



VMWARE VSPHERE: OPTIMIZE AND SCALE [V7]



Course Level:
Professional

Course Duration:
5 Days

Course Overview:

This five-day VMware vSphere: Optimize and Scale [V7] training course from CloudThat teaches candidates how to configure and maintain a highly scalable virtual infrastructure. Taking this course helps candidates learn how to configure and optimize the VMware vSphere 7 features.

Candidates attending this VMware certification training course gain in-depth knowledge of vSphere to unleash the benefits of its advanced features and controls for an organization. By enrolling in our VMware vSphere: Optimize and Scale [V7] training program, learners will acquire the necessary skills and knowledge to pass the final exam successfully. Candidates attending our training get access to the authored curriculum and can learn through engaging and interactive sessions delivered by VMware certified in-house trainers.





Product Alignment

- VMware ESXi 7.0
- VMware vCenter Server 7.0

Prerequisites

You must complete one of the following prerequisites:

- Understanding of concepts presented in the VMware vSphere: Install, Configure, Manage [V7] course
- Equivalent knowledge and administration experience with ESXi and vCenter Server

Experience with working at the command line is highly recommended



Objectives



Configure and manage vSphere networking and storage for a large and sophisticated enterprise



Use VMware vSphere Client to manage certificates



Use Identity Federation to configure VMware vCenter Server to use external identity sources



Use VMware vSphere Trust Authority to secure the infrastructure for encrypted VMs



Use host profiles to manage VMware ESXi host compliance



Create and manage a content library for deploying virtual machines



Manage VM resource usage with resource pools



Monitor and analyze key performance indicators for compute, storage, and networking resources for ESXi hosts



Optimize the performance in the vSphere environment, including vCenter Server



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Course Outline

Module 1: Course Introduction

Topics

- Introductions and course logistics

- Course objectives

Module 2: Network Scalability

Topics

- Configure and manage vSphere distributed switches
- Describe how VMware vSphere Network I/O Control enhances performance
- Explain distributed switch features such as port mirroring and NetFlow

Course Outline

Module 3: Storage Scalability

Topics

- 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

Topics

- 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

Topics

- 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

Topics

- 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

Course Outline

Module 7 : Storage Optimization

Topics

- ... 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

Topics

- ... 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

Topics

- ... Describe the factors that influence vCenter Server performance
- ... Use VMware vCenter Server Appliance tools to monitor resource use
- ... Supplemental Content

Appendix A: vSphere Auto Deploy

- Explain the purpose of VMware vSphere ESXi Image Builder CLI
- Explain the purpose of VMware vSphere Auto Deploy
- Describe how an autodeployed ESXi host boots
- Configure a vSphere Auto Deploy environment

Appendix B: vSphere Security

- Configure ESXi Host Access and Authentication
- Recognize strategies for securing vSphere components, such as vCenter Server, ESXi hosts, and virtual machines
- Describe vSphere support for security standards and protocols
- Describe virtual machine security features
- Describe the components of a VM encryption architecture
- Create, manage, and migrate encrypted VMs
- Encrypt core dumps
- List VM encryption events and alarms



Who Should Enroll for this Course?

vRealize Operations Cloud customers including experienced system administrators, system integrators, and consultants responsible for designing, implementing, and customizing vRealize Operations.

About CloudThat

CloudThat is the first company in India to offer Cloud Training & Consulting services for mid-market & enterprise clients from across the globe. Since our inception in 2012, we have trained over 500K+ IT professionals from fortune 500 companies on technologies such cloud, Artificial Intelligence, Machine Learning, IoT, OpenStack, OpenShift, DevOps, MongoDB, Big Data and more.

Through sheer dedication and excellence in the field of cloud training, CloudThat has recently being recognized as **VMware Authorized Training Reseller**. In addition, CloudThat is a proud Microsoft Gold Partner, AWS Advanced Consulting Partner, Google Cloud Platform Partner, and Databricks Partner. Recently, we have won the Microsoft Asia Superstar Campaign for India-2021 for being a global leader in providing cloud training and consultancy services with exemplary track record.

Our Success Track

10+ Years
of Experience

100+
Corporates served

28+
countries catered

500K+
Professionals trained

200+
Projects delivered

350+
Cloud certifications

To know more about our VMware certification training, email at sales@cloudthat.com or call us at **+918880002200**.

