Basic z/OS Tuning Using the Workload Manager (WLM)

Cursusduur: 4.00 Dagen  Cursuscode: ES54V1NL

Beschrijving:
Do you need to know how to establish a practical performance management program for your z/OS system? This course is designed for new performance analysts to learn to work with the Workload Manager (WLM) in goal mode. Learn concepts of WLM and performance management in the z/OS system using the WLM. Learn how to analyze Resource Monitoring Facility (RMF) reports and implement service definitions via the WLM Interactive System Productivity Facility (ISPF) application. The course uses z/OS hands-on lab exercises to reinforce the concepts and techniques discussed in lecture.

Hands-on Labs:
This 4.5 days course includes hands-on lab exercises. Each student team, working on their own z/OS system, will configure RMF, analyze RMF reports to find bottlenecks, and utilize the WLM dialogs to create goals and classification rules in a Service Definition that manages a supplied z/OS workload.

Doelgroep:
This is an intermediate course for z/OS system programmers, z/OS performance analysts, and z/OS performance administrators new to performance management for their z/OS system. Note: ES54 is intended for individuals new to WLM and the z/OS performance area.

Doelstelling:
- Describe a performance and tuning methodology
- Develop a systematic z/OS performance and tuning plan
- Describe the factors which could affect the performance of an z/OS system
- Use the WLM ISPF application
- Describe the components of a service definition
- Define workloads and service levels and classification rules
- State which z/OS commands affect WLM operation
- Identify the major WLM services for z/OS, including enclaves and application environments, and how they are used by DB2, WebSphere and CICS
- Analyze CPU performance when running in a shared LPAR environment
- Utilize and monitor zIIP and zAAP specialty engines
- Measure and tune z/OS DASD, processor storage, and coupling facility configurations
- Explain the functions and facilities of RMF and SMF
- Analyze performance bottlenecks using RMF
- Use Workload License Charges (WLC), defined capacity and soft capping to manage software costs
- Describe advanced z/OS environments that utilize Intelligent Resource Director (IRD)

Vereiste kennis en vaardigheden:
You should:
- Understand basic MVS / z/OS operation, such as job flow through JES, job scheduling paging, swapping, dispatching controls, I/O scheduling
- Have a basic knowledge of the purpose of the Workload Manager's function in managing system workloads
- Be familiar with using TSO and ISPF to manage data sets and run batch jobs
- Knowledge of z/OS at the level provided in
Cursusinhoud:

Tuning methodology
- describe the basic terms in the process of tuning and system structure
- outline the tuning methodology, including the factors affecting performance and the individual steps in analyzing system performance

SMF and RMF
- set up collection and utilize SMF data
- implement and analyze RMF measurements for Monitors I, II, and III
- utilize the RMF Spreadsheet Reporter and RMF Performance Management

CPU performance when running in a shared LPAR environment
- utilize zSeries processor metrics and LPAR weights
- analyze RMF CPU and LPAR reports
- describe the functionality of zAAP and zIIP processors

Basic system workload management
- use WLM dialog to create/modify service definitions
- create service class goals and classification rules to manage a complex z/OS workload

WLM commands, internals and services
- understand the behavior and operation of WLM services, including enclaves, application environments, execution delay monitoring, and their use by DB2, WebSphere and CICS
- optimize the use of WLM-managed initiators

Measure and tune z/OS DASD and processor storage
- understand DASD configurations in order to analyze RMF DASD reports
- interpret RMF paging and virtual storage reporting

Additional Topics - Coupling Facility, Intelligent Resource Director (IRD), Global Resource Serialization (GRS), Workload License Charges (WLC)
- analyze RMF coupling facility reports through an understanding of how a CF operates in a parallel sysplex
- understand the basic functionality, terminology and benefits of Intelligent Resource Director (IRD)
- state how GRS operations can be tuned for optimal z/OS performance
- utilize WLC, defined capacity, and the sub-capacity reporting tool to optimize software charges
- describe how WLM implements soft capping

Nadere informatie:
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