

VMware.5V0-22.21.by.Janlu.68q

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**Exam Code: 5V0-22.21**  
**Exam Name: VMware vSAN 6.7 Specialist**



## Exam A

### QUESTION 1

What are two prerequisites for using the TRIM and UNMAP capability of vSAN? (Choose two.)

- A. TRIM and UNMAP is enabled.
- B. The VM guest operating system supports ATA TRIM or SCSI UNMAP capability.
- C. The vSAN cluster is an all-flash architecture.
- D. Change the Object Space Reservation to 100.
- E. Deduplication and compression are enabled.

**Correct Answer: B, C**

**Section:**

**Explanation:**

The TRIM and UNMAP capability of vSAN is used to reclaim space on an all-flash vSAN cluster by discarding blocks that are no longer in use. In order to use this capability, the following prerequisites must be met: The VM guest operating system must support the ATA TRIM or SCSI UNMAP command. This will allow the guest OS to communicate with the vSAN datastore to inform it of blocks that are no longer in use. The vSAN cluster must be an all-flash architecture. TRIM and UNMAP can only be used on all-flash vSAN clusters, as it doesn't make sense on the hybrid vSAN cluster.

This is explained in VMware vSAN documentation in the section "vSAN Space Reclamation"

Reference: <https://docs.vmware.com/en/VMware-vSphere/7.0/vsphere-vsan-70-admin-guide/GUID-7E8F6C98-7C0B-4D21-8F1A-F3A3A9F4F4A4.html>

### QUESTION 2

A storage administrator is facing degraded performance for the VMs running on a vSAN enabled vSphere Cluster and needs an out-of-the-box tool to identify the root cause of the problem. Which tool should be used?

- A. top
- B. esxcli
- C. vmkfstools
- D. vsantop

**Correct Answer: D**

**Section:**

**Explanation:**

This is explained in VMware vSAN documentation in the section "vSAN Tools and Troubleshooting"

Reference: <https://docs.vmware.com/en/VMware-vSphere/7.0/vsphere-vsan-70-admin-guide/GUID-7E8F6C98-7C0B-4D21-8F1A-F3A3A9F4F4A4.html>

### QUESTION 3

A vSAN Administrator would like to save some space on workloads that do not take advantage of deduplication techniques by leveraging vSAN Compression only. Which set of requirements should be met?

- A. vSAN Deduplication and Compression must be enabled together, have vSAN version 6.6 or later, and have at least vSAN Enterprise license.
- B. vSAN cluster must be at version 7.0 U1 or later and have at least vSAN Advanced license in order to enable Compression only.
- C. vSAN Compression only feature is only available with VMC on AWS, so use VMware HCX to migrate such workloads to VMC on AWS.
- D. vSAN cluster must be at version 7.0 U2 or later and have at least vSAN Standard license in order to enable Compression only.

**Correct Answer: D**

**Section:**

**Explanation:**

Reference: <https://docs.vmware.com/en/VMwarevSphere/7.0/com.vmware.vsphere.vsan.doc/GUID-9F9ED2CB-8F62-4C1B-A7E2-3B8FA3FCCD77.html>

**QUESTION 4**

A vSAN administrator wishes to implement HCI mesh between two clusters that are located in geographically separate data centers. Which recommendation should the vSAN administrator make for this configuration?

- A. A leaf spine topology is required for core redundancy and reduced latency.
- B. vSAN encryption must be disabled prior to configuring HCI mesh.
- C. NIC teaming must be implemented for the vSAN network VMkernel port.
- D. Both Layer 2 and Layer 3 communications are supported.

**Correct Answer: D**

**Section:**

**Explanation:**

HCI Mesh allows you to connect two or more vSAN clusters together in a stretched cluster configuration, which enables you to share storage resources across the clusters. In order to implement HCI mesh between two clusters that are located in geographically separate data centers, the vSAN administrator should ensure that both Layer 2 and Layer 3 communications are supported between the two data centers. This will allow the vSAN clusters to communicate with each other over both the data and management networks.

This is explained in VMware vSAN documentation in the section "HCI Mesh" Reference:

<https://docs.vmware.com/en/VMware-vSphere/7.0/vsphere-vsan-70-admin-guide/GUID-7E8F6C98-7C0B-4D21-8F1A-F3A3A9F4F4A4.html>

**QUESTION 5**

An vSAN administrator is relying on vSAN Stretched Clusters to protect against entire-site failures. How is this protection accomplished?

- A. By configuring data locality
- B. By placing redundant components at both sites
- C. By synchronizing virtual machine data from the witness site
- D. By using asynchronous data transfer

**Correct Answer: B**

**Section:**

**Explanation:**

Each site in the stretched cluster is configured as a fault domain. Fault domains are used to spread redundancy components across servers. In a traditional vSAN cluster, redundant components are spread across servers in separate computing racks, and as a result, can tolerate rack failures, cache and capacity device failures, network device failures, and power failures. When used in a stretched cluster, fault domains spread redundancy components across sites, and therefore can tolerate the failure of an entire data site. The minimum number of hosts in a stretched cluster is three, one host in each data site plus the witness host in the witness site. The maximum number of hosts in a stretched cluster is 31, fifteen hosts in each data site plus the witness host in the witness site.

**QUESTION 6**

An administrator has been tasked with upgrading existing vSAN hosts with multiple SSD cache devices per host to NVMe devices (hot plug). Which fact should guide the administrator's action?

- A. The disk group does not need to be removed before adding new cache.
- B. The cache disk drives must have a larger capacity.
- C. The host must be removed from vSAN cluster before changing cache devices.
- D. The disk group must be deleted on each physical host in the cluster to use the NVMe device.



**Correct Answer: A**

**Section:**

**Explanation:**

When upgrading existing vSAN hosts with multiple SSD cache devices per host to NVMe devices, it is important to note that the disk group does not need to be removed before adding new cache. NVMe devices can be hot-plugged into the host, and vSAN will automatically detect and use the new devices as cache. It is important to check if the NVMe devices are supported by your version of vSAN and also check that the NVMe devices are on the VMware HCL.

This is explained in VMware vSAN documentation in the section "Upgrading vSAN Hardware"

Reference: <https://docs.vmware.com/en/VMware-vSphere/7.0/vsphere-vsan-70-admin-guide/GUID-7E8F6C98-7C0B-4D21-8F1A-F3A3A9F4F4A4.html>

#### QUESTION 7

A vSAN administrator is noticing that the objects resynchronizing in the cluster are taking longer than expected and wants to view the resynchronizing metrics.

Which performance category should the vSAN administrator open?

- A. Backend
- B. Resync Latency
- C. Host Network
- D. Disks

**Correct Answer: A**

**Section:**

**Explanation:**

Reference: <https://docs.vmware.com/en/VMware-vSphere/7.0/vsan-703-monitoringtroubleshooting-guide.pdf>

#### QUESTION 8

Which two characteristics are associated with vSAN Data-In-Transit Encryption? (Choose two.)

- A. Uses AES-256 bit encryption
- B. Requires an external KMS in order to work
- C. Needs specific configuration on the Network switches in order to be enabled
- D. Can be enabled independently of the vSAN Data-At-Rest encryption
- E. Needs to be enabled using vSAN Storage Policies

**Correct Answer: A, D**

**Section:**

**Explanation:**

Reference: <https://docs.vmware.com/en/VMwarevSphere/7.0/com.vmware.vsphere.vsan.doc/GUID-10099331-92E7-41AF-BCAA-88DB4B4A4B7B.html>

#### QUESTION 9

An administrator must choose between deploying a virtual witness or physical witness for a vSAN Stretched Cluster. The administrator eventually decides to use a virtual witness.

What is a benefit of selecting this approach?

- A. Reduced vSphere licensing
- B. Additional compute capacity for running VMs
- C. Shared metadata between separate clusters
- D. Increased vSAN datastore capacity

**Correct Answer: A**

**Section:**



**Explanation:**

Reference: <https://core.vmware.com/blog/understanding-vsan-witness-host>

**QUESTION 10**

Which two prerequisites are required before a vSAN administrator is able to use the vSAN Performance Diagnostics feature? (Choose two.)

- A. The vSAN Performance Service must be enabled.
- B. The vSAN Health Service must be turned on.
- C. vSAN File Services must be disabled before running vSAN Performance Diagnostics.
- D. Participation in the Customer Experience Improvement Program (CEIP) must be enabled.
- E. Verbose Mode must be enabled when configuring vSAN monitoring.

**Correct Answer: A, D**

**Section:****Explanation:**

Reference: <https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.vsanmonitoring.doc/GUID-02F67DC3-3D5A-48A4-A445-D2BD6AF2862C.html>

**QUESTION 11**

During yesterday's business hours, a cache drive failed on one of the vSAN nodes. The administrator reached out to the manufacturer and received a replacement drive the following day. When the drive failed, vSAN started a resync to ensure the health of data, and all objects are showing a healthy and compliant state. The vSAN administrator needs to replace the failed cache drive.

Which set of steps should the vSAN administrator take?

- A. Remove the existing vSAN disk group, and physically replace the device. Then, check to verify that the ESXi host automatically detects the new device. Afterwards, manually recreate the Disk Group.
- B. Physically replace the failed cache device, and vSAN will automatically create a new disk group. Then, remove the disk group with the failed device.
- C. Physically replace the failed cache device, and vSAN will automatically allocate the storage. Then, rebalance the cache layer.
- D. Place the disk group into maintenance mode, and select Full Data Migration. Then, physically replace the failed cache device. Afterwards, vSAN will rebuild the disk group automatically.

**Correct Answer: A**

**Section:****Explanation:**

Reference: <https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.vsanmonitoring.doc/GUID-95E5DAF9-FE36-497B-90B4-DB1CA05FE935.html>

**QUESTION 12**

Which two conditions should be verified before removing an ESXi host from a vSAN cluster? (Choose two.)

- A. Resyncs are running
- B. Data evacuation is complete
- C. Performance Service is disabled
- D. Encryption is disabled
- E. ESXi host is in maintenance mode

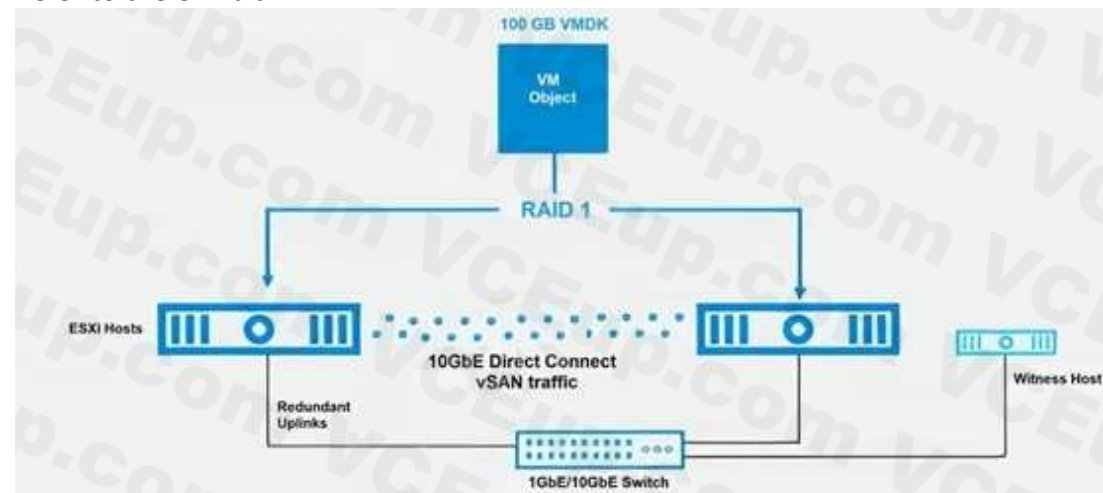
**Correct Answer: B, E**

**Section:****Explanation:**

Reference: <https://kb.vmware.com/s/article/2148975>

### QUESTION 13

In a 2-node vSAN cluster, one node has recovered from failure with FTT=1 and RAID-1 storage policy. Refer to the exhibit:



What is the total VMDK storage consumed?

- A. 150 GB
- B. 100GB
- C. 133GB
- D. 200GB

**Correct Answer: D**

**Section:**

### QUESTION 14

A vSAN administrator is implementing deduplication and compression on a vSAN all-flash cluster but wants the VMs to remain operational. The details are as follows:

There are 4 nodes in the vSAN cluster.

Existing VMs use a RAID-5 storage policy.

Which action should the vSAN administrator take to meet this goal?

- A. Use explicit fault domains.
- B. Enable TRIM/UNMAP.
- C. Change the existing VM storage policy to RAID-6.
- D. Use the Allow Reduced Redundancy option.

**Correct Answer: D**

**Section:**

**Explanation:**

Reference: <https://docs.vmware.com/en/VMwarevSphere/6.5/com.vmware.vsphere.virtualsan.doc/GUID-125B2B04-FBB9-43AB-8AF9-E7179734BC7C.html#GUID-125B2B04-FBB9-43AB-8AF9-E7179734BC7C>

### QUESTION 15

A vSAN administrator was presented with 30 additional vSAN ReadyNodes to add to an existing vSAN cluster. There is only one administrator to complete this task.

What is the fastest approach?

- A. Use a Host Profile that was extracted from an existing host.



- B. Clone the ESXi boot partition to all new hosts, since the hardware is identical.
- C. Run vim-cmd to capture, and apply the configuration from an existing host.
- D. Launch Quickstart to Add Hosts to a vSAN Cluster

**Correct Answer: A**

**Section:**

**Explanation:**

Reference: <https://docs.vmware.com/en/VMware-vSphere/7.0/vsan-703-administration-guide.pdf>  
(29)

#### QUESTION 16

A vSAN administrator has a vSAN cluster that is using vSphere Lifecycle Manager (vLCM) to manage hypervisor, server drivers, and firmware. All hosts in the cluster are compliant according to the vLCM image. A 10GB NIC on the servers is experiencing issues, the vSAN administrator determines a new network driver will resolve the problem. Unfortunately, the required NIC driver is a newer version compared to the driver provided by the most recent Vendor Addon.

Which action should the vSAN administrator take to ensure the latest network driver is installed on the NIC before remediation?

- A. Add an individual component to the vLCM image that has the updated NIC driver.
- B. Since server vendors release periodic server Vendor Addon updates, make sure the vLCM image is configured to use the most recent version of the vendor addon.
- C. Modify the vLCM image to omit the NIC Driver, and then manually update the servers with the required NIC driver.
- D. Remove the Vendor Addon from the vLCM image, and then manually install the network driver on the servers.

**Correct Answer: A**

**Section:**

**Explanation:**

Reference: <https://infohub.delltechnologies.com/p/how-does-vsphere-lcm-compare-with-vxraillcm/>



#### QUESTION 17

Which tool should be used to identify vSAN unassociated objects?

- A. vSphere Host Client
- B. vSphere CLI
- C. vsantop
- D. PowerCLI

**Correct Answer: D**

**Section:**

**Explanation:**

Reference: <https://vmadminthoughts.wordpress.com/2021/03/11/vsan-user-objects-consuminglarge-amount-of-space/>

#### QUESTION 18

What are two purposes of a vSAN storage policy (Choose two.)

- A. To determine vSAN encryption level
- B. To enable TRIM/UNMAP
- C. To define how the VM storage objects are provisioned
- D. To guarantee the required level of service
- E. To enable deduplication and compression

**Correct Answer: C, D**

**Section:**

**Explanation:**

Reference: <https://docs.vmware.com/en/VMware-Cloud-on-AWS/services/com.vmware.vsphere.vmc-aws-manage-data-center-vms.doc/GUID-EDBB551B-51B0-421B-9C44-6ECB66ED660B.html>

**QUESTION 19**

A business unit requires proprietary data to be protected against a site failure while using the least amount of storage and the least amount of nodes. AN administrator plans to implement a vSAN Stretched Cluster with a RAID-5 policy.

What is the minimum number of data nodes across all sites in this vSAN Stretched Cluster configuration?

- A. 4
- B. 8
- C. 12
- D. 6

**Correct Answer: B**

**Section:**

**Explanation:**

Reference: <https://www.yellow-bricks.com/2017/05/30/sizing-vsan-stretchedcluster/#:~:text=RAID%2D5%20is%20a%203,%3A%204%2B4%2B1>

**QUESTION 20**

Which two requirements should the vSAN administrator consider in order to accomplish this goal?

(Choose two.)

- A. A leaf spine topology is required for core redundancy and reduced latency.
- B. NIC teaming must be implemented for the vSAN network vmkernel port.
- C. The configuration must meet the same latency and bandwidth requirement as local vSAN.
- D. Encryption must be disabled prior to configuring HCI mesh.
- E. Either Layer 2 and Layer 3 communications can be used.

**Correct Answer: A, C**

**Section:**

**Explanation:**

Reference: <https://core.vmware.com/resource/vmware-vsan-hci-mesh-tech-note#sec10709-sub1>

**QUESTION 21**

A new host with local storage devices has been added to a vSAN cluster. Now, the administrator would like to increase the capacity of the vSAN datastore.

What must be done to the new host to accomplish this goal?

- A. Configure a RAID set on the storage controller.
- B. Create one or more disk groups.
- C. Delete all existing partitions.
- D. Perform a storage device rescan.

**Correct Answer: C**

**Section:**

**Explanation:**



Reference: <https://docs.vmware.com/en/VMwarevSphere/6.7/com.vmware.vsphere.virtualsan.doc/GUID-666D9839-2726-4936-8C0F-94476ECE0606.html>

#### QUESTION 22

The objects on a 4-node vSAN cluster are assigned a RAID-5 policy. A network outage occurs, causing host one to lose connectivity with the rest of the cluster. Seventy-five minutes have elapsed. What is the health state of the objects?

- A. Reduced availability with no rebuild
- B. Non-availability related incompliance (non-compliance)
- C. Reduced availability
- D. Reduced availability with no rebuild - delay timer

**Correct Answer: A**

**Section:**

**Explanation:**

Minimum number of hosts required for Raid 5:  $2n+1$ .

Reduced availability - active rebuild: The object has suffered a failure, but it was configured to be able to tolerate the failure. I/O continues to flow and the object is accessible. vSAN is actively working on re-protecting the object by rebuilding new components to bring the object back to compliance.

Reduced availability with no rebuild: The object has suffered a failure, but VSAN was able to tolerate it. For example: I/O is flowing and the object is accessible. However, VSAN is not working on reprotecting the object. This is not due to the delay timer (reduced availability - no rebuild - delay timer) but due to other reasons. This could be because there are not enough resources in the cluster, or this could be because there were not enough resources in the past, or there was a failure to reprotect in the past and VSAN has yet to retry.

#### QUESTION 23

Which two actions are recommended when adding a host to a vSAN cluster? (Choose two.)

- A. Disable vSphere High Availability (HA).
- B. Create uniformly-configured hosts.
- C. Reference the VMware Compatibility Guide.
- D. Disable vSphere Cluster Services (vCLS).
- E. Disable vSAN performance service.

**Correct Answer: B, C**

**Section:**

**Explanation:**

Reference: <https://docs.vmware.com/en/VMwarevSphere/6.7/com.vmware.vsphere.virtualsan.doc/GUID-666D9839-2726-4936-8C0F-94476ECE0606.html>

#### QUESTION 24

An existing vSAN cluster has this specification:

Four ESXi hosts with all flash configuration

Each with two disk groups

Each disk group with one cache device and four capacity devices

There are five more device slots available

The CTO would like to provision new applications, and these will need more capacity and performance.

Which two methods may be used by the vSAN administrator to meet this goal? (Choose two.)

- A. Adding faster cache devices
- B. Adding one more disk group per host with the same configuration
- C. Replacing all cache devices by a larger device
- D. Adding an ESXi host with identical device configuration



E. Replacing all capacity devices by a larger device

**Correct Answer: B, D**

**Section:**

**Explanation:**

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

#### QUESTION 25

An administrator wants to check the vSAN cluster health during the maintenance window while vCenter Server is offline. What are two ways to complete this task? (Choose two.)

- A. HCI Bench
- B. ESXi system logs on vSAN datastore
- C. esxcli
- D. vSphere Host Client
- E. esxtop

**Correct Answer: C, D**

**Section:**

**Explanation:**

Reference: <https://kb.vmware.com/s/article/2107705>

#### QUESTION 26

A vSAN administrator is troubleshooting poor performance of vSAN cluster while vCenter is not available. The vSAN administrator decides to use a command line tool to monitor real-time vSAN IOPS, throughput, and other metrics on ESXi host.

Which command line tool should be used?

- A. vimtop
- B. esxcli
- C. esxcfg
- D. vsantop

**Correct Answer: D**

**Section:**

**Explanation:**

Reference: <https://docs.vmware.com/en/VMware-vSphere/6.7/vsan-673-monitoringtroubleshooting-guide.pdf> (36)

#### QUESTION 27

A vSAN administrator has three available racks and six vSAN hosts and needs to protect against a rack failure while maximizing resources. Which two strategies should the vSAN administrator use to achieve this goal? (Choose two.)

- A. RAID-5/FTT=1
- B. vSAN stretched cluster
- C. Specify fault domains
- D. RAID-6/FTT=2
- E. 2-node configuration

**Correct Answer: C, D**

**Section:**

**Explanation:**

Reference: <https://docs.vmware.com/en/VMwarevSphere/6.5/com.vmware.vsphere.virtualsan.doc/GUID-C365ACE8-7485-4463-A12C-71D1917A4930.html>

#### QUESTION 28

Which Storage Policy Structure Rule is supported by vSAN Direct Datastore?

- A. Enable tag/capacity-based placement rules
- B. Enable host-based rules
- C. Enable rules for vSAN storage
- D. Enable storage performance-based rules

**Correct Answer: A**

**Section:**

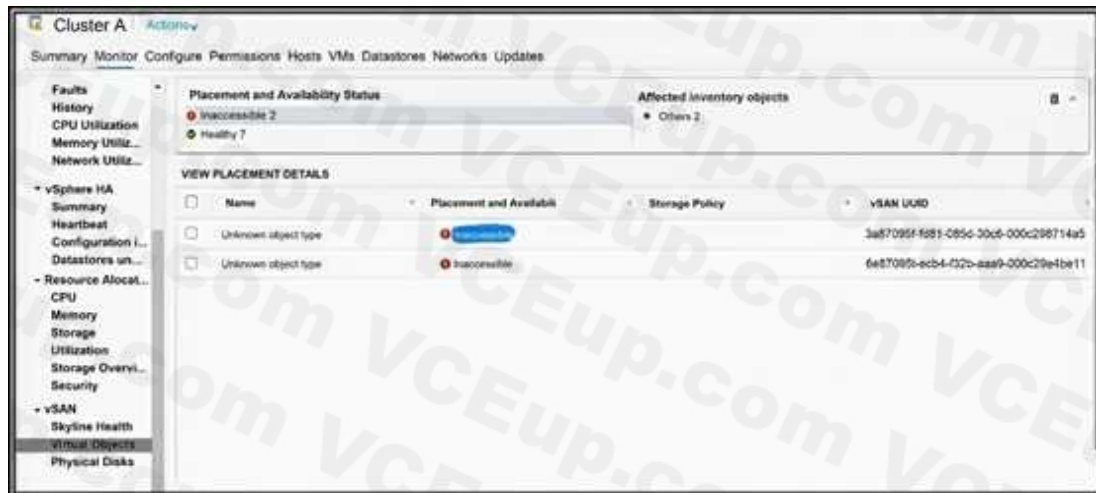
**Explanation:**

Reference: <https://docs.vmware.com/en/VMwarevSphere/6.7/com.vmware.vsphere.virtualsan.doc/GUID-9A3650CE-36AA-459F-BC9FD6D6DAAA9EB9.html>

#### QUESTION 29

A vSAN administrator was examining the status of Virtual Objects and found inaccessible objects that are occupying significant storage capacity.

Refer to the exhibit:





Which action is needed to restore the storage capacity?

- A. Evacuate data on affected node by using the Full Data Migration mode.
- B. Identify and remove the obsolete object.
- C. Restart the host, and obsolete objects will be removed on their own.
- D. Trigger a manual resync, and allow vSAN to heal the object.

**Correct Answer: B**

**Section:**

#### QUESTION 30

After a recent security assessment, the security team recommended that vSAN encryption be enabled. The vSAN administrator will be adding a Key Management Server to vCenter.

What is a prerequisite to taking this action?

- A. IPv6 addressing

- B. Proxy server with username and password access
- C. Self-encryption drives
- D. Cryptographer ManageKeyServer permissions

**Correct Answer: D**

**Section:**

**Explanation:**

Reference: <https://vdc-repo.vmware.com/vmwb-repository/dcr-public/1ef6c336-7bef-477d-b9bbcaa1767d7e30/82521f49-9d9a-42b7-b19b-e6cd9b30db1/vim.encryption.CryptoManagerKmip.html>

### QUESTION 31

A vSAN administrator is using the vSAN ReadyNode Sizer to build a new environment. While entering the cluster configurations, a fellow colleague inquires about the Operations Reserve option. What is the purpose of using this option?

- A. Configures space for external operations
- B. Provides space for internal operations
- C. Reserves space for tolerating failures
- D. Allocates space for vSAN upgrades

**Correct Answer: B**

**Section:**

**Explanation:**

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

### QUESTION 32

A customer is running a number of compute-intensive application workloads on their existing 4-node vSAN cluster that has resulted in resource contention. To provide additional compute resources, the vSAN administrator has decided to deploy a new 4-node vSAN compute-only cluster so that a HCI Mesh can be configured.

Which three points would the vSAN administrator need to consider before using this configuration? (Choose three.)

- A. The storage policy must be based on the number of hosts within the client cluster.
- B. The storage policy is based on the total number of hosts across both client and server clusters.
- C. A storage policy of Erasure Coding with FTT=2 would be supported.
- D. A storage policy of Mirroring with FIT 1 would be supported.
- E. A storage policy of Erasure Coding with hi 1=1 would be supported.
- F. The storage policy must be based on the number of hosts within the server cluster.

**Correct Answer: D, E, F**

**Section:**

**Explanation:**

Reference: [https://core.vmware.com/resource/vsan-7-technology-overview#\\_Toc12887444](https://core.vmware.com/resource/vsan-7-technology-overview#_Toc12887444)

### QUESTION 33

A 100GB virtual disk object has this storage policy assigned to it:

Site disaster tolerance: None - standard cluster

Failures to Tolerate: 1 failure - RAID-1 (Mirroring)

Number of disk stripes per object: 3

What is the maximum amount of raw vSAN storage capacity consumed by this virtual disk?

- A. 200GB
- B. 100GB
- C. 300GB
- D. 600GB

**Correct Answer: A**

**Section:**

**QUESTION 34**

A vSAN administrator has been tasked with troubleshooting an application in a Hybrid vSAN environment. The application is I/O intensive, and the magnetic capacity devices may be playing a role in slow performance, so the administrator decides to take action to help resolve the problem.

Which action should the administrator take?

- A. Change the Default Storage Policy to have stripe width of 13.
- B. Modify the stripe width for the application on the advanced settings for the VM.
- C. Add more magnetic capacity devices in the affected host.
- D. Increase the stripe width based on the number of capacity devices within the disk group.

**Correct Answer: D**

**Section:**

**Explanation:**

Reference: [https://www.thomaskrenn.com/redx/tools/mb\\_download.php/mid.y5242ace756250c55/Manual\\_VMware\\_VSAN\\_Design\\_and\\_Sizing\\_Guide.pdf](https://www.thomaskrenn.com/redx/tools/mb_download.php/mid.y5242ace756250c55/Manual_VMware_VSAN_Design_and_Sizing_Guide.pdf)

**QUESTION 35**

An administrator has deployed a development VMware vSAN 7.0 U1 cluster. It will be used by the development teams to deploy a mixture of cloud-native stateful applications alongside a combination virtual machine and Kubernetes workloads.

Which vSAN feature should be configured for the vSAN Data Persistence platform (vDPP)?

- A. vSAN Cloud Native Storage
- B. vSAN File Services
- C. vSAN with Shared Nothing Architecture (SNA)
- D. vSAN Direct

**Correct Answer: C**

**Section:**

**Explanation:**

Reference: <https://docs.vmware.com/en/VMware-vSphere/7.0/vmware-vsphere-with-tanzu/GUIDF7223607-30A5-4B2D-9B06-A55A65FEAA11.html>

**QUESTION 36**

Skyline Health vSAN HCL DB up-to-date health check is alerting in red in a newly deployed vCenter Server.

Which two options are the possible solutions for this problem? (Choose two.)

- A. Obtain the HCL DB offline bundle from vmware.com, and manually update it.
- B. Upgrade to the latest version of vCenter.
- C. Upgrade the HCL DB from the hardware vendor website.
- D. Obtain the HCL DB from the hardware vendor, and manually update it.
- E. Update the HCL DB online from vmware.com.

**Correct Answer: A, E**

**Section:**

**Explanation:**

Reference: <https://kb.vmware.com/s/article/54945>

**QUESTION 37**

A new vSAN Cluster with four hosts has to be designed for a single site architecture.

Which design decision is correct?

- A. All the data must remain accessible even with two host failures.
- B. Configure the storage controllers to use RAID.
- C. Use block-based storage for the new vSAN cluster.
- D. Only hardware listed on the VMware Compatibility Guide will be deployed.

**Correct Answer: D**

**Section:**

**Explanation:**

Reference: <https://www.parallels.com/blogs/ras/vmware-vsan/>

**QUESTION 38**

An organization is facing vSAN storage capacity challenges on one of their vSAN enabled clusters, while other vSAN enabled clusters are underutilized. The current vSAN version is 7.0 U1.

Which vSAN feature should be used to resolve this challenge in the quickest way?

- A. vSANHCIMesh
- B. vSAN Replication
- C. vSAN Stretched Clusters
- D. vSAN Datastore(s)



**Correct Answer: A**

**Section:**

**Explanation:**

Reference: <https://docs.vmware.com/en/VMware-vSphere/7.0/rn/vmware-vsan-701-releasenotes.html>

**QUESTION 39**

The Resyncing Objects view in the vCenter UI reports that some objects are currently resyncing.

Which two actions would cause this situation? (Choose two.)

- A. DRS is relocating VMs between vSAN nodes.
- B. HA Virtual Machine Monitoring forced a VM to reboot.
- C. A host failure occurs in the cluster.
- D. A change to the storage policy is applied to the objects.
- E. A VM snapshot is being deleted.

**Correct Answer: C, D**

**Section:**

**QUESTION 40**

A vSAN administrator has recently upgraded a vSAN cluster to 7.0 U1 and has enabled Capacity Reserve features to reduce the amount of capacity reserved for transient and rebuild operations.

Which scenario would prevent this feature from operating properly?

- A. The physical disk has reached an 80% full reactive rebalance threshold.
- B. The used space on vSAN datastore exceeds the suggested slack rebuild threshold.
- C. The used space on vSAN datastore exceeds the suggested host rebuild threshold.
- D. Underutilized space is above 25-30% of the total capacity threshold.

**Correct Answer: C**

**Section:**

**Explanation:**

Reference: <https://blogs.vmware.com/virtualblocks/2020/09/24/effective-capacity-management-with-vsan-7-update-1/>

#### QUESTION 41

A vSAN administrator notices the VMware Skyline Health: Network Latency Check reports indicate three hosts are non-compliant. Which action should the vSAN administrator take?

- A. Reboot the noncompliant hosts one at a time.
- B. Rerun the VMware Skyline Health: vSAN Cluster Partition report.
- C. Place the noncompliant hosts into an isolated network.
- D. Check VMKNICs, uplinks, VLANs, physical switches, and associated settings.

**Correct Answer: D**

**Section:**

#### QUESTION 42

The cluster level backend IOPS performance graph shows a higher-than-average number of IOPS for back-end storage. What is a possible reason for this situation?

- A. Data ^synchronization is in progress.
- B. DRS is invoking multiple vMotion migrations.
- C. There is VM storage I/O traffic.
- D. Not enough capacity for slack space is on vSAN datastore.

**Correct Answer: A**

**Section:**

**Explanation:**

Reference: <https://core.vmware.com/resource/troubleshooting-vsan-performance>

#### QUESTION 43

A site administrator has determined that the site needs to upgrade all vSAN clusters to 7.0 U1. The vSAN administrator wishes to complete the update in the shortest amount of time possible. All virtual machines are assigned a storage policy where the "Failures to tolerate" is set to one or higher. Which strategy should be used to achieve this goal?

- A. Disable de-duplication and compression prior to the upgrade.
- B. Perform a complete update, omitting the on-disk format update.
- C. Select the "No data migration" maintenance mode option.
- D. Update only select, mission-critical clusters.



**Correct Answer: C**

**Section:**

**Explanation:**

Reference: <https://docs.vmware.com/en/VMware-vSphere/7.0/vsan-703-administration-guide.pdf>

#### QUESTION 44

A vSAN storage policy with the 'Failures to Tolerate' rule set to '2 failures - RAID-1 (Mirroring)' is assigned to multiple virtual machines.

The vSAN administrator is considering assigning a new vSAN storage policy with the 'Failures to Tolerate' rule set to '2 failures - RAID-6\* (Erasure Coding)' to the virtual machines.

How will the capacity of the vSAN datastore be affected if this action is taken?

- A. Free capacity is permanently reduced after the Object Repair Timer expires.
- B. Additional capacity is permanently consumed by the erasure coded components.
- C. Used capacity will increase temporarily while the erasure coded components are built.
- D. Additional free capacity will be available for immediate use.

**Correct Answer: C**

**Section:**

**Explanation:**

Used capacity will increase temporarily while the erasure coded components are built. When a vSAN storage policy with 'Failures to Tolerate' set to '2 failures - RAID-6 (Erasure Coding)' is assigned to multiple virtual machines, the components of the objects stored on the vSAN datastore will be rebuilt in an erasure coding format, which requires additional capacity. This additional capacity will be used temporarily while the erasure coded components are built, and will be reclaimed once the process is complete.

<https://core.vmware.com/resource/vsan-2-node-cluster-guide> vSAN 2-Node

Cluster Guide | VMware

<https://core.vmware.com/resource/vsan-2-node-cluster-guide>

<https://douran.academy/wp-content/uploads/ebooks/vcp-dcv-for-vsphere-7.x.pdf>

VCP-DCV for vSphere 7.x (Exam 2V0-21.20) Official Cert Guide, 4th ...

<https://douran.academy/wp-content/uploads/ebooks/vcp-dcv-for-vsphere-7.x.pdf>

<https://core.vmware.com/resource/vsan-70u3-proof-concept-guide>

vSAN 70u3 Proof of Concept Guide | VMware

<https://core.vmware.com/resource/vsan-70u3-proof-concept-guide> According to the VMware vSAN documentation, when a vSAN storage policy with 'Failures to Tolerate' set to '2 failures - RAID-6 (Erasure Coding)' is assigned to multiple virtual machines, the components of the objects stored on the vSAN datastore will be rebuilt in an erasure coding format, which requires additional capacity. This additional capacity will be used temporarily while the erasure coded components are built, and will be reclaimed once the process is complete.

You can find this exact text in the VMware vSAN 6.6 Documentation, in the section titled 'Storage Policies': <https://docs.vmware.com/en/VMware-vSphere/6.6/com.vmware.vsphere.vsan.doc/GUIDF54F0A1F-D9E7-46FD-86F8-6F47A6FAE17C.html>

#### QUESTION 45

Which two storage policy changes result in a component resync? (Choose two.)

- A. Changing object space reservation to 100
- B. Changing the failure tolerance method
- C. Disabling object checksum (from checksum enabled)
- D. Adding an IOPS Limit rule to a storage policy
- E. Enabling object checksum (from checksum disabled)

**Correct Answer: B, E**

**Section:**

**Explanation:**

You can find this information in the VMware vSAN 6.7 Documentation, in the section titled 'Storage Policy Rules': <https://docs.vmware.com/en/VMwareQuestions & Answers PDF P-35>

[vSphere/6.7/com.vmware.vsphere.vsan.doc/GUID-F54F0A1F-D9E7-46FD-86F8-6F47A6FAE17C.html](https://docs.vmware.com/en/VMware-vSphere/6.7/com.vmware.vsphere.vsan.doc/GUID-F54F0A1F-D9E7-46FD-86F8-6F47A6FAE17C.html)

<https://core.vmware.com/resource/vsan-2-node-cluster-guide>





vSAN 2-Node Cluster Guide | VMware

<https://core.vmware.com/resource/vsan-2-node-cluster-guide>

<https://douran.academy/wp-content/uploads/ebooks/vcp-dcv-for-vsphere-7.x.pdf>

VCP-DCV for vSphere 7.x (Exam 2V0-21.20) Official Cert Guide, 4th ...

<https://douran.academy/wp-content/uploads/ebooks/vcp-dcv-for-vsphere-7.x.pdf>

<https://core.vmware.com/resource/vsan-70u3-proof-concept-guide>

vSAN 70u3 Proof of Concept Guide | VMware

<https://core.vmware.com/resource/vsan-70u3-proof-concept-guide>

#### QUESTION 46

A vSAN administrator has been asked to increase the usable storage capacity of an existing vSAN cluster to deploy some new virtual machines containing a large amount of data. The details are as follows:

- Each ESXi host in the vSAN cluster is configured with two disk groups.
- Each disk group contains three capacity devices and one cache device.
- Deduplication and compression are not enabled.
- Only the default VM storage policy is in use and had not been changed.
- Add capacity without re-creating disk groups.

The company would like to minimize the number of devices used for cost optimization.

Which action should the vSAN administrator carry out to provide additional storage to the vSAN cluster?

- A. Changing object space reservation on the default storage policy to 100
- B. Adding new capacity devices to the existing disk groups
- C. Deleting and recreating the current disk groups with a larger disk configuration
- D. Creating a third disk group on each host

**Correct Answer: B**

**Section:**

**Explanation:**

In order to increase the usable storage capacity of an existing vSAN cluster without re-creating disk groups, the vSAN administrator should add new capacity devices to the existing disk groups. This will allow additional storage to be added to the vSAN cluster while minimizing the number of devices used for cost optimization.

You can find this information in the VMware vSAN 6.6 Documentation, in the section titled 'Disk Groups': <https://docs.vmware.com/en/VMware-vSphere/6.6/com.vmware.vsphere.vsan.doc/GUID-5A5CC5C3-F4C4-4F4D-A6B4-C9A9F36D69FE.html>

#### QUESTION 47

A vSAN administrator is deploying a four node vSAN cluster to a new work location. To help with configuration and consistency, the vSAN administrator plans to use Quickstart. Which two prerequisites must be met prior to taking this action? (Choose two.)

- A. vDS must be created for vSAN and management traffic.
- B. DRS and HA have been enabled.
- C. vCenter is running on one of the four nodes.
- D. Hosts are running 6.0 U2 or later.
- E. Hosts do not have existing vSAN or network configurations.

**Correct Answer: D, E**

**Section:**

**Explanation:**

Quickstart is a configuration tool that guides vSAN administrators through the process of creating a vSAN cluster from scratch. It is available in vCenter Server 6.0 U2 and later versions. Therefore, before using Quickstart, it is important to ensure that all hosts are running 6.0 U2 or later. The hosts should not have any existing vSAN or network configurations, to avoid any conflicts with the new vSAN cluster being deployed. This is explained in VMware vSAN 6.7 documentation in the section "Creating a vSAN Cluster using the Quickstart Configuration" Reference:

<https://docs.vmware.com/en/VMware-vSphere/6.7/vsphere-vsan-67-admin-guide/GUID-7A6C9F9C-1F74-4E44-8848-B1A2FBC6F2F6.html>



#### QUESTION 48

An administrator has deployed a dedicated VMware vSAN 7.0 U1 cluster that will be used to provide developers with access to an environment that is running VMware with Tanzu workloads only. Which vSAN feature should be configured for vSAN Data Persistence platform (vDPP)?

- A. vSAN Cloud Native Storage
- B. vSAN with Shared Nothing Architecture (SNA)
- C. vSAN Direct
- D. vSAN File Services

**Correct Answer: B**

**Section:**

**Explanation:**

According to the VMware official documentation, vSAN with SNA is the recommended configuration for the vSAN Data Persistence platform (vDPP). This configuration provides support for high availability [1], scalability, and enterprise-grade security. With SNA, the entire vSAN cluster is connected over a single high-speed network, and each node has direct access to the shared storage.

This ensures that workloads are balanced across the cluster, which in turn improves performance and reliability. Additionally, SNA ensures that storage is accessible to all nodes in the cluster, eliminating the need for any centralized storage controllers.

<https://docs.vmware.com/en/VMware-vSphere/7.0/vmware-vsphere-with-tanzu/GUID-F7223607-30A5-4B2D-9B06-A55A65FEAA11.html>

1. Using vSAN Data Persistence Platform with Modern Stateful Services

<https://docs.vmware.com/en/VMware-vSphere/7.0/vmware-vsphere-with-tanzu/GUID-F7223607-30A5-4B2D-9B06-A55A65FEAA11.html>

#### QUESTION 49

A vSAN administrator wants to upgrade a 4-node vSAN Cluster from version 7.0 to the latest version available. The vSAN administrator would like to complete the upgrade as a single task, including firmware and drivers for its hardware.

Which action must the administrator take in order to be able to perform the upgrade?

- A. Configure vSphere Update Manager (VUM).
- B. Migrate the workloads to allow the firmware to be upgraded.
- C. Install the new VMware LCM tool.
- D. Use vLCM images within Lifecycle Manager in vCenter.



**Correct Answer: D**

**Section:**

**Explanation:**

According to the VMware official documentation, Lifecycle Manager (vLCM) provides an automated and consistent approach to deploying and updating vSAN clusters, including firmware and driver updates. vLCM enables administrators to upgrade a 4-node vSAN cluster from version 7.0 to the latest version available as a single task, using vLCM images within Lifecycle Manager in vCenter. This ensures that the process is done quickly and reliably, without manual intervention or additional steps.

<https://docs.vmware.com/en/VMware-vSphere/7.0/rn/vsphere-esxi-vcenter-server-7-vsphere-withtanzu-release-notes.html>

VMware vSphere with Tanzu Release Notes

<https://docs.vmware.com/en/VMware-vSphere/7.0/rn/vsphere-esxi-vcenter-server-7-vsphere-withtanzu-release-notes.html>

#### QUESTION 50

A vSAN administrator has been provided hardware to create the vSAN infrastructure. AH six SSD devices per host are on the VMware HCL. The administrator wants to use the disk group configuration that would maximize the amount of vSAN cache available and help provide better storage performance for the new development workloads.

Which disk group configuration should be used?

- A. A single disk group with 6 disks in the configuration
- B. 3 disk groups with 2 disks in each disk group configuration
- C. 2 disk groups with 3 disks in each disk group configuration

D. 6 disk groups with 1 disk in each disk group configuration

**Correct Answer: B**

**Section:**

**Explanation:**

According to the VMware official documentation, this is the recommended disk group configuration for maximizing the amount of vSAN cache available and providing better storage performance for development workloads. This configuration allows for more capacity and flash devices to be used, increasing the amount of available cache and providing more storage options. Additionally, this configuration allows for more flexibility in the sizing of the capacity tier, allowing the administrator to adjust the size of the capacity tier to best suit the needs of the workloads.

#### QUESTION 51

A vSAN Administrator has a cluster of six vSAN nodes. The vSAN datastore was 55% utilized, and due to a power outage, one node was lost. The vSAN administrator needs to resolve the storage policy compliance for the virtual machines on RAID-5.

Which action, if any, needs to be taken to meet this goal?

- A. No action is needed since vSAN automatically rebuilds the objects.
- B. The one failed node must be restored.
- C. Trigger vSAN object repair from ESXCLI.
- D. Change the RAID-5 FTT from 2 to 1.

**Correct Answer: D**

**Section:**

**Explanation:**

When a node is lost in a vSAN cluster, the vSAN will automatically begin to rebuild objects in order to meet the storage policy compliance. However, if the storage policy includes RAID-5 with a "Failures to Tolerate" (FTT) value of 2, it won't be possible to rebuild the objects and meet the storage policy compliance with only 5 nodes. In this case, the vSAN administrator needs to change the RAID-5 FTT from 2 to 1, this will allow the vSAN to rebuild the objects and meet the storage policy compliance with only 5 nodes. With RAID-5, the FTT value of 1 is the minimum value supported by vSAN.

This is explained in VMware vSAN documentation in the section "RAID-5 and RAID-6 Erasure Coding"

Reference: <https://docs.vmware.com/en/VMware-vSphere/7.0/vsphere-vsan-70-config-guide/GUID-1A5F48D5-F8C9-4C7E-9D9B-F9D4B4E4A4F4.html>

Changing the RAID-5 FTT from 2 to 1 will ensure that the virtual machines on the vSAN datastore are in compliance with the storage policy. This is because, with a RAID-5 FTT of 2, the cluster needs at least 6 nodes to meet the redundancy requirements. With a single node lost, the cluster cannot meet this requirement and so the virtual machines on the datastore will be out of compliance. By changing the FTT from 2 to 1, the cluster will be able to meet the redundancy requirements with only the remaining 5 nodes, ensuring compliance with the storage policy. Reference:

<https://docs.vmware.com/en/VMwarevSphere/7.0/com.vmware.vsphere.troubleshooting.doc/GUID-F7A0FECC-E95E-4A89-B3B3-9699D9F7D87D.html>

#### QUESTION 52

An administrator needs an esxcli system command that will place a vSAN host into maintenance mode using the "Ensure Accessibility" option.

Which esxcli system command, if any, will work?

- A. There are no esxcli commands for MaintenanceMode.
- B. `#esxcli system maintenanceMode set -enable true -m ensureObjectAccessibility.`
- C. `#esxcli system MaintenanceMode set -enable true -e ensureObjectAccessibility true.`
- D. `#esxcli system maintenanceMode set -enable false -m ensureObjectAccessibility.`

**Correct Answer: C**

**Section:**

**Explanation:**

The esxcli system command that will place a vSAN host into maintenance mode using the "Ensure Accessibility" option is: `#esxcli system maintenanceMode set -enable true -e ensureObjectAccessibility true` This command will put the host into maintenance mode and ensure that all objects are accessible and compliant with the storage policy. This option should be used when performing maintenance or upgrades on a vSAN host. This command is explained in VMware vSAN documentation in the section "Maintenance Mode for vSAN" Reference: <https://docs.vmware.com/en/VMwarevSphere/7.0/vsphere-vsan-70-admin-guide/GUID-7E8F6C98-7C0B-4D21-8F1A-F3A3A9F4F4A4.html>

### QUESTION 53

An administrator is deploying a new 2-node vSAN cluster with a shared witness to a remote location. Which requirement must be met?

- A. The ESXi host's controller cache and advanced features must be disabled.
- B. The ESXi host's drives must be configured in RAID 1 to support Failures to Tolerate of 1.
- C. The ESXi hosts must have SSDs or NVMe configured for Virtual Flash File System.
- D. The ESXi hosts must have a minimum of 64 GBs of memory.

**Correct Answer: B**

**Section:**

**Explanation:**

The ESXi host's drives must be configured in RAID 1 to support Failures to Tolerate of 1. According to VMware's vSAN 6.7 Configuration Maximums guide, when deploying a vSAN 2-node cluster with a shared witness, the ESXi hosts must be configured in RAID 1 to support the Failure to Tolerate of 1.

This is because a vSAN 2-node cluster with a shared witness will have a single point of failure, so it is important to ensure that the ESXi hosts are configured with redundancy to prevent data loss.

### QUESTION 54

A group of virtual machines have the vSAN Default Storage Policy assigned to them. This policy has not been modified from its default settings to date. The vSAN administrator would like to reduce the amount of storage capacity consumed by these virtual machines.

Which action will produce this result?

- A. Assign a new policy with "Failures to tolerate" set to "1-Failure - RAID-5 (Erasure Coding)" to the virtual machines.
- B. Assign a policy with "Object space reservation" set to "50%" to the virtual machines.
- C. Reduce the "Number of disk stripes per object" from 3 to 2 in the vSAN Default Storage Policy.
- D. Set "Failures to tolerate" in the vSAN Default Storage Policy to "2-Failures - RAID-1 (Mirroring)".

**Correct Answer: B**

**Section:**

**Explanation:**

Object space reservation is a vSAN storage policy attribute that allows the administrator to set a percentage of the provisioned space to be reserved for the virtual machine disk objects. This attribute can be used to reduce the amount of storage capacity consumed by virtual machines.

Setting the "Object space reservation" to "50%" will reserve 50% of the total provisioned space for the virtual machines, and free up the remaining 50% for other objects.

It's worth noting that changing object space reservation can result in a component resync, which could cause a performance impact.

This is explained in VMware vSAN documentation in the section "vSAN Storage Policy" Reference:

<https://docs.vmware.com/en/VMware-vSphere/7.0/vsphere-vsan-70-admin-guide/GUID-7E8F6C98-7C0B-4D21-8F1A-F3A3A9F4F4A4.html>

### QUESTION 55

A vSAN administrator is investigating vSAN performance related problems but cannot find any vSAN performance statistics on the cluster summary page.

Why is this situation occurring?

- A. The administrator has read-only permissions on the cluster level.
- B. vSAN Performance service is not enabled.
- C. The vRealize Operations Manager is not integrated with vSAN cluster.
- D. vSAN statistics are only available via CLI.

**Correct Answer: B**

**Section:**

**Explanation:**

To enable vSAN Performance service, the vSAN administrator can go to the vSphere Web Client, navigate to the vSAN cluster, click on the Configure tab, and then click on Services. Locate the vSAN Performance service, and click on the Start button.

This is explained in VMware vSAN documentation in the section "Monitoring vSAN Performance"

Reference: <https://docs.vmware.com/en/VMware-vSphere/7.0/vsphere-vsan-70-admin-guide/GUID-7E8F6C98-7C0B-4D21-8F1A-F3A3A9F4F4A4.html>

#### QUESTION 56

An administrator is preparing maintenance on a host in a vSAN cluster, and the maintenance is expected to take less than one hour. The administrator is considering using the "Full Data Migration" but understands that this can be time consuming and also has additional capacity and performance considerations.

Which action would alleviate these concerns?

- A. Use maintenance mode with "No Data Migration".
- B. Use maintenance mode with "Ensure Accessibility".
- C. Use maintenance mode with "Ensure Accessibly", and increase the vSAN object repair timer to more than one hour.
- D. Take an outage window when users are less likely to be working.

**Correct Answer: A**

**Section:**

**Explanation:**

According to VMware's documentation, the "No Data Migration" option for maintenance mode should be used when the expected maintenance time is less than one hour. This option will allow the administrator to complete their maintenance without having to wait for a full data migration, which can be time consuming and also has additional capacity and performance considerations. It is important to note that this option will not guarantee the same level of availability as the other options, so it should only be used when the expected maintenance time is less than one hour.

<https://core.vmware.com/resource/vsan-2-node-cluster-guide>

vSAN 2-Node Cluster Guide | VMware

<https://core.vmware.com/resource/vsan-2-node-cluster-guide>

<https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.vsan-planning.doc/GUID-05C1737A-5FBA-4AEE-BDB8-3BF5DE569E0A.html>

Deploying a vSAN Witness Appliance

<https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.vsan-planning.doc/GUID-05C1737A-5FBA-4AEE-BDB8-3BF5DE569E0A.html>

<https://core.vmware.com/resource/vsan-stretched-cluster-guide>

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<https://core.vmware.com/resource/vsan-stretched-cluster-guide>

#### QUESTION 57

After merging the IT infrastructure of two enterprises, the vSAN administrator was tasked to add one ESXi host with no disks to one of the existing vSAN clusters.

Which two actions should the vSAN administrator take to complete this task? (Choose two.)

- A. This is only possible by presenting iSCSI shares from the existing vSAN cluster.
- B. Make sure the host has physical NICs with equal network throughput.
- C. This is only possible by adding a minimum of three ESXi hosts.
- D. Create a vSAN VMKernel interface on the new host.
- E. Create the required disk groups for the newly added host.

**Correct Answer: D, E**

**Section:**

**Explanation:**

To add an ESXi host with no disks to an existing vSAN cluster, the vSAN administrator needs to take the following steps:

Create a vSAN VMKernel interface on the new host, the interface should be configured with the same network settings as the existing vSAN cluster.

Create the required disk groups for the newly added host, the disk groups should contain at least one cache device and one or more capacity devices.

Add the new host to the vSAN cluster, this can be done through the vSphere Web Client.

Configure the storage policies and assign them to the virtual machines as needed.

It's worth noting that adding a host to an existing vSAN cluster does not require adding a minimum of three ESXi hosts or iSCSI shares, the host can be added without these requirements. Also, having physical NICs with equal network throughput is recommended but not a requirement.

This is explained in VMware vSAN documentation in the section "Adding a Host to a vSAN Cluster"

Reference: <https://docs.vmware.com/en/VMware-vSphere/7.0/vsphere-vsan-70-admin-guide/GUID-5B5F5F5D-9F9E-4E4F-9CA3-4CEF36E5D8F5.html>

#### QUESTION 58

A VMware vSAN administrator is configuring advanced monitoring with VMware vRealize Operations Manager and has the following requirement:

- Ability to receive analytical information from the hard drive to determine a possible future failure of the hard drive.

What should be enabled for data collection when configuring the vSAN Adapter Instance?

- A. IOPS (Input/Output Operations Per Second)
- B. DST (Disk Self-Test)
- C. SMART (Self-Monitoring, Analysis and Reporting Technology)
- D. SSP (Storage Service Provider)

**Correct Answer: C**

**Section:**

**Explanation:**

Self-Monitoring, Analysis and Reporting Technology (SMART) is an industry-standard technology that allows hard drives to report on their own health, including the ability to predict possible future failures. When configuring the vSAN Adapter Instance in vRealize Operations Manager, the administrator should enable SMART data collection to be able to receive analytical information from the hard drives and monitor their health.

By enabling SMART data collection, the administrator can use the data to identify potential issues with hard drives, monitor their health status, and take appropriate actions to prevent data loss.

This is explained in VMware vSAN documentation in the section "Monitoring vSAN Disk Health with vRealize Operations Manager" Reference: <https://docs.vmware.com/en/VMwarevSphere/7.0/vsphere-vsan-70-admin-guide/GUID-9A9B1E1A-7D56-4C0B-A8C2-2A7E27AED9B9.html>

#### QUESTION 59

A large enterprise has a main campus with two 8-Node vSAN 7.0 U1 clusters and 50 remote sites, each containing one 2-Node cluster. An administrator configures a vLCM desired image for lifecycle management, and vLCM had determined that all the clusters are in need of remediation.

How would vLCM enhance the remediation operation in this situation?

- A. The administrator can remediate all remote sites and the main campus concurrently.
- B. When the administrator selects remediate, vLCM will non-disruptively remediate one server at a time until all clusters are complete.
- C. The administrator should remediate the main campus using vSphere Update Manager (VUM) and the 50 remote sites using vLCM.
- D. vLCM cannot remediate the clusters concurrently, so the administrator must complete the sites one-by-one in a parallel manner.

**Correct Answer: A**

**Section:**

#### QUESTION 60

A vSAN administrator needs to find the metrics for objects containing data served up by the vSAN iSCSI service.

On which level should the vSAN administrator look?

- A. Cluster
- B. Virtual Machine
- C. vCenter Server
- D. vSAN iSCSI Object

**Correct Answer: A**

**Section:**

**Explanation:**

The vSAN administrator should look at the cluster level to find the metrics for objects containing data served up by the vSAN iSCSI service [1]. According to VMware's Official Guide, "vSAN performance service provides storage-centric visibility to a cluster-wide set of performance metrics and statistics that are collected on a regular basis". This means that the vSAN administrator should look at the cluster level to view the metrics and statistics for the vSAN iSCSI service [1].

<https://blogs.vmware.com/virtualblocks/2019/06/12/vsan-performance-metric-levels/>

1. Performance Troubleshooting - Understanding the Different Levels ...

<https://blogs.vmware.com/virtualblocks/2019/06/12/vsan-performance-metric-levels/><https://core.vmware.com/resource/vsan-operations-guide>vSAN Operations Guide | VMware

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

<https://docs.vmware.com/en/VMware-vSphere/7.0/vsan-703-administration-guide.pdf>

Administering VMware vSAN - VMware vSphere 7.0

<https://docs.vmware.com/en/VMware-vSphere/7.0/vsan-703-administration-guide.pdf>

**QUESTION 61**

While preparing to update a vSAN cluster, an administrator finds that the firmware revision of the onboard storage controllers is no longer listed as supported in the Hardware Compatibility Guide, but new firmware is available.

Which action should the administrator take upon discovering this piece of information?

- A. Revert the cluster's on-disk format to the previous version.
- B. Replace all storage controller hardware.
- C. Configure additional external storage resources.
- D. Use vSphere Lifecycle Manager to update the controller firmware.

**Correct Answer: D**

**Section:**

**Explanation:**

The correct answer is D. Use vSphere Lifecycle Manager to update the controller firmware. According to the VMware Compatibility Guide [1], vSphere Lifecycle Manager can be used to update the firmware of storage controllers that are no longer listed as supported, as long as new firmware is available. [1] <https://www.vmware.com/resources/compatibility/search.php>

**QUESTION 62**

A vSAN architect is using the vSAN Sizer to build an All-Flash vSAN cluster for an accounting company.

The architect is trying to determine why 12 TBs are set aside for system overhead and is reviewing the items that are include in the overhead capacity.

Which two items are included? (Choose two.)

- A. VM swap overhead
- B. Encryption overhead
- C. Disk Format overhead
- D. Host upgrade overhead
- E. File System overhead

**Correct Answer: C, D**

**Section:**

**Explanation:**

According to the VMware vSAN Sizer guide [1], system overhead includes disk format overhead and host upgrade overhead. Disk format overhead is needed to accommodate the additional metadata associated with the vSAN disk format, and host upgrade overhead is needed to support any future host upgrades. [1] [https://storagehub.vmware.com/#/datacenter/vsan/sizer/6\\_7](https://storagehub.vmware.com/#/datacenter/vsan/sizer/6_7)

**QUESTION 63**

A vSAN administrator has deployed a new All-Flash vSAN cluster and would like to perform a health test on it to verify that the network performance is meeting the network throughput requirements.

Which tool should be used for this purpose?

- A. vSAN Cluster Performance
- B. vSAN Proactive Test
- C. vSAN Skyline
- D. IOInsight

**Correct Answer: B**

**Section:**

**Explanation:**

According to the VMware vSAN documentation [1], the vSAN Proactive Test is a built-in feature of vSAN that can be used to test the health of a vSAN cluster and verify that the network performance meets the throughput requirements. This tool can be accessed through the vSAN Health Service. [1]

<https://docs.vmware.com/en/VMware-vSphere/7.0/vsphere-esxi-vcenter-server-70-vsah-healthservice-guide.pdf>

#### QUESTION 64

A vSAN administrator wants to transition from VMware Update Manager to vSphere Lifecycle Manager.

Which element is a mandatory requirement to create an image?

- A. Component
- B. Vendor Add-On
- C. ESXi Version
- D. Firmware and Drivers Add-On

**Correct Answer: D**

**Section:**

**Explanation:**

According to the VMware documentation [1], the Firmware and Drivers Add-On is a mandatory requirement to create an image in vSphere Lifecycle Manager. This add-on provides the necessary firmware and drivers to ensure that the image package is compatible with the environment. [1]

<https://docs.vmware.com/en/VMware-vSphere/7.0/vsphere-esxi-vcenter-server-70-lifecyclemanager-guide.pdf>

#### QUESTION 65

An application refactor requires significant storage that is being added for logs stored on a VM vDISK.

The application VMs runs on a dedicated vSAN enabled vSphere Cluster with custom CPUs and RAM, and therefore, cannot vMotion to another vSAN enabled cluster.

The administrator needs a vSAN feature that can be used to allocate additional storage from another vSAN enabled vSphere cluster to this vSAN enabled Cluster.

Which vSAN feature should be used for this purpose?

- A. vSAN Replication
- B. vSAN File Services
- C. vSAN HCI Mesh
- D. vSAN Stretched Clusters

**Correct Answer: C**

**Section:**

**Explanation:**

According to the VMware documentation [1], vSAN HCI Mesh is a feature of vSAN that enables the allocation of storage from one vSAN enabled vSphere cluster to another, allowing for the sharing of resources between clusters. This is particularly useful in scenarios such as the one described, where additional storage needs to be allocated from another vSAN enabled cluster. [1]

<https://docs.vmware.com/en/VMware-vSphere/7.0/vsphere-esxi-vcenter-server-70-vsah-hci-meshguide.pdf>

#### QUESTION 66

A large financial company has an existing vSAN 7.0 U1 cluster containing production virtual machines and the vCenter Server. The cluster needs to be physically moved to another location within the datacenter to allow new



racks to be installed, so the platform needs to be powered down.  
Which action should the vSAN administrator take to perform this procedure safely?

- A. Enter Maintenance Mode with No data migration
- B. Enter vSAN Enhanced durability mode
- C. Enter Maintenance Mode with Ensure accessibility option
- D. Enter Maintenance Mode with Full data migration

**Correct Answer: C**

**Section:**

**Explanation:**

This option will ensure that the virtual machines remain accessible while the cluster is powered down, while also maintaining data integrity. This option will also ensure that no data is migrated during the power down procedure. Reference: <https://docs.vmware.com/en/VMwarevSphere/7.0/com.vmware.vsphere.virtualsan.doc/GUID-3B072C2A-FBC7-475E-9E4A-2B4D4B8A4F0D.html>

#### QUESTION 67

A vSAN administrator observes that the VMware Skyline Health: Disk Format Version reports a format version that is lower than the expected version.  
What does this status mean?

- A. The vSAN administrator must enable encryption for the vSAN datastore.
- B. The vSAN administrator must perform an immediate upgrade of the on-disk format.
- C. A vSAN on-disk format upgrade is recommended.
- D. Deduplication and compression must be disabled for the vSAN datastore.

**Correct Answer: B**

**Section:**

**Explanation:**

The vSAN administrator must perform an immediate upgrade of the on-disk format. This status indicates that the vSAN on-disk format version is lower than the expected version. This could be caused by an incompatible version of the vSAN software or may be due to a failed upgrade attempt.

In order to address this issue, the vSAN administrator must perform an immediate upgrade of the ondisk format. Reference: <https://docs.vmware.com/en/VMwarevSphere/7.0/com.vmware.vsphere.virtualsan.doc/GUID-59CD08C1-8C18-4DA3-A2CBC7B6C912D739.html>

#### QUESTION 68

What is the purpose of the TRIM/UNMAP process?

- A. Collects vSAN log files
- B. Deletes orphaned snapshots
- C. Reclaims disk space
- D. Repairs internal cache errors

**Correct Answer: C**

**Section:**

**Explanation:**

TRIM/UNMAP is an administrative process that reclaims disk space by deleting unused blocks from the vSAN datastore. This process is often used when a virtual machine is deleted, as it ensures that the disk space is properly released for other operations. Reference:

<https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.virtualsan.doc/GUIDF2D2E2A2-2C0D-4A65-A9F1-E14C7D3F3B55.html>

