**vmware** EDUCATION SERVICES

# VMware vSphere: Overview

**Delivery Methods**

- Instructor-led training
- Live-online
- Onsite training

**Course Duration**

- One day of instructor-led training
- 55% lecture, 45% hands-on lab

**Target Audience**

This course is designed for technical persons responsible for evaluating vSphere 5, including IT managers, system architects, and system administrators.

**Prerequisites**

System administration knowledge or experience on Microsoft Windows or Linux operating systems is helpful

**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 hands-on training course introduces the most compelling features of VMware vSphere® 5, which is the foundational component of the cloud infrastructure suite of software from VMware®. This course demonstrates vSphere features that help reduce your IT costs while improving efficiency, availability, scalability, flexibility, and manageability. The course is based on VMware ESXi™ 5.0 and VMware vCenter Server™ 5.0.

For students who want more in-depth vSphere training, VMware Education offers a variety of other courses. Go to http://www.vmware.com/education for your course options.

## Course Objectives

By the end of the course, you will be able to explain vSphere 5.0 storage, network, and virtualization concepts and have hands-on experience with the following:

- Using the VMware vSphere® Client™ to deploy and manage virtual machines
- Using VMware vSphere® vMotion® to migrate live virtual machines
- Using vSphere Storage vMotion to migrate live virtual machine data
- Configuring ESXi clusters to automatically balance virtual machine workloads
- Hierarchically allocating CPU and memory resources to specific business functions
- Using vCenter Server alarms and performance graphs to actively monitor the datacenter

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# Course Modules

**1  Course Introduction**
- Understand the course goals
- Understand the course objectives
- Become familiar with the course outline

**2  Virtual Infrastructure Overview**
- Describe server virtualization concepts
- Identify vSphere components, including vCenter Server, ESXi, and the vSphere Client
- View and describe virtual network and storage components
- Learn to use the vSphere Client management interface

**3  Creating Virtual Machines**
- Describe virtual machine virtual hardware components
- Create and use templates to deploy virtual machines
- Describe the functionality and benefits of installing VMware Tools on virtual machines
- Automate guest operating system customization

**4  Allocating Compute Resources to Business Functions**
- Describe CPU and memory resource management techniques used in ESXi
- Use virtual machine resource controls to allocate CPU and memory resources
- Use resources pools to hierarchically allocate CPU and memory resources

**5  Migrating Virtual Machines**
- Describe the operation and benefits of vMotion and Storage vMotion
- Use vMotion to migrate a live virtual machine
- Use Storage vMotion to migrate a live virtual machine's data

**6  Balancing Virtual Machine Workloads**
- Describe the operation and scalability benefits of vSphere Distributed Resource Scheduler (DRS)
- Configure a DRS cluster and resource pools
- Describe the operation and scalability benefits of Storage DRS
- Configure a Storage DRS cluster
- Describe the operation and cost benefits of vSphere Distributed Power Management

**7  Monitoring the Virtual Datacenter**
- Describe vCenter Server monitoring capabilities, including performance graphs and alarms
- Use performance graphs to monitor ESXi hosts
- Configure ESXi host and virtual machine alarms

**8  High Availability and Fault Tolerance**
- Describe the operation and availability benefits of vSphere High Availability
- Configure a vSphere HA cluster
- Describe the operation and availability benefits of VMware Fault Tolerance
- Configure a virtual machine for fault tolerance

**9  Extending VMware vSphere Capabilities**
- Discuss how different VMware products and features work together to reduce the costs and improve the efficiency, availability, flexibility, and manageability of your datacenter

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