
vSphere 4: Manage and Design for Performance

Duration: 3 Days **Course Code: VSMDP**

Overview:

This hands-on training course explores the management of performance in a VMware® vSphere™ environment. It provides the knowledge and skills necessary to make fundamental design decisions that enhance performance and to meet performance goals in an already-deployed vSphere installation. The course is based on ESX 4.0, ESXi 4.0, and vCenter Server 4.0.

Target Audience:

System administrators, systems engineers, and consultants responsible for managing the performance of a vSphere installation

Objectives:

- Explain the performance impact of using different monitor modes
 - Discuss how to achieve an optimal virtual machine configuration
 - Use vSphere tools to monitor the performance of ESX/ESXi hosts
 - Discuss guidelines for monitoring application performance
 - Troubleshoot performance problems relating to CPU, memory, network, and storage on an ESX/ESXi host
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Prerequisites:

This is an advanced course. Required prerequisites include the completion of one of the following:

- Completion of VMware vSphere: Install, Configure, Manage
- Completion of VMware vSphere: Fast Track
- Completion of VMware vSphere: What's New
- Equivalent knowledge and administration experience with ESX/ESXi and vCenter Server

Experience with working at the command line is highly recommended

Content:

Module 1: Course Introduction **Module 2: Performance in a Virtualized Environment**

- Discuss the vSphere performance troubleshooting methodology

Monitor performance using vCenter Server performance graphs and the ESX/ESXi `resxtp` command
Module 3: Virtual Machine Monitor

Discuss software and hardware virtualization techniques and their impact on performance
Module 4: CPU Performance

- Discuss the CPU scheduler, NUMA, and CPU cache contention
- Monitor key CPU performance metrics

Troubleshoot common CPU performance problems
Module 5: Memory Performance

- Discuss memory reclamation techniques and memory overcommitment
- Monitor key memory performance metrics

Troubleshoot common memory performance problems
Module 6: Network Performance

- Discuss the performance features of modern network adapters
- Monitor key network performance metrics

Troubleshoot common network performance problems
Module 7: Storage Performance

- Discuss how storage protocols, VMFS configuration, load balancing, and queuing affect performance
- Monitor key storage performance metrics

Troubleshoot common storage performance problems
Module 8: Virtual Machine Performance

Discuss guidelines for configuring a virtual machine for optimal performance
Module 9: Application Performance

- Discuss what applications can be virtualized
- Discuss how VMware vCenter AppCenter manages application performance

Further Information:

For More information, or to book your course, please call us on Head Office 01189 123456 / Northern Office 01924 377489

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