VMware vSphere Fast Track (vSphere FT)

Course Summary

Description

This intensive, extended-hours course combines instructor training with hands-on labs to focus on how to install, configure, manage, and troubleshoot VMware vSphere 6, including VMware ESXi 6 and VMware vCenter Server 6. This course combines the content of the VMware vSphere: Install, Configure, Manage course with troubleshooting skills needed for maintaining highly available and scalable vSphere environments. Students gain practical experience with these concepts through the completion of hands-on labs. Completion of this course satisfies the prerequisite for taking the VMware Certified Professional 6 - Data Center Virtualization (VCP6-DCV) exam.

Objectives
At the end of this course, students will be able to:

- Deploy an ESXi host and create virtual machines
- Deploy a vCenter Server instance or VMware vCenter Server Appliance
- Configure and manage the vSphere infrastructure with the VMware vSphere Client and the VMware vSphere Web Client
- Configure virtual networks with vSphere standard switches
- Describe and use a content library
- Migrate virtual machines with VMware vSphere vMotion
- Use VMware vSphere Storage vMotion to migrate virtual machine storage
- Use VMware vRealize Operations Manager to identify and solve issues through analytics and alerts
- Manage VMware vSphere High Availability and VMware
- vSphere Fault Tolerance
- Use VMware vSphere Replication and VMware vSphere Data Protection to replicate virtual machines and perform data recovery
- Use VMWare vSphere Distributed Resource Scheduler clusters to improve host scalability
- Use vSphere distributed switches to improve network scalability
- Use VMware vSphere Update Manager to apply patches
- Perform basic troubleshooting of ESXi hosts, virtual machines, vCenter Server, virtual networking, virtual storage, and other vSphere operations

Topics

- Course Introduction
- Software-Defined Data Center
- Creating Virtual Machines
- VMware vCenter Server
- Troubleshooting vSphere
- Configuring and Managing Virtual Networks
- Configuring and Managing Virtual Storage

- Virtual Machine Management
- Resource Management and Monitoring
- vSphere HA and vSphere FT
- Host Scalability with vSphere DRS
- vSphere Update Manager and Host Maintenance
- Installing vSphere Components

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Course Summary (cont'd)

Audience

This course is designed for new and experienced system administrators, systems engineers, and system integrators willing to work hard to achieve superior vSphere skills with minimal time away from the office.

Prerequisites

Prior to taking this course, students should have:

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

Duration

Five days

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Course Outline

I. Course Introduction
- A. Introductions and course logistics
- B. Course objectives

II. Software-Defined Data Center
- A. Introduce virtualization and vSphere components
- B. Explain the concepts of server, network, and storage virtualization
- C. Describe where vSphere fits into the cloud architecture
- D. Install and use vSphere user interfaces
- E. Describe the ESXi architecture and configure various ESXi settings

III. Creating Virtual Machines
- A. Introduce virtual machines, virtual machine hardware, and virtual machine files
- B. Deploy a single virtual machine
- C. Explain the importance of VMware Tools
- D. Describe how to import an OVF template

IV. VMware vCenter Server
- A. Introduce vCenter Server architecture
- B. Introduce vCenter Server Appliance
- C. Install and configure vCenter Server Appliance
- D. Use the vSphere Web Client
- E. Configure VMware vCenter Single Sign-On and VMware Platform Services Controller
- F. Manage vCenter Server inventory objects and licenses

V. Troubleshooting vSphere
- A. Use a structured approach to troubleshoot issues in vSphere
- B. Discuss options for running vSphere commands
- C. Locate and use important vSphere log files

VI. Configuring and Managing Virtual Networks
- A. Describe, create, and manage a standard switch
- B. Describe and modify standard switch properties
- C. Describe the NIC teaming of a standard switch port group
- D. Describe, create, and manage a distributed switch
- E. Troubleshoot virtual networking

VII. Configuring and Managing Virtual Storage
- A. Introduce storage protocols and device names
- B. Configure ESXi with iSCSI, NFS, and Fibre Channel storage
- C. Create and manage vSphere VMFS datastores
- D. Introduce VMware Virtual SAN datastores
- E. Troubleshoot virtual storage

VIII. Virtual Machine Management
- A. Use templates and cloning to deploy virtual machines
- B. Modify and manage virtual machines
- C. Create and manage virtual machine snapshots
- D. Perform vSphere vMotion and vSphere Storage vMotion migrations
- E. Create VMware vSphere vApp
- F. Describe the types of content libraries
- G. Troubleshoot virtual machines and snapshots

IX. Resource Management and Monitoring
- A. Introduce virtual CPU and memory concepts
- B. Describe methods for optimizing CPU and memory usage
- C. Configure and manage resource pools
- D. Use vCenter Server performance graphs and alarms to monitor resource usage

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Course Outline (cont'd)

E. Use vRealize Operations Manager to manage a software-defined data center
F. Troubleshoot ESXi and vCenter Server

X. vSphere HA and vSphere FT
A. Explain the vSphere HA architecture
B. Configure and manage a vSphere HA cluster
C. Set vSphere HA advanced parameters
D. Enable vSphere FT on a virtual machine
E. Describe vSphere Replication and vSphere Data Protection
F. Troubleshoot vSphere HA

XI. Host Scalability with vSphere DRS
A. Describe the functions of a vSphere DRS cluster
B. Create a vSphere DRS cluster
C. View information about a vSphere DRS cluster
D. Troubleshoot vSphere DRS clusters

XII. vSphere Update Manager and Host Maintenance
A. Describe, install, and configure vSphere Update Manager
B. Describe and use host profiles
C. Use baselines and remediate ESXi hosts
D. Perform patch management

XIII. Installing vSphere Components
A. Describe how to install ESXi interactively
B. Identify the basic requirements for an ESXi host to boot from SAN
C. Identify system requirements to install vCenter Server
D. Install vCenter Server on a supported Windows system