vmware LEARNING

5V0-22.21
VMware vSAN Specialist

Exam Details

The VMware vSAN Specialist Exam (5V0-22.21) which leads to VMware Specialist – vSAN 2022 badge, is a 76-item exam, with a passing score of 300 using a scaled method. Exam time is 130 minutes.

Exam Delivery

This is a proctored exam delivered through Pearson VUE. For more information, visit the Pearson VUE website.

Badge Information

For details and a complete list of requirements and recommendations for attainment, please reference the VMware Education Services – Certification website.

Minimally Qualified Candidate

The minimally qualified candidate (MQC) understands vSphere and vSAN concepts and requirements and demonstrates proper vSAN design principles and best practices. The MQC is able to install and configure vSAN and possesses working knowledge of storage, security and networking concepts and storage data services. The MQC also has knowledge about proper monitoring and management of a vSAN cluster and basic troubleshooting. The MQC holds a VCP 2019, 2020 or 2021 certification. The MQC should have all the knowledge contained in the exam sections listed below.

Exam Sections

VMware exam blueprint sections are now standardized to the seven sections below, some of which may NOT be included in the final exam blueprint depending on the exam objectives.

Section 1 – Architecture and Technologies

Section 2 – Products and Solutions

Section 3 – Planning and Designing

Section 4 – Installing, Configuring, and Setup

Section 5 – Performance-tuning, Optimization, and Upgrades

Section 6 – Troubleshooting and Repairing

Section 7 – Administrative and Operational Task

If a section does not have testable objectives in this version of the exam, it will be noted below, accordingly.

Sections Included in the Exam

Section 1 - Architecture and Technologies

Objective 1.1- Identify vSAN requirements

Objective 1.2- Identify how vSAN stores and protects data

Objective 1.3- Identify vSAN space efficiency features

Objective 1.4- Given a scenario, identify the architectural requirements of a standard vSAN cluster, vSAN 2-node cluster, and a vSAN stretched cluster

Objective 1.5- Identify vSAN data services requirements

Section 2 - Products and Solutions

Objective 2.1- Given a scenario, identify when and how to use vSphere Replication in combination with vSAN.

Objective 2.2- Identify how to monitor vSAN with vRealize Operations

Objective 2.3- Identify which VMware solutions integrate with vSAN

Objective 2.4- Identify Data Persistence platform (DPp) deployment options

Section 3 - Planning and Designing

Objective 3.1- Given a scenario, identify vSAN design considerations

Objective 3.2- Given a scenario, identify how to design a vSAN cluster

Objective 3.3- Given a scenario, identify how to use vSAN design and sizing tools

Objective 3.4- Given a scenario, identify interoperability with other vSphere features

Objective 3.5- Given a scenario, identify how VMware solutions integrate with vSAN

Objective 3.6- Given a scenario, identify when to use HCI Mesh

Section 4 - Installing, Configuring, and Setup

Objective 4.1- Identify how to create and manage disk groups

Objective 4.2- Identify how to configure a vSAN cluster

Objective 4.3- Given a scenario, identify how to configure vSAN storage policies

Objective 4.4- Given a scenario, identify how to configure vSAN cluster services

Objective 4.5- Identify how to configure vSAN stretched cluster and 2-node configurations

Objective 4.6- Identify how to configure Cloud Native storage (CNS) with appropriate policies

Objective 4.7- Identify how to configure vSAN HCI Mesh.

Objective 4.8- Identify the interoperability of HCI mesh with vSAN.

Objective 4.9- Identify how to validate a vSAN deployment

Section 5 - Performance-tuning, Optimization, and Upgrades

Objective 5.1- Given a scenario, identify how to apply patches using vSphere Lifecycle Manager (LCM)

Objective 5.2- Given a scenario, identify how to upgrade an HCI environment using vSphere Lifecycle Manager (vLCM)

Objective 5.3- Given a scenario, identify how to add and remove hosts from a vSAN cluster

Objective 5.4- Given a scenario, identify how to create, expand, reconfigure, and remove disk groups

Objective 5.5- Given a scenario, identify how to create and remove vSAN Direct Configuration

Objective 5.6- Given a scenario, identify how to manage firmware and driver versions using Skyline Health, vSphere Lifecycle Manager (LCM), and Compatibility Guide

Objective 5.7- Identify how to set vSphere Lifecycle Manager (LCM) desired image

Objective 5.8- Given a scenario, identify when to use component striping

Section 6 - Troubleshooting and Repairing

Objective 6.1- Given a scenario, identify the impact of the vSAN failure.

Objective 6.2- Given a vSAN scenario, interpret Skyline Health warnings.

Objective 6.3- Identify how to determine vSAN health using the UI or ESXCLI

Objective 6.4- Identify how to gather vSAN performance information in the UI or using vsantop

Objective 6.5- Identify how to manage vSAN hardware lifecycle

Objective 6.6- Identify how to monitor resync impact

Objective 6.7- Identify how to remove unassociated vSAN objects to reclaim capacity

Objective 6.8- Identify the significance of delta components.

Objective 6.9- Identify how to resolve capacity issues using storage policies

Objective 6.10- Identify how to resolve vSAN object compliance issues

Section 7 - Administrative and Operational Task

Objective 7.1- Identify how to create, update, and modify vSAN storage policies and apply to objects

Objective 7.2 Identify vSAN data placement changes

Objective 7.3- Identify how to interpret vSAN storage capacity

Objective 7.4- Given a scenario, evaluate vSAN performance metrics

Objective 7.5- Identify effects of maintenance mode options

Objective 7.6- Given a scenario, identify how to add capacity to a vSAN cluster

Objective 7.7- Given a scenario, identify how to patch a vSAN cluster

Objective 7.8- Identify the operational characteristics/differences between standard vSAN cluster, vSAN 2-node architecture and vSAN stretched cluster

Objective 7.9- Identify the characteristics of the different types of encryption

Objective 7.1- Identify how to utilize TRIM and UNMAP from vSAN and guest OS perspective

Objective 7.11- Given a scenario, evaluate vSAN performance metrics

Objective 7.12- Given a scenario, identify the effects of maintenance mode options

Objective 7.13- Identify how to monitor vSAN storage policy compliance

Objective 7.14- Given a scenario, interpret the results of Skyline Health Check.

Objective 7.15- Identify the impact of vSAN storage policy changes

Objective 7.16- Identify how to use Skyline health check to maintain a healthy status of a vSAN cluster.

Objective 7.17- Given a scenario, identify how to start up and shut down a vSAN cluster

Recommended Courses

(Recommended)VMware vSAN: Plan and Deploy [V7]

(Recommended) VMware vSAN: Troubleshooting [V7]

(Recommended) VMware vSAN: Management and Operations [V7]

References

https://mylearn.vmware.com/mgrReg/courses.cfm?ui=www_edu&a=one&id_subject=95952

https://mylearn.vmware.com/mgrReg/courses.cfm?ui=www_edu&a=one&id_subject=93698

https://mylearn.vmware.com/mgrReg/courses.cfm?ui=www_edu&a=one&id_subject=94596

https://core.vmware.com/resource/vsan-operations-guide

https://core.vmware.com/resource/vmware-vsan-design-guide

https://core.vmware.com/resource/vsan-frequently-asked-questions-faq

http://docs-prod.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.vsan-monitoring.doc/

https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.vsan.doc

https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.vsan-planning.doc/

Exam Content Contributors

Abdullah Abdullah

Adam Sweetser

Asif Rafiq

Baburaju Gowda

Christopher Lewis

Christian Parker

Dave Morera

Diego Flaborea

Erich Popp

Jamie Rawson

Jeff Hunter

John Goh

Marc van de Logt

Marco van Baggum

Paul McSharry

Pawel Piotrowski

Pete Flecha

Wouter Kursten

VMware, Inc. 3401 Hillview Avenue Palo Alto CA 94304 USA Tel 877-486-9273 Fax 650-427-5001 www.vmware.com

REV. 7/2020