

## z/OS System Services Structure

**Cursusduur: 5 Dagen**    **Cursuscode: ES20G**    **Trainingsmethode: Class Connect**

### Beschrijving:

This course presents the structure and control blocks of the z/OS BCP and system services. It prepares the 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.

#### Class Connect™

Met Class Connect worden klaslokalen virtueel met elkaar verbonden. Class Connect biedt u de mogelijkheid om een training klassikaal op afstand bij te wonen in een Global Knowledge locatie bij u in de buurt. Een hoge kwaliteitsverbinding (HD audio en video) tussen de klaslokalen garandeert de cursisten een maximale interactie met de docent en met elkaar. Samen met uw medecursisten ziet u de docent en de andere cursisten op een groot scherm alsof u er zelf bijzit.

### Doelgroep:

This is an intermediate course for z/OS system programmers responsible for customization, measurement and tuning, or problem determination of z/OS. Subsystem programmers will also benefit from this class.

### Doelstelling:

- 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 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
- Plan the implementation of the global resource serialization STAR environment

### Vereiste kennis en vaardigheden:

Before taking this course, you should be able to:

- Describe the following z/OS characteristics: multiprocessing, multiprogramming, 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 z/OS Facilities (ES15).

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.

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## Cursusinhoud:

### System Introduction

- z/OS Review
- z/OS System Components Review
- Introduction to Control Blocks
- Basics of z/Architecture

### Operating Environment Initialization

- System Libraries
- Initial Program Load

### Task Management

- Task Dispatching
- Service Request Scheduling
- Program Managing
- Serializing Resources
- Supervisor Calls
- Status Saving on Interrupt

### Addressability

- Addressability Review
- Cross Memory Services - Addressability to Two Address Spaces
- Extended Addressability to Multiple Spaces

### Input/Output Supervisor

- I/O Definition and Initialization
- I/O Request Flow
- I/O Interrupt Flow
- Error Handling

### Storage Management

- Storage Management Review
- A Programmer Use of Storage
- Paging and Swapping
- Coupling Facility Storage
- Exploitation

### Recovery Termination Manager (RTM)

- RTM Overview
- Preparing the Environment
- Normal Termination Processing
- Abnormal Termination Processing
- Recovery Management Support

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## Nadere informatie:

Neem voor nadere informatie of boekingen contact op met onze Customer Service Desk 030 - 60 89 444

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