# z OS System Services Structure

**Course Description**

This course presents the structure and control blocks of the z/OS BCP and system services. It prepares the new z/OS system programmer to identify potential bottlenecks and performance problems, perform initial error symptom gathering, and identify opportunities and requirements for tailoring an z/OS system. This course also provides prerequisite information needed for further training in specialized areas such as system measurement and tuning and system problem determination.

z/OS system programmers who are new to z/OS installation, customization, measurement and tuning, or problem determination are the primary audience for this course. Subsystem programmers will also benefit from this class.

**Badge Description**

By the end of this course, learners will be able to:

Explain the z/OS functions and control blocks necessary to support a task in a multitasking and multiprocessing environment.

Describe the software and hardware functions that allow a program to interact with programs running in other address spaces, use data in other address spaces, and use data in data spaces.

Trace the flow of an I/O operation from the initial request in the application program through the completion of data transfer.

Identify the control blocks that describe the current status of an I/O request.

Describe the functions of the z/OS BCP Virtual, Real, and Auxiliary Storage Managers.

Describe the functions performed by the Recovery Termination Manager and recovery management components to minimize failure impact and enhance error correction.

Select the appropriate IBM publication to provide further technical information (SRLs, Technical Bulletins, Self-study and other z/OS courses).

Describe the services provided by cross system extended services (XES).

Identify and explain the purpose of the cache, list, and lock structures.

**Prerequisites**

Before taking this course, students should have the ability to:

Describe the following z/OS BCP characteristics: multiprocessing, multi- programming, virtual storage and paging, and multiple address space/data space architecture.

Explain how paging and swapping are accomplished through the interaction of real/central, expanded, auxiliary, and virtual storage in an z/OS system.

Explain the role of the dispatcher, interrupts, SVCs, the program manager, and serialization in managing work in an z/OS system.

State the role of z/OS software and hardware components in handling an I/O request for data on a direct access storage device.

These prerequisites can be met through on the job training or completion of course ES15G z/OS Facilities.

**Note**: A fundamental knowledge of hexadecimal notation, assembler language, and z/Architecture instruction execution will enhance a student's understanding of the course material. Completion of Assembler Language Coding Workshop or Assembler Language Series is recommended.

**Badge criteria**

The badge earner has successfully completed the course and achieved a score of 80% or more on the quiz.

Link: <https://www.ibm.com/training/course/zos-system-services-structure-DL00EZ20IG>

**Duration**

40 Hours

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**Credly Support**: For questions related to your Credly badge earner account and profile, as well as issues related to claiming your badge after receiving a notification, go to support.credly.com.

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