

# VMware vSphere: Troubleshooting

## Overview

This lab-intensive course focuses on providing system administrators with the advanced knowledge, skills, and abilities to achieve competence in troubleshooting the VMware vSphere™ virtual infrastructure. In this course, you will spend most of the time diagnosing and rectifying configuration problems created on VMware® ESX™/ESXi hosts and VMware vCenter™ Server systems. Upon completion of this course, you can take the examination to become a VMware Certified Professional.

## Course Objectives

At the end of the course, you should be able to:

- Use the VMware vSphere Client and service console commands to configure or diagnose and rectify problems on ESX
- Use the vSphere Client and the VMware vSphere Management Assistant (vMA) appliance to configure or diagnose and rectify problems on ESX and ESXi hosts
- Use ESXi technical support mode to diagnose and rectify problems on ESXi
- Create and use a network sniffer to capture and display virtual switch network traffic
- Use the vSphere Client and command-line tools to troubleshoot VMware VMotion™, VMware Storage VMotion, VMware High Availability, VMware Distributed Resource Scheduler, and virtual machine power-on problems

## Target Audience

System administrators, systems engineers, and help desk personnel who need the knowledge, skills, and abilities to perform advanced troubleshooting of their vSphere deployments

## Prerequisites

This is an advanced course. Required prerequisites include the completion of one of the following:

- Completion of the following three courses:
  - VMware vSphere: Install, Configure, Manage
  - VMware vSphere: Manage Availability
  - VMware vSphere: Manage Scalability
- Completion of VMware vSphere: Fast Track.
- Equivalent knowledge and administration experience with ESX/ESXi and vCenter Server

## Pricing and Scope

- Four (4) days of instructor-led, classroom training
- 30% lecture and 70% hands-on lab
- Individual enrollment available at convenient locations worldwide at <http://www.vmware.com/education>
- Contact your VMware representative for pricing information.
- Onsite training is available for companies that want the benefits of instructor-led classes without travel.
- Contact VMware Education to discuss facility requirements for onsite training at [education@vmware.com](mailto:education@vmware.com).

## Course Outline

Module 1: Course Introduction

Module 2: ESXi Command-Line Troubleshooting Methods

- Install and use the vMA
- Learn common vSphere Command-Line Interface commands and syntax
- Configure ESXi technical support mode and SSH access

Module 3: ESX, ESXi, and vCenter Server Log Files

- View ESX, ESXi, and vCenter Server log files
- Configure a centralized ESX/ESXi log host

Module 4: Network Troubleshooting

- Identify and configure vNetwork components
- Configure and use a network traffic sniffer

Module 5: Management Troubleshooting

- Troubleshoot vSphere management components

Module 6: Storage Troubleshooting

- View, configure, and diagnose storage access problems
- Configure iSCSI authentication and digests

Module 7: vMotion Troubleshooting

- Troubleshoot vMotion and Storage vMotion errors

Module 8: VMware Infrastructure Troubleshooting

- Troubleshoot DRS Cluster errors with shares, pools, and limits
- Troubleshoot HA Cluster errors with slot calculations, admission control, and host monitoring
- Review virtual machine power on requirements
- Troubleshoot virtual machine power on failures

Module 9: vSphere 4 DRS Cluster Troubleshooting

- Complete a final multihour, multiproblem troubleshooting exercise



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