ITTcert
BY ORSYS

Course : VMware vSAN: Management and Operations V7 (VSANMO7)

Official course, exam preparation 5V0-22.23 (Badge)

Practical course - 3d - 21h00 - Ref. MWJ

With this training course, you'll learn how to manage and operate VMware vSAN™ 7. This course focuses on acquiring the skills required for common vSAN administrator tasks such as vSAN node management, cluster maintenance, security operations and advanced vSAN cluster operations. You'll also gain hands-on experience thanks to a wealth of practical work carried out throughout the course.

🎯 Teaching objectives

At the end of the training, the participant will be able to:

- Define the tasks involved in vSAN node management
- Perform a vSAN update and upgrade using VMware vSphere Lifecycle Manager™.
- Explain vSAN's data resilience and availability features
- Reconfigure vSAN storage policies and observe cluster-wide impact
- Perform vSAN cluster scale-up and scale-out operations
- Describe common vSAN cluster maintenance operations
- Control vSAN resynchronization operations
- Configure vSAN storage efficiency and recovery features
- Use VMware Skyline™ Health to monitor cluster health, performance and storage capacity
- Describe vSAN security operations
- Configuring vSAN Direct for cloud-native applications
- Configuring the remote vSAN database and native vSAN file services
- Gérer les opérations avancées de cluster à deux nœuds et de cluster étendu

Intended audience

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

PARTICIPANTS

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

PREREQUISITES

Training Ref. MWA (VSICM7) or equivalent knowledge and training Ref. MWF (VSANPD7).

TRAINER QUALIFICATIONS

The experts who lead the training courses are specialists in the subjects covered. They are approved by the publisher and certified for the course. They have also been validated by our teaching teams in terms of both professional knowledge and teaching skills for each course they teach. They have at least three to ten years of experience in their field and hold or have held positions of responsibility in companies.

ASSESSMENT TERMS

Assessment of targeted skills prior to training.
Assessment by the participant, at the end of the training course, of the skills acquired during the training course.
Validation by the trainer of the participant's learning outcomes, specifying the tools used: multiple-choice questions, role-playing exercises, etc.
At the end of each training course, ITTCERT provides participants with a course evaluation questionnaire, which is then analysed by our teaching teams. Participants also complete an official evaluation of the publisher.
An attendance sheet for each half-day of attendance is provided at the end of the training course, along with a certificate of completion if the participant has attended the entire session.

Prerequisites
Training Ref. MWA (VSICM7) or equivalent knowledge and training Ref. MWF (VSANPD7).

Certification
Passing the 5V0-22.23 exam earns you the "VMware Specialist - vSAN 2023" badge. To obtain this badge, it is recommended to have attended at least one of these training courses: Ref. MWF (VSANPD7) or Ref. MWJ (VSANMO7) or Ref. MWL (VSANT7).
Comment passer votre examen ?

Practical details
Teaching methods
Training in French. Official course material in English.

Course schedule

(1) vSAN node management

- Recognize the importance of hardware compatibility.
- Ensure driver and firmware versioning compatibility.
- Use tools to automate driver validation and installation.
- Apply host hardware settings for optimum performance.
- Use vSphere Lifecycle Manager to perform upgrades.

(2) vSAN data resilience and availability operations

- Describe vSAN storage strategies.
- Recognize the impact of a change in vSAN storage strategy.
- Describe and configure the advanced object repair timer option.
- Plan disk replacement in a vSAN cluster.
- Schedule maintenance tasks to avoid vSAN object failures.
- Recognize the importance of managing the use of snapshots in a vSAN cluster.
- Configure vSAN fault domains.

(3) vSAN cluster maintenance

- Perform typical vSAN maintenance operations.
- Describe vSAN maintenance modes and data evacuation options.
- Evaluate the impact of entering maintenance mode on cluster objects.
- Determine specific data actions required after exiting maintenance mode.
- Define steps for shutting down and restarting vSAN hosts and clusters.
- Use best practices for boot devices.
- Replace vSAN nodes.

(4) vSAN storage efficiency

- Discuss deduplication and compression techniques.
- Understand deduplication and compression overheads.
- Discuss compression mode only.
- Configure erasure coding.
- Configure exchange object fine provisioning.
- Discuss storage space reclamation with SCSI UNMAP.
- Configure TRIM/UNMAP.

5) vSAN cluster performance monitoring

- Describe how the Customer Experience Improvement Program enables VMware to improve its products and services.
- Use vSphere Skyline Health to monitor the health of the vSAN cluster.
- Manage vSAN-related alerts, alarms and notifications in VMware vSphere® Client™.
- Create and configure custom alarms to trigger vSAN health issues.
- Use IO Insight metrics to monitor vSAN performance.
- Analyze vsantop performance metrics.
- Use proactive vSAN testing to detect and diagnose cluster problems.

6) vSAN security operations

- Identify the differences between virtual machine encryption and vSAN encryption.
- Perform ongoing operations to maintain data security.
- Describe the data-in-transit encryption workflow.
- Identify the steps involved in replacing Key Management Server (KMS).

7) vSAN Direct

- Discuss vSAN Direct use cases.
- Understand the global architecture of vSAN Direct.
- Describe the workflow for creating a vSAN Direct database.
- Find out how vSAN Direct works with storage policy tagging.

8) remote vSAN

- Discuss remote vSAN use cases.
- Understanding high-level architecture.
- Describe remote database operations.
- Discuss network requirements.
- Interoperability between remote vSAN and VMware vSphere® High Availability.

9) vSAN native file service

- Discuss use cases for the vSAN file service.
- Understand the high-level architecture of the vSAN file service.
- Discuss the authentication model.
- Configure file shares.
- Monitor file sharing health and capacity utilization.

10) Managing advanced vSAN cluster operations

- Describe the architecture of extended clusters and two-node clusters.
- Understand the importance of the control node.
- Describe how extended cluster storage policies affect vSAN objects.
- Create and apply a vSAN extended cluster strategy to meet specific needs
- Discuss extended cluster failure scenarios and responses.