Course Overview

During this three-day course, you will focus on deploying and managing a software-defined storage solution with VMware Virtual SAN™ 6.2. You will learn how Virtual SAN functions as an important component in the VMware software-defined data center (SDDC). You will gain practical experience with Virtual SAN 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 Virtual SAN architecture and use cases
- Configure Virtual SAN networking components
- Configure a Virtual SAN cluster
- Deploy virtual machines on a Virtual SAN datastore
- Configure virtual machine storage policies
- Perform ongoing Virtual SAN management tasks
- Outline the tasks for upgrading from Virtual SAN 5 to Virtual SAN 6.2
- Describe Virtual SAN interoperability with VMware vSphere® features and other products
- Use the Virtual SAN health service to monitor Virtual SAN health and performance
- Use the command line to monitor Virtual SAN
- Configure a stretched cluster and observe failover scenarios
- Plan and design a Virtual SAN cluster

Target Audience

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

Prerequisites

This class requires completion of one of the following:

- Storage administration experience on block or file storage devices
- Understanding of concepts presented in the VMware vSphere: Install, Configure, Manage [V6] course
- Experience with 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 and clusters
- Create and modify a standard switch
- Connect an 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 are unable to complete all of these tasks, VMware recommends that you complete the VMware vSphere: Install, Configure, Manage [V6] course before enrolling in VMware Virtual SAN: Deploy and Manage.

Certifications
No certifications are tied to this course.

Course Delivery Options
- Classroom
- Live Online
- Onsite

Product Alignment
- ESXi 6.0 update 2
- vCenter Server 6.0 update 2
- Virtual SAN 6.2
## 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 common SAN architectures
   - Identify characteristics of storage devices: magnetic and flash-based devices
   - Identify and explain the differences between file, block, and object-oriented storage architectures
   - Identify SAN performance factors
   - Compare and contrast local, centralized, and distributed storage architectures

3. **Introduction to Virtual SAN**
   - Describe the Virtual SAN architecture and components
   - Describe the differences between the Virtual SAN hybrid and all-flash architectures
   - Describe the space efficiency features of Virtual SAN

4. **Virtual SAN Configuration**
   - Identify physical network configuration requirements
   - Configure Virtual SAN networking
   - Configure a Virtual SAN cluster
   - Test and validate the Virtual SAN configuration and functionality

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

6. **Managing and Operating Virtual SAN**
   - Manage hardware storage devices
   - Manage hardware device failures
   - Identify vCenter Server alarms for Virtual SAN events
   - Configure fault domains
   - Upgrade from Virtual SAN 5.5 to Virtual SAN 6.2

7. **Interoperability with vSphere Features**
   - Identify vSphere features and VMware products that interoperate with Virtual SAN
   - Describe how Virtual SAN interoperates with VMware vSphere® Enterprise Edition™ features
   - Describe how Virtual SAN interoperates with third-party products and solutions

8. **Monitoring and Troubleshooting Virtual SAN**
   - Identify tools to troubleshoot Virtual SAN
   - Use the Virtual SAN health service to monitor health and performance
   - Monitor Virtual SAN with VMware vRealize® Operations Manager™
   - Monitor Virtual SAN with Ruby vSphere Console and Virtual SAN Observer

9. **Stretched Clustering and Two-Node Models**
   - Compare a stretched cluster and a two-node cluster configuration
   - Configure a stretched cluster using a two-node configuration
   - Demonstrate stretched cluster failover scenarios

10. **Designing a Virtual SAN Deployment**
    - Understand the Virtual SAN design basics
    - Plan and design Virtual SAN clusters
    - Consider the Virtual SAN hybrid and all-flash designs
    - Describe the Virtual SAN use case design considerations
    - Identify the design and sizing tools for Virtual SAN

## Contact

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