VMware vSAN: Troubleshooting

Course Description

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.

Course Duration:

2 days

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®

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

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

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

Who Should Attend

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