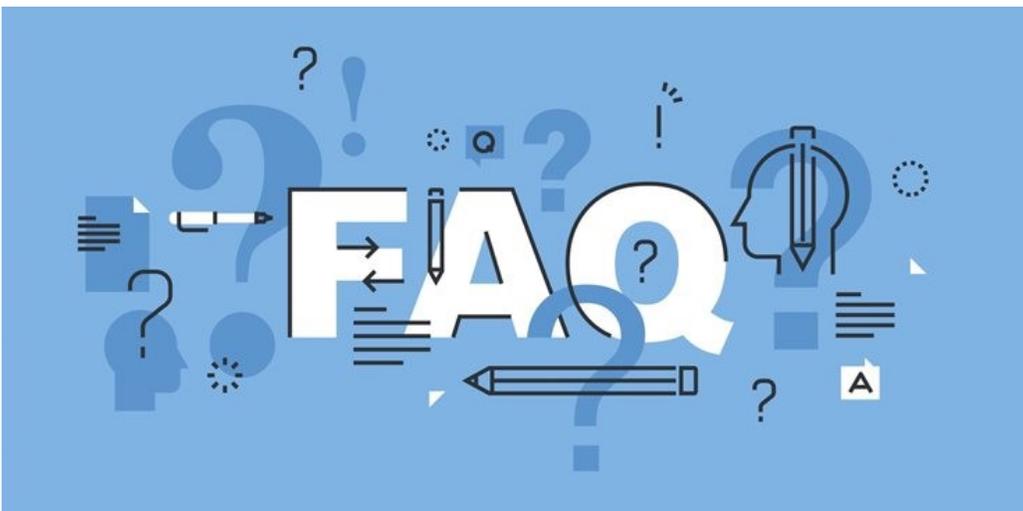


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IBM z/OS Container Extensions Frequently Asked Questions

IBM z/OS Container Extensions (zCX) enables clients to deploy Linux on Z applications as Docker containers in a z/OS system to directly support z/OS workloads.



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IBM z/OS Container Extensions (zCX) is a new z/OS 2.4 feature that enables clients to deploy Linux on Z applications as Docker containers in a z/OS system to directly support z/OS workloads. This is done without provisioning a separate Linux server, maintains operational control within z/OS and is supported by z/OS Qualities of Service (QoS).

This article provides answers to the most commonly asked questions about zCX.

General Questions

Q: What are the benefits of zCX?

A: zCX expands and modernizes the software ecosystem for z/OS to include Linux on Z applications. Most applications (including systems management components and development utilities/tools) that are currently only available to run on Linux will be able to run on z/OS as Docker containers.

Linux on Z applications can run on z/OS, using existing z/OS operations staff and the existing z/OS environment.

zCX runs Linux on Z applications on z/OS while maintaining operational control within z/OS and z/OS QoS (scalability, availability, integrated disaster recovery, backup, z/OS Workload Manager and integration with z/OS security).

Q: Does zCX run in ASCII or EBCDIC?

A: zCX runs in ASCII like any typical Linux distribution.

Q: How is zCX installed?

A: It is included as part of the z/OS 2.4 license and uses z/OSMF workflows for configuration and starting.

Questions About IBM Z Hardware and z/OS

Q: Do application developers require knowledge of z/OS to create and deploy Linux on Z applications to run in zCX?

A: Applications will look like Docker applications to the developer, not z/OS applications. If your application comes from Linux on Z, then no z/OS skills are required. Docker and Linux knowledge are all that is required.

Q: On which machine(s) does zCX run?

A: zCX runs on IBM z14 systems.

Q: On which engine types can zCX run?

A: In addition to general purpose engines, the workload run on zCX is zIIP eligible.

Q: What endianness is zCX?

A: It is Big Endian, like other IBM Z environments.

Q: Does zCX make use of Kubernetes?

A: No, not at this time. The initial release of IBM zCX for IBM z/OS V2.4 is intended to provide Docker Swarm as support for Docker cluster management.

IBM's future plans intend to leverage kubernetes clustering for the orchestration, scalability, and management of zCX with compatible cloud platforms.

Q: What is the future of UNIX System Services (USS)?

A: USS is still an integral and strategic component of z/OS that continues to be supported with the rest of the operating system.

Questions About Linux

Q: How is zCX different from Linux on Z?

A: zCX gives z/OS environments the ability to deploy Linux on Z applications as Docker Containers for workloads with an affinity to z/OS. It is not a replacement for traditional Linux on Z environments.

- If you are a client with Linux on Z installations, you will continue to run those installations
- If you are a z/OS client that used to, but no longer has a Linux on Z installation, you should consider zCX
- If you are a z/OS client that has never had a Linux on Z installation, then zCX is a low effort way to try Linux on Z

Q: Is zCX Linux?

A: The zCX component includes an entitled version of Linux on Z configured as a Docker runtime.

Q: What distribution of Linux are you delivering?

A: It is based on Ubuntu, the same Linux distribution used in Secure Services Containers (SSC), and is provided and maintained through IBM.

Questions About Applications and Docker

Q: What is Docker?

A: Docker is a packaging standard for software that securely packages an application with all its dependencies and libraries in a container. Docker packaging reduces the complexity and installation of software.

Q: What can run in zCX?

A: Anything with s390x architecture (the IBM Z opcode set) in Docker hub can be run in zCX. The code is binary compatible between Linux on Z and zCX.

[Click here \(https://hub.docker.com/search?q=&type=image&architecture=s390x\)](https://hub.docker.com/search?q=&type=image&architecture=s390x) for the Docker Hub library of images for Linux on Z.

In addition to open-source packages, IBM plans to have IBM and third-party software available at the GA of z/OS 2.4. Clients will be able to participate with their own Linux applications, which can easily be packaged in Docker format and deployed in the same way as open-source IBM and vendor packages.

Questions About Service and Licensing

Q: How will IBM software running in the zCX environment be licensed and priced?

A: IBM software is planned to be licensed and priced as it is in the Linux on Z offering.

Q: Do I have to pay for maintenance for the Linux on Z distribution?

A: Maintenance is planned to be entitled as part of z/OS. zCX customers will need to be running a z14 and have the same hardware feature code required for SSC.

More Resources

All of the technical information to help you understand, configure and deploy zCX is available on the [zCX content solution homepage \(https://www.ibm.com/support/z-content-solutions/container-extensions/\)](https://www.ibm.com/support/z-content-solutions/container-extensions/). The content solution homepage provides guidance for getting started, leads you to the c3 (which contains all the relevant documentation in IBM Knowledge Center) and contains a diverse collection of resources to explore. This page will be continuously updated with more resources.

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