
VMware vSAN: Deploy and Manage plus VMware vSAN: Troubleshooting Workshop

Cursusduur: 5 Dagen **Cursuscode: VMVSANTS** **Version: 6.7**

Beschrijving:

In this five-day VMware vSAN course, you will focus on deploying and managing a software-defined storage solution with VMware vSAN™ 6.7. 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 and troubleshooting methodology and diagnostic tools through the completion of hands-on lab exercises.

Product Alignment:

- ESXi 6.7
 - vCenter Server 6.7
 - vSAN 6.6 and vSAN 6.7
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Doelgroep:

Storage and virtual infrastructure administrators who want to use software-defined storage with vSAN.

Doelstelling:

- 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
 - 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
 - Use diagnostic and troubleshooting tools to resolve vSAN 6.6 deployment and architectural issues
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Vereiste kennis en vaardigheden:

- Storage administration experience on block or file storage devices
- Understanding of concepts presented in the VMware vSphere: Install, Configure, Manage [V6.x] (VSICM) course

Experience working at the command line is helpful.

The course material presumes that a student can perform the

Examens en certificering

Recommended as preparation for the following exams:

- This course does not align to a specific exam.
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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.x] (VSICM) course before enrolling in VMware vSAN: Deploy and Manage (VMVSAN).

Cursusinhoud:

1 Course Introduction

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

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

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

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

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

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

- 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.

8 vSAN Software Architecture

- Describe the vSAN architecture and components
- Describe the policy-driven, object-based vSAN storage environment
- Describe the vSAN software components: CLOM, DOM, LSOM, CMMDS, and RDT
- Explain the relationships between the vSAN software components
- Explain the relationship between objects and components
- Determine how specific storage policies affect components
- Describe component placement

9 Troubleshooting Methodology

- Use a structured approach to solve configuration and operational problems
- Apply troubleshooting methodology to logically diagnose faults and optimize troubleshooting efficiency

10 Troubleshooting Tools

- Replace a failed witness appliance

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

when various types of failures occur

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

- Discuss the ways to run various command-line tools
- Discuss the ways to access VMware vSphere® ESXi™ Shell
- Use commands to view, configure, and manage your VMware vSphere® environment
- Explain which log files are useful for vSAN troubleshooting
- Use log files to help troubleshoot vSAN problems
- Discuss the esxcli vsan namespace commands
- • Discuss how to use Ruby vSphere Console commands

Nadere informatie:

Neem voor nadere informatie of boekingen contact op met onze Customer Service Desk 030 - 60 89 444

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