

## VMware vSphere: Fast Track [V4.1]

**Duration:** 5 Days

### Course Description

This authorized training course maps to the content of VMware vSphere: Automation Fast Track and satisfies the coursework requirement for the VCP certification.

This fast-paced, extended-hours training course includes the content of the VMware vSphere: Install, Configure, Manage [V4.1] and VMware vSphere: Automation with vSphere PowerCLI [V4.x] courses. In this hands-on course, you will explore installation, configuration, and management of VMware® vSphere™ using the VMware vSphere Client and VMware vSphere PowerCLI. You will spend approximately 50% of instruction time completing more than 35 hands-on labs.

Based on VMware ESX™/ESXi 4.1 and VMware vCenter™ Server 4.1, this course satisfies the coursework requirement for the VMware Certified Professional (VCP) certification and serves as excellent VCP exam preparation. In this course, you will be exposed to the command line environment, which is covered on the VCP exam.

This course includes a prepaid voucher for the VCP4 exam.

### Audience

- System administrators
- Systems engineers
- IT managers
- Operators responsible for VMware ESX, ESXi, and VMware vCenter Server

### Prerequisites:

- System administration experience on Microsoft Windows or Linux
- Experience scripting in Windows PowerShell, VBScript, Perl, UNIX, or other languages featuring variables and control structures

### Course Outline

#### INSTALL, CONFIGURE, MANAGE MODULES

##### 1. Introduction to VMware Virtualization

- Virtualization, virtual machines, and vSphere components

##### 2. VMware ESX and ESXi

- Architecture of ESX and ESXi
- Manually configure ESX/ESXi

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### 3. VMware vCenter Server

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

### 4. Networking

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

### 5. Storage

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

### 6. 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

### 7. Access Control

- Control user access through roles and permissions

### 8. Resource Monitoring

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

### 9. Data Protection

- Back up and recover virtual machines using VMware Data Recovery

### 10. 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

### 11. High Availability

- Configure and manage a VMware High Availability cluster

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- Configure fault-tolerant virtual machines using VMware Fault Tolerance

### 12. Patch Management

- Manage patching and patch compliance using vCenter Update Manager

### 13. Installing VMware ESX and ESXi

- ESX and ESXi Installable installation

## AUTOMATION WITH VSPHERE POWERCLI MODULES

### 1. vSphere PowerCLI

- Define the main vSphere PowerCLI object
- Define the main commandlets in vSphere PowerCLI
- Connect to a vSphere infrastructure
- Get help for commandlets

### 2. Automating ESX Host Configuration

- Automate configuration of virtual switches on ESXi hosts
- Automate configuration of datastores on ESXi hosts

### 3. Virtual Machine Provisioning, Configuration, and Protection

- Automate creation of virtual machines
- Change virtual machine settings programmatically
- Run vSphere PowerCLI scripts in virtual machines
- Automate virtual machine protection

### 4. Automating Cluster Operations

- Automate virtual machine storage migration
- Automate VMware vMotion
- Create a VMware Distributed Resource Scheduler/VMware High Availability cluster
- Automate cluster configuration
- Automate resource pool creation and configuration

### 5. Automating Reporting

- Automate reporting about virtual machines
- Automate reporting about ESXi hosts
- Automate reporting about clusters