

VMware vSAN plus VMware vRealize Operations: Deploy and Manage

Course Overview

In this five-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. This course also teaches you how to use VMware vRealize® Operations™ as a forensic and predictive tool. Based on VMware ESXi™ 6.5, VMware vCenter Server® 6.5, and vRealize Operations 6.6, this course includes instruction on advanced capabilities, including customization and management.

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
- Navigate the vRealize Operations user interface
- Use alerts and analysis badges to troubleshoot common and complex vSphere operational issues
- Monitor capacity risk and infrastructure utilization
- Perform capacity planning and what-if analyses
- Customize vRealize Operations by creating alert definitions, symptom definitions, views, reports, dashboards, and super metrics

Target Audience

- Storage and virtual infrastructure administrators who want to use software-defined storage with vSAN
- Experienced system administrators and system integrators, and consultants responsible for customizing vRealize Operations content

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 \[V6.5\]](#) course before enrolling in VMware vSAN: Deploy and Manage.

Certifications

No certifications are tied to this course.

Course Delivery Options

- Classroom
- Live Online
- [Onsite](#)

Product Alignment

- ESXi 6.5
- vCenter Server 6.5
- vSAN 6.6
- vRealize Operations 6.6

Course Modules

1 Course Introduction

- Introductions and course logistics
- Course objectives
- Describe the content of this course
- Familiarize yourself with the benefits of the VMware Education Learning Zone
- Identify additional resources

2 Storage Fundamentals

- Define common storage technologies
- Identify characteristics of storage devices: magnetic and flash-based devices
- 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

4 vSAN Configuration

- Identify physical network configuration requirements
- Configure vSAN networking
- Configure a vSAN cluster

5 vSAN Policies and Virtual Machines

- Define and create a virtual machine storage policy
- Apply and modify virtual machine storage policies

6 Managing and Operating vSAN

- Manage hardware storage devices
- Manage hardware device failures
- Identify vCenter Server alarms for vSAN events

7 Monitoring and Troubleshooting vSAN

- Use vSphere Web Client to detect problems
- Use the vSAN health service to monitor health and performance
- Use ESXi commands to monitor the vSAN environment
- Monitor vSAN with Ruby vSphere Console and vSAN Observer

8 Stretched Clusters and Two-Node Clusters

- Describe the architecture for stretched clusters and two-node clusters
- Demonstrate stretched cluster failover scenarios

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
- Describe vSAN use cases

11 Introduction to vRealize Operations Manager

- Describe how vRealize Operations Manager is used to manage the software-defined data center
- Describe the features and benefits of vRealize Operations Manager

12 vRealize Operations Manager User Interface

- Navigate the main areas of the user interface
- Explain the importance of inventory trees
- View widgets and dashboards on the Home page

13 Troubleshooting System Health Issues

- Discuss the process for troubleshooting system health issues with vRealize Operations Manager
- Monitor alerts and troubleshoot system health issues
- Use heat maps to monitor system health

14 Capacity Planning

- Discuss capacity planning models
- Troubleshoot risk and efficiency issues
- Identify ways to optimize resource utilization in the environment
- Use projects to perform what if scenarios

15 Custom Alert Definitions

- Create symptom definitions
- Create recommendations and use actions
- Create notifications
- Create alert definitions



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16 Custom Views

- Describe the types of views
- Create views

17 Custom Dashboards

- Create custom dashboards
- Configure widgets and widget interactions
- Configure dashboard navigation

18 Monitoring vSAN with vRealize Operations Manager

- Monitor vSAN with vRealize Operations Manager
- Explain dedicated metrics for vSAN environment

Contact

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



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