

IBM PowerVM II: Advanced Management and Performance

Duration: 5 Days Course Code: AN31G Delivery Method: Virtual Learning

Overview:

Learn to implement advanced PowerVM features such as Active Memory Sharing, Shared Dedicated Processors, Multiple Shared Processor Pools, N_Port Virtualization, and Remote Live Partition Mobility.

This course focuses on the features that relate to the performance of the POWER6 processor, AIX 6.1, and the special monitoring, configuring, and tuning needs of logical partitions (LPARs). This course does not cover application monitoring and tuning.

You will learn skills to implement, measure, analyze, and tune PowerVM virtualization features for optimal performance on IBM System p servers.

You will also learn about the AIX 6.1 performance analysis and tuning tools that enable an administrator to take advantage of the Micro-Partitioning and other virtualization features of the System p servers.

Hands-on lab exercises reinforce each lecture and give the students practical experience.

Virtual Learning

This interactive training can be taken from any location, your office or home and is delivered by a trainer. This training does not have any delegates in the class with the instructor, since all delegates are virtually connected. Virtual delegates do not travel to this course, Global Knowledge will send you all the information needed before the start of the course and you can test the logins.

Target Audience:

This course is for anyone responsible for implementing and managing virtualization features on a System p server including: AIX technical support individuals System administrators Systems engineers System Architects

Objectives:

- Describe the effect of the POWER6 virtualization features on performance and monitoring, such as: Simultaneous Multithreading (SMT), Micro-Partitioning, Multiple Shared Processor Pools (MSPP), shared dedicated capacity, Active Memory Sharing (AMS) and other virtualization features
- Interpret the outputs of AIX 6.1 performance monitoring and tuning tools used to view the impact of SMT, Micro-Partitioning, additional shared processor pool activations and device virtualization. The tools include: vmstat, iostat, sar, topas, trace, curt, mpstat, lparstat, smtctl
- List various sources of information and support related to AIX 6.1 performance tools, system sizing, system tuning, and AIX 6.1 enhancements and new features
- Perform a Live Partition Mobility between two different POWER6 servers
- Describe the New features available with the Virtual I/O Server version 2.1 and version 2.2 such as: N_port ID Virtualization, Heterogeneous Multi-threading, Virtual Tape devices, Active Memory sharing
- Describe and implement the Active Memory Sharing feature

Prerequisites:

Students should complete:

- Power Systems for AIX I: LPAR Planning and Configuration (AN11) or (AX11) or
 - Power Systems for AIX - Virtualization I: Implementing Virtualization (AN30) or (AX30)
- or have equivalent LPAR skills

Content:

Day 1

- Unit 1 - PowerVM features Review
- Exercise 1 - Introduction to the Lab environment
- Unit 2 - Processor Virtualization Tuning
- Exercise 2 - SMT and Micro-Partitioning

Day 2

- Exercise 2 - SMT and Micro-Partitioning (con't)
- Unit 3 - Shared Dedicated Capacity and Multiple Shared Processor Pools
- Exercise 3 - Configuring Multiple Shared Processor Pools
- Unit 4 - Active Memory Sharing
- Exercise 4 - Configuring Active Memory Sharing

Day 3

- Exercise 4 - Configuring Active Memory Sharing (con't)
- Unit 5 - N_Port ID Virtualization (NPIV)
- Unit 6 - I/O Devices Virtualization Performance and Tuning
- Exercise 6 - Virtual I/O Server, vSCSI, Virtual Ethernet and shared Ethernet Adapter

Day 4

- Exercise 6 - Virtual I/O Server, vSCSI, Virtual Ethernet and shared Ethernet Adapter (con't)
- Unit 7 - Live Partition Mobility
- Exercise 7 - Live Partition Mobility implementation
- Unit 8 -PowerVM Advanced System Maintenance

Day 5

- Exercise 8 - PowerVM Maintenance
- Unit 9 - Virtualization Management Tools

Further Information:

For More information, or to book your course, please call us on Head Office 01189 123456 / Northern Office 0113 242 5931

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