Power Systems for AIX - Virtualization II: Advanced PowerVM and Performance

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

Overview:

Learn how to perform advanced PowerVM administration, optimize virtualization performance, manage system resources, and implement high-availability features in IBM Power Systems environments.

Students in this course will learn how to implement advanced IBM PowerVM features, such as Active Memory Expansion, shared dedicated processors and multiple shared processor pools. Students will also be exposed to new availability and performance management features such as Simplified Remote Restart, Hybrid Network Virtualization and enhanced VIOS administration using the HMC.
Additionally, students will learn skills to implement, measure, analyze and tune PowerVM virtualization features for optimal performance on IBM Power servers. This course focuses on two main areas. First, the features that relate to the performance of IBM Power servers, AIX, VIOS and the special monitoring, configuring, and tuning needs of logical partitions (LPARs). This course does not cover application monitoring and tuning. Second, the course will explore advanced features for availability and managing and monitoring virtualization and PowerVM virtualized workloads on IBM Power.
Students will also learn AIX performance analysis and tuning tools that help an administrator take advantage of shared processors and other virtualization features of the IBM Power servers. Hands-on lab exercises reinforce each lecture and give the students practical experience.

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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 the system administrative duties implementing and managing virtualization features on an IBM Power server. The audience for this training includes the following:
- AIX technical support individuals
- System administrators
- Systems engineers
- System architects

Objectives:

- **After this course participants should be able to:**
- Describe the effect of the IBM PowerVM virtualization features on performance and monitoring, such as: Simultaneous multithreading (SMT), shared processors, virtual processors, multiple shared processor pools (MSPP), shared dedicated capacity and Active Memory Expansion (AME).
- Interpret the outputs of AIX performance monitoring and tuning tools used to view the impact of features such as SMT, shared processors, additional shared processor pool activations, and device virtualization.
- Describe the advanced features for availability, managing and monitoring virtualization and PowerVM virtualized workloads on IBM Power.
- Configure and monitor Active Memory Expansion
- Configure the Simplified Remote Restart feature
- Understand the Hybrid Network Virtualization feature for SR-IOV
- Understand advanced options for managing VIOS with the HMC.
- Describe the different virtualization management tools that can be used to manage and monitor an IBM Power virtualized environment.

Prerequisites:

The LPAR prerequisite skills can be met by attending one of the following classes or you can have equivalent LPAR skills:

- Power Systems for AIX - Virtualization I: Implementing Virtualization (AN30G)

Testing and Certification

None

Follow-on-Courses:

None

Content:

Day 1

- Welcome
- Unit 1: PowerVM features review
- Exercise 1: Introduction to the lab environment
- Unit 2: Shared processors and virtual processor tuning
- Exercise 2: Shared processors and virtual processor tuning

Day 2

- Unit 3: Multiple shared processor pools and donating dedicated processors
- Exercise 3: Multiple shared processor pools and donating dedicated processors
- Unit 4: Simplified Remote Restart
- Exercise 4: Simplified Remote Restart

Day 3

- Unit 5: Active Memory Expansion
- Exercise 5: Active Memory Expansion
- Unit 6: Virtual storage performance

Day 4

- Exercise 6: Virtual storage performance
- Unit 7: Virtual network performance
- Exercise 7: Virtual network performance

Day 5

- Unit 8: Virtual I/O Server Management with HMC
- Exercise 8: Virtual I/O Server Management with HMC
- Unit 9: Virtualization monitoring and performance management tools
- Exercise 9: Using Virtualization monitoring and performance management tools

Further Information:

For More information, or to book your course, please call us on +1 (800) 268 7737

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