ES54 IBM Basic z/OS Tuning Using the Workload Manager

Course Overview
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.

Who Should Attend
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.

Course Objectives
The objectives for this course are as follows: 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), HiperDispatch, z/OSMF Workload Management, and I/O Priority Manager Use the z/OSMF Workload Management (WLM) task Use Performance Monitoring with z/OSMF Modify a WLM service definition to meet the requirements for monitoring a specific system workload Create and customize Monitoring Desktops Use the z/OSMF Workload Management (WLM) task Use Performance Monitoring with z/OSMF Modify a WLM service definition to meet the requirements for monitoring a specific system workload Create and customize Monitoring Desktops Review any issues by using the Monitoring Desktops options displays Assess the performance of the workloads running on the z/OS.

Course Outline

1 Day 1
Welcome
Unit 1 - Tuning methodology
Unit 2 - Using SMF and RMF to monitor performance
Lab 1 - Introduction to your system
Lab 2 - Using RMF Monitor I and Monitor II

2 Day 2
Unit 3 - Performance impacts when running in a shared LPAR environment
Unit 4 - Basic system workload management (part 1)
Lab 3 - Implementing a WLM environment on z/OS (part 1)

3 Day 3
Unit 4 - Basic system workload management (part 2)
Lab 3 - Implementing a WLM environment on z/OS (part 2)

4 Day 4
Unit 5 - WLM commands, internals, and service
Lab 4 - Using RMF Monitor III to solve performance problems
5 Day 5
Unit 6 - z/OS DASD performance topics
Unit 7 - Tuning processor storage
Unit 8 - Miscellaneous performance topics
Lab 5 - z/OSMF and performance management