VMware vSAN: Plan and Deploy

Course Overview
This two-day, hands-on training course provides you with the knowledge, skills, and tools to plan and deploy a VMware vSAN™ cluster. In this course, you are taught the many considerations that the vSAN configuration has on the initial planning of the vSAN datastore. You also manually configure a vSAN cluster.

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

- Explain the key features and use cases for vSAN
- Detail the underlying vSAN architecture and components
- Describe the different vSAN deployment options
- Detail vSAN cluster requirements and considerations
- Apply recommended vSAN design considerations and capacity sizing practices
- Explain the influence of vSAN objects and components on the initial cluster plan
- Determine and plan for storage consumption by data growth and failure tolerance
- Design vSAN hosts for operational needs
- Explain Maintenance Mode use and its impacts on vSAN
- Apply best practices for vSAN network configurations
- Manually configure a vSAN cluster using VMware vSphere® Client™
- Explain and configure vSAN fault domains
- Understand and apply vSAN storage policies
- Define encryption in the vSAN cluster
- Describe the architecture and use cases for stretched clusters
- Configure a stretched cluster
- Understand the steps involved in creating the vSAN iSCSI target services

Target Audience
- Experienced VMware vSphere® administrators
Prerequisites
You should have the following understanding or knowledge:

- Understanding of concepts presented in the VMware vSphere: Install, Configure, Manage course
- Knowledge of basic storage concepts
- Experience using vSphere Client to perform administrative tasks on vSphere clusters

Course Delivery Options
- Classroom
- Live Online
- Private Training
- On Demand

Product Alignment
- VMware vSAN 7.0 U1
Course Modules

1 Course Introduction
   • Introductions and course logistics
   • Course objectives

2 Introduction to vSAN
   • Describe vSAN architecture
   • Describe the advantages of object-based storage
   • Describe the difference between All-Flash and Hybrid vSAN architecture
   • Explain the key features and use cases for vSAN
   • Discuss the vSAN integration and compatibility with other VMware technologies
   • Identify vSAN objects and components
   • Describe a vSAN object
   • Describe how objects are split into components
   • Explain the purpose of witness components
   • Explain how vSAN stores large objects
   • View object and component placement on the vSAN datastore

3 Planning a vSAN Cluster
   • Identify requirements and planning considerations for vSAN clusters
   • Apply vSAN cluster planning and deployment best practices
   • Determine and plan for storage consumption by data growth and failure tolerance
   • Design vSAN hosts for operational needs
   • Identify vSAN networking features and requirements
   • Describe ways of controlling traffic in a vSAN environment
   • Recognize best practices for vSAN network configurations

4 Deploying a vSAN Cluster
   • Deploy and configure a vSAN cluster using the Cluster QuickStart wizard
   • Manually configure a vSAN cluster using vSphere Client
   • Explain and configure vSAN fault domains
   • Using VMware vSphere® High Availability with vSAN
   • Understand vSAN cluster maintenance capabilities
   • Describe the difference between implicit and explicit fault domains
   • Create explicit fault domains

5 vSAN Storage Policies
   • Explain how storage policies work with vSAN
   • Explain the role of storage policies in planning a vSAN cluster
   • Define and create virtual machine storage policies
   • Apply and modify virtual machine storage policies
   • Change virtual machine storage policies dynamically
   • Identify virtual machine storage policy compliance status

6 Introduction to Advanced vSAN Configurations
   • Define and configure compression and deduplication in the vSAN cluster
   • Define and configure encryption in the vSAN cluster
   • Understand the remote vSAN datastore topology
   • Identify the operations involved in managing the remote vSAN datastore
   • Configure the vSAN iSCSI target service

7 vSAN Stretched and Two-Node Clusters
   • Describe the architecture and use cases for stretched clusters
   • Detail the deployment and replacement of a vSAN witness node
   • Describe the architecture and use cases for two-node clusters
   • Explain the benefits of vSphere HA and VMware Site Recovery Manager™ in a vSAN stretched cluster
   • Explain storage policies for vSAN stretched cluster

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