

Course Code: AN30G

Course Title: IBM PowerVM: Implementing Virtualization

## Description:

As IBM Power continues to evolve, it is essential for IT professionals to stay up-to-date with the latest innovations. Our IBM PowerVM course is specifically designed to provide you with a comprehensive understanding of processor virtualization concepts, Virtual I/O Server configurations, and virtual devices such as virtual Ethernet, virtual SCSI, and virtual Fibre Channel adapters. Through a combination of lectures and hands-on labs, this course will equip you with the knowledge and skills necessary to become a successful IT technology professional. Whether you prefer face-to-face or online learning, our experienced instructors will guide you every step of the way as you explore basic and advanced configurations of the Virtual I/O Server and its clients, as well as various availability options.

Expand your knowledge about PowerVM features that were introduced in *Power Systems for AIX I: LPAR Configuration and Planning (AN11G)*.

This course provides lectures and hands on labs in an instructor lead course environment, either in a face-to-face classroom or in a live virtual classroom environment (ILO - Instructor Led Online).

## Objectives:

- List the reasons for implementing virtual I/O
- Describe virtual I/O devices
- Describe the function of the Virtual I/O Server
- Configure virtual SCSI devices that are backed by physical volumes, logical volumes, optical media devices, and file-backed devices
- Create the Optical Media Repository, load a CD image, and use it to install a new AIX partition
- Describe how to configure virtual Fibre channel devices using NPIV technology
- Configure Ethernet link aggregation for load balancing and backup channel in the VIOS
- Configure Shared Ethernet adapter failover and load sharing
- Configure vNIC failover
- Perform Virtual I/O Server maintenance operations

## Prerequisites:

You must have advanced system administration experience with AIX 7. This prerequisite can be met by attending one of the following courses:

*Power Systems for AIX II: Implementation and Administration (AN12G)*

*Power Systems for AIX III: Advanced Administration and Problem Determination (AN15G)*

*AIX Jumpstart for UNIX Professionals (AN14G)*

Alternatively, you must have equivalent AIX and LPAR skills.

General TCP/IP knowledge is strongly recommended.

You are also expected to have logical partition administration skills on Power Systems servers, which can be obtained by attending *Power Systems for AIX I: LPAR Configuration and Planning (AN11G)*.

**Duration:**

40 Hrs

**Topics:**

- Welcome
- Unit 1 - Virtual I/O Server Configuration
- Exercise 1 - Virtual I/O Server Configuration
- Unit 2 - Virtual SCSI Configuration
- Exercise 2 - Dual VIOS Virtual SCSI Configuration
- Unit 3 - File-backed Storage Devices
- Exercise 3 - Configuring File-backed Optical Devices
- Unit 4 - Virtual Fibre Channel Storage Devices
- Exercise 4 - Dual VIOS Virtual Fibre Channel Configuration
- Unit 5 - Virtual Ethernet Networking
- Exercise 5- Virtual Ethernet Networking
- Unit 6 - Shared Ethernet Adapter Configurations
- Exercise 6 - Dual VIOS Shared Ethernet Adapter Configurations
- Unit 7 - Virtual Network Interface Controllers (vNICs) and vNIC Failover
- Exercise 7 - Virtual Network Interface Controllers (vNICs) and vNIC Failover
- Unit 8 - VIOS Maintenance
- Exercise 8 - VIOS Maintenance
- Wrap up / Evaluations

**Audience:**

This advanced course is appropriate for System Administrators, Technical Support Personnel, and Business Partners responsible for implementing LPARs on IBM Power Systems with AIX servers.