

# VMware vSAN: Production Operations

## Course Overview

In this three-day course, you will focus on building skills in configuring and performing common Day 2 administrator and end-user tasks with VMware vSAN™ 6.x. You will gain practical experience with vSAN production operations through the completion of instructor-led activities and hands-on lab exercises.

## Course Objectives

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

- Describe vSAN host operations
- Discuss vSAN networking requirements
- Define the tasks involved in hardware replacement in a vSAN cluster
- Perform vSAN cluster scale-out and scale-up operations
- Describe common vSAN maintenance operations
- Define the tasks required for updating and upgrading vSAN
- Describe vSAN security operations
- Configure a key management server (KMS) cluster
- Configure vSAN storage policies and observe the effects of a cluster-wide change
- Explain vSAN resilience and availability features
- Perform ongoing vSAN management tasks
- Use the vSAN health service to monitor health and performance

## Target Audience

Storage and virtual infrastructure administrators who are responsible for production support and administration of vSAN v6.x

## Prerequisites

This course has the following prerequisites:

- Understanding of concepts presented in the [VMware vSphere: Install, Configure, Manage \[V6.x\]](#) course
- Storage administration experience with block or file storage devices

Completion of the [VMware vSAN: Deploy and Manage \[v6.x\]](#) course or equivalent experience with vSAN is desirable.

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 \[V6.5\]](#) and [VMware vSAN: Deploy and Manage \[V6.6\]](#) courses before enrolling in VMware vSAN: Production Operations.

## Certifications

No certifications are tied to this course.

## Course Delivery Options

- Classroom
- Live Online
- [Onsite](#)

## Product Alignment

- ESXi 6.5
- vCenter Server 6.5
- vSAN 6.6

## Course Modules

### 1 Course Introduction

- Introductions and course logistics
- Course objectives

### 2 Introduction to vSAN

- Describe the vSAN architecture and components
- Describe the differences between the vSAN hybrid and all-flash architectures
- Describe the space-efficiency features of vSAN
- Describe how vsanSparse snapshots work

### 3 vSAN Host Management

- Recognize the importance of hardware compatibility
- Use tools to automate driver validation and installation
- Apply host hardware settings for optimum performance
- Describe NIC teaming, Link Aggregation Control Protocol, and the benefits of using VMware vSphere® Distributed Switch™ in vSAN
- Plan appropriately for networking configuration changes
- Troubleshoot with ESXCLI commands

### 4 vSAN Policies and Resiliency

- Explain how storage policies work with vSAN
- Create and modify virtual machine storage policies
- Identify the effects of vSAN storage policy changes
- Monitoring using the Ruby vSphere Console
- Describe vSAN resiliency, availability, and backup features and operations
- Manage hardware device failures

### 5 Cluster Maintenance

- Perform typical vSAN maintenance operations
- Upgrade and update vSAN
- Replace vSAN hardware by using scale-in and scale-out strategies

### 6 vSAN Security Operations

- Describe vSAN datastore encryption and Key Management Server (KMS) architecture
- Integrate a KMS
- Configure encryption in the vSAN cluster
- Compare virtual machine and vSAN encryption
- Perform ongoing operations to maintain data security

- Add an encrypted cluster to vCenter Server

### 7 vSAN Monitoring and Performance

- Identify common alerts, alarms, and notifications related to vSAN in vSphere Web Client
- Use the health service to monitor vSAN health
- Use the performance service to monitor vSAN performance
- Proactively monitor and test the vSAN environment
- Use the vSAN health CLI and Ruby vSphere Console (RVC) when vSphere Web Client is unavailable
- Use ESXCLI commands to monitor the vSAN environment
- Verify that the vSAN environment is functioning properly and performing as expected

## Contact

If you have questions or need help registering for this course, click [here](#).



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