

5 Days

## VMware vSphere: Install, Configure, Manage and Optimize and Scale Fast Track [V6.5]

VMware vSphere ICM and Optimize and Scale Fast Track [V6.5] is an intensive training course that takes you from introductory to advanced VMware vSphere® management skills. You will be able to install, configure, and optimize vSphere 6.5 through a mix of lecture and hands-on labs.

You will also explore the features that build a foundation for a scalable infrastructure, and discuss when and where these features have the greatest effect. This course prepares you to administer a vSphere infrastructure for an organization of any size using vSphere 6.5, which includes VMware ESXi™ 6.5 and VMware vCenter Server® 6.5.

### Product Alignment

- ESXi 6.5
- vCenter Server 6.5

### Objectives:

You should be able to meet the following objectives after the completion of the course:

- Use vSphere distributed switches to improve network scalability
- Perform basic troubleshooting of ESXi hosts, virtual machines, and vCenter Server
- Monitor resource usage and manage resource pools machines and perform data recovery
- Describe the software-defined data center
- Configure VMware vSphere® Storage DRS™

### Certifications

You can prepare for the following certification through this course –

VCP6-DCV VMware Certified Professional 6 – Data Center Virtualization

## Course Details

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### Course Outline

#### 1. Course Introduction

- Introductions and course logistics
- Familiarize yourself with the benefits of the VMware Education Learning Zone
- Describe the content of this course

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

- Explain the vSphere virtual infrastructure
- Describe the topology of a physical data center
- The similarity and difference between physical and virtual architectures

## **3. Creating Virtual Machines**

- Introduce virtual machines, virtual machine hardware, and virtual machine files
- Identify the virtual machine disk format
- Explain the importance of VMware Tools™

## **4. vCenter Server**

- Manage vCenter Server inventory objects and licenses
- Examine the new vSphere authentication proxy
- Access and navigate the new vSphere clients

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

- Use VLANs with standard switches
- Describe, create, and manage standard switches
- Describe the new TCP/IP stack architecture

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

- Introduce VMware vSAN™
- Describe the new features of VMFS 6.5
- Create and manage VMware vSphere® VMFS and NFS datastores

## **7. Virtual Machine Management**

- Learn to Use templates and cloning to deploy new virtual machines
- Upgrade virtual machine hardware to version 12
- Clone a virtual machine

## **8. Resource Management and Monitoring**

- Use vCenter Server performance charts and esxtop to analyze vSphere performance
- Describe methods for optimizing CPU and memory usage
- Create, clone, and export vApps

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

- Use vSphere HA advanced parameters
- Introduce vSphere Fault Tolerance
- Describe vSphere HA heartbeat networks and datastore heartbeats

## **10. vSphere DRS**

- Work with affinity and anti-affinity rules
- Configure and manage a vSphere DRS cluster
- Learn to Perform preemptive actions to prepare for CPU or memory changes

## **11. Network Scalability**

- Explain distributed switch features such as port mirroring, LACP, QoS tagging, and NetFlow
- Configure and manage vSphere distributed switches

## **12. vSphere Update Manager**

- Create Path Business
- Learn How to Use vSphere Update Manager to manage ESXi, virtual machine, and vApp patching
- Scan and remediate hosts

## **13. Storage Scalability**

- Explain VMware vSphere® Storage APIs for Array Integration and Awareness™
- Configure and assign virtual machine storage policies
- Configure vSphere Storage DRS and I/O Control

## **14. Network Scalability**

- Configure vSphere to encrypt virtual machines, core dumps, and vSphere vMotion migrations

## **Who Should Attend**

- System engineers

- System administrators

## Pre Requisite

System administration experience on Linux operating systems or Microsoft Windows

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