

5 Days

## VMware vSphere: Optimize and Scale [V5.5]

VMware vSphere Optimize and Scale 5.5 training course will equip professionals to configure and manage a highly scalable virtual infrastructure. The course has its basic components on the processes of ESXi 5.5 and vCenter Server 5.5 hosts.

Training in this course will help you to manage and optimize any changes to vSphere components, troubleshoot operational faults, and also manage the ESXi networking.

Along with VMware vSphere Install, Configure & Manage 5.5, this VMware vSphere v5.5 certification course will qualify you for the Datacenter Administration V5 certification (VCAP5-DCA).

## Course Details

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### Course Outline

#### 1. Course Introduction

- Introduction to Course logistics
- Course Objectives

#### 2. VMware Management Resources

- Deploy and Configure vSphere Management Assistant
- Use the ESXCLI, VICFG, and VMware-CMD commands
- Configuring ESXi technical support mode and SSH access
- Review ESXi and vCenter Server log files

#### 3. Performance in a Virtualized Environment

- Review the vSphere performance troubleshooting methodology
- Explaining software and hardware virtualization techniques and their effects on performance
- Using vSphere performance monitoring tools

#### 4. Network Scalability

- Create, Configure, and Manage vSphere distributed switches
- Covers Migrating Virtual machines from standard switches to distributed switches
- Explaining distributed switch features such as port mirroring, private VLANs, VMware vSphere® Network I/O Control, QoS tagging, LACP, and NetFlow

#### 5. Network Optimization

- Discuss the performance features of network adapters
- Discuss the performance features of vSphere networking
- Monitor key network performance metrics
- Using vSphere Management Assistant to manage virtual network configurations
- Troubleshoot common network performance problems

#### 6. Storage Scalability

- Explaining vSphere storage APIs for array integration and storage awareness
- Configure and assign virtual machine storage policies
- Configure VMware vSphere® Storage I/O Control and VMware vSphere® Storage DRS™

## 7. Storage Optimization

- Diagnose storage access problems
- Configuring vSphere® Flash Read Cache™
- Monitor key storage performance metrics
- Troubleshoot common storage performance problems
- Use vSphere Management Assistant to manage virtual storage
- Explain how storage protocols, VMware vSphere® VMFS configuration, load balancing, and queuing affect performance

## 8. CPU Optimization

- Monitor key CPU performance metrics
- Troubleshoot common CPU performance problems
- Explain the CPU scheduler operation, NUMA support, and other features that affect CPU performance

## 9. Memory Optimization

- Monitor key memory performance metrics
- Troubleshoot common memory performance problems
- Explain ballooning, host swapping, and memory compression techniques for memory reclamation when memory is overcommitted

## 10. Virtual Machine and Cluster Optimization

- Troubleshoot virtual machine power-on failures
- Troubleshoot vSphere cluster problems
- Discussing performance guidelines for virtual machines, resource pools, VMware vSphere® Distributed Resource Scheduler™ clusters, resource allocation settings, and VMware vSphere® High Availability admission control policies

## 11. Host and Management Scalability

- Explaining VMware vSphere® Distributed Power Management™
- Using Host Profiles to manage ESXi configuration compliance
- Using vSphere Auto Deploy to provision ESXi hosts
- Using VMware vSphere® PowerCLI™ to perform vSphere administrative tasks
- Using Image Builder to create an ESXi installation image

# Who Should Attend

VMware vSphere optimize and scale 5.5 training course is suitable for:

- Operations Team
- Systems Engineers
- vSphere Consultants
- Virtualization Administrators

# Pre Requisite

Required prerequisites include completion of one of the following:

- VMware vSphere: What's New [V5.5]
- VMware vSphere: Fast Track
- VMware vSphere: Install, Configure, Manage [V5.5]

Experience working at the command prompt is highly recommended.

“OR”

Knowledge and Administration Experience with ESXi and vCenter Server.

## Exams

VMware Certified Professional (VCP) [VCAP5-DCA]

VMware Certified Associate (VCA) [VCA]

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