

Why Learn VMware vSphere Optimize and Scale?

VMware vSphere Optimize and Scale course teaches you advanced skills for configuring and maintaining a highly available and scalable virtual infrastructure. Through a mix of lecture and hands-on labs, you will configure and optimize the VMware vSphere® 7 features that build a foundation for a truly scalable infrastructure, and you discuss when and where these features have the greatest effect.

Audience Profile :

- Experienced system administrators
- System engineers
- System integrators

Prerequisites:

- Understanding of the concepts of the VMware vSphere: Install, Configure, Manage .
- Equivalent knowledge and administration experience with ESXi and vCenter Server.



Course Overview:

- This course is designed to learn detailed overview of configuring and optimizing the VMware vSphere® 7.0 features to make a robust scalable infrastructure.

VMware vSphere Optimize and Scale Outline:

- Module 1: Course Introduction
- Introductions and course logistics
- Course objectives
- Module 2: Network Scalability
- Configure and manage vSphere distributed switches
- Describe how VMware vSphere Network I/O Control enhances performance
- Describe how VMware vSphere Network I/O Control enhances performance
- Module 3: Storage Scalability
- Explain why VMware vSphere VMFS is a high performance, scalable file system
- Explain VMware vSphere Storage APIs – Array Integration, VMware vSphere API for Storage Awareness™, and vSphere APIs for I/O filtering
- Configure and assign virtual machine storage policies
- Create VMware vSAN™ storage policies
- Recognize components of the VMware vSphere® Virtual Volumes™ architecture
- Configure VMware vSphere® Storage DRS™ and VMware vSphere® Storage I/O Control
- Module 4: Host and Management Scalability
- Use the vSphere Client to manage vSphere certificates
- Describe identity federation and recognize its use cases
- Configure identity federation to allow vCenter Server to use external identity provider
- Describe the benefits and use cases of vSphere Trust Authority
- Configure vSphere Trust Authority
- Use host profiles to manage ESXi configuration compliance
- Create a local content library and subscribe to a published content library
- Deploy VMs from a content library
- Create and manage resource pools in a cluster
- Describe how scalable shares work
- Module 5: CPU Optimization
- Explain the CPU scheduler operation and other features that affect CPU performance
- Explain NUMA and vNUMA support
- Use esxtop to monitor key CPU performance metrics
- Module 6: Memory Optimization
- Explain ballooning, memory compression, transparent page sharing, and host-swapping techniques for memory reclamation when memory is overcommitted
- Use esxtop to monitor key memory performance metrics
- Module 7: Storage Optimization
- Describe storage queue types and other factors that affect storage performance
- Discuss vSphere support for NVMe and iSER technologies
- Use esxtop to monitor key storage performance metrics
- Module 8: Network Optimization
- Explain performance features of network adapters
- Explain the performance features of vSphere networking
- Use esxtop to monitor key network performance metrics
- Module 9: vCenter Server Performance Optimization
- Describe the factors that influence vCenter Server performance
- Use VMware vCenter® Server Appliance™ tools to monitor resource use

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✓ Offline Classroom Instructor-Led Training in our labs or onsite Locations.

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