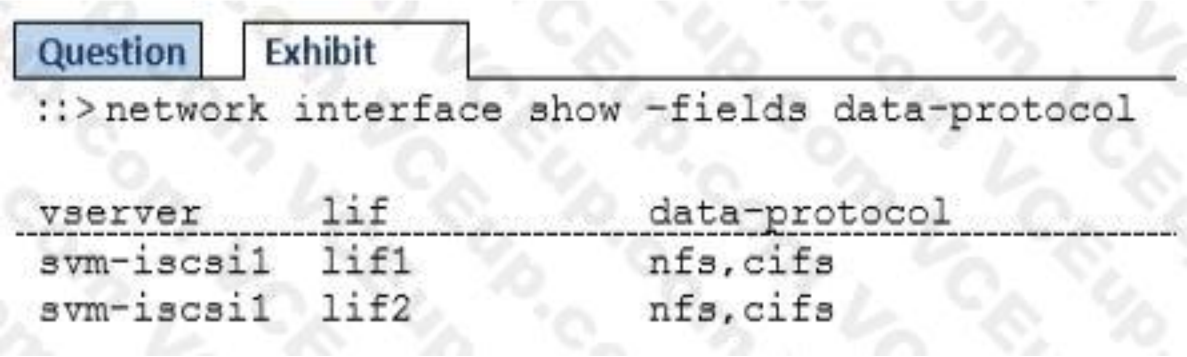
Exam Code: NS0-520

Exam Name: NetApp Certified Implementation Engineer - SAN, ONTAP

Website: https://VCEup.com/
Team-Support: https://VCEplus.io/

Topic 1, Exam Pool A

Question No: 1



```
::>network interface show -fields data-protocol

 vserver      lif           data-protocol
----------------------------------------------------------
 svm-iscsi1  lif1          nfs,cifs
 svm-iscsi1  lif2          nfs,cifs
```

You are asked to serve iSCSI LUNs in an existing SVM on your AFF A220 using ONTAP 9.5. You verified that the iSCSI license is configured on your cluster and that the iSCSI protocol is enabled.

Referring to the exhibit, what is needed to allow hosts to log into the iSCSI target?

A. Create new LIFs with the iSCSI data protocol.

B. Create new igroups with the host IQNs.

C. Add iSCSI to the data protocol of the existing LIFs.

D. Map LUNs to the igroups.

Answer: D

Explanation:

Question No: 2

You are testing iSCSI LUN failover across a 4-node FAS9000 fabric-attached MetroCluster configuration.

In this scenario, which front end configuration is required for non-disruptive host LUN failover between sites?

A. an intercluster LIF

B. a stretched Layer 2 network

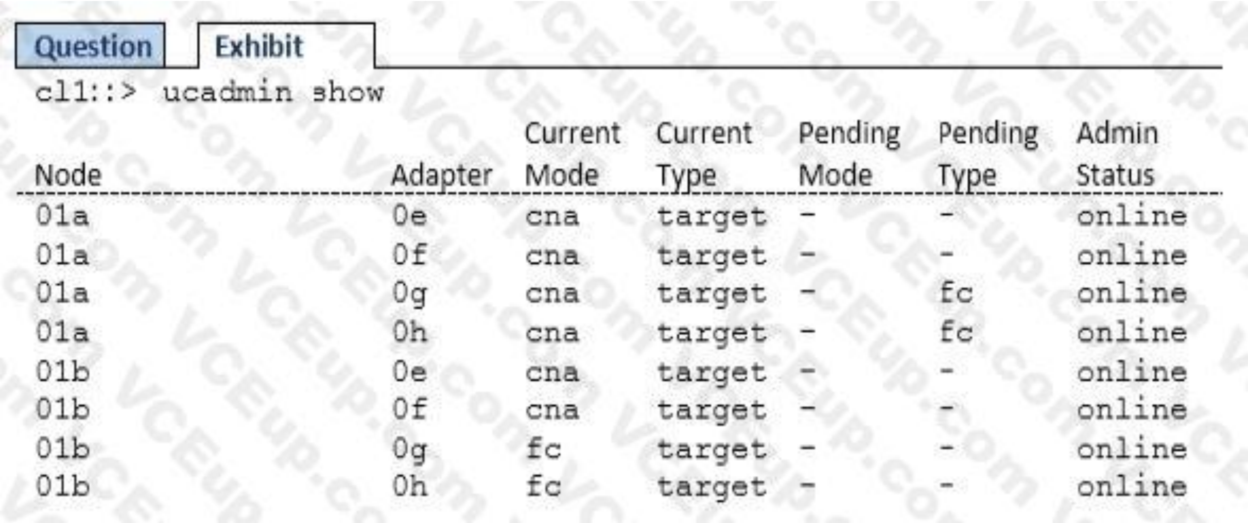
C. Ipv6

D. a stretched VSAN

Answer: A

Explanation:

Question No: 3



```
cl1::> ucadmin show
                                  Current  Current   Pending  Pending  Admin
Node                      Adapter Mode     Type      Mode     Type     Status
-------------------------------------------------------------------------------
01a                       0e      cna      target    -        -        online
01a                       0f      cna      target    -        -        online
01a                       0g      cna      target    -        fc       online
01a                       0h      cna      target    -        fc       online
01b                       0e      cna      target    -        -        online
01b                       0f      cna      target    -        -        online
01b                       0g      fc       target    -        -        online
01b                       0h      fc       target    -        -        online
```

Referring to the exhibit, which two pairs of ports are currently configurable as FC SAN LIFs? (Choose two.)

A. 01b, 0h

B. 01a, 0g

C. 01a, 0h

D. 01b, 0g

Answer: D

Explanation:

Question No: 4

You have a 4-node cluster with an AFF A300 HA pair and a FAS8200 HA pair. You plan on using the default storage efficiency settings. With inline data compaction, you estimate that you can save 6% of storage space. AFF A300 volumes that use under 5000 IOPS are moved to a FAS8200 using the volume move command.

In this scenario, what happens to the data after the volume is moved? (Choose two.)

A. The new written data is not compacted.

B. The existing data is compacted.

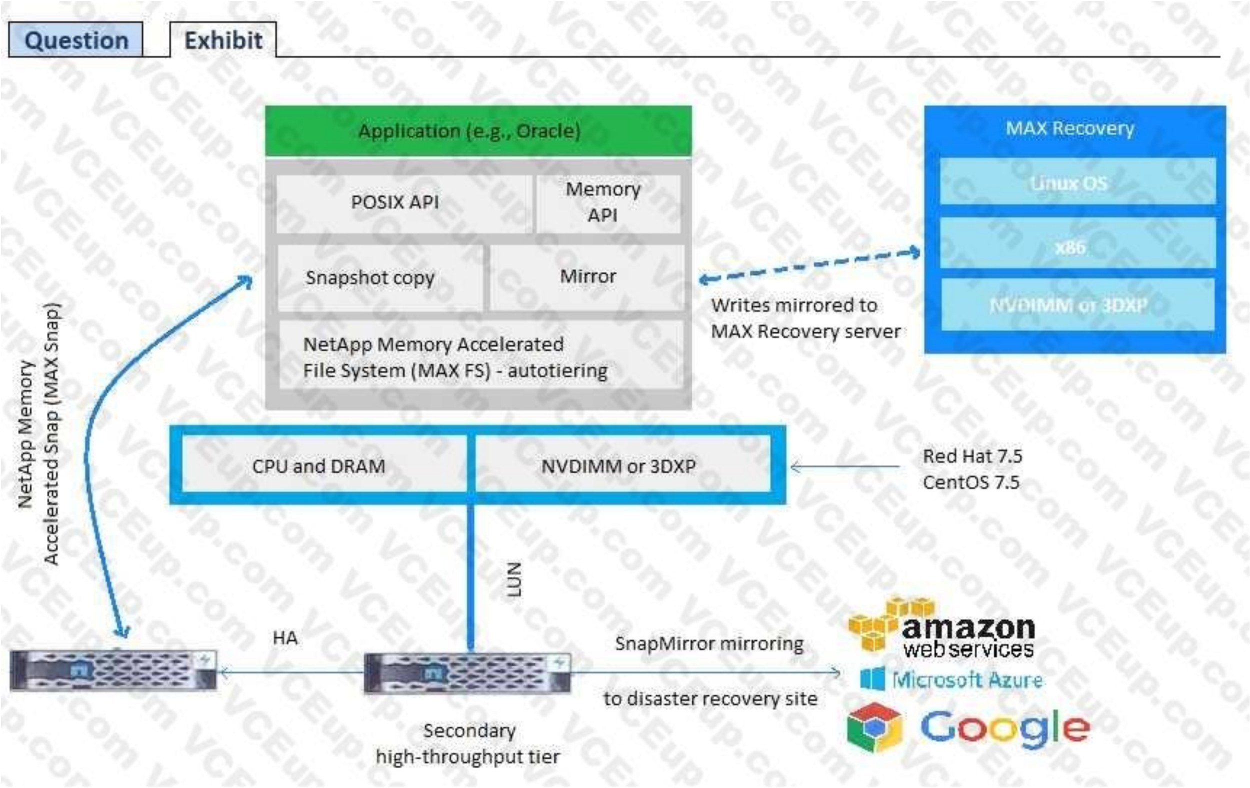
C. The new written data is compacted.

D. The existing data is not compacted.

Answer: A

Explanation:

Question No: 5


Question
Exhibit
Application (e.g., Oracle)
POSIX API
Memory API
Snapshot copy
Mirror
NetApp Memory Accelerated File System (MAX FS) - autotiering
MAX Recovery
Linux OS
x86
NVDIMM or 3DXP
Writes mirrored to MAX Recovery server
CPU and DRAM
NVDIMM or 3DXP
Red Hat 7.5
CentOS 7.5
NetApp Memory Accelerated Snap (MAX Snap)
LUN
HA
SnapMirror mirroring
to disaster recovery site
Secondary high-throughput tier
amazon web services
Microsoft Azure
Google

You have a requirement to serve LUNs with under 200 microsecond latency using local server lass memory. You also are required to use a shared SAN.

Using MAX Data as shown in the exhibit, which two LUN access protocols are supported with this solution? (Choose two.)

A. iSCSI

B. FCoE

C. FC

D. NVMe

Answer: D

Explanation:

Question No: 6

A company has 20 ESX hosts. Ten of the hosts are connected using FC, and the rest are connected over iSCSI. The FC host HBA queue depth is set to 32, and the iSCSI LUN queue depth is set to 64. The FC hosts are now experiencing random connectivity issues.

In this scenario, what would be the reason for the disconnects?

A. The FC host has a lower queue depth.

B. According to the IMT, unsupported HBA firmware is in use.

C. All of the hosts are part of the same cluster.

D. The queue depth is not consistent across the cluster.

Answer: A

Explanation:

Question No: 7

You want to ensure maximum performance of iSCSI LUNs on an AFF A220.

In this scenario, which two actions will accomplish this task? (Choose two.)

A. Disable flow control.

B. Configure virtual LAN (VLAN).

C. Enable flow control.

D. Enable jumbo frames.

Answer: C,D

Explanation:

Question No: 8

You are provisioning storage to an ESX host that uses iSCSI.

According to NetApp best practice, which three actions accomplish this task? (Choose three.)

A. Enable the iSCSI service.

B. Bind the iSCSI ports to the software iSCSI adapter.

C. Install Virtual Storage Console (VSC) for VMware.

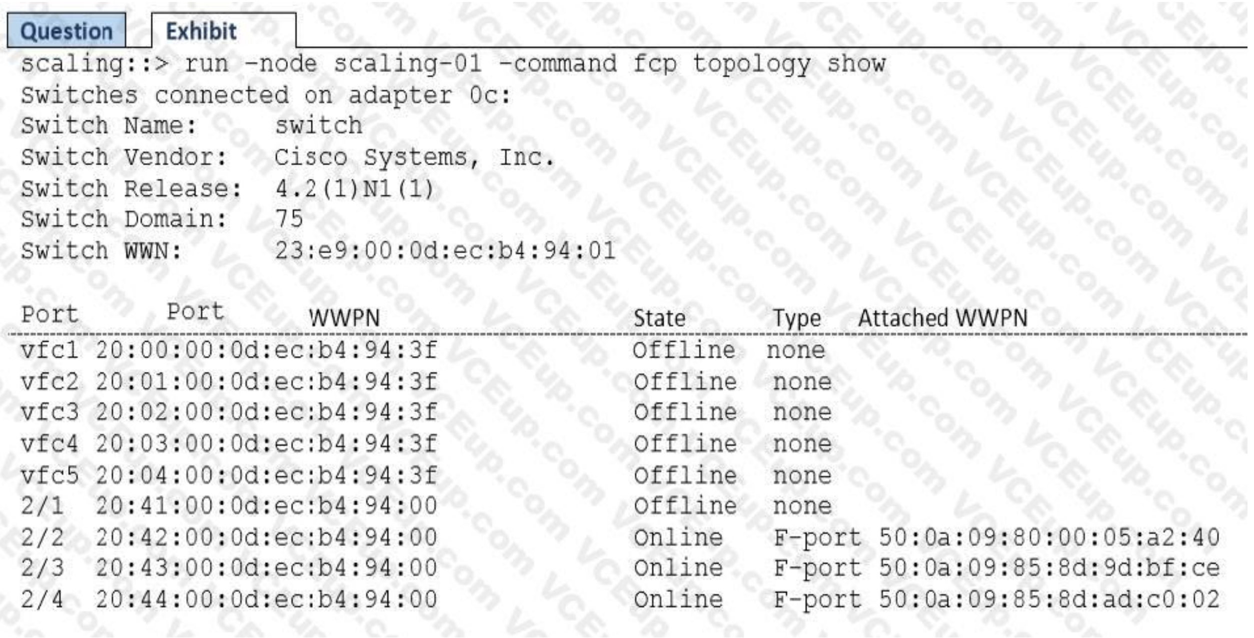
D. Enable BGP on the switch.

E. Configure MTU 1500 on the switch.

Answer: B,C,E

Explanation:

Question No: 9



```
scaling::> run -node scaling-01 -command fcp topology show
Switches connected on adapter 0c:
Switch Name:     switch
Switch Vendor:   Cisco Systems, Inc.
Switch Release:  4.2(1)N1(1)
Switch Domain:   75
Switch WWN:      23:e9:00:0d:ec:b4:94:01

Port      Port      WWPN               State    Type    Attached WWPN
-----------------------------------------------------------------------
vfc1 20:00:00:0d:ec:b4:94:3f           Offline  none
vfc2 20:01:00:0d:ec:b4:94:3f           Offline  none
vfc3 20:02:00:0d:ec:b4:94:3f           Offline  none
vfc4 20:03:00:0d:ec:b4:94:3f           Offline  none
vfc5 20:04:00:0d:ec:b4:94:3f           Offline  none
2/1  20:41:00:0d:ec:b4:94:00           Offline  none
2/2  20:42:00:0d:ec:b4:94:00           Online   F-port 50:0a:09:80:00:05:a2:40
2/3  20:43:00:0d:ec:b4:94:00           Online   F-port 50:0a:09:85:8d:9d:bf:ce
2/4  20:44:00:0d:ec:b4:94:00           Online   F-port 50:0a:09:85:8d:ad:c0:02
```

A customer has an AFF A700 connected to a Cisco switch and has verified connectivity but cannot see any LUNs. The customer issued the run -node scaling-01 -command fcp topology show command to verify the connection.

Referring to the exhibit, what needs to be enabled on the Cisco switch?

A. Trunking needs to be enabled.

B. VSAN needs to be enabled.

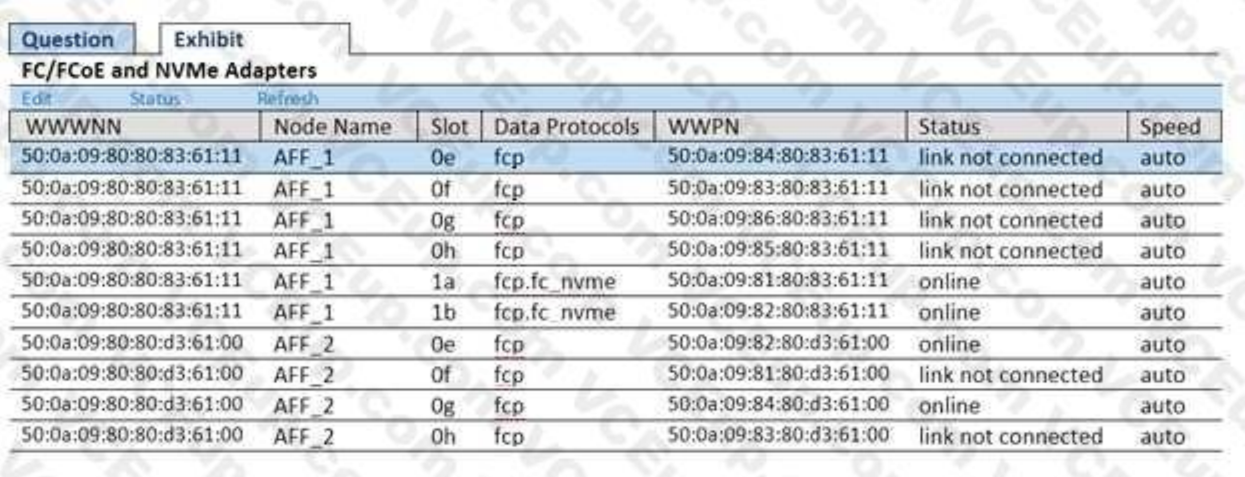
C. NPIV needs to be enabled.

D. VFC needs to be enabled.

Answer: D

Explanation:

Question No: 10



FC/FCoE and NVMe Adapters

WWWNN	Node Name	Slot	Data Protocols	WWPN	Status	Speed
50:0a:09:80:80:83:61:11	AFF_1	0e	fcp	50:0a:09:84:80:83:61:11	link not connected	auto
50:0a:09:80:80:83:61:11	AFF_1	0f	fcp	50:0a:09:83:80:83:61:11	link not connected	auto
50:0a:09:80:80:83:61:11	AFF_1	0g	fcp	50:0a:09:86:80:83:61:11	link not connected	auto
50:0a:09:80:80:83:61:11	AFF_1	0h	fcp	50:0a:09:85:80:83:61:11	link not connected	auto
50:0a:09:80:80:83:61:11	AFF_1	1a	fcp.fc_nvme	50:0a:09:81:80:83:61:11	online	auto
50:0a:09:80:80:83:61:11	AFF_1	1b	fcp.fc_nvme	50:0a:09:82:80:83:61:11	online	auto
50:0a:09:80:80:d3:61:00	AFF_2	0e	fcp	50:0a:09:82:80:d3:61:00	online	auto
50:0a:09:80:80:d3:61:00	AFF_2	0f	fcp	50:0a:09:81:80:d3:61:00	link not connected	auto
50:0a:09:80:80:d3:61:00	AFF_2	0g	fcp	50:0a:09:84:80:d3:61:00	online	auto
50:0a:09:80:80:d3:61:00	AFF_2	0h	fcp	50:0a:09:83:80:d3:61:00	link not connected	auto

A customer is using both FC and NVMe in a cluster. The customer needs to do some work on AFF_1.

Referring to the exhibit, what will happen?

A. The NVMe namespaces on AFF_2 will be available after takeover of AFF_1.

B. The FC LUNs that use cluster interconnect to access the LUNs on AFF_1 will be unavailable after failover.

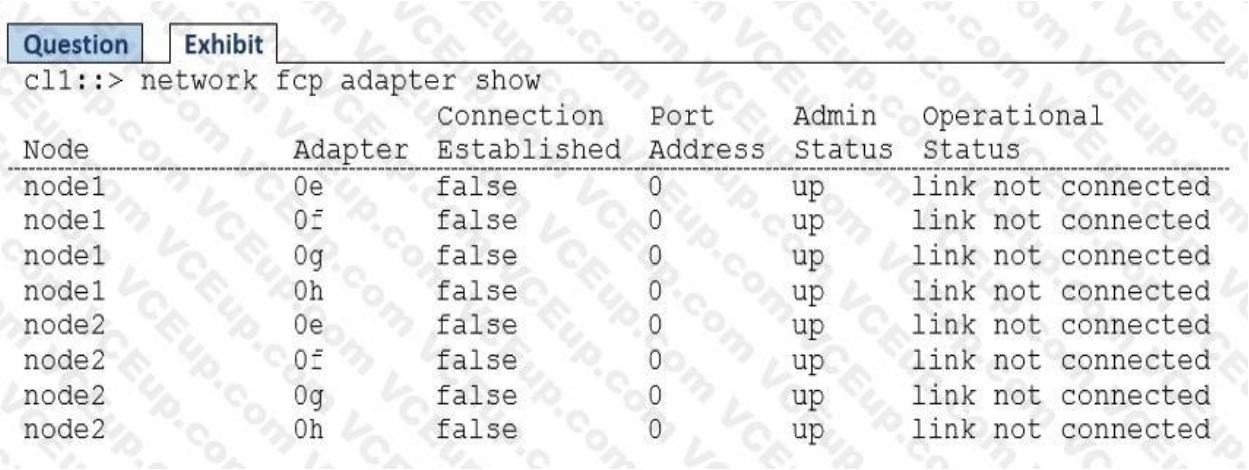
C. The FC LUNs on node AFF_2 will be unavailable after failover of AFF_1.

D. The NVMe namespaces on AFF_1 will be unavailable after takeover by AFF_2.

Answer: C

Explanation:

Question No: 11



```
cl1::> network fcp adapter show
                          Connection  Port     Admin   Operational
Node             Adapter  Established Address  Status  Status
-------------------------------------------------------------------------
node1            0e       false        0        up     link not connected
node1            0f       false        0        up     link not connected
node1            0g       false        0        up     link not connected
node1            0h       false        0        up     link not connected
node2            0e       false        0        up     link not connected
node2            0f       false        0        up     link not connected
node2            0g       false        0        up     link not connected
node2            0h       false        0        up     link not connected
```

You have an existing 2-node AFF A300 cluster with premium bundle licensing applied. You need to have consistently low front end latency, and have determined that NVMe satisfies this requirement.

Referring to the exhibit, which two actions would accomplish this task? (Choose two.)

A. Add a UTA2 adapter to each of the two AFF A300 nodes.

B. Add a 32 GB FC HBA to each of the two AFF A300 nodes.

C. Apply the license for FCP.

D. Apply the license for NVMe.

Answer: B

Explanation:

Question No: 12

You have a thin-provisioned LUN that was created by using the lun create -vserver vs1 – path /vol/vol1/lun1 -size 500G -ostype windows 2008 -space-reserve disabled -space-allocation disabled command. You verify that your Windows 2016 host reports 200 GB free on lun1. However, lun1 shows 0 bytes free on the storage cluster.

What should you do to solve this problem?

A. Change the LUN -space-allocation parameter to enabled.

B. Change the LUN -ostype parameter to windows_gpt.

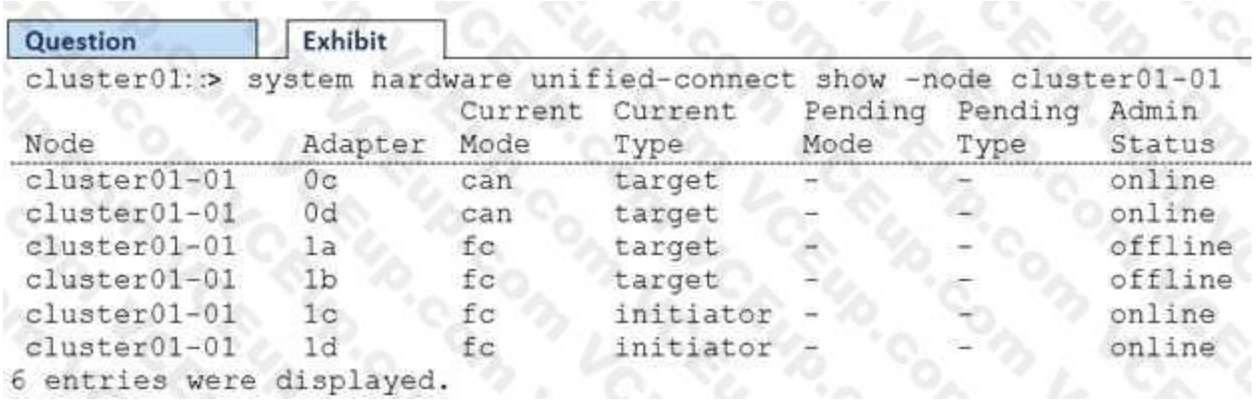
C. Change the LUN -space-reserve parameter to enabled.

D. Rescan the LUN disk in your Windows host so that it will notify NetApp about the free space.

Answer: D

Explanation:

Question No: 13



```
cluster01::> system hardware unified-connect show -node cluster01-01
                          Current  Current    Pending  Pending  Admin
Node             Adapter  Mode     Type       Mode     Type     Status
-------------------------------------------------------------------------
cluster01-01     0c       cnc      target     -        -        online
cluster01-01     0d       cnc      target     -        -        online
cluster01-01     1a       fc       target     -        -        offline
cluster01-01     1b       fc       target     -        -        offline
cluster01-01     1c       fc       initiator  -        -        online
cluster01-01     1d       fc       initiator  -        -        online
6 entries were displayed.
```

Referring to the exhibit, what happens when you change the type for port 1a from target to initiator?

A. The port type for 1a changes to initiator, and you must reboot the controller for the changes to take effect.

B. You receive an error message that you must take ports 1a and 1b offline before you can change the type.

C. B. You receive an error message that you must take the port 1a offline before you can change the type.

D. The port type for 1a and 1b changes to initiator, and you must reboot the controller for the changes to take effect.

Answer: A

Explanation:

Question No: 14

Which two features does Assymmetric Namespase Access (ANA) support? (Choose two.)

A. multipathing

B. LUN masking

C. LUN hosting

D. path management

Answer: A,D

Explanation:

Question No: 15

A customer that is using an AFF A220 has a problem with a host for a new FC LUN. Other LUNs on the same SVM are working properly. This LUN is not visible on the host.

Which configuration does the customer need to verify in their solution?

A. LUN mapping with igroup

B. host HBA speed settings

C. FC target port setting on NetApp node

D. FC switch zoning

Answer: C

Explanation:

Question No: 16

A customer has an existing 8-node cluster that consists of six FAS2650 nodes and two FAS2554 nodes.

The customer wants to expand the cluster by adding two AFF A220 nodes.

Which resource would be used to determine whether this configuration is supported?

A. Interoperability Matrix Tool (IMT)

B. Config Advisor

C. OneCollect

D. Hardware Universe (HWU)

Answer: B

Explanation:

Question No: 17

You deployed a new SVM for FC access, and you used the vserver fcr, create -vserver svm1 - statusadmin up command to enable FC service on the SVM. You then created the LIFs for the FC protocol.

When you review the status of the LIFs, they show that the admin status is up, but the operational status is down. You have already verified that the ports are physically connected.

In this scenario, what is the next step to bring the LIFs up?

A. Use the network interface modify command to change the operational status of the LIFs.

B. Create at least one zone that contains your SVM LIF WWPNs and an initiator.

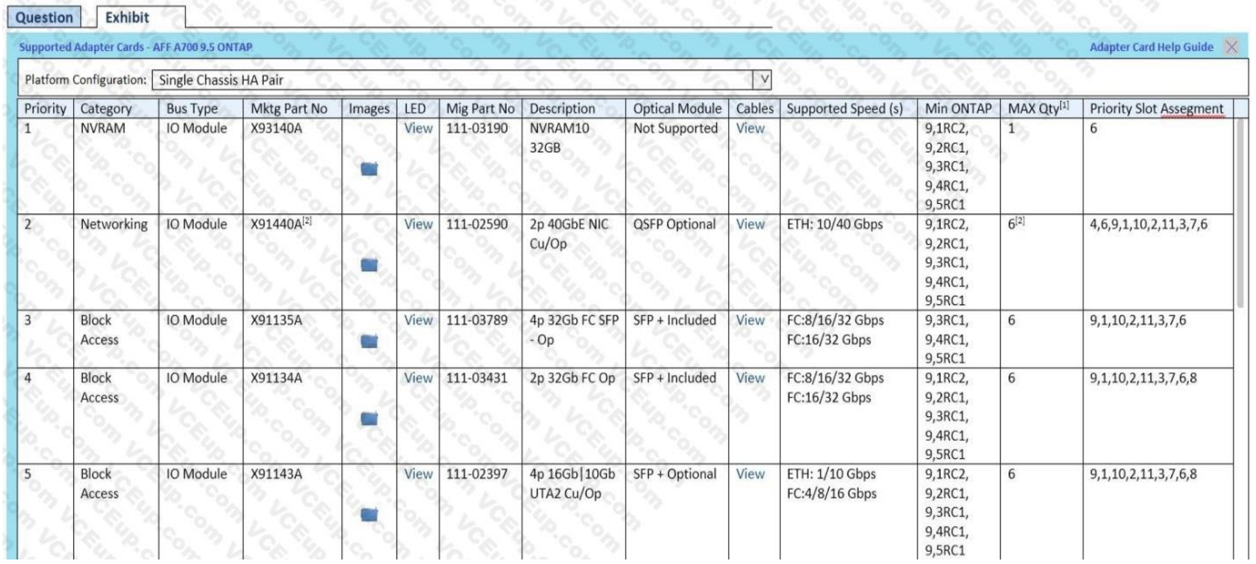
C. Verify that an FC license is applied on your system.

D. Disable the SAN switch port where your NetApp storage is connected.

Answer: B

Explanation:

Question No: 18



Supported Adapter Cards - AFF A700 9.5 ONTAP

Platform Configuration: Single Chassis HA Pair

Priority	Category	Bus Type	Mktg Part No	Images	LED	Mig Part No	Description	Optical Module	Cables	Supported Speed (s)	Min ONTAP	MAX Qty[1]	Priority Slot Assegment
1	NVRAM	IO Module	X93140A	■	View	111-03190	NVRAM10 32GB	Not Supported	View		9,1RC2, 9,2RC1, 9,3RC1, 9,4RC1, 9,5RC1	1	6
2	Networking	IO Module	X91440A[2]	■	View	111-02590	2p 40GbE NIC Cu/Op	QSFP Optional	View	ETH: 10/40 Gbps	9,1RC2, 9,2RC1, 9,3RC1, 9,4RC1, 9,5RC1	6[2]	4,6,9,1,10,2,11,3,7,6
3	Block Access	IO Module	X91135A	■	View	111-03789	4p 32Gb FC SFP - Op	SFP + Included	View	FC:8/16/32 Gbps FC:16/32 Gbps	9,3RC1, 9,4RC1, 9,5RC1	6	9,1,10,2,11,3,7,6
4	Block Access	IO Module	X91134A	■	View	111-03431	2p 32Gb FC Op	SFP + Included	View	FC:8/16/32 Gbps FC:16/32 Gbps	9,1RC2, 9,2RC1, 9,3RC1, 9,4RC1, 9,5RC1	6	9,1,10,2,11,3,7,6,8
5	Block Access	IO Module	X91143A	■	View	111-02397	4p 16Gb|10Gb UTA2 Cu/Op	SFP + Optional	View	ETH: 1/10 Gbps FC:4/8/16 Gbps	9,1RC2, 9,2RC1, 9,3RC1, 9,4RC1, 9,5RC1	6	9,1,10,2,11,3,7,6,8

A customer wants to add a 2-port, 32 Gb FC card to support NVMe in an AFF A700 2-node cluster.

Currently, there are cards in slots 1, 2, 4, 6, 8, and 9.

Referring to the exhibit, what is the number of the slot that should be used?

A. 10

B. 3

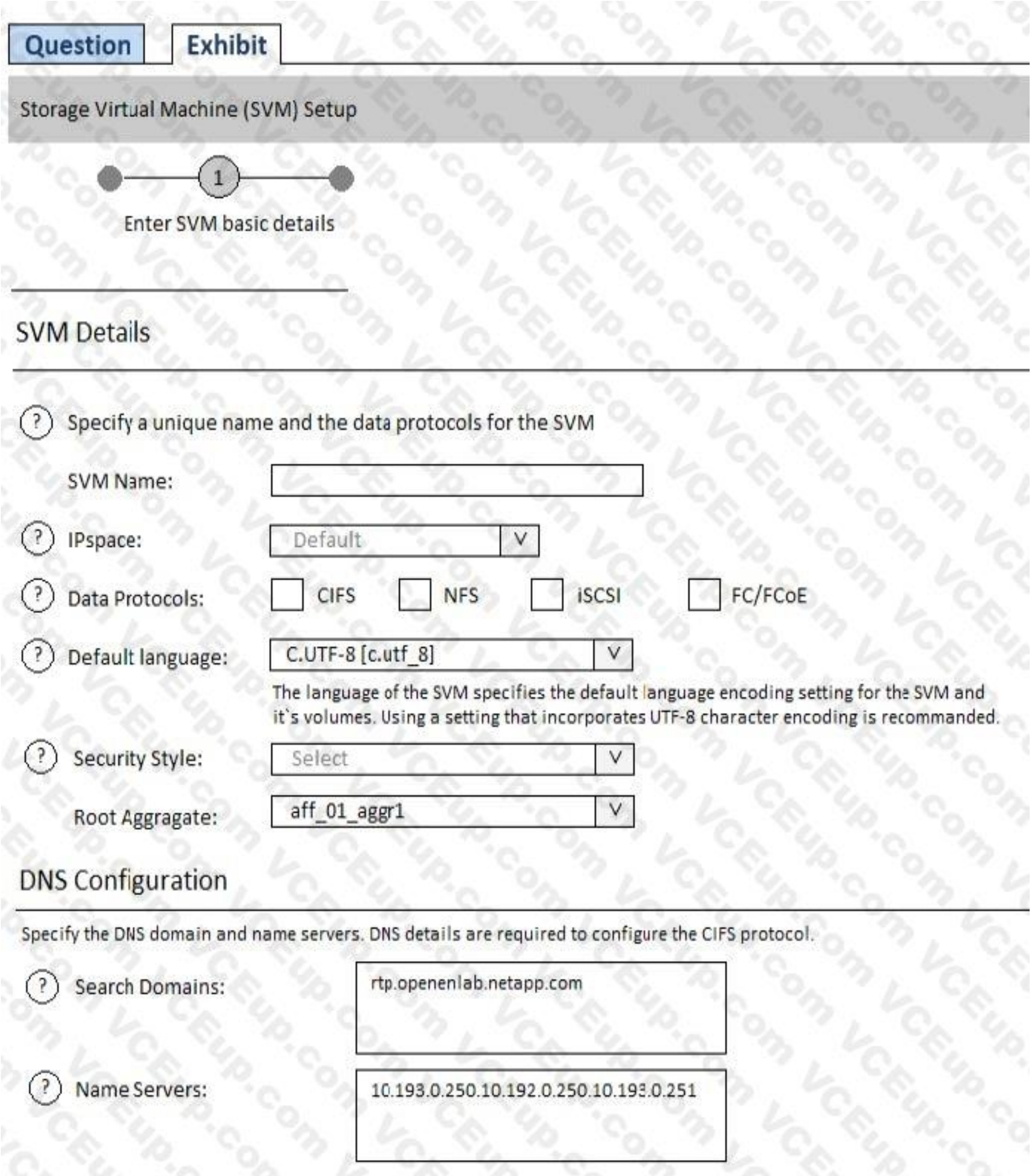
C. 5

D. 7

Answer: C

Explanation:

Question No: 19



Storage Virtual Machine (SVM) Setup

Enter SVM basic details

SVM Details

Specify a unique name and the data protocols for the SVM

SVM Name:

IPspace: Default

Data Protocols: ☐ CIFS ☐ NFS ☐ iSCSI ☐ FC/FCoE

Default language: C.UTF-8 [c.utf_8]

The language of the SVM specifies the default language encoding setting for the SVM and it`s volumes. Using a setting that incorporates UTF-8 character encoding is recommanded.

Security Style: Select

Root Aggregate: aff_01_aggr1

DNS Configuration

Specify the DNS domain and name servers. DNS details are required to configure the CIFS protocol.

Search Domains: rtp.openenlab.netapp.com

Name Servers: 10.193.0.250.10.192.0.250.10.193.0.251

Referring to the exhibit, which two elements are required for NVMe host access with ONTAP 9.5 and using supported AFF nodes? (Choose two.)

A. You need 16 Gb FC HBAs installed in the AFF nodes.

B. You must have the license installed for NVMe support in the cluster.

C. You must have the license installed for FC support in the cluster.

D. You need 32 Gb FC HBAs installed in the AFF nodes.

Answer: C,D

Explanation:

Question No: 20

A customer is required to encrypt iSCSI traffic across their public network.

In this scenario, which method will accomplish this task?

A. dot1q

B. IPsec

C. NVMe

D. CHAP

Answer: B

Explanation:

Question No: 21

You use iSCSI to present a LUN to a newly installed Windows 2016 Server. You have created the volume and LUN on the NetApp cluster. When you perform a hardware rescan on the Windows host, you cannot see the newly presented storage.

What are three reasons for this problem? (Choose three.)

A. The protocol has not been enabled on the NetApp cluster.

B. You need to add the IQN of the Windows host to the newly created LUN.

C. The IQN of the Windows host is not included in the igroup for the new LUN.

D. The wrong igroup has been associated with the new LUN.

E. The volume has not been enabled for iSCSI access.

Answer: A,B,D

Explanation:

Question No: 22

As a system administrator, you perform a routine check of available storage space on your FAS2750.

You notice that the vol_1 volume is approaching 100% capacity. The volume is configured with the space guarantee set to volume and the LUN reservation is disabled. You want to free up space in the volume without increasing its size.

Which action would accomplish this task?

A. Increase the size of the LUN.

B. Increase the Snapshot Reserve.

C. Increase the aggregate size.

D. Use deduplication.

Answer: C

Explanation:

Question No: 23

An administrator reviews the Upgrade Advisor before performing an upgrade of their ONTAP cluster.

What information is detailed in the report? (Choose two.)

A. pre-upgrade checks

B. performance metrics

C. risk exposures

D. cluster interconnect checks

Answer: A,D

Explanation:

Question No: 24

You want to create an additional SVM from the System Manager GUI to serve data only using blockbased protocols. You know the SVM name, the aggregate containing the root volume, and the required protocols.

What other information is required to successfully create this SVM?

A. name servers

B. SVM Management LIF network details

C. search domains

D. root volume security style

Answer: D

Explanation:

Question No: 25

An administrator is configuring their Ethernet switches to support an AFF A300 cluster that will be providing iSCSI LUNs to servers. The switches are also used for other traffic from various hosts.

In this scenario, which statement about the switch configuration is correct?

A. Use a larger MTU size at the SAN connection rather than the host connections to allow for greater SAN bandwidth.

B. Use network ports as access ports only.

C. Use multiple VLANs to segregate iSCSI traffic from other traffic types

D. Use a single VLAN to consolidate all data traffic on the switches.

Answer: A

Explanation:

Question No: 26

You are implementing a new AFF A800 HA pair and are required to migrate NetApp E-Series E2624 data to the AFF A800 controllers. You do not have a host server that is available for the migration.

In this scenario, which NetApp migration method is supported?

A. OnCommand Unified Manager (OCUM)

B. NetApp Data Availability Services (NDAS)

C. SnapMirror Synchronous (SM-S)

D. Foreign LUN Import (FLI)

Answer: D

Explanation:

Question No: 27

You have three Windows servers and one Linux server, each with dual-ported HBAs that are connected into a dual fabric.

In this scenario, what is the minimum number of zones that you need to create within each fabric switch?

A. 8

B. 1

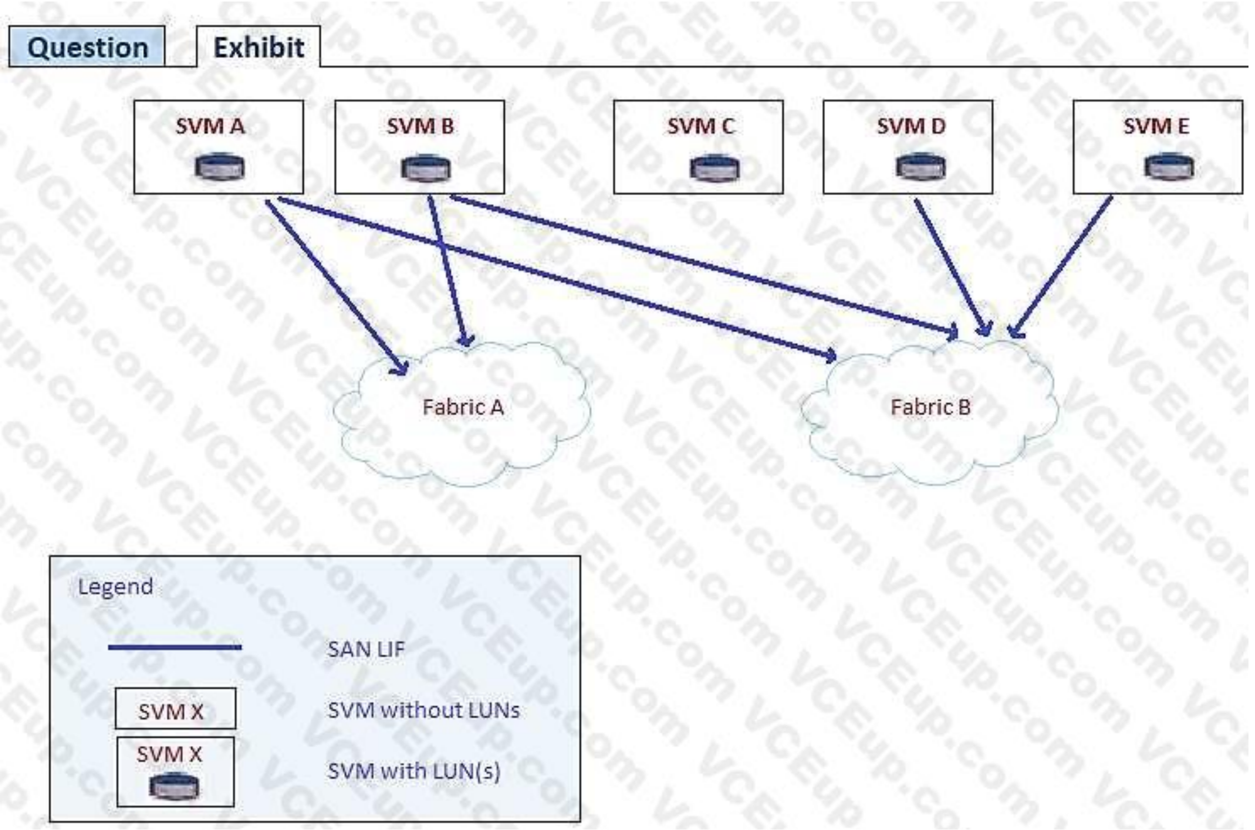
C. 4

D. 2

Answer: A

Explanation:

Question No: 28


Question
Exhibit
SVM A
SVM B
SVM C
SVM D
SVM E
Fabric A
Fabric B
Legend
SAN LIF
SVM X
SVM without LUNs
SVM X
SVM with LUN(s)

An administrator has an ONTAP cluster with SVMs and LUNs as shown in the exhibit. Hosts attempting to connect to LUNs mapped from SVM "C" are unable to see their LUNs. The hosts are not configured to connect to any other SVM.

Which action should be performed to restore multi-path connectivity to the LUNs in this scenario?

A. Create LIFs on SVM "C" for host connectivity.

B. Move the LUN to a different volume within SVM "C".

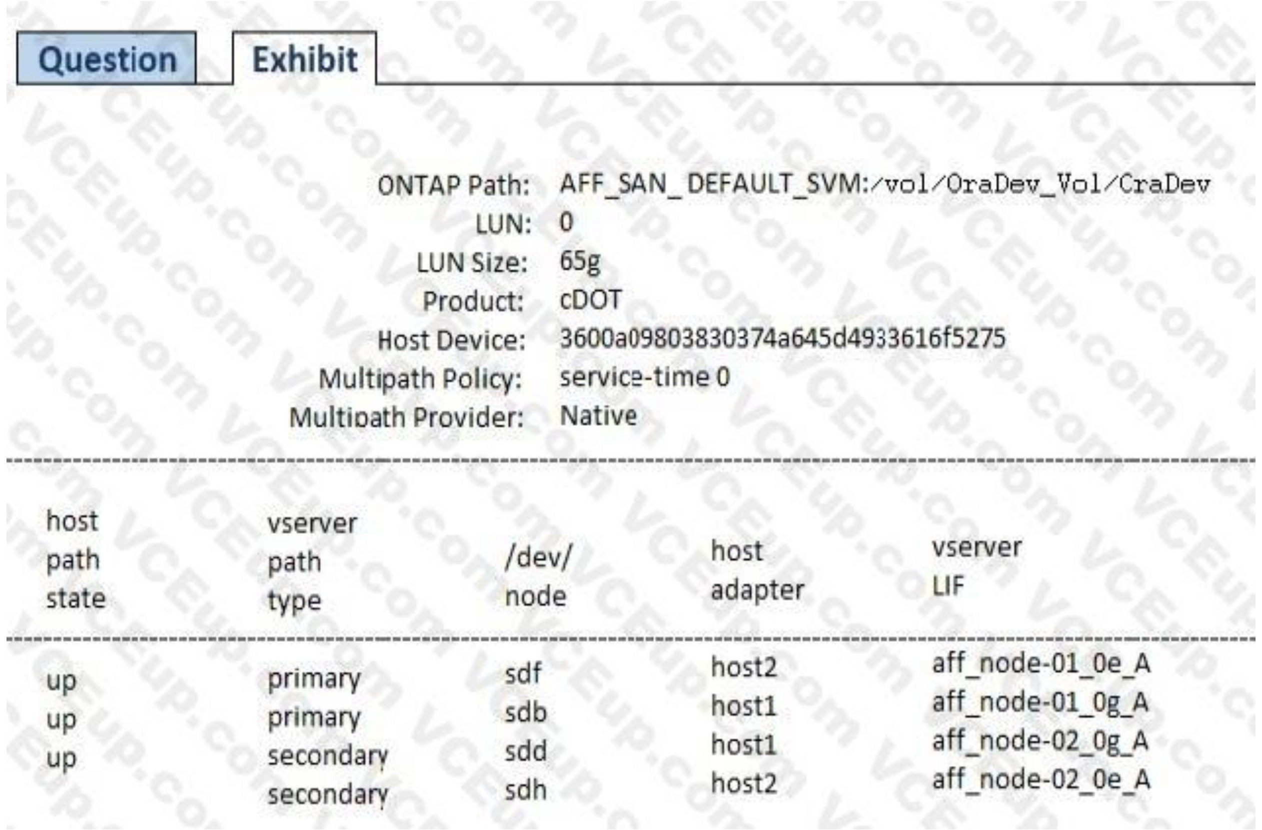
C. Move the LUN to SVM "E" to restore connectivity.

D. Move the LUN to SVM "A" to restore connectivity.

Answer: A

Explanation:

Question No: 29



```
                 ONTAP Path:   AFF_SAN_ DEFAULT_SVM:/vol/OraDev_Vol/CraDev
                        LUN:   0
                   LUN Size:   65g
                    Product:   cDOT
                Host Device:   3600a09803830374a645d4933616f5275
            Multipath Policy:  service-time 0
          Multipath Provider:  Native
--------------------------------------------------------------------------------
host       vserver
path       path          /dev/        host          vserver
state      type          node         adapter       LIF
--------------------------------------------------------------------------------
up         primary       sdf          host2         aff_node-01_0e_A
up         primary       sdb          host1         aff_node-01_0g_A
up         secondary     sdd          host1         aff_node-02_0g_A
           secondary     sdh          host2         aff_node-02_0e_A
```

Referring to the exhibit, which two LIFs would be optimized paths to LUN /vol/OraDev_Vol/OraDev?

(Choose two.)

A. aff_node-01_0g_A

B. aff_node-02_0e_A

C. aff_node-02_0g_A

D. aff_node-01_0e_A

Answer: A

Explanation:

Question No: 30

Automatic host-side space management with SCSI T10 thin-provisioned LUNs is achieved by which feature of ONTAP?

A. fractional reserve

B. space allocation

C. space reservation

D. volume auto-grow

Answer: B

Explanation:

Question No: 31

You are planning to expand a SAN-only ONTAP 9.5 cluster that consists of eight AFF A700 nodes.

In this scenario, what is the maximum number of additional AFF A700 nodes that would be added?

A. 2

B. 4

C. 8

D. 0

Answer: B

Explanation:

Question No: 32

You have a 4 node cluster with an AFF A300 HA pair and a FAS8200 HA pair. You plan on using the default storage efficiency settings. With inline data compaction, you estimate that you can save 6% of storage space. AFF A300 LUNs that use under 5000 IOPS are moved to a FAS8200 using the lun move command.

In this scenario, what happens to the data after the LUN is moved? (Choose two.)

A. The new written data is not compacted.

B. The new written data is compacted.

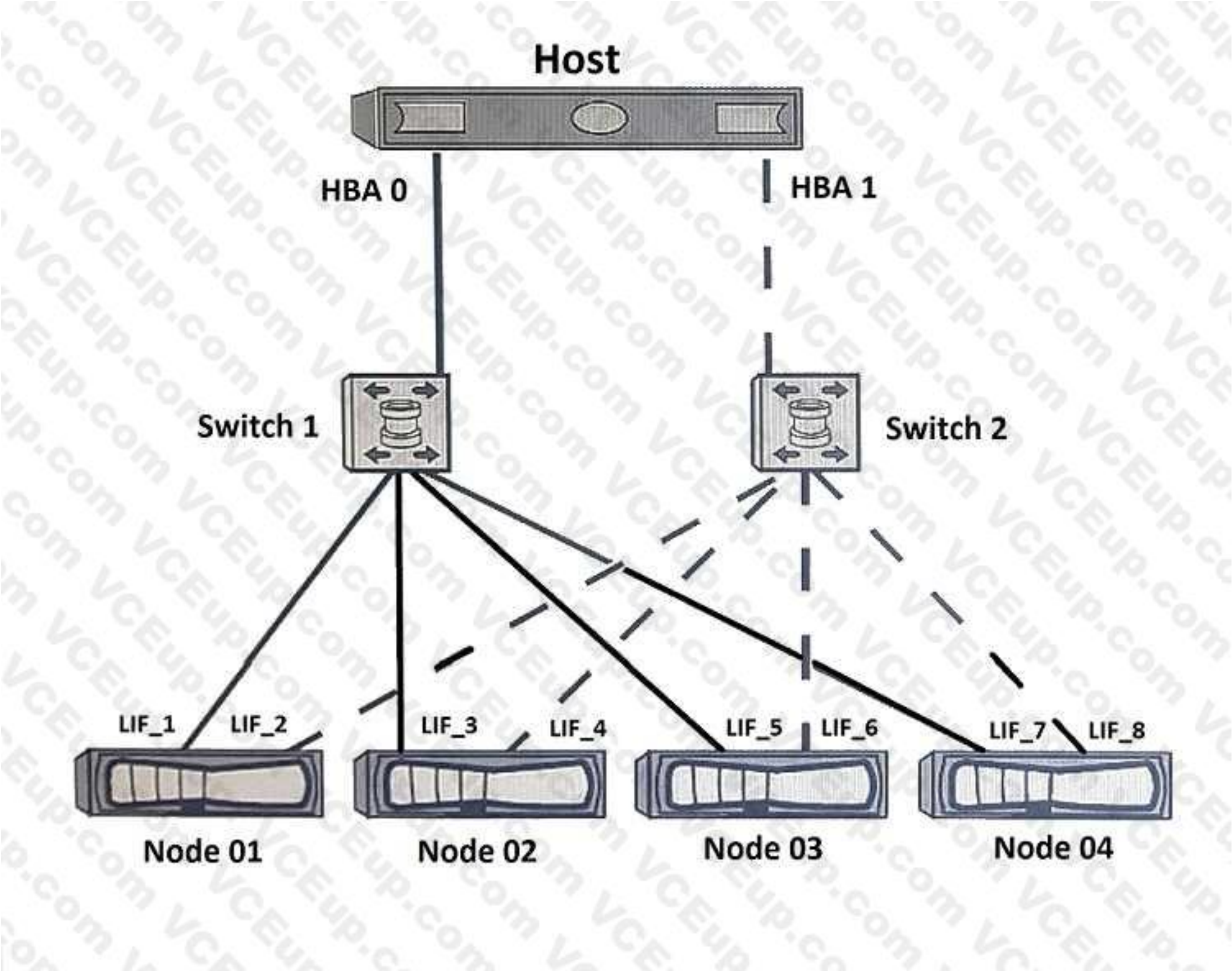
C. The existing data is compacted.

D. The existing data is not compacted.

Answer: B,D

Explanation:

Question No: 33


Host
HBA 0
HBA 1
Switch 1
Switch 2
LIF_1
LIF_2
LIF_3
LIF_4
LIF_5
LIF_6
LIF_7
LIF_8
Node 01
Node 02
Node 03
Node 04

You configured a SAN host with a 4-node ONTAP 9.5 cluster that uses default settings. All paths are available from the host to the four nodes. You have a requirement to see only two paths to each LUN.

One path is optimized and the other is non-optimized.

In this scenario, which NetApp SAN feature supports this requirement?

A. portsets

B. SLM

C. VLANs

D. igroups

Answer: C

Explanation:

Question No: 34

You are planning to implement a 32 Gb FC SAN on a 2-node AFF A700 ONTAP 9.5 cluster. You need to create 112 FC LIFs across the HA pair with a limit of 20 FC LIFs per physical HBA port.

In this scenario, how many 2-port 32 Gb HBA cards do you need per storage controller?

A. 2

B. 1

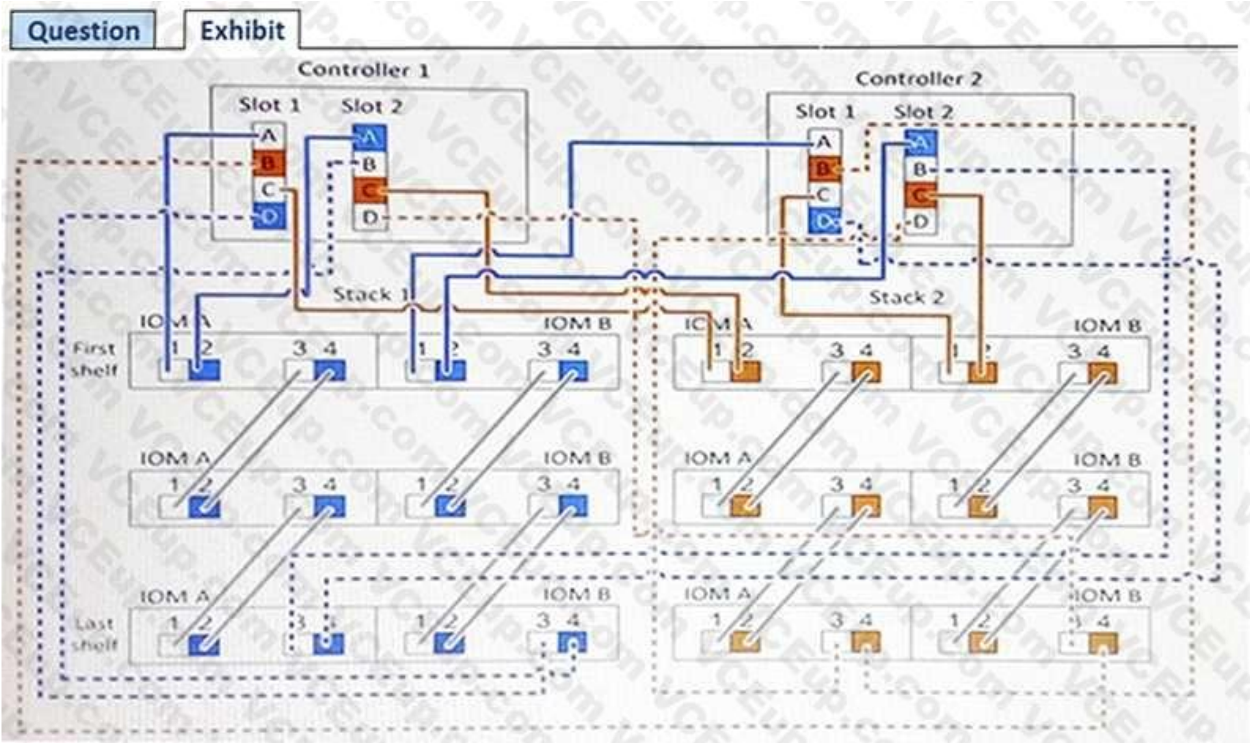
C. 4

D. 3

Answer: A

Explanation:

Question No: 35


Question
Exhibit
Controller 1
Slot 1
Slot 2
A
B
C
D
Controller 2
Stack 1
Stack 2
IOM A
IOM B
First shelf
Last shelf
1 2
3 4

Referring to the exhibit, you have SAN LUNs on an AFF A700s and are asked to test an SSD shelf stack failure.

What is the maximum allowed number of failed paths per controller to shelf stack before a storage failover occurs?

A. 1

B. 3

C. 2

D. 4

Answer: C

Explanation:

Question No: 36

You have an SVM that serves LUNs to your hosts in an FC SAN environment. This SVM runs on a 4- node cluster and has two data LIFs on each node, according to best practices. You just created a LUN and mapped it to your initiators group. The LUN is owned by node01.

In this scenario, what would be an appropriate test for LUN mobility?

A. Move the LUN to node02.

B. Mirror the LUN to another node in your cluster.

C. Physically disconnect the SAN ports, and verify if the SAN data LIFs automatically move to other hosts.

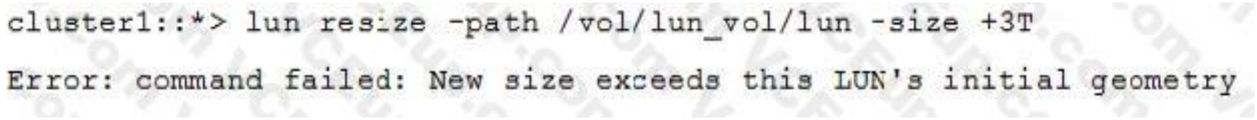
D. Copy the LUN to another node and create a new LUN map.

Answer: A

Explanation:

Question No: 37

While expanding a 200 GB LUN in an ONTAP 9.4 system, the following error is observed:



```
cluster1::*> lun resize -path /vol/lun_vol/lun -size +3T
Error: command failed: New size exceeds this LUN's initial geometry
```

What is the cause of this error?

A. The volume auto-grow is disabled.

B. The LUN reached maximum capacity.

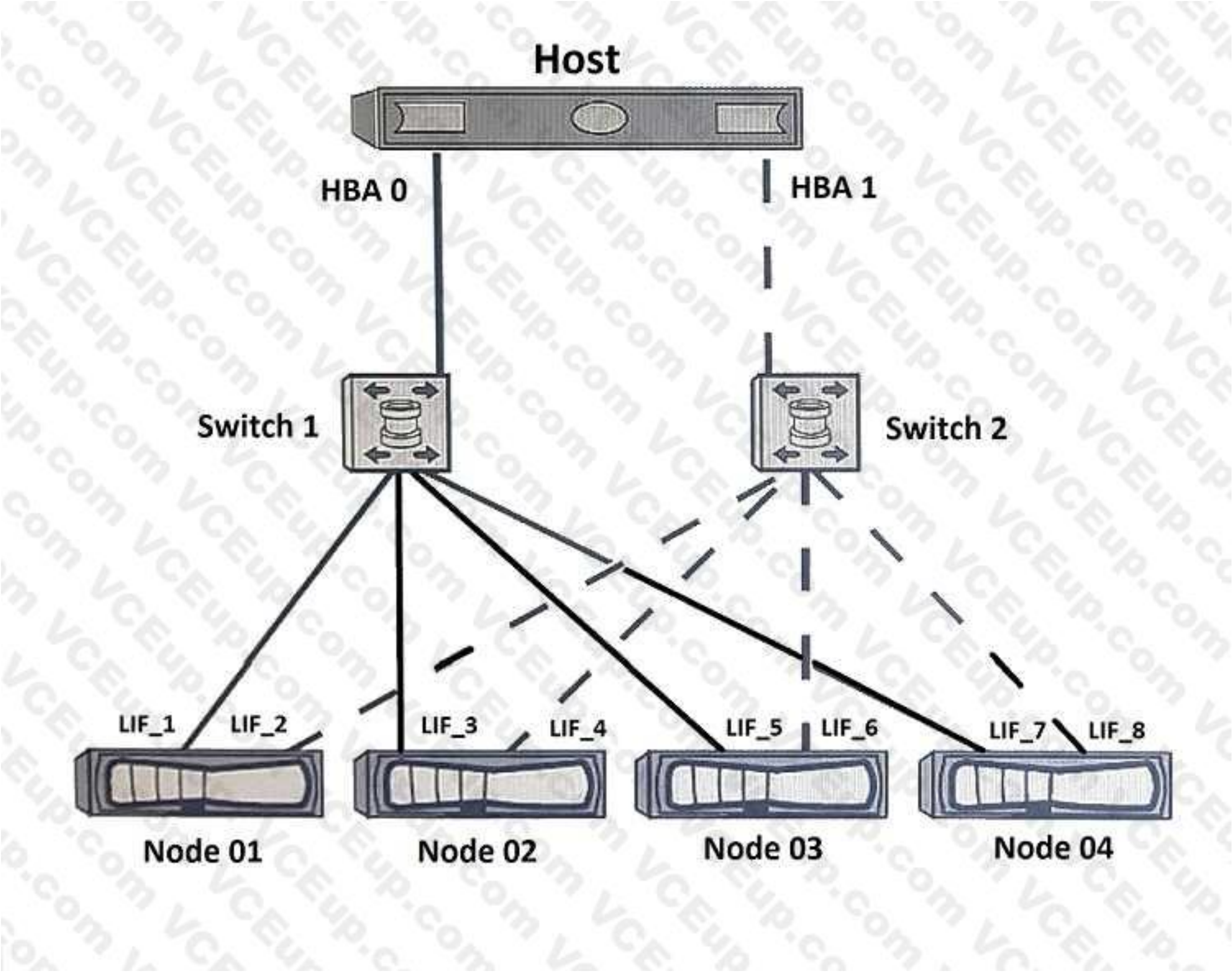
C. The LUN can be expanded up to 10 times its original size.

D. Space reservation is enabled.

Answer: A

Explanation:

Question No: 38


Host
HBA 0
HBA 1
Switch 1
Switch 2
LIF_1
LIF_2
LIF_3
LIF_4
LIF_5
LIF_6
LIF_7
LIF_8
Node 01
Node 02
Node 03
Node 04

You have a LUN owned by Node 01 and mapped using the default Selective LUN Map (SLM) configuration. You want to enable your host to access this LUN and facilitate future maintenance.

Which best-practice zone configuration accomplishes this task?

A. Zone 1: HBA 0, LIF_1, LIF_3, LIF_5 and LIF_7 Zone 2: HBA 1, LIF_2, LIF_4, LIF_6 and LIF_8

B. Zone 1: HBA 0, HBA 1, LIF_1, LIF_2, LIF_3, LIF_4, LIF_5, LIF_6, LIF_7, LIF_8

C. Zone 1: HBA 0, LIF_1, LIF_3 Zone 2: HBA 1, LIF_2, LIF_4

D. Zone 1: HBA 0, HBA 1, LIF_1, LIF_2, L1F_3, LIF_4

Answer: D

Explanation:

Question No: 39

Which path selection policy is used by Windows Servers using NetApp LUNs that are greater than 2 TB?

A. Least Queue Depth

B. Round Robin

C. Round Robin with Subset Policy

D. Least Weighted Paths

Answer: C

Explanation:

Question No: 40

Which two are supported in ONTAP 9.5? (Choose two.)

A. an NVMe LIF and an FC LIF in the same SVM

B. an NVMe LIF associated with an FC Direct Connect port

C. a NVMe LIF and an FC LIF associated with the same port

D. multiple NVMe LIFs in the same SVM

Answer: C,D

Explanation:

Question No: 41

An administrator who is using the Virtual Storage Console (VSC) creates a new FC datastore on an existing volume. While the datastore was provisioned, two hosts were in maintenance mode. When the maintenance was completed, the two hosts do not have access to the new datastore, but they have access to other datastores on the same volume.

In this scenario, what caused this result?

A. The VSC cannot create datastores while hosts are in maintenance mode.

B. During host maintenance, the FC HBAs were replaced with different FC HBAs.

C. The VSC created a new igroup that contains only the hosts that were online during the datastore creation.

D. After creation using the VSC, the administrator needs to create a LUN mapping.

Answer: C

Explanation:

Question No: 42

An administrator is configuring a SAN-only cluster. The data room that houses four AFF A220 controllers is small and not able to house the DS224C shelves. The administrator proposes to rack the shelves in a separate room that is 40 meters away from the controllers.

In this situation, how would you properly cable the controllers to the shelves?

A. Use multimode passive optical cables.

B. Use multimode active copper cables.

C. Use multimode active optical cables.

D. Use multimode passive copper cables.

Answer: C

Explanation:

Question No: 43

Which three components are required for NetApp iSCSI LUN access on Linux servers? (Choose three.)

A. device-mapper-multipath

B. NetApp SnapDrive

C. scsi-target-utils

D. iscsi-initiator-utils

E. NetApp Host Utilities

Answer: A,C,E

Explanation:

Question No: 44

An administrator has a new AFF A220 system with two DS224C disk shelves and wants to validate if the shelf cabling is correct.

Which resource would be used to accomplish this task?

A. Config Advisor

B. OnCommand Unified Manager (OCUM)

C. OneCollect

D. Interoperability Matrix Tool (IMT)

Answer: A

Explanation:

Question No: 45

You currently have a FAS8200 with ONTAP 9.5. You want to expand the front end FC I/O capabilities.

However, you are unsure which target adapters are supported.

What would you use to confirm which adapters are supported with your current configuration?

A. Hardware Universe (HWU)

B. Upgrade Advisor

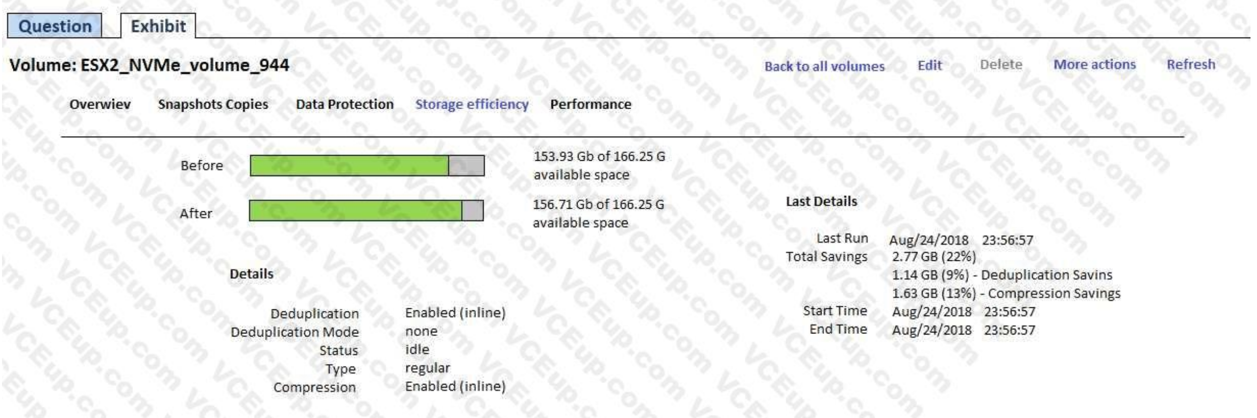
C. OneCollect

D. Interoperability Matrix Tool (IMT)

Answer: A

Explanation:

Question No: 46


Question
Exhibit
Back to all volumes
Edit
Delete
More actions
Refresh
Overwiev
Snapshots Copies
Data Protection
Storage efficiency
Performance

Volume: ESX2_NVMe_volume_944

Before 153.93 Gb of 166.25 G available space

After 156.71 Gb of 166.25 G available space

Details

Deduplication Enabled (inline)
Deduplication Mode none
Status idle
Type regular
Compression Enabled (inline)

Last Details

Last Run Aug/24/2018 23:56:57
Total Savings 2.77 GB (22%)
1.14 GB (9%) - Deduplication Savins
1.63 GB (13%) - Compression Savings
Start Time Aug/24/2018 23:56:57
End Time Aug/24/2018 23:56:57

Which two storage efficiencies have been enabled on the NVMe namespace that is shown in the exhibit? (Choose two.)

A. deduplication

B. compaction

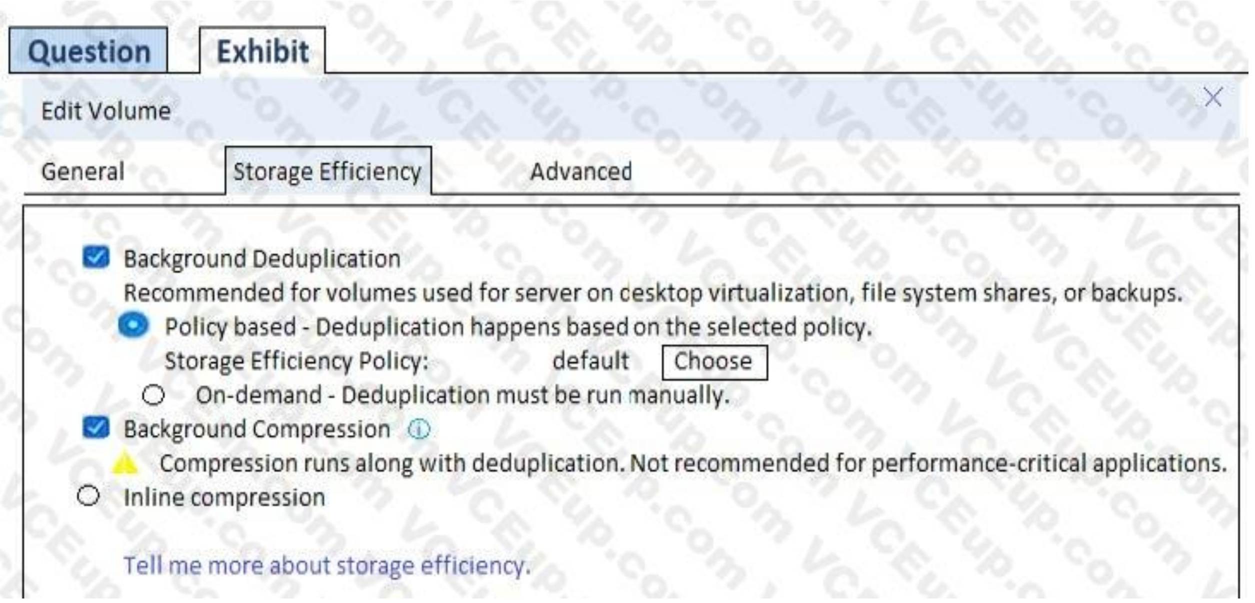
C. compression

D. thin provisioning

Answer: B

Explanation:

Question No: 47


Question
Exhibit
Edit Volume
General
Storage Efficiency
Advanced
Choose

☑ Background Deduplication
Recommended for volumes used for server on desktop virtualization, file system shares, or backups.
● Policy based - Deduplication happens based on the selected policy.
Storage Efficiency Policy: default
○ On-demand - Deduplication must be run manually.
☑ Background Compression
Compression runs along with deduplication. Not recommended for performance-critical applications.
○ Inline compression

Tell me more about storage efficiency.

You have a performance critical database application that is running on a FAS9000 controller that uses FC. As shown in the exhibit, volume efficiency is enabled.

If you follow the performance recommendation, what are two results to the data in the volume?

(Choose two.)

A. The new written data is compressed.

B. The new written data is uncompressed.

C. The existing data is uncompressed.

D. The existing data is compressed.

Answer: A,C

Explanation:

Question No: 48

You are configuring both NVMe and FC on the same AFF A800 2-node ONTAP 9.5 cluster. You are configuring both protocols on the same Cisco FC network switches.

In this scenario, which configuration on the cluster is supported?

A. a volume with both LUNs and namespaces

B. an SVM with both nvme and fcp allowed protocols

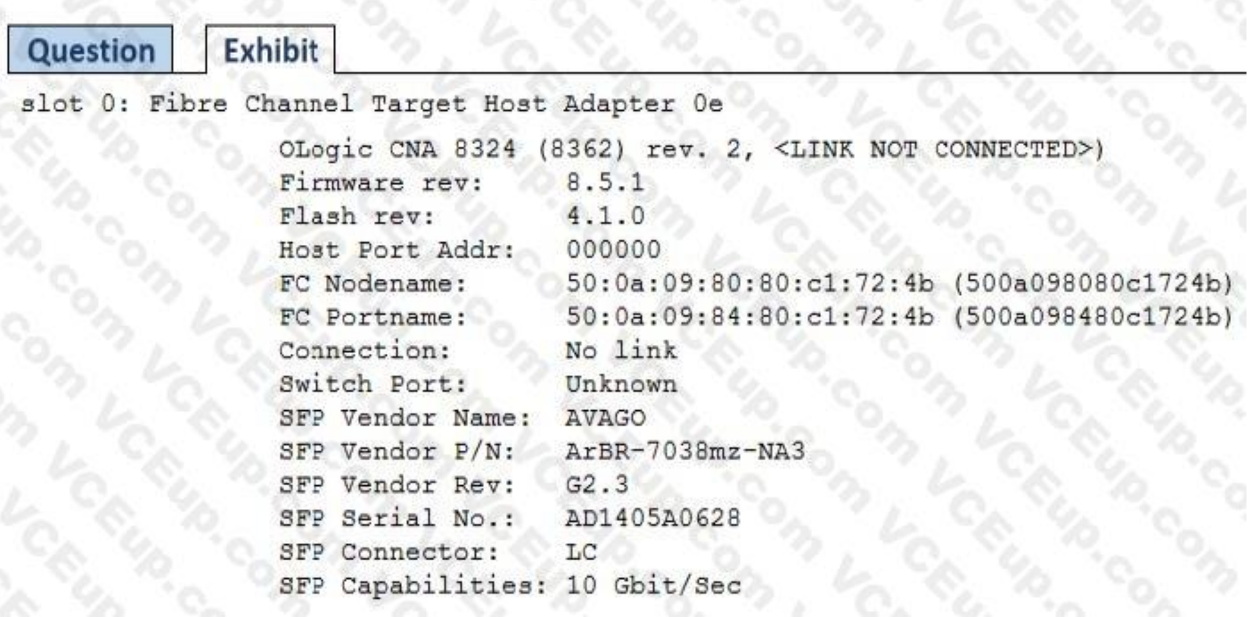
C. an AFF A800 node HBA with both NVMe/FC and FC on the same port

D. a LIF with both fc-nvme and fcp data protocols

Answer: A

Explanation:

Question No: 49



```
slot 0: Fibre Channel Target Host Adapter 0e
                OLogic CNA 8324 (8362) rev. 2, <LINK NOT CONNECTED>)
                Firmware rev:      8.5.1
                Flash rev:         4.1.0
                Host Port Addr:    000000
                FC Nodename:       50:0a:09:80:80:c1:72:4b (500a098080c1724b)
                FC Portname:       50:0a:09:84:80:c1:72:4b (500a098480c1724b)
                Connection:        No link
                Switch Port:       Unknown
                SFP Vendor Name:   AVAGO
                SFP Vendor P/N:    ArBR-7038mz-NA3
                SFP Vendor Rev:    G2.3
                SFP Serial No.:    AD1405A0628
                SFP Connector:     LC
                SFP Capabilities: 10 Gbit/Sec
```

You connected your FAS8200 to a Brocade SAN switch. As shown in the exhibit, port 0e is not available.

In this scenario, which statement is correct?

A. The incorrect SFP+ module is installed.

B. The switch zoning is using the FC nodename.

C. The incorrect firmware revision is installed.

D. The switch port is configured for mode E_Port.

Answer: D

Explanation:

Question No: 50

An administrator wants to design an NVMe solution to connect Linux hosts to an ONTAP cluster. The proposed solution uses two Cisco MDS 9396T switches for each fabric in a top-of-rack design.

In this scenario, which statement is true?

A. Asymmetric Namespace Access requires ONTAP 9.4 and higher.

B. NVMe solutions require heterogeneous multiple switch fabrics.

C. N_Port ID virtualization (NPIV) must be enabled on all switches.

D. A middle-of-rack design is required.

Answer: C

Explanation:

Question No: 51

On your ONTAP 9.5 cluster, you need to set up the onboard key manager with hardware-based security and volume encryption.

Which two licenses are required in this situation? (Choose two.)

A. FDE

B. TPM

C. VE

D. RSA

Answer: C,D

Explanation:

Question No: 52

A customer is planning to connect a Linux server to a FAS8200 using Brocade FC switches. During the initial configuration, the SVM does not log in to the fabric.

Which two statements are correct in this scenario? (Choose two.)

A. NPIV has not been enabled on the switches.

B. The switch port topology is set incorrectly to the E_Port.

C. ALUA has not been set up on the FAS8200.

D. Zoning is incorrectly configured between the Linux server and the ONTAP cluster.

Answer: A,C

Explanation:

Question No: 53

You need to configure iSCSI on your existing ONTAP cluster in a new SVM. The iSCSI LUNs will be served over a new Layer 2 network using the same physical ports that also use the CIFS protocol on a different SVM.

Which two actions should you perform to accomplish this task? (Choose two.)

A. Create a new portset.

B. Create a new VLAN.

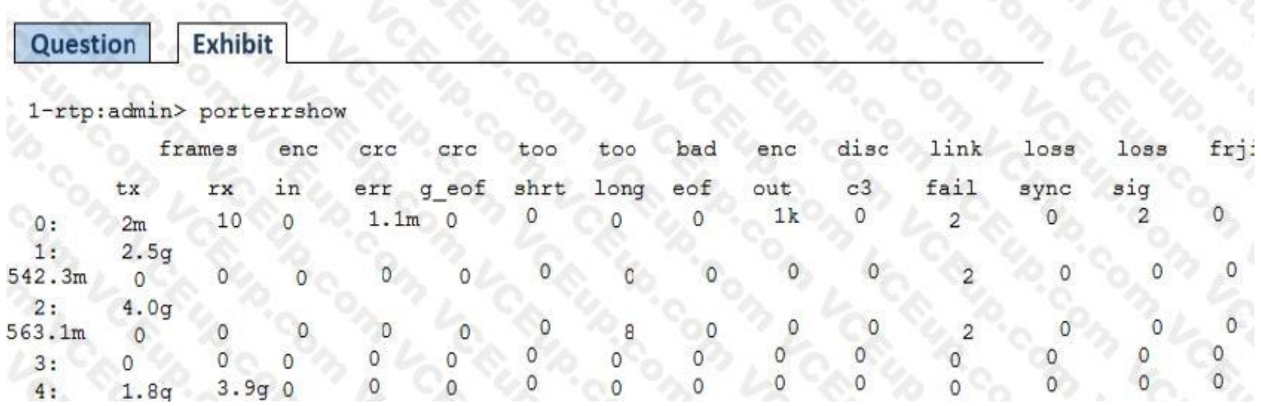
C. Create a new broadcast domain.

D. Create a new AD object.

Answer: B,C

Explanation:

Question No: 54



```
 1-rtp:admin> porterrshow
            frames     enc    crc    crc    too    too    bad    enc   disc   link   loss   loss   frj:
        tx        rx    in    err  g_eof   shrt   long   eof    out    c3   fail   sync    sig
  0:    2m       10     0    1.1m   0      0      0      0     1k      0      2      0      2      0
  1:    2.5g
542.3m   0        0     0      0    0      0      0      0      0      0      2      0      0      0
  2:    4.0g
563.1m   0        0     0      0    0      0      8      0      0      0      2      0      0      0
  3:    0         0     0      0    0      0      0      0      0      0      0      0      0      0
  4:    1.8g    3.9g    0      0    0      0      0      0      0      0      0      0      0      0
```

Referring to the exhibit, what is the problem with switch port 0?

A. The transmit and receive links were switched.

B. The SFP+ is faulty.

C. The receive power is lower.

D. The link is not connected.

Answer: C

Explanation:

Question No: 55

An administrator has expanded a 2-node ONTAP cluster to a 4-node ONTAP cluster. The cluster is using FC LUNs with all of the default settings. You must rebalance the LUNs to the new nodes.

Which configuration must be made to achieve this requirement?

A. The new nodes must be added to the reporting nodes list.

B. All nodes must be removed from the reporting nodes list.

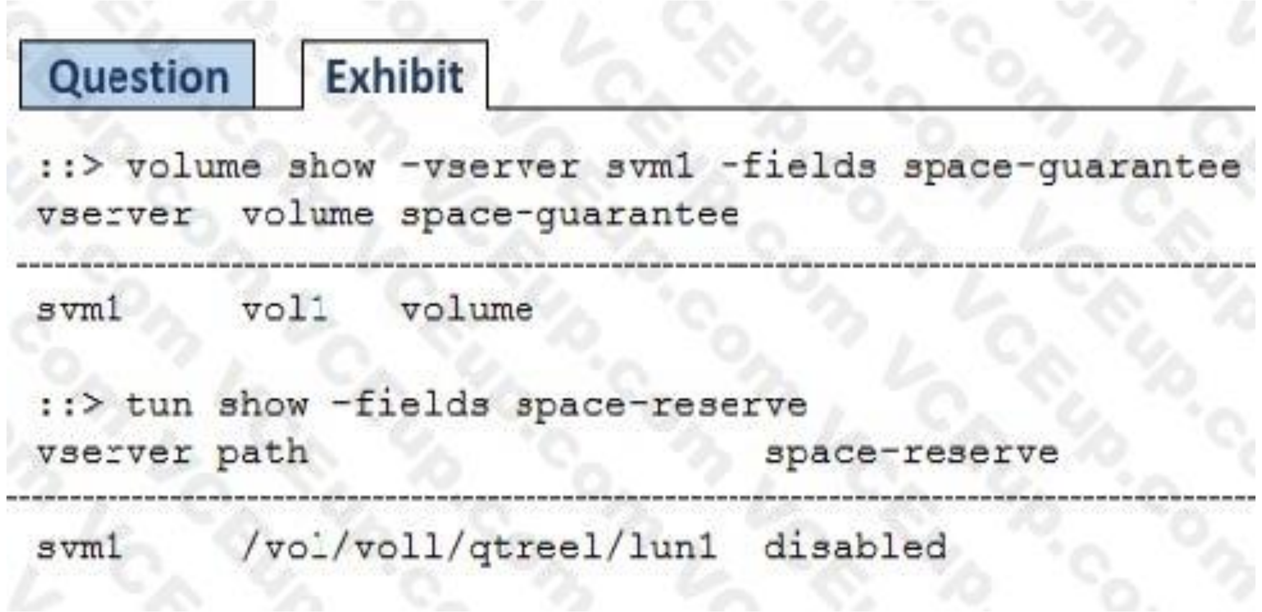
C. The original nodes must be added to the reporting nodes list.

D. The original nodes must be removed from the reporting nodes list.

Answer: A

Explanation:

Question No: 56



```
::> volume show -vserver svm1 -fields space-guarantee
vserver  volume space-guarantee
--------------------------------------------------------------
svm1     vol1   volume

::> tun show -fields space-reserve
vserver path                  space-reserve
--------------------------------------------------------------
svm1     /vol/vol1/qtree1/lun1  disabled
```

Referring to the exhibit, which container gains space savings from deduplication, compression and compaction?

A. the aggregate

B. the qtree

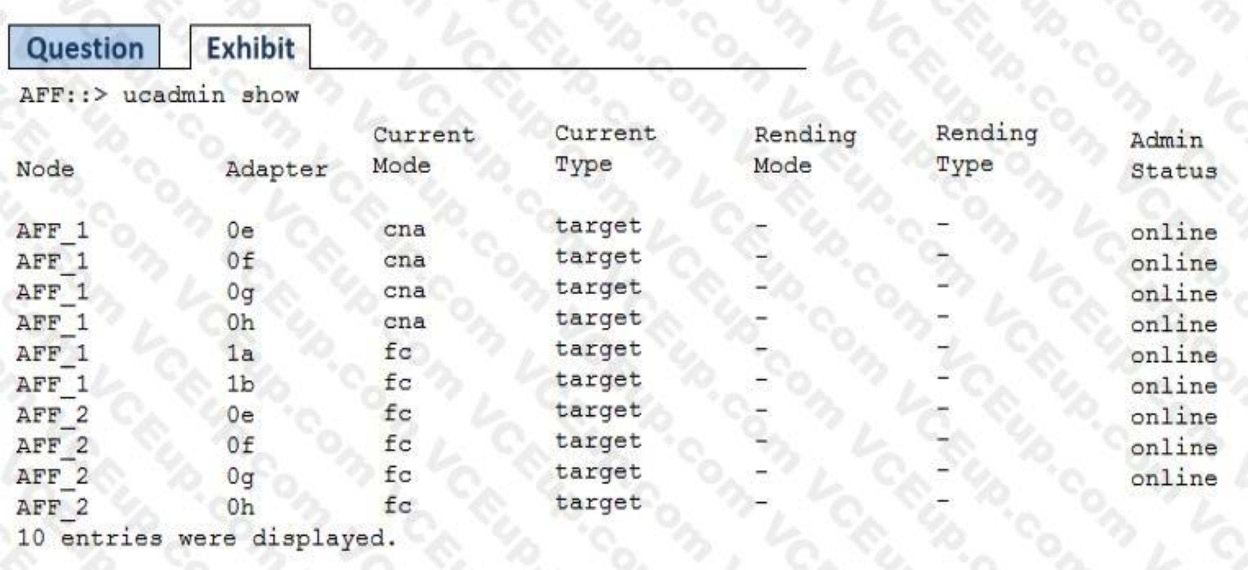
C. the volume

D. the LUN

Answer: C

Explanation:

Question No: 57



```
AFF::> ucadmin show
                         Current    Current      Rending     Rending      Admin
Node          Adapter    Mode       Type         Mode        Type         Status

AFF_1         0e          cna       target       -           -            online
AFF_1         0f          cna       target       -           -            online
AFF_1         0g          cna       target       -           -            online
AFF_1         0h          cna       target       -           -            online
AFF_1         1a          fc        target       -           -            online
AFF_1         1b          fc        target       -           -            online
AFF_2         0e          fc        target       -           -            online
AFF_2         0f          fc        target       -           -            online
AFF_2         0g          fc        target       -           -            online
AFF_2         0h          fc        target       -           -
10 entries were displayed.
```

A customer needs to change ports 0e and 0f on AFF_1 to support FC.

Referring to the exhibit, which three steps are required to accomplish this task? (Choose three.)

A. Issue the ucadmin modify -node AFF_1 -adapter 0e -mode FC -type target command.

B. Issue the ucadmin modify -node AFF_1 -adapter 0e -mode FC -type initiator command.

C. Restart the FC service.

D. Take ports 0e and 0f offline.

E. Reboot the node.

Answer: B,C,D

Explanation:

Question No: 58

You want to connect a NetApp AFF A700 to a 32 Gb FC switch. The ports need to connect at 32 Gb speed.

In this scenario, which statement is correct?

A. The AFF A700 includes FC ports natively on the controller.

B. The AFF A700 includes an additional FC I/O module that is already populated in each controller.

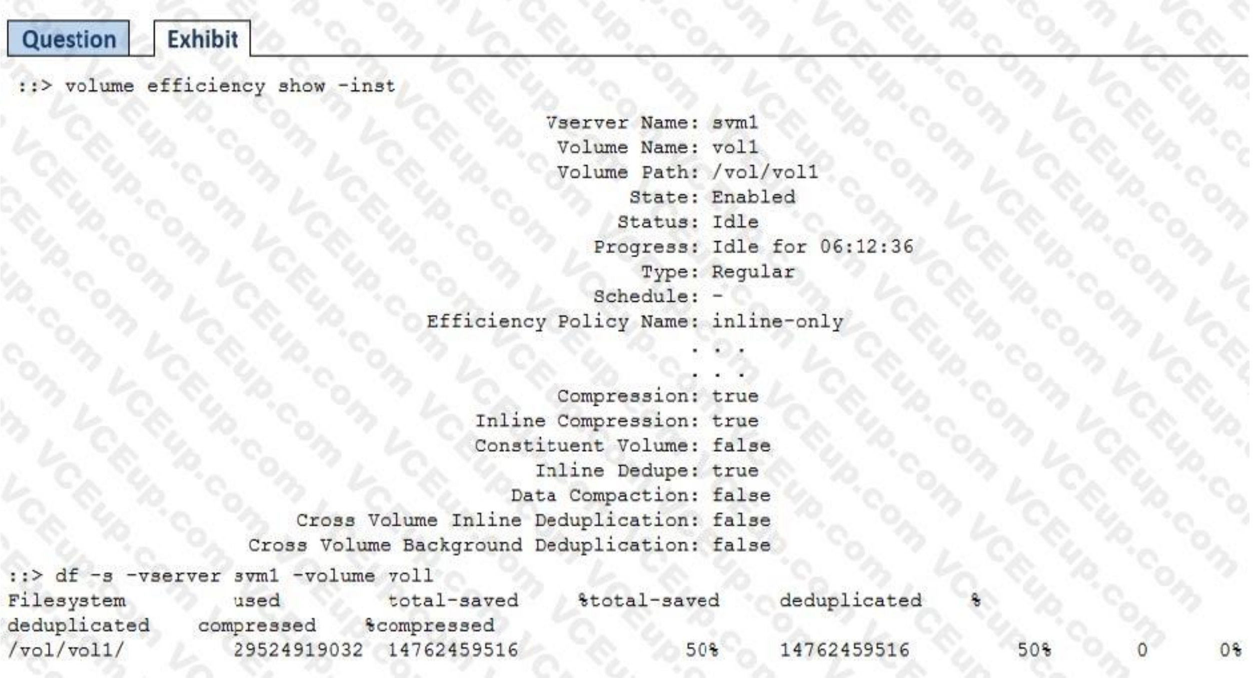
C. You need to purchase a two-port or four-port unified I/O module that enables FC and Ethernet connectivity.

D. You need to purchase a two-port or four-port FC I/O module.

Answer: C

Explanation:

Question No: 59



```
::> volume efficiency show -inst
                                    Vserver Name: svm1
                                     Volume Name: vol1
                                     Volume Path: /vol/vol1
                                           State: Enabled
                                          Status: Idle
                                        Progress: Idle for 06:12:36
                                            Type: Regular
                                        Schedule: -
                          Efficiency Policy Name: inline-only
                                                  . . .
                                                  . . .
                                     Compression: true
                              Inline Compression: true
                              Constituent Volume: false
                                   Inline Dedupe: true
                                 Data Compaction: false
               Cross Volume Inline Deduplication: false
           Cross Volume Background Deduplication: false
::> df -s -vserver svm1 -volume vol1
Filesystem          used        total-saved     %total-saved     deduplicated     %
deduplicated     compressed    %compressed
/vol/vol1/          29524919032  14762459516              50%     14762459516          50%      0        0%
```

You are troubleshooting high CPU use on a FAS8200 with all SAS HDDs. You have SAN hosts with LUNs in a volume named vol1. You want to reduce CPU use and maintain storage efficiencies.

Referring to the exhibit which three actions will accomplish this task? (Choose three.)

A. Disable compression.

B. Enable cross-volume deduplication.

C. Disable inline deduplication.

D. Enable post process deduplication.

E. Enable data compaction.

Answer: C,D,E

Question No: 60

You create a 20 GB LUN in a newly created 100 GB FlexVol volume. You then write 5 GB of data to the LUN. You have space reservation disabled on the LUN.

In this scenario, how much space do you have left on the volume?

A. 95 GB

B. 80 GB

C. 75 GB

D. 85 GB

Answer: A

Reference: https://library.netapp.com/ecmdocs/ECMP1368017/html/GUID-0E0B085C-5A42-43F3-9CCD- 4FD699BA6C89.html

Question No: 61

Changes to your organization requires access to an SVM be given to a group of individuals. Your company uses Active Directory as a method of access control. You decide to use the security login create - vserver engCluster -user-or-group-name CORP\Admins -application ssh -authmethod domain -role vsadmin command.

In this scenario, which access rights will this command grant?

A. read only rights to the SVM engCluster for Active Directory group CORP

B. vsadmin rights to the SVM engCluster for Active Directory group CORP\Admins

C. vsadmin rights to the SVM CORP for Active Directory group CORP\Admins

D. vsadmin rights to the SVM engCluster for Active Directory group CORP

Answer: B

Question No: 62

A customer has multiple host applications that require FC block storage. You need to gather and validate the customer's requirements for a supported NetApp solution.

Which two tools would be used to accomplish this task? (Choose two.)

A. Interoperability Matrix Tool (IMT)

B. OneCollect

C. Config Advisor

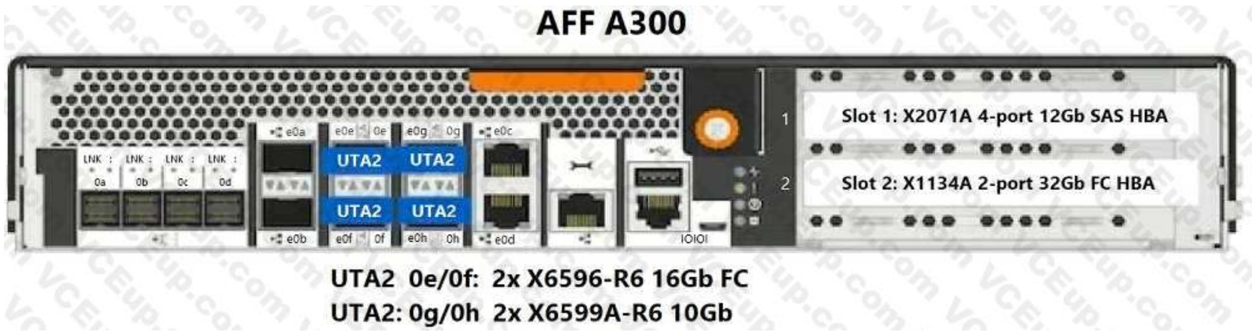
D. Hardware Universe (HWU)

Answer: AD

Reference: https://www.netapp.com/us/technology/interop.aspx

Question No: 63

Click the Exhibit button.


AFF A300
LNK
0a
0b
0c
0d
e0a
e0b
e0e
0e
e0f
0f
e0g
0g
e0h
0h
UTA2
UTA2
UTA2
UTA2
e0c
e0d
IOIOI
1
2
Slot 1: X2071A 4-port 12Gb SAS HBA
Slot 2: X1134A 2-port 32Gb FC HBA
UTA2 0e/0f: 2x X6596-R6 16Gb FC
UTA2: 0g/0h 2x X6599A-R6 10Gb

You are implementing an ONTAP 9.5 AFF A300 SAN cluster with the NVMe, FC, and FCoE protocols.

Referring to the exhibit, which three protocols and physical port pairs are supported? (Choose three.)

A. NVMe on ports 2a/2b

B. FC on ports 2a/2b

C. NVMe on ports 0e/0f

D. FCoE on ports 0e/0f

E. FC on ports 0e/0f

Answer: BCD

Question No: 64

What is a SAN best practice when initially configuring a Linux FC boot LUN?

A. Install the Host Utilities in the guest Linux OS.

B. Map the WWPN of the target.

C. Disable the HBA port with the host’s BIOS.

D. Configure multipath to the LUN.

Answer: B

Reference: https://library.netapp.com/ecm/ecm_download_file/ECMP1217221

Question No: 65

A customer has an FC host that needs to be attached to the NetApp AFF A700 dual controller storage cluster.

To accomplish this task, which three steps should the customer perform? (Choose three.)

A. Configure the FCP service for the node that has the LUN that is being accessed.

B. Confirm that the FC HBA driver and firmware is supported according to the Interoperability Matrix Tool (IMT)

C. Configure portsets to support the availability of multiple paths.

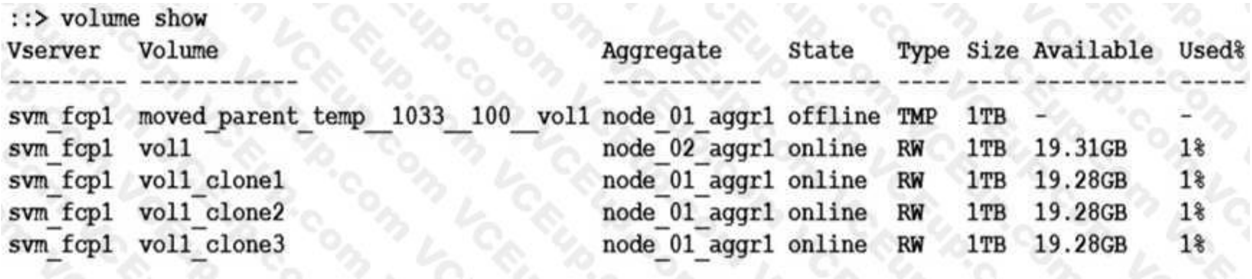
D. Configure an igroup with the WWPN from the host initiator for LUN access.

E. Confirm that the switch firmware is supported according to the Interoperability Matrix Tool (IMT).

Answer: CDE

Question No: 66

Click the Exhibit button.



```
::> volume show
Vserver   Volume                            Aggregate    State   Type Size Available  Used%
--------- ------------                      ------------ ------- ---- ---- ---------- -----
svm_fcp1  moved_parent_temp__1033__100__vol1 node_01_aggr1 offline TMP  1TB  -          -
svm_fcp1  vol1                              node_02_aggr1 online  RW   1TB  19.31GB    1%
svm_fcp1  vol1_clone1                       node_01_aggr1 online  RW   1TB  19.28GB    1%
svm_fcp1  vol1_clone2                       node_01_aggr1 online  RW   1TB  19.28GB    1%
svm_fcp1  vol1_clone3                       node_01_aggr1 online  RW   1TB  19.28GB    1%
```

You notice that your volume named vol1 has a temporary volume that is doubling the space that is used by the volume.

In this scenario, which operation caused the volume to take up twice the space?

A. FlexClone

B. SnapRestore

C. FlexGroup

D. SnapMirror

Answer: D

Reference: https://community.netapp.com/t5/Data-ONTAP-Discussions/Volume-takes-much-morespace-than- expected/td-p/100619

Question No: 67

You create a new iSCSI SVM and secure iSCSI sessions by using both Challenge-Handshake Authentication Protocol (CHAP) and iSCSI Access Control Lists (ACL).

In this scenario, in which two ways are you securing your iSCSI implementation? (Choose two.)

A. CHAP creates a hash value for the username and shared secret.

B. iSCSI ACLs are applied to the initiator configuration to provide an IP address of the targets.

C. CHAP encrypts all iSCSI session I/O.

D. iSCSI ACLs are applied to the target configuration to provide an IP address of the initiators.

Answer: AD

Question No: 68

How do you configure the iSCSI-SendTargets datastore when the datastore is provisioned from NetApp storage?

A. You must configure jumbo frames when SendTargets-based iSCSI is used.

B. Use static discovery to add the target IQN.

C. Use dynamic discovery to add the target IQN.

D. You must configure a single protocol on the SVM when SendTargets-based iSCSI is used.

Answer: C

Reference: https://www.vmware.com/pdf/vsphere4/r40_u1/vsp_40_u1_iscsi_san_cfg.pdf (37)

Question No: 69

You are planning to set up a new SAN with an AFF A300 2-node switchless cluster. Your SAN fabric will consist of Cisco MDS9148s switches.

According to NetApp best practices, which two actions would be required to accomplish this task?

(Choose two.)

A. Set the switchport speed setting to 16 Gb.

B. Use single initiator, multiple target zoning.

C. Use multiple initiator, single target zoning.

D. Set the switchport speed to auto negotiate.

Answer: BD

Reference: https://docs.netapp.com/ontap-9/index.jsp?topic=%2Fcom.netapp.doc.dot-mcc-instcnfg-fabric% 2FGUID-DA51E013-0C96-4D55-9E35-39CDE07082E9.html

Question No: 70

The ESX host reports inconsistent performance for iSCSI-based connectivity.

In this scenario, what would cause this problem?

A. The host and storage are connected to different switches.

B. The flow control was disabled on the storage.

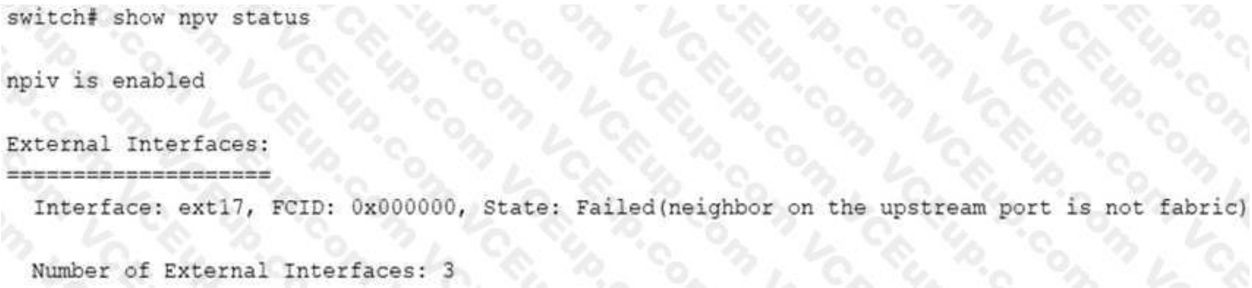
C. The hardware initiators were used instead of software.

D. The flow control is enabled on the storage.

Answer: B

Question No: 71

Click the Exhibit button.



```
switch# show npv status

npiv is enabled

External Interfaces:
====================
  Interface: ext17, FCID: 0x000000, State: Failed(neighbor on the upstream port is not fabric)

  Number of External Interfaces: 3
```

An administrator is trying to configure a multiple-hop Cisco MDS switch and is receiving the error shown in the exhibit.

In this scenario, which action will solve this problem?

A. Configure the physical link of interface ext17 as an F_Port.

B. Configure the external interface to a different virtual SAN (VSAN) on both ends.

C. Connect the external link to a Cisco MDS switch.

D. Turn N_Port ID virtualization (NPIV) off.

Answer: C

Reference: https://www.cisco.com/en/US/products/ps5989/prod_troubleshooting_guide_chapter09186a00808c82f1.html

Question No: 72

What is the supported NVMe OS multipathing stack for VMware ESXi?

A. dm-multipath

B. MPIO

C. NMP

D. PVlinks

Answer: C

Reference: https://www.netapp.com/us/media/tr-4684.pdf (18)

Question No: 73

Which resource would you use to verify whether a specific SAN configuration is supported by NetApp?

A. SAN Configuration Guide

B. Hardware Universe (HWU)

C. Active IQ

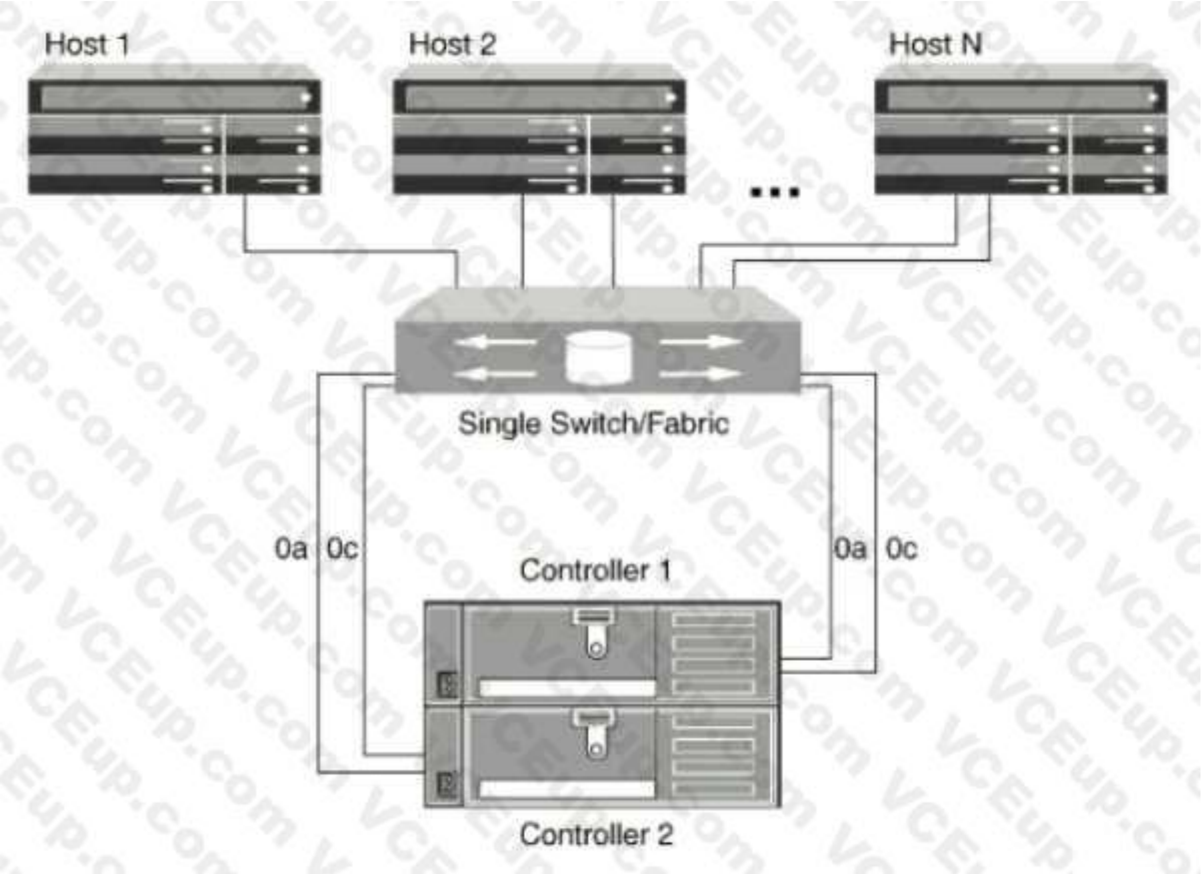
D. Interoperability Matrix Tool (IMT)

Answer: A

Reference: https://docs.netapp.com/ontap-9/topic/com.netapp.doc.dot-cmsanconf/SAN%20configuration.pdf

Question No: 74

Click the Exhibit button.



You have a 2-node cluster in a single-fabric SAN. Host 1 and Host 2 are part of a VMware cluster and access the same LUNs that reside in your NetApp storage.

Referring to the exhibit, what would be a way to test whether the multipathing is properly configured in your environment?

A. Verify whether all destination storage target ports are contained in the same zone as Host 1.

B. Administratively set ports 0a and 0c on Controller 1 to the offline setting.

C. Power off the SAN switch.

D. Disconnect Host 1 port and verify whether Host 2 is still able to run the VMs.

Answer: B

Question No: 75

An administrator configures NVMe within an SVM for a test environment. The administrator creates an NVMe namespace and an NVMe subsystem. The administrator then maps the namespace to the subsystem. However, when the administrator establishes a connection to a supported host, the following error message appears: No discovery log entries to fetch.

What is the solution to this error?

A. Add the host WWPN to the subsystem.

B. Disable the host HBA and re-enable it to clear the buffers.

C. Add the host NQN to the subsystem.

D. Use the nvme ns-rescan /dev/nvme0 command to rescan the bus.

Answer: C

Reference: https://www.netapp.com/us/media/tr-4684.pdf (39)

Question No: 76

After the addition of extra DS224C disk shelves, you notice that the output of the system node run - node node_1 sysconfig command shows Mixed-path. You need to investigate why the additional shelves are providing this error.

In this scenario, which two tools would help diagnose this issue? (Choose two.)

A. Config Advisor

B. Active IQ

C. Hardware Universe (HWU)

D. Interoperability Matrix Tool (IMT)

Answer: AD

Question No: 77

A customer's NetApp infrastructure is reaching end-of-life (EOL), and they want to inventory their NetApp cluster. The customer wants to make sure that the proposed technical refresh satisfies their growing data demands.

Which two tools would you use to help with this recommendation? (Choose two.)

A. Upgrade Advisor

B. OneCollect

C. Config Advisor

D. Active IQ

Answer: AC

Question No: 78

A customer is expanding an ONTAP 9.4 switchless 2-node FAS2750 cluster. Two AFF A220 nodes will be added to the cluster.

In addition to the cluster nodes, what else is required to perform the cluster expansion?

A. Additional management switches are required.

B. An upgrade to ONTAP 9.5 is required.

C. Cluster switches are required.

D. Additional DS224C shelves are needed.

Answer: A

Question No: 79

What is the recommended minimum of data LIFs per node for iSCSI in a dual-fabric configuration with four SVMs?

A. 8

B. 12

C. 16

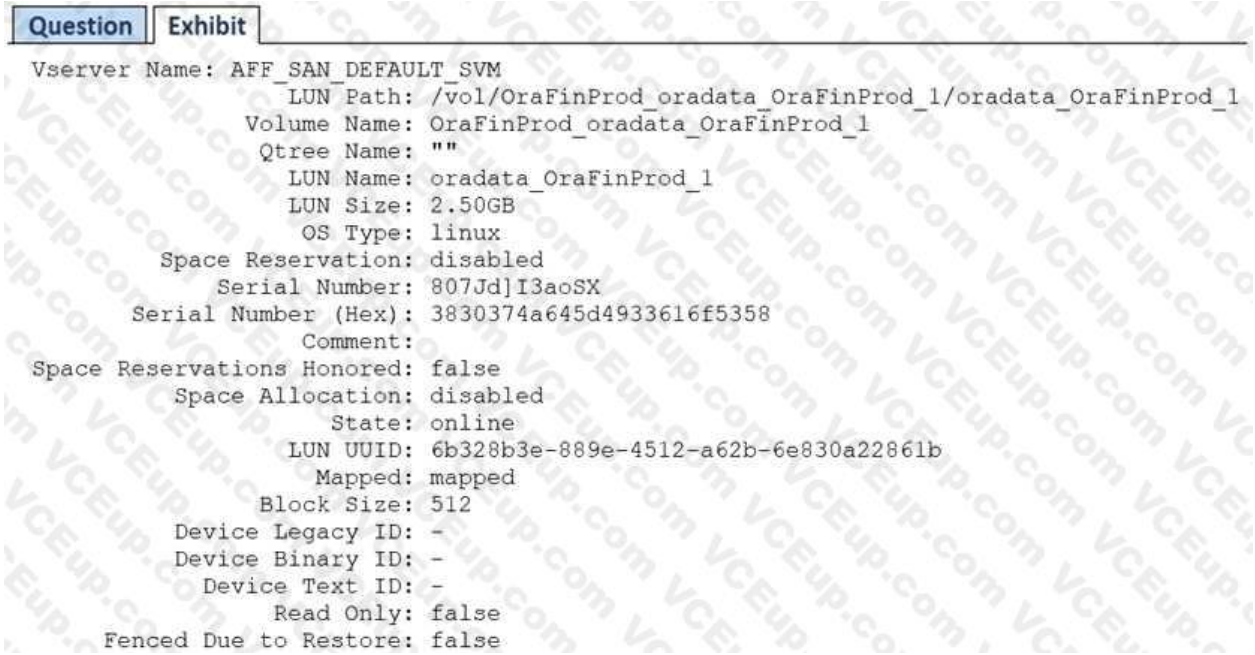
D. 4

Answer: A

Reference: https://docs.netapp.com/ontap-9/topic/com.netapp.doc.dot-cm-sanconf/GUID-650DC466-CA3F- 4032-8005-078FCEEB52E7.html (6th bullet)

Question No: 80

Click the Exhibit button.



```
Vserver Name: AFF_SAN_DEFAULT_SVM
                   LUN Path: /vol/OraFinProd_oradata_OraFinProd_1/oradata_OraFinProd_1
                Volume Name: OraFinProd_oradata_OraFinProd_1
                 Qtree Name: ""
                   LUN Name: oradata_OraFinProd_1
                   LUN Size: 2.50GB
                    OS Type: linux
          Space Reservation: disabled
              Serial Number: 807Jd]I3aoSX
        Serial Number (Hex): 3830374a645d4933616f5358
                    Comment:
Space Reservations Honored: false
           Space Allocation: disabled
                      State: online
                   LUN UUID: 6b328b3e-889e-4512-a62b-6e830a22861b
                     Mapped: mapped
                 Block Size: 512
           Device Legacy ID: -
           Device Binary ID: -
             Device Text ID: -
                  Read Only: false
      Fenced Due to Restore: false
```

The LUN that is shown in the exhibit is mounted by a Windows 2016 server. In this scenario, which two statements are correct? (Choose two.)

A. The LUN has misaligned I/O.

B. The LUN has aligned I/O.

C. The LUN’s space is reserved.

D. The LUN’s space is not reserved.

Answer: BD

Question No: 81

A customer recently added two nodes with FC ports to a 4-node cluster.

Which SVM configuration is needed before the customer creates LUNs on the new nodes?

A. The FC service needs to be enabled on the data SVM.

B. The existing LIFs need to be migrated to the new nodes.

C. New FC LIFs need to be created on the cluster SVM.

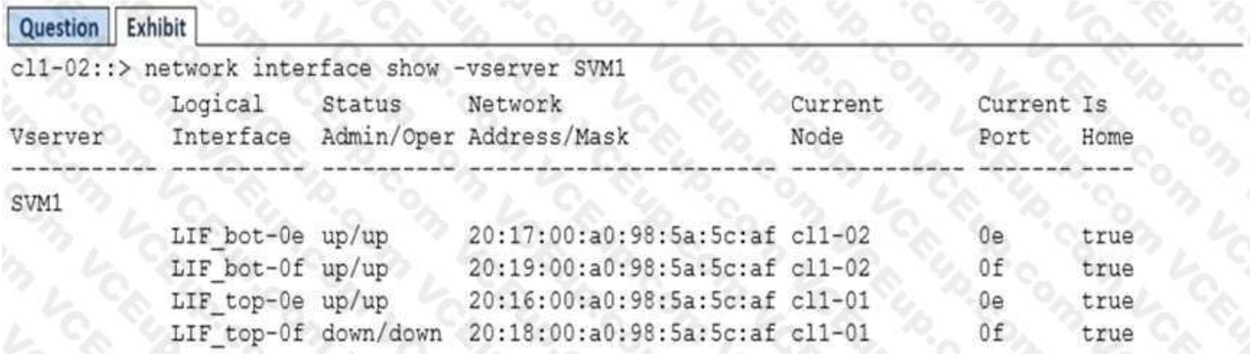
D. New FC LIFs need to be created on the new nodes.

Answer: D

Reference: https://docs.netapp.com/ontap-9/index.jsp?topic=%2Fcom.netapp.doc.expexpand%2FGUID- E3BB89AF-6251-4210-A979-130E845BC9A1.html

Question No: 82

Click the Exhibit button.



```
cl1-02::> network interface show -vserver SVM1
            Logical    Status     Network                 Current       Current Is
Vserver     Interface  Admin/Oper Address/Mask            Node          Port    Home
----------- ---------- ---------- ----------------------- ------------- ------- ----
SVM1
            LIF_bot-0e up/up      20:17:00:a0:98:5a:5c:af cl1-02        0e      true
            LIF_bot-0f up/up      20:19:00:a0:98:5a:5c:af cl1-02        0f      true
            LIF_top-0e up/up      20:16:00:a0:98:5a:5c:af cl1-01        0e      true
            LIF_top-0f down/down  20:18:00:a0:98:5a:5c:af cl1-01        0f      true
```

During pre-deployment testing, you want to ensure that all FC paths are available to your host. You use the network interface modify -vserver SVM1 -lif LIF_top-0f -admin-state up command to correct the configuration shown in the exhibit.

What happens when using this command?

A. It creates a new LIF on SVM2 named up.

B. It creates a new LIF on SVM1 named LIF_top-0f.

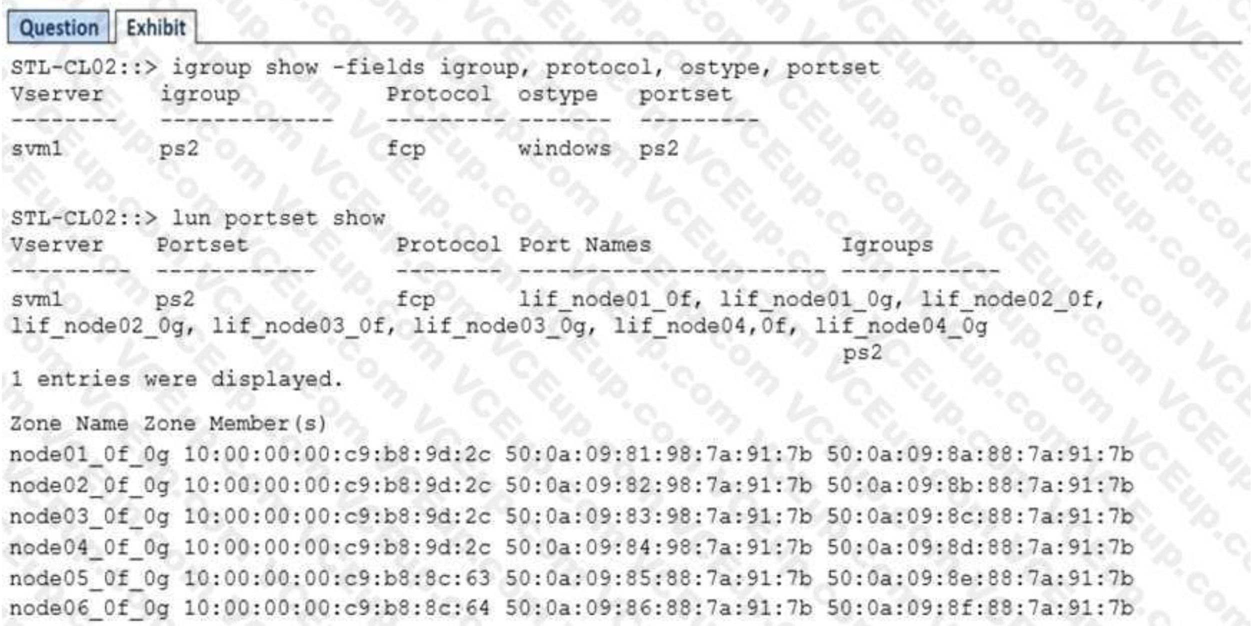
C. It changes the administrative state from “down” to “up”.

D. It changes the operational state from “down” to “up”.

Answer: C

Question No: 83

Click the Exhibit button.



```
STL-CL02::> igroup show -fields igroup, protocol, ostype, portset
Vserver    igroup           Protocol  ostype   portset
--------   -------------    --------- -------  ---------
svm1       ps2              fcp       windows  ps2

STL-CL02::> lun portset show
Vserver    Portset           Protocol Port Names                Igroups
---------  ------------      -------- ------------------------- ------------
svm1       ps2               fcp      lif_node01_0f, lif_node01_0g, lif_node02_0f,
lif_node02_0g, lif_node03_0f, lif_node03_0g, lif_node04,0f, lif_node04_0g
                                                                ps2
1 entries were displayed.

Zone Name Zone Member(s)
node01_0f_0g 10:00:00:00:c9:b8:9d:2c 50:0a:09:81:98:7a:91:7b 50:0a:09:8a:88:7a:91:7b
node02_0f_0g 10:00:00:00:c9:b8:9d:2c 50:0a:09:82:98:7a:91:7b 50:0a:09:8b:88:7a:91:7b
node03_0f_0g 10:00:00:00:c9:b8:9d:2c 50:0a:09:83:98:7a:91:7b 50:0a:09:8c:88:7a:91:7b
node04_0f_0g 10:00:00:00:c9:b8:9d:2c 50:0a:09:84:98:7a:91:7b 50:0a:09:8d:88:7a:91:7b
node05_0f_0g 10:00:00:00:c9:b8:8c:63 50:0a:09:85:88:7a:91:7b 50:0a:09:8e:88:7a:91:7b
node06_0f_0g 10:00:00:00:c9:b8:8c:64 50:0a:09:86:88:7a:91:7b 50:0a:09:8f:88:7a:91:7b
```

A 4-node cluster was expanded with two news nodes (Nodes 5 and 6). You are now attempting to set up four FC LUNs on the two new nodes that use the ps2 igroup name, although FC ping works. LUNs on the previous four nodes are discoverable, but the four new LUNs on the new controllers are not discoverable.

Referring to the exhibit, what is the problem?

VCEplus

VCEûp

A. The zones between the hosts and LIFs are from node-05 and node-06.

B. Selective LUN Mapping (SLM) is not configured for this HA pair.

C. The portset must be configured to reflect Nodes 5 and 6.

D. Igroup ps2 has the portset configured with the LIFs.

Answer: C

Question No: 84

You are configuring both NVMe and FC on the same AFF A700 2-node ONTAP 9.5 cluster. You are also configuring both protocols on the same FC fabric using the same A700 HBA ports.

In this scenario, which three configurations are supported? (Choose three.)

A. 16 GB HBAs

B. 8 GB HBAs

C. 16 GB fabrics

D. 32 GB HBAs

E. 32 GB fabrics

Answer: BCD

Question No: 85

An administrator needs to determine the maximum volume size that is supported per operating system.

Which resource has this information?

A. Config Advisor

B. OneCollect

C. Interoperability Matrix Tool (IMT)

D. Hardware Universe (HWU)

Answer: C

Question No: 86

An administrator is adding new hosts to a vSphere cluster. The cluster uses the FC protocol to connect to a NetApp cluster. The administrator wants to configure the multipathing for the ESXi host.

Which NetApp tool should be used to accomplish this task?

A. OnCommand System Manager (OCSM)

B. Host Utilities

C. SnapCenter plug-in

D. NetApp Virtual Storage Console (VSC)

Answer: D

Reference: https://library.netapp.com/ecm/ecm_download_file/ECMP1547465

Question No: 87

An administrator is asked to configure NVMe on an ONTAP 9.5 cluster for host access.

Which three steps must the administrator perform to accomplish this task? (Choose three.)

A. Create a namespace.

B. Provision a subsystem.

C. Configure the FC port.

D. Gather the IQN from the host initiator software.

E. Gather the NQN from the host system.

Answer: ABE

Reference:

https://thinksystem.lenovofiles.com/storage/help/topic/san_administration_guide/M_DDA6B457-8544-43AC-92E8-D846A0BA7671_.pdf (26)

Question No: 88

A user cannot add more than one NVMe data LIF in ONTAP 9.4 on an SVM with a data protocol parameter set to nvme.

In this scenario, what is the problem?

A. The SVM data protocol should be set to FC.

B. The NVMe namespace is not created.

C. A demo license is used.

D. Only one NVMe data LIF can be configured per SVM.

Answer: B

Question No: 89

An administrator has six VMware hosts, each with dual HBAs that are connected to a dual fabric using single initiator multiple target zoning. Four nodes are being added to the existing 4-node ONTAP cluster.

In this scenario, what is the minimum number of FC zones that need to be updated on each fabric switch?

A. 6

B. 8

C. 4

D. 2

Answer: B

Topic 2, Exam Pool B

Question No: 90

An administrator has an AFF A200 cluster at their primary site that is used for FC connectivity to servers. For disaster recovery purposes they want to start replicating their data to another AFF A3Q0 cluster In a secondary location. The AFF A300 is In a site that has no FC or FCoE capable switches, and is currently only used for CIFS dat a. A cluster peering relationship already exists between the two clusters.

Which three additional actions are needed for the data to be ready for access from hosts at the secondary site? (Choose three.)

A. Create zones with the appropriate initiators and targets for the secondary site.

B. Enable the iSCSI service on the SVM at the secondary site.

C. Replicate the data from the primary site to the secondary site with SnapMirror.

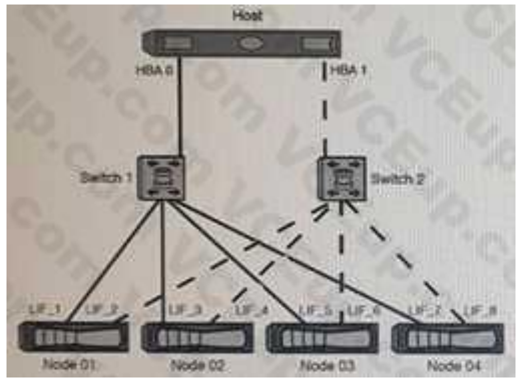
D. Create new iSCSI igroups for LUN mapping.

E. Enable the iSCSI service on the SVM at the primary site.

Answer: B, C, D

Question No: 91

Exhibit.


Host
HBA 0
HBA 1
Switch 1
Switch 2
LIF_1
LIF_2
LIF_3
LIF_4
LIF_5
LIF_6
LIF_7
LIF_8
Node 01
Node 02
Node 03
Node 04

Referring to the exhibit, which type of zoning should be used?

A. a WWPN with a single initiator and multiple targets

B. a WWPN with a single initiator and a single target

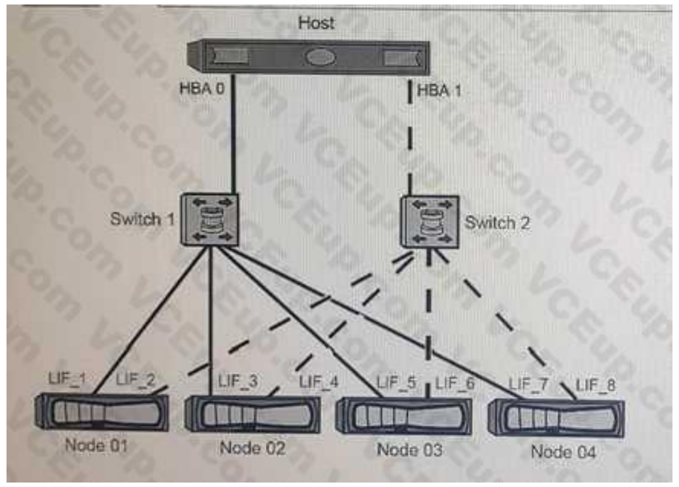
C. a WWNN with a single initiator and multiple targets

D. a WWNN with a single Initiator and a single target

Answer: B

Question No: 92

Exhibit.


Host
HBA 0
HBA 1
Switch 1
Switch 2
LIF_1
LIF_2
LIF_3
LIF_4
LIF_5
LIF_6
LIF_7
LIF_8
Node 01
Node 02
Node 03
Node 04

A customer has an AFF A200 with a LUN residing in a volume by Node 4. The default Selection Mapping settings are effect. During a planned takeover cluster test, Node 3 performs a take over of Node 4.

Referring to the exhibit, what is the expected number of paths seen from the host?

A. 6

B. 8

C. 4

D. 2

Answer: A

Question No: 93

You have inherited a small FC SN infrastructure that consists of 15 servers (hosts), two Cisco MDS 9148s switches, and a 4-node NetApp AFF A300 cluster. You suspect that your predecessor did not configure zoning according to best practices.

In this scenario, what information is necessary to audit your SAN zoning? (Choose two.)

A. SVM WWNNs

B. SVN LIF WWPNs

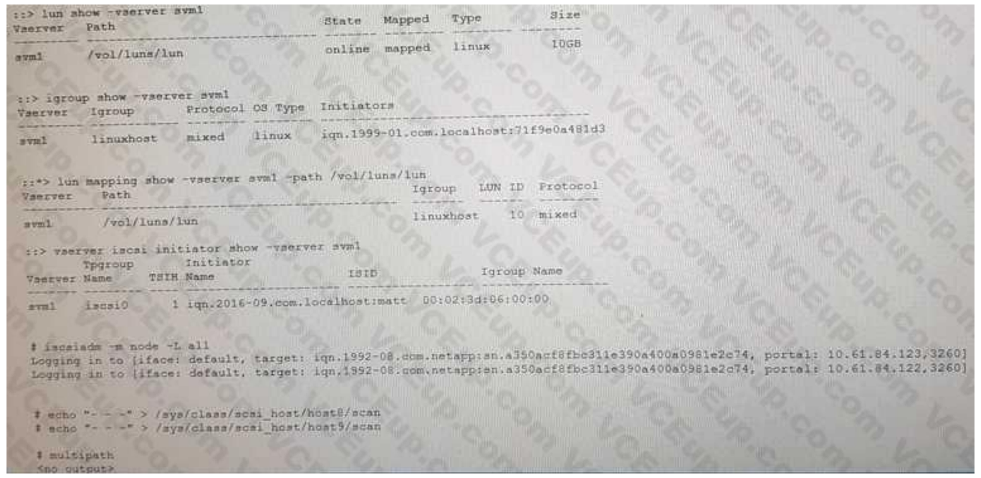
C. Controller port WWPNs

D. Host GBA WWPNs

Answer: B, D

Question No: 94

Exhibit.



```
::> lun show -vserver svm1
Vserver   Path                                      State   Mapped   Type        Size
--------- ----------------------------------------- ------- -------- -------- --------
svm1      /vol/luns/lun                             online  mapped   linux        10GB

::> igroup show -vserver svm1
Vserver   Igroup        Protocol OS Type  Initiators
--------- ------------- -------- -------- ------------------------------------
svm1      linuxhost     mixed    linux    iqn.1999-01.com.localhost:71f9e0a481d3

::*> lun mapping show -vserver svm1 -path /vol/luns/lun
Vserver    Path                                      Igroup    LUN ID  Protocol
---------- ----------------------------------------- -------  ------  --------
svm1       /vol/luns/lun                             linuxhost    10  mixed

::> vserver iscsi initiator show -vserver svm1
        Tpgroup          Initiator
Vserver Name       TSIH  Name                        ISID                Igroup Name
------- --------  ----  --------------------------  ------------------  -----------------
svm1    iscsi0       1  iqn.2016-09.com.localhost:matt  00:02:3d:06:00:00

# iscsiadm -m node -L all
Logging in to [iface: default, target: iqn.1992-08.com.netapp:sn.a350acf8fbc311e390a400a0981e2c74, portal: 10.61.84.123,3260]
Logging in to [iface: default, target: iqn.1992-08.com.netapp:sn.a350acf8fbc311e390a400a0981e2c74, portal: 10.61.84.122,3260]

# echo "- - -" > /sys/class/scsi_host/host8/scan
# echo "- - -" > /sys/class/scsi_host/host9/scan

# multipath
<no output>
```

A Linux host cannot discover a newly provisioned LUN.

Referring to the exhibit, what would be the cause of the problem?

A. The IUN ID Is Incorrect.

B. The host's MPIO feature is not enabled.

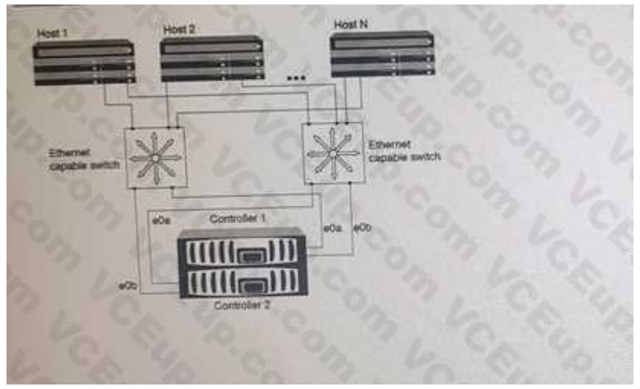
C. The Initiator group is misconfigured.

D. The host's IP address is misconfigured.

Answer: C

Question No: 95

Exhibit.



Referring to the exhibit. What are two viable scenarios to test LUN multipathing on Host 1?

(Choose two.)

A. Reboot one of the switches.

B. Disable one of the FC LIFs on Controller 1.

C. Disconnect one of the host cables.

D. Reboot Host 1.

Answer: A, C

Question No: 96

Which formula is appropriate for calculating target port Queue Depth?

A. The number of LIFs using a physical port * 256

B. The sum of the Queue Depth setting for all hosts using a physical port

C. The number of LIFs using the physical port * Maximum Host HBA Queue Depth setting

D. The number of physical ports * 2048

Answer: C

Question No: 97

When planning out a new FC SAN implementation for a AFF cluster, which two variables should be considered for a highly-available, resilient solution? (Choose two.)

A. Length of LC/LC optic cables

B. Multiple disk shelves

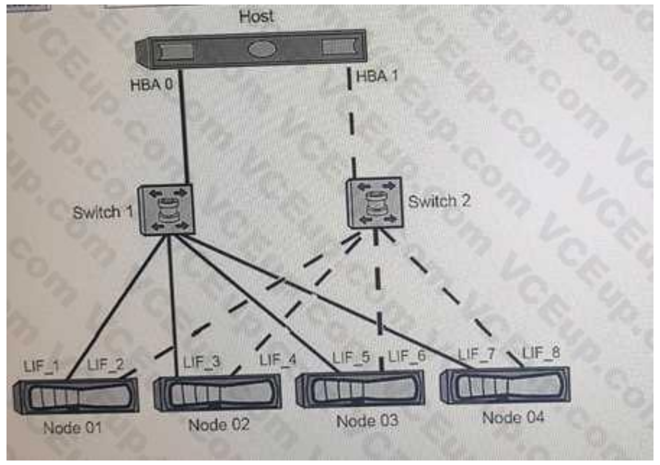
C. Multiple PDUs connected to separate circuits

D. Data-fabric zones using multiple switches

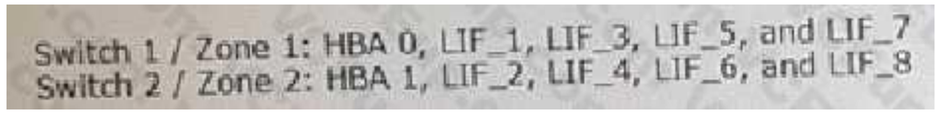
Answer: C, D

Question No: 98

Exhibit.



A customer is testing a dual-fabric FC SAN configuration as shown in the exhibit and the zones are implemented on the switches shown below.



Switch 1 / Zone 1: HBA 0, LIF_1, LIF_3, LIF_5, and LIF_7
Switch 2 / Zone 2: HBA 1, LIF_2, LIF_4, LIF_6, and LIF_8

If all the nodes are in the SLM reporting nodes list, hoe many path per LUN should the customer expect when simulating an FC SFP failure by bringing LIF_3 offline?

A. 15 paths

B. 3 paths

C. 4 paths

D. 7 paths

Answer: D

Question No: 99

An administrator has a 2node AFF ONTAP cluster named cl1. A Windows 2016 server has 10 FC LUNs mapped from the cluster , and the administrator can multiple paths to each LUN, During a scheduled storage failover, node cl1-02 took over cl1-01, and Windows server lost connectivity to all mapped LUNs but reestablished connectivity after the giveback operation finished.

In the scenario, what would cause the LUN connectivity outage?

A. Multipathing software is not installed on the host.

B. Switch zoning does not exist between the host initiator ports and the data LIFs that reside no node cl-01.

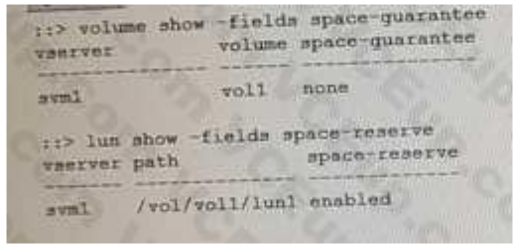
C. NPIV is not enabled on the switches.

D. Switch zoning does not exist between the host initiator ports and the data LIFs that reside on node cl1-02.

Answer: A

Question No: 100

Exhibit.



```
::> volume show -fields space-guarantee
vserver           volume  space-guarantee
----------------- ------- ---------------
svm1              vol1    none

::> lun show -fields space-reserve
vserver path             space-reserve
------- ---------------- -------------
svm1    /vol/vol1/lun1   enabled
```

Referring to the exhibit, which two statements are true? (Choose two.)

A. The volume guarantee has no effect.

B. LUN overwrites are guaranteed.

C. The LUN might run out of space.

D. The LUN space reservation has no effect.

Answer: B, C

Question No: 101

You want to provision an iSCSl LUN.

Which two steps are required to accomplish this task? (Choose two.)

A. Add the initiator IP address to the igroup.

B. Map the LUN to the igroup.

C. Add the target WWPN to the igroup.

D. Add the initiator 1QN to th«t igroup.

Answer: B, D

Question No: 102

Which NetApp tool views automated, schedule configuration, and performance data for a customer's SAN from a Web browser?

A. Virtual Storage Console

B. OnCommand Workflow Analyzer

C. Config Advisor

D. Active 1Q

Answer: B

Question No: 103

A storage administrator created a LUN using two ports on a storage system. Later, additional LUNs were added to the same node as the original LUN. After a while, the performance of the original LUN dropped beyond an acceptable level.

What would you advise to remedy the Issue?

A. Add an additional switch between the hosts and cluster.

B. Add new LIFs on unused ports.

C. Add new LIFs on the used ports.

D. Reduce the queue depth on the used ports.

Answer: B

Question No: 104

Which two scenarios in deploying ONTAP Cloud are supported by the Cloud Manager tool? (Choose two.)

A. ONTAP Cloud deployed as an HA pair on IBM Cloud

B. ONTAP Cloud deployed as an HA pair on VMware

C. ONTAP Cloud deployed as a single instance on Microsoft Azure

D. ONTAP Cloud deployed as an HA pair on Amazon Web Services

Answer: C, D

Question No: 105

An administrator is planning a hardware refresh and data migration from a Data ONTAP 7.3 system to new AFF A3-00 cluster that is using ONTAP 9.0. The Mode system only serves FC LUNs to a Windows 2012Rs server cluster that needs to remain connected after migration Referring to the scenario, which method would be used for the LUN migration.

A. Unified Host Utility Kit

B. 7-Mode Transition Tool (7MIT)

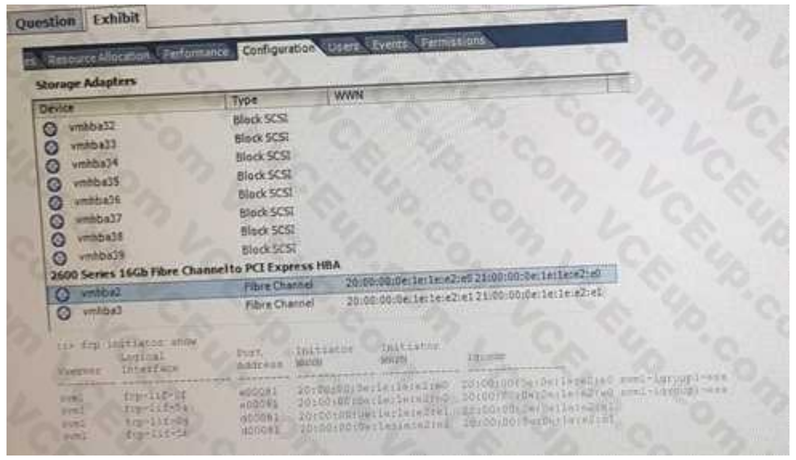
C. Foreign LUN import (FLI)

D. Oncommand system Manager

Answer: B

Question No: 106

Exhibit.



Storage Adapters

Device	Type	WWN
vmhba32	Block SCSI	
vmhba33	Block SCSI	
vmhba34	Block SCSI	
vmhba35	Block SCSI	
vmhba36	Block SCSI	
vmhba37	Block SCSI	
vmhba38	Block SCSI	
vmhba39	Block SCSI	
2600 Series 16Gb Fibre Channel to PCI Express HBA		
vmhba2	Fibre Channel	20:00:00:0e:1e:1e:e2:e0 21:00:00:0e:1e:1e:e2:e0
vmhba3	Fibre Channel	20:00:00:0e:1e:1e:e2:e1 21:00:00:0e:1e:1e:e2:e1

The VMware ESX host discovers only two of four paths to a LUN on a new ONTAP cluster.

Referring to the exhibit, which statement Is correct?

A. The fabric zoning configuration does not allow access to the target LIFs.

B. The igroup does not contain the. WWPN of one initiator.

C. The fabric name server is disabled.

D. The initiator HBA is not connected to the fabric.

Answer: D

Question No: 107

A customer wants to use both Cisco FC and FCoE switches in their ONTAP environment. According to NetApp best practices, what are two requirements in this scenario? (Choose two.)

A. You must use single initiator zoning.

B. You must create interface groups to isolate FC and FCoE LIFs.

C. You must create a trunk with multiple virtual LANs.

D. You must not have more than one target UF for the same physical port in a single fabric zone.

Answer: A, D

Question No: 108

You are provisioning a LUN using an ISCSI initiator on an ESX host. You disable Ethernet flow control for all ports but are experiencing Performance issues.

In this scenario, which two actions would improve the performance issue? (Choose two.)

A. Set the MTU settings 1500 for optimal performance.

B. Dedicate your ports to ISCSI traffic.

C. Enable jumbo frames across the entire data path.

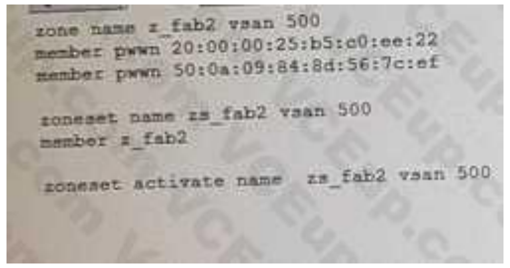
D. Confirm that your host .mil storage polls are connected to a different network.

Answer: B, C

VCEplus VCEûp

Question No: 109

Exhibit.



```
zone name z_fab2 vsan 500
member pwwn 20:00:00:25:b5:c0:ee:22
member pwwn 50:0a:09:84:8d:56:7c:ef

 zoneset name zs_fab2 vsan 500
 member z_fab2

  zoneset activate name  zs_fab2 vsan 500
```

You are adding a boot LUN for a new server. The server uses FCP attached through a CN

A. The ONTAP cluster is also attached to the same fabric by way of UTA2. You configure the zoning for the fabric as shown in the exhibit. You discover that the server cannot see its boot LUN.

What is the problem with your zoning configuration?

A. The zone set must have the same name as the zone.

B. The zone was not activated.

C. The zone used a wrong zone ID.

D. The WWPN for the NetApp LIF is incorrect.

Answer: D

Question No: 110

An administrator needs to connect a new VMware 6.5 cluster to an ONTAP cluster for iSCSl connectivity. Which two steps would accomplish this task? (Choose two.)

A. Enable iSCSl adapters on the ESXi hosts.

B. Install the Virtual Storage Console for VMware vSphere.

C. Configure zoning for the HBAs and the ONTAP data LIFs.

D. Configure ALUA on the ONTAP SVM.

Answer: A, D

Question No: 111

You will be purchasing two high availability NetApp AFF A700s systems. You want to set up a 4-node cluster. Which switch would you use for the cluster interconnect switches?

A. NetApp CN1610

B. Cisco Nexus 3132Q-V

C. Cisco Nexus 5548UP

D. Cisco Nexus 5020

Answer: B

Question No: 112

What does the space allocation argument in a lun create command do?

A. It thick provisions the LUN.

B. It only disables space reclamation (or the LUN.

C. It thin provisions the LUN,

D. It enables or disables space reclamation for the LUN

Answer: D

Question No: 113

An enterprise customer has both a NetApp FAS8200 4-node cluster and a third-party storage array in a shared SAN environment. The host servers connect to both storage vendors' arrays in the fabric.

Regarding (he hosts in this scenario, what are- two NetApp best practices when performing this task?

(Choose two.)

A. Set the default timeout values and storage parameters for the host system.

B. Provide isolation between storage systems using NetApp's multitenancy feature.

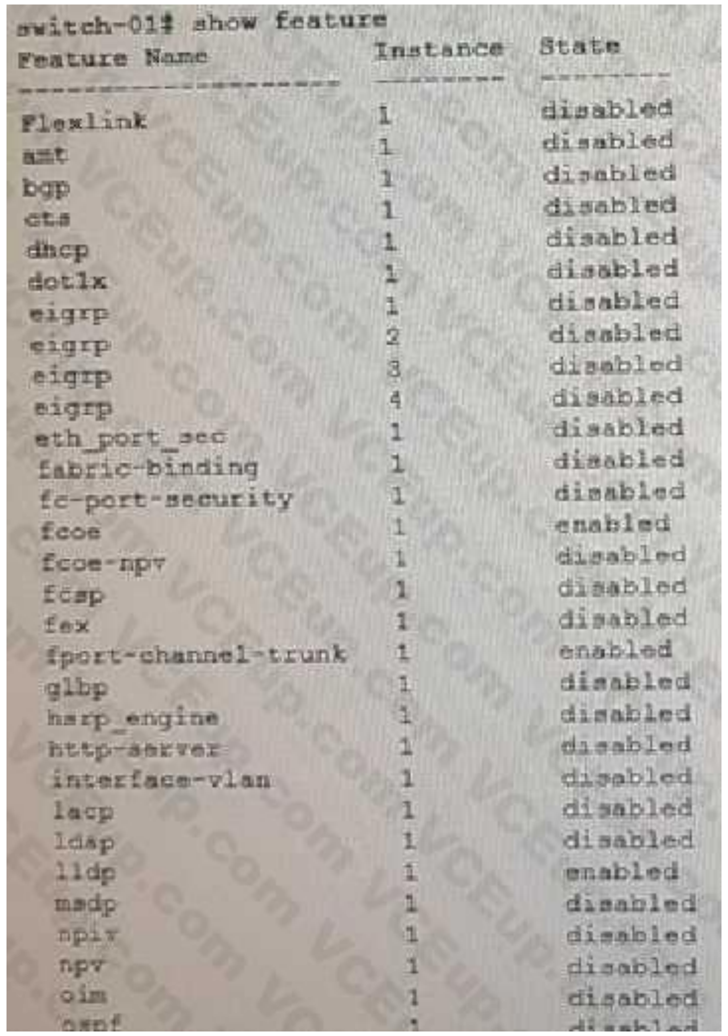
C. Always use the same adapter for heterogeneous storage systems.

D. Use separate adapters to connect to each vendors' storage system.

Answer: A, D

Question No: 114

Exhibit.



```
switch-01# show feature
Feature Name          Instance  State
--------------------  --------  --------
Flexlink              1         disabled
amt                   1         disabled
bgp                   1         disabled
cts                   1         disabled
dhcp                  1         disabled
dot1x                 1         disabled
eigrp                 1         disabled
eigrp                 2         disabled
eigrp                 3         disabled
eigrp                 4         disabled
eth_port_sec          1         disabled
fabric-binding        1         disabled
fc-port-security      1         disabled
fcoe                  1         enabled
fcoe-npv              1         disabled
fcsp                  1         disabled
fex                   1         disabled
fport-channel-trunk   1         enabled
glbp                  1         disabled
hsrp_engine           1         disabled
http-server           1         disabled
interface-vlan        1         disabled
lacp                  1         disabled
ldap                  1         disabled
lldp                  1         enabled
msdp                  1         disabled
npiv                  1         disabled
npv                   1         disabled
oim                   1         disabled
ospf                  1         disabled
```

You are working on a project to install a new AFF A300 storage array. You use a pair of Nexus 3596 switches for FC connectivity between your VMware ESXi servers and the AFF A300.

Which SAN switch feature must be enabled to accomplish this task?

A. N_Port ID visualization (NP1V)

B. Open Shortest Path First (OSPF)

C. Link Aggregation Control Protocol (LACP)

D. N_Port Visualization (NPV)

Answer: A

Question No: 115

You ate deploying an 8-node FAS8200 ONTAP cluster and attaching to an existing FC fabric.

Which two ONTAP features would be used to restrict or limit the available paths seen from the host?

(Choose two.)

A. port sets

B. igroup

C. VIAN

D. Selective IUN Map

Answer: A, D

Question No: 116

A customer experiences intermittent connectivity problems between an ESXi server and FC LUNs in an SVM. The customer has examined the nodes hosting the LUNs and both the disk and CPU performance are below 50% utilization. The customer examined the switch ports connected to the storage array, and they ate also below 50% utilization.

Which two steps would you perform next in this scenario? (Choose two.)

A. Verify that the host is using SnapDrive.

B. Verify that the host Ethernet interfaces are using jumbo frames.

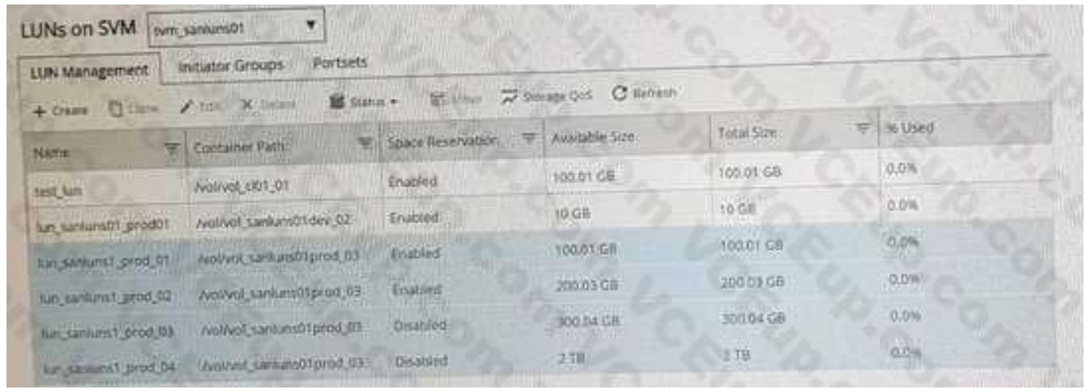
C. Verify that the host recommended settings were applied by Virtual Storage Console.

D. Verify that the HBA queue depth is set properly.

Answer: C, D

Question No: 117

Exhibit.



Name	Container Path	Space Reservation	Available Size	Total Size	% Used
test_lun	/vol/vol_c01_01	Enabled	100.01 GB	100.01 GB	0.0%
lun_sanluns01_prod01	/vol/vol_sanluns01dev_02	Enabled	10 GB	10 GB	0.0%
lun_sanluns1_prod_01	/vol/vol_sanluns01prod_03	Enabled	100.01 GB	100.01 GB	0.0%
lun_sanluns1_prod_02	/vol/vol_sanluns01prod_03	Enabled	200.03 GB	200.03 GB	0.0%
lun_sanluns1_prod_03	/vol/vol_sanluns01prod_03	Disabled	300.04 GB	300.04 GB	0.0%
lun_sanluns1_prod_04	/vol/vol_sanluns01prod_03	Disabled	2 TB	2 TB	0.0%

Referring to the exhibit, what is the total amount of space that is guaranteed for the LUNs in the

/vo1/vo1_sanlunsiprod_03 volume?

A. 0 GB

B. 300 GB

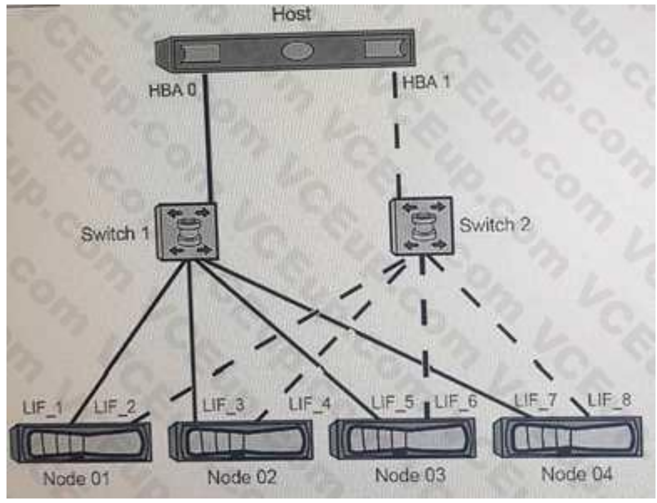
C. 600 GB

D. 2600 GB

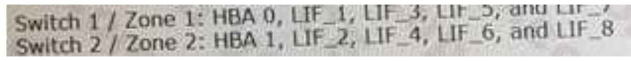
Answer: A

Question No: 118

Exhibit.



A customer is testing a dual-fabric FC SAN configuration as shown in the exhibit. The zones are implemented on the switches shown below.



Switch 1 / Zone 1: HBA 0, LIF_1, LIF_3, LIF_5, and LIF_7
Switch 2 / Zone 2: HBA 1, LIF_2, LIF_4, LIF_6, and LIF_8

IF all the nodes are in the SLM reporting nodes list, how many paths per LUN should the customer expect when simulating a node failure by powering off Node 04?

A. 4 paths

B. 6 paths

C. 8 paths

D. 2 paths

Answer: B

Question No: 119

You have a 4-node cluster with a FAS8200 HA pair and an AFF A300 HA pair. You need to migrate a LUN from a FAS8200 node to an AFF A300 node for faster performance.

Which method will non-disruptively migrate the LUN to the AFF A300 while retaining snapshots of the LUN on the FAS8200?

A. You move the LUN.

B. You relocate the aggregate.

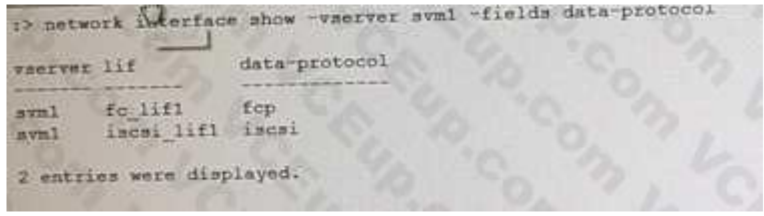
C. You move the volume.

D. You copy the LUN.

Answer: D

Question No: 120

Exhibit.



```
:> network interface show -vserver svm1 -fields data-protocol

vserver lif          data-protocol
------- --------     -------------
svm1    fc_lif1      fcp
svm1    iscsi_lif1   iscsi

2 entries were displayed.
```

You need to configure the SnapCenter Plug-in for VMware vSphere to back up and restore VMware datastores.

Referring to the exhibit, which additional LIF type should you create before you configure the plugin?

A. intercluster

B. node management

C. SVM management

D. cluster management

Answer: C

Question No: 121

You are setting up FC ports and must configure the speeds for both the SAN and the host ports. In this scenario, which statement is correct?

A. Set the target port speed higher than the switch port speed.

B. Set the target port speed to auto-negotiation.

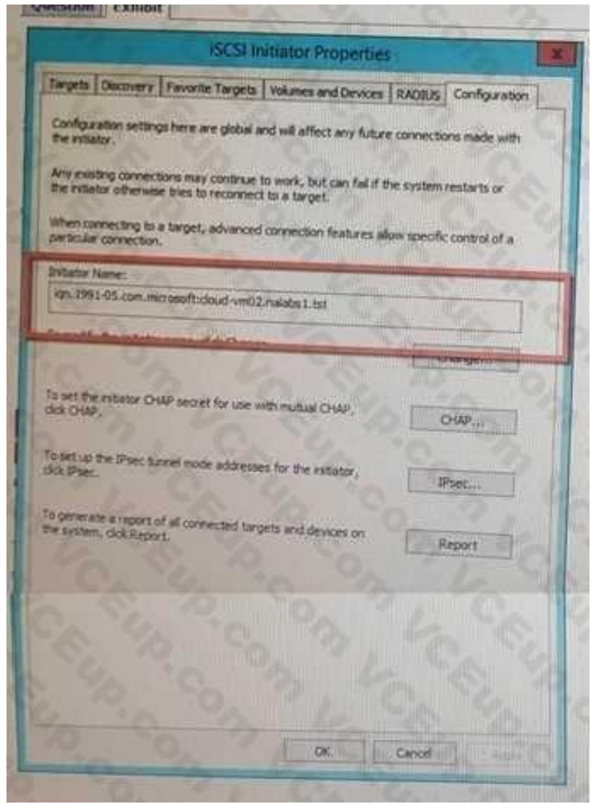
C. Set the target port speed to match the switch port speed.

D. Set the target port speed lower than the switch port speed.

Answer: B

Question No: 122

Exhibit.


Question
Exhibit
iSCSI Initiator Properties
Targets
Discovery
Favorite Targets
Volumes and Devices
RADIUS
Configuration
Change...
CHAP...
IPsec...
Report
OK
Cancel
Apply

Configuration settings here are global and will affect any future connections made with the initiator.

Any existing connections may continue to work, but can fail if the system restarts or the initiator otherwise tries to reconnect to a target.

When connecting to a target, advanced connection features allow specific control of a particular connection.

Initiator Name:
iqn.1991-05.com.microsoft:cloud-vm02.nalabs1.tst

To set the initiator CHAP secret for use with mutual CHAP, click CHAP.

To set up the IPsec tunnel mode addresses for the initiator, click IPsec.

To generate a report of all connected targets and devices on the system, click Report.

You want to map a LUN to a server.

To which SAN object is the highlighted value in the exhibit added?

A. LUN

B. fabric zone

C. FlexClone

D. igroup

Answer: D

Question No: 123

You must relocate a LUN from one AFF A700 HA pair to another AFF A300 HA pair while preserving all storage efficiencies. What are two ways to accomplish this task? (Choose two.)

A. Copy the volume.

B. Copy the LUN.

C. Move the volume.

D. Move the LUN.

Answer: A, B

Question No: 124

An SVM's LUN setup needs to have LIFs that are configured for FC access and iSCSI access. The administrator will also be using NetApp Virtual Storage Console.

In this scenario, which three types of LIFs are required? (Choose three.)

FC LIFs

A. management LIFs

B. iSCSI data LIFs

C. NAS data LIFs

D. intercluster LIFs

Answer: A, B, C

Question No: 125

A customer's Red Hat Linux 7.0 server's Linux native DM-MP settings for multi pa thing have not been set correctly. In this scenario, what would cause this problem?

A. The multi path, conf file contains the blacklist stanza.

B. Challenge-Handshake Authentication Protocol (CHAP) is not enabled.

C. The rdloaddriver=scsi_dh_alua was not added to the end of the boot loader file.

D. The incorrect WWID was added to the multipath.conf file.

Answer: D

Question No: 126

A4-node ONTAP FAS9000 cluster was used to serve I/O from six RedHat 7.3 servers. The servers were configured with maximum, queue depth.

For production purposes, an additional 60 similarly configured hosts were added to the environment.

Later, the hosts started reporting random QFull errors, and the aggregated performance degraded.

Which two solutions would alleviate the QFull errors and performance problems? (Choose two.)

A. Remove Selective LUN Mapping (SIM) from the 4-node FAS9000 cluster.

B. Download the latest FC HBA driver, firmware, and BIOS, and deploy them on the hosts.

C. Configure and use additional FC target HBAs in the FAS9000 cluster.

D. Reduce FC HBA gueue depth on the hosts.

Answer: C, D

Question No: 127

A customer wants to move its iSCSI SAN data from the edge locations into the cloud for data analytics, while keeping the ability to access modify the data.

Which two combined solutions meet the customer's requirements in this scenario? (Choose two.)

A. Use Microsoft Azure compute resources to access the near cloud AFF SnapMirror data for analytics.

B. Deploy ONTAP Cloud at edge locations find use SnapVault to move the data into an AFF onpremises data center.

C. Deploy ONTAP Select at edge locations and use SnapMirror to move the data to AFF near cloud with the NetApp Private Storage (NPS) service.

D. Use Amazon Web Services (AWS) compute resources to access ONTAP Select data at the edge office locations for analytics.

Answer: A, D

Question No: 128

You need to move a LUN non-disruptively from an AFF A200 HA pair to an AFF A700 HA pair within the same 4-node cluster using the steps shown below.

1. Scan the host OS to discover all paths to the LUN.

2. Execute the lun move command to move the LUN to the AFF A/00 HA pair.

3. Remove the AFF A200 HA pair from the reporting-nodes list.

4. Add the AFF A700 HA pair to the reporting-nodes list.

What is the correct sequence in performing, these steps?

A. 1, 2, 3. 4

B. 4. 1, 2, 3

C. 4, 3. 2. 1

D. 3, 2, 1,4

Answer: B

Question No: 129

Which two components must be verified for a supported NetApp SAN confutation? (Choose two.)

A. host memory

B. host GPU

C. host multipath

D. host bus adapter

Answer: C, D

Question No: 130

You want to access and mount a Linux L.UN using only iSCSl. In the past, the LUN ha;; been accessed using FC. What must you do to accomplish this task?

A. Change the LUN protocol type to (SCSI.

B. Create a new iSCSI igroup. and change the LUN mapping from the original to the new igroup.

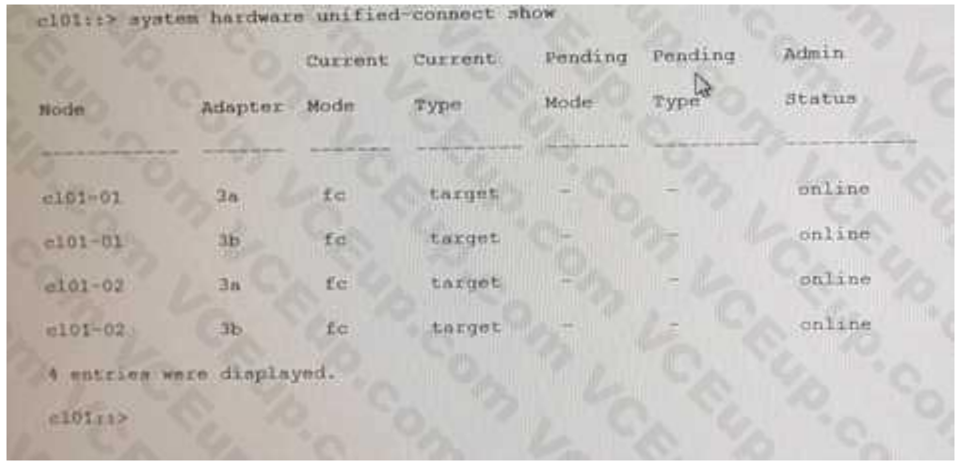
C. Create a new iSCSI Igroup and map the LUN to both the new and existing FC igroup.

D. Add an iSCSI protocol type to the existing igroup so that the LUN can be accessed by both FC and iSCSI hosts.

Answer: B

Question No: 131

Exhibit.



```
c101::> system hardware unified-connect show
                      Current  Current     Pending  Pending    Admin
Node          Adapter Mode     Type        Mode     Type       Status
------------  ------- -------  ----------  -------  ---------  ----------
c101-01        3a      fc       target      -        -          online
c101-01        3b      fc       target      -        -          online
c101-02        3a      fc       target      -        -          online
c101-02        3b      fc       target      -        -          online
4 entries were displayed.
c101::>
```

You want to configure a UTA2 port as an FCoE target. Referring to the exhibit, which action must be performed?

A. Configure the port mode as CNA.

B. Configure the port mode as Ethernet.

C. Configure the port type as initiator.

D. Configure the port mode as FC.

Answer: A

Question No: 132

You are planning few a new AFF A700 2-node switchless FC solution with two Cisco 9100 switches.

Each AFF A700 will have one 16 Gb port Connected to each Cisco 9100 switch and four FC LIKs per physical port. You want to guarantee recovery from connection loss on a NetApp physical port and you are using single initiator to multiple target zoning.

What is the minimum number of zones required to accomplish this task?

A. 8

B. 4

C. 2

D. 1

Answer: C

Question No: 133

An administrator is migrating from a third-party's SAN to a newly purchased FAS9000. The administrator decides to use the NetApp Foreign LUN Import (FL1) process.

What must the administrator do for this process to work properly?

A. Create multiple igroups for the Initiator ports.

B. Create six distinct zones that include specific ports within each zone.

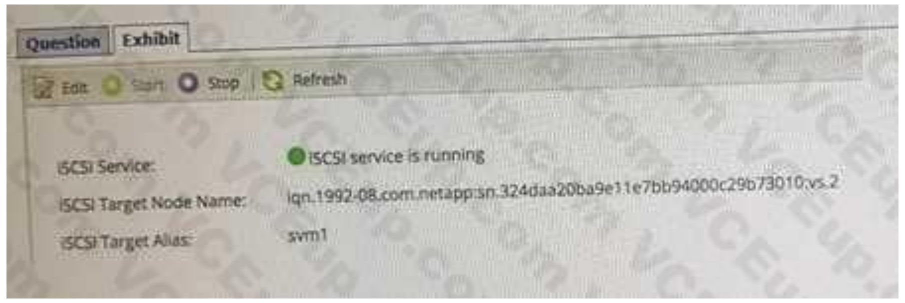
C. Zone target ports of source storage with initiator ports of destination storage.

D. Make the destination LUN larger than the foreign LUN.

Answer: C

Question No: 134

Exhibit.



iSCSI Service: iSCSI service is running

iSCSI Target Node Name: iqn.1992-08.com.netapp:sn.324daa20ba9e11e7bb94000c29b73010:vs.2

iSCSI Target Alias: svm1

You are asked to change the iSCSl Target Node Name of an SVM named SVM1 that is serving data.

Referring to the exhibit, which two statements are correct? (Choose two.)

A. Reconnect all the lUNs alter renaming the target node.

B. Disable Selective LUN Mapping (SIM) and create port sets.

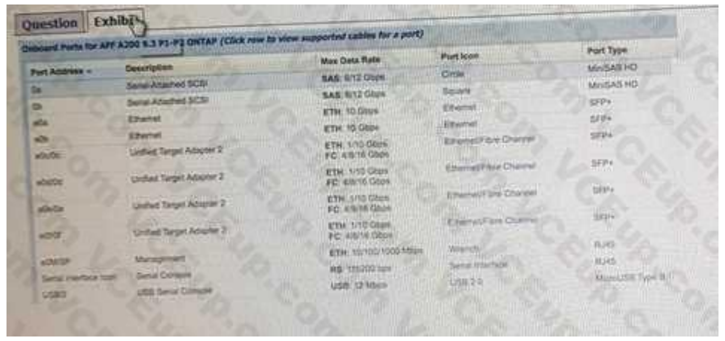
C. Unmap and re-map the LUNs.

D. Stop and start the iSCSI service.

Answer:CD

Question No: 135

Exhibit.



Question Exhibit

Onboard Ports for AFF A200 9.3 P1-P3 ONTAP (Click row to view supported cables for a port)

Port Address	Description	Max Data Rate	Port Icon	Port Type
0a	Serial-Attached SCSI	SAS: 6/12 Gbps	Circle	MiniSAS HD
0b	Serial-Attached SCSI	SAS: 6/12 Gbps	Square	MiniSAS HD
e0a	Ethernet	ETH: 10 Gbps	Ethernet	SFP+
e0b	Ethernet	ETH: 10 Gbps	Ethernet	SFP+
e0c/0c	Unified Target Adapter 2	ETH: 1/10 Gbps FC: 4/8/16 Gbps	Ethernet/Fibre Channel	SFP+
e0d/0d	Unified Target Adapter 2	ETH: 1/10 Gbps FC: 4/8/16 Gbps	Ethernet/Fibre Channel	SFP+
e0e/0e	Unified Target Adapter 2	ETH: 1/10 Gbps FC: 4/8/16 Gbps	Ethernet/Fibre Channel	SFP+
e0f/0f	Unified Target Adapter 2	ETH: 1/10 Gbps FC: 4/8/16 Gbps	Ethernet/Fibre Channel	SFP+
e0M/SP	Management	ETH: 10/100/1000 Mbps	Wrench	RJ45
Serial interface port	Serial Console	RS: 115200 bps	Serial Interface	RJ45
USB0	USB Serial Console	USB: 12 Mbps	USB 2.0	Micro USB Type B

An administrator has an AFF A200 HA pair.

Referring to the exhibit, how many 10 Gbps connections would the customer have on a single node for SAN host connectivity?

A. 4

B. 6

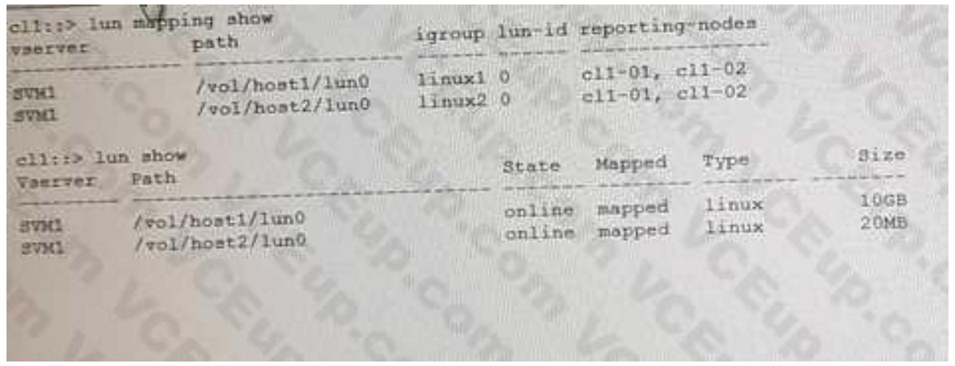
C. 7

D. 2

Answer: A

Question No: 136

Exhibit.



```
cl1::> lun mapping show
vserver    path                    igroup lun-id reporting-nodes
--------   ----------------------  ------ ------ ----------------
SVM1       /vol/host1/lun0         linux1 0      cl1-01, cl1-02
SVM1       /vol/host2/lun0         linux2 0      cl1-01, cl1-02

cl1::> lun show
Vserver    Path                          State   Mapped  Type      Size
--------   ----------------------------  ------- ------  --------  -------
SVM1       /vol/host1/lun0               online  mapped  linux     10GB
SVM1       /vol/host2/lun0               online  mapped  linux     20MB
```

Dining a data mobility test on a 4-node ONTAP 9.3 cluster, the host loses direct access to its LUNs.

The LUNs are hosting on node cl1-01 and are being moved to cl1-03 on a different HA pair.

Referring to the exhibit, which corrective step is needed to ensure access while the volume is moved?

A. Add reporting nodes for cl1-03 and cl1-04.

B. Create additional LIFs on cl1-01 and cl1-02.

C. Create a new destination volume on cll-03.

D. Create new igroups on cl1-03 and cl1-04.

Answer: A

Question No: 137

You have a 4-node FAS8200 A300 cluster that are using ONTAP 9.3 default settings. For faster performance, you move a volume with LUNs from a node on the FAS8200 to a node on the AFF A300.

You determine that your SAN host is still using all active/optimized FC paths to the FAS8300 HA pair.

What do you need to troubleshoot to move all active/optimized FC paths to the AFF A300 HA pair?

A. reporting nodes list

B. host MPIO and ALUA

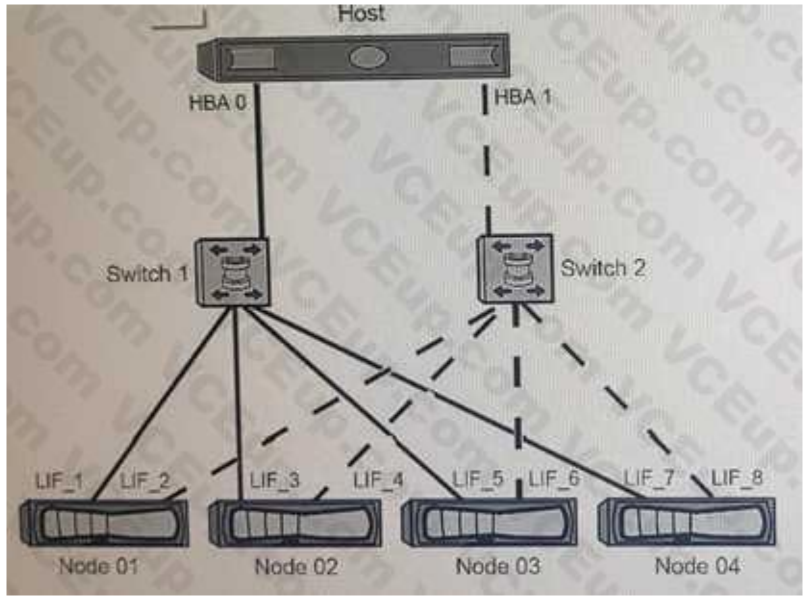
C. LUN mapping

D. igroup WWPNs

Answer: A

Question No: 138

Exhibit.


Host
HBA 0
HBA 1
Switch 1
Switch 2
LIF_1
LIF_2
LIF_3
LIF_4
LIF_5
LIF_6
LIF_7
LIF_8
Node 01
Node 02
Node 03
Node 04

The host in the exhibit is connected to a 4-node ONTAP SAN using dual-fabric implementation. LUNs have been mapped LUN through all available UFs on nil (our nodes. Switch 2 is powered off for highavailability testing.

How many paths per LUN would you expect the host to see in this scenario?

A. 2

B. 6

C. 4

D. 8

Answer: C

Question No: 139

Which data collection tool would be used for obtaining detailed information about hosts that are attached to ONTAP storage?

A. Upgrade Advisor

B. OneCollect

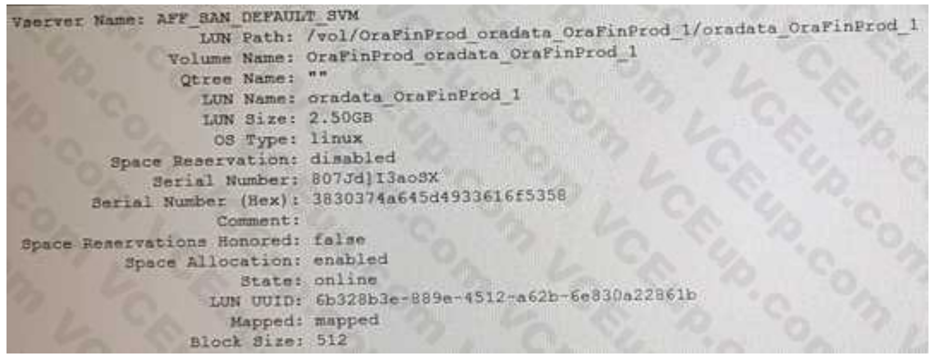
C. Brocade Network Advisor

D. Conflg Advisor

Answer: B

Question No: 140

Exhibit.



```
Vserver Name: AFF_SAN_DEFAULT_SVM
           LUN Path: /vol/OraFinProd_oradata_OraFinProd_1/oradata_OraFinProd_1
        Volume Name: OraFinProd_oradata_OraFinProd_1
         Qtree Name: ""
           LUN Name: oradata_OraFinProd_1
           LUN Size: 2.50GB
            OS Type: linux
  Space Reservation: disabled
      Serial Number: 807Jd]I3aoSX
Serial Number (Hex): 3830374a645d4933616f5358
            Comment:
Space Reservations Honored: false
   Space Allocation: enabled
              State: online
           LUN UUID: 6b328b3e-889e-4512-a62b-6e830a22861b
             Mapped: mapped
         Block Size: 512
```

The exhibit shows the Inn show command output for the oradata oraFinProd_l LUN.

Which two statements ate correct about the LUN'? (Choose two.)

A. The LUN Is thick provisioned.

B. The LUN supports SCSI Tin unmap.

C. The LUN type is Windows.

D. The LUN is thin provisioned.

Answer: B, D

Question No: 141

Your server administrator upgraded a Windows 2016 Server from 16 Gb to 32 Gb HBAs. The application owner is now reporting slower performance to the AFF A700.

Which two actions will help troubleshoot performance on the server? (Choose two.)

A. Verify the HBA model using Hardware Universe.

B. Verify the HBA firmware using the Interoperability Matrix Tool.

C. Confirm that LUN mapping exists.

D. Confirm that Windows Host Utilities Is installed.

Answer: A, B

Question No: 142

Which tool collects configuration data from hosts and switches to assist in evaluating a qualified configuration?

A. System Manager

B. sysstat. command

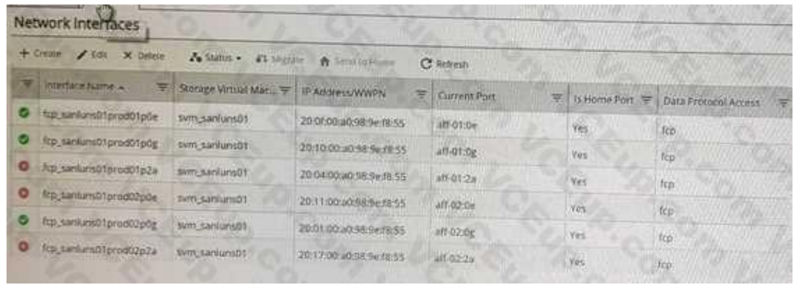
C. SnapCenter

D. OneCollect

Answer: D

Question No: 143

Exhibit.



Network Interfaces

	Interface Name	Storage Virtual Mac...	IP Address/WWPN	Current Port	Is Home Port	Data Protocol Access
✓	fcp_sanluns01prod01p0e	svm_sanluns01	20:0f:00:a0:98:9e:f8:55	aff-01:0e	Yes	fcp
✓	fcp_sanluns01prod01p0g	svm_sanluns01	20:10:00:a0:98:9e:f8:55	aff-01:0g	Yes	fcp
⊘	fcp_sanluns01prod01p2a	svm_sanluns01	20:04:00:a0:98:9e:f8:55	aff-01:2a	Yes	fcp
⊘	fcp_sanluns01prod02p0e	svm_sanluns01	20:11:00:a0:98:9e:f8:55	aff-02:0e	Yes	fcp
✓	fcp_sanluns01prod02p0g	svm_sanluns01	20:01:00:a0:98:9e:f8:55	aff-02:0g	Yes	fcp
⊘	fcp_sanluns01prod02p2a	svm_sanluns01	20:17:00:a0:98:9e:f8:55	aff-02:2a	Yes	fcp

Referring to the exhibit, which FC LIF would cause a path failure on a host connecting to a LUN?

A. fcp_sanluns01prod02p0e

B. fcp_sanluns01prod02p0g

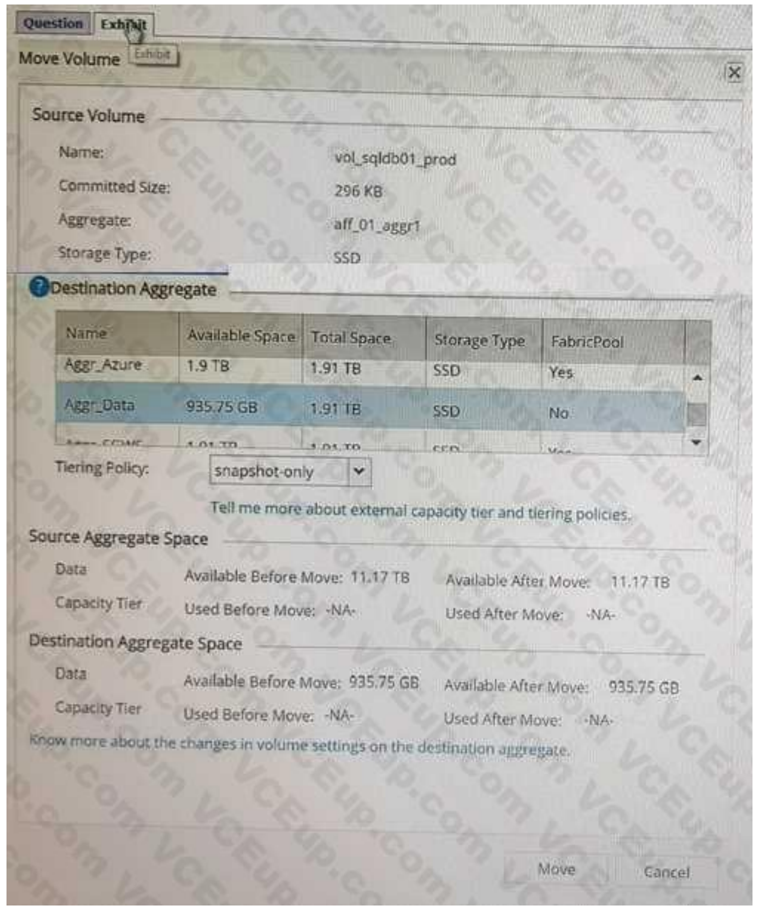
C. fcp_sanluns01prod02p0g

D. fcp_sanluns0lptodOlp0e

Answer: A

Question No: 144

Exhibit.



Move Volume

Source Volume

Name: vol_sqldb01_prod
Committed Size: 296 KB
Aggregate: aff_01_aggr1
Storage Type: SSD

Destination Aggregate

Name	Available Space	Total Space	Storage Type	FabricPool
Aggr_Azure	1.9 TB	1.91 TB	SSD	Yes
Aggr_Data	935.75 GB	1.91 TB	SSD	No

Tiering Policy: snapshot-only

Tell me more about external capacity tier and tiering policies.

Source Aggregate Space

Data Available Before Move: 11.17 TB Available After Move: 11.17 TB
Capacity Tier Used Before Move: -NA- Used After Move: -NA-

Destination Aggregate Space

Data Available Before Move: 935.75 GB Available After Move: 935.75 GB
Capacity Tier Used Before Move: -NA- Used After Move: -NA-

Know more about the changes in volume settings on the destination aggregate.

You are moving volumes between aggregate aft_01_aggr1 and the aggregate Aggr_Data shown in the exhibit.

How much space will be moved?

A. 11.17 TB

B. 935.75 GB

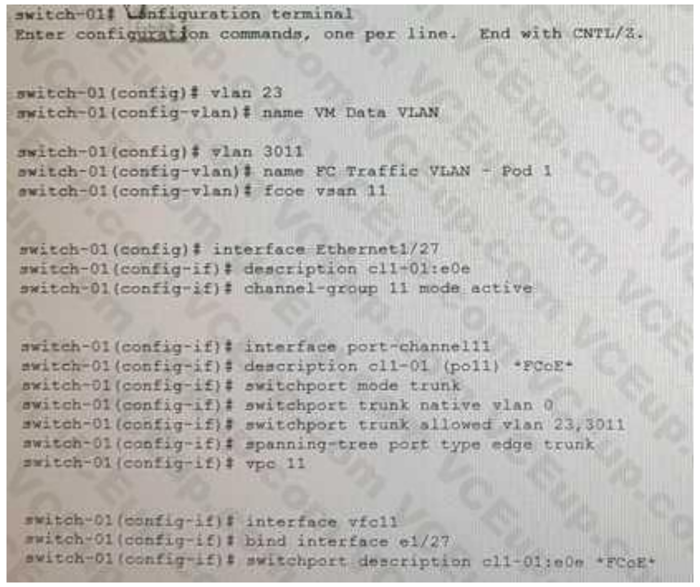
C. 296 KB

D. 1. 91 TB

Answer: C

Question No: 145

Exhibit.



```
switch-01# configuration terminal
Enter configuration commands, one per line.  End with CNTL/Z.

switch-01(config)# vlan 23
switch-01(config-vlan)# name VM Data VLAN

switch-01(config)# vlan 3011
switch-01(config-vlan)# name FC Traffic VLAN - Pod 1
switch-01(config-vlan)# fcoe vsan 11


switch-01(config)# interface Ethernet1/27
switch-01(config-if)# description cl1-01:e0e
switch-01(config-if)# channel-group 11 mode active


switch-01(config-if)# interface port-channel11
switch-01(config-if)# description cl1-01 (po11) *FCoE*
switch-01(config-if)# switchport mode trunk
switch-01(config-if)# switchport trunk native vlan 0
switch-01(config-if)# switchport trunk allowed vlan 23,3011
switch-01(config-if)# spanning-tree port type edge trunk
switch-01(config-if)# vpc 11


switch-01(config-if)# interface vfc11
switch-01(config-if)# bind interface e1/27
switch-01(config-if)# switchport description cl1-01:e0e *FCoE*
```

An administrator is configuring FCoE on Cisco Nexus switches for a new AFF A200 ONTAP cluster. The administrator executes the commands shown in the exhibit to create the necessary network configuration.

Which VLAN is responsible for controlling the FCoE traffic on the new interface?

A. 0

B. 3011

C. 23

D. 11

Answer: B

Question No: 146

An administrator wants to implement FCoE for connectivity of an AFF A200 using VLAN 3011 for fabric traffic across VSAN 11. When configuring the Nexus switches for FCoE connectivity, which two actions are required? (Choose two.)

A. Create a new virtual FC interface and bind the physical interface to it.

B. Add the virtual interface to the VSAN.

C. Create a port channel and add all of the physical network ports that will have FCoE LIFs.

D. Add the adapter MAC address to the network port configuration where the node is connected.

Answer: B, C

Question No: 147

What are two examples of supported NetApp FC configurations? (Choose two.)

A. a single NetApp node directly connected to a single host

B. a single switched environment with a NetApp node connected to only one host

C. a dual switched environment with a NetApp node connected to multiple hosts

D. a single NetApp node directly connected to multiple hosts

Answer: B, C

Question No: 148

You recently bought a FAS8200 series with SAS drives and want to maximize data efficiencies.

Performance is not a primary Which two statements are correct in this scenario? (Choose two.)

A. Enable both inline and post process efficiencies.

B. Enable always-on compaction.

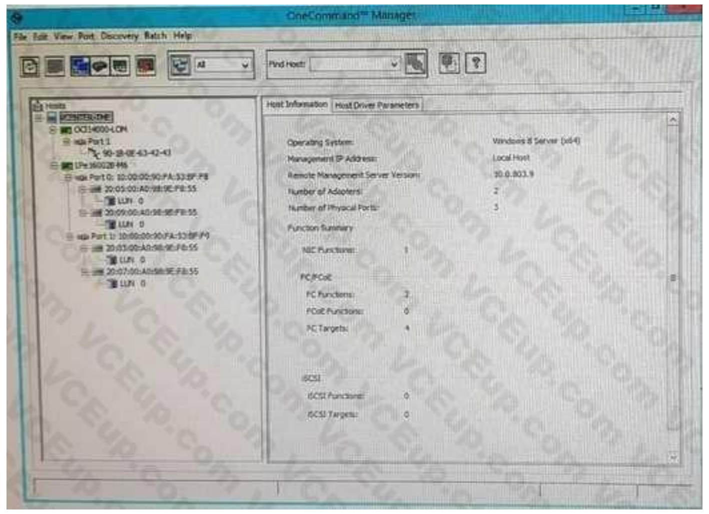
C. Enable always-on deduplication.

D. Enable compression.

Answer: A, C

Question No: 149

Exhibit.


OneCommand™ Manager
File Edit View Port Discovery Batch Help
All
Find Host:
Hosts
LUN 0
LUN 0
LUN 0
LUN 0
Host Information
Host Driver Parameters

Operating System: Windows 8 Server (x64)
Management IP Address: Local Host
Remote Management Server Version: 10.0.803.9
Number of Adapters: 2
Number of Physical Ports: 3
Function Summary
NIC Functions: 1
FC/FCoE
FC Functions: 2
FCoE Functions: 0
FC Targets: 4
iSCSI
iSCSI Functions: 0
iSCSI Targets: 0

Referring to the exhibit, what is the total number of target LUNs that are being accessed?

A. 4

B. 1

C. 2

D. 8

Answer: B

Question No: 150

Which topology allows for guaranteed maximum network performance for iSCSI?

A. isolated VLAN network

B. MetroWAN network

C. direct connect

D. WAN network

Answer: C

Question No: 151

You are installing a NetApp FAS6040 high availability storage system. Which cfmode should be set to ensure proper failover in an HP-UX environment?

A. standby

B. partner

C. single system image

D. dual_fabric

Answer: C

Question No: 152

You are creating an acceptance test plan and the subject of performance is raised. How should you define what the minimum performance should be?

A. You should look up the test results for a similar system in previous performance testing and use those numbers.

B. You should work with the customer to understand their performance expectations and determine the minimum performance they require for the application this system will support.

C. You should use the published maximum performance specifications for this system.

D. You should use the published minimum performance specifications for this system.

Answer: B

Question No: 153

Which type of multipathing does Linux support?

A. dm_mp

B. dsm

C. mpio

D. mcs

Answer: A

Question No: 154

You need to gather information from the host systems that will be attached to the NetApp storage system using either FC or iSCSI. This information includes operating system version, patch levels, open bus slots, and cards in bus slots. What other information must you gather from the host systems?

A. bus type (PCIe and/or PCI-x) and video adapters

B. memory in system and Ethernet ports (both used and free)

C. bus type (PCIe and/or PCI-x)and Ethernet ports (both used and free)

D. bus type (PCIe and/or PCI-x) and Serial ports (both used and free)

Answer: C

Question No: 155

Which four FC fabric topologies does NetApp support? (Choose four.)

A. four FC switches with multiple Inter-Switch Links (ISLs) between each pair of switches

B. ten FC switches per fabric, daisy chained with a single ISL between switches

C. four FC switches with multiple ISLs between ALL switches

D. eight FC switches with no more than a single ISL between switches in a cascade topology

E. dual FC switches with no ISLs

F. a single FC switch

G. a switched fabric that has 65537 ports

Answer: A, C, E, F

Question No: 156

For which two purposes would the use of VLAN's be beneficial? (Choose two.)

A. to isolate iSCSI traffic from LAN/WAN traffic

B. to separate LAN from WAN traffic

C. to isolate management traffic from other IP traffic

D. to isolate UDP from TCP traffic in the IP network

E. to isolate SSH traffic from other IP traffic

Answer: A, C

Question No: 157

A company wants to use jumbo frames to improve performance with their iSCSI network. When setting up the Ethernet switches for jumbo frames, which three components need to be configured?

(Choose three.)

A. Ethernet port on Management Console

B. Ethernet port on RLM

C. Ethernet port on host system

D. Ethernet port on storage device

E. Ethernet port on FC switch

F. Ethernet switch ports being used

Answer: C, D, F

Question No: 158

A company wants to use jumbo frames in their Ethernet network. They should set the packet size to which industry conventional value?

A. 1200

B. 1500

C. 9000

D. 12000

Answer: C

Question No: 159

What is the default Ethernet packet size (or MTU - Maximum Transmission Unit) for Ethernet ports on Ethernet switches?

A. 2112 bytes

B. 9000 bytes

C. 1500 bytes

D. 12000 bytes

Answer: C

Question No: 160

When setting up a VLAN for administrative security purposes, which four ports are the only important ports to include in the VLAN? (Choose four.)

A. Storage Controllers Management Ethernet ports

B. FC Switches Ethernet port

C. Hosts iSCSI HBA Ethernet port

D. Ethernet Switches Management port

E. Storage Controller iSCSI Ethernet Target ports

F. Hosts NIC Ethernet port

Answer: A, B, D, F

Question No: 161

You are booting a NetApp storage system for the first time. In which order should the various components be powered on?

A. any tape backup devices, disk shelves, network switches, NetApp controller heads

B. NetApp controller heads, disk shelves, any tape backup devices, network switches

C. NetApp controller heads, disk shelves, network switches, any tape backup devices

D. network switches, disk shelves, any tape backup devices, NetApp controller heads

Answer: D

Question No: 162

When booting your NetApp storage system for the first time the system fails to boot.

What should you do first to address this problem?

A. You turn off your storage system and disk shelves, and then turn on the disk shelves. You then check the quick reference card that came with the disk shelf for information about LED responses.

B. You re-download the boot image to the compact flash card, then reboot the system.

C. You look for a description of the problem on the LCD and console. You then follow the instructions, if provided, on the LCD and console.

D. You verify disk shelf compatibility and check the disk shelf IDs to verify that the disk shelf 1 (for DS14 series) must be connected to your system.

Answer: C

Question No: 163

After completing the configuration of a new Brocade Fibre Channel switch, which command do you use to verify your configuration?

A. switchshow

B. show config

C. configshow

D. cfgshow

Answer: C

Question No: 164

Which native GUI switch tool is used to manage Cisco MDS-Series switches and directors?

A. Operations Manager

B. Fabric Manager

C. Web Tools

D. Data Fabric Manager

Answer: B

Question No: 165

Which configuration for primary block (FC and iSCSI) data does NetApp best practices recommend?

(Choose two.)

A. single controller single shelf

B. single controller multiple shelves

C. dual controller single shelf

D. dual controller multiple shelves

Answer: C, D

Question No: 166

When running diagnostic tests after an initial installation of a NetApp FAS3000 storage system, which command is used to run a comprehensive set of diagnostic tests on the entire system?

A. all

B. comprehensive

C. full

D. stress

Answer: A

Question No: 167

You are about to replace a failed Brocade Fibre Channel switch. Which three steps do you take prior to connecting the switch in the SAN? (Choose three.)

A. Force the new switch to be the principle switch.

B. Change the domain ID of the replacement switch to the domain ID of the failed switch.

C. Clear all zoning configurations on the replacement switch.

D. Change the core PID format of the replacement switch to the core PID format of the failed switch.

E. Preload the zoning information from the fabric onto the new switch.

Answer: B, C, D

Question No: 168

At which storage object level is deduplication enabled?

A. Aggregate

B. Volume

C. Qtree

D. LUN

Answer: B

Question No: 169

Which commands allow you to enable NetApp deduplication and verify space savings?

A. sis on <vol>, sis start <vol>, df s <vol>

B. asis on <vol>, asis start <vol>, df s <vol>

C. sis on <vol>, sis start <vol>, df r <vol>

D. sis on, sis start, df p <vol>

Answer: A

Question No: 170

Which row of items should you look up in the IMT (Interoperability Matrix Tool) when designing a NetApp Storage Solution for a customer?

A. Host OS & patches, FC WWPN, Volume Manager, File System version

B. Host OS, iSCSI IQN, Volume Manager, Clustering

C. Host OS & patches, HBA driver, Volume Manager, File System, Clustering

D. Host OS, HBA driver, Host Memory & CPU Speed, File System, Clustering

Answer: C

Question No: 171

Which option needs to be set on a volume to guarantee that it cannot be affected by other volumes?

A. None

B. Volume

C. Space Reserved

D. Reservation Enabled

Answer: B

Question No: 172

Which option needs to be set on a LUN to guarantee that it cannot be affected by other LUNs in the volume?

A. Volume Guarantee

B. Volume Space Reserved

C. LUN Reservation Disabled

D. LUN Reservation Enabled

Answer: D

Question No: 173

When does Fractional Reservation reserve space from the volume?

A. Volume Creation

B. LUN Creation

C. LUN SnapMirror

D. Volume Snapshot

Answer: D

Question No: 174

Which statement is correct regarding virtual machine alignment on VMware ESX?

A. RDM LUNs do NOT suffer from alignment problems because they are accessed directly by VMs.

B. A VMFS LUN with a LUN type of VMware, will always have properly aligned VMs.

C. Alignment issues can occur on any protocol including FCP, iSCSI, FCoE, and NFS

D. msinfo32 or mbrscan can be run for the ESX service console to check for proper alignment of VMs.

Answer: C

Topic 3, Exam Pool C

Question No: 175

A customer has an existing legacy ISCSI storage environment that is connected to upstream network switches with various Windows hosts. The customer wants to purchase a new Netapp array to migrate their dat a. In this scenario which two tools would help to validate the prerequisites for this Netapp configuration? (choose two)

VCEplus VCEup

A. Interoperability Matrix Tool (IMT)

B. Active IQ OneCollect

C. Hardware Universe (HWU)

D. Active IQ Config Advisor

Answer: A, B

Explanation:

ActiveIQ OneCollect is a tool from NetApp that will create an inventory of your environment that will include hosts, switches and storage and validate it against the IMT (Interoperability Matrix Tool).

Question No: 176

In a Linux environment, issues are reported concerning multipathing. You want to view the direct and indirect paths. In this scenario, which command would you use to accomplish this task?

A. Use the lspci command

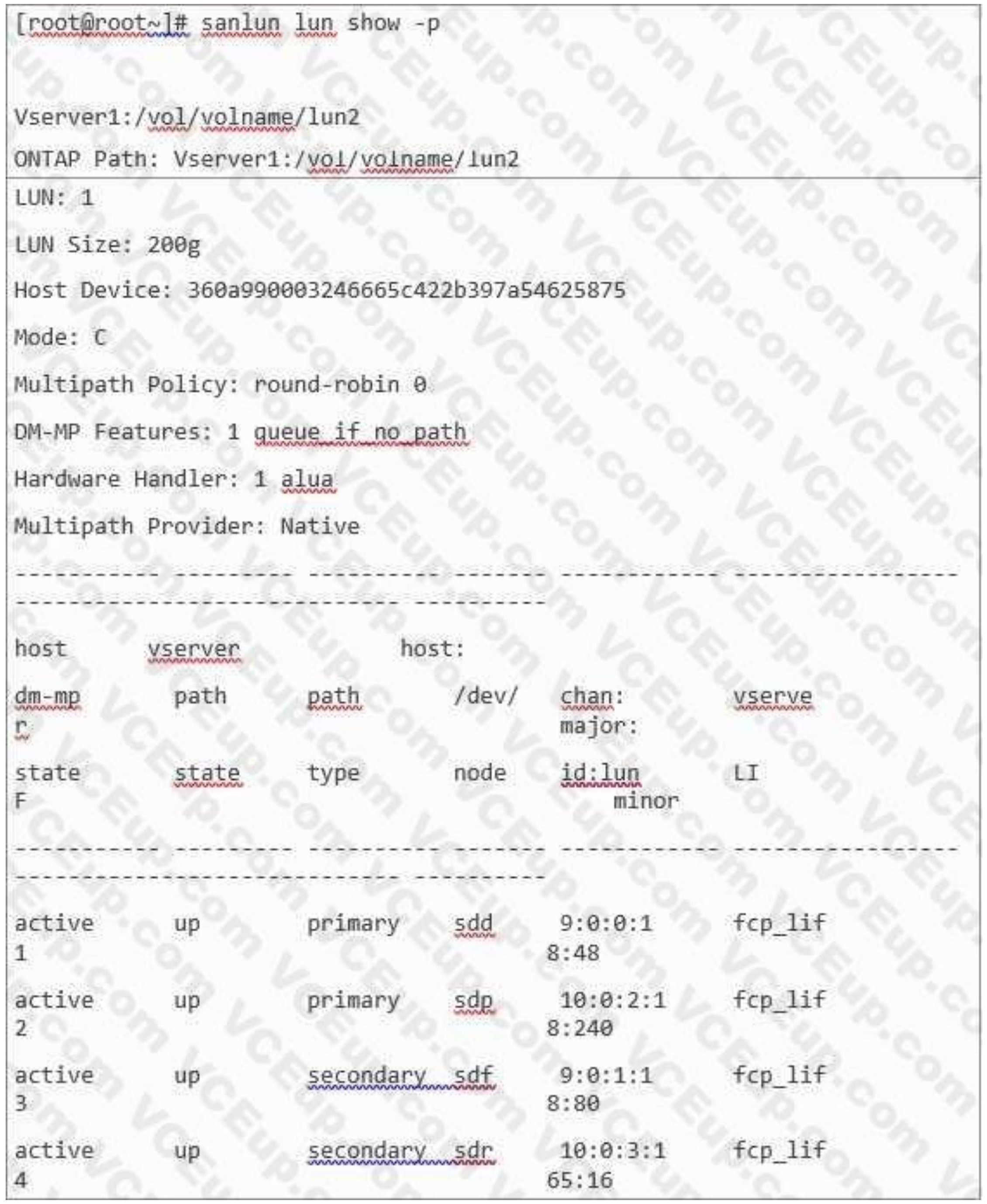
B. Use the systemctl command

C. Use the ifconfig command

D. Use the sanlun command

Answer: D

Explanation:



```
[root@root~]# sanlun lun show -p

Vserver1:/vol/volname/lun2
ONTAP Path: Vserver1:/vol/volname/lun2
LUN: 1
LUN Size: 200g
Host Device: 360a990003246665c422b397a54625875
Mode: C
Multipath Policy: round-robin 0
DM-MP Features: 1 queue_if_no_path
Hardware Handler: 1 alua
Multipath Provider: Native
----------- --------- ---------- ------- ------------ -----------------
---------------------------- ----------
host      vserver        host:
dm-mp       path      path      /dev/   chan:      vserve
r                                       major:
state       state     type      node    id:lun     LI
F                                           minor
----------- --------- ---------- ------- ------------ -----------------
---------------------------- ----------
active      up        primary    sdd     9:0:0:1     fcp_lif
1                                       8:48
active      up        primary    sdp     10:0:2:1    fcp_lif
2                                       8:240
active      up        secondary  sdf     9:0:1:1     fcp_lif
3                                       8:80
active      up        secondary  sdr     10:0:3:1    fcp_lif
4                                       65:16
```

Question No: 177

You have implemented FabricPool on your AFF ASA ONTAP 9.8 Cluster. An archived database has become very active, and it requires FabricPool adjustments.

Which two steps are required to address this issue? (Choose two)

A. Use the promote cloud-retrieval-policy

B. Remove all snapshot copies.

C. Set the tiering-policy to none

D. Set the space-guarantee on the volume

Answer: A, C

Explanation:

Promoting all data from a FabricPool volume to the performance tier.

You can proactively retrieve all data on a FabricPool volume in the Cloud and promote it to the performance tier.

Use the volume modify command to set tiering-policy to none and cloud-retrieval-policy to promote.

You can find more information on this link:

https://docs.netapp.com/ontap-9/index.jsp?topic=%2Fcom.netapp.doc.dot-mgng-stor-tierfp%2FGUID-45FEF779-69D8-40B2-B251-BEC90CE46E21.html

Question No: 178

You have deployed an AFF 400 systems for ISCSI workloads and want to ensure maximum performance to the hosts.

In this scenario, which two steps should be configured? (Choose two)

A. Enable Jumbo frames on the network switch

B. Enable Jumbo frames on the LIF

C. Enable Jumbo frames on the broadcast domain

D. Enable Jumbo frames on the IPspace

Answer: A, C

Explanation:

Changing the Network port settings at the broadcast domain level will change all ports in that broadcast domain sequentially, or one at the time. This will only cause a disruption if the port is a single point of failure.

Enable jumbo frames (typically MTU of 9000).All devices in the data path, including initiators, targets, and switches, must support jumbo frames. Otherwise, enabling jumbo frames actually reduces network performance substantially.

You can find more information on this link:

https://kb.netapp.com/Advice_and_Troubleshooting/Data_Storage_Software/ONTAP_OS/How_to_enable_jumbo_frames_in_ONTAP_9_and_clustered_Data_ONTAP_8.3

Question No: 179

You are a system administrator and responsible for a Netapp AFF A800 2-node ONTAP 9.8 cluster that is used only for SAN. Your SAN uses FC and FCoE on the same Cisco switches. You want to add NVMe from the ONTAP controller to the same Cisco fabric. Which two statements are correct in this scenario? (choose two)

A. The same SVM can serve both the FC and the FCoE protocols

B. The same SVM cannot serve both the FC and the NVMe protocols

C. FCoE and NVMe can share the same physical port

D. FC and NVMe can share the same 32 GB physical port

Answer: A, D

Explanation:

FC and FC-NVMe can share the same 32 Gb physical port

The same SVM can serve both FC and NVMe protocols using the same physical infraestructure wiith different LIFs FCoE and NVMe can NOT share the same infraestructure, they go trough different physical hardware

https://docs.netapp.com/ontap-9/index.jsp?topic=%2Fcom.netapp.doc.dot-cm-sanconf%2FGUID-7D5EA321-97AE-497D-9925-BEF2553DF9F1.html

VCEplus

VCEûp

Question No: 180

You want configure namespaces to support NVMe over Fibre Channel (NVMe/FC) using ONTAP 9.8.

Which action will accomplish this task?

A. Add FC to the list of SVM protocols

B. Remove any protocols from the SVM before adding the NVMe protocol

C. Enable ALUA on the namespaces that should use the NVMe protocol

D. Configure a LIF for the NVMe protocol

Answer: D

Explanation:

Although ONTAP uses a NVMe/FC LIF that is separate from the FCP LIFs, both LIFs can be hosted on the same physical HBA port at both the host initiator and storage target. NVMe/FC and FCP can share the same physical infrastructure concurrently, so the same physical port, cable, switch port, and target port can simultaneously host and transmit both FCP and NVMe/FC frames NVMe can use the same FC infraestructure, but it needs to create a separate NVMe LIF to work.

You can find more information on this link:

https://www.netapp.com/de/media/10681-tr4684.pdf (14)

Question No: 181

What are two considerations when creating a physical reference drawing for adding an ASA AFF A700 system to your existing FC SAN environment? (Choose two)

A. available cooling

B. Hardware Compatibility

C. available rack space

D. switch connectivity

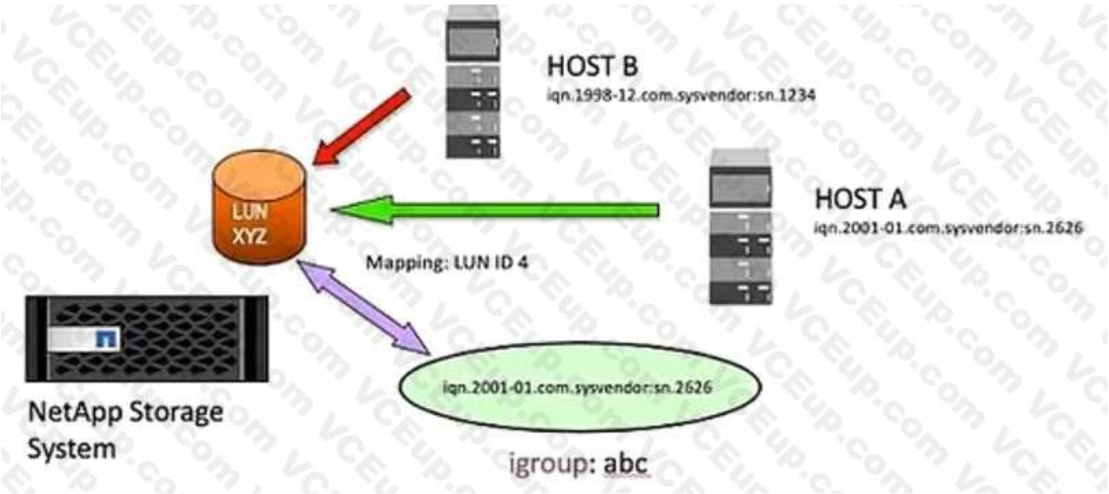
Answer: C, D

Explanation:

A physical reference drawing should be used to know the rack space and the distance between that space and the equipment to which it will be connected ... Being an ASA, it must be connected to a SAN switch

Question No: 182

Referring to the exhibit, which security feature would guarantee that the host A system that is mapped to LUN XYZ on the NetApp storage system is the only host that access the LUN?


HOST B
iqn.1998-12.com.sysvendor:sn.1234
HOST A
iqn.2001-01.com.sysvendor:sn.2626
LUN XYZ
Mapping: LUN ID 4
iqn.2001-01.com.sysvendor:sn.2626
NetApp Storage System
igroup: abc

A. igroup setup with the IQN of the ISCSi software initiator on Host A.

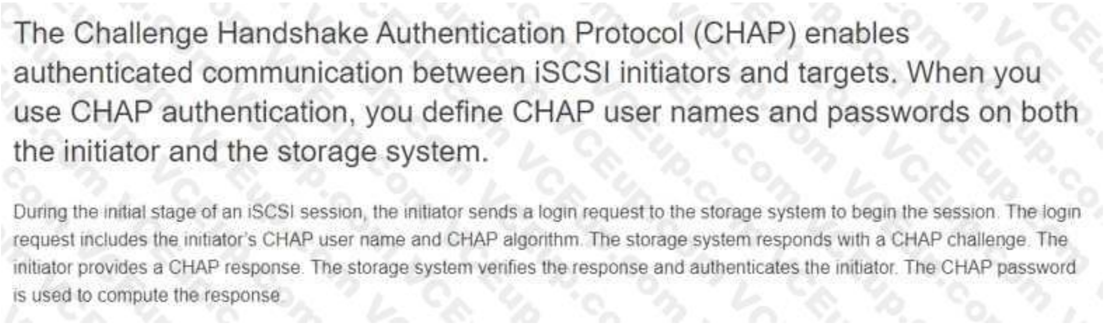
B. CHAP configured on HOST A and the NetApp Storage System

C. igroup setup with no IQNs

D. IPsec configured on both host A and the NetApp Storage System

Answer: B

Explanation:



The Challenge Handshake Authentication Protocol (CHAP) enables authenticated communication between iSCSI initiators and targets. When you use CHAP authentication, you define CHAP user names and passwords on both the initiator and the storage system.

During the initial stage of an iSCSI session, the initiator sends a login request to the storage system to begin the session. The login request includes the initiator's CHAP user name and CHAP algorithm. The storage system responds with a CHAP challenge. The initiator provides a CHAP response. The storage system verifies the response and authenticates the initiator. The CHAP password is used to compute the response

You can find more information on this link:

https://docs.netapp.com/ontap-9/index.jsp?topic=%2Fcom.netapp.doc.dot-cm-sanag%2FGUID-3FC8A37A-FFCC-4070-A9F0-1B9B3FB79BF8.html

Question No: 183

You are asked to configure a small environment for a branch office. The customer has two new VMware ESXI hosts and a Netapp FAS2750 for the site. They want to allocate 10 GB for their ISCSI network to be used for datastores. However, they do not want to purchase any new switches for the environment. In this scenario, Which statement is correct?

A. The SMB protocol will need to be used

B. 10 GB switches are required for this configuration

C. The environment will have to be configured with 1 GB networking

D. Configure direct attached connections between the two hosts and storage

Answer: D

Explanation:

Direct-attachment

In a direct-attached configuration, one or more hosts are directly connected to the controllers.

You can find more information on this link:

https://docs.netapp.com/ontap-9/index.jsp?topic=%2Fcom.netapp.doc.dot-cm-sanconf%2FGUID-193CC377-5C6F-4D3C-B42E-CE71AB6AA77F.html

Question No: 184

You have a SAN host that is only sending traffic to an ONTAP cluster using active non-optimized paths. In this scenario, over which network type does the node that is hosting the target LUN receive the traffic?

A. Fibre Channel network

B. Cluster network

C. ISCSI network

D. Intercluster network

Answer: B

Explanation:

The Cluster Network

This is used for traffic that is going between the nodes themselves, such as system information that is being replicated between the nodes. Also, if incoming client data traffic hits a network port on a different controller than the one which owns the disks, that traffic will also go over the cluster network.

Question No: 185

You have a two node Netapp ONTAP cluster that is hosting FC LUNs for 90 SAN hosts. The hosts are experiencing occasional performance problems and receiving QFULL responses from the cluster nodes. Which action would solve this issue?

A. Increase the queue depth on the target ports

B. Configure additional FC target ports

C. Increase the queue depth on the initiator ports

D. Configure additional FC ports on the hosts

Answer: B

Explanation:

Adding more FC initiators on host will not solve this bottle-neck situation, we can try to increase the queue depth but we need the number of hosts and the number of target ports to calculate it correctly.

We need to add more FC target ports on our storage to keep the load balanced and distributed You can find more information on this link

https://docs.netapp.com/ontap-9/index.jsp?topic=%2Fcom.netapp.doc.dot-cm-sanconf%2FGUIDA055B184-0876-4376-9C75-35FE8C9BE832.html

Question No: 186

Which two components should be installed to support VMware VMFS6 datastores in an environment with only Ethernet switches? (Choose two)

A. V_StorageAttach license

B. Host Utilities

C. NetApp Virtual Storage Console

D. iSCSI licenses

Answer: C, D

Explanation:

Installing VSC is the best practice recommended by Netapp when you use VMware and this is an environment with only Ethernet switch, so ISCSI licenses are needed to present LUNs to the Virtual environment.

You can find more information on this link:

https://docs.netapp.com/us-en/netappsolutions/pdfs/sidebar/VMware_vSphere_with_ONTAP_Best_Practices.pdf

Question No: 187

An administrator is asked to provision a SAN environment in which host applications can monitor LUN space and performance space reclamation.

Which LUN type would satisfy these requirements?

A. SCSI thick provisioned LUN

B. SCSI thin provisioned LUN

C. NetApp thin provisioned volume

D. NetApp thick provisioned volume

Answer: B

Explanation:

Automatic host-side space management with SCSI thinly provisioned LUNs If your host supports SCSI thin provisioning, you can enable the space-allocation option in ONTAP to turn on automatic host-side space management.

You can find more information on this link:

https://docs.netapp.com/ontap-9/index.jsp?topic=%2Fcom.netapp.doc.dot-cm-sanag%2FGUID-93D78975-6911-4EF5-BA4E-80E64B922D09.html

Question No: 188

A customer has a 4-node cluster consisting of a FAS8020 system and an AFF A220 that is running ISCSI workloads across two separate SVMs. The FAS8020 system is reaching end of support, so they add a new AFF A400 system to migrate workloads off the FAS8020 system. The customer wants to migrate data off the FAS8020 aggregate n1_aggr1 on SVM2 to the AFF A400 aggregate n5_aggr1 on SVM1.

A. Volume move

B. Volume rehost

C. Volume reallocation

D. Aggregate reallocation

Answer: B

Explanation:

Moving a Volume will only work if you are doing it within the same SVM Volume Reallocation is used when you add new disks to an aggregate and you need to redistribute the data Aggregate Reallocation can be used only when you are moving data from an AFF filer to another AFF filer Rehosting a volume from one SVM to another SVM Volume rehost enables you to reassign NAS or SAN volumes from one storage virtual machine (SVM, formerly known as Vserver) to another SVM without requiring a SnapMirror copy. The volume rehost procedures depend upon the protocol type and the volume type. Volume rehost is a disruptive operation for data access and volume management.

You can find more information on this link:

https://docs.netapp.com/ontap-9/index.jsp?topic=%2Fcom.netapp.doc.dot-cm-vsmg%2FGUIDQuestionsand Answers PDF 85/11384308166-6872-47C2-AEC0-D6346AD1D761.html

Question No: 189

You have deployed a FAS8300 system and wait to enable SAN protocols. In this scenario, which two protocols are available to serve SAN data? (Choose two)

A. Infiniband

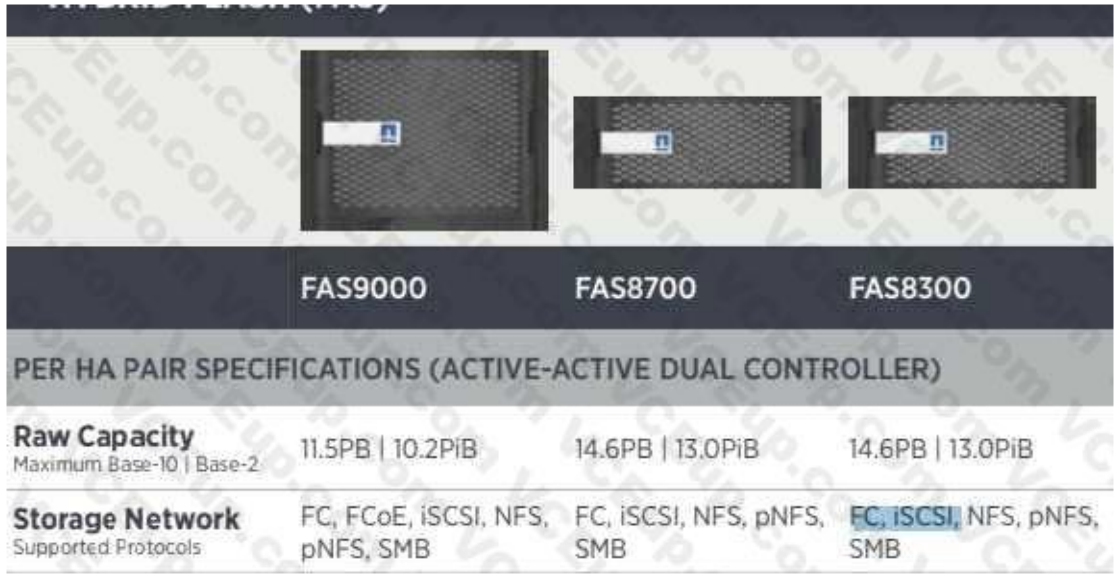
B. ISCSI

C. NVMe

D. FCP

Answer: B, D

Explanation:



	FAS9000	FAS8700	FAS8300
PER HA PAIR SPECIFICATIONS (ACTIVE-ACTIVE DUAL CONTROLLER)			
Raw Capacity Maximum Base-10 | Base-2	11.5PB | 10.2PiB	14.6PB | 13.0PiB	14.6PB | 13.0PiB
Storage Network Supported Protocols	FC, FCoE, iSCSI, NFS, pNFS, SMB	FC, iSCSI, NFS, pNFS, SMB	FC, iSCSI, NFS, pNFS, SMB

You can find more information on this link:

https://hwu.netapp.com/Resources/Posters/POSTER-NA-380-1019.pdf?tag=8070

Question No: 190

Which two requirements must be satisfied to run an Upgrade Advisor report on a Netapp All SAN Array? (choose two)

A. The cluster nodes must have a valid support contract

B. Autosupport must be enabled

C. The vsadmin account must be enabled

D. The Connectivity, Liveness, Availability Monitor (CLAM) must be enabled

Answer: A, B

Explanation:

To run Active IQ Upgrade Advisor the cluster must have a valid contract, and this tool gets information from Autosupport Active IQ Digital Advisor shows systems with a valid support contract.

You can find more information on this link:

https://kb.netapp.com/Advice_and_Troubleshooting/Data_Storage_Software/ONTAP_OS/How_does_Active_IQ_Upgrade_Advisor_help_to_perform_an_ONTAP_upgrade_or_revert_%3F

Question No: 191

You are configuring FC ports on front-end SAN switches for a 4-node Metrocluster configuration across two data centers. You need to ensure that each data center serves FC LUNs when an FC port goes offline in one data center. In this scenario, which front end switch setting must be modified to avoid overlap when a new port comes online?

A. NPIV enabled

B. NPIV reject

C. WWPN reject

D. ANA mapped

E. WWNN reject

Answer: A

Explanation:

Best practice: NPIV is required for FC LIFs to operate correctly. Before creating FC LIFs, make sure that any fabrics attached to an ONTAP system have NPIV enabled.

You can find more information on this link:

https://www.netapp.com/pdf.html?item=/media/10680-tr4080pdf.pdf

Question No: 192

You are asked to separate production FC traffic from test development FC traffic. In this scenario, at a minimum, which two configurations would accomplish this task? (choose two)

A. VLANs

B. Shared igroup

C. SVMs

D. Cisco VSANs

Answer: C, D

Explanation:

SVMs will help us to separate traffic creating production_LIFs and development_LIFs VLANs will not affect anything, because it is asking about FC traffic Cisco VSans will help us to create separate virtual SANs within the same switch.

Question No: 193

Which NetApp tool provides a detailed inventory of SAN components?

A. Active IQ OneCollect

B. Interoperabilty Matrix Tool

C. Active IQ config advisor

D. Hardware Universe

Answer: A

Explanation:

ActiveIQ OneCollect is a tool from NetApp that will create an inventory of your environment that will include hosts, switches and storage and validate it against the IMT (Interoperability Matrix Tool).

Question No: 194

A customer is deploying a SAN cluster of A700 nodes and wants to ensure that the SAN cluster will maintain a quorum in the event of a rack level power failure. Which two statements are true in this scenario? (choose two.)

A. Six nodes are required

B. Four nodes are required

C. Three racks are required

D. Two racks are required

Answer: A, C

Explanation:

The quorum rule states that to make changes to the configuration in our cluster, we need to have more than half of the nodes available. This prevents configuration conflicts if we lose connectivity between the nodes in our cluster.

So, if we have only 2 racks and 4 nodes we could never get more than half of the nodes available if one of those racks power fails.

We need 6 nodes separated on 3 racks, so we can have more than half of the nodes available if one of those racks power fails.

Question No: 195

You are planning to install a new AFF All SAN Array A250 system and want to use persistent ports. In this scenario, what should be identical within the HA pair?

A. FCP port MTU size

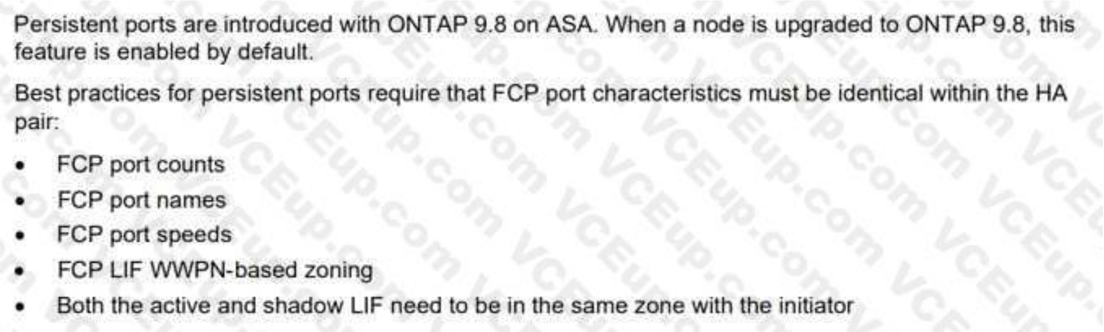
B. FCP Port

C. FCP port names

D. FCP port LIF WWNN-based zoning

Answer: C

Explanation:



Persistent ports are introduced with ONTAP 9.8 on ASA. When a node is upgraded to ONTAP 9.8, this feature is enabled by default.

Best practices for persistent ports require that FCP port characteristics must be identical within the HA pair:

- FCP port counts
- FCP port names
- FCP port speeds
- FCP LIF WWPN-based zoning
- Both the active and shadow LIF need to be in the same zone with the initiator

You can find more information on this link:

https://www.netapp.com/pdf.html?item=/media/10379-tr4515.pdf&v=20217121554 (11)

Question No: 196

During maintenance of an AFF A250 node, you want to move the SAN LIFs that are members of a port set. In this scenario, which two statements are true? (choose two)

A. You must disable SLM for the node that hosts the LIF

B. You need to disable the zoning of the LIF WWPN

C. The LIF must be removed from the port set

D. You must take the SAN LIF offline

Answer: C, D

Explanation:

If the LIF is a member of a port set, the LIF must have been removed from the port set before the LIF can be moved to a different node.

Change the status of the LIF to down (offline)

You can find more information on this link:

https://docs.netapp.com/ontap-9/index.jsp?topic=%2Fcom.netapp.doc.dot-cm-sanag%2FGUID-09F5C2A3-FA66-4252-BEEF-D556A143CD30.html

Question No: 197

You are planning on implementing a new SAN on AFF A400 controllers. The data set consists of unique 1 KB files that will be encrypted before being written to the SAN.

A. Compaction

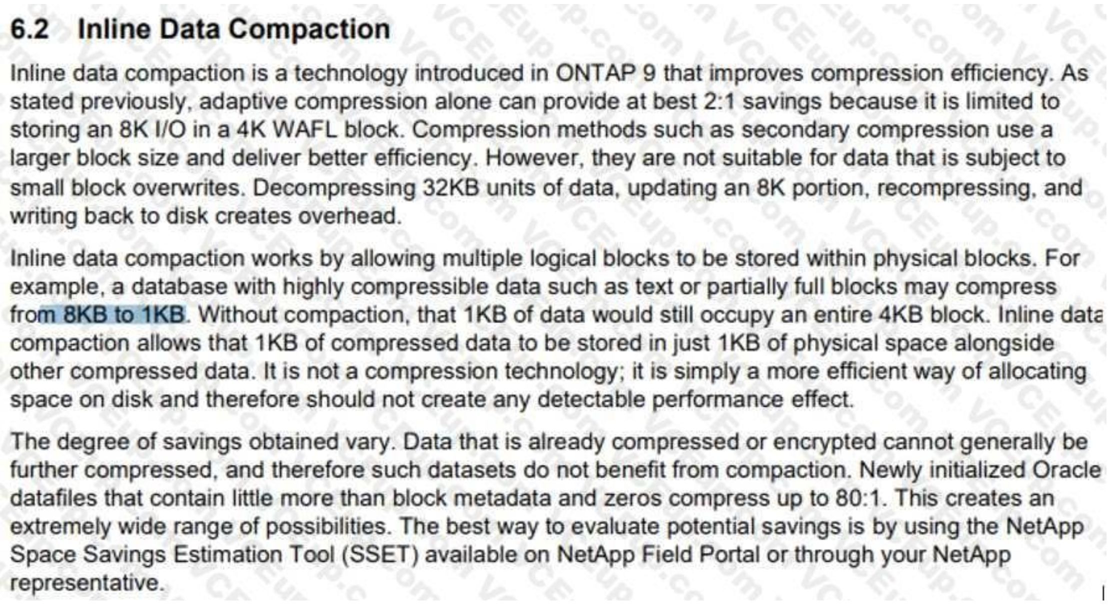
B. compression

C. Deduplication

D. Autogrow

Answer: A

Explanation:



6.2 Inline Data Compaction

Inline data compaction is a technology introduced in ONTAP 9 that improves compression efficiency. As stated previously, adaptive compression alone can provide at best 2:1 savings because it is limited to storing an 8K I/O in a 4K WAFL block. Compression methods such as secondary compression use a larger block size and deliver better efficiency. However, they are not suitable for data that is subject to small block overwrites. Decompressing 32KB units of data, updating an 8K portion, recompressing, and writing back to disk creates overhead.

Inline data compaction works by allowing multiple logical blocks to be stored within physical blocks. For example, a database with highly compressible data such as text or partially full blocks may compress from 8KB to 1KB. Without compaction, that 1KB of data would still occupy an entire 4KB block. Inline data compaction allows that 1KB of compressed data to be stored in just 1KB of physical space alongside other compressed data. It is not a compression technology; it is simply a more efficient way of allocating space on disk and therefore should not create any detectable performance effect.

The degree of savings obtained vary. Data that is already compressed or encrypted cannot generally be further compressed, and therefore such datasets do not benefit from compaction. Newly initialized Oracle datafiles that contain little more than block metadata and zeros compress up to 80:1. This creates an extremely wide range of possibilities. The best way to evaluate potential savings is by using the NetApp Space Savings Estimation Tool (SSET) available on NetApp Field Portal or through your NetApp representative.

Question No: 198

You are configuring a 4-node AFF A400 ONTAP 9.8 cluster. The data center switches have limited ports, and you are given one 10-Gigabit Ethernet port per node for external access.

In this scenario, which three protocols share the same physical port? (Choose three)

A. NVMe/FC

B. ISCSI

C. FCoE

D. Snapmirror

E. FC

Answer: B, C, D

Explanation:

If we have only ethernet switches available, we can only enable protocols over ethernet such as FCoE, ISCSI and Snapmirror.

NVMe/FC and FC need a SAN Fabric switch to work.

Question No: 199

Which FC service is used by a host for discover service to locate FC targets that are available?

A. The fabric configuration server

B. The fabric name service

C. The fabric zone server

D. A. The fabric security server

Answer: B

Explanation:

When a node is connected to the FC SAN, each SVM registers the World Wide Port Name (WWPN) of its LIF with the switch Fabric Name Service.

You can find more information on this link:

https://docs.netapp.com/ontap-9/index.jsp?topic=%2Fcom.netapp.doc.dot-cm-sanag%2FGUID-6DDD6DEC-B3B2-482E-AB56-08641D35222E.html

Question No: 200

Referring to the exhibit, which WWPN would safely be removed from the zone?

A. 50:0a:09:84:8d:7c:51:d5

B. 20:09:00:a0:98:32:99:07

C. 21:00:00:c0:dd:19:4b:f3

D. 20:27:00:a0:98:32:99:07

Answer: C

Explanation:

Important:

A WWN pool can include only WWNNs or WWPNs in the ranges from 20:00:00:00:00:00:00:00 to 20:FF:FF:FF:FF:FF:FF:FF or from 50:00:00:00:00:00:00:00 to 5F:FF:FF:FF:FF:FF:FF:FF. All other WWN ranges are reserved. To ensure the uniqueness of the Cisco UCS WWNNs and WWPNs in the SAN fabric, we recommend that you use the following WWN prefix for all blocks in a pool:

20:00:00:25:B5:XX:XX:XX

You can find more information on this link:

https://www.cisco.com/en/US/docs/unified_computing/ucs/sw/cli/config/guide/1.4.1/CLI_Config_Guide_1_4_1_chapter21.html

Question No: 201

You are configuring a Windows Server 2019 system to attach to an ISCSI presented LUN. There are multiple physical paths from the Windows Server to the Netapp Cluster. Which two changes are required to the Windows Server to enable multipath? (choose two)

A. Add an Ethernet network adapter

B. Select the “enable multi-path” checkbox on the ISCSI software initiator

C. Add a converged network adapter (CNA)

D. Enable MPIO by selecting the option in the MPIO properties administrative application

Answer: B, D

Explanation:

Select Enable multi-path, select Automatically restore this connection when the computer starts or Add this connection to the list of Favorite Targets, and then click Advanced You can find more information on this link:

https://docs.netapp.com/ontap-9/topic/com.netapp.doc.exp-iscsicpg/iSCSI%20express%20configuration%20for%20Windows.pdf (15)

Question No: 202

You want to perform online data migration using Foreign LUN Import. In this scenario, which two conditions are required to support this task? (choose two)

A. ISCSI protocol LIFs must be added to the data SVM

B. ISCSI targets must be added to the ONTAP ISCSI initiator

C. FCP protocol LIFs must be added to the data SVM

D. FCP initiator ports must be available

Answer: C, D

Explanation:

FLI does not support iSCSI connections directly. In order for iSCSI LUNs to be migrated using FLI, the LUN type must be changed to FC. After the migration is complete, the LUN type is changed back to iSCSI.

You can find more information on this link:

https://docs.netapp.com/us-en/ontap-fli/sanmigration/concept_lun_requirements_and_limitations.html

Question No: 203

A customer wants to deploy NVMe/FC along with an existing FC SAN fabric using ONTAP 9.8. In this scenario, which two actions are correct? (choose two)

A. Use existing zoning on fabric switches

B. Enable NVMe/FC on the existing FC SVM

C. Upgrade your FC switches from 16GB to 32GB

D. Create new zoning on fabric switches

Answer: A, B

Explanation:

Because NVMe/FC simply swaps command sets from SCSI to NVMe, it is an easy transition to make.

NVMe/FC uses the same FC transport and therefore the same hardware from the host, through the switch and all the way to the NVMe/FC target port on the storage array. Thus, NVMe/FC implementations can use existing FC infrastructure, including HBAs, switches, zones, targets, and cabling.

You can find more information on this link:

https://www.netapp.com/de/media/10681-tr4684.pdf

Question No: 204

File deletions from a SAN-attached host that is using Windows Server 2016 are not freeing up space in LUN lun3. Referring to the exhibit, which setting is preventing the SCSI UNMAP operation?

A. Space reservation honored is set to false

B. Space reservation is set to disabled

C. Clone Autodelete Enabled is set to false

D. Space Allocation is set to disabled

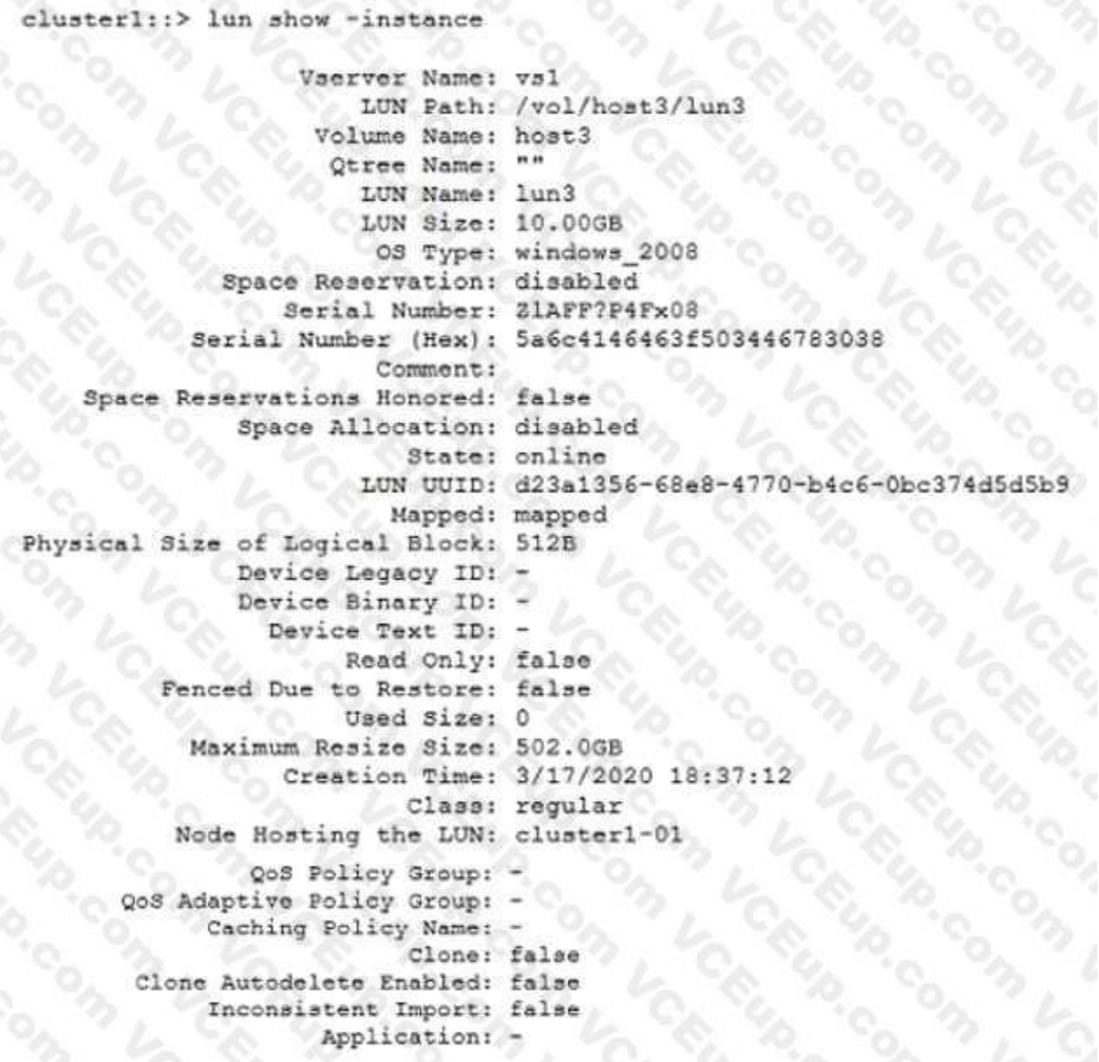
Answer: D

Explanation:

For clustered Data ONTAP, support for SCSI UNMAP begins in the 8.2 release family. For a LUN to advertise support for and accept SCSI UNMAP commands, enable the space-allocation option on LUNs which you expect to use this feature with.

You can find more information on this link:

https://kb.netapp.com/Advice_and_Troubleshooting/Data_Storage_Software/ONTAP_OS/ONTAP_and_Windows_SCSI_unmap_and_space_reclamation



```
cluster1::> lun show -instance

                  Vserver Name: vs1
                      LUN Path: /vol/host3/lun3
                   Volume Name: host3
                    Qtree Name: ""
                      LUN Name: lun3
                      LUN Size: 10.00GB
                       OS Type: windows_2008
             Space Reservation: disabled
                 Serial Number: Z1AFF?P4Fx08
           Serial Number (Hex): 5a6c4146463f503446783038
                       Comment:
    Space Reservations Honored: false
              Space Allocation: disabled
                         State: online
                      LUN UUID: d23a1356-68e8-4770-b4c6-0bc374d5d5b9
                        Mapped: mapped
Physical Size of Logical Block: 512B
              Device Legacy ID: -
              Device Binary ID: -
                Device Text ID: -
                     Read Only: false
         Fenced Due to Restore: false
                     Used Size: 0
           Maximum Resize Size: 502.0GB
                 Creation Time: 3/17/2020 18:37:12
                         Class: regular
           Node Hosting the LUN: cluster1-01
              QoS Policy Group: -
     QoS Adaptive Policy Group: -
           Caching Policy Name: -
                         Clone: false
      Clone Autodelete Enabled: false
            Inconsistent Import: false
                   Application: -
```

Question No: 205

You created a LUN in a new volume on your Netapp ONTAP cluster. You enabled the default snapshot schedule and enabled snapshot autodelete on the volume. In this scenario, in which three situations does the snapshot autodelete feature automatically delete snapshot copies in the volume? (choose three)

A. The snapshot reserve space is nearly full

B. The LUN is nearly full

C. The overwrite reserve space is full

D. The volume is nearly full

E. The aggregate is nearly full

Answer: A, C, D

Explanation:

Depending on what is selected in the "Trigger" option, Snapshot Autodelete will automatically delete a snapshot when, either the volume space utilized, or the snapshot reserve reaches a threshold capacity specified below.

Automatic deletion of Snapshot copies from flexible volumes Data ONTAP can automatically delete one or more Snapshot copies on the volume, provided the Data ONTAP Snapshot copy autodeletion policy is enabled and set to trigger when the overwrite reserve is nearly full on the volume.

You can find more information on this link:

https://kb.netapp.com/Advice_and_Troubleshooting/Data_Storage_Software/ONTAP_OS/How_to_use_Snapshot_Autodelete

https://library.netapp.com/ecmdocs/ECMP1217281/html/GUID-98FB8EC4-F3AE-4D25-AF44-E3200AFEB1AB.html

Question No: 206

You are installing an AFF A250 system with ONTAP 9.8 software. Your customer asks you about the recommended LIF configuration for the ISCSI protocol. In this scenario, which two statements are correct

(choose two)

A. Each node in an ISCSI configuration must be connected to a minimum of two ethernet switches

B. All LIFs from the SVM are connected to a single Ethernet switch

C. Each SVM in an ISCSI configuration must have a minimum of two LIFs per node

D. Each SVM in an ISCSI configuration must have a minimum of one LIF per node

Answer: A, C

Explanation:

It is recommended that all SVMs in ISCSI configurations have a minimum of two LIF's per node in separate Ethernet networks for redundancy and MPIO across multiple paths.

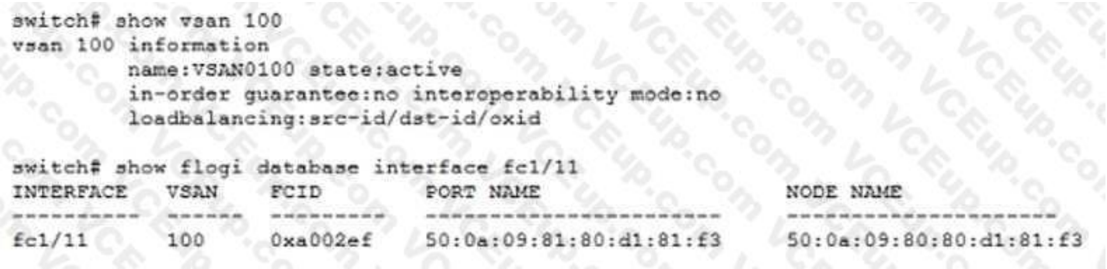
You can find more information on this link:

https://docs.netapp.com/ontap-9/index.jsp?topic=%2Fcom.netapp.doc.dot-cm-sanconf%2FGUID-650DC466-CA3F-4032-8005-078FCEEB52E7.html

Question No: 207

You are configuring a new Netapp ONTAP cluster and are connecting the nodes to Cisco MDS SAN switches. You connect one of the nodes to switch port fc1/11 and run the commands that are shown in the exhibit. The SAN LIFs are enabled but are not operationally online, and none of the SAN hosts can access their LUNs on the ONTAP cluster.

In this scenario, which configuration would cause this problem?



```
switch# show vsan 100
vsan 100 information
         name:VSAN0100 state:active
         in-order guarantee:no interoperability mode:no
         loadbalancing:src-id/dst-id/oxid

switch# show flogi database interface fc1/11
INTERFACE   VSAN    FCID        PORT NAME                  NODE NAME
----------  ------  ---------   -----------------------    ---------------------
fc1/11      100     0xa002ef    50:0a:09:81:80:d1:81:f3    50:0a:09:80:80:d1:81:f3
```

A. Interoperability mode is not enabled on the switches

B. The in-order guarantee is not enabled on the switch

C. NPV is not enabled on the switches

D. NPIV is not enabled on the switches

Answer: D

Explanation: in-order guarantee and interoperability mode are default configuration on a VSAN NPV is the core switch where NPIV is going to be enabled.

The NPV core switch is defined as an upstream switch on which NPIV is enabled. The NPV core switch receives traffic that is passed to it from a downstream switch that has NPV enabled on it. A switch that is in NPV mode does not switch traffic; instead, it passes traffic to the upstream NPV core switch on which NPIV is enabled.

After NPIV is enabled on the core NPV switch, the port should automatically come up (unless there are other issues).

You can find more information on this link:

https://www.cisco.com/c/en/us/td/docs/storage/san_switches/mds9000/sw/rel_3_x/troubleshooting/guide/trblgd/ts_npv.html#wp131957

Question No: 208

You have a Netapp ONTAP cluster and are configuring ISCSI for some new hosts . You want to ensure that ISCSI connectivity can survive physical network failures.

In this scenario, which two features would help fulfill this requirement? (choose two)

A. Broadcast domains

B. Failover groups

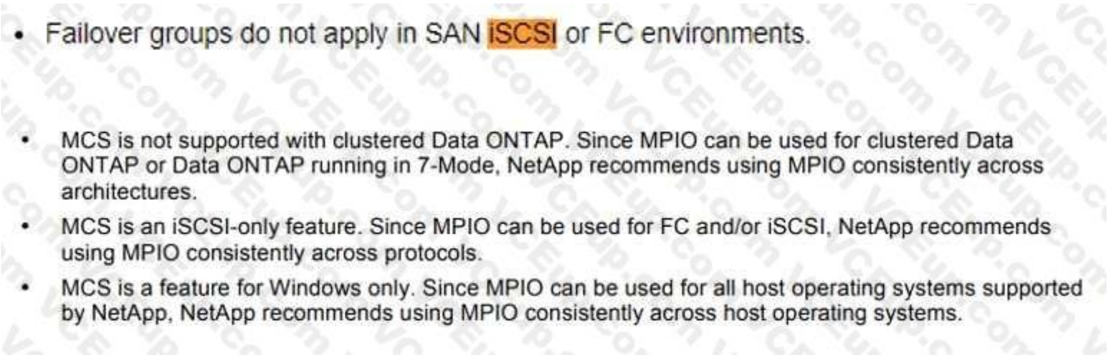
C. MPIO

D. Interface groups

Answer: C, D

Explanation:

Broadcast Domains are used to segment and create failover groups automatically... Broadcast Domain do not guarantee redundancy on ISCSI because failover groups are not used on ISCSI.



- Failover groups do not apply in SAN iSCSI or FC environments.

- MCS is not supported with clustered Data ONTAP. Since MPIO can be used for clustered Data ONTAP or Data ONTAP running in 7-Mode, NetApp recommends using MPIO consistently across architectures.
- MCS is an iSCSI-only feature. Since MPIO can be used for FC and/or iSCSI, NetApp recommends using MPIO consistently across protocols.
- MCS is a feature for Windows only. Since MPIO can be used for all host operating systems supported by NetApp, NetApp recommends using MPIO consistently across host operating systems.

Question No: 209

You have a 100GB volume with the space guarantee set to volume, This volume contains two space reserved 20 GB LUNs. Both LUNs are at 50% use. You then create a snapshot copy of the volume. No modifications were performed since the snapshot copy was completed, and all actions were performed using the CLI. In this scenario, how much free space does the volume have?

A. 60 GB

B. 20 GB

C. 40 GB

D. 80 GB

Answer: A

Explanation:

Both LUN created are inheriting the space reserved parameter from its volume parent, so both LUNs are thick provisioned using 20 GB each one of them and the snapshots have not increased because there has not been any changes since their creation 100GB - 20 GB - 20GB

Question No: 210

An administrator enabled the FCP protocol on an SVM and created a boot LUN for a Windows Server 2019 server host. The host is attached using multiple paths to the storage SVM. After correctly adding the LUN to the igroup and setting its LUN ID to 1, the host is unable to boot using the installed FC HBA.

A. The LUN ID must be set to 0

B. The LUN ID must be set to 255

C. During the boot process, using FCP is not supported by Netapp

D. During the boot process, using FCP is not supported by Microsoft

Answer: A

Explanation:

Create the LUN that you want to use as a boot device, and map it to the igroup as LUN ID 0 You can find more information on this link:

https://library.netapp.com/ecmdocs/ECMP1656701/html/GUID-76BFD6AC-BC2A-419A-9DD3-D98423B2B67F.html

Question No: 211

An administrator is configuring their existing Ethernet network switches to provide ISCSI LUNs to several servers. The network switches are also used for other traffic from various hosts. In this scenario, which statement is true?

A. Increase the ratio of access ports to trunk ports to 2:1

B. Configure the MTU size to be larger on the switch and storage than on the host.

C. Use multiple VLANs to isolate traffic from other network traffic

D. Netapp recommends using the same LIFs for NFS and ISCSI traffic

Answer: C

Explanation:

VLANs offer specific benefits, such as increased security and improved network reliability that you might want to leverage in iSCSI.

You can find more information on this link:

https://docs.netapp.com/ontap-9/topic/com.netapp.doc.dot-cm-sanconf/SAN%20configuration.pdf

(page 5)

Question No: 212

You need to migrate boot LUNs from a third-party array onto a Netapp FAS8700. Which three actions are required to complete this task? (choose three)

A. Reboot the third-party SAN to prepare for the LUN Import

B. Verify third-party array support by using the Interoperability Matrix Tool (IMT)

C. Convert every FC target port on each controller to an FC initiator port

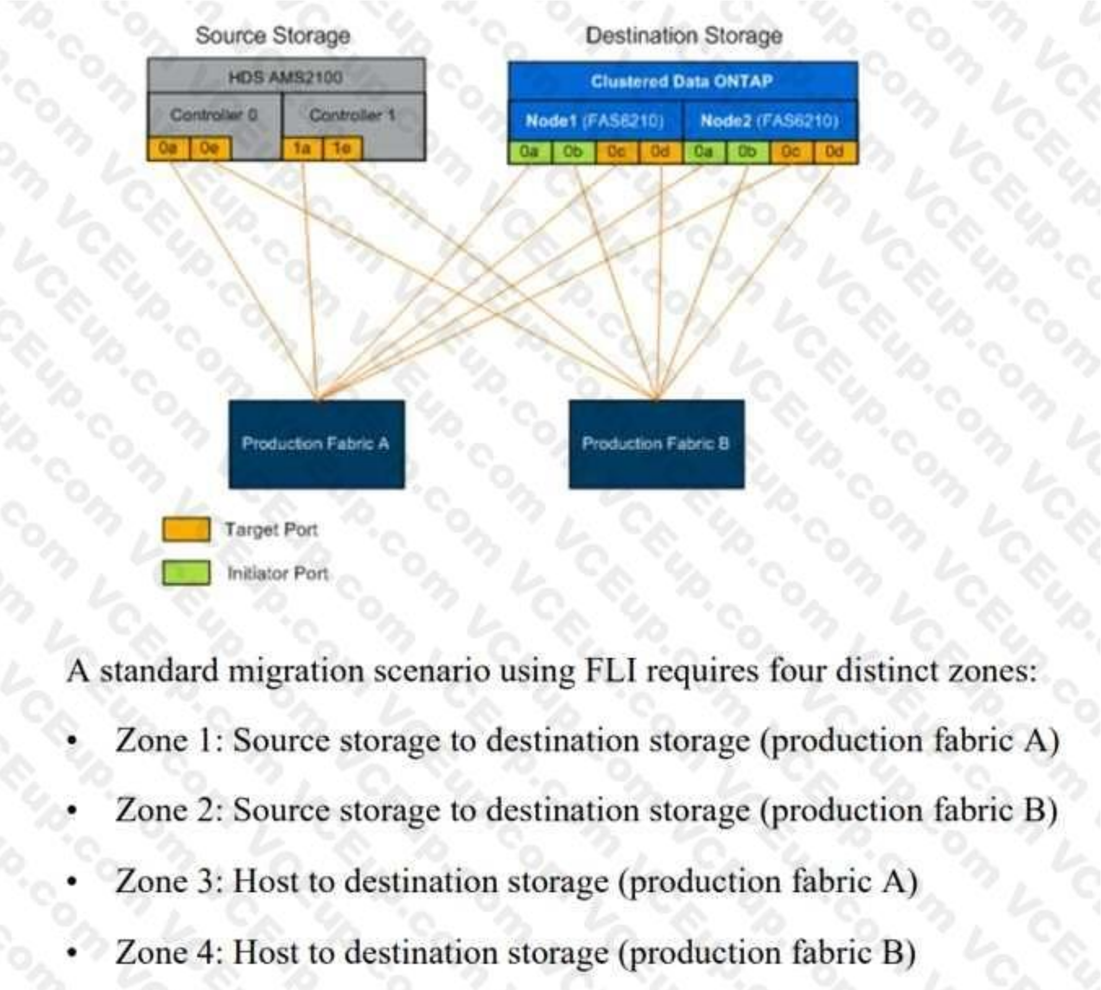
D. Convert a single FC port on each controller to an FC initiator port

E. Create zoning between the third-party array to the FAS8700

Answer: B, D, E

Explanation:

We only need to convert one FC to initiator per node, if you need to enable multipath with 2 switches, then you need 2 ports on initiator mode per node


Source Storage
HDS AMS2100
Controller 0
Controller 1
0a
0e
1a
1e
Destination Storage
Clustered Data ONTAP
Node1 (FAS6210)
Node2 (FAS6210)
0a
0b
0c
0d
0a
0b
0c
0d
Production Fabric A
Production Fabric B
Target Port
Initiator Port

A standard migration scenario using FLI requires four distinct zones:

- Zone 1: Source storage to destination storage (production fabric A)
- Zone 2: Source storage to destination storage (production fabric B)
- Zone 3: Host to destination storage (production fabric A)
- Zone 4: Host to destination storage (production fabric B)

https://manualzz.com/doc/24230310/san-migration-using-foreign-lun-import (10) (15)(16)

Question No: 213

You want to use ANA on SUSE Enterprise Linux. Which two components need to be verified in this scenario? (choose two)

A. Verify the version of ONTAP

B. Verify the version of SUSE Enterprise Linux

C. Verify that ALUA must be enabled

D. Verify that the ANA driver is installed

Answer: A, B

Explanation:

ANA Supportability

NVMe/FC is supported on ONTAP 9.6 or later for the following versions of SLES:

SLES15 SP1

SLES15 SP1 host can run both NVMe/FC, & FCP traffic through the same fibre channel initiator adapter ports.

You can find more information on this link:

https://docs.netapp.com/us-en/ontap-sanhost/nvme_sles15_sp1.html#supportability

Question No: 214

You are configuring a VMware sphere host for FC access to a Netapp ONTAP cluster. In this scenario, which two tasks does Netapp recommend performing on the Vsphere host? (choose two)

A. Set the queue depth on the host to 8

B. Update the HBA driver

C. Zone the host by using the host WWNNs

D. Use the Netapp Virtual Storage Console to configure the host settings

Answer: B, D

Explanation:

Zoning the host using WWNNs is not recommended. Netapp always recommends to use WWPN to zone correctly.

We can not stablish a queue depth value because we don't have the amount of ports and hosts to calculate the recommended queue depth Installing VSC and updating the HBA driver are best practices recommended by Netapp You can find more information on this link:

https://docs.netapp.com/ontap-9/index.jsp?topic=%2Fcom.netapp.doc.exp-iscsi-esx-cpg%2FGUIDC751F905-04B4-4DE6-ADC4-A47EA9076078.html

https://docs.netapp.com/ontap-9/topic/com.netapp.doc.exp-fc-esxcpg/FC%20express%20configuration%20for%20ESXi%20using%20VSC.pdf (page 7)

Question No: 215

An administrator has migrated an ISCSI LUN with Foreign LUN Import (FLI) tool. The migrated LUN is presented on the new system, but it is not visible to the host. In this scenario which additional action must be completed to make the LUN visible?

A. Bind the igroup to a port set

B. Install ANA software on the host

C. Stop the FCP service

D. Map the LUN to an ISCSI igroup

Answer: D

Explanation:

Installing ANA is related with NVMe protocol

Binding an igroup to a port set will only limit our paths

Stopping the FCP service will not affect at anything, because this is an ISCSI LUN When you migrate ISCSI using FLI, you need to map the LUNs to an igroup where the destination arrays is added, after the LUN has been imported, you can create a new iSCSI igroup and add the hosts to the igroup You can find more information on this link:

https://www.netapp.com/pdf.html?item=/media/17060-tr4380pdf.pdf (page 71)

Question No: 216

What are two benefits of implementing VLANs for ISCSI configuration? (choose two)

A. Reduced number of broadcast domains

B. Increased performance

C. Increased security

D. Increased resiliency

Answer: A, C

Explanation:

When you implement VLANs in large IP network infrastructures, you derive the following benefits:

Increased security.

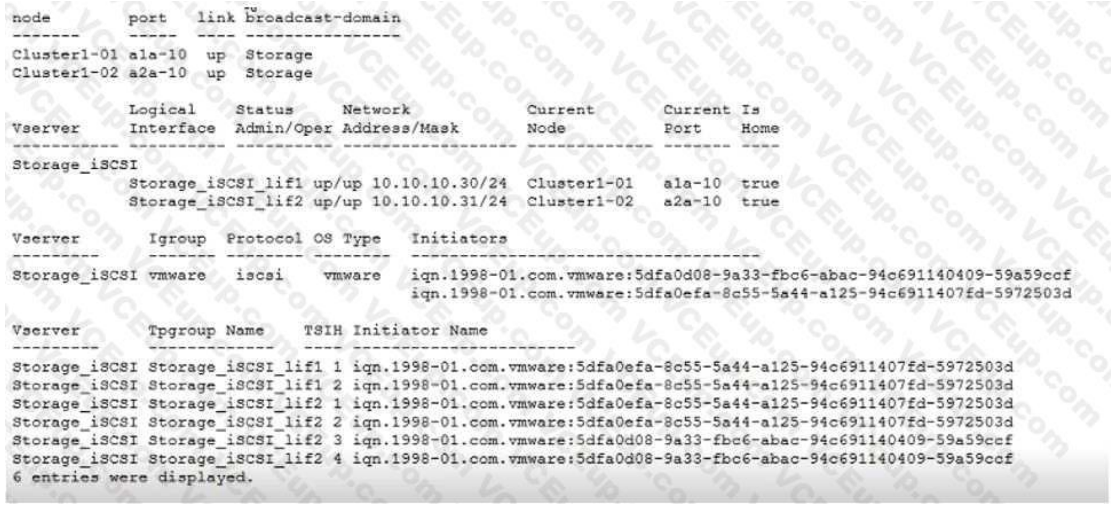
VLANs enable you to leverage existing infrastructure while still providing enhanced security because they limit access between different nodes of an Ethernet network or an IP SAN.

You can find more information on this link:

https://docs.netapp.com/ontap-9/index.jsp?topic=%2Fcom.netapp.doc.dot-cm-sanconf%2FGUIDC5288E55-DAED-4050-84A2-71BF13BC6556.html

Question No: 217

Referring to the exhibit, which two actions would you perform to ensure that each host has valid multipathing? (choose two)



```
node       port   link broadcast-domain
-------    -----  ---- ----------------
Cluster1-01 a1a-10  up  Storage
Cluster1-02 a2a-10  up  Storage

            Logical    Status     Network            Current      Current Is
Vserver     Interface  Admin/Oper Address/Mask       Node         Port    Home
----------- ---------- ---------- ------------------ ------------ ------- ----
Storage_iSCSI
            Storage_iSCSI_lif1 up/up 10.10.10.30/24  Cluster1-01   a1a-10  true
            Storage_iSCSI_lif2 up/up 10.10.10.31/24  Cluster1-02   a2a-10  true

Vserver       Igroup  Protocol OS Type   Initiators
---------     ------- -------- --------  -------------------------------------
Storage_iSCSI vmware   iscsi    vmware   iqn.1998-01.com.vmware:5dfa0d08-9a33-fbc6-abac-94c691140409-59a59ccf
                                         iqn.1998-01.com.vmware:5dfa0efa-8c55-5a44-a125-94c6911407fd-5972503d

Vserver       Tpgroup Name     TSIH Initiator Name
---------     -------------    ---- ----------------------
Storage_iSCSI Storage_iSCSI_lif1 1 iqn.1998-01.com.vmware:5dfa0efa-8c55-5a44-a125-94c6911407fd-5972503d
Storage_iSCSI Storage_iSCSI_lif1 2 iqn.1998-01.com.vmware:5dfa0efa-8c55-5a44-a125-94c6911407fd-5972503d
Storage_iSCSI Storage_iSCSI_lif2 1 iqn.1998-01.com.vmware:5dfa0efa-8c55-5a44-a125-94c6911407fd-5972503d
Storage_iSCSI Storage_iSCSI_lif2 2 iqn.1998-01.com.vmware:5dfa0efa-8c55-5a44-a125-94c6911407fd-5972503d
Storage_iSCSI Storage_iSCSI_lif2 3 iqn.1998-01.com.vmware:5dfa0d08-9a33-fbc6-abac-94c691140409-59a59ccf
Storage_iSCSI Storage_iSCSI_lif2 4 iqn.1998-01.com.vmware:5dfa0d08-9a33-fbc6-abac-94c691140409-59a59ccf
6 entries were displayed.
```

A. Verify that the VLANs are properly configured on the switches

B. Verify that the VLANs are properly configured on the ONTAP cluster

C. Verify that ALUA is enabled on the switches

D. Verify that ISCSI service is started on the ONTAP cluster

Answer: A, B

Explanation:

Iscsi is already started, we can not run those commands successfully if the protocol is not started ALUA is enabled on hosts, It is not enabled on switches VLANs are configured on the Netapp and switches, they need to be properly configured on both sides to work correctly You can find more information on this link:

https://docs.netapp.com/ontap-9/index.jsp?topic=%2Fcom.netapp.doc.dot-cm-nmg%2FGUID-52AE6E9C-13B6-49BA-B030-545C1C7647AC.html

Question No: 218

You are designing a new 4-node AFF A400 SAN cluster with 20 ISCSI hosts. Each AFF A400 node will have four data LIFs. Each ISCSI host needs to access every LUN over two LIFs per node on every SAN node.

In this scenario, which Netapp SAN feature enable this connectivity?

A. Port sets

B. HBA queue depth

C. Selective LUN mapping

D. Asymmetric namespace

Answer: A

Explanation:

SLM will choose 4 LIFs per node, being 8 LIF total (owner and HA partner), enabling portsets will help to limit the ports per node... that way we can stablish only 2 LIF per node.

Creating port sets and binding igroups to port sets

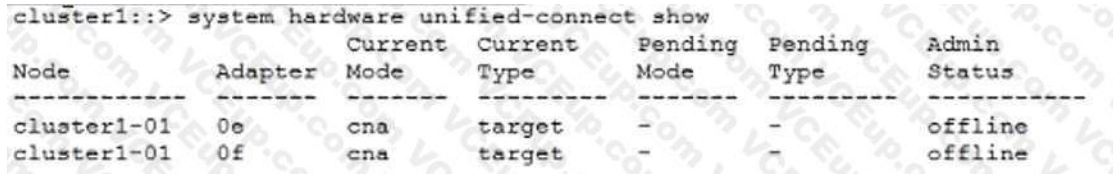
In addition to using Selective LUN Map (SLM), you can create a port set and bind the port set to an igroup to further limit which LIFs can be used by an initiator to access a LUN. If you do not bind a port set to an igroup, then all of the initiators in the igroup can access mapped LUNs through all of the LIFs on the node owning the LUN and the owning node's HA partner.

You can find more information on this link:

https://docs.netapp.com/ontap-9/index.jsp?topic=%2Fcom.netapp.doc.dot-cm-sanag%2FGUID-5CC27202-A43F-429F-AB13-C70E7CD58E09.html

Question No: 219

You install an ASA AFF A400 system with 32 GB FC SFP+ modules in port 0e and 0f. After creating the SVM and configuring the FCP protocol, the physical port stays offline. Referring to the exhibit which statement is correct?



```
cluster1::> system hardware unified-connect show
                     Current  Current    Pending  Pending    Admin
Node         Adapter Mode     Type       Mode     Type       Status
------------ ------- -------  ---------  -------  ---------  -----------
cluster1-01  0e      cna      target     -        -          offline
cluster1-01  0f      cna      target     -        -          offline
```

A. The current type of the ports must be configured as an initiator

B. The current mode to the ports must be configured as an FC port

C. The current mode for the ports must be set as an NVMe/FC port

D. The admin status is manually set to down

Answer: B

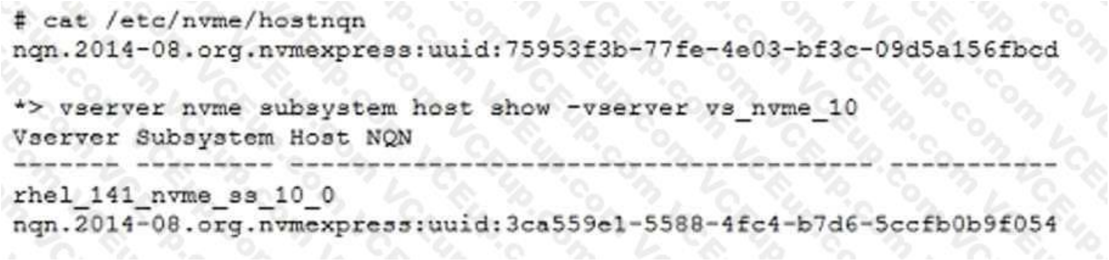
Explanation:

Before using your UTA ports on a FC infraestructure, you need to modify the current mode from CNA to FC. You need to set the ports offline before you modify that parameter.

You can find more information on this link: http://docs.netapp.com/ontap-9/index.jsp?topic=%2Fcom.netapp.doc.dot-cm-sanag%2FGUIDE2CD31BE- 28EC-468E-AF49-83A641575799.html

Question No: 220

In an NVMe/FC environment, the host cannot discover the namespace on the AFF system. Referring to the exhibit, what is the problem?



```
# cat /etc/nvme/hostnqn
nqn.2014-08.org.nvmexpress:uuid:75953f3b-77fe-4e03-bf3c-09d5a156fbcd

*> vserver nvme subsystem host show -vserver vs_nvme_10
Vserver Subsystem Host NQN
------- --------- ------------------------------------- -----------
rhel_141_nvme_ss_10_0
nqn.2014-08.org.nvmexpress:uuid:3ca559e1-5588-4fc4-b7d6-5ccfb0b9f054
```

A. The host MPIO drivers are not installed

B. NVMe is not supported on the FC adapter

C. The NQN is not correct

D. The NVMe service is not running on the SVM

Answer: C

Explanation:

We would not be able to run that command if NVMe is not enabled

NVMe is supported on the same SVM along with FC protocol

The multipath tool on NVMe is called ANA

NQN needs to be correctly declared on the subsystem to map the new NVMe resources

Question No: 221

You have an existing 8-node Netapp Cluster serving NFS data, and you want to expand your cluster by an additional four nodes to serve ISCSI. In this scenario, where would you validate this configuration?

A. Active IQ Upgrade Advisor

B. Interoperability Matrix Tool

C. SAN Administration Guide

D. Hardware Universe

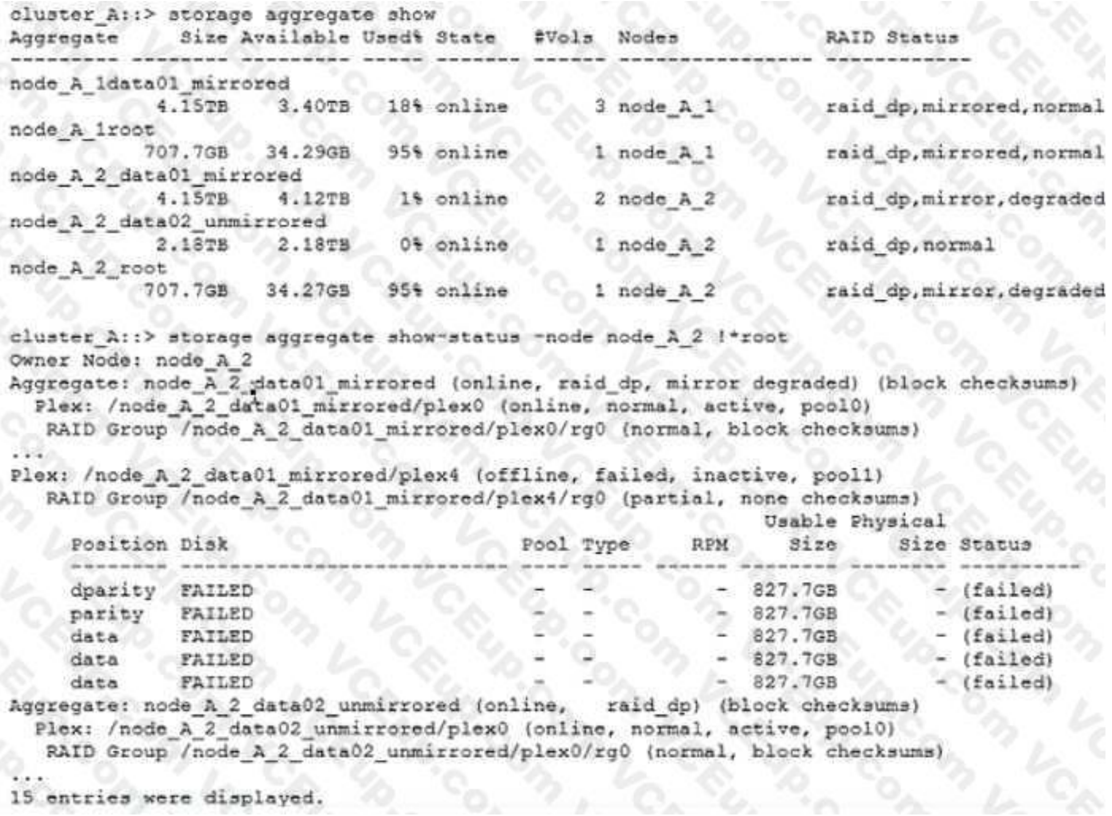
Answer: D

Explanation:

Hardware Universe shows how many nodes and which filers are compatible to mix between them

Question No: 222

After performing failover testing on a newly deployed MetroCluster configuration, some aggregates remain in a degraded state. Referring to the exhibit, which statement is true?



```
cluster_A::> storage aggregate show
Aggregate     Size Available Used% State   #Vols  Nodes            RAID Status
--------- -------- --------- ----- ------- ------ ---------------- ------------
node_A_1data01_mirrored
            4.15TB    3.40TB   18% online       3 node_A_1         raid_dp,mirrored,normal
node_A_1root
           707.7GB   34.29GB   95% online       1 node_A_1         raid_dp,mirrored,normal
node_A_2_data01_mirrored
            4.15TB    4.12TB    1% online       2 node_A_2         raid_dp,mirror,degraded
node_A_2_data02_unmirrored
            2.18TB    2.18TB    0% online       1 node_A_2         raid_dp,normal
node_A_2_root
           707.7GB   34.27GB   95% online       1 node_A_2         raid_dp,mirror,degraded

cluster_A::> storage aggregate show-status -node node_A_2 !*root
Owner Node: node_A_2
Aggregate: node_A_2_data01_mirrored (online, raid_dp, mirror degraded) (block checksums)
  Plex: /node_A_2_data01_mirrored/plex0 (online, normal, active, pool0)
   RAID Group /node_A_2_data01_mirrored/plex0/rg0 (normal, block checksums)
...
Plex: /node_A_2_data01_mirrored/plex4 (offline, failed, inactive, pool1)
   RAID Group /node_A_2_data01_mirrored/plex4/rg0 (partial, none checksums)
                                                         Usable Physical
     Position Disk                        Pool Type   RPM     Size     Size Status
     -------- --------------------------- ---- ----- ------ -------- -------- ----------
     dparity  FAILED                         -   -        -  827.7GB        - (failed)
     parity   FAILED                         -   -        -  827.7GB        - (failed)
     data     FAILED                         -   -        -  827.7GB        - (failed)
     data     FAILED                         -   -        -  827.7GB        - (failed)
     data     FAILED                         -   -        -  827.7GB        - (failed)
Aggregate: node_A_2_data02_unmirrored (online,   raid_dp) (block checksums)
  Plex: /node_A_2_data02_unmirrored/plex0 (online, normal, active, pool0)
   RAID Group /node_A_2_data02_unmirrored/plex0/rg0 (normal, block checksums)
...
15 entries were displayed.
```

A. The MetroCluster Tiebreaker software is misconfigured

B. The ONTAP Mediator service is misconfigured

C. A cluster switch is powered off

D. A disk shelf is powered off

Answer: D

Explanation:

The aggregate with drives on the powered-off shelf should have a degraded RAID status, and drives on the affected plex should have a failed status You can find more information on this link:

https://docs.netapp.com/us-en/ontap-metrocluster/installip/task_test_the_mcc_configuration.html#verifying-operation-after-loss-of-a-single-storage-shelf

Question No: 223

While changing the network connections on your ONTAP cluster from twinax to fiber, the ports experience network connectivity issues. You want to verify which speeds the ports support and ensure that you have supported transceivers. In this scenario which two actions would accomplish this task (choose two)

A. Use hardware universe to determine the supported transceivers

B. Use the interoperability matrix tool to determine the supported port speeds

C. Use hardware universe to determine the supported port speeds

D. Use the interoperability matrix tool to determine the supported transceivers

Answer: A, C

Explanation:

Hardware universe will show information about port speeds and transceiver compatbility You can find more information on this link:

https://hwu.netapp.com/Resources/hwu_ug.pdf (page 73)

Question No: 224

You are testing FCP paths failures on a 2-node Netapp AFF All SAN Array and verify that persistent ports are correctly enabled. Before testing, a host sees four optimized paths to a LUN. You perform a node takeover and re-check the host.

Which statement is true after the node takeover?

A. The host sees four optimized paths to the LUN

B. The host sees two non-optimized paths and two dead paths to the LUN

C. The host sees two optimized paths and two non-optimized paths to the LUN

D. The host sees two optimized paths and two dead paths to the LUN

Answer: A

Explanation:

Support for persistent ports

Beginning in ONTAP 9.8, persistent ports are enabled by default on All SAN Arrays (ASAs) that are configured to use the FC protocol. Persistent ports are only available for FC and require zone membership identified by World Wide Port Name (WWPN).

Persistent ports reduce the impact of takeovers by creating a shadow LIF on the corresponding physical port of the HA partner. When a node is taken over, the shadow LIF on the partner node assumes the identity of the original LIF, including the WWPNe. Before the status of path to the taken over node is changed to faulty, the shadow LIF appears as an Active/Optimized path to the host MPIO stack, and I/O is shifted. This reduces I/O disruption because the host always sees the same number of paths to the target, even during storage failover operations.

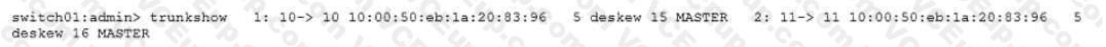
You can find more information on this link:

https://docs.netapp.com/allsan/index.jsp?topic=%2Fcom.netapp.doc.dot-asa-config%2FGUID-646B3CFD-9E00-491A-A02E-F1668C5C9DBA.html

Question No: 225

A storage administrator needs to ensure that an ONTAP FC LUN is accessible for a remote data center.

The ISL ports are reporting errors. The trunkshow command output from a Brocade switch is shown below.



```
switch01:admin> trunkshow   1: 10-> 10 10:00:50:eb:1a:20:83:96   5 deskew 15 MASTER   2: 11-> 11 10:00:50:eb:1a:20:83:96   5
deskew 16 MASTER
```

A. Set the ISL ports as FL_Ports

B. Set the ISL ports as N_Ports

C. Set the ISL ports as F_Ports

D. Set the ISL ports as E_Ports

Answer: D

Explanation:

On each switch fabric, you must configure the switch ports that connect the Inter-Switch Link (ISL).

These ISL ports are otherwise known as the E-ports.

You can find more information on this link:

https://library.netapp.com/ecmdocs/ECMP1636017/html/GUID-B2BBB025-02A9-442C-9910-00FEF253CE52.html

Question No: 226

You upgraded your Linux hosts to SUSE Enterprise Linux 15. In this scenario, which two actions should you perform before you test asymmetric namespace access (ANA)? (Choose two)

A. Verify if the NVMe service has started

B. Verify if the LUNs and namespaces are in the same volume.

C. Verify if the version of Netapp ONTAP software is 9.5 or later

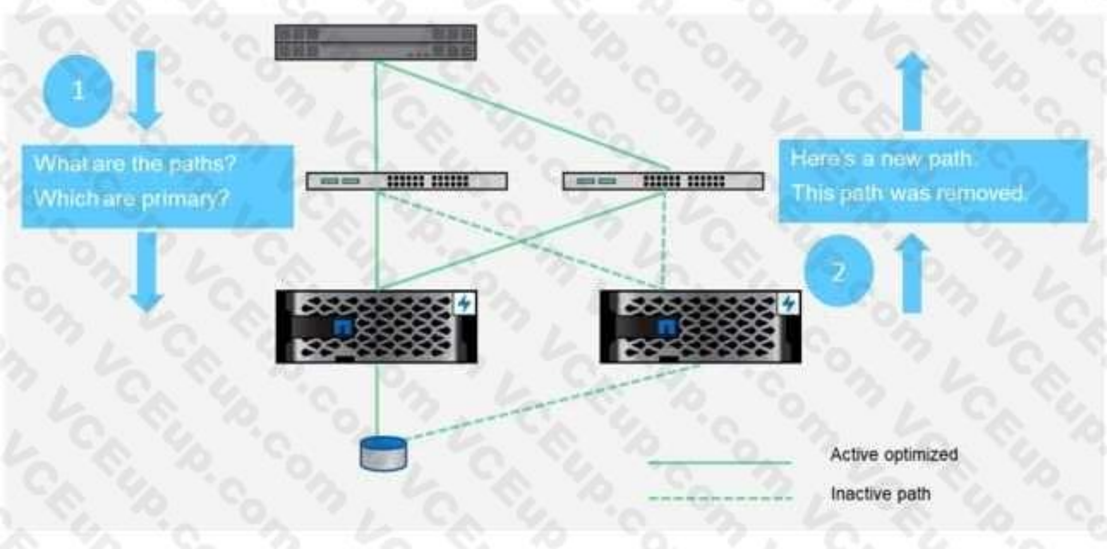
D. Verify if there is only one LIF in the SVM

Answer: A, C

Explanation:

ONTAP 9.5 Introduces ANA

Figure 12) NVMe/FC Storage Failover: ONTAP 9.5 introduces ANA.



https://www.netapp.com/de/media/10681-tr4684.pdf

Question No: 227

You want to move a SAN LIF and preserve its configuration information and avoid rezoning the switch fabric. In this scenario, which two steps must be performed to fulfill this goal? (Choose two)

A. Move the SAN LIF to another node in a cluster on a different storage virtual machine (SVMs)

B. Keep the SAN LIF online before it is moved

C. Take the SAN LIF offline before it is moved

D. Move the SAN LIF to another node in a cluster on existing storage virtual machine (SVMs)

Answer: C, D

Explanation:

Moving SAN LIFs

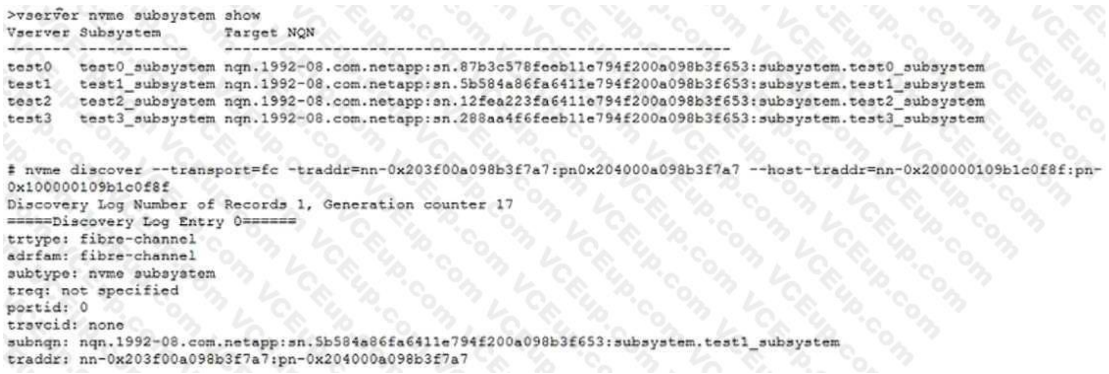
If a node needs to be taken offline, you can move a SAN LIF to preserve its configuration information, such as its WWPN, and avoid rezoning the switch fabric. Because a SAN LIF must be taken offline before it is moved, host traffic must rely on host multipathing software to provide nondisruptive access to the LUN. You can move SAN LIFs to any node in a cluster, but you cannot move the SAN LIFs between storage virtual machines (SVMs).

Yoy can find more information on this link:

https://docs.netapp.com/ontap-9/index.jsp?topic=%2Fcom.netapp.doc.dot-cm-sanag%2FGUID-09F5C2A3-FA66-4252-BEEF-D556A143CD30.html

Question No: 228

During testing, an administrator notices that the wrong subsystem was returned using the NVMe discover command. The administrator was expecting test0_subsystem as the subsystem Referring to the exhibit, what would cause the discrepancy?



```
>vserver nvme subsystem show
Vserver Subsystem        Target NQN
------- ------------     --------------------------------------------------------
test0   test0_subsystem nqn.1992-08.com.netapp:sn.87b3c578feeb11e794f200a098b3f653:subsystem.test0_subsystem
test1   test1_subsystem nqn.1992-08.com.netapp:sn.5b584a86fa6411e794f200a098b3f653:subsystem.test1_subsystem
test2   test2_subsystem nqn.1992-08.com.netapp:sn.12fea223fa6411e794f200a098b3f653:subsystem.test2_subsystem
test3   test3_subsystem nqn.1992-08.com.netapp:sn.288aa4f6feeb11e794f200a098b3f653:subsystem.test3_subsystem


# nvme discover --transport=fc -traddr=nn-0x203f00a098b3f7a7:pn0x204000a098b3f7a7 --host-traddr=nn-0x200000109b1c0f8f:pn-
0x100000109b1c0f8f
Discovery Log Number of Records 1, Generation counter 17
=====Discovery Log Entry 0======
trtype: fibre-channel
adrfam: fibre-channel
subtype: nvme subsystem
treq: not specified
portid: 0
trsvcid: none
subnqn: nqn.1992-08.com.netapp:sn.5b584a86fa6411e794f200a098b3f653:subsystem.test1_subsystem
traddr: nn-0x203f00a098b3f7a7:pn-0x204000a098b3f7a7
```

A. The wrong NQN was mapped to the subsystem

B. The wrong WWPN was used in the discovery command

C. Asymmetric Namespace Access (ANA) was not properly configured

D. The NVMe was not configured on the test0 SVM

Answer: A

Explanation:

We can discard that ANA was not properly configured becase this is not a problem about multipathing.

We can discard WWPN because this is an NVMe configuration where WWPN is not involved We can discard that NVMe was not configured because we wouldn't be able to even run that command if that's true Configure the NQN correctly is one of the steps when we configure NVMe You can find more information on this link: http://senthil-it-infrastructure.blogspot.com/2020/05/netapp-ontap-97-nvme-configurationand. html

Question No: 229

You have an 8-node AFF A400 ONTAP 9.8 cluster that is serving FC and ISCSI LUNs. You have three SVMs for FC and one SVM for ISCSI, each for separate VMware VSphere clusters. The VMware clusters are on separate, non-routable, networks. You are asked to set up SnapCenter software for backups of the Virtual machine datastores. What is the minimum management LIF count that is needed to satisfy this requirement?

A. four

B. one

C. eight

D. two

Answer: A

Explanation:

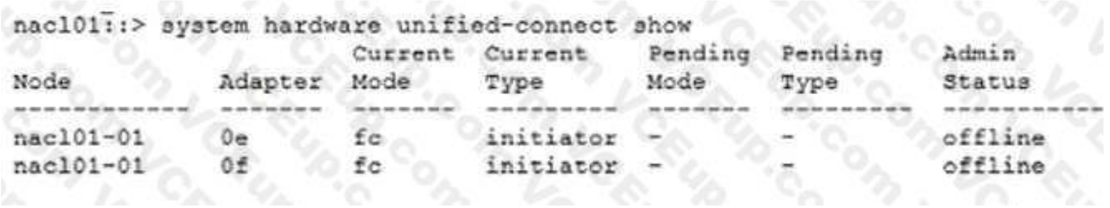
You need to configure an SVM management LIF to link it with snapcenter... every SVM will need 1 management LIF minimun and we have 4 SVM You can find more information on this link:

https://docs.netapp.com/ocsc-44/index.jsp?topic=%2Fcom.netapp.doc.ocsc-isg%2FGUID-5B2FB84B-91E9-4307-92DF-9B5B1E98A000.html

Question No: 230

Your customer asks you to configure a newly installed FAS8300 for an FC host connection.

Referring to the exhibit, which step accomplishes this task?



```
nacl01::> system hardware unified-connect show
                        Current  Current    Pending  Pending    Admin
Node          Adapter   Mode     Type       Mode     Type       Status
------------  -------   -------  ---------  -------  ---------  -----------
nacl01-01     0e        fc       initiator  -        -          offline
nacl01-01     0f        fc       initiator  -        -          offline
```

A. Configure the ports 0e and 0f as a mode of CNA

B. Configure the ports 0e and 0f as type of target

C. Configure the ports 0e and 0f as status admin up

D. Configure the ports 0e and 0f as status admin down

Answer: B

Explanation:

To change the port type from initiator to target you need to take the port offline The ports need to be on target mode to present LUNs to the hosts.

You can find more information on this link:

https://docs.netapp.com/ontap-9/index.jsp?topic=%2Fcom.netapp.doc.dot-cm-sanag%2FGUID-193C6818-EDBA-4159-A7C8-42D6844A6314.html

Question No: 231

A database administrator needs to ensure that snapshot copies of database files across multiple LUNs are taken at the same point in time. Which action achieves this outcome?

A. Create each LUN within the same FlexVol volume

B. Create each LUN on the same Fabric Pool aggregate

C. Add each LUN volume to the same snapshot schedule

D. Create each LUN within the same FlexGroup Volume

Answer: A

Explanation:

We can discard Flexgroup because it only works on NAS Protocols.

We can discard LUNs and Aggregates because snapshots are not taken at that level Snapshots are taken at volume level You can find more information on this link:

https://community.netapp.com/t5/ONTAP-Discussions/can-we-creat-multiple-luns-from-samevolume-on-AFF300/m-p/153049#M34153

Question No: 232

Your customer asks you how to connect a host for SAN access to the newly installed AFF A400 system. In this scenario, which two statements are correct? (choose two)

A. Direct Connection to the nodes from the hosts with ISCSI is supported

B. Direct Connection to the nodes from the hosts with ISCSI is not supported

C. Direct Connection to the nodes from the hosts with FC is not supported

D. Direct Connection to the nodes from the hosts with FC is supported

Answer: A, C

Explanation:

ISCSI-Direct-attachment: In a direct-attached configuration, one or more hosts are directly connected to the controllers.

You cannot directly attach FC or FC-NMVE SAN hosts to single nodes without using an FC switch.

You can find more information on this link:

https://docs.netapp.com/ontap-9/index.jsp?topic=%2Fcom.netapp.doc.dot-cm-sanconf%2FGUID-193CC377-5C6F-4D3C-B42E-CE71AB6AA77F.html

Question No: 233

You are configuring a FAS8300 HA pair running ONTAP 9.8 with two hosts that requires SAN LUNs.

The cluster is in a secure data center without switches. In this scenario, which block protocol is supported on the hosts?

A. FCP

B. ISCSI

C. FCoE

D. NVMe

Answer: B

Explanation:

Direct-attachment

In a direct-attached configuration, one or more hosts are directly connected to the controllers.

You can find more information on this link:

https://docs.netapp.com/ontap-9/index.jsp?topic=%2Fcom.netapp.doc.dot-cm-sanconf%2FGUID-193CC377-5C6F-4D3C-B42E-CE71AB6AA77F.html

Question No: 234

You have finished deploying a Netapp AFF All SAN Array Cluster and want to test the persistent ports feature. In this scenario, how would you accomplish this task?

A. Perform a takeover of a node

B. Disconnect an FCP initiator port

C. Disconnect an FCP target port

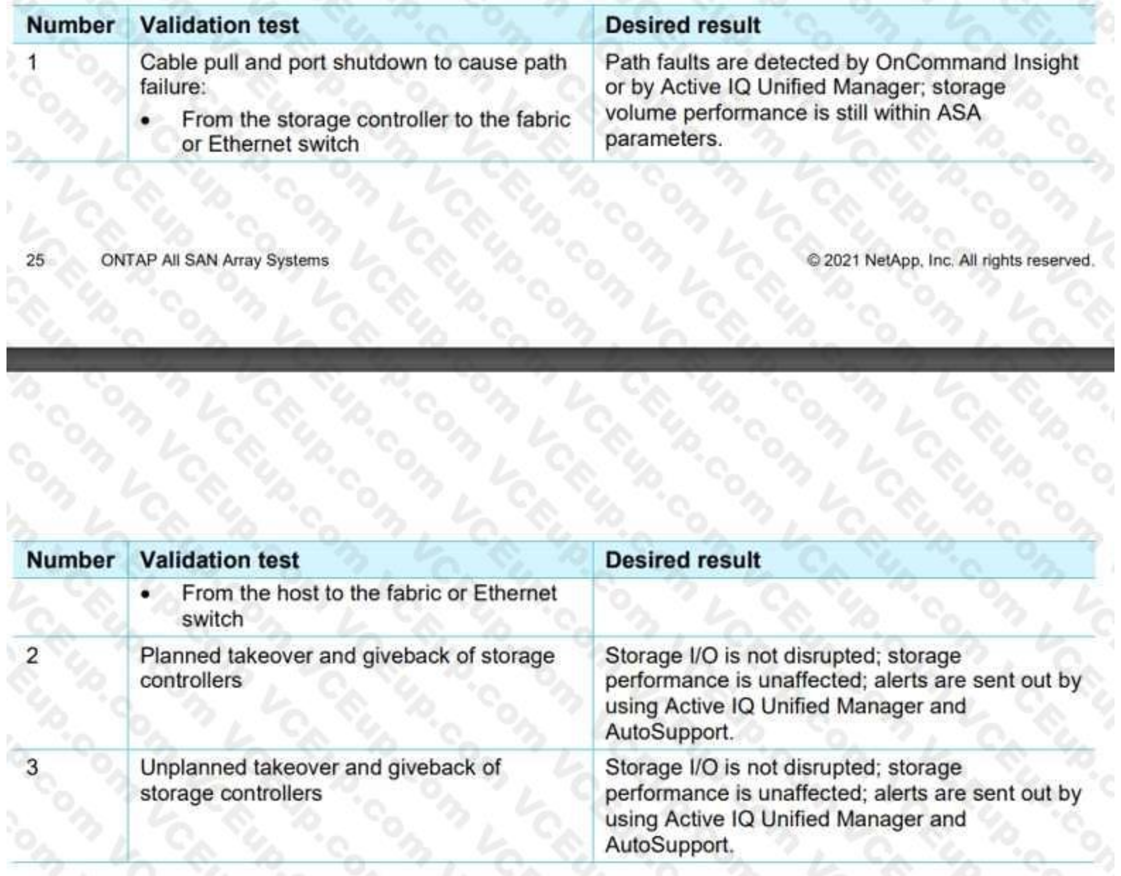
D. Disable a SAN LIF

Answer: A

Explanation:

If we don't have OnCommand Insight, then we should not pull out a cable as test because it won't be detected properly.

Doing a planned takeover will meet the requirements asked.



Number	Validation test	Desired result
1	Cable pull and port shutdown to cause path failure: • From the storage controller to the fabric or Ethernet switch • From the host to the fabric or Ethernet switch	Path faults are detected by OnCommand Insight or by Active IQ Unified Manager; storage volume performance is still within ASA parameters.
2	Planned takeover and giveback of storage controllers	Storage I/O is not disrupted; storage performance is unaffected; alerts are sent out by using Active IQ Unified Manager and AutoSupport.
3	Unplanned takeover and giveback of storage controllers	Storage I/O is not disrupted; storage performance is unaffected; alerts are sent out by using Active IQ Unified Manager and AutoSupport.

25 ONTAP All SAN Array Systems © 2021 NetApp, Inc. All rights reserved.

You can find more information on this link:

https://www.netapp.com/pdf.html?item=/media/10379-tr4515.pdf&v=20217121554 (26)