Course Overview

In this three-day course, you will focus on deploying and managing a software-defined storage solution with VMware vSAN™ 6.6. You will learn how vSAN functions as an important component in the VMware software-defined data center. You will gain practical experience with vSAN concepts through the completion of hands-on lab exercises.

Course Objectives

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

- Describe the vSAN architecture
- Identify vSAN features and use cases
- Configure vSAN networking components
- Configure a vSAN cluster
- Deploy virtual machines on a vSAN datastore
- Configure virtual machine storage policies
- Perform ongoing vSAN management tasks
- Outline the tasks for upgrading to vSAN 6.6
- Configure vSAN encryption
- Control vSAN resynchronization tasks
- Create and manage nested fault domains
- Use the vSAN health service to monitor health and performance
- Configure a stretched cluster and observe failover scenarios
- Describe vSAN interoperability with VMware vSphere® features and other products
- Plan and design a vSAN cluster

Target 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:

- Storage administration experience on block or file storage devices
- Understanding of concepts presented in the VMware vSphere: Install, Configure, Manage [V6.5] course

Experience working at the command line is helpful.

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

- 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]](VMware-vSphere-Install, Configure, Manage%5B%20V6.5%5D) course before enrolling in VMware vSAN: Deploy and Manage.

### Certifications

No certifications are tied to this course.

### Course Delivery Options

- Classroom
- Live Online
- On Demand
- Onsite

### Product Alignment

- ESXi 6.5
- vCenter Server 6.5
- vSAN 6.6
Course Modules

1 Course Introduction
   • Introductions and course logistics
   • Course objectives
   • Describe the software-defined data center

2 Storage Fundamentals
   • Define common storage technologies
   • Identify characteristics of storage devices: magnetic and flash-based devices
   • Identify and explain various types of storage architectures
   • Identify SAN performance factors

3 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

4 vSAN Configuration
   • Identify physical network configuration requirements
   • Configure vSAN networking
   • Configure a vSAN cluster
   • Test and validate the vSAN configuration and functionality

5 vSAN Policies and Virtual Machines
   • Explain how storage policies work with vSAN
   • Define and create a virtual machine storage policy
   • Apply and modify virtual machine storage policies
   • Discuss the vsanSparse snapshot format
   • Explain the considerations for vsanSparse snapshots

6 Managing and Operating vSAN
   • Manage hardware storage devices
   • Manage hardware device failures
   • Identify vCenter Server alarms for vSAN events
   • Configure fault domains
   • Upgrade to vSAN 6.6

7 Stretched Clusters and Two-Node Clusters
   • Describe the architecture for stretched clusters and two-node clusters
   • Create a stretched cluster using a two-node configuration

8 Monitoring and Troubleshooting vSAN
   • Use vSphere Web Client to detect issues
   • Use the vSAN health service to monitor health and performance
   • Monitor vSAN with VMware vRealize Operations Manager
   • Use ESXi commands to monitor the vSAN environment
   • Monitor vSAN with Ruby vSphere Console

9 Interoperability with vSphere Features
   • Identify vSphere features and VMware products that interoperate with vSAN
   • Describe how vSAN interoperates with third-party products and solutions

10 Designing a vSAN Deployment
    • Understand vSAN design considerations
    • Plan and design vSAN clusters
    • Identify the design and sizing tools for vSAN
    • Describe vSAN use cases

Contact
If you have questions or need help registering for this course, click here.