

# VMware vSAN: Troubleshooting [V8]

Course code: VMW\_VSANT

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.

## Who is the course for

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

## What we teach you

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

## Required skills

You must complete one of the following prerequisites:

- Understanding of concepts presented in the VMware vSphere®: Install, Configure, Manage course
- Completion of the VMware vSAN: Deploy and Manage course or equivalent experience with vSAN
- Experience working with command-line interfaces

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®

If you cannot complete all of these tasks, VMware recommends that you complete the VMware vSphere: Install,

Configure, Manage and VMware vSAN: Deploy and Manage courses before enrolling in VMware vSAN: Troubleshooting.

## Course outline

### 1 Course Introduction

- Introductions and course logistics
- Course objectives

### 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

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## 3 Troubleshooting Methodology

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

## 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

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