

VMWARE VSPHERE: TROUBLESHOOTING [V7]

Course Duration: 5 days; Instructor-led

WHAT YOU WILL LEARN

This five-day, hands-on training course provides you with the advanced knowledge, skills, and abilities to achieve competence in troubleshooting the VMware vSphere® 7.x environment. This workshop increases your skill and competence in using the command-line interface, VMware vSphere® Client™, log files, and other tools to analyze and solve problems.

AUDIENCE

- System administrators
- System integrators

PREREQUISITES

This course requires completion of one of the following prerequisites:

- VMware vSphere: Fast Track [V6.x] or [V7]
- VMware vSphere: Install, Configure, Manage [V6.x] or [V7]
- VMware vSphere: Optimize and Scale [V6.x] or [V7]
- Equivalent knowledge and administration experience with ESXi and vCenter Server
- Experience in working with a command-line interface is highly recommended.

METHODOLOGY

This program will be conducted with interactive lectures, PowerPoint presentation, discussion, and practical exercise.

COURSE OBJECTIVES

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

- Introduce troubleshooting principles and procedures
- Use command-line interfaces, log files, and the vSphere Client to diagnose and resolve problems in the vSphere environment
- Explain the purpose of key vSphere log files
- Identify networking problems based on reported symptoms, validate, and troubleshoot the reported problem, identify the root cause, and implement the appropriate resolution

- Analyze storage failure scenarios using a logical troubleshooting methodology, identify the root cause, and apply the appropriate resolution to resolve the problem
- Troubleshoot vSphere cluster failure scenarios and analyze possible causes
- Diagnose common VMware vSphere® High Availability problems and provide solutions
- Identify and validate VMware ESXi™ host and VMware vCenter Server® problems, analyze failure scenarios, and select the correct resolution
- Troubleshoot virtual machine problems, including migration problems, snapshot problems, and connection problem
- Troubleshoot performance problems with vSphere components

COURSE OUTLINES

Module 1: Course Introduction

- Introductions and course logistics
- Course objectives

Module 2: Introduction to Troubleshooting

- Define the scope of troubleshooting
- Use a structured approach to solve configuration and operational problems
- Apply a troubleshooting methodology to logically diagnose faults and improve troubleshooting efficiency

Module 3: Troubleshooting Tools

- Use command-line tools (such as ESXCLI) to identify and troubleshoot vSphere problems
- Identify important vSphere log files and interpret the log file contents

Module 4: Troubleshooting Virtual Networking

- 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

Module 5: Troubleshooting Storage

- Troubleshoot and resolve storage (iSCSI, NFS, and VMware vSphere® VMFS) connectivity and
- configuration problems
- Analyze and resolve common VM snapshot problems
- Identify and resolve multipathing-related problems, including common causes of permanent device loss
- (PDL) and all paths down (APD) event problems

Module 6: Troubleshooting vSphere Clusters

- Identify and recover from problems related to vSphere HA
- Analyze and resolve VMware vSphere® vMotion® configuration and operational problems
- Analyze and resolve common VMware vSphere® Distributed Resource Scheduler™ problems

Module 7: Troubleshooting Virtual Machines

- Identify, analyze, and solve virtual machine snapshot problems
- Troubleshoot virtual machine power-on problems
- Identify possible causes and troubleshoot virtual machine connection state problems
- Diagnose and recover from VMware Tools™ installation failures

Module 8: Troubleshooting vCenter Server and ESXi

- Analyze and fix problems with vCenter Server services
- Diagnose and troubleshoot vCenter Server database problems
- Examine ESXi host and vCenter Server failure scenarios and resolve the problems