



HP Education Services Course Overview

VMware vSphere: Fast Track [v5.5] (H6D03S)

This intensive, extended-hours training course focuses on installing, configuring, and managing VMware vSphere® 5.5. This course combines the content of the VMware vSphere: Install, Configure, Manage course with advanced tasks and skills for configuring a highly available and scalable virtual infrastructure. The course is based on VMware® ESXi™ 5.5 and VMware® vCenter Server™ 5.5. Completion of this course satisfies the prerequisite for taking the VMware® Certified Professional 5 exam. This course is 60% lecture and 40% hands-on lab.

Audience

- Experienced system administrators and system integrators willing to work hard to achieve superior vSphere skills with minimal time away from the office

Prerequisites

- System administration experience on Microsoft Windows or Linux operating systems
- Understanding of concepts presented in the VMware Data Center Virtualization Fundamentals course for VCA-DCV certification

Course objectives

By the end of the course, you should be able to meet the following objectives:

- Configure and manage ESXi networking and storage
- Create, configure, migrate, manage, and monitor virtual machines and virtual appliances
- Manage user access to the VMware® virtual infrastructure
- Use vCenter Server to monitor resource usage
- Implement VMware vSphere® High Availability and VMware vSphere® Fault Tolerance
- Use host profiles to manage ESXi configuration compliance
- Use vSphere distributed switches to scale networking
- Use policy-driven storage and VMware vSphere® Storage DRS™ to scale storage

Course title:	VMware vSphere: Fast Track [v5.5]
HP product number:	H6D03S
Category/Subcategory:	VMware
Course length:	5 days
Level:	Advanced
Delivery language:	English
To order:	You can register your interest for this course online at http://www.hp.com.au/education . At the site, select the course under VMware portfolio and you will see dates for the course. Register your interest for the date of your choice.

- Use VMware vSphere® Update Manager™ to apply ESXi patches
- Use VMware vSphere® Management Assistant to manage vSphere
- Deploy ESXi, vCenter Server, and VMware® vCenter Server™ Appliance™
- Use VMware vSphere® ESXi™ Image Builder CLI to create an ESXi image
- Use VMware vSphere® Auto Deploy™ to provision ESXi hosts

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Detailed course outline

Module 1: Course Introduction

- Introductions and course logistics
- Course objectives

Module 2: Software-Defined Data Center

- Introduce virtualization 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
- Describe the ESXi architecture and configure various ESXi settings

Module 3: Creating Virtual Machines

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

Module 4: VMware vCenter Server

- Introduce vCenter Server architecture
- Introduce vCenter Server Appliance
- Install and configure vCenter Server Appliance
- Using the VMware vSphere® Web Client
- Configuring VMware® vCenter™ Single Sign-On™
- Manage vCenter Server inventory objects and licenses

Module 5: Configuring and Managing Virtual Networks

- Describe, create, and manage a standard switch
- Describe and modify standard switch properties
- Describe the NIC teaming of a standard switch port group

Module 6: Configuring and Managing Virtual Storage

- Introduce storage protocols and device names
- Configure ESXi with iSCSI, NFS, and Fibre Channel storage
- Create and manage VMware vSphere® VMFS datastores
- Introduce VMware® Virtual SAN™ datastores

Module 7: 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™

Module 8: Access and Authentication Control

- Control user access through roles and permissions
- Discuss ESXi host access and authentication
- Integrate ESXi with Active Directory

Module 9: Resource Management and Monitoring

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

Module 10: High Availability and Fault Tolerance

- Explain the vSphere HA architecture
- Configure and manage a vSphere HA cluster
- Set vSphere HA advanced parameters
- Enable vSphere FT on a virtual machine
- Describe VMware vSphere® Replication

Module 11: Network Scalability

- Create, configure, and manage vSphere distributed switches, network connections, and port groups
- Discuss distributed switch features, such as private VLANs, discovery protocols, VMware vSphere® Network I/O Control, NetFlow, and port mirroring

Module 12: Host Scalability

- Use host profiles to manage ESXi configuration compliance
- Configure and manage a VMware vSphere® Distributed Resource Scheduler™ cluster
- Configure Enhanced vMotion Compatibility
- Use vSphere HA and vSphere DRS together

Module 13: Storage Scalability

- Describe VMware vSphere® Storage APIs - Array Integration and Storage Awareness
- Explain policy-driven storage

- Add a storage policy to a virtual machine storage profile
- Introduce VMware vSphere® Storage I/O Control
- Create a datastore cluster
- Configure Storage DRS

Module 14: Patch Management

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

Module 15: VMware Management Resources

- Describe vSphere Management Assistant
- Configure vSphere Management Assistant
- Discuss the VMware vSphere® Command-Line Interface command set
- Perform command-line operations for host management, network management, storage management, and performance monitoring

Module 16: Installing VMware Components

- Describe vCenter Linked Mode to manage multiple vCenter Server inventories
- Introduce ESXi installation
- Describe boot-from-SAN requirements
- Describe vCenter Server hardware, software, and database requirements
- Install vCenter Server (Windows-based)

Module 17: Host and Management Scalability

- Configure and manage VMware vSphere® Distributed Power Management™
- Use VMware vSphere® PowerCLI™
- Use vSphere ESXi Image Builder CLI to create an ESXi installation image
- Use vSphere Auto Deploy to deploy a stateless ESXi host

For more information

To locate contact information and to learn more about education services, please visit our web site at

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