

## **H6D04S: VMware vSphere: Skills for Operators (v5.5)**

### **Course Summary**

#### **Description**

This is a 2-day technical classroom training course designed to help operators and administrators create and manage virtual machines. This two-day lecture and lab course will help students gain the skills required to work effectively with VMware® virtual machines. This course is based on VMware® ESXi™ 5.5 and VMware® vCenter Server™ 5.5. This course is 60% lecture and 40% hands-on lab.

#### **Objectives**

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

- Describe virtualization, virtual machines, and vSphere components
- Describe the concepts of server, network, and storage virtualization
- Deploy, configure, and manage virtual machines
- Use vCenter Server to monitor virtual machine resource usage
- Use VMware vSphere® vMotion® and VMware vSphere® Storage vMotion® to migrate virtual machines

#### **Topics**

- Course Introduction
- Introduction to VMware Virtualization
- VMware vSphere Web Client
- Creating and Managing Virtual Machines
- Virtual Machine Resource Monitoring
- Using VMware vSphere vApps
- Virtual Machine Management

#### **Audience**

Operators responsible for ESXi and vCenter Server management.

#### **Prerequisites**

System administration experience on Microsoft Windows or Linux operating systems.

#### **Duration**

Two days

**H6D04S: VMware vSphere: Skills for Operators (v5.5)****Course Outline**

- I. Course Introduction**
  - A. Introductions and course logistics
  - B. Course goals and objectives
  - C. Online vSphere resources
  - D. Location of online vSphere documentation
- II. Introduction to VMware Virtualization**
  - A. Compare the components and concepts of virtual and traditional architecture
  - B. Describe a virtual machine
  - C. Identify the benefits of using a virtual machine
  - D. Describe VMware virtualization concepts
  - E. Describe the components and features of vSphere
  - F. Describe inventory objects managed by vSphere
  - G. Describe the features of vCenter Server
- III. VMware vSphere Web Client**
  - A. Access and use the VMware vSphere® Web Client
  - B. Describe the navigation panes in the vSphere Web Client
- IV. Creating and Managing Virtual Machines**
  - A. Describe virtual machine components
  - B. Create a virtual machine
  - C. Install a guest operating system and VMware® Tools™
  - D. Clone a virtual machine
  - E. Create an OVF template
  - F. Customize a virtual machine
  - G. Register and unregister a virtual machine in vCenter Server
  - H. Perform snapshot operations
- V. Virtual Machine Resource Monitoring**
  - A. Introduce virtual CPU and memory concepts
  - B. Describe methods for optimizing CPU, memory, and disk usage
  - C. Use vCenter Server performance graphs and alarms to monitor virtual machine resource usage
  - D. Describe and monitor tasks
  - E. Describe, monitor, and manage events
  - F. Describe, monitor, manage, and acknowledge alarms
- VI. Using VMware vSphere vApps**
  - A. Describe VMware vSphere® vApps™
  - B. Create, edit, and manage a vApp
  - C. Clone a vApp
  - D. Manage the power status of a vApp
- VII. Virtual Machine Management**
  - A. Describe and use cold migration to migrate a virtual machine
  - B. Verify host and virtual machine requirements for vSphere vMotion
  - C. Migrate a virtual machine with vSphere vMotion
  - D. Migrate virtual machine storage with vSphere Storage vMotion
  - E. Describe CPU compatibility with Enhanced vMotion Compatibility
  - F. Describe VMware vSphere® Distributed Resource Scheduler™
  - G. Summarize VMware vSphere® High Availability