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VMware Certified Professional



This hands-on training course explores installation, configuration, and management of VMware vSphere®, which consists of VMware vSphere® ESXi™ and VMware® vCenter Server™. This course is based on prerelease versions of ESXi 5.1 and vCenter Server 5.1. Completion of this course satisfies the prerequisite for taking the VMware Certified Professional 5 exam.

Students who complete this course may enroll in any of several, more advanced vSphere

courses.

Intended Audience:

- System administrators
- Systems engineers
- Operators responsible for ESXi and vCenter Server

Prerequisites:

System administration experience on Microsoft Windows or Linux operating systems

Course Modules

Course Introduction

- Introductions and course logistics
- Course objectives
- Differences between VMware4 & VMware5

Introduction to VMware Virtualization

- Introduce virtualization, virtual machines, and vSphere components
- Explain the concepts of server, network, and storage virtualization
- Describe where vSphere fits into the cloud architecture
- Install and use vSphere user interfaces

Installing VMware Components

- Introduce ESXi installation
- Describe boot-from-SAN requirements
- Introduce vCenter Server deployment options
- Describe vCenter Server hardware, software, and database requirements
- Install vCenter Server (Windows-based)

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Creating Virtual Machines

- Introduce virtual machines, virtual machine hardware, and virtual machine files
- Deploy a single virtual machine

VMware vCenter Server

- Introduce the vCenter Server architecture
- Introduce VMware vCenter Server Appliance
- Configure and manage vCenter Server Appliance
- Manage vCenter Server inventory objects and licenses

Configuring and Managing Virtual Networks

- Describe, create, and manage a standard virtual switch
- Describe and modify standard virtual switch properties
- Configure virtual switch load-balancing algorithms

Configuring and Managing Virtual Storage

- Introduce storage protocols and device names
- Configure ESXi with iSCSI, NFS, and Fibre Channel storage
- Create and manage vSphere datastores
- Deploy and manage VMware vSphere Storage Appliance

Virtual Machine Management

- Use templates and cloning to deploy virtual machines
- Modify and manage virtual machines
- Create and manage virtual machine snapshots
- Perform VMware vSphere vMotion and VMware vSphere
- Storage vMotion migrations
- Create a VMware vSphere vApp

Data Protection

- Discuss a strategy for backing up ESXi hosts and vCenter Server
- Discuss solutions for backing up virtual machines efficiently

Access and Authentication Control

- Control user access through roles and permissions
- Configure and manage the ESXi firewall
- Configure ESXi lockdown mode

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- Integrate ESXi with Active Directory
- Explain VMware
- vShield Endpoint integration in VSphere

Resource Management and Monitoring

- Introduce virtual CPU and memory concepts
- Describe methods for optimizing CPU and memory usage
- Configure and manage resource pools
- Monitor resource usage using vCenter Server performance graphs and alarms

High Availability and Fault Tolerance

- Introduce the new VMware vSphere High Availability architecture
- Configure and manage a vSphere HA cluster
- Introduce VMware vSphere Fault Tolerance
- Describe VMware vSphere Replication

Scalability

- Configure and manage a VMware vSphere Distributed Resource Scheduler (DRS) cluster
- Configure Enhanced vMotion Compatibility
- Use vSphere HA and DRS together

Patch Management

- Use Update Manager to manage ESXi patching
- Install Update Manager and the Update Manager plug-in
- Create patch baselines
- Scan and remediate hosts

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