VMware vSphere: Install, Configure, Manage v6

Delivery Methods

- Instructor Classroom
- Live Online
- Onsite

Course Duration

- Five (5) extended days of instructor-led classroom training
- 55% lecture, 45% hands-on lab

Target Audience

- System administrators
- Systems engineers

Course Suitability

☒ Administrator	☐ Expert
☒ Engineer	☒ Advanced
☐ Architect	☒ Professional
	☐ Fundamentals

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

Certifications

For more information, go to VMware Certification.

Course Overview

VMware vSphere: Install, Configure, Manage is our best-selling course. It features intensive hands-on training that focuses on installing, configuring, and managing VMware vSphere® 6, which includes VMware ESXi™ 6 and VMware vCenter Server™ 6. This course prepares you to administer a vSphere infrastructure for an organization of any size and forms the foundation for most other VMware technologies in the software-defined data center.

Course Objectives

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

- Describe the software-defined data center
- Deploy an ESXi host and create virtual machines
- Describe vCenter Server architecture
- Deploy a vCenter Server instance or VMware vCenter Server™ Appliance™
- Use vCenter Server to manage an ESXi host
- Configure and manage vSphere infrastructure with VMware vSphere® Client™ and VMware vSphere® Web Client
- Configure virtual networks with vSphere standard switches
- Use vCenter Server to manage various types of host storage: VMware vSphere® VMFS, NFS, virtual SAN, and Virtual Volumes
- Manage virtual machines, templates, clones, and snapshots
- Create a vApp
- Describe and use the content library
- Migrate virtual machines with VMware vSphere® vMotion®
- Use VMware vSphere® Storage vMotion® to migrate virtual machine storage
- Monitor resource usage and manage resource pools
- 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 and perform basic troubleshooting of ESXi hosts, virtual machines, and vCenter Server operations

Course Modules

1 Course Introduction
- Introductions and course logistics
- Course objectives
- References and resources

2 Software-Defined Data Center
- Introduce components of the software-defined data center
- Describe where vSphere fits into the cloud architecture
- Install and use vSphere Client
- Overview of ESXi

3 Creating Virtual Machines
- Introduce virtual machines, virtual machine hardware, and virtual machine files
- Create and work with virtual machines and templates

4 vCenter Server
- Introduce the vCenter Server architecture
- Deploy and configure vCenter Server Appliance
- Use vSphere Web Client
- Manage vCenter Server inventory objects and licenses

5 Configuring and Managing Virtual Networks
- Describe, create, and manage standard switches
- Configure virtual switch security and load-balancing policies
- Create, configure, and manage vSphere distributed switches, network connections, and port groups

6 Configuring and Managing Virtual Storage
- Introduce storage protocols and storage device types
- Discuss ESXi hosts using iSCSI and NFS storage
- Create and manage VMFS and NFS datastores
- Introduce VMware Virtual SAN™
- Introduce Virtual Volumes

7 Virtual Machine Management
- Use templates and cloning to deploy new virtual machines
- Modify and manage virtual machines
- Perform vSphere vMotion and vSphere Storage vMotion migrations
- Create and manage virtual machine snapshots
- Create vApps
- Introduce the types of content libraries and how to deploy and use them

8 Resource Management and Monitoring
- Introduce virtual CPU and memory concepts
- Configure and manage resource pools
- Describe methods for optimizing CPU and memory usage
- Use various tools to monitor resource usage
- Create and use alarms to report certain conditions or events
- Identify and troubleshoot virtual machine resource issues
- Introduce vRealize Operations Manager for data center monitoring and management

9 vSphere HA and vSphere Fault Tolerance
- Explain the vSphere HA architecture
- Configure and manage a vSphere HA cluster
- Use vSphere HA advanced parameters
- Introduce vSphere Fault Tolerance
- Enable vSphere Fault Tolerance on virtual machines
- Introduce vSphere Replication
- Use vSphere Data Protection to back up and restore data

10 Host Scalability
- Describe the functions and benefits of a vSphere DRS cluster
- Configure and manage a vSphere DRS cluster
- Work with affinity and anti-affinity rules
- Use vSphere HA and vSphere DRS together for business continuity

11 vSphere Update Manager and Host Maintenance
- Use vSphere Update Manager to manage ESXi patching
- Install vSphere Update Manager and the vSphere Update Manager plug-in
- Create patch baselines
- Use host profiles to manage host configuration compliance
- Scan and remediate hosts

12 Installing vSphere Components
- Install ESXi
- Introduce vCenter Server deployment options
- Describe vCenter Server hardware, software, and database requirements
- Discuss installation of vCenter Server Appliance and a vCenter Server instance
- Demonstrate vCenter Server installation