</td>
<td>DATAPATH DEVICE %4 NOT FOUND FOR TRLE %8</td>
</tr>
<tr>
<td>IST1719I</td>
<td>PCIREAL = %8  PCIREAL = %8</td>
</tr>
<tr>
<td>IST1720I</td>
<td>PCIVIR = %8  PCIVIR = %8</td>
</tr>
<tr>
<td>IST1721I</td>
<td>SBALCNO = %8  SBALCNT = %8</td>
</tr>
<tr>
<td>IST1722I</td>
<td>PACKCNO = %8  PACKCNT = %8</td>
</tr>
<tr>
<td>IST1723I</td>
<td>SIGACNTO = %8  SIGACNT = %8</td>
</tr>
<tr>
<td>IST1724I</td>
<td>I/O TRACE = %3  TRACE LENGTH = %4</td>
</tr>
<tr>
<td>IST1725E</td>
<td>STORAGE SHORTAGE IN %16 - UNABLE</td>
</tr>
<tr>
<td>IST1726I</td>
<td>ADDRESS FOR %17 DELETED FROM %8</td>
</tr>
<tr>
<td>IST1727I</td>
<td>DNS NAME: %50</td>
</tr>
<tr>
<td>IST1728I</td>
<td>%60</td>
</tr>
<tr>
<td>IST1729I</td>
<td>OPTION %4 MUST BE CODED WHEN SUBTRACE %4 IS SPECIFIED</td>
</tr>
<tr>
<td>IST1730I</td>
<td>SUBTRACE %4 ACTIVE UNDER TRACE OPTION %4</td>
</tr>
<tr>
<td>IST1731I</td>
<td>%8 ACTIVATION FAILED - HPR=RTP REQUIRED WITH HPR/IP</td>
</tr>
<tr>
<td>IST1732I</td>
<td>VTAM INITIATED SLOWDOWN TERMINATION FOR DEVICE %8</td>
</tr>
<tr>
<td>IST1733I</td>
<td>%8 DEVICE HAS BEEN IN SLOWDOWN MORE THAN %3 SECONDS</td>
</tr>
<tr>
<td>IST1734I</td>
<td>DEVICE %8 INITIATED SLOWDOWN TERMINATION</td>
</tr>
<tr>
<td>IST1736I</td>
<td>PU NAME</td>
</tr>
<tr>
<td>IST1737I</td>
<td>%8</td>
</tr>
<tr>
<td>IST1738I</td>
<td>ANR LABEL TP ER NUMBER</td>
</tr>
<tr>
<td>IST1739I</td>
<td>%16 %8 %8</td>
</tr>
<tr>
<td>IST1740I</td>
<td>IBMTGPS IN %11 IS EMPTY - PROCESSING CONTINUES</td>
</tr>
<tr>
<td>IST1743I</td>
<td>IBMTGPS IN %11 NOT FOUND - PROCESSING CONTINUES</td>
</tr>
<tr>
<td>IST1744I</td>
<td>IBMTGPS IN %11 IN ERROR - PROCESSING CONTINUES</td>
</tr>
<tr>
<td>IST1745I</td>
<td>%17 REJECTED BECAUSE VARYWL = %8</td>
</tr>
<tr>
<td>IST1746I</td>
<td>%7 COMMAND PROCESSING COMPLETE</td>
</tr>
<tr>
<td>IST1747I</td>
<td>SUMMARY OF STATE INFORMATION:</td>
</tr>
<tr>
<td>IST1748I</td>
<td>%5 = %10 %5 = %10 %5 = %10</td>
</tr>
<tr>
<td>IST1749I</td>
<td>%17 REJECTED - VARYWL = NO FOR APPL %8</td>
</tr>
<tr>
<td>IST1750I</td>
<td>PCITHRSO = %10 PCITHRSH = %10</td>
</tr>
<tr>
<td>IST1751I</td>
<td>PCIUNPRO = %10 PCIUNPRD = %10</td>
</tr>
<tr>
<td>IST1752I</td>
<td>RPROCDEO = %10 RPROCDEF = %10</td>
</tr>
<tr>
<td>IST1753I</td>
<td>RREPLDEO = %10 RREPLDEF = %10</td>
</tr>
<tr>
<td>IST1754I</td>
<td>NOREADSO = %10 NOREADS = %10</td>
</tr>
<tr>
<td>IST1755I</td>
<td>SBALMAX = %10 SBALAVG = %10</td>
</tr>
<tr>
<td>IST1756I</td>
<td>QDPTHMAX = %10 QDPTHAVG = %10</td>
</tr>
<tr>
<td>IST1757I</td>
<td>PRIORITY%: %11 PRIORITY%: %11</td>
</tr>
<tr>
<td>IST1758I</td>
<td>RSCV TOWARDS DLUR SAVED AT SESSION ACTIVATION</td>
</tr>
<tr>
<td>IST1759I</td>
<td>RTP RSCV FROM THE DIRECTION OF THE DLUR</td>
</tr>
<tr>
<td>IST1760I</td>
<td>%8 SUBCHANNEL %4 VARY OFFLINE NOT ALLOWED</td>
</tr>
<tr>
<td>IST1761I</td>
<td>%8 PARAMETER EXTRANEOUS FOR DISPLAY ID COMMAND</td>
</tr>
<tr>
<td>IST1762I</td>
<td>%8 ACT FAILED - TCPNAME/IPADDR START OPTION REQUIRED</td>
</tr>
<tr>
<td>IST1763I</td>
<td>NO ACTIVE CP-CP SESSION-CAPABLE TGS EXIST</td>
</tr>
<tr>
<td>IST1764I</td>
<td>NO ACTIVE CP-CP SESSION-CAPABLE TG TO %17</td>
</tr>
<tr>
<td>IST1765I</td>
<td>ADJACENT CP WINNER LOSER STATE NODE ANDCB</td>
</tr>
<tr>
<td>IST1766I</td>
<td>%17 %6 %6 %9 %2 %8</td>
</tr>
<tr>
<td>IST1767I</td>
<td>TRACE INITIATED FOR %8 DYNAMIC APPLICATIONS</td>
</tr>
<tr>
<td>IST1768I</td>
<td>TRACE TERMINATED FOR %8 DYNAMIC APPLICATIONS</td>
</tr>
<tr>
<td>IST1769I</td>
<td>LAST TDU RECEIVED - %8 %8 FROM %17</td>
</tr>
<tr>
<td>IST1773I</td>
<td>TNSTAT RECORDS CANNOT BE SENT TO SMF - SMF NOT IN SYSTEM</td>
</tr>
<tr>
<td>IST1774I</td>
<td>OPTIMAL CNN ROUTE NOT CHosen - ENTRY/EXIT SUBAREA MISMATCH</td>
</tr>
<tr>
<td>IST1775I</td>
<td>CNN ENTRY SUBAREA = %5 CNN EXIT SUBAREA = %5</td>
</tr>
<tr>
<td>Message number</td>
<td>Text</td>
</tr>
<tr>
<td>----------------</td>
<td>------</td>
</tr>
<tr>
<td>IST1776I</td>
<td>TDUS RECEIVED MOST RECENTLY</td>
</tr>
<tr>
<td>IST1777I</td>
<td>CP NAME RSN DESTINATION CP TGN ACC REJ</td>
</tr>
<tr>
<td>IST1778I</td>
<td>TDUS RECEIVED BETWEEN %8 %8 - %8 %8</td>
</tr>
<tr>
<td>IST1779I</td>
<td>TOPOLOGY RESOURCE RECORDS REFERENCED MOST FREQUENTLY</td>
</tr>
<tr>
<td>IST1780I</td>
<td>INITDB CHECKPOINT DATASET LAST GARBAGE COLLECTION</td>
</tr>
<tr>
<td>IST1781I</td>
<td>ENTRY NAME TABLE NAME ACTIVATION TIME</td>
</tr>
<tr>
<td>IST1782I</td>
<td>%17 %8 %17 %3 %5 %5</td>
</tr>
<tr>
<td>IST1783I</td>
<td>TDUS RECEIVED BETWEEN %8 %8 - %8 %8</td>
</tr>
<tr>
<td>IST1784I</td>
<td>LAST TDU RECEIVED - NONE</td>
</tr>
<tr>
<td>IST1785I</td>
<td>%8 %8 %8 %8</td>
</tr>
<tr>
<td>IST1786I</td>
<td>HPR ROUTE TEST INITIATED FOR RTP PU</td>
</tr>
<tr>
<td>IST1787I</td>
<td>HPR ROUTE TEST RESULTS FOR RTP PU %8</td>
</tr>
<tr>
<td>IST1788I</td>
<td>NODE CP NAME TG NUMBER PARTNER CP NAME INTERNODAL TIME (MILLISECONDS)</td>
</tr>
<tr>
<td>IST1789I</td>
<td>%8 %8 %8 %8</td>
</tr>
<tr>
<td>IST1790I</td>
<td>HPR ROUTE TEST PACKET NOT RETURNED BY NODE %17</td>
</tr>
<tr>
<td>IST1791I</td>
<td>TOTAL RTP TRAVERSAL TIME %15 MILLISECONDS</td>
</tr>
<tr>
<td>IST1792I</td>
<td>HPR ROUTE TEST NOT INITIATED - RTP PU NOT IN PROPER STATE</td>
</tr>
<tr>
<td>IST1793I</td>
<td>HPR ROUTE TEST NOT INITIATED - TEST ALREADY IN PROGRESS</td>
</tr>
<tr>
<td>IST1794I</td>
<td>HPR ROUTE TEST NOT INITIATED - INSUFFICIENT STORAGE</td>
</tr>
<tr>
<td>IST1795I</td>
<td>SYSTEM-MANAGED DUPLEXING REBUILD IS IN PROGRESS</td>
</tr>
<tr>
<td>IST1796I</td>
<td>STRUCTURE TYPE = %5</td>
</tr>
<tr>
<td>IST1797I</td>
<td>TOPOLOGY DATASET RETRIEVED WAS CREATED ON %8 %8</td>
</tr>
<tr>
<td>IST1798I</td>
<td>NO ROUTE AVAILABLE TO DESTINATION IP ADDRESS %15</td>
</tr>
<tr>
<td>IST1799I</td>
<td>TRLE = %8 ** CONGESTED **</td>
</tr>
<tr>
<td>IST1800I</td>
<td>UNITS OF WORK FOR NCB AT ADDRESS X'%'8''</td>
</tr>
<tr>
<td>IST1801I</td>
<td>%2 CURRENT = %4 AVERAGE = %4 MAXIMUM = %4</td>
</tr>
<tr>
<td>IST1802I</td>
<td>%8 PARAMETER VALUE NOT VALID - DEFAULT %8 USED</td>
</tr>
<tr>
<td>IST1803I</td>
<td>%8 PARAMETER NOT VALID - IGNORED</td>
</tr>
<tr>
<td>IST1804I</td>
<td>ONLY LOCAL TOPOLOGY INFORMATION IS AVAILABLE</td>
</tr>
<tr>
<td>IST1805I</td>
<td>NO DIAL-IN LINE FOUND FOR HPR/IP SWITCHED CONNECTION</td>
</tr>
<tr>
<td>IST1806I</td>
<td>NO DIAL-IN LINE FOR HPR/IP VIRTUAL NODE %17</td>
</tr>
<tr>
<td>IST1807I</td>
<td>HPR ROUTE TEST NOT INITIATED - INSUFFICIENT PATH INFORMATION</td>
</tr>
<tr>
<td>IST1808I</td>
<td>PTKIQDO = %10 PTKIQD = %10</td>
</tr>
<tr>
<td>IST1809I</td>
<td>BYTIQDO = %10 BYTIQD = %10</td>
</tr>
<tr>
<td>IST1810I</td>
<td>PARAMETER 1 FOR DISCNTIM MUST BE NUMERIC OR IMMED</td>
</tr>
<tr>
<td>IST1811I</td>
<td>PATH SWITCH REASON: RTP CONNECTION UNAVAILABLE</td>
</tr>
<tr>
<td>IST1812I</td>
<td>PATH SWITCH REASON: SHORT REQUEST RETRY LIMIT EXHAUSTED</td>
</tr>
<tr>
<td>IST1813I</td>
<td>PATH SWITCH REASON: TG INOP</td>
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<tr>
<td>IST1814I</td>
<td>PATH SWITCH REASON: MODIFY RTP COMMAND ISSUED</td>
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<tr>
<td>IST1815I</td>
<td>PATH SWITCH REASON: AUTO PATH SWITCH FOR PSRETRY</td>
</tr>
<tr>
<td>IST1816I</td>
<td>PATH SWITCH REASON: UNKNOWN</td>
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<tr>
<td>IST1817I</td>
<td>LIST DVIPA SYSNAME TCPNAME # ASSIGNED PORTS</td>
</tr>
<tr>
<td>IST1818I</td>
<td>%4 %39 %5</td>
</tr>
<tr>
<td>IST1819I</td>
<td>%8 %8 %5 %5 %5 %5</td>
</tr>
<tr>
<td>IST1820I</td>
<td>PORTS: %5 %5 %5 %5 %5 %5</td>
</tr>
<tr>
<td>IST1821I</td>
<td>%5 %5 %5 %5 %5 %5</td>
</tr>
<tr>
<td>IST1822I</td>
<td>LIST %4 IS UNCLAIMED</td>
</tr>
<tr>
<td>IST1823I</td>
<td>NO CLAIMED LISTS FOUND FOR THE SPECIFIED DVIPA</td>
</tr>
<tr>
<td>IST1824I</td>
<td>NO CLAIMED LISTS FOUND</td>
</tr>
<tr>
<td>IST1825I</td>
<td>%3 OF SYSTEM CSA STORAGE REMAINING = %9</td>
</tr>
<tr>
<td>IST1826I</td>
<td>CSALIMIT VALUE %9 MIGHT BE TOO SMALL</td>
</tr>
</tbody>
</table>
IST1833I  CSA STORAGE ALLOCATION EXCEEDS SPECIFIED CSALIMIT VALUE
IST1834I  LIST DVIPA SYSTYPE TCPNAME #ENTRIES TGCOUNT SEQNUMBER
          %4 %15
IST1835I  %8 %8 %10 %10
IST1836I  %8 %8 %10 %10
IST1837I  LIST ENTRY KEYS:
IST1838I  %32
IST1839I  DLUR = %17
IST1840I  ACTUAL DATA FLOW RATE = %6 %9
IST1841I  NUMBER OF NLPS RETRANSMITTED = %10
IST1842I  NUMBER OF NLPS ON WAITING-TO-SEND QUEUE = %5
IST1843I  ARB MODE = %6
IST1844I  BOUNDARY DIVIDING REGIONS % AND % = %10 MILLISECONDS
IST1845I  %7 RECEIVER THRESHOLD = %9 MICROSECONDS
IST1846I  NUMBER OF NLPS ON WAITING-FOR-ACKNOWLEDGEMENT QUEUE = %5
IST1847I  SEND BYTE COUNT = %10 RECEIVE BYTE COUNT = %10
IST1848I  LARGEST NLP SENT = %10 BYTES
IST1849I  LARGEST NLP RECEIVED = %10 BYTES
IST1850I  SMOOTHED ROUND TRIP TIME = %10 MILLISECONDS
IST1851I  LIVENESS TIMER = %10 SECONDS
IST1852I  NUMBER OF NLPS ON OUT-OF-SEQUENCE QUEUE = %5
IST1853I  NUMBER OF NLPS ON INBOUND SEGMENTS QUEUE = %5
IST1854I  NUMBER OF SESSIONS USING RTP = %10
IST1855I  LAST PATH SWITCH OCCURRENCE WAS ON %8 AT %8
IST1856I  BACKPRESSURE REASON COUNTS:
IST1857I  PATHSWITCH SEND QUEUE MAX STORAGE FAILURE STALLED PIPE
IST1858I  %3 %3 %3 %3
IST1859I  NUMBER OF NLPS SENT = %10 - OVERFLOW = %10
IST1860I  NUMBER OF NLPS RECEIVED = %10 - OVERFLOW = %10
IST1861I  ARB MAXIMUM SEND RATE = %6 %9
IST1862I  SUBAREA INDEX ELEMENT
IST1863I  X’%4’ (%5) X’%4’ (%5) X’%4’ (%5)
IST1864I  GLOBAL INOPDUMP = %3
IST1865I  TRLE = %8 INOPDUMP = %3
IST1866I  INOPDUMP = %3 FOR ALL TRLE-BASED RESOURCES
IST1867I  DISPLAY APIING FAILED - TP INSTANCE LIMIT EXCEEDED
IST1868I  NO %8 SESSIONS EXIST
IST1869I  %8 HAS %9 ACTIVE SESSIONS
IST1870I  MESSAGE TRIGGER: MESSAGE = %8 MATCHLIM = %4
IST1871I  VALUE %1 = %28 %20
IST1872I  SENSE TRIGGER: SENSE = %8 RU = %3 %3 MATCHLIM = %4
IST1873I  MESSAGE TRIGGER: NONE
IST1874I  SENSE TRIGGER: NONE
IST1875I  MESSAGE TRIGGER DELETED
IST1876I  SENSE TRIGGER DELETED
IST1877I  NO MESSAGE TRIGGER EXISTS
IST1878I  VTAM DUMPING FOR CSDUMP TRIGGER MESSAGE %8
IST1879I  VTAM DUMPING FOR CSDUMP TRIGGER SENSE %2 %6 RU %6
IST1880I  VTAM DUMPING FOR CSDUMP - IMMEDIATE DUMP
IST1881I  NO SENSE TRIGGER EXISTS
IST1882I  SESSION ESTABLISHED WITH %8 - DLUR %17
IST1883I  SESSION ENDED WITH %8 - DLUR %5 %12
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<thead>
<tr>
<th>Message number</th>
<th>Text</th>
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</thead>
<tbody>
<tr>
<td>IST1885I</td>
<td>SIO = %5 SLOWDOWN = %3</td>
</tr>
<tr>
<td>IST1886I</td>
<td>SLOWDOWN TIME EXCEEDS MAXSLOW = %3 SECONDS FOR DEVICE %4</td>
</tr>
<tr>
<td>IST1887I</td>
<td>DEVICE %4 EXITED SLOWDOWN MODE</td>
</tr>
<tr>
<td>IST1888I</td>
<td>%3 = %47 SID = %40 %6</td>
</tr>
<tr>
<td>IST1889I</td>
<td>SSCP-SSCP SESSION TO %17 HELD FOR PACING</td>
</tr>
<tr>
<td>IST1890I</td>
<td>%8 ACTIVATION FAILED - NO SOURCE IP ADDRESS AVAILABLE</td>
</tr>
<tr>
<td>IST1891I</td>
<td>%8 DIAL FAILED - MISMATCH OF IP ADDRESS FAMILIES</td>
</tr>
<tr>
<td>IST1892I</td>
<td>NO ROUTE AVAILABLE TO DESTINATION</td>
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<tr>
<td>IST1893I</td>
<td>NAME-TO-ADDRESS RESOLUTION FAILED</td>
</tr>
<tr>
<td>IST1894I</td>
<td>%8 IGNORED - INCOMPATIBLE WITH %3 %5</td>
</tr>
<tr>
<td>IST1895I</td>
<td>%8 RESET - INCOMPATIBLE WITH %5 %3</td>
</tr>
<tr>
<td>IST1896I</td>
<td>VNNAME %17</td>
</tr>
<tr>
<td>IST1897I</td>
<td>%8 ACTIVATION FAILED - TCPNAME START OPTION REQUIRED</td>
</tr>
<tr>
<td>IST1898I</td>
<td>%8 ACTIVATION FAILED - IPADDR OR HOSTNAME REQUIRED</td>
</tr>
<tr>
<td>IST1899I</td>
<td>%8 ACTIVATION FAILED - VRN INFORMATION MUST BE UNIQUE</td>
</tr>
<tr>
<td>IST1900I</td>
<td>ASSIGNED IP ADDRESS %15</td>
</tr>
<tr>
<td>IST1901I</td>
<td>LINES UNDER GROUP: %8</td>
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<tr>
<td>IST1902I</td>
<td>GROUP = %8</td>
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<tr>
<td>IST1903I</td>
<td>FAILURE OVER VRN %17 TO CP %17</td>
</tr>
<tr>
<td>IST1904I</td>
<td>%8 = %49 %20</td>
</tr>
<tr>
<td>IST1905I</td>
<td>START OPTION = %8</td>
</tr>
<tr>
<td>IST1906I</td>
<td>CURRENT VALUE = %23 %20</td>
</tr>
<tr>
<td>IST1907I</td>
<td>ORIGINAL VALUE = %23 %20</td>
</tr>
<tr>
<td>IST1908I</td>
<td>ORIGIN = %8</td>
</tr>
<tr>
<td>IST1909I</td>
<td>REMOTE HOSTNAME %24 %20</td>
</tr>
<tr>
<td>IST1910I</td>
<td>LOCAL HOSTNAME %25 %20</td>
</tr>
<tr>
<td>IST1911I</td>
<td>%40 %20</td>
</tr>
<tr>
<td>IST1912I</td>
<td>IP ADDRESS %29 %10</td>
</tr>
<tr>
<td>IST1913I</td>
<td>LUNAME PORT</td>
</tr>
<tr>
<td>IST1914I</td>
<td>%17 %5</td>
</tr>
<tr>
<td>IST1915I</td>
<td>%8 ACTIVATION FAILED - VNNAME ALREADY ACTIVE AS GLOBAL</td>
</tr>
<tr>
<td>IST1916I</td>
<td>%8 ACTIVATION FAILED - VNNAME ALREADY ACTIVE AS LOCAL</td>
</tr>
<tr>
<td>IST1917I</td>
<td>%8 IN CONFLICT WITH %8 - BOTH OPTIONS IGNORED</td>
</tr>
<tr>
<td>IST1919I</td>
<td>INOPCODES FOR MODULE %8:</td>
</tr>
<tr>
<td>IST1920I</td>
<td>DUMP ENABLED:</td>
</tr>
<tr>
<td>IST1921I</td>
<td>%36 %19</td>
</tr>
<tr>
<td>IST1922I</td>
<td>DUMP DISABLED:</td>
</tr>
<tr>
<td>IST1923I</td>
<td>MODULE %8 INOPCODE %3 DOES NOT EXIST</td>
</tr>
<tr>
<td>IST1924I</td>
<td>%8 DOES NOT EXIST OR DOES NOT CONTAIN INOPCODES</td>
</tr>
<tr>
<td>IST1925I</td>
<td>SNAMGMT SERVER IS UNABLE TO ACCEPT CONNECTION REQUESTS</td>
</tr>
<tr>
<td>IST1926I</td>
<td>SNAMGMT SERVER IS UNABLE TO ACCEPT CONNECTION REQUESTS</td>
</tr>
<tr>
<td>IST1927I</td>
<td>SOCKET %10 CALL FAILED - RC = %8 RSN = %8</td>
</tr>
<tr>
<td>IST1928I</td>
<td>SNAMGMT CONNECTION TO %8 IS ACTIVE</td>
</tr>
<tr>
<td>IST1929I</td>
<td>SNAMGMT CONNECTION TO %8 HAS ENDED</td>
</tr>
<tr>
<td>IST1930I</td>
<td>SOCKET CLOSED BY SNAMGMT SERVER SUBTASK</td>
</tr>
<tr>
<td>IST1931I</td>
<td>SNAMGMT CONNECTION REFUSED FOR %8</td>
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<tr>
<td>IST1932I</td>
<td>SNAMGMT SECURITY CHECK FAILED FOR %8</td>
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<tr>
<td>IST1933I</td>
<td>SNAMGMT SERVER CLOSING CONNECTION TO %8</td>
</tr>
<tr>
<td>IST1934I</td>
<td>IDBLK = %3 IDNUM = %5</td>
</tr>
<tr>
<td>IST1935I</td>
<td>RIF = %36</td>
</tr>
<tr>
<td>IST1936I</td>
<td>LOCADDR = %3</td>
</tr>
<tr>
<td>IST1937I</td>
<td>PATH SWITCH REASON: INITIATED BY REMOTE PARTNER</td>
</tr>
<tr>
<td>Message number</td>
<td>Text</td>
</tr>
<tr>
<td>---------------</td>
<td>------</td>
</tr>
<tr>
<td>IST1938I</td>
<td>APPC = %3</td>
</tr>
<tr>
<td>IST1939I</td>
<td>INACT FINAL = %3</td>
</tr>
<tr>
<td>IST1940I</td>
<td>MODIFY COMMAND REJECTED - SNAMGMT ALREADY ACTIVE</td>
</tr>
<tr>
<td>IST1941I</td>
<td>MODIFY COMMAND REJECTED - SNAMGMT ALREADY SET TO NO</td>
</tr>
<tr>
<td>IST1942I</td>
<td>APPN LOCATE SEARCH STEPS ATTEMPTED</td>
</tr>
<tr>
<td>IST1943I</td>
<td>DIRECTED SEARCH TO A SERVED END NODE</td>
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<tr>
<td>IST1944I</td>
<td>DIRECTED SEARCH TO A NETWORK NODE</td>
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<tr>
<td>IST1945I</td>
<td>DIRECTED SEARCH TO A BORDER NODE</td>
</tr>
<tr>
<td>IST1946I</td>
<td>LOCAL SUBAREA SEARCH</td>
</tr>
<tr>
<td>IST1947I</td>
<td>BROADCAST SEARCH TO SERVED END NODES</td>
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<tr>
<td>IST1948I</td>
<td>DIRECTED SEARCHES TO BORDER NODES</td>
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<tr>
<td>IST1949I</td>
<td>DIRECTED SEARCH TO A CENTRAL DIRECTORY SERVER</td>
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<tr>
<td>IST1950I</td>
<td>DIRECTED SEARCHES TO ALTERNATE CENTRAL DIRECTORY SERVERS</td>
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<td>IST1951I</td>
<td>BROADCAST SEARCH TO NETWORK NODES</td>
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<tr>
<td>IST1952I</td>
<td>DIRECTED SEARCHES TO INTERCHANGE NODES</td>
</tr>
<tr>
<td>IST1953I</td>
<td>$%18 - SENSE %8 FROM %17</td>
</tr>
<tr>
<td>IST1954I</td>
<td>TRL MAJOR NODE = %8</td>
</tr>
<tr>
<td>IST1955I</td>
<td>STALL DETECTED FOR RTP %8 TO %17</td>
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<tr>
<td>IST1956I</td>
<td>STALL CONTINUES FOR RTP %8 TO %17</td>
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<tr>
<td>IST1957I</td>
<td>STALL ALleviated FOR RTP %8 TO %17</td>
</tr>
<tr>
<td>IST1958I</td>
<td>NUMBER OF ORPHANED BUFFERS = %10</td>
</tr>
<tr>
<td>IST1959I</td>
<td>DATA FLOW STATE = NORMAL</td>
</tr>
<tr>
<td>IST1960I</td>
<td>$%8 $%17 $%3 $%3 $%3 $%4</td>
</tr>
<tr>
<td>IST1961I</td>
<td>DATA FLOW STATE = STALLED</td>
</tr>
<tr>
<td>IST1962I</td>
<td>APPNCOS = %8 - PRIORITY = NETWORK</td>
</tr>
<tr>
<td>IST1963I</td>
<td>APPNCOS = %8 - PRIORITY = HIGH</td>
</tr>
<tr>
<td>IST1964I</td>
<td>APPNCOS = %8 - PRIORITY = MEDIUM</td>
</tr>
<tr>
<td>IST1965I</td>
<td>APPNCOS = %8 - PRIORITY = LOW</td>
</tr>
<tr>
<td>IST1966I</td>
<td>ACTIVATED AS ACTIVE ON %8 AT %8</td>
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<tr>
<td>IST1967I</td>
<td>ACTIVATED AS PASSIVE ON %8 AT %8</td>
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<tr>
<td>IST1968I</td>
<td>ARB INFORMATION:</td>
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<tr>
<td>IST1969I</td>
<td>MAXIMUM ACTUAL DATA FLOW RATE = %6 %9</td>
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<tr>
<td>IST1970I</td>
<td>RATE REDUCTIONS DUE TO RETRANSMISSIONS =%10</td>
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<td>IST1971I</td>
<td>TIMER INFORMATION:</td>
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<tr>
<td>IST1972I</td>
<td>SHORT REQUEST TIMER = %10 MILLISECONDS</td>
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<tr>
<td>IST1973I</td>
<td>OUTBOUND TRANSMISSION INFORMATION:</td>
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<tr>
<td>IST1974I</td>
<td>NUMBER OF NLPS SENT = %20 ( %4 )</td>
</tr>
<tr>
<td>IST1975I</td>
<td>TOTAL BYTES SENT = %20 ( %4 )</td>
</tr>
<tr>
<td>IST1976I</td>
<td>BYTES RETRANSMITTED = %20 ( %4 )</td>
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<tr>
<td>IST1977I</td>
<td>MAXIMUM NUMBER OF NLPS ON WAITING-FOR-ACK QUEUE = %10</td>
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<tr>
<td>IST1978I</td>
<td>WAITING-FOR-ACK QUEUE MAX REACHED ON %8 AT %8</td>
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<tr>
<td>IST1979I</td>
<td>INBOUND TRANSMISSION INFORMATION:</td>
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<tr>
<td>IST1980I</td>
<td>SEQUENCE NUMBER = %10 (X''%0'')</td>
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<tr>
<td>IST1981I</td>
<td>TOTAL BYTES RECEIVED = %20 ( %4 )</td>
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<tr>
<td>IST1982I</td>
<td>NUMBER OF NLPS ON INBOUND WORK QUEUE = %9</td>
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<tr>
<td>IST1983I</td>
<td>MAXIMUM NUMBER OF NLPS ON INBOUND WORK QUEUE = %10</td>
</tr>
<tr>
<td>IST1984I</td>
<td>PATH SWITCH INFORMATION:</td>
</tr>
<tr>
<td>IST1985I</td>
<td>PATH SWITCHES INITIATED FROM REMOTE RTP = %10</td>
</tr>
<tr>
<td>IST1986I</td>
<td>PATH SWITCHES INITIATED FROM LOCAL RTP =%10</td>
</tr>
<tr>
<td>IST1987I</td>
<td>PATH SWITCHES DUE TO LOCAL FAILURE = %10</td>
</tr>
<tr>
<td>IST1988I</td>
<td>PATH SWITCHES DUE TO LOCAL PSRETRY = %10</td>
</tr>
<tr>
<td>IST1989I</td>
<td>NO MATCHING AUTOLOGIN REQUESTS</td>
</tr>
</tbody>
</table>
Message number | Text
--- | ---
IST1990I | PENDING AUTOLOGON REQUESTS FOR:
IST1991I | %17 - WAITING FOR PLU NOTIFICATION
IST1992I | %17 - WAITING FOR AUTOTI TIMER
IST1993I | %17 - WAITING FOR CDRM ACTIVATION
IST1994I | %17 - WAITING FOR CDRM OR CPCP ACTIVATION
IST1995I | %17 - WAITING FOR AUTOCAP NODE ACTIVATION
IST1996I | OR AUTOTI TIMER
IST1997I | %17 %17 %17
IST1998I | %17 - WAITING FOR AUTOTI/AUTORTRY START OPTION
IST1999I | MODIFICATION OR SLU REACTIVATION
IST2000I | ENTERPRISE EXTENDER GENERAL INFORMATION
IST2001I | ENTERPRISE EXTENDER CONNECTION INFORMATION
IST2002I | ENTERPRISE EXTENDER AGGREGATE CONNECTION INFORMATION
IST2003I | ENTERPRISE EXTENDER XCA MAJOR NODE NAME = %8
IST2004I | LIVTIME = %5 SRQTIME = %5 SRQRETRY = %5
IST2005I | IPRESOLV = %3
IST2006I | PORT PRIORITY = SIGNAL NETWORK HIGH MEDIUM LOW
IST2007I | IPPORT NUMBER = %5 %5 %5 %5 %5
IST2008I | IPTOS VALUE = %2 %2 %2 %2 %2
IST2009I | RTP PIPES = %10 LU-LU SESSIONS = %10
IST2010I | INOPS DUE TO SRQRETRY EXPIRATION = %10
IST2011I | AVAILABLE LINES FOR THIS EE VRN= %10
IST2012I | ACTIVE CONNECTIONS USING THIS EE VRN = %10
IST2013I | AVAILABLE LINES FOR PREDEFINED EE CONNECTIONS = %10
IST2014I | ACTIVE PREDEFINED EE CONNECTIONS = %10
IST2015I | ACTIVE LOCAL VRN EE CONNECTIONS = %10
IST2016I | ACTIVE GLOBAL VRN EE CONNECTIONS = %10
IST2017I | TOTAL RTP PIPES = %10 LU-LU SESSIONS = %10
IST2018I | TOTAL ACTIVE PREDEFINED EE CONNECTIONS = %10
IST2019I | TOTAL ACTIVE LOCAL VRN EE CONNECTIONS = %10
IST2020I | TOTAL ACTIVE GLOBAL VRN EE CONNECTIONS = %10
IST2021I | TOTAL ACTIVE EE CONNECTIONS = %10
IST2022I | EE CONNECTION ACTIVATED ON %8 AT TIME %8
IST2023I | CONNECTED TO LINE %8
IST2024I | CONNECTED TO SWITCHED PU %8
IST2025I | LDLC SIGNALS RETRANSMITTED AT LEAST ONE TIME = %5
IST2026I | LDLC SIGNALS RETRANSMITTED SRQRETRY TIMES = %5
IST2027I | DWINOP = %3 REDIAL = %7 REDDELAY = %4
IST2028I | KEEPACT = %3
IST2029I | MTU SIZE = %5
IST2030I | PORT PRIORITY = SIGNAL
IST2031I | PORT PRIORITY = NETWORK
IST2032I | PORT PRIORITY = HIGH
IST2033I | PORT PRIORITY = MEDIUM
IST2034I | PORT PRIORITY = LOW
IST2035I | TOTALS FOR ALL PORT PRIORITIES
IST2036I | NLPS SENT = %20 ( %4 )
IST2037I | BYTES SENT = %20 ( %4 )
IST2038I | NLPS RETRANSMITTED = %20 ( %4 )
IST2039I | BYTES RETRANSMITTED = %20 ( %4 )
IST2040I | NLPS RECEIVED = %20 ( %4 )
IST2041I | BYTES RECEIVED = %20 ( %4 )
Message number | Text
---|---
IST2043I | %6 OF %6 EE CONNECTIONS DISPLAYED
IST2044I | TOTAL ACTIVE EE CONNECTIONS FOR LOCAL HOSTNAME = %10
IST2045I | TOTAL ACTIVE EE CONNECTIONS FOR LOCAL IPADDR = %10
IST2046I | ENTERPRISE EXTENDER XCA MAJOR NODE NOT ACTIVE
IST2047I | MNPS FORCED TAKEOVER TIMER EXPIRED FOR %8
IST2048I | %8 DOES NOT HAVE AN ACTIVE EE CONNECTION
IST2049I | LOCAL IPADDR IS NOT VALID WITH LOCAL HOSTNAME
IST2050I | REMOTE IPADDR IS NOT VALID WITH REMOTE HOSTNAME
IST2051I | THIS PATH WILL NOT BE SELECTED FOR UNRCHTIM = %5 SECONDS
IST2052I | ORIGIN NODE PARTNER NODE UNRCHTIM EXPIRES
IST2054I | VIRTUAL NODE PARTNER NODE UNRCHTIM EXPIRES
IST2055I | %17 %17 %6 %8
IST2056I | NO MATCHING UNREACHABLE PARTNER INFORMATION EXISTS
IST2057I | UNREACHABLE PARTNER INFORMATION:
IST2058I | UNREACHABLE PARTNERS FOR %3 %17 EXCEED %5
IST2059I | NUMBER OF NLPS RECEIVED = %20 ( %4 )
IST2061I | NO FORCED TAKEOVER REQUESTS ARE ACCEPTABLE
IST2062I | FORCED TAKEOVER REQUESTS ARE ACCEPTABLE
IST2063I | ALL FORCED TAKEOVER REQUESTS ARE ACCEPTABLE
IST2064I | PLU TO SLU RU SIZE = %5 SLU TO PLU RU SIZE = %5
IST2066I | ENTERPRISE EXTENDER CONNECTION REXMIT INFORMATION
IST2067I | ENTERPRISE EXTENDER CONNECTION SRQRETRY INFORMATION
IST2068I | EEDIAG DISPLAY ISSUED ON %8 AT %8
IST2069I | NLP RETRANSMIT RATE = %7
IST2070I | REXMIT COUNTERS LAST CLEARED ON %8 AT %8
IST2071I | SRQRETRY COUNTERS LAST CLEARED ON %8 AT %8
IST2072I | ALL DIAGNOSTIC COUNTERS CLEARED FOR %6 EE CONNECTIONS
IST2073I | REXMIT COUNTERS CLEARED FOR %6 EE CONNECTIONS
IST2074I | SUCCESSFUL SRQRETRY ATTEMPT = %2 OCCURRENCES = %9
IST2075I | DISPLAY RTPS SUMMARY INFORMATION
IST2076I | TOTAL MATCHING PIPES = %7
IST2077I | CPSVCMG PIPES = %7
IST2078I | RSETUP PIPES = %7
IST2079I | LU-LU PIPES = %7
IST2080I | PATH SWITCHING PIPES = %7
IST2081I | CONGESTED PIPES = %7
IST2082I | STALLED PIPES = %7
IST2083I | SESSIONS = %7
IST2084I | %7 OF %7 MATCHING RTP PIPES DISPLAYED
IST2085I | NUMBER OF NLPS ON OUTBOUND WORK QUEUE = %7
IST2086I | MAXIMUM NUMBER OF NLPS ON OUTBOUND WORK QUEUE = %7
IST2087I | OUTBOUND WORK QUEUE MAX REACHED ON %8 AT %8
IST2088I | CDRSCS DEFINED USING THIS MODEL:
IST2089I | NO CDRSCS DEFINED USING THIS MODEL
IST2090I | TRACE INITIATED FOR %5 CLONE CDRSCS
IST2091I | TRACE ENDED FOR %5 CLONE CDRSCS
IST2092I | NO CLONE CDRSCS EXIST FOR SCOPE %9
IST2093I | AUTOLOGON SEARCH INITIATED FOR %4 APPLICATIONS
IST2094I | MODEL CDRSC WAS NOT DELETED - CLONE CDRSCS EXIST
IST2095I | MODEL CDRSC DELETE = %3
IST2096I | AUTOLOGON SEARCH COMPLETED FOR APPLICATION %17
Message number | Text
--- | ---
IST2097I | STATUS = CANNOT BE LOCATED
IST2098I | STATUS = UNABLE TO ACCEPT LOGONS
IST2099I | STATUS = AUTOLOGIN SESSIONS INITIATED FOR %4 LUS
IST2100I | %17 - NORMALLY LOGGED OFF LUS
IST2101I | NO LUS EXIST IN A STATE TO INITIATE AN AUTOLOGIN SESSION
IST2102I | RSCV FROM PLU
IST2103I | RSCV TOWARDS SLU
IST2104I | RSCV TOWARDS DLUR
IST2105I | %8 ACTIVATION FAILED - HPR/IP XCA NODE ALREADY ACTIVE
IST2106I | MODIFY GR DELETE FAILED FOR %17
IST2107I | LOCAL GR ACB IS OPEN
IST2108I | LOCAL APPLICATION OWNED GR AFFINITY EXISTS
IST2109I | NON-LOCAL GR INSTANCE SELECTABLE
IST2110I | NON-LOCAL APPLICATION OWNED GR AFFINITY EXISTS
IST2111I | NON-LOCAL GR SESSION ACTIVE
IST2113I | %8 SESSION DEACTIVATED - EXPFLTLM THRESHOLD EXCEEDED
IST2114I | LIVETIME: INITIAL = %4 MAXIMUM = %4 CURRENT = %4
IST2116I | STALL DETECTED FOR XCF TRLE %8 TO %17
IST2117I | STALL CONTINUES FOR XCF TRLE %8 TO %17
IST2118I | STALL ALLEVIATED FOR XCF TRLE %8 TO %17
IST2119I | ENTERPRISE EXTENDER DISPLAY CORRELATOR: %8
IST2120I | HOSTNAME RESOLUTION IN PROGRESS
IST2121I | HOSTNAME RESOLUTION COMPLETE
IST2122I | EE DISPLAY REJECTED - MAXHNRES LIMIT EXCEEDED
IST2123I | DIAL FAILED FOR EE PU %8 - EXISTING CONNECTION FOUND
IST2124I | REMOTE IPADDR OR HOSTNAME IS ALSO REQUIRED
IST2125I | LOCAL IPADDR OR HOSTNAME IS ALSO REQUIRED
IST2126I | CONNECTIVITY TEST IN PROGRESS
IST2127I | CONNECTIVITY TEST FAILED - NO DIAL OUT LINE AVAILABLE FOR EE
IST2128I | CONNECTIVITY TEST FAILED - EE NOT AVAILABLE FOR LOCAL IPADDR
IST2129I | CONNECTIVITY TEST FAILED - MISMATCH OF IP ADDRESS FAMILY
IST2130I | ENTERPRISE EXTENDER CONNECTIVITY TEST INFORMATION
IST2131I | EEDIAG DISPLAY COMPLETED ON %8 AT %8
IST2132I | LDLC PROBE VERSIONS: VTAM = %5 PARTNER = %7
IST2133I | INTFNAME: %16 INTFTYPE: %16
IST2134I | CONNECTIVITY SUCCESSFUL PORT: %5
IST2135I | CONNECTIVITY UNSUCCESSFUL SENSE: %5 PORT: %5
IST2136I | CONNECTIVITY TEST ENDED - MAXIMUM TIME LIMIT EXCEEDED
IST2137I | %3 %15 %5 RTT: %5
IST2138I | %3 %39 %5 RTT: %5
IST2139I | CONNECTIVITY TEST RESULTS DISPLAYED FOR %2 INTERFACES
IST2140I | CONNECTIVITY TEST FAILED - LINE %8 IS INACTIVATING
IST2141I | CONNECTIVITY TEST FAILED - SWITCHED PU IS NOT ENABLED FOR EE
IST2142I | CONNECTIVITY TEST REJECTED - SAME TEST ALREADY IN PROGRESS
IST2143I | IN PROGRESS ENTERPRISE EXTENDER DISPLAY CORRELATOR: %8
IST2144I | CONNECTIVITY TEST REJECTED - MAXEETST LIMIT EXCEEDED
IST2145I | PENDING ENTERPRISE EXTENDER DISPLAY COMMANDS
IST2146I | EE DISPLAY ISSUED ON %8 AT %8
IST2147I | CORRELATOR: %8 LINE: %8 STATUS: %16
IST2148I | EE CONNECTIVITY TEST REACHES MAXTIME ON %8 AT %8
IST2149I | %5 OF %5 CORRELATORS DISPLAYED
IST2150I | VIRTUAL NODE %17 - %5 UNREACHABLE PARTNERS
<table>
<thead>
<tr>
<th>Message number</th>
<th>Text</th>
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</thead>
<tbody>
<tr>
<td>IST2151I</td>
<td>PARTNER LIMIT EXCEEDED - UNUSABLE UNTIL COUNT IS BELOW %5</td>
</tr>
<tr>
<td>IST2152I</td>
<td>MODIFY TOPO COMMAND FAILED</td>
</tr>
<tr>
<td>IST2153I</td>
<td>ORIG, VRN, OR DEST OPERAND REQUIRED</td>
</tr>
<tr>
<td>IST2154I</td>
<td>ROUTE SELECTION TRACE IS ACTIVE - BFRNUM = %3</td>
</tr>
<tr>
<td>IST2155I</td>
<td>ROUTE SELECTION TRACE IS INACTIVE</td>
</tr>
<tr>
<td>IST2156I</td>
<td>STORAGE ALLOCATED TO ROUTE SELECTION TRACE = %5</td>
</tr>
<tr>
<td>IST2157I</td>
<td>ALIASRCH = %3</td>
</tr>
<tr>
<td>IST2158I</td>
<td>VTAM HAS JOINED THE SYSPLEX GROUP %8</td>
</tr>
<tr>
<td>IST2159I</td>
<td>XCF GROUP: %8  CFS GROUP: %8</td>
</tr>
<tr>
<td>IST2160I</td>
<td>%10 FAILED : ULP IS USING TRLE %17</td>
</tr>
<tr>
<td>IST2161I</td>
<td>BLOCKED TIME = %5</td>
</tr>
<tr>
<td>IST2162I</td>
<td>INCONSISTENT UNRCHTIM VALUES DEFINED FOR %17</td>
</tr>
<tr>
<td>IST2163I</td>
<td>REBUILD FOR STRUCTURE %16 STOPPED</td>
</tr>
<tr>
<td>IST2164I</td>
<td>FAILURE REASON - LOST CONNECTION TO NEW STRUCTURE</td>
</tr>
<tr>
<td>IST2165I</td>
<td>FAILURE REASON - LOST CONNECTION TO ORIGINAL STRUCTURE</td>
</tr>
<tr>
<td>IST2166I</td>
<td>FAILURE REASON - STRUCTURE FAILURE</td>
</tr>
<tr>
<td>IST2167I</td>
<td>DISCONNECT REASON - OPERATOR COMMAND</td>
</tr>
<tr>
<td>IST2168I</td>
<td>DISCONNECT REASON - NORMAL DISCONNECT</td>
</tr>
<tr>
<td>IST2169I</td>
<td>FAILURE REASON - SUBTASK ABEND</td>
</tr>
<tr>
<td>IST2170I</td>
<td>FAILURE REASON - VTAM HALTING</td>
</tr>
<tr>
<td>IST2171I</td>
<td>FAILURE REASON - LOST CONNECTIVITY</td>
</tr>
<tr>
<td>IST2172I</td>
<td>FAILURE REASON - STRUCTURE TYPE NOT VALID</td>
</tr>
<tr>
<td>IST2173I</td>
<td>FAILURE REASON - INTERNAL COUPLING FACILITY STRUCTURE ERROR</td>
</tr>
<tr>
<td>IST2174I</td>
<td>FAILURE REASON - CONNECTION NAME NOT VALID</td>
</tr>
<tr>
<td>IST2175I</td>
<td>FAILURE REASON - PROCESS TIMED OUT</td>
</tr>
<tr>
<td>IST2176I</td>
<td>FAILURE REASON - MVS EVENT</td>
</tr>
<tr>
<td>IST2177I</td>
<td>FAILURE REASON - UNSUPPORTED COUPLING FACILITY LEVEL</td>
</tr>
<tr>
<td>IST2178I</td>
<td>RPNCB ADDRESS %8</td>
</tr>
<tr>
<td>IST2179I</td>
<td>NO DIAL-OUT LINE FOUND FOR SWITCHED PU %8</td>
</tr>
<tr>
<td>IST2180I</td>
<td>DYNLU = %3 FOR %17 SET FROM %8</td>
</tr>
<tr>
<td>IST2181I</td>
<td>%4 STRUCTURE NAME IS %16</td>
</tr>
<tr>
<td>IST2182I</td>
<td>UNRCHTIM = %5</td>
</tr>
<tr>
<td>IST2183I</td>
<td>QDIOSYNC = %8 - SYNCID = %8 - SAVED = %3</td>
</tr>
<tr>
<td>IST2184I</td>
<td>QDIOSYNC = %8 - SYNCID = %8 - SAVED = %3</td>
</tr>
<tr>
<td>IST2186I</td>
<td>THIS PATH WILL NOT BE SELECTED FOR UNRCHTIM SECONDS</td>
</tr>
<tr>
<td>IST2187I</td>
<td>XCF SEND FAILURE ON TRLE %8  MESSAGE TYPE: %9</td>
</tr>
<tr>
<td>IST2188I</td>
<td>LDLC TIMER OPERANDS ON GROUP %8 IGNORED</td>
</tr>
<tr>
<td>IST2190I</td>
<td>DEVICEID PARAMETER FOR OSAENTA TRACE COMMAND = %11</td>
</tr>
<tr>
<td>IST2191I</td>
<td>HPR PATH SWITCH SUMMARY FROM %8 AT %8</td>
</tr>
<tr>
<td>IST2192I</td>
<td>STARTED = %5</td>
</tr>
<tr>
<td>IST2193I</td>
<td>TGINOP = %5  SRQTIMER = %5  PSRETRY = %5</td>
</tr>
<tr>
<td>IST2194I</td>
<td>PARTNER = %5  MNPS = %5  UNAVAILABLE = %5</td>
</tr>
<tr>
<td>IST2195I</td>
<td>NETWORK = %5  HIGH = %5  MEDIUM = %5  LOW = %5</td>
</tr>
<tr>
<td>IST2196I</td>
<td>COMPLETED = %5</td>
</tr>
<tr>
<td>IST2197I</td>
<td>FAILED = %5</td>
</tr>
<tr>
<td>IST2198I</td>
<td>NETID    STARTED    COMPLETED    FAILED</td>
</tr>
<tr>
<td>IST2199I</td>
<td>CPNAME    NET    HI MED    LOW    NET    HI MED    LOW    NET    HI MED    LOW</td>
</tr>
<tr>
<td>IST2200I</td>
<td>%8    %3    %3    %3    %3    %3    %3    %3    %3    %3</td>
</tr>
<tr>
<td>IST2201I</td>
<td>%8    %3    %3    %3    %3    %3    %3    %3    %3    %3</td>
</tr>
<tr>
<td>IST2202I</td>
<td>GREXIT = %3  WLM = %3  LOCLU = %3</td>
</tr>
<tr>
<td>IST2203I</td>
<td>CHARACTER SET %4 - CODE PAGE %4</td>
</tr>
<tr>
<td>IST2204I</td>
<td>LOCAPPL = %3  PASSOLU = %3</td>
</tr>
</tbody>
</table>

Appendix E. Message text for VTAM operator messages 1211
IST2205I  %60
IST2206I  %7 PATH SWITCH EVENTS FOR %6 CPS IN %4 NETIDS
IST2207I  %7 TABLE FOR %13
IST2208I  %8 = %8 FROM START OPTION
IST2209I  %8 = %8 FROM ADJCLUST TABLE
IST2210I  GR PREFERENCE TABLE ENTRY = %12
IST2211I  ACK QUEUE MAX
IST2212I  %5
IST2213I  LAST BACKPRESSURE APPLIED ON %8 AT %8
IST2214I  BACKPRESSURE REASON: PATHSWITCH
IST2215I  BACKPRESSURE REASON: SEND QUEUE MAXIMUM REACHED
IST2216I  BACKPRESSURE REASON: STORAGE FAILURE
IST2217I  BACKPRESSURE REASON: STALLED PIPE
IST2218I  BACKPRESSURE REASON: WAITING-FOR-ACK QUEUE MAXIMUM REACHED
IST2219I  %8 ACTIVATION WAITING FOR MINIMUM NUMBER OF DEVICES
IST2220I  %8 ACTIVATION RESUMING - ONLINE DEVICES DETECTED
IST2221I  EXPLICITBINDPORTRANGE - START: %5 END: %5
IST2222I  QDIOSYNC CAPTURE INITIATED FOR TRLE %8
IST2223I  QDIOSYNC STATE ARMED FOR TRLE %8 AT TIME OF INOP
IST2224I  ENTERPRISE EXTENDER ROUTING POLICY INFORMATION
IST2225I  PORT ROUTE TABLE ROUTING RULE
IST2226I  %5 %8 %32
IST2227I  CONNECTIVITY NOT TESTED - ROUTE NOT APPLICABLE PORT: %5
IST2228I  REFIFO TIMER = %10 MILLISECONDS
IST2229I  MAXIMUM NUMBER OF NLPS ON OUT-OF-SEQUENCE QUEUE = %10
IST2230I  CURRENT HPR CLOCK RATE = %8
IST2231I  HPR CLOCK RATE LAST SET TO HIGH ON %8 AT %8
IST2232I  HPR CLOCK RATE LAST EXITED HIGH ON %8 AT %8
IST2233I  MESSAGE TRIGGER: TCPNAME = %8
IST2234I  REMOTE DUMP FOR XCF LINK INOP: %3
IST2235I  LAST NLP RETRANSMITTED ON %8 AT %8
IST2236I  %8 CURRENTLY REPRESENTS A LIMITED RESOURCE
IST2237I  DISCNT = %5 - FINAL USE = %9
IST2238I  PATH SWITCH REASON: MNPS ENDPOINT RECOVERY
IST2239I  TIME ISL
IST2240I  FRINVCTO = %10 FRINVCT = %10
IST2241I  SIGMCNTO = %10 SIGMCNT = %10
IST2242I  CP-CP SESSION WITH %17 ENDING DUE TO MAXLOCAT
IST2243I  HPRSTALL DISPLAY ISSUED ON %8 AT %8
IST2244I  XMIT STALL DETECTED FOR RTP %8 TO %17
IST2245I  XMIT STALL CONTINUES FOR RTP %8 TO %17
IST2246I  XMIT STALL ALLEVIATED FOR RTP %8 TO %17
IST2247I  ALL DIAGNOSTIC COUNTERS CLEARED FOR %7 RTP PIPES
IST2248I  NLP RETRANSMIT RATE = %9
IST2249I  ALL DIAGNOSTIC COUNTERS CLEARED ON %8 AT %8
IST2250I  AUTHORIZED NETID LIST FOR BORDER NODE SEARCHING:
IST2251I  %8 %8 %8 %8 %8 %8
IST2252I  HPRSTALL TIME EXCEEDED FOR RTP %8 TO %17
IST2253I  TOPOLOGY RESOURCE ERROR FOR NODE: ID = %17
IST2254I  TOPOLOGY RESOURCE ERROR FOR TG: TGN = %3
IST2255I  AUTHORIZED NETID LIST FOR BORDER NODE SEARCHING:
IST2256I  ORIG = %17 - DEST = %17
Appendix E. Message text for VTAM operator messages

### Message number Text

IST2257I  CSDUMP MUST BE FOLLOWED BY MESSAGE OR SENSE OPERAND
IST2258I  %8 CAN ONLY BE SPECIFIED AFTER CSDUMP OPTION
IST2259I  %8 OPERAND MUST BE SPECIFIED AFTER %13
IST2260I  CSDUMP %8 OPERAND VALUE %17 IS NOT VALID
IST2261I  CSDUMP MESSAGE OPERAND HAS TOO MANY VALUES
IST2262I  REMOTE OPERAND NOT VALID WITH CSDUMP MESSAGE %8
IST2263I  PORTNAME = %8 PORTNUM = %3 OSA CODE LEVEL = %4
IST2264I  CSDUMP OPTION SPECIFIED MULTIPLE TRIGGERS
IST2265I  %8 %8 FAILED FOR %4 CODE = %2 REASON = %4
IST2266I  STORAGE POOL %8 AT PAGE ALLOCATION LIMIT
IST2267I  RTP PACING ALGORITHM = ARB PROGRESSIVE MODE
IST2268I  NUMBER OF BYTES ON WAITING-FOR-ACK QUEUE = %10
IST2269I  MAXIMUM NUMBER OF BYTES ON WAITING-FOR-ACK QUEUE = %9
IST2270I  %60
IST2271I  PATH SWITCH DELAY = %3
IST2272I  PATH SWITCH DELAYED UNTIL %8 AT %8
IST2273E  PACKETS DISCARDED FOR %8 - READ QUEUE CONGESTION
IST2274I  TDU DIAGNOSTIC SUMMARY:
IST2275I  TDU INFORMATION SINCE LAST RESET ON %8 AT %8
IST2276I  NO CORRUPTION OF TOPOLOGY CONTROL VECTORS DETECTED
IST2277I  POSSIBLE CORRUPTION OF TOPOLOGY CONTROL VECTORS DETECTED
IST2278I  SINCE VTAM START ON %8 AT %8
IST2279I  CP NAME DESTINATION CP TGN TIME DETECTED
IST2280I  %17 %17 %3 %8 %8
IST2281I  LAST TDU SENT - %8 %8
IST2282I  TDU COUNTS:
IST2283I  NO TDUDIAG RSN UPDATES EX
IST2284I  FOR THE FOLLOWING NODES AND TGS
IST2285I  TDUS SENT BETWEEN %8 %8 - %8 %8
IST2286I  TDUS RECEIVED:
IST2287I  TDUS SENT:
IST2288I  CP NAME RSN DESTINATION CP TGN SENT REC
IST2289I  RESOURCE SEQUENCE NUMBERS UPDATED BY THIS NODE:
IST2290I  TDUDIAG START OPTION = %6
IST2291I  UPDATED = %10
IST2292I  CP NAME RSN DESTINATION CP TGN UPDATED
IST2293I  %17 %8 %17 %3 %10
IST2294I  TDUDIAG RSN UPDATES:
IST2295I  TIME HEX RSN HEX RSN
IST2296I  CP NAME UPDATED BEFORE AFTER REASON
IST2297I  %17 %8 %8 %8
IST2298I  TDUDIAG THRESHOLD REACHED FOR NODE: ID = %17
IST2299I  TDUDIAG THRESHOLD REACHED FOR TG: TGN = %3
IST2300I  RECEIVED FROM: %17
IST2301I  %3 OF %3 TOPOLOGY RESOURCES DISPLAYED
IST2302I  MODEL %8 IS THE BEST ACTIVE MATCH FOR %8
IST2303I  THERE IS NO ACTIVE MODEL MATCH FOR %8
IST2304I  %8 ALREADY EXISTS, TYPE = %17
IST2305I  NUMBER OF DISCARDED INBOUND READ BUFFERS = %10
IST2306I  TDU DIAGNOSTIC INFORMATION FOR NODE: ID = %17
IST2307I  THIS NODE DOES NOT SUPPORT UNKNOWN TOPOLOGY VECTORS
IST2308I  THAT HAVE SAVED TDUDIAG RSN UPDATES
Message number | Text
--- | ---
IST2309I | ACCELERATED ROUTING ENABLED
IST2310I | ACCELERATED ROUTING DISABLED
IST2311I | TDU DIAGNOSTIC INFORMATION FOR TG: TGN = %3
IST2312I | CURRENT RSN = %10 - HEX RSN = %8
IST2313I | TOTAL RSN UPDATES BY LOCAL HOST NODE = %10
IST2314I | %3 OF %3 RSN UPDATES DISPLAYED
IST2315I | LAST TDU SENT - NONE
IST2316I | EARLYIND = %10 EARLYINT = %10
IST2317I | ULPRETD = %10 ULPRETU = %10
IST2318I | UNABLE TO OPEN %8 - NETWORK ADDRESS LIMIT REACHED
IST2319I | IQD NETWORK ID = %4
IST2320I | WTOR %8 FROM CONSOLE %8 DELETED DUE TO VTAM HALT
IST2321I | TDUDIAG VALUE MUST BE NUMERIC, 'ALWAYS', OR 'NEVER'
IST2322I | WTOR %8 FROM POA %8 DELETED DUE TO VTAM HALT
IST2323E | EE HEALTH VERIFICATION FAILED FOR ONE OR MORE CONNECTIONS
IST2324I | EE HEALTH VERIFICATION: FAILED CONNECTION INFORMATION
IST2325I | LINE %8 PU %8 ON %8 AT %8
IST2326I | EE HEALTH VERIFICATION TOTAL CONNECTION FAILURES = %4
IST2327I | EE HEALTH VERIFICATION OPTION - EEVERIFY = %4 MINUTES
IST2328I | EE HEALTH VERIFICATION FAILED ON %8 AT %8
IST2329I | EE HEALTH VERIFICATION SUCCESSFUL ON %8 AT %8
IST2330I | EE HEALTH VERIFICATION FAILED FOR %8 AT %8
IST2331I | QUEUE QUEUE READ QUEUE
IST2332I | ID TYPE STORAGE STATUS
IST2333I | %6 %8 %15 %22
IST2334I | EEVERIFY MUST BE 'ACTIVATE', 'NEVER', OR A NUMERIC VALUE
IST2335I | PATH SWITCH REASON: XMIT STALL RECOVERY
IST2336I | STALLED = %5
IST2337I | CHPID TYPE = chpid_type CHPID = chpid_num NETID = net_id
IST2338I | NACPROBE MUST BE 'DUMP', 'NODUMP', OR A NUMERIC VALUE
IST2339I | EE HEALTH VERIFICATION LAST SUCCESS ON %8 AT %8
IST2340I | EE HEALTH VERIFICATION LAST FAILED ON %8 AT %8
IST2341I | EE HEALTH VERIFICATION HAS NEVER FAILED FOR THIS CONNECTION
IST2342I | EE HEALTH VERIFICATION NOT SUPPORTED BY %8
IST2343I | EE HEALTH VERIFICATION NOT SUPPORTED BY REMOTE EE PARTNER
IST2344I | NODE ROLE CHANGE FROM %4 TO %4 FAILED - SENSE: %8
IST2345I | NODE ROLE CHANGE FROM %4 TO %4 SUCCEEDED
IST2346I | CP NAME = %17
IST2347I | TDU RECEIVED FROM ADJACENT NODE %17
IST2348I | ACTIVATED BY SHARED ACB %8
IST2349I | SUBORDINATE APPLICATIONS SHARING THIS ACB:
IST2350I | %4 SUBORDINATE APPLICATIONS SHARE THIS ACB
IST2351I | MULTIPLE SUBORDINATE APPLICATIONS SHARING THIS ACB
IST2352I | SENT = %10 RECEIVED = %10
IST2353I | ACCEPTED = %10 REJECTED = %10
IST2354I | IGNORED = %10
IST2355I | TDUDIAG THRESHOLD REACHED ON %8 AT %8
IST2356I | PLATFORM = %10
IST2357I | CP NAME RSN DESTINATION CP TGN
IST2358I | %17 %10 %17 %3
IST2359I | NO TDU INFORMATION EX
IST2360I | ROUTING TREES LAST CLEARED AT %8 %8 BY %6
<table>
<thead>
<tr>
<th>Message number</th>
<th>Text</th>
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</thead>
<tbody>
<tr>
<td>IST2361I</td>
<td>SMCR PFID = %4 PCHID = %4 PNETID = %16</td>
</tr>
<tr>
<td>IST2362I</td>
<td>PORTNUM = %4 RNIC CODE LEVEL = %17</td>
</tr>
<tr>
<td>IST2364I</td>
<td>CLOSE ACB OF %8 DID NOT COMPLETE IN A TIMELY MANNER</td>
</tr>
<tr>
<td>IST2365I</td>
<td>MODIFY TRACE COMMAND REJECTED - DSPSIZE NO LONGER SUPPORTED</td>
</tr>
<tr>
<td>IST2366I</td>
<td>POLLEQO = %10 POLLEQ = %10</td>
</tr>
<tr>
<td>IST2367I</td>
<td>POLLEQEO = %10 POLLEQE = %10</td>
</tr>
<tr>
<td>IST2368I</td>
<td>ULP_ID = %8</td>
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<tr>
<td>IST2369I</td>
<td>POLLCQO = %10 POLLCQ = %10</td>
</tr>
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<td>IST2370I</td>
<td>POLLCQUO = %10 POLLCQU = %10</td>
</tr>
<tr>
<td>IST2371I</td>
<td>POLLCQEO = %10 POLLCQE = %10</td>
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<td>IST2372I</td>
<td>SRBSCHDO = %10 SRBSCHD = %10</td>
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<td>IST2373I</td>
<td>SRBRSCHDO = %10 SRBRSCHD = %10</td>
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<td>IST2374I</td>
<td>INBBYTO = %10 INBBYTEL = %10</td>
</tr>
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<td>INBBYTM = %10 INBBYTEM = %10</td>
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<td>INBBYN = %10 INBBYNET = %10</td>
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<td>DATAREQO = %10 DATAREQ = %10</td>
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<td>POSTO = %10 POST = %10</td>
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<td>IST2379I</td>
<td>POSTEO = %10 POSTELEM = %10</td>
</tr>
<tr>
<td>IST2380I</td>
<td>POSTUEO = %10 POSTUED = %10</td>
</tr>
<tr>
<td>IST2381I</td>
<td>OUTBYTO = %10 OUTBYTEL = %10</td>
</tr>
<tr>
<td>IST2382I</td>
<td>OUTBYTM = %10 OUTBYTEM = %10</td>
</tr>
<tr>
<td>IST2383I</td>
<td>OUTBYTN = %10 OUTBYTEN = %10</td>
</tr>
<tr>
<td>IST2384E</td>
<td>PACKETS DISCARDED FOR %8 - %8 IS CONGESTED</td>
</tr>
<tr>
<td>IST2385I</td>
<td>NUMBER OF DISCARDED OUTBOUND WRITE BUFFERS = %10</td>
</tr>
<tr>
<td>IST2386I</td>
<td>DIAL FAILED - DUPLICATE IP ADDRESSES ON EXISTING CONNECTION</td>
</tr>
<tr>
<td>IST2387I</td>
<td>EE VRN = %17</td>
</tr>
<tr>
<td>IST2388I</td>
<td>PFIP = %8</td>
</tr>
<tr>
<td>IST2389I</td>
<td>XXXXREG PCIE SERVICE FAILURE</td>
</tr>
<tr>
<td>IST2390I</td>
<td>%8 PCIE SERVICE FAILURE ON TRLE %8</td>
</tr>
<tr>
<td>IST2391I</td>
<td>PFID %4 ALLOCATION FAILURE - PFID IS NOT DEFINED</td>
</tr>
<tr>
<td>IST2392I</td>
<td>PFID %4 ALLOCATION FAILURE - PFID IS NOT ONLINE</td>
</tr>
<tr>
<td>IST2393I</td>
<td>RTP PACING ALGORITHM = ARB BASE MODE</td>
</tr>
<tr>
<td>IST2394I</td>
<td>RNIC STATISTICS FOR %8</td>
</tr>
<tr>
<td>IST2395I</td>
<td>DESCRIPTION OVERFLOW COUNT</td>
</tr>
<tr>
<td>IST2396I</td>
<td>%30 %10 %10</td>
</tr>
<tr>
<td>IST2397I</td>
<td>MESSAGE TRIGGER: RNICTRL = %8</td>
</tr>
<tr>
<td>IST2398I</td>
<td>XX %10 %23</td>
</tr>
<tr>
<td>IST2399I</td>
<td>NO ADAPTER DIAGNOSTICSproduced FOR %8: %23</td>
</tr>
<tr>
<td>IST2400I</td>
<td>DEVSTATS REJECTED FOR TRLE %8 - DEVICE NOT ACTIVE</td>
</tr>
<tr>
<td>IST2401I</td>
<td>DEVSTATS FAILED FOR TRLE %8 - DEVICE NOT OPERATIONAL</td>
</tr>
<tr>
<td>IST2402I</td>
<td>64-BIT STORAGE TYPE CURRENT MAXIMUM LIMIT</td>
</tr>
<tr>
<td>IST2403I</td>
<td>HVCOMON %9 %9 %9</td>
</tr>
<tr>
<td>IST2404I</td>
<td>TRACE HVCOMON %9 %9 %9</td>
</tr>
<tr>
<td>IST2405I</td>
<td>SMC-R LINK FAILURE ON TRLE %8 CODE = %8</td>
</tr>
<tr>
<td>IST2406I</td>
<td>LOCAL LINK ID = %8 REMOTE LINK ID = %8</td>
</tr>
<tr>
<td>IST2407I</td>
<td>LOCAL MAC = %12 REMOTE MAC = %12</td>
</tr>
<tr>
<td>IST2408I</td>
<td>%6 GID = %39</td>
</tr>
<tr>
<td>IST2409I</td>
<td>LOCAL QP = %4 REMOTE QP = %4</td>
</tr>
<tr>
<td>IST2410I</td>
<td>VLAN = %4</td>
</tr>
<tr>
<td>IST2411I</td>
<td>FIXED HVCOMON %9 %9 %9</td>
</tr>
<tr>
<td>IST2412I</td>
<td>PRIVATE %9 %9 %9</td>
</tr>
<tr>
<td>IST2413I</td>
<td>FIXED PRIVATE %9 %9 %9</td>
</tr>
<tr>
<td>IST2414I</td>
<td>TOTAL FIXED %9 %9 %8</td>
</tr>
</tbody>
</table>
**Message text for ISTH and ISTM messages**

The following table lists the message text for all ISTH and ISTM messages.

<table>
<thead>
<tr>
<th>Message number</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISTH001I</td>
<td>Communications storage manager (CSM) FIXED and ECSA storage maximums satisfy the def_type specified limits</td>
</tr>
<tr>
<td>ISTH002I</td>
<td>Communications storage manager (CSM) stor_type storage max max_val is less than the def_type specified value min_val</td>
</tr>
<tr>
<td>ISTH005I</td>
<td>VTAM Internal Trace (VIT) PSS and SMS options are active. IBM suggests that these options always be active for VIT tracing for optimal problem determination.</td>
</tr>
<tr>
<td>ISTH006E</td>
<td>VTAM Internal Trace (VIT) options for PSS and SMS are not both active</td>
</tr>
<tr>
<td>ISTH009I</td>
<td>Not all VTAM Internal Trace (VIT) options are active. When all VIT options are concurrently active, performance might be less than optimal.</td>
</tr>
<tr>
<td>ISTH010E</td>
<td>All VTAM Internal Trace (VIT) options are active</td>
</tr>
<tr>
<td>ISTH011I</td>
<td>The T1BUF and T2BUF buffer pool allocations are set above their default values, which is recommended for use with Enterprise Extender (EE). When the size of the T1BUF or T2BUF pool is too small, excessive buffer pool expansions and contractions might occur.</td>
</tr>
<tr>
<td>ISTH012I</td>
<td>buf_pool buffer pool allocation of buf_num might be too low for use with Enterprise Extender</td>
</tr>
<tr>
<td>ISTH013E</td>
<td>T1BUF/T2BUF buffer pool allocation might not be optimal for use with Enterprise Extender</td>
</tr>
<tr>
<td>ISTH014I</td>
<td>T1BUF and T2BUF buffer pool allocations are sufficient for use without Enterprise Extender</td>
</tr>
<tr>
<td>ISTH015I</td>
<td>buf_pool buffer pool allocation of buf_num might be too high if Enterprise Extender is not being used</td>
</tr>
<tr>
<td>ISTH016E</td>
<td>T1BUF/T2BUF buffer pool allocation might not be optimal if Enterprise Extender is not being used</td>
</tr>
<tr>
<td>ISTH017E</td>
<td>Communications storage manager (CSM) storage allocation definitions might not be optimal.</td>
</tr>
<tr>
<td>ISTH018I</td>
<td>This check is not applicable in the current VTAM environment. Enterprise Extender (EE) lines have not been activated on this system and no VTAM Start Options associated with EE have been specified.</td>
</tr>
<tr>
<td>ISTH019I</td>
<td>This check is not applicable in the current VTAM environment. Enterprise Extender (EE) lines have been activated on this system or VTAM Start Options associated with EE have been specified.</td>
</tr>
<tr>
<td>ISTM013I</td>
<td>GATEWAY statement is not in use on this system.</td>
</tr>
<tr>
<td>ISTM014E</td>
<td>GATEWAY statements are in use on this system during this IPL.</td>
</tr>
<tr>
<td>ISTM015I</td>
<td>Legacy device statements are not in use on this system.</td>
</tr>
<tr>
<td>ISTM016E</td>
<td>Legacy device statements are in use on this system during this IPL.</td>
</tr>
<tr>
<td>ISTM900I</td>
<td>Function: mhc_function last mhc_usage on mhc_date at mhc_time.</td>
</tr>
</tbody>
</table>
Message text for IUT VTAM operator messages

The following table lists the message text for all IUT VTAM operator messages issued for MVS.

<table>
<thead>
<tr>
<th>Message number</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>IUT5000I</td>
<td>%8 STILL ACTIVE: VTAM TERMINATION WAITING FOR %8</td>
</tr>
<tr>
<td>IUT5001I</td>
<td>VTAM REGISTRATION MANAGER PROCESSING TERMINATED</td>
</tr>
</tbody>
</table>

Message text for IVT VTAM operator messages

The following table lists the message text for all IVT VTAM operator messages issued for MVS.

<table>
<thead>
<tr>
<th>Message number</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>IVT5501I</td>
<td>CSM PARMLIB MEMBER %8 NOT FOUND - DEFAULT VALUES USED</td>
</tr>
<tr>
<td>IVT5502I</td>
<td>READ ERROR ON PARMLIB MEMBER %8 - DEFAULT VALUES USED</td>
</tr>
<tr>
<td>IVT5503I</td>
<td>CSM PARMLIB PARAMETER NOT VALID - %26</td>
</tr>
<tr>
<td>IVT5504I</td>
<td>ABEND %3 OCCURRED IN %8 - SDUMP HAS BEEN ISSUED</td>
</tr>
<tr>
<td>IVT5505I</td>
<td>CSM SDUMP FAILED WITH RETURN CODE %2 REASON X'%2'</td>
</tr>
<tr>
<td>IVT5506I</td>
<td>%8 STORAGE ALLOCATION FAILED IN CSM</td>
</tr>
<tr>
<td>IVT5507I</td>
<td>CSM PARMLIB INFORMATION FOUND IN MEMBER %8</td>
</tr>
<tr>
<td>IVT5508I</td>
<td>DISPLAY ACCEPTED</td>
</tr>
<tr>
<td>IVT5510I</td>
<td>MODIFY ACCEPTED</td>
</tr>
<tr>
<td>IVT5511I</td>
<td>%7 CSM COMMAND SYNTAX NOT VALID</td>
</tr>
<tr>
<td>IVT5512I</td>
<td>FIXED PARAMETER VALUE NOT VALID</td>
</tr>
<tr>
<td>IVT5513I</td>
<td>ECSA PARAMETER VALUE NOT VALID</td>
</tr>
<tr>
<td>IVT5516I</td>
<td>ERROR OBTAINING CSM PARMLIB INFORMATION - LIMITS UNCHANGED</td>
</tr>
<tr>
<td>IVT5517I</td>
<td>CSM LIMITS PRIOR TO MODIFY CSM PROCESSING:</td>
</tr>
<tr>
<td>IVT5518I</td>
<td>CSM LIMITS AFTER MODIFY CSM PROCESSING:</td>
</tr>
<tr>
<td>IVT5519I</td>
<td>ECSA MAXIMUM = %5 - FIXED MAXIMUM = %5</td>
</tr>
<tr>
<td>IVT5520I</td>
<td>OWNERID VALUE NOT VALID</td>
</tr>
<tr>
<td>IVT5521I</td>
<td>NO CSM STORAGE IS CURRENTLY ALLOCATED TO OWNERID %4</td>
</tr>
<tr>
<td>IVT5522I</td>
<td>PROCESSING DISPLAY CSM COMMAND - OWNERID NOT SPECIFIED</td>
</tr>
<tr>
<td>IVT5523I</td>
<td>BUFFER BUFFER</td>
</tr>
<tr>
<td>IVT5531I</td>
<td>SIZE SOURCE INUSE FREE TOTAL</td>
</tr>
<tr>
<td>IVT5532I</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>IVT5533I</td>
<td>%5 %13 %9 %9 %9</td>
</tr>
<tr>
<td>IVT5534I</td>
<td>%5 %13 POOL DOES NOT EXIST</td>
</tr>
<tr>
<td>IVT5535I</td>
<td>TOTAL %13 %9 %9 %9</td>
</tr>
<tr>
<td>IVT5536I</td>
<td>TOTAL ALL SOURCES %9 %9 %9</td>
</tr>
<tr>
<td>IVT5538I</td>
<td>FIXED MAXIMUM = %9 FIXED CURRENT = %9</td>
</tr>
<tr>
<td>IVT5539I</td>
<td>ECSA MAXIMUM = %9 ECSA CURRENT = %9</td>
</tr>
<tr>
<td>IVT5541I</td>
<td>%5 MAXIMUM USED = %9 SINCE LAST DISPLAY CSM</td>
</tr>
<tr>
<td>IVT5542I</td>
<td>PROCESSING DISPLAY CSM COMMAND - OWNERID SPECIFIED</td>
</tr>
<tr>
<td>IVT5551I</td>
<td>SIZE SOURCE STORAGE ALLOCATED TO OWNER</td>
</tr>
<tr>
<td>IVT5552I</td>
<td>%5 %13 %9</td>
</tr>
<tr>
<td>IVT5554I</td>
<td>TOTAL %13 %9</td>
</tr>
<tr>
<td>IVT5555I</td>
<td>TOTAL FOR OWNERID %9</td>
</tr>
<tr>
<td>IVT5557I</td>
<td>OWNERID: ASID = %4 JOBNAME = %8</td>
</tr>
<tr>
<td>IVT5558I</td>
<td>%5 %13 UNABLE TO DETERMINE BUFFER VALUES</td>
</tr>
<tr>
<td>Message number</td>
<td>Text</td>
</tr>
<tr>
<td>---------------</td>
<td>------</td>
</tr>
<tr>
<td>IVT5559I</td>
<td>CSM DATA SPACE %8 NAME: %8</td>
</tr>
<tr>
<td>IVT5560I</td>
<td>CSM ECSA STORAGE LIMIT EXCEEDED</td>
</tr>
<tr>
<td>IVT5561I</td>
<td>CSM FIXED STORAGE LIMIT EXCEEDED</td>
</tr>
<tr>
<td>IVT5562I</td>
<td>CSM ECSA STORAGE AT CRITICAL LEVEL</td>
</tr>
<tr>
<td>IVT5563I</td>
<td>CSM FIXED STORAGE AT CRITICAL LEVEL</td>
</tr>
<tr>
<td>IVT5564I</td>
<td>CSM ECSA STORAGE SHORTAGE RELIEVED</td>
</tr>
<tr>
<td>IVT5565I</td>
<td>CSM FIXED STORAGE SHORTAGE RELIEVED</td>
</tr>
<tr>
<td>IVT5566I</td>
<td>CSM MONITOR IS ACTIVE</td>
</tr>
<tr>
<td>IVT5567I</td>
<td>CSM MONITOR IS NOT ACTIVE</td>
</tr>
<tr>
<td>IVT5568I</td>
<td>MONITOR PARAMETER VALUE IS NOT VALID</td>
</tr>
<tr>
<td>IVT5569I</td>
<td>CSM MONITOR IS DYNAMIC AND CURRENTLY ACTIVE</td>
</tr>
<tr>
<td>IVT5570I</td>
<td>CSM MONITOR IS DYNAMIC AND CURRENTLY NOT ACTIVE</td>
</tr>
<tr>
<td>IVT5571I</td>
<td>MONITOR PARAMETER IS NOT VALID WITH %4 %4</td>
</tr>
<tr>
<td>IVT5572I</td>
<td>PROCESSING DISPLAY CSMUSE COMMAND - OWNERID NOT SPECIFIED</td>
</tr>
<tr>
<td>IVT5573I</td>
<td>PROCESSING DISPLAY CSMUSE COMMAND - OWNERID SPECIFIED</td>
</tr>
<tr>
<td>IVT5574I</td>
<td>PROCESSING DISPLAY CSMUSE COMMAND - POOLSPECIFIED</td>
</tr>
<tr>
<td>IVT5575I</td>
<td>USAGE SUMMARY - %8 POOL TOTAL (ALLUSERS) = %9</td>
</tr>
<tr>
<td>IVT5576I</td>
<td>AMOUNT MONITOR ID OWNERID JOBNAME</td>
</tr>
<tr>
<td>IVT5577I</td>
<td>%9 %2 %4 %8</td>
</tr>
<tr>
<td>IVT5578I</td>
<td>DISPLAY TOTAL FOR %8 POOL (% USERS) = %9</td>
</tr>
<tr>
<td>IVT5579I</td>
<td>BUFFER USE FOR %2: USECNT USERDATA MONITOR HISTORY</td>
</tr>
<tr>
<td>IVT5580I</td>
<td>%8 %8 %8</td>
</tr>
<tr>
<td>IVT5581I</td>
<td>POOL NAME NOT VALID</td>
</tr>
<tr>
<td>IVT5582I</td>
<td>DISPLAY CSMUSE COMMAND SYNTAX NOT VALID</td>
</tr>
<tr>
<td>IVT5583I</td>
<td>NO CSM STORAGE IS CURRENTLY IN USE FOR POOL %8</td>
</tr>
<tr>
<td>IVT5584I</td>
<td>USAGE DETAILS - %8 POOL - POOL TOTAL = %9</td>
</tr>
<tr>
<td>IVT5585I</td>
<td>DETAIL TOTAL FOR %8 POOL = %9</td>
</tr>
<tr>
<td>IVT5586I</td>
<td>DISPLAY CSMUSE SYNTAX NOT VALID - DUPLICATE OPERAND</td>
</tr>
<tr>
<td>IVT5587I</td>
<td>%8 NOT VALID ON DISPLAY CSMUSE COMMAND</td>
</tr>
<tr>
<td>IVT5588I</td>
<td>NO CSM STORAGE IS CURRENTLY IN USE FOR ANY USERS</td>
</tr>
<tr>
<td>IVT5589I</td>
<td>DISPLAY TOTAL FOR %8 POOL FOR THIS OWNERID = %9</td>
</tr>
<tr>
<td>IVT5590I</td>
<td>MAX ECSA VALUE ADJUSTED TO 90 PERCENT OF SYSTEM ECSA</td>
</tr>
<tr>
<td>IVT5591I</td>
<td>CSM ECSA STORAGE AT CONSTRAINED LEVEL</td>
</tr>
<tr>
<td>IVT5592I</td>
<td>CSM FIXED STORAGE AT CONSTRAINED LEVEL</td>
</tr>
<tr>
<td>IVT5593I</td>
<td>CSM CREATED AN ADDITIONAL DATA SPACE dspname</td>
</tr>
<tr>
<td>IVT5594I</td>
<td>%5 MAXIMUM USED = %9 SINCE IPL</td>
</tr>
<tr>
<td>IVT5599I</td>
<td>END</td>
</tr>
<tr>
<td>IVT5600I</td>
<td>PROBE %8 ATTEMPTED - FFST NOT AVAILABLE</td>
</tr>
</tbody>
</table>
Appendix F. Related protocol specifications

This appendix lists the related protocol specifications (RFCs) for TCP/IP. The Internet Protocol suite is still evolving through requests for comments (RFC). New protocols are being designed and implemented by researchers and are brought to the attention of the Internet community in the form of RFCs. Some of these protocols are so useful that they become recommended protocols. That is, all future implementations for TCP/IP are recommended to implement these particular functions or protocols. These become the de facto standards, on which the TCP/IP protocol suite is built.

You can request RFCs through electronic mail, from the automated Network Information Center (NIC) mail server, by sending a message to service@nic.ddn.mil with a subject line of RFC nnnn for text versions or a subject line of RFC nnnn.PS for PostScript versions. To request a copy of the RFC index, send a message with a subject line of RFC INDEX.

For more information, contact nic@nic.ddn.mil or at:

Government Systems, Inc.
Attn: Network Information Center
14200 Park Meadow Drive
Suite 200
Chantilly, VA 22021

Hard copies of all RFCs are available from the NIC, either individually or by subscription. Online copies are available at the following Web address:

http://www.rfc-editor.org/rfc.html

Draft RFCs that have been implemented in this and previous Communications Server releases are listed at the end of this topic.

Many features of TCP/IP Services are based on the following RFCs:

- **RFC**  Title and Author
  
  **RFC 652**  
  Telnet output carriage-return disposition option  D. Crocker
  
  **RFC 653**  
  Telnet output horizontal tabstops option  D. Crocker
  
  **RFC 654**  
  Telnet output horizontal tab disposition option  D. Crocker
  
  **RFC 655**  
  Telnet output formfeed disposition option  D. Crocker
  
  **RFC 657**  
  Telnet output vertical tab disposition option  D. Crocker
  
  **RFC 658**  
  Telnet output linefeed disposition  D. Crocker
  
  **RFC 698**  
  Telnet extended ASCII option  T. Mock
RFC 726
  Remote Controlled Transmission and Echoing Telnet option  J. Postel, D. Crocker

RFC 727
  Telnet logout option  M.R. Crispin

RFC 732
  Telnet Data Entry Terminal option  J.D. Day

RFC 733
  Standard for the format of ARPA network text messages  D. Crocker, J. Vittal, K.T. Pogran, D.A. Henderson

RFC 734
  SUPDUP Protocol  M.R. Crispin

RFC 735
  Revised Telnet byte macro option  D. Crocker, R.H. Gumpertz

RFC 736
  Telnet SUPDUP option  M.R. Crispin

RFC 749
  Telnet SUPDUP—Output option  B. Greenberg

RFC 765
  File Transfer Protocol specification  J. Postel

RFC 768
  User Datagram Protocol  J. Postel

RFC 779
  Telnet send-location option  E. Killian

RFC 783
  TFTP Protocol (revision 2)  K.R. Sollins

RFC 791
  Internet Protocol  J. Postel

RFC 792
  Internet Control Message Protocol  J. Postel

RFC 793
  Transmission Control Protocol  J. Postel

RFC 820
  Assigned numbers  J. Postel

RFC 821
  Simple Mail Transfer Protocol  J. Postel

RFC 822
  Standard for the format of ARPA Internet text messages  D. Crocker

RFC 823
  DARPA Internet gateway  R. Hinden, A. Sheltzer

RFC 826
  Ethernet Address Resolution Protocol: Or converting network protocol addresses to 48.bit Ethernet address for transmission on Ethernet hardware  D. Plummer

RFC 854
  Telnet Protocol Specification  J. Postel, J. Reynolds
RFC 1035
Domain names—implementation and specification P.V. Mockapetris

RFC 1038
Draft revised IP security option M. St. Johns

RFC 1041
Telnet 3270 regime option Y. Rekhter

RFC 1042
Standard for the transmission of IP datagrams over IEEE 802 networks J. Postel, J. Reynolds

RFC 1043
Telnet Data Entry Terminal option: DODIIS implementation A. Yasuda, T. Thompson

RFC 1044
Internet Protocol on Network System’s HYPERchannel: Protocol specification K. Hardwick, J. Lekashman

RFC 1053
Telnet X.3 PAD option S. Levy, T. Jacobson

RFC 1055
Nonstandard for transmission of IP datagrams over serial lines: SLIP J. Romkey

RFC 1057

RFC 1058
Routing Information Protocol C. Hedrick

RFC 1060
Assigned numbers J. Reynolds, J. Postel

RFC 1067

RFC 1071
Computing the Internet checksum R.T. Braden, D.A. Borman, C. Partridge

RFC 1072
TCP extensions for long-delay paths V. Jacobson, R.T. Braden

RFC 1073
Telnet window size option D. Waitzman

RFC 1079
Telnet terminal speed option C. Hedrick

RFC 1085
ISO presentation services on top of TCP/IP based internets M.T. Rose

RFC 1091
Telnet terminal-type option J. VanBokkelen

RFC 1094
NFS: Network File System Protocol specification Sun Microsystems

RFC 1096
Telnet X display location option G. Marcy

RFC 1101
DNS encoding of network names and other types P. Mockapetris
RFC 1112
Host extensions for IP multicasting S.E. Deering

RFC 1113
Privacy enhancement for Internet electronic mail: Part I — message encipherment and authentication procedures J. Linn

RFC 1118
Hitchhikers Guide to the Internet E. Krol

RFC 1122
Requirements for Internet Hosts—Communication Layers R. Braden, Ed.

RFC 1123
Requirements for Internet Hosts—Application and Support R. Braden, Ed.

RFC 1146
TCP alternate checksum options J. Zweig, C. Partridge

RFC 1155
Structure and identification of management information for TCP/IP-based internets M. Rose, K. McCloghrrie

RFC 1156
Management Information Base for network management of TCP/IP-based internets K. McCloghrrie, M. Rose

RFC 1157

RFC 1158
Management Information Base for network management of TCP/IP-based internets: MIB-II M. Rose

RFC 1166
Internet numbers S. Kirkpatrick, M.K. Stahl, M. Recker

RFC 1179
Line printer daemon protocol L. McLaughlin

RFC 1180
TCP/IP tutorial T. Socolofsky, C. Kale

RFC 1183
New DNS RR Definitions C.F. Everhart, L.A. Mamakos, R. Ullmann, P.V. Mockapetris

RFC 1184
Telnet Linemode Option D. Borman

RFC 1186
MD4 Message Digest Algorithm R.L. Rivest

RFC 1187
Bulk Table Retrieval with the SNMP M. Rose, K. McCloghrrie, J. Davin

RFC 1188
Proposed Standard for the Transmission of IP Datagrams over FDDI Networks D. Katz

RFC 1190
Experimental Internet Stream Protocol: Version 2 (ST-II) C. Topolcic
RFC 1191  
Path MTU discovery J. Mogul, S. Deering

RFC 1198  
FYI on the X window system R. Scheifler

RFC 1207  
FYI on Questions and Answers: Answers to commonly asked “experienced Internet user” questions G. Malkin, A. Marine, J. Reynolds

RFC 1208  
Glossary of networking terms O. Jacobsen, D. Lynch

RFC 1213  
Management Information Base for Network Management of TCP/IP-based internets: MIB-II K. McCloghrie, M.T. Rose

RFC 1215  
Convention for defining traps for use with the SNMP M. Rose

RFC 1227  
SNMP MUX protocol and MIB M.T. Rose

RFC 1228  
SNMP-DPI: Simple Network Management Protocol Distributed Program Interface G. Carpenter, B. Wijnen

RFC 1229  
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IP Forwarding Table MIB B. Haberman

RFC 4293  
Management Information Base for the Internet Protocol (IP) S. Routhier

RFC 4301  
Security Architecture for the Internet Protocol S. Kent, K. Seo

RFC 4302  
IP Authentication Header S. Kent

RFC 4303  
IP Encapsulating Security Payload (ESP) S. Kent

RFC 4304  
Extended Sequence Number (ESN) Addendum to IPsec Domain of Interpretation (DOI) for Internet Security Association and Key Management Protocol (ISAKMP) S. Kent

RFC 4307  
Cryptographic Algorithms for Use in the Internet Key Exchange Version 2 (IKEv2) J. Schiller

RFC 4308  
Cryptographic Suites for IPsec P. Hoffman

RFC 4434  
The AES-XCBC-PRF-128 Algorithm for the Internet Key Exchange Protocol P. Hoffman

RFC 4443  
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RFC 4678  
Server/Application State Protocol v1 A. Bivens

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RFC 4754  
IKE and IKEv2 Authentication Using the Elliptic Curve Digital Signature Algorithm (ECDSA) D. Fu, J. Solinas

RFC 4809  
 RFC 4835
Cryptographic Algorithm Implementation Requirements for Encapsulating
Security Payload (ESP) and Authentication Header (AH) V. Manral

 RFC 4862
IPv6 Stateless Address Autoconfiguration S. Thomson, T. Narten, T. Jinmei

 RFC 4868
Using HMAC-SHA-256, HMAC-SHA-384, and HMAC-SHA-512 with IPsec S.
Kelly, S. Frankel

 RFC 4869
Suite B Cryptographic Suites for IPsec L. Law, J. Solinas

 RFC 4941
Privacy Extensions for Stateless Address Autoconfiguration in IPv6 T. Narten, R.
Draves, S. Krishnan

 RFC 4945
The Internet IP Security PKI Profile of IKEv1/ISAKMP, IKEv2, and PKIX B.
Korver

 RFC 5014
IPv6 Socket API for Source Address Selection E. Nordmark, S. Chakrabarti, J.
Laganier

 RFC 5095
Deprecation of Type 0 Routing Headers in IPv6 J. Abery, P. Savola, G.
Neville-Neil

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IPv6 Router Advertisement Flags Option B. Haberman, Ed., R. Hinden

 RFC 5282
Using Authenticated Encryption Algorithms with the Encrypted Payload of the
Internet Key Exchange version 2 (IKEv2) Protocol D. Black, D. McGrew

 RFC 5996
Internet Key Exchange Protocol Version 2 (IKEv2) C. Kaufman, P. Hoffman, Y.
Nir, P. Eronen

Internet drafts

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(IETF), its areas, and its working groups. Other groups can also distribute working
documents as Internet drafts. You can see Internet drafts at
http://www.ietf.org/ID.html
Appendix G. Architectural specifications

This appendix lists documents that provide architectural specifications for the SNA Protocol.

The APPN Implementers' Workshop (AIW) architecture documentation includes the following architectural specifications for SNA APPN and HPR:

- APPN Architecture Reference (SG30-3422-04)
- APPN Branch Extender Architecture Reference Version 1.1
- APPN Dependent LU Requester Architecture Reference Version 1.5
- APPN Extended Border Node Architecture Reference Version 1.0
- APPN High Performance Routing Architecture Reference Version 4.0
- SNA Formats (GA27-3136-20)
- SNA Technical Overview (GC30-3073-04)


The following RFC also contains SNA architectural specifications:

- RFC 2353 *APPN/HPR in IP Networks APPN Implementers’ Workshop Closed Pages Document*

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Chantilly, VA 22021

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RFC:RFCnnnn.PS

where:

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For more information, contact nic@nic.ddn.mil.
Appendix H. Accessibility

Publications for this product are offered in Adobe Portable Document Format (PDF) and should be compliant with accessibility standards. If you experience difficulties when using PDF files, you can view the information through the z/OS Internet Library website or IBM Knowledge Center. If you continue to experience problems, send an email to mhvrdfs@us.ibm.com or write to:

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Attention: MHVRCFS Reader Comments
Department H6MA, Building 707
2455 South Road
Poughkeepsie, NY 12601-5400
USA

Accessibility features help a user who has a physical disability, such as restricted mobility or limited vision, to use software products successfully. The major accessibility features in z/OS enable users to:

- Use assistive technologies such as screen readers and screen magnifier software
- Operate specific or equivalent features using only the keyboard
- Customize display attributes such as color, contrast, and font size

Using assistive technologies

Assistive technology products, such as screen readers, function with the user interfaces found in z/OS. Consult the assistive technology documentation for specific information when using such products to access z/OS interfaces.

Keyboard navigation of the user interface

Users can access z/OS user interfaces using TSO/E or ISPF. See z/OS TSO/E Primer, z/OS TSO/E User’s Guide, and z/OS ISPF User’s Guide Vol I for information about accessing TSO/E and ISPF interfaces. These guides describe how to use TSO/E and ISPF, including the use of keyboard shortcuts or function keys (PF keys). Each guide includes the default settings for the PF keys and explains how to modify their functions.

z/OS information

z/OS information is accessible using screen readers with the BookServer or Library Server versions of z/OS books in the Internet library at www.ibm.com/systems/z/os/zos/bkserv/
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z/OS Communications Server documentation is available in the following forms:
- In softcopy on CD-ROM collections. See “Softcopy information” on page xiv.

### z/OS Communications Server library updates


### z/OS Communications Server information

z/OS Communications Server product information is grouped by task in the following tables.

#### Planning

<table>
<thead>
<tr>
<th>Title</th>
<th>Number</th>
<th>Description</th>
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<tr>
<td>z/OS Communications Server: New Function Summary</td>
<td>GC27-3664</td>
<td>This document is intended to help you plan for new IP or SNA function, whether you are migrating from a previous version or installing z/OS for the first time. It summarizes what is new in the release and identifies the suggested and required modifications needed to use the enhanced functions.</td>
</tr>
<tr>
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<td>SC27-3663</td>
<td>This document is a high-level introduction to IPv6. It describes concepts of z/OS Communications Server's support of IPv6, coexistence with IPv4, and migration issues.</td>
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#### Resource definition, configuration, and tuning

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<tr>
<td>z/OS Communications Server: IP Configuration Guide</td>
<td>SC27-3650</td>
<td>This document describes the major concepts involved in understanding and configuring an IP network. Familiarity with the z/OS operating system, IP protocols, z/OS UNIX System Services, and IBM Time Sharing Option (TSO) is recommended. Use this document with the z/OS Communications Server: IP Configuration Reference.</td>
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### Operation

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<tr>
<th>Title</th>
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<tr>
<td>z/OS Communications Server: IP User's Guide and Commands</td>
<td>SC27-3662</td>
<td>This document describes how to use TCP/IP applications. It contains requests with which a user can log on to a remote host using Telnet, transfer data sets using FTP, send and receive electronic mail, print on remote printers, and authenticate network users.</td>
</tr>
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</tr>
<tr>
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</tr>
<tr>
<td>z/OS Communications Server: Quick Reference</td>
<td>SC27-3665</td>
<td>This document contains essential information about SNA and IP commands.</td>
</tr>
</tbody>
</table>
## Customization

<table>
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<th>Title</th>
<th>Number</th>
<th>Description</th>
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</table>
| z/OS Communications Server: SNA Customization | SC27-3666 | This document enables you to customize SNA, and includes the following information:  
• Communication network management (CNM) routing table  
• Logon-interpret routine requirements  
• Logon manager installation-wide exit routine for the CLU search exit  
• TSO/SNA installation-wide exit routines  
• SNA installation-wide exit routines |

## Writing application programs

<table>
<thead>
<tr>
<th>Title</th>
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<tbody>
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<td>z/OS Communications Server: IP Sockets Application Programming Interface Guide and Reference</td>
<td>SC27-3660</td>
<td>This document describes the syntax and semantics of program source code necessary to write your own application programming interface (API) into TCP/IP. You can use this interface as the communication base for writing your own client or server application. You can also use this document to adapt your existing applications to communicate with each other using sockets over TCP/IP.</td>
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<tr>
<td>z/OS Communications Server: IP CICS Sockets Guide</td>
<td>SC27-3649</td>
<td>This document is for programmers who want to set up, write application programs for, and diagnose problems with the socket interface for CICS using z/OS TCP/IP.</td>
</tr>
<tr>
<td>z/OS Communications Server: IP IMS Sockets Guide</td>
<td>SC27-3653</td>
<td>This document is for programmers who want application programs that use the IMS™ TCP/IP application development services provided by the TCP/IP Services of IBM.</td>
</tr>
<tr>
<td>z/OS Communications Server: IP Programmer’s Guide and Reference</td>
<td>SC27-3659</td>
<td>This document describes the syntax and semantics of a set of high-level application functions that you can use to program your own applications in a TCP/IP environment. These functions provide support for application facilities, such as user authentication, distributed databases, distributed processing, network management, and device sharing. Familiarity with the z/OS operating system, TCP/IP protocols, and IBM Time Sharing Option (TSO) is recommended.</td>
</tr>
<tr>
<td>z/OS Communications Server: SNA Programming</td>
<td>SC27-3674</td>
<td>This document describes how to use SNA macroinstructions to send data to and receive data from (1) a terminal in either the same or a different domain, or (2) another application program in either the same or a different domain.</td>
</tr>
<tr>
<td>z/OS Communications Server: SNA Programmer’s LU 6.2 Guide</td>
<td>SC27-3669</td>
<td>This document describes how to use the SNA LU 6.2 application programming interface for host application programs. This document applies to programs that use only LU 6.2 sessions or that use LU 6.2 sessions along with other session types. (Only LU 6.2 sessions are covered in this document.)</td>
</tr>
<tr>
<td>z/OS Communications Server: SNA Programmer’s LU 6.2 Reference</td>
<td>SC27-3670</td>
<td>This document provides reference material for the SNA LU 6.2 programming interface for host application programs.</td>
</tr>
<tr>
<td>z/OS Communications Server: CSM Guide</td>
<td>SC27-3647</td>
<td>This document describes how applications use the communications storage manager.</td>
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<td><strong>CMIP Services and Topology Agent Guide</strong></td>
<td>SC27-3646</td>
<td>This document describes the Common Management Information Protocol (CMIP) programming interface for application programmers to use in coding CMIP application programs. The document provides guide and reference information about CMIP services and the SNA topology agent.</td>
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### Diagnosis

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<th>Description</th>
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<tr>
<td><strong>IP Diagnosis Guide</strong></td>
<td>GC27-3652</td>
<td>This document explains how to diagnose TCP/IP problems and how to determine whether a specific problem is in the TCP/IP product code. It explains how to gather information for and describe problems to the IBM Software Support Center.</td>
</tr>
<tr>
<td><strong>ACF/TAP Trace Analysis Handbook</strong></td>
<td>GC27-3645</td>
<td>This document explains how to gather the trace data that is collected and stored in the host processor. It also explains how to use the Advanced Communications Function/Trace Analysis Program (ACF/TAP) service aid to produce reports for analyzing the trace data information.</td>
</tr>
<tr>
<td><strong>SNA Diagnosis Vol 1, Techniques and Procedures</strong> and <strong>SNA Diagnosis Vol 2, FFST [Dumps and the Variations]</strong></td>
<td>GC27-3667, GC27-3668</td>
<td>These documents help you identify an SNA problem, classify it, and collect information about it before you call the IBM Support Center. The information collected includes traces, dumps, and other problem documentation.</td>
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<tr>
<td><strong>SNA Data Areas Volume 1</strong> and <strong>SNA Data Areas Volume 2</strong></td>
<td>GC31-6852, GC31-6853</td>
<td>These documents describe SNA data areas and can be used to read an SNA dump. They are intended for IBM programming service representatives and customer personnel who are diagnosing problems with SNA.</td>
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### Messages and codes

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| **SNA Messages**                          | SC27-3671 | This document describes the ELM, IKT, IST, IUT, IVT, and USS messages. Other information in this document includes:  
  • Command and RU types in SNA messages  
  • Node and ID types in SNA messages  
  • Supplemental message-related information |
| **IP Messages Volume 1 (EZA)**            | SC27-3654 | This volume contains TCP/IP messages beginning with EZA.                                                                                       |
| **IP Messages Volume 2 (EZB, EZJ)**       | SC27-3655 | This volume contains TCP/IP messages beginning with EZB or EZD.                                                                                 |
| **IP Messages Volume 3 (EZY)**            | SC27-3656 | This volume contains TCP/IP messages beginning with EZY.                                                                                       |
| **IP Messages Volume 4 (EZZ, SNM)**       | SC27-3657 | This volume contains TCP/IP messages beginning with EZZ and SNM.                                                                                 |
| **IP and SNA Codes**                      | SC27-3648 | This document describes codes and other information that appear in z/OS Communications Server messages.                                        |
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• Title and order number of this document
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