

VMware vSphere: Install, Configure, Manage

Delivery Methods

- 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

- | | |
|---|--|
| <input checked="" type="checkbox"/> Administrator | <input type="checkbox"/> Expert |
| <input checked="" type="checkbox"/> Engineer | <input checked="" type="checkbox"/> Advanced |
| <input type="checkbox"/> Architect | <input checked="" type="checkbox"/> Professional |
| | <input type="checkbox"/> 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](#).

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 [VMware Education](#) to find the class that is right for you.



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 will give you a solid understanding of how to administer a vSphere infrastructure for an organization of any size.

This course meets the prerequisite for advanced vSphere courses, which can be found at www.vmware.com/education.

Note: This course is based on beta software.

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
- 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
- Perform basic troubleshooting of ESXi hosts, virtual machines, and vCenter Server operations

Course Modules

<p>1 Course Introduction</p> <ul style="list-style-type: none"> • Introductions and course logistics • Course objectives 	<p>7 Virtual Machine Management</p> <ul style="list-style-type: none"> • Use templates and cloning to deploy virtual machines • Modify and manage virtual machines • Perform vSphere vMotion and vSphere Storage vMotion migrations • Create and manage virtual machine snapshots • Create a vApp • Introduce the various types of content libraries and how to deploy and use them
<p>2 Software-Defined Data Center</p> <ul style="list-style-type: none"> • Introduce components of the software-defined data center • Describe where vSphere fits into the cloud architecture • Install and use vSphere Client • Overview of ESXi 	<p>8 Resource Management and Monitoring</p> <ul style="list-style-type: none"> • Introduce virtual CPU and memory concepts • Configure and manage resource pools • Describe methods for optimizing CPU and memory usage • Use vCenter Server performance graphs and alarms to monitor resource usage • Create and use alarms to report certain conditions or events • Introduce vRealize Operations Manager for data center monitoring and management
<p>3 Creating Virtual Machines</p> <ul style="list-style-type: none"> • Introduce virtual machines, virtual machine hardware, and virtual machine files • Create and work with virtual machines 	<p>9 vSphere HA and vSphere Fault Tolerance</p> <ul style="list-style-type: none"> • 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
<p>4 vCenter Server</p> <ul style="list-style-type: none"> • Introduce the vCenter Server architecture • Deploy and configure vCenter Server Appliance • Install and use vSphere Web Client • Manage vCenter Server inventory objects and licenses • Explain the benefits of Enhanced vMotion Compatibility 	<p>10 Host Scalability</p> <ul style="list-style-type: none"> • Describe the functions 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
<p>5 Configuring and Managing Virtual Networks</p> <ul style="list-style-type: none"> • Describe, create, and manage standard switches • Describe and modify standard switch properties • Configure virtual switch load-balancing algorithms • Create, configure, and manage vSphere distributed switches, network connections, and port groups 	<p>11 vSphere Update Manager and Host Maintenance</p> <ul style="list-style-type: none"> • 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 ESXi configuration compliance • Scan and remediate hosts
<p>6 Configuring and Managing Virtual Storage</p> <ul style="list-style-type: none"> • Introduce storage protocols and storage device names • Discuss ESXi with iSCSI, NFS, and Fibre Channel storage • Create and manage VMware vSphere® VMFS datastores • Introduce VMware Virtual SAN™ 	<p>12 Installing VMware Components</p> <ul style="list-style-type: none"> • Introduce ESXi installation • Describe boot-from-SAN requirements • Introduce vCenter Server deployment options • Describe vCenter Server hardware, software, and database requirements • Discuss installation of vCenter Server Appliance and a vCenter Server instance



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