

# VMware vSphere: Advanced Troubleshooting Workshop

## Course Overview

This five-day, intensive hands-on training workshop provides you with advanced knowledge, skills, and abilities to achieve competence in troubleshooting the VMware vSphere® 6.7 environment. This workshop is aimed at experienced system administrators and introduces methods and skills that use management command-line interfaces (CLIs) and VMware vSphere® Client™. This workshop focuses on investigating and resolving problems, analyzing log files to help you recognize log file entries that identify root causes, and configuring specific key vSphere features.

## Course Objectives

By the end of the course, you should be able to meet the following objectives:

- Use the command-line interface, log files, and vSphere Client to diagnose and resolve problems in the vSphere environment
- Practice Linux commands that aid in the troubleshooting process
- Analyze vSphere log files and determine the root cause of specific problems
- Troubleshoot storage problems and apply the appropriate resolution to these problems
- Troubleshoot and resolve networking problems
- Troubleshoot virtual machine problems, including migration problems, snapshot problems, and connection problems
- Identify VMware ESXi™ host and VMware vCenter Server® problems, analyze failure scenarios or misconfigurations, and rectify them
- Troubleshoot performance problems with vSphere components and apply mitigations
- Configure and manage the vSphere infrastructure to improve availability and operational stability

## Target Audience

- Senior system administrators, experienced system administrators
- Senior system integrators, experienced system integrators

## Prerequisites

This course requires completion of one of the following prerequisites:

- VMware Certified Professional 6.5 – Data Center Virtualization (VCP6.5-DCV)
- [VMware vSphere: Install, Configure, Manage \[V6.7\]](#) (with two years production experience)
- [VMware vSphere: Optimize and Scale \[V6.7\]](#)
- [VMware vSphere: Troubleshooting Workshop \[V6.7\]](#)
- VMware vSphere: Fast Track [V6.7]
- Equivalent knowledge and administration experience with ESXi and vCenter Server

Experience in working with a command-line interface is highly recommended, as is completion of VMware vSphere: Optimize and Scale [V6.7].

## Course Delivery Options

- Classroom
- Live Online
- [Onsite](#)

## Product Alignment

- ESXi 6.7
- vCenter Server 6.7

## Course Modules

### 1 Course Introduction

- Introductions and course logistics
- Course objectives

### 2 Troubleshooting Tools

- Identify the tools available for troubleshooting a vSphere environment
- Explain the purpose of commonly used vSphere log files
- Use Linux commands that will assist you with troubleshooting vSphere
- Use the vim-cmd tool to manage hosts and virtual machines

### 3 Storage Troubleshooting

- Review the vSphere storage architecture and functionality necessary to troubleshoot storage problems
- Use ESXi and Linux commands to troubleshoot storage problems
- Analyze log file entries to identify the root cause of storage problems
- Investigate ESXi disk and storage issues
- Troubleshoot virtual machine snapshots
- Troubleshoot storage performance problems
- Troubleshoot storage all paths down and permanent device loss conditions
- Troubleshoot problems due to file locking on the ESXi host
- Configuration task: Configure iSCSI multipathing

### 4 Network Troubleshooting

- Review vSphere virtual switch architecture and functionality necessary to troubleshoot networking problems
- Use ESXi and Linux commands to troubleshoot networking problems
- Analyze log file entries to identify the root cause of networking problems
- Recover from a management network failure
- Troubleshoot VMware vSphere® vMotion® migration problems
- Configuration task: Modify network card options and drivers
- Configuration task: Migrate networking from a standard switch to a distributed switch
- Monitor the behavior of NIC teaming failover and load balancing
- Use the command line to isolate and resolve networking failures

### 5 System Troubleshooting

- Review virtual infrastructure architecture and functionality necessary to troubleshoot ESXi and vCenter Server problems
- Analyze log file entries to identify the root cause of virtual infrastructure problems
- Use the command line to manage and troubleshoot the vSphere virtual infrastructure
- Analyze virtual machine CPU performance
- Troubleshoot ESXi host connection problems
- Troubleshoot virtual machine power-on failures
- Troubleshoot vCenter Server connection problems
- Restart ESXi management agents and VMware vCenter® Server Appliance™ services from the command line
- Perform a file-based backup of vCenter Server Appliance
- Resolve Solution User certificate problems

## Contact

If you have questions or need help registering for this course, click [here](#).



VMware, Inc. 3401 Hillview Avenue Palo Alto CA 94304 USA Tel 877-486-9273 Fax 650-427-5001 [www.vmware.com](http://www.vmware.com)

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