

## **VMware vSphere – Install, Configure and Manage**

### **Course details**

**In association with Infocloud Technologies VMware Authorized training partner**

**Location: Pune**

**Course Outline:**

#### **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

<b>1</b>	<b>Course Introduction</b> <ul style="list-style-type: none"> <li>• Introductions and course logistics</li> <li>• Course objectives</li> </ul>
<b>2</b>	<b>Virtualized Data Center</b> <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>
<b>3</b>	<b>Creating 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>4</b>	<b>VMware vCenter Server</b> <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>
<b>5</b>	<b>Configuring and Managing Virtual Networks</b> <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>
<b>6</b>	<b>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>• Deploy and manage VMware® Virtual SAN™</li> </ul>
<b>7</b>	<b>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 vSphere vMotion and vSphere Storage vMotion migrations</li> <li>• Create a VMware vSphere® vApp™</li> </ul>
<b>8</b>	<b>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> </ul>
<b>9</b>	<b>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>10</b>	<b>High Availability and Fault Tolerance</b> <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>
<b>11</b>	<b>Scalability</b> <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>
<b>12</b>	<b>Patch Management</b> <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>

<b>13</b>	<b>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>
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