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Exam Name: NetApp Certified Storage Installation Engineer, Clustered Data ONTAP

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QUESTION 1

You want to create a data volume on aggr0 and you receive a message with the following warning:

"Warning: You are about to create a volume on a root aggregate. This may cause severe performance or stability problems and therefore is not recommended. Do you want to proceed?"

What is the reason for this severe performance or stability problem?

- A. Controller failover and storage failover are separate processes that must occur in parallel, otherwise problems will arise.
- B. The performance load generated by the data volume can be very strong, so it should not be shared with vol0 on aggr0, requiring a separate aggregate for it.
- C. The performance load generated by the vol0 cannot be shared with any other volume on aggr0, requiring a dedicated aggregate for it.
- D. Controller failover and storage failover are separate processes that must occur at different times, otherwise problems will arise.

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

One possible cause is Disk I/O contention on the data volume.

The root volume in Cluster-Mode is used to store and update various tables of the replicated database. Crucial information regarding the locations of LIFs, volumes, aggregates, and different jobs required to run in the cluster are stored in these tables. If a root aggregate has very busy data volumes, the disks in the aggregate will experience higher latency. When a node is unable to update its copy of the replicated database fast enough, it will consider itself unhealthy and stop serving all the data until it can catch up. This is extremely disruptive and affects all the volumes on the node, even if the cause is related to the data volumes stored on the root aggregate only.

Reference: Why is a warning displayed when attempting to create one or more data volumes in the root aggregate in Data ONTAP Cluster-Mode?

https://kb.netaPD.com/support/index?id=3013563&Daae=content&locale=en_US

QUESTION 2

You have completed a clustered Data ONTAP installation for a new customer. You are now ready to hand off the system to the customer. Which three actions should you take at this stage in the installation process? (Choose three.)

- A. Show the customer how to open a case with NetApp Support.
- B. Demonstrate System Manager and its functionality.
- C. Tell the customer to call their sales representative if there are further questions.
- D. Tell the customer you are finished and then leave the site.

E. Show the customer how to set up a support account.

Correct Answer: ABE

Section: (none)

Explanation

Explanation/Reference:

QUESTION 3

What happens to the NTP configuration in clustered Data ONTAP 8.3 when a node joins a cluster?

- A. A node that joins a cluster has a separate NTP service.
- B. A node that joins a cluster automatically adopts the NTP configuration of the cluster.
- C. A node that joins a cluster must be manually configured in the NTP.
- D. A node that joins a cluster must reboot before running the NTP service.

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

A node that joins a cluster automatically adopts the NTP configuration of the cluster.

Reference: How to configure and troubleshoot NTP on clustered Data ONTAP 8.2 and later using CLI

https://kb.netapp.com/support/index?page=content&id=I_014787



QUESTION 4

You are assigned to install five DS2246 with twenty-four 400 GB SSDs per shelf to a single node system. According to the NetApp, which statement is correct?

- A. You cannot install five SSD shelves to one System.
- B. You need at least two stacks,
- C. You need at least three stacks.
- D. You can put all shelves in one stack.

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

Up to 10 shelves are supported per stack for the DS2246, so one stack is enough as we only have five shelves (DS2246s).

Reference: Making the Move from FC to SAS Storage
<http://www.netapp.com/as/communities/tech-ontap/tot-fc-sas-1101-as.aspx>

QUESTION 5

Which three types of interface groups are supported on NetApp storage systems? (Choose three.)

- A. single mode
- B. HA interconnect
- C. IPspaces
- D. static multimode
- E. dynamic multimode

Correct Answer: ADE

Section: (none)

Explanation

Explanation/Reference:

You can create three different types of interface groups on your storage system: single-mode, static multimode, and dynamic multimode interface groups

Reference: Types of interface groups

<https://librarv.netaPD.com/ecmdocs/ECMPri96907/html/GUID-EFA72201-E035-41-E2-AC53-CD81A472B5ED.html>

QUESTION 6

You have just configured the customer's first SVM with a LIF IP 10.0.0.10/24. The customer's DNS IP address is 172.16.0.250 and you are unable to ping it from the NetApp storage system, but you are able to ping the gateway and everything else works. In this scenario what is the problem?

- A. You need to have the DNS server on the same subnet as the LIF IP address.
- B. You need to add a static gateway to the LIFs routing group.
- C. You need to have the customer check the cable.
- D. You need to add an IPspace and domain broadcast to the port.

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

A broadcast domain resides in an IPspace, and it contains a group of network ports, potentially from many nodes in the cluster, that belong to the same layer 2 network.

The ports in the group are used in an SVM for data traffic.

Reference: Clustered Data ONTAP 8.3, Network Management Guide, page 8

QUESTION 7

You are installing a 4-node cluster with two CN1610 switches. Your co-worker is setting up the switches, but accidentally deletes the current configuration.

According to NetApp, what is the recommended way to restore the configuration?

- A. Install only one switch.
- B. Manually configure the ports as they are designated in the CN 1601 and CN 1610 Switch Setup and Configuration Guide.
- C. Reload the same reference file to the switch.
- D. Copy the configuration from a switch that is working.

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

You re-create the cluster using the cluster configuration that you chose and made available to the recovering node, and then rejoin each additional node to the new cluster.

You should only perform this task to recover from a disaster that resulted in the loss of the cluster's configuration.

Steps

1. On the recovering node, use the system configuration recovery cluster recreate command at the advanced privilege level to re-create the cluster.
2. Use the cluster identity show command to verify that the recovering node has a different UUID than the other nodes.
3. For each node that needs to be joined to the re-created cluster, do the following:

3a. From a healthy node on the re-created cluster, use the system configuration recovery cluster rejoin command at the advanced privilege level to rejoin the target node to the cluster.

Example

This example rejoins the target node (node2) to the re-created cluster,
cluster1 ::*> system configuration recovery cluster rejoin -node node2

Warning: This command will rejoin node "node2" into the local cluster, potentially overwriting critical cluster configuration files. This command should only be used to

recover from a disaster. Do not perform any other recovery operations while this operation is in progress.

This command will cause node "node2" to reboot.

Do you want to continue? {y|n}: y

The target node reboots and then joins the cluster.

3b. Use the cluster show command with the -eligibility parameter to verify that the target node is healthy and has formed quorum with the rest of the nodes in the cluster.

The target node must rejoin the re-created cluster before you can rejoin another node.

Reference: Restoring a cluster configuration from an existing configuration

<https://librarv.netaDD.com/ecmdocs/ECMP1196798/html/GUID-9C4E7746-7FCA-4966-B6F1-D353B07F1494.html>

QUESTION 8

Which switch vendor is supported for the cluster network switches?

- A. Juniper Networks
- B. Cisco
- C. Brocade
- D. Hewlett-Packard

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

Cisco Nexus 50x0 switches can be deployed as NetApp cluster network switches.

Reference: How to setup and configure the Cluster Network Switch

https://kb.netaDp.com/suDPort/index?paae=content&id=1Q12684&locale=en_US

QUESTION 9

According to NetApp, which two scenarios are recommended for a RAID-DP aggregate in clustered Data ONTAP 8.3? (Choose two.)

- A. three or more disks if it is a data aggregate
- B. three or more disks if it is a root aggregate
- C. two or more disks if it is a root aggregate
- D. five or more disks if it is a data aggregate



Correct Answer: BD

Section: (none)

Explanation

Explanation/Reference:

The minimum number of disks in a RAID-DP group is three: at least one data disk, one regular parity disk, and one double-parity (dParity) disk.

However, for non-root

aggregates with only one RAID group, you must have at least 5 disks (three data disks and two parity disks).

Reference: Clustered Data ONTAP 8.3, Physical Storage Management Guide, page 108

https://librarv.netapp.com/ecm/ecm_download_file/ECMP1636022

QUESTION 10

Regarding clustered Data ONTAP 8.3, what happens to the roles of the on board ports, HBAs, and NICs?

- A. These roles are assigned when LIFs are created.
- B. These roles are assigned based on the controller type.

- C. These roles are predefined and must be changed before creating your LIFs.
- D. The roles are divided into two categories: Data Management and Node Management.

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

In earlier releases of Data ONTAP, default roles were assigned to each Ethernet network port. The roles included data, cluster, cluster management, intercluster, and node management. In Data ONTAP 8.3, these roles are assigned when LIFs are created.
Reference: Clustered Data ONTAP 8.3, Network Management Guide, page 7

QUESTION 11

What is the next step if you must escalate an open case?

- A. Upload the support case and core data files to NetApp Support and to Engineering.
- B. Clustered Data ONTAP triggers the AutoSupport mechanism automatically again.
- C. Call NetApp Support and ask to speak to the duty manager.
- D. Call NetApp Support and open a new case.

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

If at anytime you wish to have your case escalated please call the TSC Hotline number and ask to speak to the duty manager.
Reference: Technical Support Escalation and Priority Definitions
<https://mvsupport.netapp.com/info/web/ECMP1132185.html>

QUESTION 12

You want to install a new clustered Data ONTAP 8.3 system with a FA8080. The customer has unused licenses available from a clustered Data ONTAP 8.1 system
What should be considered in this scenario?

- A. You can use your licenses from the clustered Data ONTAP 8.1 system for the new clustered Data ONTAP system.
- B. You must call NetApp Support for evaluation license keys.
- C. You can use your license from the clustered Data ONTAP 8.1 system for about 90 days.
- D. In clustered Data ONTAP 8.2 and later, use node-specific license keys that will only install on the controller for which they were purchased.

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

Any clean installation of Data ONTAP requires version-appropriate license keys for the Data ONTAP version and mode being deployed. Current policies require a valid

support case to provide new license keys for Data ONTAP versions other than the version originally purchased.

Reference: Data ONTAP 8.2 and 8.3 Licensing Overview and References

<https://kb.netapp.com/support/index?paae=content&id=3013749>

QUESTION 13

After proper cabling the NetApp CN1610 cluster switches, you notice that joining the second node to a cluster fails because the node is not able to communicate with the other node.

What would be the reason for this malfunction?

- A. CN 1610 is unsupported in newer clustered Data ONTAP versions.
- B. The NTP server is not set.
- C. The FASTPATH version is not supported.
- D. The cluster switches must be Cisco switches for two or more nodes in a cluster.

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

Before you set up NetApp CN 1610 cluster switches verify that you have the appropriate FASTPATH firmware and reference configuration file (RCF) versions for your version of Data ONTAP.

Incorrect:

Not A, Not B,C: NetApp CN 1610 will work fine. If you have an existing two-node switchless cluster environment, you can migrate to a two-node switched-cluster

environment using CN 1610 cluster network switches.

Reference: Clustered Data ONTAP Switch Setup and Configuration Guide, page 15

<http://www-01.ibm.com/support/docview.wss?uid=ssa1S7004655&aid=1>

QUESTION 14

Click the Exhibit button.

Question **Exhibit**

Cluster Node

Hostname (or IP)

Username

Password

Choose clustered Data ONTAP Switch

Cisco NX50 10/5020/5596/5596T NetApp CN 16 10/CN160 1 Switchless

Enable Cluster Switch Checks

Cluster Switch 1

Switch Name (or IP)

Username

Password

Cluster Switch 2

Switch Name (or IP)

Username

Password

Enable Management Switch Checks

Management Switch 1

Switch Name (or IP)

Management Switch 2

Switch Name (or IP)

You are asked to install a 6-node cluster running clustered Data ONTAP 8.3 using Cisco switches. The customer has installed Config Advisor on a PC on their network and has asked you to help them collect data. Referring to the exhibit, which three parameters should be selected? (Choose three.)

- A. Enable management switch connections

- B. Switchless
- C. Enable cluster switch connections
- D. Cisco NX5010/NX5020/5596/5596T
- E. NetApp CN1610/CN1601

Correct Answer: ADE

Section: (none)

Explanation

Explanation/Reference:

In the clustered Data ONTAP profile, you can choose any one of the following (based on the network switch used):

*Cisco NX5010/5020/5596 (Cisco switches is used in this question)

*NetApp CN1610/CN1601

To verify clustered configurations, you should ensure the following:

*The data is collected from cluster switches, management switches, and a controller.

Etc.

Reference: Config Advisor 3.2. Installation and Administration Guide, page 21

QUESTION 15

Multiple customers want to access a cluster from different domains that may contain duplicate IP addresses. In this situation, which feature should you use?

- A. IPspaces
- B. interface groups
- C. VLAN
- D. logical interfaces

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

IPspaces enable you to configure a single Data ONTAP cluster so that it can be accessed by clients from more than one administratively separate network domain, even

if those clients are using the same IP address subnet range

Reference: Clustered Data ONTAP 8.3, Network Management Guide, page 32

QUESTION 16

What is LIF?

- A. a logical internet file
- B. a logical inventory file
- C. a logical interaction file
- D. a logical interface

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

A LIF (logical interface) is an IP address or WWPN with associated characteristics, such as a role, a home port, a home node, a list of ports to fail over to, and a firewall

policy. You can configure LIFs on ports over which the cluster sends and receives communications over the network.

Reference: Clustered Data ONTAP 8.3, Network Management Guide, page 54

QUESTION 17

You are adding nodes to an existing cluster.

In this scenario, which three statements are correct? (Choose three.)

- A. If you are adding a second node to a single-node cluster, the second node must have been installed, but the cluster network can be configured later.
- B. You must add a cluster switch for every two nodes.
- C. If you are adding nodes to a multiple-node cluster, more than half of the existing nodes in the cluster must be healthy.
- D. The switchless cluster functionality is supported only in a single or two-node cluster.
- E. If you are adding nodes to a two-node switchless cluster, you must have installed and configured the cluster management and interconnect switches before adding additional nodes.

Correct Answer: BCE

Section: (none)

Explanation

Explanation/Reference:

C: If you are adding nodes to a multiple-node cluster, more than half of the existing nodes in the cluster must be healthy (indicated by cluster show).

E: If you are adding nodes to a two-node switchless cluster, you must have installed and configured the cluster management and interconnect switches before adding

additional nodes.

Incorrect:

not A: If you are adding a second node to a single-node cluster, the second node must be installed, and the cluster network must be configured.

Not D: The switchless cluster functionality is supported only in a two-node cluster.

Reference: Adding nodes to the cluster

<https://librarv.netapp.com/ecmdocs/ECMP1636037/html/GUID-B13FF812-785E-4E62-9914-30E7A8F51A4C.html>

QUESTION 18

You have completed the installation of a 4-node cluster. The customer did not purchase management switches and will not allow your laptop on the network

In this situation, what are two valid procedures that will allow you to collect the Config Advisor output? (Choose two.)

- A. Bring a switch that allows you to connect your laptop to all the switches and controllers.
- B. Connect to a single controller in the cluster since it can run commands on every node.
- C. Ask the customer to install and run Config Advisor on one of their PCs on the network.
- D. Connect four USB serial cables to your laptop to allow you to connect to all four controllers.

Correct Answer: BC

Section: (none)

Explanation

Explanation/Reference:

QUESTION 19

You will be performing a new cluster Data ONTAP 8.3 or later installation.

Which three tools would you download to facilitate this task? (Choose three.)

- A. Config Advisor
- B. Cluster Config Builder
- C. OnCommand System Manager
- D. System Setup tool
- E. SLDIAG tool

Correct Answer: ACD

Section: (none)

Explanation

Explanation/Reference:

D: After installing the hardware, you should use System Setup whenever possible to set up the cluster.

C: After setting up the cluster, you can use either OnCommand System Manager or the Data ONTAP CLI to continue configuring the cluster

A: You can go to the NetApp Support Site and download the Config Advisor tool to check for common configuration errors.

Reference: Clustered Data ONTAP 8.3, Software Setup Guide, page 4, page 22

Reference: Clustered Data ONTAP 8.3, MetroCluster Installation and Configuration Guide, page 137

QUESTION 20

Click the Exhibit button.

```
clustered-ONTAP: :=> vserver show
Admin Root Name Name
Vserver Type State Volume Aggregate Service Mapping

CIFS data running rootvol aggr1_n1 file file
clustered-ONTAP
admin - - - - -
clustered-ONTAP-01
node - - - - -
clustered-ONTAP-02
node - - - - -
iSCSI data running rootvol aggr1_n1 file file
5 entries were displayed.

clustered-ONTAP: :=> vserver services web modify -vserver CIFS -name spi -ena

Error: command failed: entry doesn't exist
```

Customer wants to modify the properties of their SPI Web services as shown in the exhibit. What is the reason for the error?

- A. The customer is trying to modify a service by specifying the wrong type of SVM (Vserver).
- B. The customer is trying to modify a service that does not exist.
- C. The customer is trying to modify a service by specifying the wrong service name.
- D. The customer is trying to modify a service by specifying incomplete parameters.

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

QUESTION 21

You are asked to install a cluster that consists of two FAS8060 controllers and four DS2246 shelves. The customer wants two stacks of shelves (10-11 and 20-21).

According to NetApp, how many SAS cables are required to complete this installation with MPHA?

- A. 10 SAS cables
- B. 12 SAS cables
- C. 8 SAS cables

D. 6 SAS cables

Correct Answer: C

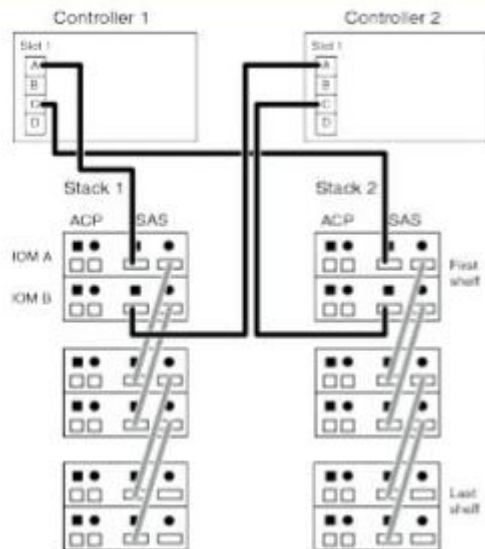
Section: (none)

Explanation

Explanation/Reference:

Example (with two controllers and six shelves which uses 12 SAS cables):

Multipath HA configuration:



Reference: SAS Disk Shelves, Universal SAS and ACP Cabling Guide, page 10
https://library.netapp.com/ecnn/ecnn_Get_file/ECMM128Q392

QUESTION 22

What is a protocol?

- A. SnapRestore
- B. CIFS
- C. SnapMirror/SnapVault
- D. FlexClone

Correct Answer: B

Section: (none)

Explanation**Explanation/Reference:**

The Common Internet File System (CIFS) is protocol which is the standard way that computer users share files across corporate intranets and the Internet

Incorrect:

Not D: FlexClone is a technology to make fast, space-efficient copies of flexible volumes (FlexVol volumes) and LUNs.

Reference: Common Internet File System - TechNet

<https://technet.microsoft.com/en-us/library/cc939973.aspx>

QUESTION 23

According to NetApp best practices, which two sets of protocols would be assigned to the same storage virtual machine (SVM)? (Choose two.)

- A. FCP, NFS
- B. CIFS, iSCSI
- C. NFS, CIFS
- D. FCP, iSCSI

Correct Answer: C

Section: (none)

Explanation

**Explanation/Reference:**

For Storage Virtual Machines (SVMs) that are accessible from multiple protocols, such as CIFS and NFS, you can use DNS load balancing and automatic LIF rebalancing simultaneously.

Reference: Clustered Data ONTAP 8.3, Network Management Guide, page 96

QUESTION 24

Your customer received an HA pair of FAS8040 nodes with two half-populated disk shelves which they want to add to their cluster. When you arrive to add the nodes to

their cluster, the customer informs you that they have 24 NSE drives that they want to use to fully populate two of the disk shelves.

What should you do in this scenario?

- A. Change the boot variable bootarg. storageencryption. support to false.
- B. Move all the NSE disks into one shelf and all the hard disks into the other shelf before you install the new HA pair.
- C. Inform your customer that they cannot mix NSE drives and regular hard disks in a storage system.
- D. Comply with your customers request, and add the NSE drives before you add the nodes and disk shelves to their cluster.

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

All disks in the storage system and optional attached disk shelves must have encryption functionality to be able to use Storage Encryption.

You cannot mix regular non-encrypting disks with self-encrypting disks.

Note: NetApp Storage Encryption (NSE) is NetApp's implementation of full-disk encryption (FDE) using self-encrypting drives from leading vendors.

Reference: Clustered Data ONTAP 8.3, Physical Storage Management Guide

https://librarv.netapp.com/ecm/ecm_download_file/ECMP1636022

QUESTION 25

You are setting up a switchless 2-node cluster. You must ensure that it is set up correctly. Which two commands would you execute to complete this task? (Choose two.)

- A. cluster ha modify -configured true
- B. not int modify -node -data
- C. network options switchless -cluster modify true
- D. net int create

Correct Answer: AC

Section: (none)

Explanation



Explanation/Reference:

Enabling cluster HA and switchless-cluster in a two-node cluster

If you have a two-node switchless configuration that uses direct-cable connections between the nodes instead of a cluster interconnect switch, you must ensure that the

switchless-cluster-network option is enabled. This ensures proper cluster communication between the nodes.

Steps

1. Enter the following command to enable cluster HA:

```
cluster ha modify -configured true
```

If storage failover is not already enabled, you will be prompted to confirm enabling of both storage failover and auto-giveback.

2. If you have a two-node switchless cluster, enter the following commands to verify that the switchless-cluster option is set:

a) Enter the following command to change to the advanced-privilege level:

```
set -privilege advanced
```

Confirm when prompted to continue into advanced mode. The advanced mode prompt appears (*>).

b) Enter the following command:

```
network options switchless-cluster show
```

If the output shows that the value is false, you must issue the following command:

```
network options switchless-cluster modify true
```

c) Enter the following command to return to the admin privilege level:

```
set -privilege admin
```

Reference: Enabling cluster HA and switchless-cluster in a two-node cluster

<https://librarv.netaDD.com/ecmdocs/ECMP1196905/html/GUID-CE8ADA56-E05B-4398-A7E2-05C7BD816467.html>

QUESTION 26

A customer learns that a certain NetApp tool allows remote data collection, intelligent core file handling, and notification of down storage controllers for technical support analysis and troubleshooting. What is the name of this tool?

- A. RSA
- B. HWU
- C. Synergy
- D. HW Assist

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

Remote Support Agent (RSA) is a remote diagnostics data collector that is embedded directly into the storage controller's remote management device firmware. Remote

Support Agent enables a NetApp support engineer to remotely request an automated upload of log files, core files, and other diagnostic information stored in the storage controller and to remotely trigger an on-demand AutoSupport collection.

Incorrect:

Not B: The Hardware Universe (HWU) application is NetApp's system configuration solution.

Not C: NetApp Synergy is a complete design, deployment and documentation tool. The program enables you to build a very accurate, detailed model of a NetApp storage system. You can represent most aspects of a storage deployment including the hardware configuration and the sizing of all storage containers, including aggregates,

volumes, qtrees and LUNs.

Reference: Clustered Data ONTAP 8.2, Remote Support Agent Configuration Guide, Page 5

QUESTION 27

While testing storage failover, you receive an error message indicating that you have a disk inventory mismatch. What is a reason for the error message?

- A. unsupported disks
- B. cabling problems
- C. Flash Cache problems
- D. unowned disks

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 28

What are two supported cluster interconnect switches for the FAS8040 nodes? (Choose two.)

- A. Cisco Catalyst 2960
- B. Cisco NX5596
- C. NetApp CN1610
- D. NetApp CN1601

Correct Answer: BC
Section: (none)
Explanation

Explanation/Reference:

Cisco NX5596 is a cluster interconnect switch.

NetApp CN 1610 is a cluster interconnect switch that can be used for FAS8040 nodes.

Incorrect:

Not A: The Cisco Catalyst 2960 is not a cluster interconnect switch.

Not D: NetApp CN1601 is a cluster management switch.

Reference: Clustered Data ONTAP 8.3, Express Setup Guide for 80xx Systems

QUESTION 29

Which technology allows NetApp to ship replacements for defective parts automatically?

- A. SLDIAG
- B. OnCommand System Manager
- C. Call Home
- D. AutoSupport

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

The NetApp AutoSupport family helps you optimize your data center by providing simple, effective, proactive monitoring and management of your

storage infrastructure.

*AutoSupport is an integrated and efficient monitoring and reporting technology that checks the health of AutoSupport-enabled NetApp systems on a continual basis. It's

an effective troubleshooting tool for you and for the NetApp Support team.

*Remote Support Diagnostics Tool (RSDT) helps NetApp Support solve storage-system issues for youâ€™without your intervention.

*My AutoSupport is a Web-based application that works with AutoSupport.

Incorrect:

Not A: System-level diagnostics (SLDIAGs) provides a command-line interface for tests that search for and determine hardware problems on supported storage systems. You use system-level diagnostics to confirm that a specific component is operating properly or to help identify faulty components.

Not B: OnCommand System Manager provides fast, simple configuration and management for NetApp FAS storage systems.

Not C: Call Home is a function within AutoSupport. You can verify that AutoSupport is working by using the Call Home Check function.

Reference: <http://www.netapp.com/se/services-support/autosupport.aspx>

QUESTION 30

A customer is installing a new system. The administrator needs to have the maximum available amount of data space.

Which disk configuration should the administrator use?

- A. RAID-DP
- B. RAID4
- C. Flash Pool
- D. ADP



Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

Advanced drive partitioning to increase usable capacity for entry systems, all-flash FAS, and Flash Pool.

Incorrect:

Not A: RAID-DP is useful for maximizing data protection, but it does not provide the maximum available data space.

Not B: RAID4 is useful for optimizing writes, but it does not provide the maximum available data space.

Reference: <http://communitv.netapp.com/t5/Tech-OnTap-Articles/Clustered-Data-ONTAP-8-3-A-Proven-Foundation-for-Hybrid-Cloud/ta-p/92703>

QUESTION 31

What network information is required to set up any Cisco switches attached to a clustered Data ONTAP system? (Choose two.)

- A. All management ports configured for e0d or the service port (wrench icon) are required.
- B. VLAN tags for each interface are required.
- C. Host names and IP addresses for each of the controllers and configured switches are required.
- D. The appropriate number and type of cables and cable connectors for your switches are required.

Correct Answer: CD

Section: (none)

Explanation

Explanation/Reference:

C: You need the following network information for all switch configurations:

*Two or more IP subnet addresses for cluster network and management network traffic

*Host names and IP addresses for each of the controllers and all applicable switches

*Management network port assignments for your controller

D: To configure your cluster, you need the appropriate number and type of cables and cable connectors for your switches. Depending on the type of switch you are

initially configuring, you need to connect to the switch console port with the included console cable.

Reference: Clustered Switch Setup Guide for Cisco Switches, page 8

https://library.netapp.com/ecm/ecm_download_file/ECMP1115327

QUESTION 32

Click the exhibit button.

Question **Exhibit**

Onboard Ports for FAS2552 8.3 Clustered Data ONTAP *(Click row to view supported cables)*

Port Address ▲	Description	Max Data Rate
0a	Serial-Attached SCSI	6 Gbps
0b	Serial-Attached SCSI	6 Gbps
e0a	Ethernet	1 Gbps
e0b	Ethernet	1 Gbps
e0c/0c	Unified Target Adapter 2	16 Gbps
e0d/0d	Unified Target Adapter 2	16 Gbps

Cable Compatibility for Port 0a

SAS 3 /6 Gbps (Cu) | SAS 3 /6 Gbps (Op)

Mktg Part No	Mfg Part No	Images	Length	End 1	End 2
☑ Copper Cables					
X8557-R6	112-00176	-	0.5m	QSFP	QSFP
X8594-R6	112-00256	-	1m	QSFP	QSFP
X8558-R6	112-00177	-	2m	QSFP	QSFP
X8595-R6	112-00255	-	3m	QSFP	QSFP
X8559-R6	112-00178	-	5m	QSFP	QSFP

Print Preview | Export to PDF | Export to Excel

You are installing a FAS2254 and a DS2246 disk shelf at a customer's site. The controller and disk shelf must be racked in separate rows in the data center due to available space. The customer wants you to use two of the 20-meter copper SAS cables to make connections. Referring to the exhibit, which statement is correct?

- A. You will need to contract sales to obtain a wireless adapter.
- B. You will need to contract sales to obtain the 20 meter copper cables.
- C. The controller and disk shelf must be closer together if copper cables are to be used.
- D. You will need to contact sales to obtain an Ethernet adapter.

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

According to the exhibit the maximum copper cable length that can be used is 5 meters.

QUESTION 33

You are asked to complete a 2-node installation of a FAS8060 cluster running clustered Data ONTAP 8.3. The hardware has been installed and the cluster has been configured. AutoSupport testing has not been successful because NetApp Support cannot see any messages, and the customer does not have any messages in their inbox.

Which two actions should be performed to test the functionality from the NetApp cluster? (Choose two.)

- A. Verify that the network gateway responds to a ping request.
- B. Verify that the mailhost responds to a ping request.
- C. Verify that the domain controller responds to a ping request.
- D. Verify that the cluster interconnect switches respond to a ping request.

Correct Answer: BD

Section: (none)

Explanation

Explanation/Reference:

B: Check that the mail host specified in the options is a host that the storage system can talk to, by running the following command on the storage system

```
ping mailhost_name
```

mailhost_name is the name of the mail host specified in the AutoSupport options.

D: If the system cannot deliver AutoSupport messages over SMTP you should confirm basic network connectivity and DNS lookup:

Your network management LIF must be up for operational and administrative status.

You must be able to ping a functioning host on the same subnet from the cluster management LIF (not a LIF on any of the nodes).

You must be able to ping a functioning host outside the subnet from the cluster management LIF.

You must be able to ping a functioning host outside the subnet from the cluster management LIF using the name of the host (not the IP address).

Reference: How to troubleshoot AutoSupport delivery when using SMTP

https://kb.netapp.com/index?paae=content&id=1014216&actp=LIST_PQPULAR

Reference: Troubleshooting AutoSupport message delivery over SMTP
<https://library.netapp.com/ecmdocs/ECMP1636037/html/GUID-9554CD61-AE6F-4FDA-86A6-0E1480405873.html>

QUESTION 34

You are performing an installation of a clustered Data ONTAP and you reach the AutoSupport configuration point. You configured AutoSupport with all of the customer's information. But when you trigger AutoSupport, the customer says that they did not receive the message, and neither did NetApp. Which two actions must be verified? (Choose two.)

- A. You can ping the mailhost from the NetApp storage systems.
- B. The customer has enabled port 25 from the storage controllers on their firewall.
- C. The customer has enabled routing of email-based messages from the storage controllers on their email server.
- D. You can ping the NetApp Support site from the storage systems.

Correct Answer: AB

Section: (none)

Explanation

Explanation/Reference:

A: Check that the mail host specified in the options is a host that the storage system can talk to, by running the following command on the storage system:

ping mailhost_name

mailhost_name is the name of the mail host specified in the AutoSupport options.

B: The customer firewall must let SMTP (port 25) messages go through their firewall.

Reference: How to troubleshoot AutoSupport delivery when using SMTP

https://kb.netapp.com/index?page=content&id=1014216&actp=LIST_PQPULAR

QUESTION 35

A customer wants you to add a disk shelf that contains SSDs so they can implement Flash Pool. Which three tools would you use to complete this task? (Choose three.)

- A. Use the My AutoSupport tool to ensure that Flash pool is licensed.
- B. Use Hardware Universe to ensure that you would not exceed the maximum drive count.
- C. Use Hardware Universe to ensure that you would not exceed the maximum cache for the system.
- D. Use the My AutoSupport tool to see if there is a Flash Cache card installed.
- E. Use Config Builder to verify the shelves can be added.

Correct Answer: ABE

Section: (none)

Explanation

Explanation/Reference:

The Hardware Universe (HWU) application is NetApp's system configuration solution, replacing the System Configuration Guides

QUESTION 36

A customer is installing a new system and has determined that they have a broken disk
What information is required to open a NetApp Support case?

- A. disk HBA firmware and serial number
- B. mainboard rev. id
- C. serial number or system ID
- D. disk shelf serial number and shelf ID number

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

QUESTION 37

You are preparing to install a new 4-node cluster for your customer. They want to use NetApp CN1610 cluster switches that they previously purchased.
Which software must be downloaded to ensure that you are well prepared for this installation?

- A. You must download CN 1610 firmware and RCF files compatible with the clustered Data ONTAP version that your customer wants to use.
- B. You must download the Cisco configuration files compatible with the clustered Data ONTAP version that your customer wants to use.
- C. You must download ATTO Fibre Bridge firmware.
- D. You must download the System Setup tool.

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

Note: The following conditions must exist before installing the FASTPATH software and reference configuration file (RCF) on a NetApp CN 16xx cluster switch

* The cluster must be a fully functioning cluster.

Etc.

Reference: Installing FASTPATH software and RCF files on NetApp Cluster switches, page 1

https://librarv.netapp.com/ecm/ecm_download_file/ECMP11694144

QUESTION 38

You want to support multiple tenants with duplicate IP addresses for your storage system. Which statement is correct in this scenario?

- A. You must create additional VLANs to use multiple tenants.
- B. You must create an additional IPspace.
- C. You cannot support multiple tenants on your storage system.
- D. You must use different ports on your controller.

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

IPspaces enable you to configure a single Data ONTAP cluster so that it can be accessed by clients from more than one administratively separate network domain, even

if those clients are using the same IP address subnet range.

Reference: Clustered Data ONTAP 8.3, Network Management Guide, page 32

QUESTION 39

You are preparing to install a new clustered Data ONTAP system. Which tool prepares all the relevant customer and configuration information?

- A. AutoSupport
- B. Cluster Config Builder
- C. OnCommand System Manager
- D. Config Advisor

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

OnCommand System Manager provides fast, simple configuration and management for NetApp FAS storage systems.

Incorrect:

Not A: AutoSupport is used in a system that is already installed. It provides simple, effective, proactive monitoring and management of your storage infrastructure.

Not D: Config Advisor is run on already installed systems. It performs configuration validation for new NetApp system installation and improve automation for service

delivery for assessments and audits.

Reference: <http://www.netapp.com/se/products/manaQement-software/svsystem-manager.aspx>

QUESTION 40

While performing storage failover tests, you notice that a data LIF serving CIFS traffic is not reachable after takeover. Which three statements are correct in this scenario? (Choose three.)

- A. NAS LIFs do not fail over.
- B. A front-end switch configuration was missing.
- C. An incorrect firewall policy was assigned.
- D. No failover policy was assigned.
- E. Incorrect ports were in the broadcast domain.

Correct Answer: CDE

Section: (none)

Explanation

Explanation/Reference:

D: The partner's LIFs migrate according to network interface failover rules. Existing SMB (CIFS) sessions are disconnected when takeover occurs.

E: LIFs can use any node in the cluster to perform management tasks, so it is created by default with the "broadcast-domain-wide" failover policy

Incorrect:

Not A: The network ports that are present in the failover group define the failover targets available for the LIF. A failover group can have cluster management, node management, intercluster, and NAS data LIFs assigned to it.

**QUESTION 41**

Which feature provides preferred protection for the root volume of a storage virtual machine (SVM)?

- A. SnapVault
- B. load-sharing mirror
- C. SnapMirror
- D. SyncMirror

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

To protect the Storage Virtual Machine (SVM) namespace root volume, you can create a load-sharing mirror volume on every node in the cluster, including the node in

which the root volume is located. Then you create a mirror relationship to each load-sharing mirror volume and initialize the set of load-sharing mirror volumes.

Reference: SVM root volume protection workflow

<https://librarv.netaDD.com/ecmdocs/ECMP1653502/html/GUID-59618C57-A05E-48DF-96FB-9788D3DA74AC.html>

QUESTION 42

A customer has a six-node cluster running NFS and FCP. The customer wants to add nodes to the cluster. How many nodes would be added in this scenario?

- A. 18
- B. A
- C. 6
- D. 2

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

QUESTION 43

You are asked to install a 6-node cluster of FAS8080 controllers. The installation has been completed and Config Advisor shows no warnings or errors. The customer can ping and access the controller. Which statement is true in this scenario?



- A. This installation has not been completed successfully until you have confirmed that SSH is enabled.
- B. This installation has not been completed successfully until the customer and NetApp Support have received a minimum of three AutoSupport messages.
- C. This installation has been completed successfully only if you have confirmed that the configuration is correct.
- D. This installation has been completed successfully, because Config Advisor would identify the missing configuration.

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

Config Advisor is a configuration validation and health check tool. It is used to check for common configuration errors. You can use the Config Advisor tool to verify that the cluster is cabled correctly. After Config Advisor indicates that no errors is found, you must complete protocol configuration and verify cluster setup. Reference: Clustered Data ONTAP 8.3, Express Setup Guide for 80xx Systems, page 33

QUESTION 44

When you create a single-node cluster, which statement is correct about the cluster base license key?

- A. A single-node cluster does not need any cluster-base license key.
- B. A single-node clustered Data ONTAP 8.1 license key is seven characters long.
- C. Clustered Data ONTAP 8.2 and 8.3 license keys are 14 characters long.
- D. A single-node cluster requires a cluster base key to use a cluster.

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

A Cluster Base Key required to create a Single-Node Cluster.

Incorrect:

Not A: A single-node Cluster requires a Cluster Base Key to run the create cluster command.

Not B: Clustered ONTAP 8.1 license keys are fourteen (14) characters long.

Reference: FAQ - Data ONTAP Licensing

<https://kb.netapp.com/index?Daae=content&id=3Q13756&actD=LIST POPULAR>

QUESTION 45

You are creating a first data aggregate on the fourth node of a clustered Data ONTAP system that has only 600 GB SAS disks. According to the NetApp naming convention, what is the appropriate name for the aggregate?

- A. aggr10
- B. n04.SAS_aggr10
- C. n04_SAS_aggr01
- D. n04-aggr01-SAS

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

Example of appropriate name: n01sas01

Underscores can be used, but not "." or "-"

Note: Aggregate names must conform to the following requirements:

They must begin with either a letter or an underscore (_).

They can contain only letters, digits, and underscores.

They must contain 250 or fewer characters.

Reference: Creating an aggregate

<https://librarv.netapp.com/ecmdocs/ECMP1368859/html/GUID-D9F611BC-F7B4-4057-A76B-357BBAB7002F.html>

QUESTION 46

Which NetApp tool will simplify your initial system installation?

- A. OnCommand Unified Manager
- B. OnCommand System Manager
- C. Config Advisor
- D. System Setup tool

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

The System Setup tool enables you to quickly and easily set up your netapp FAS series storage systems using NetApp best practices and optimizing performance for

Clustered. You can use this software to configure your network, storage, and protocols with either a single storage controller or multiple controllers.

Incorrect:

Not A: OnCommand Unified Manager is used for to monitor the health of your clustered Data ONTAP environment.

Not B: The System Setup tool is for the initial configuration, while OnCommand System Manager is for later configuration. The OnCommand System Manager provides

fast, simple configuration and management for NetApp FAS storage systems.

Not C: Config Advisor is run on already installed systems. It performs configuration validation for new NetApp system installation and improve automation for service

delivery for assessments and audits.

Reference: http://mysupport.netapp.com/NOW/public/system_setup/

QUESTION 47

You were dispatched to install a cluster made up of FAS8060 and FAS8080 controllers. There are three FAS8060 controllers and three FAS8080 controllers

Which solution would provide the largest possible cluster?

- A. a cluster made up of two nodes
- B. a cluster made up of four nodes
- C. a cluster made up of five nodes
- D. a cluster made up of six nodes

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

QUESTION 48

A customer is using a Cisco Nexus 5020 as a cluster network switch.
What would be used as a management network switch in this scenario?

- A. Cisco Nexus 5020 1 GbE ports
- B. Cisco Nexus 5020 Expansion Module
- C. Cisco Catalyst 2960
- D. Cisco Catalyst 5000

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

The Cisco Catalyst 2960 switch can be installed as management switch in a NetApp system cabinet.

Reference: Clustered Switch Setup Guide for Cisco Switches, page 5

https://librav.netapp.com/ecm/ecm_get_file/ECMP1115327

QUESTION 49

You are planning to install a new clustered Data ONTAP system for a customer.
Which action should be performed before configuring the cluster network switches?

- A. Confirm IP address and configuration information for Brocade switches before configuring the switches.
- B. Use the Cluster Network and Management Network Compatibility Matrix URL before configuring the switches.
- C. Use the Inventory Collect Tool before configuring the switches.
- D. Download the Fibre Channel switches software before configuring the switches.

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

The NetApp Interoperability Matrix defines infrastructure components and versions that can be used for configurations that NetApp corporation support end to end

Incorrect:

Not C: Inventory Collect Tool enables you to create an inventory report that contains information about 7-Mode storage systems, hosts, and host applications. The

inventory report can then be imported to the 7-Mode Transition Tool for transition assessment.

Reference: <http://www.netapp.com/us/technology/interop.aspx>

QUESTION 50

A customer wants to graphically manage a new clustered Data ONTAP system.
Which tool should the customer use?

- A. System Setup
- B. OnCommand System Manager
- C. HostAgent
- D. StorageGrid

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

System Manager is a graphical management interface that enables you to manage storage systems and storage objects (such as disks, volumes, and aggregates) and perform common management tasks related to storage systems from a web browser. As a cluster administrator, you can use System Manager to administer the entire cluster and its resources.

Reference: <https://librarv.netapp.com/ecmdocs/ECMP1354558/html/GUID-3B6E7BDA-9F1B-4F8C-8FC2-8B28A2C3FCD7.html>

QUESTION 51

What is NetApp's best practice regarding Ethernet flow control?

- A. Leave flow control enabled.
- B. Disable flow control on the switch ports.
- C. Disable flow control on the host, switch, and all node ports.
- D. Disable flow control on all IOGbps ports.

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

The NetApp Best Practice specifies that Flow Control settings for 10G cluster ports are to be set with Flow Control = None

Reference: How to modify the Flow Control setting on clustered Data ONTAP cluster ports

https://kb.netapp.com/support/index?page=content&id=1015245&actp=LIST_RECENT

QUESTION 52

The full boot cycle of the CN1610 should take approximately 50 seconds.

What should you do to minimize the interruption?

- A. Remove all of the cables from the CN1610 CL1 switch, and then connect them to different ports on the CN1610 CL2 switch.
- B. You can migrate the cluster LIFs from the switch that is to be rebooted, and then revert the cluster LIFs after the switch has finished rebooting
- C. You can migrate Data LIFs to different ports on different nodes.
- D. On each respective switch, use the network interface migrate command to migrate the inter-switch links.

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

LIFs are moved to other physical ports within the cluster to provide non-disruptive services.

QUESTION 53

Your customer has four disk shelves attached to an HA pair of nodes running clustered Data ONTAP 8.3. One disk shelf has six SSDs and 18 HDDs installed. They want to know how to partition the SSDs to use them in a flash pool aggregate. In this situation, what should you tell the customer?

- A. Flash pool aggregates must have whole SSDs assigned, not partitions.
- B. When the disks are assigned to a storage pool, they are automatically partitioned into four equal parts that can be assigned to an existing aggregate where the partition will be used as flash storage by the assigned aggregate.
- C. All SSDs in a mixed disk system are partitioned to a 25% and a 75% partition. The larger partition can be used for data.
- D. When the disks are assigned to a storage pool, you can partition each disk into as many partitions as needed. A partition can be assigned to an existing aggregate where the partition will be used as a flash storage by the assigned aggregate.

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

Advanced drive partitioning for Flash Pool segments each drive into four pieces.

Reference: Clustered Data ONTAP 8.3: A Proven Foundation for Hybrid Cloud

<http://community.netapp.com/t5/Tech-OnTap-Articles/Clustered-Data-ONTAP-8-3-A-Proven-Foundation-for-Hybrid-Cloud/ta-p/92703>

QUESTION 54

Advanced Drive Partitioning (ADP) is available for which three NetApp systems? (Choose three.)

- A. FAS80XX with SAS and SATA disks
- B. FAS25XX with SSD disks
- C. FAS80XX with SATA disks
- D. FAS25XX with SATA disks
- E. FAS80XX with SSD disks

Correct Answer: BDE

Section: (none)

Explanation

Explanation/Reference:

ADP supported platforms:

B,D: 2200,2500 (Internal drives): Root Data Slice (HDD), Root Data Slice (AFF - All Flash FAS)

E: 3200,6200,8000 (> 48 drives): Root Data Slice (AFF - All Flash FAS)

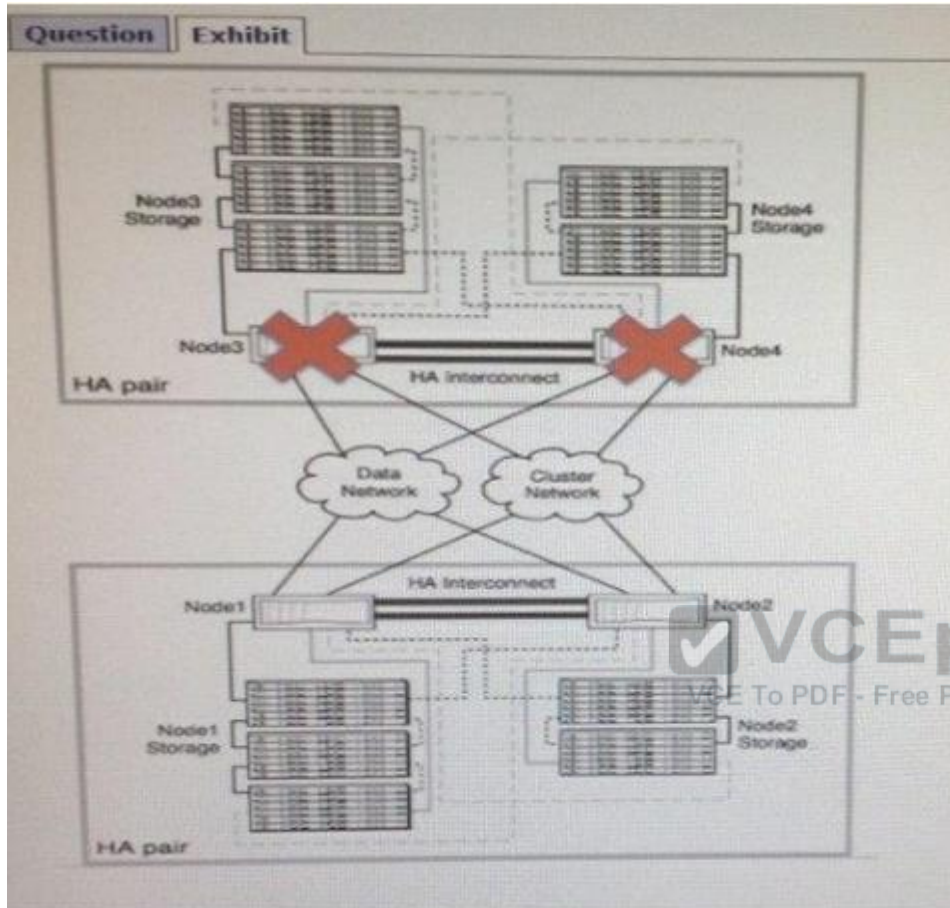
Example ADP configuration: FAS8040 All-Flash (36 x 800GB SSD)

Reference: NETAPP DATAONTAP 8.3 | ADP ROOT DISK-SLICE DEEP-DIVE

<http://www.datacenterdan.com/bloa/netapp-dataontap-83-adp-root-disk-slice-deep-dive>

QUESTION 55

Click the Exhibit button.



A customer has a 4-node cluster and wants to know what will happen to their data if one of the two HA pairs goes down. Epsilon is configured and working properly and owned by Node1. Nodes 3 and 4 have failed as shown in the exhibit. What happens to the customer's data that is owned by the HA pair 3 and 4?

- A. Nodes 1 and 2 will takeover the storage for nodes 3 and 4 and continue running normally.
- B. The cluster will go into maintenance mode and only allow administrators access to data on nodes 1 and 2.
- C. The entire cluster will panic and no data will be accessible.
- D. The customer will lose access to the data on nodes 3 and 4 but will still have access to storage in nodes 1 and 2.

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

An HA pair is two storage systems (nodes) whose controllers are connected to each other directly. In this configuration, one node can take over its partner's storage to provide continued data service if the partner goes down.

Reference: Clustered Data ONTAP 8.3, High-Availability Configuration Guide, page 7

QUESTION 56

You are assigned to install two DS2246 shelves, three DS4243 shelves, and one DS4486 shelf. How many rack units (U space) should you account for in this rack layout?

- A. 6U
- B. 20U
- C. 10U
- D. 22U

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

DS2246 rack units: 2U (Here: 2*2 -> 4U)

DS4243 rack units: 4U (Here: 3*4 -> 12U)

DS4286 rack units: 4U (Here: 1 *4 -> 4U)

Total: 20U (4+12+4)

Reference: NetApp Disk Shelves and Storage Media Technical Specifications

<http://www.netapp.com/se/products/storaae-svstems/disk-shelves-and-storaae-media/disk-shelves-tech-specs.asDx>



QUESTION 57

You are installing two disk shelves on an existing clustered Data ONTAP system. One shelf is a DS2246 that matches the other shelves in a stack. The other shelf is also a

DS2246 but it contains all solid state disks. Both disk shelves must be added to the same stack.

How would you install the disk shelves?

- A. Install the solid state disks first, then the DS2246 shelf so that the solid state disks are as close to the top of the stack as possible.
- B. Install the spinning disk shelf first and put the solid state disks at the end of the stack.
- C. Advise the customer that solid state disks cannot exist on the same stack as spinning disks.
- D. Move the disk drives around to create two shelves that are half solid state and half spinning drives.

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

As SSDs are faster they should be put close to the top of the stack.

Incorrect:

Not C: The DS4246 disk shelf only supports high-capacity disk configurations and "Mixed Shelf" SSD configurations that combine SSDs with high-capacity disk drives.

Not D: Place the SSD disk shelves in a separate stack other than the disk shelves containing SAS disks. Because the potential high IOPS, thus high SAS I/O bandwidth

utilization, we don't want to be limited by our backend SAS I/O. As NetApp states; 'Full SSD shelves (24 SSDs) are best placed in their own stack*.

Reference: Clustered Data ONTAP 8.3, Physical Storage Management Guide, page 25

QUESTION 58

Upon completion of an installation, you have begun failover/giveback testing. You notice that when node-02 has been taken over by node-01, node-02 will not respond to

ping requests.

Which statement describes what is happening?

- A. The controller is down and has been taken over by the partner, this is normal behavior during a failover.
- B. The controller that is up, node-01, does not have partner statements in the /etc/rc file.
- C. The controller that is down, node-02, does not have partner statements in the /etc/rc file.
- D. There are no ports in the LIFs' broadcast domain that are linked.

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

We need to add a partner statement to the /etc/rc file on node-2.

QUESTION 59

Which two statements are true regarding SSDs? (Choose two.)

- A. SSDs are only available in 400 GB sizes.
- B. SSDs must be in different RAID groups than HDDs,
- C. SSDs are available for multi-disk carrier shelves.
- D. The Maintenance Center is not available for SSDs.

Correct Answer: BD

Section: (none)

Explanation

Explanation/Reference:

Incorrect:

Not A: There are, for example, 100 GB, 200 GB, and 800 GB SSD sizes.

Not C: Disks in multi-disk carriers always have the Data ONTAP disk type of MSATA.

QUESTION 60

Click the Exhibit button

Question	Exhibit		
Category	Tai	Risk / Description	Details
ACP Cabled and Configured	blmt	Checks to see if ACP cables are installed correctly and ACP is enabled on the storage controller.	ACP Enabled, partial connectivity. Alternate Control Path (ACP) has been enabled. Fewer shelf IOMs are detected out-of-band (through ACP) than in-band (through SAS).
ACP Cabled and Configured	blmt	Checks to see if ACP cables are installed correctly and ACP is enabled on the storage controller.	ACP Enabled, partial connectivity. Alternate Control Path (ACP) has been enabled. Fewer shelf IOMs are detected out-of-band (through ACP) than in-band (through SAS).

You are asked to install a new cluster with six FAS8060 nodes. While running Config Advisor, you see the messages shown in the exhibit. The customer does not want ACP cabled on their cluster.

Which two actions would allow the installation to be completed successfully? (Choose two.)

- A. Advise NGS that the customer has a controller in an unsupported state.
- B. Advise the customer that they must acknowledge that they are not using ACP on the installation.
- C. Advise the sales team that the customer is operating without ACP and that the customer is asking you to leave it that way.
- D. Advise the customer that the error will cause the controller to not operate properly and create an unsupported state.

Correct Answer: BC

Section: (none)

Explanation

Explanation/Reference:

After you cable the SAS connections, you have the option to cable the Alternative Control Path (ACP) connections. You should use the ACP protocol

because it enables
Data ONTAP to manage and control the SAS disk shelf storage subsystem

QUESTION 61

A remote administrator is connecting to a cluster from a different remote network.
According to NetApp best practices, which type of LIF routing is required to accomplish this task?

- A. cluster LIF
- B. data LIF
- C. cluster management LIF
- D. intercluster LIF

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

Data ONTAP services may initiate network connections from a node in the cluster. For example: AutoSupport, SNMP, time synchronization, and syslog.
When a Node

Management interface is configured and available, it is preferred for these connections.

When Data ONTAP contacts name services like Active Directory, NIS, DNS, or LDAP, it prefers to initiate these connections from Data or SVM

Management interfaces

belonging to the Storage Virtual Machine (SVM).

Note: A LIF role determines the kind of traffic that is supported over the LIF, along with the failover rules that apply and the firewall restrictions that are in place. The five

LIF roles are:

*Cluster-management LIF

*Node-management LIF

*Cluster LIF

*Data LIF

*Intercluster LIF

Reference: What LIF roles does clustered Data ONTAP use to establish connections to remote servers?

https://kb.netapd.com/support/index?paae=content&id=3012724&locale=en_US

QUESTION 62

You have completed the installation and verification of the cluster for a customer
What is required to complete the event?

- A. Present the customer with the posters included in the boxes.
- B. Call your manager to let them know that you are finished.
- C. Have the customer call NetApp Support to let them know that the installation is complete.

D. Have the contact sign a document saying that the installation is complete.

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

QUESTION 63

You want to install a new clustered Data ONTAP 8.3 system. The customer wants to use open ports on interconnect switches from a different system with clustered Data

ONTAP 8.2 because they are running out of space in their rack.

What should be considered in this scenario?

- A. Only one cluster per switch pair is qualified and supported.
- B. You can use all free network ports for the cluster interconnect.
- C. You can only use dedicated ports for the clustered interconnect.
- D. A maximum of two clusters per switch pair are qualified and supported, but you should use trunked ports.

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:



QUESTION 64

You are planning to update your running switch environment. You need to determine if certain conditions exist before the FASTPATH software and reference configuration

file (RCF) on a NetApp CN16xx cluster switch can be installed.

Which condition must exist in this scenario?

- A. You must set the port configuration to default for all ports before running the portcfgdefault port-number command.
- B. The cluster must be a fully functioning cluster (no error log messages or other issues).
- C. All ISL ports must be moved to a different switch.
- D. You can only update your switch environment within offline windows.

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

The following conditions must exist before installing the FASTPATH software and reference configuration file (RCF) on a NetApp CN16xx cluster switch:

- *The cluster must be a fully functioning cluster.
- * There must be no defective cluster NICs and all connected ports on both cluster switches must be functional.
- * All cluster ports must be up.
- * All cluster logical interfaces (LIFs) must be up and must not have been migrated.
- * The Data ONTAP (privilege: advanced) cluster ping-cluster -node Node1 command must indicate that larger than PMTU communication is successful on all paths.
- *You must consult the switch compatibility table on the NetApp CN 1601 and CN 1610 Switches page for the supported FASTPATH, RCF, and Data ONTAP versions. T

Reference: Installing FASTPATH software and RCF files on NetApp Cluster switches, page 1
https://librarv.netapp.com/ecm/ecm_download_file/ECMP11694144

QUESTION 65

You are setting up a LIF for the node management network.
What will be the default failover policy in this scenario?

- A. broadcast-domain-wide
- B. system-defined
- C. local-only
- D. sfo-partner-only



Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

The local-only failover policy is the default setting for cluster LIFs and node management LIFs.

Reference: Types of failover policies

<https://librarv.netapp.com/ecmdocs/ECMP1636021/html/GUID-92CC5F58-5EB8-4E2D-88F0-FA2F740062E0.html>