PowerVM on IBM i - I: Implementing Virtualization and LPAR

Duration: 3 Days   Course Code: AS5EG

Overview:

Learn the concepts of Logical Partitioning (LPAR) for Power System servers with IBM i. In this course you begin with an overview of LPAR on Power System servers, followed with more detailed information on configuration planning and implementation using hands-on exercises to create and implement logical partitions.

Also, learn about partial processors, dynamic allocation and reallocation of memory, processors, interactive Commercial Processing Workloads (CPW), buses, Graphical User Interface (GUI), Virtual Local Area Network (VLAN), Host Ethernet Adapters (HEA) and System Planning Tool (SPT). Use IBM Power7 or Power6 servers and emphasize the new hardware, including the use of the Hardware Management Console (HMC). This course provides lectures and hands on labs in a face-to-face classroom setting. The course is also offered in a live virtual classroom environment (ILO -Instructor Led Online) with hands-on labs: PowerVM on IBM i - I: Implementing Virtualization and LPAR - ILO (OV5E0GB)

Target Audience:

This intermediate course is for technical specialists, support/services individuals, individuals implementing LPARs for Power Systems with IBM i. This course is also appropriate for IBM Business Partners who sell and plan for consolidated systems.

Objectives:

- Describe the PowerVM features

- Identify, describe, and locate hardware components in the Power System, Flex System and Power Blade models

- Identify virtualization options available, reliability features and single points of failure for Power Systems servers

- Implement System Planning Tool in design or update your own system

- Explain Simultaneous Multithreading (SMT)

- Describe memory allocation and affinity concepts

- Describe and configure a partition profile, including shared processors:

- Capped

- Uncapped

- Virtual processors

- Weighting factor

- Shared Processor Pools

- Explain virtual I/O: Serial, Ethernet and SCSI

- Understand and implement: IBM i installation through NFS, image virtual repository in VIOS, and assigning VSCSI disks to partitions in VIOS

- Understand base characteristics of IVM and how implement IBM i on Power Blades

- Describe the NPIV PowerVM feature, how to configure virtual Fiber Channel adapters on the Virtual I/O Server and client partitions

- Discuss how to use the HMC GUI and commands to work with the World Wide Port Name (WWPN) pairs

- Identify commands used to examine the NPIV configuration

Prerequisites:

You should have:

- some knowledge of Power system architectural concepts
- some experience with Power System servers
- attended Hardware Management Console (HMC) for Power System with IBM i (OL520GB) (OV520GB) (OP520GB); or have the equivalent knowledge

Entry level knowledge of LPAR on current systems is helpful, but not required.

Content:

- PowerVM for IBM i - Overview
- Power Systems for IBM i
- Exercise - Lab introduction
- Introduction to System Planning Tool
- Exercise - SPT introduction

- Virtualization of IBM i - Processor, Memory, Processor Pools
- Virtualization of IBM i - Virtual I/O
- Exercise - Ethernet connection virtualization
- Virtualization of IBM i - Installation from NFS or VIOS repository
- Exercise - Installation from NFS or VIOS repository

- Implementation of IBM i on Power Blades
- PowerVM for IBM i - NPIV
- Exercise: IBM i client partition with NPIV connected disks

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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