# VMware vSphere 4.1

# TROUBLESHOOTING

## 4 Day, Lab Intensive Troubleshooting for the VMware vSphere 4.1 Virtual Infrastructure Environment.

Solutions

## Troubleshooting VMware vSphere 4.1

Knowing what to do, when to do it, and how to do it is an essential aspect of an administrator's job. For today's infrastructure professionals working in a virtual environment, having this ability is critical for success.

Participants will be immersed into live scenarios exposing students to real world issues they will encounter in the field, and learn how to hone their critical thinking skills under pressure to identify and quickly resolve issues that commonly plague infrastructure professionals.

This 4 day advanced lab intensive course focuses the student on gaining the deep understanding necessary to successfully manage and troubleshoot problems inside VMware vSphere 4.1 virtual infrastructure environment.

**Audience:** System administrators, engineers, and help desk personnel who need the knowledge, skills, and abilities to perform advanced troubleshooting of their vSphere deployments. Please note course prerequisites on next page.

*Troubleshooting Information Every Infrastructure Professional Needs!*

## Course Highlights

- Diagnose and solve problems on ESX and ESXi by using:
  - VMware vSphere Client and service console commands
  - VMware vSphere Management Assistant (vMA) appliance
  - ESXi technical support mode
  - vCLI esxcfg- and vicfg- commands
- Configure centralized logging with vilogger and syslog
- Diagnose and solve problems with Networking, Storage, and Virtual Machines
- Diagnose and solve problems with VMware products:
  - vCenter, vSphere Client, VMotion™, Storage VMotion, HA, and DRS

Additionally, Students will also gain exposure to third party tools that will simplify processes, allowing for easier monitoring of network infrastructures, and enable them to quickly mitigate problems that can arise. Each student will be provided their own server to work on throughout the course, available 24/7.

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# VMware vSphere 4.1 Troubleshooting

## Sample Course Outline

**Module 1: Course Introduction and Methodology**

**Module 2: Tools for Troubleshooting**

Topic 1: Overview of 3rd Party Tools

Topic 2: ESX/ESXi Management

- Installation and use of the vMA
- vSphere Command-Line Interface (vCLI) commands and syntax
- ESXi technical support mode
- SSH access in ESX and ESXi

Topic 3: Linux Command Review

**Module 3: Troubleshooting Log Files**

- ESX, ESXi, and vCenter Server Log Files
- Configure centralized Logging with syslog and vilogger

**Module 4: Network Troubleshooting**

Topic 1:  Creating & Modify Virtual Networks

Topic 2:  Creating  & Modify Virtual Networks using CLI

Topic 3:  Creating & Modifying Distributed Virtual Switches using CLI

**Module 5: Management Troubleshooting**

Topic 1:  Troubleshooting vCenter Server and Database

Topic 2:  Troubleshooting the vSphere Client

Topic 3:  Controlling Management Access

Topic 4:  ESX/ESXi Active Directory (AD) Integration

Topic 5:  Managing Firewalls

Topic 6:  SSH Access

Topic 7:  Linked Mode Groups of vCenters

**Module 6: Storage Troubleshooting**

Topic 1:  Storage Concepts

Topic 2:  iSCSI Storage

Topic 3:  Fibre Channel Storage

Topic 4:  VMFS Datastores

**Module 7: vMotion Troubleshooting**

- vMotion and Storage vMotion requirements and issues

**Module 8: Infrastructure Troubleshooting**

- DRS Cluster  shares, pools, and limits
- HA slot calculations, admission control, and host monitoring
- Common Virtual Machine problems

## Student Prerequisites

This is an advanced course.

*Required prerequisites include the completion of one of the following courses:*

- VMware vSphere 4.1 Fundamentals of Administration
- VMware vSphere 4.1 Advanced Administration
- VMware vSphere 4.1 Ultimate Bootcamp

*Or equivalent knowledge and administration experience with ESX/ESXi and vCenter Server*

*The course material presumes that you can perform the following tasks with no assistance or guidance prior to enrolling in this course:*

- Install VMware ESX, ESXi, and vCenter
- Create and modify a standard and vNetwork Distributed virtual switches.
- Connect an ESX/ESXi host to NAS and iSCSI storage
- Create and modify VMFS datastores
- Configure and use vMotion and Storage vMotion
- Configure a VMware DRS cluster with resource pools
- Configure a VMware High Availability cluster
- Create and Modify virtual machines

*If you are unable to complete all of these tasks, then it is recommended that you complete the prerequisite course(s) prior to enrolling in the VMware vSphere Troubleshooting course.*