

# VMware vSphere: Install, Configure, Manage

## 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

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Administrator | <input type="checkbox"/> Expert                  |
| <input checked="" type="checkbox"/> Engineer      | <input 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

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> to find the class that is right for you.

## 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>.

## 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™



## Course Modules

<p><b>1 Course Introduction</b></p> <ul style="list-style-type: none"> <li>• Introductions and course logistics</li> <li>• Course objectives</li> </ul>	<p><b>8 Access and Authentication Control</b></p> <ul style="list-style-type: none"> <li>• Control user access through roles and permissions</li> <li>• Configure and manage the ESXi firewall</li> <li>• Configure ESXi lockdown mode</li> <li>• Integrate ESXi with Active Directory</li> </ul>
<p><b>2 Virtualized Data Center</b></p> <ul style="list-style-type: none"> <li>• Introduce components of the virtualized data center</li> <li>• Describe where vSphere fits into the cloud architecture</li> <li>• Install and use vSphere Client</li> </ul>	<p><b>9 Resource Management and Monitoring</b></p> <ul style="list-style-type: none"> <li>• Introduce virtual CPU and memory concepts</li> <li>• Describe methods for optimizing CPU and memory usage</li> <li>• Configure and manage resource pools</li> <li>• Monitor resource usage using vCenter Server performance graphs and alarms</li> </ul>
<p><b>3 Creating Virtual Machines</b></p> <ul style="list-style-type: none"> <li>• Introduce virtual machines, virtual machine hardware, and virtual machine files</li> <li>• Deploy a single virtual machine</li> </ul>	<p><b>10 High Availability and Fault Tolerance</b></p> <ul style="list-style-type: none"> <li>• Introduce the new vSphere High Availability architecture</li> <li>• Configure and manage a vSphere HA cluster</li> <li>• Introduce vSphere Fault Tolerance</li> <li>• Describe VMware vSphere® Replication</li> </ul>
<p><b>4 VMware vCenter Server</b></p> <ul style="list-style-type: none"> <li>• Introduce the vCenter Server architecture</li> <li>• Introduce VMware® vCenter™ Single Sign-On™</li> <li>• Install and use vSphere Web Client</li> <li>• Introduce VMware® vCenter™ Server Appliance™</li> <li>• Configure and manage vCenter Server Appliance</li> <li>• Manage vCenter Server inventory objects and licenses</li> </ul>	<p><b>11 Scalability</b></p> <ul style="list-style-type: none"> <li>• Configure and manage a VMware vSphere® Distributed Resource Scheduler™ (DRS) cluster</li> <li>• Configure Enhanced vMotion Compatibility</li> <li>• Use vSphere HA and DRS together</li> </ul>
<p><b>5 Configuring and Managing Virtual Networks</b></p> <ul style="list-style-type: none"> <li>• Describe, create, and manage a standard switch</li> <li>• Describe and modify standard switch properties</li> <li>• Configure virtual switch load-balancing algorithms</li> </ul>	<p><b>12 Patch Management</b></p> <ul style="list-style-type: none"> <li>• Use vSphere Update Manager to manage ESXi patching</li> <li>• Install vSphere Update Manager and the vSphere Update Manager plug-in</li> <li>• Create patch baselines</li> <li>• Scan and remediate hosts</li> </ul>
<p><b>6 Configuring and Managing Virtual Storage</b></p> <ul style="list-style-type: none"> <li>• Introduce storage protocols and device names</li> <li>• Configure ESXi with iSCSI, NFS, and Fibre Channel storage</li> <li>• Create and manage vSphere datastores</li> <li>• Deploy and manage VMware® Virtual SAN™</li> </ul>	<p><b>13 Installing VMware Components</b></p> <ul style="list-style-type: none"> <li>• Introduce ESXi installation</li> <li>• Describe boot-from-SAN requirements</li> <li>• Introduce vCenter Server deployment options</li> <li>• Describe vCenter Server hardware, software, and database requirements</li> <li>• Install vCenter Server (Windows-based)</li> </ul>
<p><b>7 Virtual Machine Management</b></p> <ul style="list-style-type: none"> <li>• Use templates and cloning to deploy virtual machines</li> <li>• Modify and manage virtual machines</li> <li>• Create and manage virtual machine snapshots</li> <li>• Perform vSphere vMotion and vSphere Storage vMotion migrations</li> <li>• Create a VMware vSphere® vApp™</li> </ul>	



VMware, Inc. 3401 Hillview Avenue Palo Alto CA 94304 USA Tel 877-486-9273 Fax 650-427-5001 [www.vmware.com](http://www.vmware.com)

© 2013 VMware, Inc. All rights reserved. The product or workshop materials is protected by U.S. and international copyright and intellectual property laws. VMware products are covered by one or more patents listed at <http://www.vmware.com/download/patents.html>. VMware is a registered trademark or trademark of VMware, Inc. in the United States and/or other jurisdictions. All other marks and names mentioned herein may be trademarks of their respective companies.

VMware warrants that it will perform these workshop services in a reasonable manner using generally accepted industry standards and practices. THE EXPRESS WARRANTY SET FORTH IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, IMPLIED, STATUTORY OR OTHERWISE INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE SERVICES AND DELIVERABLES PROVIDED BY VMWARE, OR AS TO THE RESULTS WHICH MAY BE OBTAINED THEREFROM. VMWARE WILL NOT BE LIABLE FOR ANY THIRD-PARTY SERVICES OR PRODUCTS IDENTIFIED OR REFERRED TO CUSTOMER. All materials provided in this workshop are copyrighted by VMware ("Workshop Materials"). VMware grants the customer of this workshop a license to use and make reasonable copies of any Workshop Materials strictly for the purpose of facilitating such company's internal understanding, utilization and operation of its licensed VMware product(s). Except as set forth expressly in the sentence above, there is no transfer of any intellectual property rights or any other license granted under the terms of this workshop. If you are located in the United States, the VMware contracting entity for the service will be VMware, Inc., and if outside of the United States, the VMware contracting entity will be VMware International Limited.