

VMware vSphere® - Optimize and Scale plus Troubleshooting Fast Track v6.7

Overview

This five-day accelerated, hands-on training course is a blend of the VMware vSphere®: Optimize and Scale and VMware vSphere: Troubleshooting Workshop courses. This Fast Track course includes the best of each of these advanced courses to equip experienced VMware administrators with the knowledge to effectively optimize and troubleshoot vSphere at an expert level.

Prerequisite Comments

This course requires the completion of one of the following prerequisites:
 Understanding of concepts presented in the VMware vSphere: Install, Configure, Manage [V6.7] course
 Equivalent knowledge and administration experience with ESXi and vCenter Server
 Experience with working at the command prompt is highly recommended.

Target Audience

Experienced system administrators, system engineers, and system integrators

Course Objectives

By the end of the course, you should be able to meet the following objectives:
 Configure and manage vSphere networking and storage for a large and sophisticated enterprise
 Manage changes to the vSphere environment
 Optimize the performance of all vSphere components
 Use VMware vSphere® ESXi™ Shell and VMware vSphere® Command-Line Interface to manage vSphere
 Harden the vSphere environment against security threats
 Use VMware vSphere® Client™, the command-line interface, and log files to diagnose and correct problems in vSphere
 Troubleshoot networking, storage, VMware vCenter Server®, VMware ESXi™ host, vSphere cluster, VMware vSphere® vMotion®, and virtual machine problems

Course Outline

[Register Online](#)

Schedule

Class Length: 5 Days

G2R = "Guaranteed to Run" OLL = "Online LIVE" ILT = "Instructor-Led-Training"				
08/17/20	9:00AM - 7:00PM	Norfolk-Virginia Beach, VA	OLL	\$6,475.00
09/14/20	9:00AM - 7:00PM	Norfolk-Virginia Beach, VA	OLL	\$6,475.00
10/05/20	9:00AM - 7:00PM	Norfolk-Virginia Beach, VA	OLL	\$6,475.00
10/19/20	9:00AM - 7:00PM	Norfolk-Virginia Beach, VA	OLL	\$6,475.00

1 - Course Introduction

Introductions and course logistics
Course objectives

2 - Introduction to Troubleshooting

Identify the effects of a system problem
Define the scope of troubleshooting
Use a structured approach
Understand the principles of troubleshooting
Follow a logical troubleshooting procedure
Examine examples of troubleshooting

3 - Troubleshooting Tools

Use command-line tools to identify and troubleshoot problems
Use vSphere CLI
Find and interpret important log files
Use VMware vRealize[®] Log Insight[™] for log aggregation, efficient log search, and problem analysis

4 - Network Optimization

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

5 - Networking Troubleshooting

Identify the symptoms of network-related problems
Analyze and resolve standard switch and distributed switch problems
Analyze virtual machine connectivity problems and fix them
Examine common management network connectivity problems and restore configurations
Identify and prevent potential problems

6 - Storage Optimization

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

7 - Storage Troubleshooting

Troubleshoot storage (iSCSI, NFS, VMware vSphere® VMFS, VMware vSAN™, and VMware vSphere® Virtual Volumes™) connectivity problems
Analyze storage-related logs
Analyze hardware malfunction and software misconfiguration scenarios
Identify multipathing-related problems, including permanent device loss (PDL) and all paths down (APD)
Analyze possible causes, recover from the faulty conditions, and restore storage visibility

8 - 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

9 - 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

10 - vCenter Server Performance Optimization

Describe the factors that influence vCenter Server performance
Use VMware vCenter® Server Appliance™ tools to monitor resource usage

11 - vSphere Cluster Troubleshooting

Identify and recover from problems related to VMware vSphere® High Availability
Analyze and troubleshoot various types of vSphere vMotion problems related to virtual machine migrations
Discuss and recover from VMware vSphere® Distributed Resource Scheduler™ problems to achieve proper function and balanced resource use
Examine vSphere cluster failure scenarios and possible solutions

12 - Virtual Machine Troubleshooting

Analyze and resolve common virtual machine snapshot problems
Identify possible causes and resolve virtual machine power-on problems
Troubleshoot virtual machine connection state problems
Resolve problems seen during VMware Tools™ installations
Examine failure scenarios and provide solutions

13 - 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

14 - vCenter Server and ESXi Troubleshooting

Understand the vCenter Server and VMware Platform Services Controller™ architecture in vSphere 6.x
Identify and resolve authentication problems
Troubleshoot VMware Certificate Authority and certificate problems
Analyze and fix problems with vCenter Server services
Analyze and fix vCenter Server database problems
Identify VMware vCenter Server® High Availability problems
Examine ESXi host and vCenter Server failure scenarios and resolve the problems

Related Courses, Certifications, Exams ---

- VMware vSphere® - Install, Configure, Manage v6.7