



VMware vSphere: Optimize and Scale (V6.5)

Outline for this course:

1. Course Introduction

- Introductions and course logistics
- Course objectives
- Identify additional resources for after this course
- Identify other VMware Education offerings
- Describe the user interfaces available in vSphere 6.5

2. Network Scalability

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

3. Storage Scalability

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

4. Host and Management Scalability

- Explain the uses of VMware vCenter® Converter™
- Define and use content libraries
- Describe and use host profiles
- Describe and use VMware vSphere® ESXi™ Image Builder CLI and vSphere Auto Deploy

5. CPU Optimization

- Explain the CPU scheduler operation, NUMA support, and other features that affect CPU performance
- Use esxtop to monitor key CPU performance metrics

6. Memory Optimization

- Explain ballooning, memory compression, and host-swapping techniques for memory reclamation when memory is overcommitted
- Use esxtop to monitor key memory performance metrics

7. Storage Optimization

- Describe storage queue types and other factors that affect storage performance
- Use esxtop to monitor key storage performance metrics

8. Network Optimization

- Explain the performance features of network adapters

- Explain the performance features of vSphere networking
- Use esxtop to monitor key network performance metrics

9. Analyzing vSphere

- Explain how Proactive DRS enhances virtual machine availability
- Use vRealize Log Insight to identify and troubleshoot issues

10. vCenter Server Availability and Performance

- Describe the high availability options for vCenter Server and VMware Platform Services Controller™
- Describe and use VMware vCenter Server® High Availability
- Identify the factors that influence vCenter Server performance
- Migrate a Windows vCenter Server 5.5 system to vCenter Server Appliance 6.5

11. vSphere Security

- Configure ESXi host access and authorization
- Secure ESXi, vCenter Server, and virtual machines
- Use VMware Certificate Authority to configure vSphere certificate management
- Configure vSphere to encrypt virtual machines, core dumps, and VMware vSphere® vMotion® migrations