



## 5 Days

# VMware vSphere: Install, Configure, Manage [V6.7]

This five-day intensive hands-on training course enables you to install, configure, and manage VMware vSphere® 6.7, VMware ESXi™ 6.7 and VMware vCenter Server® 6.7. It helps you to administer the vSphere infrastructure for your organization irrespective of size.

The course forms the foundation for several VMware technologies in the software-defined data center. It aligns with the product ESXi 6.7 and vCenter Server 6.7.

#### **Course Objective:**

On completion of the course, you will be able to

- Describe software-defined data center, vCenter Server architecture, vSphere standard switches, vSphere components and their function, Discuss (vSphere HA) cluster architecture, and Fibre Channel and VMware vSAN<sup>TM</sup> features and functions
- Use vCenter Server, Local content library as ISO store, VMware vSphere® Replication™, VMware vSphere®
  Data Protection™, VMware vSphere® Distributed Resource Scheduler™, VMware vSphere® Update
  Manager™.
- Add ESXi hosts to the VMware vCenter® Server Appliance™
- Configure and manage
  - vCenter Server Appliance
  - vSphere infrastructure with VMware Host Client™ and VMware vSphere® Client™
  - Resource usage, and resource pools
  - vSphere HA
  - vSphere HA and VMware vSphere® Fault Tolerance
  - Standard switch policies
  - Host storage Types: VMware vSphere® VMFS, NFS, iSCSI, and RDM
  - Virtual machines, templates, clones, and snapshots
- Migration of Virtual machines with VMware vSphere® vMotion®; Virtual machine storage with VMware vSphere® Storage vMotion®
- · Troubleshooting methodologies

## **Course Details**

## Course Outline

#### 1. Course Introduction

- Introduction, logistics, objectives, and content
- VMware education benefits
- Additional resources

## 2. Introduction to vSphere and the Software-Defined Data Center

- vSphere in the software-defined data center
- vSphere Interaction: CPUs, Memory, Network, Storage
- Access and manage vCenter Server system and ESXi host
- Virtual network adapters, VMXNET3, Virtual disk provisioning types
- ESXi host settings installation and configuration

#### 3. Creating Virtual Machines

- · Create, provision, and remove a virtual machine
- VMware Tools™ significance
- Import virtual appliance OVF template

#### 4. vCenter Server

- vCenter Server architecture
- ESXi hosts communication with vCenter Server
- Access and configure vCenter Server Appliance
- Manage the vCenter Server inventory
- · Add data center, organizational objects, and hosts to vCenter Server
- Create custom inventory tags, custom role, vCenter Server Appliance backup schedule
- · Rules for applying for permissions
- Monitoring and restorage of vCenter Server Appliance

#### 5. Configuring and Managing Virtual Networks

- · Standard switches: configuration and management
- · Configure virtual switch security
- vSphere distributed and standard switches
- Virtual switch connection types
- TCP/IP stack architecture
- Use of VLANs with standard switches

#### 6. Configuring and Managing Virtual Storage

- · Storage protocols and device types
- Use of iSCSI, NFS, and Fibre Channel storage
- VMware vSphere® VMFS and NFS datastores
- Multipathing works
- Advantages of VMware vSAN™

### 7. Virtual Machine Management

- Deploy, modify, customize, and, manage new virtual machines
- Modify and manage virtual machines
- Instant cloning of a virtual machine
- · Content libraries types and deployment
- · Migration of vSphere vMotion and Storage
- · Virtual machine snapshots

#### 8. Resource Management and Monitoring

- CPU and memory concepts
- Resource overcommitment of a resource means
- Resource pools management and configuration
- CPU optimization and memory usage
- Creation and use of alarms

## 9. vSphere HA, vSphere Fault Tolerance, and Protecting Data

- vSphere HA architecture, configuration, and, management
- Use vSphere HA advanced parameters
- Infrastructural or intra-app dependencies
- vSphere Fault Tolerance, features, support, interoperability, and functions
- vSphere Replication features and functions

#### 10. vSphere DRS

- · vSphere DRS cluster creation and functions
- Configuration of
  - · Virtual machine affinity
  - DRS groups

- VM-host affinity rules
- · Removal of the host from a vSphere DRS cluster

### 11. vSphere Update Manager

- Architecture, Components, and Capabilities
- ESXi, virtual machines, and vApps patching
- vSphere Update Manager EAM integration features and functions
- Integration of vSphere Update Manager with vSphere DRS

### 12. vSphere Troubleshooting

- Diagnosis, Application, review, and enhancement of troubleshooting efficiency
- Log files and use of vSphere Syslog Collector

## Who Should Attend

- System administrators
- System engineers

## Pre Requisite

- System administration experience on
  - o Microsoft Windows or
  - Linux operating systems

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