vmware EDUCATION SERVICES

VMware vSphere: Install, Configure, Manage

Delivery Methods

- Instructor-led training
- Live-online
- Onsite training

Course Duration

- Five days of instructor-led training
- 60% lecture, 40% hands-on lab

Target Audience

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

Prerequisites

System administration experience on Microsoft Windows or Linux operating systems

Pricing

Contact your VMware representative or a VMware Authorized Training Center for pricing information.

More Information

Courses are conveniently scheduled around the world. Go to www.vmware.com/education to find the class that is right for you.

Onsite training is also available for customers who prefer to bring a VMware Certified Instructor to their own facilities. For additional information about onsite classes, including facility requirements, go to www.vmware.com/education.

Course Overview

This hands-on training course explores installation, configuration, and management of VMware vSphere®, which consists of VMware ESXi™ and VMware vCenter Server™. The course is based on ESXi 5.0 and vCenter Server 5.0. 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. For advanced course options, see www.vmware.com/education.

Course Objectives

At the end of the course, you should gain an understanding of the functionality in vSphere 5 and be able to do the following:

- Install and configure ESXi
- Install and configure vCenter Server components
- Configure and manage ESXi networking and storage using vCenter Server
- Deploy, manage, and migrate virtual machines
- Manage user access to the VMware infrastructure
- Use vCenter Server to monitor resource usage
- Use vCenter Server to increase scalability
- Use VMware vCenter™ Update Manager to apply ESXi patches
- Use vCenter Server to manage higher availability and data protection

Course Modules

1 Course Introduction
- Introductions and course logistics
- Course objectives

2 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

3 Create Virtual Machines
- Introduce virtual machines, virtual machine hardware, and virtual machine files
- Deploy a single virtual machine

4 VMware vCenter Server
- Introduce vCenter Server architecture
- Introduce vCenter Server appliance
- Configure and manage vCenter Server appliance
- Manage vCenter Server inventory objects and licenses

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

6 Configure and Manage 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 the VMware vSphere® Storage Appliance

7 Virtual Machine Management
- Deploy virtual machines using templates and cloning
- Modify and manage virtual machines
- Create and manage virtual machine snapshots
- Perform VMware vSphere® vMotion® and Storage vMotion migrations
- Create a vSphere vApp

8 Data Protection
- Discuss a strategy for backing up ESXi hosts and vCenter Server
- Introduce the VMware Data Recovery appliance
- Discuss solutions for backing up virtual machines efficiently

9 Access and Authentication Control
- Control user access through roles and permissions
- Configure and manage the ESXi firewall
- Configure ESXi lockdown mode
- Integrate ESXi with Active Directory
- Introduce VMware vShield Zones

10 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

11 High Availability and Fault Tolerance
- Introduce new vSphere High Availability (HA) architecture
- Configure and manage a vSphere High Availability cluster
- Introduce VMware Fault Tolerance

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

13 Patch Management
- Manage ESXi patching using vCenter Update Manager
- Install Update Manager and Update Manager plug-in
- Create patch baselines
- Scan and remediate hosts

14 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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