

# VMware vSphere: Install, Configure, Manage

## Overview

This hands-on training course explores installation, configuration, and management of VMware® vSphere™, which consists of VMware ESX™/ESXi and VMware vCenter™ Server. The course is based on ESX/ESXi 4 and vCenter Server 4. Upon completion of this course, you can take the examination to qualify as a VMware Certified Professional.

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

## Course Objectives

At the end of the course, you should gain an understanding of the functionality in VMware vSphere 4 and be able to:

- Install and configure ESX or ESXi
- Install and configure vCenter Server components
- Configure and manage ESX/ESXi networking and storage using vCenter Server
- Deploy, manage, and migrate virtual machines
- Manage user access to the VMware infrastructure
- Monitor resource usage using vCenter Server
- Increase scalability using vCenter Server
- Apply ESX/ESXi patches using VMware vCenter Update Manager
- Manage higher availability and data protection using vCenter Server

Best practices and lab exercises are interspersed throughout the course.

## Pricing and Scope

- Five days of instructor-led classroom training
- 50% lecture and 50% hands-on lab
- Individual enrollment available at convenient locations worldwide at <http://www.vmware.com/education>
- Contact your VMware representative for pricing information.
- Onsite training available for companies that want the benefits of instructor-led classes without travel.
- Contact VMware Education to discuss facility requirements for onsite training at [education@vmware.com](mailto:education@vmware.com).

## Target Audience

System administrators, systems engineers, and operators responsible for ESX, ESXi, and vCenter Server

## Prerequisites

System administration experience on Microsoft Windows or Linux operating systems

## Course Outline

Module 1: Course Introduction

Module 2: Introduction to VMware Virtualization

- Introduce virtualization, the cloud, and vSphere components

Module 3: Configuring ESX/ESXi

- Introduce the architecture of ESX and ESXi
- Manually configure ESX/ESXi

Module 4: VMware vCenter Server

- Install and configure vCenter Server components
- Manage vCenter Server inventory objects

Module 5: vNetwork Standard Switches

- Create, configure, and manage vNetwork standard switches, network connections, and port groups

Module 6: Storage

- Configure ESX/ESXi with iSCSI, NFS, and Fibre Channel storage
- Create and manage vSphere datastores

Module 7: Virtual Machines

- Deploy virtual machines using the Create New Virtual Machine wizard, templates, cloning, and VMware vCenter Converter
- Modify and manage virtual machines
- Perform Storage vMotion migrations

Module 8: Access Control

- Control user access through roles and permissions

Module 9: Resource Monitoring

- Control virtual machine access to CPU, memory, and I/O resources
- Monitor resource usage using vCenter Server performance graphs and alarms

Module 10: Data Protection

- Back up and recover virtual machines using VMware Data Recovery

**Module 11: Scalability**

- Manage multiple vCenter Server inventories using VMware vCenter Linked Mode
- Manage ESX/ESXi configuration compliance using Host Profiles
- Create, configure, and manage vNetwork distributed switches, network connections, and port groups
- Perform VMware vMotion™ migrations
- Configure and manage a VMware Distributed Resource Scheduler cluster
- Configure and manage VMware Distributed Power Management

**Module 12: Patch Management**

- Manage patching and patch compliance using vCenter Update Manager

**Module 13: High Availability and Fault Tolerance**

- Configure and manage a VMware High Availability cluster
- Configure fault-tolerant virtual machines using VMware Fault Tolerance

**Module 14: Installing VMware ESX and ESXi**

- Introduce ESX and ESXi Installable installation



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