

# VMWARE VSAN: TROUBLESHOOTING

[V7]

EDU-VSANT7

**Duration: 2 days; Instructor-led | Virtual Instructor-led**

## WHAT WILL YOU LEARN

In this two-day course, you focus on learning the tools and skills necessary to troubleshoot VMware vSAN™ 7 implementations. You gain practical experience with vSAN troubleshooting concepts through the completion of instructor-led activities and hands-on lab exercises.

### Product Alignment

- VMware ESXi™ 7
- VMware vCenter Server 7
- VMware vSAN 7

## OBJECTIVES

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

- Describe the architectural components of vSAN and their roles
- Explain how the components interact with each other
- Explain the differences between object and component states
- Describe how to use Skyline Health to investigate and help determine failure conditions
- Explain how to use the command-line tools to help determine failure conditions

## PREREQUISITES

Before taking this course, students should take the following courses or have equivalent knowledge and experience:

- VMware vSphere: Install, Configure, Manage
- VMware vSAN: Plan and Deploy
- VMware vSAN: Management and Operations

The course presumes that a student can perform the following tasks with no assistance or guidance before enrolling:

- Use VMware vSphere® Client™ for common operations
- Create and manage VMware vCenter Server® objects, such as data centers, clusters, hosts, and virtual machines
- Create and modify a standard switch
- Modify a distributed switch
- Create a VMware vSphere® VMFS datastore
- Use a wizard or a template to create a virtual machine
- Migrate a virtual machine with VMware vSphere® vMotion® and VMware vSphere® Storage vMotion®

## AUDIENCE

Storage and virtual infrastructure administrators who want to be able to perform initial troubleshooting on their software-defined storage with vSAN

## COURSE CONTENTS

### Module 1: Course Introduction

- Introductions and course logistics
- Course objectives

### Module 2: vSAN Architecture

- Describe the vSAN architecture and components
- Describe the policy-driven, object-based vSAN storage environment
- Describe the CLOM, DOM, LSOM, CMMDS, and RDT vSAN software components
- Explain the relationship between objects and components
- Determine how specific storage policies affect components
- Describe component placement

### Module 3: Troubleshooting Methodology

- Use a structured approach to solve configuration and operational problems
- Apply troubleshooting methodology to logically diagnose faults and optimize troubleshooting efficiency

### Module 4: Troubleshooting Tools

- Discuss VMware Skyline Health and the associated service
- Describe the use of VMware Skyline Health to identify and correct problems in VMware vSAN
- Apply information presented by vSAN Health online towards problem-solving
- Use vsantop to view vSAN performance metrics
- Discuss the ways to run commands from the vCenter Server and ESXi command lines
- Discuss the ways to access vSphere ESXi Shell
- Use commands to view, configure, and manage your vSphere environment
- Discuss the esxcli vsan namespace commands
- Discuss when to use Ruby vSphere Console (RVC) commands
- Explain which log files are useful for vSAN troubleshooting
- Use log files to help troubleshoot vSAN problems