

LENGTH

5 days 8

#### WHY STUDY THIS COURSE

This course provides you with the knowledge, skills, and abilities to achieve competence in troubleshooting the VMware vSphere® 8 environment. The course increases your skill level and competence in using the command-line interface, VMware vSphere® Client™, log files, and other tools to analyse and solve problems.

VERSION

Product Alignment

- VMware ESXi 8.0
- VMware vCenter Server 8.0

### **VMWARE AT LUMIFY WORK**

VMware is the world leader in server virtualisation technologies. Lumify Work is a VMware Education Reseller Partner (VERP), offering training in vSphere, vRealize, vSAN, Horizon, NSX-T, Workspace ONE, Carbon Black, and other VMware technologies and platforms.



#### WHAT YOU'LL LEARN

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

- > Describe troubleshooting principles and procedures
- > Use the vSphere Client, the command line, and log files to configure, diagnose, and correct problems in vSphere
- > Explain the key vSphere log files from troubleshooting perspective
- Describe the benefits and capabilities of VMware Skyline
- > Identify the networking issues by examining the reported symptoms, and troubleshoot the reported problems
- Identify the storage issues by examining the reported symptoms, and troubleshoot the reported problems
- > Troubleshoot vSphere cluster failure scenarios and analyse possible causes
- > Diagnose common VMware vSphere® High Availability (vSphere HA) problems and provide solutions

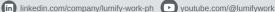














### **CLOUD COMPUTING AND VIRTUALISATION**

# **VMware vSphere: Troubleshooting**

- > Trouble virtual machine problems, including migration problems, snapshot problems, and connectivity problems
- > Identify VMware ESXi™ host and VMware vCenter Server® problems, analyse failure scenarios, and find resolutions
- > Troubleshoot performance problems with vSphere components



My instructor was great being able to put scenarios into real world instances that related to my specific situation.

I was made to feel welcome from the moment I arrived and the ability to sit as a group outside the classroom to discuss our situations and our goals was extremely valuable.

I learnt a lot and felt it was important that my goals by attending this course were met.

Great job Lumify Work team.



IT SUPPORT SERVICES **MANAGER - HEALTH WORLD LIMIT ED** 









#### **COURSE SUBJECTS**

#### 1. Course Introduction

- Introductions and course logistics
- Course objectives

### 2. Introduction to Troubleshooting

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

#### 3. Troubleshooting Tools

- Identify the utilities and tools used to run commands
- Identify how to access the vSphere ESXi shell
- Run commands to view, configure, and manage vSphere components
- Use Standalone ESXCLI for troubleshooting
- Run ESXCLI commands from the Standalone ESXCLI tool
- Use Data Center CLI commands for troubleshooting
- Run commands to view, configure, and manage your vSphere components
- Identify the best tool to use for CLI troubleshooting
- Locate important log files
- Identify how to use log files in troubleshooting
- Describe the benefits and capabilities of VMware Skyline™
- Explain how VMware Skyline works at a high-level

https://www.lumifywork.com/en-ph/courses/vmware-vsphere-troubleshooting/



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- Identify the types of health information provided by Skyline™ Health
- Identify uses for VMware Skyline™ Advisor
- Describe the support bundle REST API
- Use the support bundle REST API

### 4. Troubleshooting Virtual Networking

- Analyse and troubleshoot standard switch problems
- Analyse and troubleshoot virtual machine connectivity problems
- Analyse and troubleshoot management network problems
- Analyse and troubleshoot distributed switch problems

#### 5. Troubleshooting Storage

- Recognise components in the vSphere storage architecture
- Identify the possible causes of problems in the various types of datastores
- Analyse the common storage connectivity and configuration problems and discuss the possible causes
- Resolve the storage connectivity problems, correct misconfigurations, and restore LUN visibility
- Analyse log file entries to identify the root cause of storage problems
- Use ESXi and Linux commands to troubleshoot storage problems
- Investigate ESXi storage issues
- Troubleshoot virtual machine snapshots
- Troubleshoot storage performance problems
- Recognise how multipathing works
- Identify the common causes of missing paths













Resolve the missing path problems between hosts and storage devices

### 6. Troubleshooting vSphere Clusters

- Identify and troubleshoot potential vSphere HA problems
- Analyse and solve vSphere potential vMotion problems
- Diagnose and troubleshoot potential vSphere DRS problems

### 7. Troubleshooting Virtual Machines

- Describe virtual machine files
- Identify, analyse, and solve virtual machine snapshot problems
- Discuss virtual machine files and disk content IDs
- Troubleshoot virtual machine power-on problems
- Identify possible causes and troubleshoot virtual machine connection state problems
- Diagnose and recover from VMware Tools™ installation failures

### 8. Troubleshooting vCenter Server and ESXi

- Analyse and resolve vCenter service problems
- Diagnose and troubleshoot vCenter database problems
- Use vCenter appliance shell and the Bash shell to identify and solve problems
- Identify and troubleshoot ESXi host problems











#### WHO IS THE COURSE FOR?

- System Architects
- System Administrators

#### **PREREQUISITES**

This course requires completion of one the following courses:

- VMware vSphere: Fast Track
- VMware vSphere: Install, Configure, Manage
- VMware vSphere: Operate, Scale and Secure

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

- Install and configure ESXi
- Install vCenter Server
- Create vCenter Server objects, such as data centers and folders
- Create and modify a standard switch
- Create and modify a distributed switch
- Connect an ESXi host to NAS, iSCSI, or Fibre Channel storage
- Create a VMware vSphere VMFS datastore
- Modify a virtual machine's hardware
- Migrate a virtual machine with VMware vSphere® vMotion® and VMware vSphere® Storage vMotion®
- Configure and manage a VMware vSphere® Distributed Resource SchedulerTM cluster
- Configure and manage a VMware vSphere HA cluster











Basic knowledge of command line tools like ESXCLI, DCLI, and PowerCLI

If you cannot complete these tasks, VMware recommends that you take the VMware vSphere: Install, Configure, Manage [V8] course instead.

The supply of this course by Lumify Work is governed by the booking terms and conditions. Please read the terms and conditions carefully before enrolling in this course, as enrolment in the course is conditional on acceptance of these terms and conditions.







