

## VMware vSAN: Troubleshooting Workshop [V6.x]

---

<b>Code:</b>	EDU-VSANTSW6
<b>Length:</b>	2 days
<b>URL:</b>	<a href="#">View Online</a>

---

In this two-day course, you will focus on learning the tools and skills necessary to troubleshoot VMware vSAN™ 6.6 implementations. You will gain practical experience with vSAN troubleshooting concepts through the completion of instructor-led activities and hands-on challenge lab exercises. In this two-day course, you will focus on learning the tools and skills necessary to troubleshoot VMware vSAN™ 6.6 implementations. You will gain practical experience with vSAN troubleshooting concepts through the completion of instructor-led activities and hands-on challenge lab exercises.

### Product Alignment

- ESXi 6.5
- vCenter Server 6.5
- vSAN 6

### Objectives

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

- Describe the software components
- Understand how the components relate to each other
- Understand vSAN object placement
- Understand the differences between object states
- Explain how storage policies affect object states
- Predict how specific failures affect object states

### Intended Audience

Storage and virtual infrastructure administrators who want to use software-defined storage with vSAN

### Prerequisites

This course requires completion of one of the following prerequisites:

- Understanding of concepts presented in the VMware vSphere: Install, Configure, Manage [V6.x] course
- Completed the VMware vSAN Deploy and Manage [V6.x] course or equivalent experience with VMware vSAN.
- Experience working with linux command line interfaces.

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

- Use VMware vSphere® Web Client
- Create and manage VMware vCenter Server® objects, such as data centers, clusters, hosts, and virtual machines
- Create and modify a standard switch
- Connect a VMware ESXi™ host to NAS, iSCSI, or Fibre Channel storage
- 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®
- Migrate a virtual machine with VMware vSphere® Storage vMotion®

If you cannot complete all of these tasks, VMware recommends that you complete the VMware vSphere: Install, Configure, Manage [V6.x] and VMware vSAN: Deploy and Manage [v6.x] courses before enrolling in VMware vSAN: Troubleshooting.

#### **Outline**

##### 1.Course Introduction

- Introductions and course logistics
- Course objectives

##### 2.vSAN Software Architecture

- Describe the different software components
- Understand how the components relate to each other.
- Understand vSAN object placement
- Understand the differences between object states
- Explain how storage policies affect object placement and states
- Predict how specific failures affect object states

##### 3.Troubleshooting Methodology

- Characterize problems
- Determine the cause of problems
- Solving problems

##### 4.Troubleshooting Tools

- Understand the use of various troubleshooting tools
- Use the tools to resolve problems with the lab environment

## **Who Can Benefit**

Storage and virtual infrastructure administrators who want to use software-defined storage with vSAN.

## **Course Details**

### **Course Introduction**

- Introductions and course logistics
- Course objectives

## **vSAN Software Architecture**

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

## **Troubleshooting Methodology**

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

## **Troubleshooting Tools**

- Replace a failed witness appliance
- Discuss the ways to run various command-line tools
- Discuss the ways to access VMware vSphere® ESXi™ Shell
- Use commands to view, configure, and manage your VMware vSphere® environment
- Explain which log files are useful for vSAN troubleshooting
- Use log files to help troubleshoot vSAN problems
- Discuss the esxcli vsan namespace commands
- Discuss how to use Ruby vSphere Console commands