



Enterprise Computing Solutions - Education Services

## TRAINING OFFERING

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**You can reach us at:**

Arrow ECS, Woluwedal 30, 1932 Sint-Stevens-Woluwe

Email: [education.ecs.benelux@arrow.com](mailto:education.ecs.benelux@arrow.com)

Phone: +32 2 332 19 57

<b>CODE:</b>	<b>LENGTH:</b>	<b>PRICE:</b>
VMW_VSANMO7	24 Hours (3 days)	€2,070.00

## Description

In this three-day course, you learn about managing and operating VMware vSAN™ 7. This course focuses on building the required skills for common Day-2 vSAN administrator tasks such as, vSAN node management, cluster maintenance, security operations and advanced vSAN cluster operations. You also gain practical experience through the completion of instructor-led activities and hands-on lab exercises.

## Objectives

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

- Define the tasks involved in vSAN node management
- Updating and upgrading vSAN using VMware vSphere Lifecycle Manager™
- Explain vSAN resilience and data availability features
- Reconfigure vSAN storage policies and observe the cluster-wide impact
- Perform vSAN cluster scale-out and scale-up operations
- Describe common vSAN cluster maintenance operations
- Control vSAN resync operations
- Configure vSAN storage efficiency and reclamation features
- Use VMware Skyline™ Health to monitor cluster health, performance, and storage capacity
- Describe vSAN security operations
- Configure vSAN Direct for cloud native applications
- Configure remote vSAN datastore and vSAN native file services
- Manage two-node cluster and stretched cluster advance operations

## Audience

Storage and virtual infrastructure administrators who are responsible for production support and administration of VMware vSAN 7.

## Prerequisites

Completion of the following courses is required:

- VMware vSphere: Install, Configure, Manage [v7] or equivalent knowledge
- VMware vSAN: Plan and Deploy [v7]

## Programme

### 1 Course Introduction

- Introductions and course logistics
- Course objectives

### 2 vSAN Node Management

- 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 vSphere Lifecycle Manager to perform upgrades

### 3 vSAN Resilience and Data Availability Operations

- • Describe vSAN storage policies
- • Recognize the impact of a vSAN storage policy change
- • 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
- • Configure the vSAN fault domains

### 4 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

### 5 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

### 6 vSAN Cluster Performance Monitoring

- • Describe how the Customer Experience Improvement Program (CEIP) enables VMware to improve products and services
- • Use vSphere 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 IO Insight metrics for monitoring vSAN performance
- • Analyse vsantop performance metrics
- • Use a vSAN proactive test to detect and diagnose cluster issues

### 7 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 (KMS)

### 8 vSAN Direct

- • Discuss the use cases for vSAN Direct
- • Understand the overall architecture of vSAN Direct
- • Describe the workflow of vSAN Direct datastore creation
- • Explore how vSAN Direct works with storage policy tagging

### 9 Remote vSAN

- • Discuss the use cases for remote vSAN
- • Understand the high-level architecture
- • Describe remote datastore operations
- • Discuss the network requirement
- • Interoperability between remote vSAN and VMware vSphere® High Availability

### 10 vSAN Native File Service

- • Discuss the use cases for vSAN file service
- • Understand the high-level architecture of vSAN file service
- • Discuss the authentication model

- • Configure file shares
- • Monitor file share health and capacity utilization

#### 11 Manage Advanced vSAN Cluster Operations

- • Describe the architecture for stretched clusters and two-node clusters
- • Understand the importance of witness node
- • Describe how stretched cluster storage policies affect vSAN objects
- • Create and apply a vSAN stretched cluster policy to meet specific needs
- • Discuss stretched cluster failure scenarios and responses

### **Session Dates**

On request. Please [Contact Us](#)

### **Additional Information**

[This training is also available as onsite training. Please contact us to find out more.](#)