VMware vSphere: Install, Configure, Manage

Course Overview

This hands-on training course explores installation, configuration, and management of VMware vSphere®, which consists of VMware ESXi™ and VMware® vCenter Server™. This course is based on versions of ESXi 5.5 and vCenter Server 5.5. Completion of this course satisfies the prerequisite for taking the VMware® Certified Professional 5 exam.

Students who complete this course can enroll in several more advanced vSphere courses. For advanced course options, go to [http://www.vmware.com/education](http://www.vmware.com/education).

Course Objectives

By the end of the course, you should understand vSphere 5.5 functions and features and be able to meet the following objectives:

- Deploy an ESXi host
- Deploy a vCenter Server instance
- Deploy a vCenter Server appliance
- Manage an ESXi host using vCenter Server
- Manage ESXi storage using vCenter Server
- Manage ESXi networking using vCenter Server
- Manage virtual machines using vCenter Server
- Deploy and manage thin-provisioned virtual machines
- Migrate virtual machines with VMware vSphere® vMotion®
- Manage vSphere infrastructure with VMware vSphere® Web Client and VMware vSphere® Client™
- Migrate virtual machines using VMware vSphere® Storage vMotion®
- Manage access control using vCenter Server
- Monitor resource usage using vCenter Server
- Manage VMware vSphere® High Availability, VMware vSphere® Fault Tolerance, and VMware vSphere® Data Protection™ using vCenter Server
- Apply patches using VMware vSphere® Update Manager™

Delivery Methods
- Instructor-led training
- Live-online
- Onsite training

Course Duration
- Five days of instructor-led training
- 60% lecture, 40% hands-on lab

Target Audience
- System administrators
- Systems engineers
- Operators of ESXi and vCenter Server

Course Suitability
- Administrator ☒
- Engineer ☒
- Architect ☐
- Expert ☐
- Advanced ☐
- 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
This course prepares you for the following certification:
- VCP5-DCV
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 [http://www.vmware.com/education](http://www.vmware.com/education) to find the class that is right for you.
# Course Modules

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| 1 | Course Introduction  
- Introductions and course logistics  
- Course objectives |
| 2 | Virtualized Data Center  
- Introduce components of the virtualized data center  
- Describe where vSphere fits into the cloud architecture  
- Install and use vSphere Client |
| 3 | Creating Virtual Machines  
- Introduce virtual machines, virtual machine hardware, and virtual machine files  
- Deploy a single virtual machine |
| 4 | VMware vCenter Server  
- Introduce the vCenter Server architecture  
- Introduce VMware® vCenter™ Single Sign-On™  
- Install and use vSphere Web Client  
- Introduce VMware® vCenter™ Server Appliance™  
- Configure and manage vCenter Server Appliance  
- Manage vCenter Server inventory objects and licenses |
| 5 | Configuring and Managing Virtual Networks  
- Describe, create, and manage a standard switch  
- Describe and modify standard switch properties  
- Configure virtual switch load-balancing algorithms |
| 6 | Configuring and Managing Virtual Storage  
- Introduce storage protocols and device names  
- Configure ESXi with iSCSI, NFS, and Fibre Channel storage  
- Create and manage vSphere datastores  
- Deploy and manage VMware® Virtual SAN™ |
| 7 | Virtual Machine Management  
- Use templates and cloning to deploy virtual machines  
- Modify and manage virtual machines  
- Create and manage virtual machine snapshots  
- Perform vSphere vMotion and vSphere Storage vMotion migrations  
- Create a VMware vSphere® vApp™ |
| 8 | Access and Authentication Control  
- Control user access through roles and permissions  
- Configure and manage the ESXi firewall  
- Configure ESXi lockdown mode  
- Integrate ESXi with Active Directory |
| 9 | Resource Management and Monitoring  
- Introduce virtual CPU and memory concepts  
- Describe methods for optimizing CPU and memory usage  
- Configure and manage resource pools  
- Monitor resource usage using vCenter Server performance graphs and alarms |
| 10 | High Availability and Fault Tolerance  
- Introduce the new vSphere High Availability architecture  
- Configure and manage a vSphere HA cluster  
- Introduce vSphere Fault Tolerance  
- Describe VMware vSphere® Replication |
| 11 | Scalability  
- Configure and manage a VMware vSphere® Distributed Resource Scheduler™ (DRS) cluster  
- Configure Enhanced vMotion Compatibility  
- Use vSphere HA and DRS together |
| 12 | Patch Management  
- Use vSphere Update Manager to manage ESXi patching  
- Install vSphere Update Manager and the vSphere Update Manager plug-in  
- Create patch baselines  
- Scan and remediate hosts |
| 13 | Installing VMware Components  
- Introduce ESXi installation  
- Describe boot-from-SAN requirements  
- Introduce vCenter Server deployment options  
- Describe vCenter Server hardware, software, and database requirements  
- Install vCenter Server (Windows-based) |