VMware Virtual SAN: Deploy and Manage 6.7

Modality: Virtual Classroom

Duration: 3 Days

About this Course:

This is an intermediate-level 3 days training program specifically designed for Virtual Infrastructure and Storage Administrators. The primary objective of this course is to help professionals learn the art of utilizing vSAN Software-Defined Storages. Professionals will get to know the fundamentals of Software-Defined Storage Solution Deployment & Management with the aid of VMware vSAN™ 6.7. Professionals with proficiency in VMware Technologies can pursue a professional career as a VMware Administrator earning $79,168 annually.

This training program sheds light on the key concepts of vSAN Core Functionalities Identification, vSAN Architecture Essentials, Virtual Machine Deployment, Storage Policies Configuration, vSAN Encryption Configuration, Resynchronization Tasks Control, Nested Fault Domains Creation, vSAN Cluster Designing & Configuration, and many more.

Course Objectives:

The core objective of this course is to help professionals develop a better understanding and sound knowledge of the following key concepts:

- vSAN Architecture Fundamentals and Essentials
- Understanding vSAN Core Functionalities & Applications
- Configuring Cluster and Networking Components of vSAN
- VSAN DataStore Virtual Machine Deployment and Storage Policies Configuration
- vSAN Ongoing Management Tasks Performance and Encryption Configuration
- Controlling Resynchronization Tasks of vSAN
- Nested Fault Domains Management and Development
- Performance and Health Monitoring through vSAN Health Services
- Failover Scenarios Observations and Stretched Clusters Configuration
- vSAN Interoperability Core Features and vSAN Cluster Planning & Designing

Audience:

- Storage Administrators
- Virtual Infrastructure Administrators
- Professionals striving to learn Applications of Software-Defined Storages

Prerequisites:

Professionals planning to enroll in the VMware Virtual SAN: Deploy and Manage V6.7 (VSDM55) course must comply with the following prerequisites:

- Experience of Working with Storage Administration on File or Blocks Storage Devices
- Familiarity with VMware vSphere: Install, Configure, Manage [V6.x] Key Concepts
- Practical Experience with Command Line Interface is Highly Recommended
- Fundamental Knowledge of VMware vSphere® Client™
- Manage and Create VMware vCenter Server® Objects
- Familiarity with Clusters, Virtual Machines, Data Centers, and Hosts
- Understand Development & Modification of Standard and Distributed Switch

Course Outline:

Module 1 Course Introduction

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

Module 2 Introduction to vSAN

- Describe basic vSAN architecture and components
- Describe the differences between file, block, and object storage
- Explain the advantages of object-based storage
- Detail the configuration of a vSAN cluster
- Install and validate the initial vSAN installation and configuration

Module 3 vSAN Configuration

- Apply vSAN design considerations
- Detail the expansion of a vSAN cluster
- Configure vSAN disk groups manually
- Identify physical network configuration requirements
- Describe the configuration of vSAN networking
- Test and validate the vSAN configuration and functionality
- Describe the vSAN architecture and components
- Describe the differences between the vSAN hybrid and all-flash architectures
- Describe the advantages of all-flash architecture
- Describe the space-efficiency features of vSAN
- Describe the different vSAN assessment tools
- Explain vSAN License Details

Module 4 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
- Change virtual machine storage policies dynamically
- Identify virtual machine storage policy compliance status

Module 5 Managing and Operating vSAN

- Explain how to configure encryption in the vSAN cluster
- Explain the management of hardware storage devices
- Identify alarms for vSAN events
- Describe and configure fault domains
- Describe the configuration of the vSAN iSCSI service, iSCSI targets, and LUNS

Module 6 Stretched Clusters and Two-Node Clusters

- Describe the architecture for stretched clusters and two-node clusters
- Create a stretched cluster
- Describe how stretched cluster storage policies affect vSAN objects
- Create and apply a vSAN stretched cluster policy to meet specific needs
- Discuss the behavior of a stretched cluster when various types of failures occur

Module 7 Monitoring and Troubleshooting vSAN

- Discuss hardware failure scenarios
- Describe the process of resynchronization
- Explain the possible reasons for resynchronization
- Describe the use of vSphere Client to detect issues
- Explain the use of the health service to monitor vSAN health
- Explain the use of the performance service to monitor vSAN performance.
- Monitor and test the vSAN environment
- Describe vSAN architecture components and the PNOMA OSI model.