

VMware Virtual SAN V6.2 : Deploy and Manage

Duration 3 Days

OVERVIEW

In 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. You will gain practical experience with Virtual SAN concepts through the completion of hands-on lab exercises.

Product Alignment

- ESXi 6.0 update 2
- vCenter Server 6.0 update 2
- Virtual SAN 6.2

OBJECTIVES:

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

- Describe the Virtual SAN architecture
- Identify Virtual SAN features 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 to Virtual SAN 6.2
- Use the Virtual SAN health service to monitor health and performance
- Monitor Virtual SAN with VMware ESXi™ commands and the Ruby vSphere Console
- Configure a stretched cluster and observe failover scenarios
- Describe Virtual SAN interoperability with VMware vSphere® and other products
- Plan and design a Virtual SAN cluster

INTENDED AUDIENCE:

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

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] 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, clusters, hosts, and virtual machines
- Create and modify a standard switch
- Connect an 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] course before enrolling in VMware Virtual SAN: Deploy and Manage.

OUTLINE:

Course Introduction

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

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

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

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

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
- Discuss the vsanSparse snapshot format
- Explain the considerations for vsanSparse snapshots

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 to Virtual SAN 6.2

Monitoring and Troubleshooting Virtual SAN

- Use vSphere Web Client to detect issues
- Use the Virtual SAN health service to monitor health and performance
- Monitor Virtual SAN with VMware vRealize® Operations Manager™
- Use ESXi commands to monitor the Virtual SAN environment
- Monitor Virtual SAN with Ruby vSphere Console and Virtual SAN Observer

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
- Configure VMware vSphere® High Availability and VMware vSphere® Distributed Resource Scheduler™ for a stretched cluster
- Demonstrate stretched cluster failover scenarios

Interoperability with vSphere Features

- Identify vSphere features and VMware products that interoperate with Virtual SAN
- Describe how Virtual SAN interoperates with third-party products and solutions

Designing a Virtual SAN Deployment

- Understand Virtual SAN design considerations
- Plan and design Virtual SAN clusters
- Identify the design and sizing tools for Virtual SAN
- Describe Virtual SAN use cases