



# VMware vSphere: Troubleshooting

Duration: 5 Days

Language: English

Course Delivery: Classroom

## Overview:

This hands-on training workshop provides you with the advanced knowledge, skills, and abilities to achieve competence in troubleshooting the VMware vSphere® 6 environment. This workshop increases your skill and competence in using the command-line interface, VMware vSphere® Web Client, VMware vRealize® Log Insight™, and other tools to analyze and solve problems.

## Objectives:

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

- Use vSphere Web Client, the command-line interface, and logs to diagnose and resolve problems in the vSphere environment
- Introduce troubleshooting principles and procedures
- Troubleshoot networking issues and recover from these issues
- Analyze storage failure scenarios and resolve the issues
- Troubleshoot vSphere cluster failure scenarios and analyze possible causes
- Diagnose common VMware vSphere® High Availability issues and provide solutions
- Troubleshoot problems related to virtual machine migration (VMware vSphere® vMotion®) and improve resource use (VMware vSphere® Distributed Resource Scheduler™)
- Troubleshoot vCenter Server issues
- Identify ESXi host issues, analyze failure scenarios, and correct them
- Troubleshoot faulty virtual machines, including installation issues, snapshot issues, connection issues, and More

## Prerequisites:

Required prerequisites include completion of one of the following:

- VMware Certified Professional 6 - Data Center Virtualization (VCP6-DCV)
- VMware vSphere: Fast Track [V6]
- VMware vSphere: Optimize and Scale [V6]
- Equivalent knowledge and administration experience with ESXi and vCenter Server

Experience in working with a command-line interface is highly recommended

### 1. Course Outline:

#### Course Introduction

- Understand the course objectives
- Understand the scope and topics covered by the course
- Become familiar with online technical resources
- Become familiar with the VMware education system and certification tracks

### 2. Introduction to Troubleshooting

- Identify the effects of a system problem
- Define the troubleshooting scope
- Use a structured approach

- Understand the troubleshooting principles
  - Follow a logical troubleshooting procedure
  - Troubleshooting examples
3. Troubleshooting Tools
- Use command-line tools to identify and troubleshoot problems
  - Use VMware vSphere® Management Assistant
  - Find and interpret important log files
  - Export relevant log files for technical support
  - Use vRealize Log Insight for log aggregation and problem analysis
  - Use vRealize Log Insight for efficient log search
4. Networking
- Identify the symptoms of network-related problems
  - Analyze and resolve standard and distributed switch issues
  - Analyze virtual machine connectivity issues and restore them
  - Examine common management network connectivity issues and restore configurations
  - Identify and prevent potential problems
5. Storage
- Troubleshoot storage (iSCSI, NFS, VMware vSphere® VMFS, and VMware Virtual SAN™) connectivity problems
  - Analyze hardware malfunction and software misconfiguration scenarios
  - Identify multipathing-related issues, including PDL and APD
  - Analyze possible causes, recover from the faulty conditions, and restore storage visibility
6. vSphere Clusters
- Identify and recover from issues related to vSphere HA
  - Analyze and troubleshoot various types of vSphere vMotion issues related to virtual machine migrations
  - Discuss and recover from vSphere DRS problems to achieve proper function and balanced resource use
  - Examine vSphere cluster failure scenarios and possible solutions
7. vCenter Server and ESXi
- Understand the vCenter Server and VMware Platform Services Controller™ architecture in vSphere 6
  - Identify and resolve authentication issues
  - Troubleshoot VMware Certificate Authority and certificate store issues
  - Analyze and fix vCenter Server services issues
  - Examine ESXi host and vCenter Server failure scenarios and resolve the issues
8. Virtual Machines
- Analyze and resolve common virtual machine snapshot issues
  - Identify possible causes and resolve virtual machine power-on issues
  - Troubleshoot virtual machine connection state issues
  - Resolve problems seen during VMware Tools™ installations
  - Examine failure scenarios and provide solutions