

VMware vSphere: Fast Track (Version 5.0)

Course Length: 5 Days

Course Description

Overview: This intensive training course focuses on installing, configuring, and managing VMware vSphere® 5. This course 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.

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

Course Content

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| Lesson 1 – Course Introduction | <ul style="list-style-type: none">• Introductions and course logistics• Course objectives |
| Lesson 2 – Introduction to VMware Virtualization | <ul style="list-style-type: none">• Introduce virtualization and vSphere components• Explain the concepts of server, network, and storage virtualization• Describe where vSphere fits into the cloud architecture• Install and use vSphere user interfaces• Describe the ESXi architecture and configure various ESXi settings |

Lesson 3 – Creating Virtual Machines

- Introduce virtual machines, virtual machine hardware, and virtual machine files
- Deploy a single virtual machine

Lesson 4 – VMware vCenter Server

- Introduce vCenter Server architecture
- Manage vCenter Server inventory objects and licenses

Lesson 5 – Configuring and Managing Virtual Networks

- Describe, create, and manage a standard virtual switch
- Describe and modify standard virtual switch properties

Lesson 6 – Configuring and Managing Virtual Storage

- Introduce storage protocols and device names
- Configure ESXi with iSCSI, NFS, and Fibre Channel storage
- Create and manage VMware vSphere® VMFS datastores
- Introduce VMware vSphere® Storage Appliance

Lesson 7 – Virtual Machine Management

- Use templates and cloning to deploy virtual machines
- Modify and manage virtual machines
- Create and manage virtual machine snapshots
- Perform VMware vSphere vMotion® and vSphere Storage vMotion migrations
- Create a vSphere vApp
- Use VMware vCenter Converter™ Standalone to hot-clone a system

Lesson 8 – Access and Authentication Control

- Control user access through roles and permissions
- Discuss ESXi host access and authentication
- Integrate ESXi with Active Directory
- Introduce VMware® vShield™ products

Lesson 9 – Resource Management and Monitoring

- Introduce virtual CPU and memory concepts
- Describe methods for optimizing CPU and memory usage
- Configure and manage resource pools
- Use vCenter Server performance graphs and alarms to monitor resource usage

Lesson 10 – High Availability and Fault Tolerance

- High Availability and Fault Tolerance
- Configure and manage a vSphere HA cluster
- Introduce vSphere Fault Tolerance

Lesson 11 – Host Scalability

- Use Host Profiles to manage ESXi configuration compliance
- Configure and manage a vSphere Distributed Resource Scheduler™ cluster
- Configure and manage vSphere Distributed Power Management

Lesson 12 – Network Scalability

- Create, configure, and manage vNetwork distributed switches, network connections, and port groups
- Discuss distributed virtual switch features, such as PVLANS, discovery protocols, Network I/O Control, NetFlow, and port mirroring

Lesson 13 – Storage Scalability

- Describe VMware vSphere® Storage APIs - Array Integration and Storage Awareness
- Explain profile-driven storage
- Add a storage policy to a virtual machine storage profile
- Introduce storage I/O control
- Create a datastore cluster for Storage DRS™
- Configure Storage DRS

Lesson 14 – Data Protection

- Discuss a strategy for backing up ESXi hosts and vCenter Server
- Introduce the VMware® Data Recovery appliance
- Discuss solutions for efficiently backing up virtual machines

Lesson 15 – Patch Management

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

Lesson 16 – VMware vSphere Management Assistant

- Describe VMware vSphere® Management Assistant (vMA)
- Configure vMA
- Discuss the VMware vSphere® Command-Line Interface command set
- Perform command-line operations for host management, network management, storage management, and performance monitoring

Lesson 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 vCenter Server Appliance
- Install and configure vCenter Server Appliance
- Use Image Builder to create an ESXi installation image
- Use Auto Deploy to deploy a stateless ESXi host