

5 Days

## VMware vSphere: Install, Configure, Manage plus Optimize and Scale Fast Track [V6.0]

VMware vSphere ICM Plus Optimize and Scale Fast Track V6.0 is an extended-hours training course, as suggested by the name fast track, that majorly focuses on how to Install, Configure, and Manage the VSphere 6 infrastructure, that is inclusive of VMware ESXi 6.0 and VMware vCenter Server 6.0.

This course provides a comprehensive curriculum of its two major courses of VSphere namely the VMware VSphere Install, Configure, Manage with the VMware VSphere Optimize & Scale that provide advanced scalability requisite skills to deploy a highly scalable and available VSphere infrastructure.

Through hands-on lab experiences and intensive training methods, the candidates get practical experience to deploy the advanced tools and technologies to manage risks on the vSphere environment.

## Course Details

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### Course Outline

#### 1. Course Introduction

- Introduction to course logistics
- Course objectives
- References and resources

#### 2. Software-Defined Data Center

- Introducing components of the software-defined data center
- Describing where vSphere fits into the cloud architecture
- Installation and use of vSphere Client
- Overview of ESXi

#### 3. Creating Virtual Machines

- Introducing virtual machines, virtual machine hardware, and virtual machine files
- Use a single virtual machine

#### **4. vCenter Server**

- vCenter Server architecture Introduction
- Using vSphere Web Client
- Managing vCenter Server inventory objects and licenses
- Deploy and configure vCenter Server Appliance

#### **5. Configuring and Managing Virtual Networks**

- Create, and Manage a standard switch
- Discuss and modify standard switch properties
- Define the NIC teaming of a standard switch port group

#### **6. Configuring and Managing Virtual Storage**

- Introducing storage protocols and device names
- Introducing Virtual SAN datastores
- Introducing Virtual Volumes
- Configuring ESXi with iSCSI and NFS storage
- Create and manage VMFS datastores

#### **7. Virtual Machine Management**

- Introducing content libraries
- Create and manage virtual machine snapshots
- Creating VMware vSphere® vApp(s)™
- Modify and manage virtual machines
- Perform vSphere vMotion and vSphere Storage vMotion migrations
- Deploy templates and cloning to deploy virtual machines

#### **8. Access and Authentication Control**

- Controlling user access through roles and permissions
- Describe ESXi host access and authentication
- Integrating ESXi with Active Directory

#### **9. Resource Management and Monitoring**

- Introducing virtual CPU and memory concepts
- Describe methods for optimizing CPU and memory usage
- Configure and manage resource pools

- Using vCenter Server performance graphs and alarms to monitor resource usage

## **10. vSphere HA and vSphere Fault Tolerance**

- Describe the vSphere HA architecture
- Configure and manage a vSphere HA cluster
- Deploy vSphere HA advanced parameters
- Introducing vSphere Fault Tolerance
- Enable vSphere Fault Tolerance on virtual machines
- Introducing VMware vSphere® Replication™
- Use vSphere Data Protection to backup and restore data

## **11. Network Scalability**

- Discuss distributed switch features, such as private VLANs, discovery protocols, Network I/O Control, NetFlow, and port mirroring
- Create, Configure, and Manage vSphere distributed switches, network connections, and port groups

## **12. Host Scalability**

- Deploy host profiles to manage ESXi configuration compliance
- Configure and manage a vSphere DRS cluster
- Configure Enhanced vMotion Compatibility
- Deploy vSphere HA and vSphere DRS together

## **13. Storage Scalability**

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

## **14. Patch Management**

- Use vSphere Update Manager to manage ESXi patching
- Installation of vSphere Update Manager and the vSphere Update Manager plug-in
- Creation of patch baselines
- Scan and remediate hosts

## 15. VMware Management Resources

- Describing VMware vSphere® Management Assistant
- Configure vSphere Management Assistant
- Discuss the VMware vSphere® Command-Line Interface command set
- Performing Command-line operations for host management, network management, performance monitoring, and storage management

## 16. Installing VMware Components

- Introducing ESXi installation
- Describe vCenter Linked Mode to manage multiple vCenter Server inventories
- Describing boot-from-SAN requirements
- Describing vCenter Server hardware, software, and database requirements
- Installation of vCenter Server (Windows-based)

## 17. Host and Management Scalability

- Configure and manage VMware vSphere® Distributed Power Management™
- Use VMware vSphere® PowerCLI™
- Use vSphere Auto Deploy to deploy a stateless ESXi host
- Use vSphere ESXi Image Builder CLI to create an ESXi installation image

# Who Should Attend

VMware vSphere Install, Configure, and Manage Plus Optimize and Scale Fast Track V6.0 training course is ideal for those working with the profiles :

- Systems engineers
- System integrators
- Experienced system administrators
- Administrators with fundamental knowledge of virtualization

# Pre Requisite

Required prerequisites include completion of one of the following:

- Hands-on experience with vSphere
- System Administration experience on Microsoft Windows or Linux Operating System
- Conceptual knowledge presented in the VMware Data Center Virtualization Fundamentals course or VCA-DCV certification

## Exams

VMware Certified Professional (VCP) [VCP6-DCV]

VMware Certified Associate (VCA) [VCA]

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