VMware vSAN: Fast Track

Durée: 5 Jours   **Réf de cours: VMVSANTS**   **Version: 7**   **Méthodes d'apprentissage: Virtual Learning**

Résumé:

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 and troubleshooting methodology and diagnostic tools through the completion of hands-on lab exercises.

Virtual Learning

This interactive training can be taken from any location, your office or home and is delivered by a trainer. This training does not have any delegates in the class with the instructor, since all delegates are virtually connected. Virtual delegates do not travel to this course, Global Knowledge will send you all the information needed before the start of the course and you can test the logins.

Public visé:

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

Objectifs pédagogiques:

- **After completing this course you should be able to:**

- 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

- Use diagnostic and troubleshooting tools to resolve vSAN deployment and architectural issues

Pré-requis:

Attendees should meet the following prerequisites:

- Storage administration experience on block or file storage devices
- Understanding of concepts presented in the VMware vSphere: Install, Configure, Manage course - **VSICM**
- 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

Test et certification

Recommended as preparation for the following exams:

- This course does not align to a specific exam.

- 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®

Contenu:

Course Introduction

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

Storage Fundamentals

- Define common storage technologies
- Identify characteristics of storage devices: magnetic and flash-based devices
- Identify and explain various types of storage architectures
- Identify SAN performance factors

Introduction to vSAN

- Describe the vSAN architecture and components
- Describe the differences between the vSAN hybrid and all-flash architectures
- Describe the space-efficiency features of vSAN

vSAN Configuration

- Identify physical network configuration requirements
- Configure vSAN networking
- Configure a vSAN cluster
- Test and validate the vSAN configuration and functionality

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
- Discuss the vsanSparse snapshot format
- Explain the considerations for vsanSparse snapshots

Managing and Operating vSAN

- Manage hardware storage devices
- Manage hardware device failures
- Identify vCenter Server alarms for vSAN events
- Configure fault domains
- Upgrade to vSAN 6.6

Stretched Clusters and Two-Node Clusters

- Describe the architecture for stretched clusters and two-node clusters
- Create a stretched cluster using a two-node configuration
- Configure VMware vSphere® High Availability and VMware vSphere® Distributed Resource Scheduler™ for a stretched cluster
- Demonstrate stretched cluster failover scenarios

Monitoring vSAN

- Use vSphere Web Client to detect problems
- Use the vSAN health service to monitor health and performance
- Monitor vSAN with VMware vRealize® Operations Manager™
- Use ESXi commands to monitor the vSAN environment
- Monitor vSAN with Ruby vSphere Console

Interoperability with vSphere Features

- Identify vSphere features and VMware products that interoperate with vSAN
- Describe how vSAN interoperates with third-party products and solutions

Designing a vSAN Deployment

- Understand vSAN design considerations
- Plan and design vSAN clusters
- Identify the design and sizing tools for vSAN
- Describe vSAN use cases

vSAN Software Architecture

- Describe the software components
- Understand how the components relate to each other
- Understand vSAN object placement
- Understand the differences between object states
- Explain how storage policies affect object placement and states
- Predict how specific failures affect object states

Troubleshooting Methodology

- Characterize problems
- Determine the cause of problems
- Solve problems

Troubleshooting Tools

- Understand the use of various troubleshooting tools
- Use the tools provided to resolve problems with the lab environment

Autres moyens pédagogiques et de suivi:

• Compétence du formateur : Les experts qui animent la formation sont des spécialistes des matières abordées et ont au minimum cinq ans d'expérience d'animation. Nos équipes ont validé à la fois leurs connaissances techniques (certifications le cas échéant) ainsi que leur compétence pédagogique.
• Suivi d'exécution : Une feuille d'émargement par demi-journée de présence est signée par tous les participants et le formateur.
• Modalités d'évaluation : le participant est invité à s'auto-évaluer par rapport aux objectifs énoncés.
• Chaque participant, à l'issue de la formation, répond à un questionnaire de satisfaction qui est ensuite étudié par nos équipes pédagogiques en vue de maintenir et d'améliorer la qualité de nos prestations.

Délais d'inscription :

•Vous pouvez vous inscrire sur l'une de nos sessions planifiées en inter-entreprises jusqu'à 5 jours ouvrés avant le début de la formation sous réserve de disponibilité de places et de labs le cas échéant.
•Votre place sera confirmée à la réception d'un devis ou ""booking form"" signé. Vous recevrez ensuite la convocation et les modalités d'accès en présentiel ou distanciel.
•Attention, si vous utilisez votre Compte Personnel de Formation pour financer votre inscription, vous devrez respecter un délai minimum et non négociable fixé à 11 jours ouvrés.