

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 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.

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

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 <ul style="list-style-type: none"> • Introductions and course logistics • Course objectives • References and resources 	7	Virtual Machine Management <ul style="list-style-type: none"> • 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
2	Software-Defined Data Center <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 	8	Resource Management and Monitoring <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 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
3	Creating Virtual Machines <ul style="list-style-type: none"> • Introduce virtual machines, virtual machine hardware, and virtual machine files • Create and work with virtual machines and templates 	9	vSphere HA and vSphere Fault Tolerance <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
4	vCenter Server <ul style="list-style-type: none"> • Introduce the vCenter Server architecture • Deploy and configure vCenter Server Appliance • Use vSphere Web Client • Manage vCenter Server inventory objects and licenses 	10	Host Scalability <ul style="list-style-type: none"> • 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
5	Configuring and Managing Virtual Networks <ul style="list-style-type: none"> • 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 	11	vSphere Update Manager and Host Maintenance <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 host configuration compliance • Scan and remediate hosts
6	Configuring and Managing Virtual Storage <ul style="list-style-type: none"> • 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 	12	Installing vSphere Components <ul style="list-style-type: none"> • 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



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