



Enterprise Computing Solutions - Education Services

## TRAINING OFFERING

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**Sie erreichen uns unter**

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<b>CODE:</b>	<b>LÄNGE:</b>	<b>PREIS:</b>
VMW_VSANICM8	32 Hours (4 Tage)	€2,760.00

## Description

During this four-day course, you will gain the knowledge, skills, and tools to plan and deploy a VMware vSAN™ cluster. You will learn about managing and operating vSAN. This course focuses on building the required skills for common Day -2 vSAN administrator tasks such as vSAN node management, cluster maintenance, security operations, troubleshooting and advanced vSAN cluster operations. You will learn these skills through the completion of instructor-led activities and hands-on lab exercises.

## Lernziel

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

- Describe vSAN concepts
- Detail the underlying vSAN architecture and components
- Explain the key features and use cases for vSAN
- Identify requirements and planning considerations for vSAN clusters
- Explain the importance vSAN node hardware compatibility
- Describe the different vSAN deployment options
- Explain how to configure vSAN fault domains
- Detail how to define and create a VM storage policy
- Discuss the impact of vSAN storage policy changes
- Detail vSAN resilience and data availability
- Describe vSAN storage space efficiency
- Explain how vSAN encryption works
- Detail VMware HCI Mesh™ technology and architecture
- Detail vSAN File Service architecture and configuration
- Describe how to setup a stretched and a two-node vSAN cluster
- Describe vSAN maintenance mode and data evacuation options
- Define the steps to shut down a vSAN cluster for maintenance
- Explain how to use proactive tests to check the integrity of a vSAN cluster
- Use VMware Skyline Health™ for monitoring vSAN health
- Use VMware Skyline Health to investigate and help determine failure conditions
- Discuss vSAN troubleshooting best practices
- Describe vSAN Express Storage Architecture™ concepts

## Zielgruppe

Storage and virtual infrastructure consultants, solution architects, and administrators who are responsible for production support and administration of VMware vSAN 8.

## Voraussetzungen

Completion of the following course is required:

- VMware vSphere: Install, Configure, Manage or equivalent knowledge

## Inhalt

- 1 Course Introduction
  - Introductions and course logistics
  - Course objectives
- 2 Introduction to vSAN

- Describe vSAN architecture
- Describe the vSAN software components: CLOM, DOM, LSOM, CMMDS, and RDT
- Identify vSAN objects and components
- 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

### 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

- Recognize the importance of hardware compatibility
- Ensure the compatibility of driver and firmware versioning
- Use tools to automate driver validation and installation
- Apply host hardware settings for optimum performance
- Use VMware vSphere® Lifecycle Manager™ to perform upgrades
- Deploy and configure a vSAN Cluster using the Cluster QuickStart wizard
- Manually configure a vSAN Cluster using VMware 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

- 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
- 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

### 6 vSAN Resilience and Data Availability

- Describe and configure the Object Repair Timer advanced option
- Plan disk replacement in a vSAN cluster
- Plan maintenance tasks to avoid vSAN object failures
- Recognize the importance of managing snapshot utilization in a vSAN cluster

### 7 Managing vSAN Storage Space Efficiency

- Discuss deduplication and compression techniques

- Understand deduplication and compression overhead
  - Discuss compression only mode
  - Configure erasure coding
  - Configure swap object thin provisioning
  - Discuss reclaiming storage space with SCSI UNMAP
  - Configure TRIM/UNMAP
- #### 8 vSAN Security Operations
- Identify differences between VM encryption and vSAN encryption
  - Perform ongoing operations to maintain data security
  - Describe the workflow of data-in transit encryption
  - Identify the steps involved in replacing Key Management Server
- #### 9 vSAN HCI Mesh
- Understand the purpose of vSAN HCI Mesh
  - Detail vSAN HCI Mesh technology and architecture
  - Perform mount and unmount of a remote datastore
- #### 10 vSAN File Service and iSCSI Target Service
- Understand the purpose of vSAN File Services
  - Detail vSAN File Services architecture
  - Configure vSAN File Shares
  - Describe vSAN iSCSI Target Service
- #### 11 vSAN Stretched and Two Node Clusters
- Describe the architecture and uses case for stretched clusters
  - Detail the deployment and replacement of a vSAN witness node
  - Describe the architecture and uses case for twonode clusters
  - Explain storage policies for vSAN stretched cluster
- #### 12 vSAN Cluster Maintenance
- Perform typical vSAN maintenance operations
  - Describe vSAN maintenance modes and data evacuation options
  - Assess the impact on cluster objects of entering maintenance mode
  - Determine the specific data actions required after exiting maintenance mode
  - Define the steps to shut down and reboot hosts and vSAN clusters
  - Use best practices for boot devices
  - Replace vSAN nodes
- #### 13 vSAN Cluster Monitoring
- Describe how the Customer Experience Improvement Program (CEIP) enables VMware to improve products and services
  - Use VMware Skyline Health for monitoring vSAN cluster health
  - Manage alerts, alarms, and notifications related to vSAN in VMware vSphere® Client™
  - Create and configure custom alarms to trigger vSAN health issues
  - Use IOInsight metrics for monitoring vSAN performance
  - Use a vSAN proactive test to detect and diagnose cluster issues
- #### 14 vSAN Troubleshooting
- Use a structured approach to solve configuration and operational problems
  - Apply troubleshooting methodology to logically diagnose faults and optimize troubleshooting efficiency
  - Use VMware Skyline Health to investigate and help determine failure conditions
  - Explain which log files are useful for vSAN troubleshooting
- #### 15 vSAN Express Storage Architecture
- Understand the purpose of vSAN Express Storage

## Architecture

- Describe the vSAN Express Storage Architecture components
- Identify Storage Policy differences
- Understand compression and encryption operation differences

## Kurstermine

Datum	Lokation	Time Zone	Sprache	Type	Durchführungsgarantie	PREIS
27 Jul 2026	Virtual Classroom	CEDT	German	Instructor Led Online		€2,760.00
28 Sep 2026	Virtual Classroom	CEDT	German	Instructor Led Online		€2,760.00
30 Nov 2026	Virtual Classroom	CET	German	Instructor Led Online		€2,760.00
30 Nov 2026	München	CET	German	Classroom		€2,760.00

## Zusätzliche Information

[Diese Schulung ist auch als Vor-Ort-Schulung verfügbar. Bitte kontaktieren Sie uns, um mehr zu erfahren.](#)