

# VMware vSphere: Fast Track

## Delivery Methods

- Instructor-led
- Live-online

## Course Duration

- Five (5) extended days of instructor-led classroom training
- 60% lecture, 40% hands-on lab

## Target Audience

Experienced system administrators and system integrators willing to work hard to achieve superior vSphere skills with minimal time away from the office

## Prerequisites

- Willingness to participate in a demanding, high-intensity training experience
- Comfort with system administration using command-line interfaces

## 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.

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 <http://www.vmware.com/education>.

## Course Overview

This *intensive, extended-hours* training course focuses on installing, configuring, and managing VMware vSphere® 5. It combines the content of the VMware vSphere: Install, Configure, Manage course with advanced tasks and skills for configuring a highly available and scalable virtual infrastructure. The course is based on VMware ESXi™ 5.0 and VMware 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, go to <http://www.vmware.com/education>.

## Course Objectives

At the end of the course, you should be able to do the following:

- Configure and manage ESXi networking and storage.
- Create, configure, migrate, manage, convert, and monitor virtual machines and virtual appliances.
- Manage user access to the virtual infrastructure.
- Use vCenter Server to monitor resource usage.
- Scale the vSphere virtual infrastructure.
- Implement business continuity solutions.
- Manage changes to the vSphere environment.
- Use a command-line interface to manage vSphere.
- Install and configure ESXi and vCenter Server.
- Use vSphere Auto Deploy to provision ESXi hosts.

## 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 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>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 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>• Use vCenter Server performance graphs and alarms to monitor resource usage</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 High Availability and Fault Tolerance</b> <ul style="list-style-type: none"> <li>• Introduce new vSphere High Availability architecture</li> <li>• Configure and manage a vSphere HA cluster</li> <li>• Introduce vSphere Fault Tolerance</li> </ul>
<b>4 VMware vCenter Server</b> <ul style="list-style-type: none"> <li>• Introduce vCenter Server architecture</li> <li>• Manage vCenter Server inventory objects and licenses</li> </ul>	<b>11 Host Scalability</b> <ul style="list-style-type: none"> <li>• Use Host Profiles to manage ESXi configuration compliance</li> <li>• Configure and manage a vSphere Distributed Resource Scheduler cluster</li> <li>• Configure and manage vSphere Distributed Power Management</li> </ul>
<b>5 Configuring and Managing 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 Network Scalability</b> <ul style="list-style-type: none"> <li>• Create, configure, and manage vNetwork distributed switches, network connections, and port groups</li> </ul>
<b>6 Configuring and Managing 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>• Introduce VMware vSphere® Storage Appliance</li> </ul>	<b>13 Storage Scalability</b> <ul style="list-style-type: none"> <li>• Introduce Storage I/O Control</li> <li>• Describe VMware vSphere® Storage APIs - Array Integration and VASA</li> <li>• Explain policy-driven storage</li> <li>• Add a storage policy to a virtual machine storage profile</li> <li>• Describe Storage DRS operation</li> <li>• Create a datastore cluster for Storage DRS</li> <li>• Configure Storage DRS</li> </ul>
<b>7 Virtual Machine Management</b> <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 VMware vSphere® vMotion® and vSphere Storage vMotion migrations</li> <li>• Create a vSphere vApp</li> </ul>	<b>14 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>



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)

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**15 Patch Management**

- Use VMware vSphere® vCenter Update Manager to manage ESXi patching
- Install Update Manager and the Update Manager plug-in
- Create patch baselines
- Scan and remediate hosts

**17 Installing VMware Components**

- Use vCenter Linked Mode to manage multiple vCenter Server inventories
- Introduce ESXi installation
- Describe boot-from-SAN requirements
- Describe vCenter Server hardware, software, and database requirements
- Install vCenter Server (Windows-based)
- Introduce VMware vCenter Server Appliance
- Configure and manage vCenter Server Appliance
- Use Image Builder to create an ESXi installation image
- Use Auto Deploy to deploy a stateless ESXi host

**16 VMware vSphere Management Assistant**

- Describe VMware vSphere® Management Assistant (vMA)
- Configure vMA
- Discuss the esxcli and vicfg commands
- Perform command-line operations for host management, network management, storage management, and performance monitoring



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