

Course 566:

Windows Server Virtualization with VMWare

(4 Days – VMWare Workstation & VMWare Server Hands-On

or

5 Days – VMWare Workstation, Server and ESX/Virtual Center Hands-On)

Course Description...

In this hands-on course, you'll learn the foundations of Virtualization of Windows Servers using VMWare. Beginning with VMWare Workstation, the essentials of Virtual Machines creation and operation will be examined. VMWare Server will then be examined as a way to leverage un-used resources on corporate servers. Finally, the operation of mission-critical applications will be examined using VMWare ESX and Virtual Infrastructure 3. This course can be focused on specific areas, based on your Organizations need. If server-class hardware is available, a 5-day can be added with hands-on labs utilizing ESX Server.

Who should attend...

This course is designed for and will benefit IT Administrators, Server and Workstation Migration Teams, Senior Help Desk Staff, and IT Managers who need to know how to build, operate and manage Windows Servers in Virtual Environments using VMWare. This course is also useful for Technical Managers who need to understand the benefits of Virtualization of Windows Servers.

Suggested Prerequisites...

- Windows Server System Administration Experience
- A basic understanding of TCP/IP

Course Outline...

Virtual Infrastructures with VMWare

- VMWare History and Versions
- Functions of a Virtual Machine
- Running a Virtual Machine
- Alternatives to VMWare

VMWare Workstation

- VMWare Workstation Overview
- How VMWare Workstation Interacts with the Operating System
- Installation of VMWare Workstation
- Running a Windows Server Virtual Machine
- Enhancing VMWare Performance with VMWare Tools and optimized Drivers



- Using and Managing Snapshots
- Adding Hardware Resources to a Virtual Machine
- Accessing CD-Roms and ISO Images within a Virtual Machine
- Limitations of VMWare Workstation

Creating and Managing Virtual Machines

- Configuring a Virtual Machine using a Template
- Virtual Machine Networking
- Installation of a Microsoft Operating System into a Virtual Machine
- Running Multiple Virtual Machines
- Allocation of Resources to a Virtual Machine
- Monitoring Virtual Machine Workload

VMWare Server

- How VMWare Server Interacts with the Operating System
- Installation of VMWare Server and Console
- Using the Server Console (Local)
- Installation and Operation of Virtual Machines under VMWare Server
- Accessing Remote Virtual Machines
- VMWare Server Console
- Scripting Virtual Machine Boot, Startup, Shutdown and Management
- Limitations of VMWare Server

Virtual Machines – Behind the Scenes

- How VMWare Server Interacts with the Host Operating System
- Managing Virtual Machine Permissions
- Communication between the Host and the Virtual Machine
- Understanding VM Networking: Bridged, NAT and Custom Networks
- Virtual Machine Disk Defragmentation
- Virtual Disk Configuration: Type and Operating Mode
- Duplication of Virtual Machines
- Directly Editing the .vmx file
- Virtual Machine Startup/Shutdown Management
- Troubleshooting Virtual Machine Startup
- Connecting USB Devices to a Virtual Machine

VMWare ESX Server & Infrastructure 3 Components (Lecture/Demo Only)

- Fundamentals of VMWare ESX
- The VMWare ESX Operation System
- Demonstration: Loading the VMWare ESX Operating System
- Connecting to a Virtual Machine running on ESX Server
- Dedicating Resources to Specific Virtual Machines
- VMWare Infrastructure 3

Virtual Machines - Best Practices

- Designing a Virtual Environment
- Selecting a Platform and Hardware



- Designing Storage for Virtual Environments
- Virtual Networking Considerations
- Securing the Virtual Environment
- Distributed Virtual Machine Environments
- Upgrading Virtual Machines for New Versions

Moving Production Systems to Virtual Environments

- Reproducing Production Systems in a Virtual Environment
- Migrating Production Systems into a Virtual Environment
- Testing the Virtual Environment
- Real-Time Replication of Virtual Environments

Additional 4th Day Laboratory (available if Server Class Hardware is available. Hardware must be on the VMWare Server ESX Compatibility).

Hands-On Laboratory includes:

- Installation of VMWare Server ESX and Virtual Center 3
- Migration of Production Server into Virtual Environment
- Transferring VMWare Images to an ESX Server
- High-availability solutions with Virtual Center 3

Additional/Custom Topics are available - please contact your ROI representative to discuss course tailoring!!!