

# 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 responsible for ESXi and vCenter Server

## Prerequisites

System administration experience on Microsoft Windows or Linux operating systems

## 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 [www.vmware.com/education](http://www.vmware.com/education) to find the class that is right for you.

Onsite training is also available for customers who prefer to bring a VMware Certified Instructor to their own facilities. For additional information about onsite classes, including facility requirements, go to [www.vmware.com/education](http://www.vmware.com/education).

## Course Overview

This hands-on training course explores installation, configuration, and management of VMware vSphere®, which consists of VMware ESXi™ and VMware vCenter Server™. The course is based on ESXi 5.0 and vCenter Server 5.0. Completion of this course satisfies the prerequisite for taking the VMware® Certified Professional 5 exam.

Students who complete this course may enroll in any of several more advanced vSphere courses. For advanced course options, see [www.vmware.com/education](http://www.vmware.com/education).

## Course Objectives

At the end of the course, you should gain an understanding of the functionality in vSphere 5 and be able to do the following:

- Install and configure ESXi
- Install and configure vCenter Server components
- Configure and manage ESXi networking and storage using vCenter Server
- Deploy, manage, and migrate virtual machines
- Manage user access to the VMware infrastructure
- Use vCenter Server to monitor resource usage
- Use vCenter Server to increase scalability
- Use VMware vCenter™ Update Manager to apply ESXi patches
- Use vCenter Server to manage higher availability and data protection

## Course Modules

<b>1 Course Introduction</b> <ul style="list-style-type: none"> <li>• Introductions and course logistics</li> <li>• Course objectives</li> </ul>	<b>8 Data Protection</b> <ul style="list-style-type: none"> <li>• Discuss a strategy for backing up ESXi hosts and vCenter Server</li> <li>• Introduce the VMware Data Recovery appliance</li> <li>• Discuss solutions for backing up virtual machines efficiently</li> </ul>
<b>2 Introduction to VMware Virtualization</b> <ul style="list-style-type: none"> <li>• Introduce virtualization, virtual machines, and vSphere components</li> <li>• Explain the concepts of server, network, and storage virtualization</li> <li>• Describe where vSphere fits into the cloud architecture</li> <li>• Install and use vSphere user interfaces</li> </ul>	<b>9 Access and Authentication Control</b> <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> <li>• Introduce VMware vShield Zones</li> </ul>
<b>3 Create Virtual Machines</b> <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>	<b>10 Resource Management and Monitoring</b> <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>
<b>4 VMware vCenter Server</b> <ul style="list-style-type: none"> <li>• Introduce vCenter Server architecture</li> <li>• Introduce vCenter Server appliance</li> <li>• Configure and manage vCenter Server appliance</li> <li>• Manage vCenter Server inventory objects and licenses</li> </ul>	<b>11 High Availability and Fault Tolerance</b> <ul style="list-style-type: none"> <li>• Introduce new vSphere High Availability (HA) architecture</li> <li>• Configure and manage a vSphere High Availability cluster</li> <li>• Introduce VMware Fault Tolerance</li> </ul>
<b>5 Configure and Manage Virtual Networks</b> <ul style="list-style-type: none"> <li>• Describe, create, and manage a standard virtual switch</li> <li>• Describe and modify standard virtual switch properties</li> <li>• Configure virtual switch load-balancing algorithms</li> </ul>	<b>12 Scalability</b> <ul style="list-style-type: none"> <li>• Configure and manage a VMware Distributed Resource Scheduler (DRS) cluster</li> <li>• Configure Enhanced vMotion Compatibility</li> <li>• Use vSphere HA and DRS together</li> </ul>
<b>6 Configure and Manage Virtual Storage</b> <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 the VMware vSphere® Storage Appliance</li> </ul>	<b>13 Patch Management</b> <ul style="list-style-type: none"> <li>• Manage ESXi patching using vCenter Update Manager</li> <li>• Install Update Manager and Update Manager plug-in</li> <li>• Create patch baselines</li> <li>• Scan and remediate hosts</li> </ul>
<b>7 Virtual Machine Management</b> <ul style="list-style-type: none"> <li>• Deploy virtual machines using templates and cloning</li> <li>• Modify and manage virtual machines</li> <li>• Create and manage virtual machine snapshots</li> <li>• Perform VMware vSphere® vMotion® and Storage vMotion migrations</li> <li>• Create a vSphere vApp</li> </ul>	<b>14 Installing VMware Components</b> <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>



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)

© 2011 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.