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NS0-192

NetApp Certified Support Engineer



CEplus

Exam B

QUESTION 1

A customer recently performed an ONTAP upgrade and would like to confirm the successful completion of the process.

Which three actions would satisfy this requirement? (Choose three.)

- A. Execute the version command at the cluster shell.
- B. Verify the version from the new AutoSupport that was automatically triggered after an upgrade.
- C. A System Message notification will be shown upon reboot after a successful upgrade.
- D. Execute the system node upgrade-revert show command at the cluster shell.
- E. Execute the system node upgrade-revert show-task-status command at the cluster shell.

Correct Answer: ACD Section: (none) Explanation

Explanation/Reference:

Reference: https://library.netapp.com/ecm/ecm_download_file/ECMLP2492712

QUESTION 2 You are adding an additional node to a

single-node cluster.

Which of the actions should be performed after this upgrade? (Choose two.)

- A. Verify that HA is enabled.
- B. Verify that epsilon is not assigned.
- C. Verify that epsilon is assigned.
- D. Verify that HA is disabled.

Correct Answer: CD Section: (none) Explanation



Explanation/Reference:

QUESTION 3 Using QoS statistics for a group of volumes on one node, you notice that most of the latency comes from the data layer.

In this scenario, which statement is correct?

- A. There is too much indirect traffic from other nodes.
- B. QoS processing is increasing CPU usage.
- C. The CPU on the node is overused.
- D. High disk use is increasing CPU usage.

Correct Answer: D Section: (none) Explanation

Explanation/Reference:

QUESTION 4

A manager wants a volume to have a guaranteed 300 MB/s of read performance. You explain that you cannot do this on FAS storage running ONTAP 9.3 backed by 10,000 RPM disks.



What is the reason for this response?

- A. Throughput floors apply to only iSCSI access.
- B. Throughput floors can only guarantee up to 125 MB/s.
- C. Throughput floors require a license.
- D. Throughput floors require AFF.

Correct Answer: D Section: (none) Explanation

Explanation/Reference:

QUESTION 5

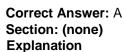
Click the Exhibit button.

Workload	ID	Latency	Network	Cluster	Data	Disk	QoS	NVRAM
ms_sq1_backup	1234	4.59ms	62.00us	0ms	4.53ms	0ms	0ms	0ms
ms sq1 backup	1234	120.22ms	55.00us	0ms	153.00us	0ms	119.99ms	0ms
ms_sq1_backup	1234	99.45ms	88.00us	0ms	186.00us	0ms	99.23ms	Oms
ms_sq1_backup	1234	106.78ms	54.00us	Oms	183.00us	0ms	106.51ms	Oms

A backup administrator notices throughput problems during backup jobs. While the job is running, you review the QoS output for the target volume.

Referring to the exhibit, which statement is correct?

- A. The volume is encountering the QoS limit.
- B. The network is slow.
- C. The data layer of the controller is slow.
- D. The traffic is going over an indirect path in the cluster.



Explanation/Reference:

QUESTION 6

Click the exhibit button.

::> qos statistics volume latency show -volume csdata -vserver nas1

Workload	ID	Latency	Network	Cluster	Data	Disk	QoS	NVRAM
csdata-wid1234	1234	12.68ms	74.00us	0ms	835.00us	10.77ms	0ms	0ms
csdata-wid1234	1234	12.12ms	73.00us	0ms	643.00us	10.07ms	0ms	0ms
csdata-wid1234	1234	12.42ms	73.00us	0ms	643.00us	10.32ms	0ms	Oms

Based on the QoS output from the storage controller, your database administrator is complaining of slow read and write performance.

Referring to the exhibit, what would be two appropriate actions to improve performance for both reads and writes? (Choose two.)

- A. Move the workload to an SSD aggregate.
- B. Apply a QoS maximum policy to the csdata-wid1234 workload.
- C. Add a Flash Pool to the existing aggregate.
- D. Upgrade the controller's NVRAM.





Correct Answer: BC Section: (none) Explanation

Explanation/Reference:

QUESTION 7

You are migrating volumes from an older aggregate to a new aggregate using the vol move command. You notice that, after completion, access to these volumes is slower until a certain process finishes.

Which process is causing the problem in this scenario?

- A. deswizzling
- B. active bitmap rearrangement
- C. snap create
- D. container block reclamation

Correct Answer: D Section: (none) Explanation

Explanation/Reference:

QUESTION 8

Click the Exhibit button.





		Network	Interfac	e Statistics	(per	second)		
iface	side	bytes	packets	multicasts	errors	collisions	pkt	drops
e0a	recv	1317.18	17.53	0.00	0.00			0.00
	xmit	329.33	3.04	0.37	0.00	0.00		
e0b	recv	989.68	14.60	0.00	0.00			0.00
	xmit	15.33	0.37	0.37	0.00	0.00		
e2a	recv	0.00	0.00	0.00	0.00			0.00
	xmit	0.00	0.00	0.00	0.00	0.00		
e2b	recv	0.00	0.00	0.00	0.00			0.00
	xmit	0.00	0.00	0.00	0.00	0.00		
e2c	recv	0.00	0.00	0.00	0.00			0.00
	xmit	0.00	0.00	0.00	0.00	0.00		
e2d	recv	36.51	0.37	0.00	0.00			0.00
	xmit	0.00	0.00	0.00	0.00	0.00		
e0M	recv	824.65	12.90	11.56	0.00			0.00
	xmit	0.00	0.00	0.00	0.00	0.00		
ifgrpl	recv	2031.33	28.11	22.39	0.00			0.00
	xmit	319.83	3.16	0.73	0.00	0.00		
ifgrp1-450	recv	253.14	2.92	2.92	0.00			0.00
	xmit	0.00	0.00	0.00	0.00	0.00		
ifgrp1-400	recv	67.18	0.73	0.73	0.00			0.00
	xmit	0.00	0.00	0.00	0.00	0.00		
ifgrp1-401	recv	0.00	0.00	0.00	0.00			0.00
	xmit	0.00	0.00	0.00	0.00	0.00		
e2d-400	recv	35.05	0.37	0.37	0.00			0.00
	xmit	0.00	0.00	0.00	0.00	0.00		

Disk Statistics (per second)

ut% is the percent of time the disk was busy. xfers is the number of data-transfer commands issued per second.

xfers = ureads + writes + cpreads + greads + gwrites
chain is the average number of 4K blocks per command.
users is the average disk round-trip time per 4K block.

disk	ut8	xfers	ureads-	-chai	n-usecs	writes	chair	n-usecs	cpread	ds-chai	n-usecs	greads	chain-u	secs gwrite:	schai	n-usecs
/aggrsA	TA/pl	ex0/rg0														
0a16	100	132.58	0.37	3.00	13333	0.00			0.00		2	0.12	64.00 484	132.09	64.00	
0a22	68	132.70	0.37	3.00	1778	0.00			0.00		2	132.34	64.00 131	0.00		
0a26	69	132.70	0.37	3.00	1889	0.00		ži.	0.00		84	132.34	64.00 133	0.00	çc	om
0a23	68	132.70	0.38	3.00	1758	0.00		20	0.00			132.24	64.00 130	0.00		·
0a28	67	132.70	0.37	3.00	1679	0.00		¥8	0.00)×	132.54	64.00 150	0.00		36
0a32	72	132.70	0.35	3.00	1568	0.00		€ 75	0.00			132.14	64.00 140	0.00		
0a35	69	133.70	0.36	3.00	1929	0.00		**	0.00			132.24	64.00 142	0.00		
0a36	68	131.38	0.37	3.00	1908	0.00			0.00			132.54	64.00 135	0.00		
0a38	66	132.00	0.37	3.00	1889	0.00	7.5.5.70		0.00			132.64	64.00 137	0.00		
Aggregat	te st	atistic	s:													
Minimum	66	131.38	0.35			0.00			0.00			0.12		0.00		
Mean	74	132.20	0.37			0.37			0.00			110.07		10.91		
Maximum	100	132.70	0.38			1.34			0.00			132.34		132.09		

Your customer's disks are showing 100% utilization, but the customer sees minimal user I/O. You collect statistics using the statist command over a 10-second time period as shown in the exhibit.

In this scenario, what is the problem?

- A. The end users are doing a lot of reads on the SATA disks that are using vStorage APIs
- B. Disk 0a.16 is being used to reconstruct data from a failed disk in the aggregate.
- C. Disk 0a.16 is faulty and should be replaced.
- D. The network has too many multicast packets.

Correct Answer: D Section: (none) Explanation

Explanation/Reference:



QUESTION 9

A customer has a Window PC connected to an SMB share for a newly created volume on ONTAP storage. The share properties indicate that it has 475 GB free. However, the volume is configured as a 500 GB volume.

Which technology is responsible for this situation?

- A. deswizzling
- B. deduplication
- C. Snapshot reserve
- D. compression

Correct Answer: D Section: (none) Explanation

Explanation/Reference:

QUESTION 10

Click the Exhibit button.

CS1	ptc-2240-09					and the second s		
Node	UnitName	Epoch	DB	Epoch	DB	Trnxs	Master	Online
csiptc-	2240-09							
colput.	mgmt	29	29		102		csiptc-	-2240-09 master
csiptc-	2240-09							
	vldb	26	26		3		csiptc-	-2240-09 secondary
csiptc-	2240-09							
	vifmgr	53	53		37		csiptc-	-2240-09 master
csiptc-	2240-09							
	bcomd	26	26		1		csiptc-	-2240-09 master
csiptc-	2240-10							
	mgmt	29	29		102		csiptc-	-2240-09 secondary
csiptc-	2240-10							
	vldb	26	26		3		csiptc-	-2240-10 master
csiptc-	2240-10							
	vifmgr	53	53		37		csiptc-	-2240-09 secondary
csiptc-	2240-10							
	bcomd	26	26		1		csiptc-	-2240-09 offline



On a ONTAP system, CLI commands for adding an initiator to an igroup on csiptc-2240-10 are failing, even when attempted several times on node csiptc-2440-10. However, the command works on node 09. You can create a volume on both nodes.

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

- A. vldb is functioning on both nodes.
- B. The igroup cannot be created because the vigmgr is secondary on 10.
- C. bcomd is causing the commands to fail.
- D. mgmt is failing the operation.



Correct Answer: AD Section: (none) Explanation

Explanation/Reference:

QUESTION 11 Which two statements are true about epsilon in a 4-node cluster? (Choose two.)

- A. Epsilon is used as a tie-breaker for determining a quorum.
- B. Epsilon is automatically assigned to the first node when a cluster is created.
- C. Epsilon is used for determining the up node in failover.
- D. Epsilon is automatically assigned to the last node added to a cluster.

Correct Answer: AB Section: (none) Explanation

Explanation/Reference:

Reference: https://docs.netapp.com/ontap-9/index.jsp?topic=%2Fcom.netapp.doc.dot-cm-sag%2FGUID-EFE1DEF4-8B87-4C4A-8E4E-C6C79F760710.html

QUESTION 12

When you expand an aggregate, the spare partitions can be added as only a new RAID group, even though the current RAID group size is large enough for the current and new partitions.

In this scenario, which statement is correct?

- A. The partitions to be added share disks with the partitions in the existing RAID group.
- B. RAID group size is used only when dealing with non-partitioned disks.
- C. Only nonpartitioned disks can be added to a RAID group with existing partitions.
- D. The aggregate must be converted to RAID-TEC to expand RAID groups using partitions.



Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 13

A customer explains that the Active IQ section of the NetApp Support site indicates that their controller has not called home within the past three months. They are not using a mail host to deliver AutoSupport notifications. When troubleshooting the AutoSupport message, you enter the event log show -messagename asup.post* command.

In this scenario, what would you expect to see on the console?

- A. event-management system (EMS) events for the AutoSupport system that are related to SMTP
- B. a history of all error events related to the AutoSupport system
- C. event-management system (EMS) events for the AutoSupport system that are related to HTTP/HTTPSD. event-management (EMS) events for the AutoSupport system that are related to any protocol

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 14

An administrator just upgraded the controllers and wants to nondisruptively implement Advanced Drive Partitioning (ADP) as part of the change.



Which statement is correct in this scenario?

- A. ADP cannot be implemented on this system.
- B. ADP can be implemented as long as all of the on-board drives do not contain data.
- C. ONTAP does not support ADP.
- D. ADP can be implemented, but only with a complete data-wipe and initialization.

Correct Answer: D Section: (none) Explanation

Explanation/Reference:

QUESTION 15

A customer has an SVM with an SSD aggregate that is reaching capacity. They want to move the data to another SVM with attached SATA drives.

Which two ONTAP features will accomplish this task? (Choose two.)

- A. volume copy
- B. volume move
- C. volume rehost
- D. volume relocate

Correct Answer: BC Section: (none) Explanation

Explanation/Reference:

Reference: https://whyistheinternetbroken.wordpress.com/2016/06/08/volume-rehosting-ontap9/



QUESTION 16

You order a FAS8200 cluster with 4 TB SATA drives. Before executing the cluster setup command, you notice that ADP is not being used.

In this scenario, which statement is correct?

- A. Halt the nodes and configure ADP at the LOADER-X> prompt.
- B. Complete the cluster setup and use OnCommand System Manager to configure ADP.
- C. While executing the cluster setup command, reconfigure the disks to use ADP.
- D. Halt the nodes, boot to the special boot menu, and configure ADP.

Correct Answer: D Section: (none) Explanation

Explanation/Reference:

QUESTION 17

Users are unable to access data stored on an ONTAP cluster. The storage aggregate show command reports that the aggregates are offline and wafl inconsistent.

Which action would you perform to recover the aggregate?

- A. Perform an aggregate copy and delete the source aggregate.
- B. Execute the storage aggregate online command from the cluster shell.
- C. Use file system recovery tools to recover the aggregate.



D. Execute the aggr online command from maintenance mode.

Correct Answer: C Section: (none) **Explanation**

Explanation/Reference:

QUESTION 18

An administrator added a spare disk to the data aggregate in an ONTAP system. The administrator immediately noticed messages about the disk being partitioned.

Why did this event occur?

- A. Disks on the same disk shelf were shared by both nodes.
- B. The RAID group to which the disk was added contained root partitions.
- C. The RAID was full and another RAID group was needed.
- D. The disk was larger than the other disks in the aggregate and needed to be right-sized.

Correct Answer: A Section: (none) **Explanation**

Explanation/Reference:

QUESTION 19

A customer has a company-wide power outage scheduled and needs to gracefully power off a 2-node cluster.

In this scenario, which of two steps should be performed? (Choose two.)

A. Use the halt -node * -skip-lif-migration-before-shutdown true -inhibit-takeover true command.

- B. Invoke an AutoSupport message to indicate a planned maintenance time.
- C. Use OnCommand System Manager to halt the controllers.
- D. Use the halt -node * command.

Correct Answer: AD Section: (none) **Explanation**

Explanation/Reference:

Reference: https://library.netapp.com/ecm_download_file/ECMLP2492713

QUESTION 20

A customer created a new volume on an SVM for testing. During the first day of testing, the customer copied data to the volume using NFS and consumed 75% of the free space. The second day of testing required the existing data to be deleted and replaced by an equal amount of different data. During the copy, an error message stated that the volume was full.

What would explain the observed error?

- A. The user did not have permissions to the export.
- B. The client lost connectivity to the export.
- C. Vscan stopped the write due to an infection.
- D. The old data is still contained within a snapshot.

Correct Answer: B Section: (none) **Explanation**

Explanation/Reference:



QUESTION 21

A customer recently experienced a panic on one node of an ONTAP cluster. Prior to performing the giveback, they want to know what caused the panic. You request data from the customer to assist Support in determining the cause of the panic.

What information should be requested in this situation? (Choose three.)

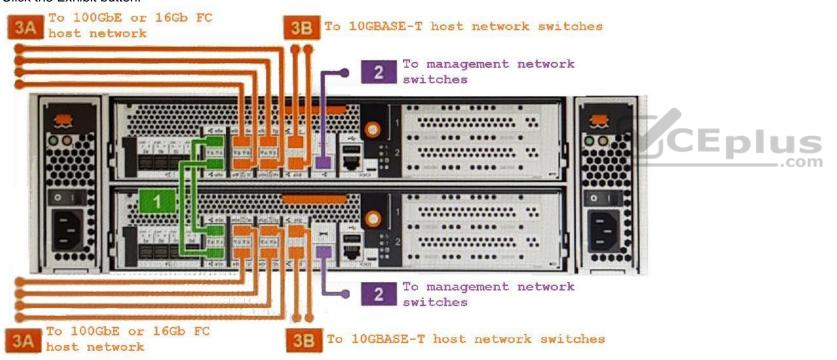
- A. panic string
- B. Perfstat
- C. core dump
- D. message logs
- E. packet trace

Correct Answer: ACD Section: (none) Explanation

Explanation/Reference:

QUESTION 22

Click the Exhibit button.



You are troubleshooting HA interconnect link connection errors.

Referring to the exhibit, which physical connections should you examine?

- A. 1
- B. 3B
- C. 3A
- D. 2

Correct Answer: C Section: (none) Explanation

Explanation/Reference:



QUESTION 23

A customer using a FAS9000 needs to perform a takeover, but their system indicates that a takeover is not possible. You have the customer execute the storage failover show -instance -node nodeb command with the resulting message, "Takeover Not Possible: NVRAM log not synchronized".

In this scenario, what would you do to solve the problem?

- A. Verify that the interconnect cables are connected correctly between the nodes and verify the interconnect links status by using the cluster show -instance command.
- B. Reboot each node to correct the problem, and then rerun the command to verify that the problem has corrected itself. If the problem still exists, reseat the controller module.
- C. Verify that the interconnect cables are connected correctly between the nodes and verify the interconnect links status by using the storage failover show -instance command.
- D. Power off the node manually to force a takeover and reseat the controller module. When the system comes back up, rerun the command to see if it the problem still exists.

Correct Answer: C Section: (none) Explanation

Explanation/Reference:

Reference: https://kb.netapp.com/app/answers/answer_view/a_id/1028772/~/troubleshooting-workflow%3A-takeover-not-possible-

QUESTION 24

Click the Exhibit button.





```
IIIIIII ENVIRONMENT IIIIIII
Channel: 0a
    Shelf: 01
    SES device path: local access: 0b.01.99
    Module type: IOM6; monitoring is active
    Shelf status: critical condition
    SES Configuration, shelf 01:
        logical identifier=0x50050cc10201f73b
        vendor identification=NETAPP
        product identification=DS4246
        product reversion level=0212
    Vendor-specific information:
        Product Serial Number: SHX0954493H1HVG
    Status reads attempted: 1759057; failed: 0
    Control writes attempted: 0; failed: 0
    Shelf bays with disk devices installed:
        23, 22, 21, 20, 19, 18, 17, 16, 15, 14, 13, 12, 11, 10, 9,
        8, 7, 6, 5, 4, 3, 2, 1, 0
    With error: none
Power Supply installed element list: 1, 4; with error: 1
Power Supply information by element:
    [1] Serial number: PMW8256300690BE Part number: 0082562-12
        Type: 9C
        Firmware version: 0311 Swaps: 0
    [2] Serial number:
                           Part number:
          Type:
        Firmware version: Swaps: 0
    [3] Serial number:
                             Part number:
          Type:
        Firmware version: Swaps: 0
    [4] Serial number: PMW825630065ECB Part number: 0082562-12
        Type: 9C
        Firmware version: 0311 Swaps: 0
    Voltage sensor installed element list: 1,2,7,8; with error: 7 8
    Shelf voltages by element:
        [1] 5.00 Volts Normal voltage range
        [2] 12.01 Volts Normal voltage range
        [3] Unavailable
        [4] Unavailable
        [5] Unavailable
        [6] Unavailable
        [7] Unavailable
        [8] Unavailable
    Current Sensor installed element list: 1,2,7,8; with error: none
    Shelf currents by element:
        [1] 7850 mA Normal current range
        [2] 6050 mA Normal current range
        [3] Unavailable
        [4] Unavailable
    Cooling Unit installed element list: 1,2,7,8; with error: 8
   Cooling Units by element:
        [1] 2920 RPM
        [2] 3000 RPM
        [3] Unavailable
        [4] Unavailable
        [5] Unavailable
        [6] Unavailable
        [7] 3370 RPM
```

[8] Unavailable





Temperature Sensor installed element list: 1, 2, 3, 4, 9, 10, 11, 12; with error: none Shelf temperatures by element: [1] 27 C (80 F) (ambient) Normal temperature range [2] 37 C (98 F) Normal temperature range [3] 37 C (98 F) Normal temperature range [4] 46 C (114 F) Normal temperature range [5] Unavailable [6] Unavailable [7] Unavailable [8] Unavailable [9] 37 C (98 F) Normal temperature range [10] 47 C (116 F) Normal temperature range [11] 41 (105 F) Normal temperature range [12] 41 C (105 F) Normal temperature range Temperature thresholds by element: [1] High critical: 42 C (107 F); high warning: 40 C (104 F) Low critical: 0 C (32 F); Low warning: 5 C (41 F) [2] High critical: 55 C (131 F); high warning: 50 C (50 F) Low critical: 5 C (41 F); Low warning: 10 C (50 F) [3] High critical: 55 C (131 F); high warning: 50 C (122 F) Low critical: 5 C (41 F) Low warning: 10 C (50 F) [4] High critical 70 C (158 F); high warning 65 C (149 F) Low critical: 5 C (41 F); low warning 10 C (50 F) [5] High critical: Unavailable; high warning: Unavailable Low critical: Unavailable; low warning: Unavailable [6] High critical: Unavailable; high warning: Unavailable Low critical: Unavailable; low warning: Unavailable [7] High critical: Unavailable; high warning: Unavailable Low critical: Unavailable; low warning: Unavailable [8] High critical: Unavailable; high warning: Unavailable Low critical: Unavailable; low warning: Unavailable [9] High critical: 55 C (131 F); high warning: 50 C (122 F) Low critical: 5 C (41 F); low warning: 10 C (50 F) [10] High critical: 70 C (158 F); high warning: 65 C (149 F) Low critical: 5 C (41 F); low warning: 10 C (50 F) [11] High critical: 60 C (140 F); high warning: 55 C (131 F) Low critical: 5 C (41 F); low warning: 10 C (50 F) [12] High critical: 60 C (140 F); high warning: 55 C (131 F) Low critical: 5 C (41 F); Low warning: 10 C (50 F) ES Electronics installed element list: 1, 2; with error: none ES Electronics reporting element: 1 ES Electronics information by element: [1] Serial number: IMS0948580G3CCQ Part number: 0948580-05 CPLD version: 14 Swaps: 0 [2] Serial number: IMS0948580GF1RW Part number: 0948580-23 CPLD version: 14 Swaps: 0 SAS connector attached element list: 1, 2, 3, 4; with error: none SAS cable information by element: [1] Vendor: Amphenol Type: QSFP+ passive copper 0.5-1.0m ID: Swaps: 0 Serial number: APF16280116483 Part number: X66020A-R6+A0 [2] Vendor: Amphenol Type: QSFP+ passive copper 0.5-1.0m ID: 01 Swaps: 0 Serial number: APF16280116484 Part number: X66020A-R6+A0 [3] Vendor: Molex Inc. Type: QSFP+ passive copper 2m ID: 01 Swaps: 0 Serial number: 616630488 Part number: 112-00430+A0 [4] Vendor: Molex Inc. Type: QSFP+ passive copper 2m ID: 01 Swaps: 0 Serial number: 616630590 Part number: 112-00430+A0 ACP installed element: list: 1, 2; with error; none ACP information by element: [1] MAC address: 00:50:CC:65:DD:69 [2] MAC address: 00.50:CC:77:72:D6 SAS Expander Module installed element list: 1, 2; with error: none SAS Expander master module: 1





Using the data shown in the exhibit, which two parts would you recommend replacing? (Choose two.)

- A. PSU2
- B. I/O module (IOM) 1
- C. PSU1
- D. I/O module (IOM) 2

Correct Answer: CD Section: (none) Explanation

Explanation/Reference:

QUESTION 25

After you replace a network adapter card in a NetApp node, what should be done before you put the node back into production?

- A. From the cluster::> prompt, use the sldiag utility for testing before rejoining the cluster.
- B. From the LOADER> prompt, use the boot diags command and use the sldiag utility for testing.
- C. From the LOADER> prompt, use the boot ontap command to boot into ONTAP and use the sldiag utility for testing.
- D. From the cluster::> prompt, use the set diag command for testing before rejoining the cluster.

Correct Answer: C Section: (none) Explanation

Explanation/Reference:



QUESTION 26

A customer performed maintenance last weekend and power cycled both FAS8060 nodes of a 2-node ONTAP 9.2 cluster. The customer is concerned about port errors seen from the system ha interconnect port show command output

Which two steps would you perform in troubleshooting this condition? (Choose two.)

- A. Use the system ha interconnect link off/on command to manually reset the HA interconnect Link 0 and Link 1 on both nodes.
- B. Perform a takeover/giveback of both nodes.
- C. reset the counters using the system ha interconnect statistics clear-port command.
- D. Use the system ha interconnect flush command to manually reset the HA interconnect Link 0 and Link 1 on both nodes.

Correct Answer: AB Section: (none) Explanation

Explanation/Reference:

QUESTION 27

Click the Exhibit button.



cluster::> storage failover show

Takeover State Description

ode Partner Possible

cluster-01 cluster-02 true Connected to cluster-02

cluster-02 cluster-01 true Connected to cluster-01, Giveback of one or

more SFO aggregates failed

cluster::> storage failover show-giveback

Partner

Node Aggregate Giveback Status

cluster-01

No aggregates to give back

cluster-02

CFO Done

Aggregates Failed: Operation was vetoed by lock manager. Check

aggr1 the event log

cluster::> event log show

Wed Apr 30 14:48:20 CST [cluster-02: cf giveback:

lmgr.gb.nonCA.locks.exist:error]: Could not complete giveback because of non-

CA locks on volume media@vserver:6c0028db-8196-11e3-a4dd-123478563421.

Wed Apr 30 14:48:20 CST [cluster-02: cf giveback:

sfo.sendhome.subsystemAbort:error]: The giveback operation of 'aggr1' was

aborted by 'lock manager'.

You are attempting a storage giveback, but the process does not finish successfully.

Referring to the exhibit, what is the problem?

- A. An aggregate has failed.
- B. There are active CIFS or NFSv4 connections.
- C. Node cluster-02 was not ready for giveback.
- D. The giveback failed on the node root aggregate.

Correct Answer: D Section: (none) Explanation

Explanation/Reference:

QUESTION 28 A FAS8200 system fails to boot because of a corrupted image on the boot media.

Which action would be performed to solve this problem?

- A. Copy the boot image from the root volume of the node.
- B. Download a network image using the netboot procedure.
- C. Use the boot recovery command from the LOADER prompt.
- D. Execute the boot primary command at the loader.

Correct Answer: D Section: (none) Explanation





Explanation/Reference:

Reference: https://library.netapp.com/ecmdocs/ECMM1278407/html/sysadmin/GUID-7B9B378A-0001-4430-A82D-1382E9A570C5.html

QUESTION 29 After replacing a failed disk, the disk does not appear as a spare on any node in the cluster.

What should be done to correct this problem?

- A. Physically remove the disk and re-seat it firmly in the storage bay.
- B. Physically remove and re-seat each IOM in the shelf, one at a time.
- C. Assign ownership of the replaced disk to a node.
- D. Add the disk into an aggregate on either node.

Correct Answer: C Section: (none) Explanation

Explanation/Reference:

QUESTION 30 In an ONTAP write process, which two statements are true about memory and NVRAM of a node? (Choose two.)

- A. The writes from the local NVRAM are written to disks at periodic intervals or when NVRAM is full.
- B. The writes are only written to NVRAM of local and partner nodes.
- C. The writes from the local memory are written to disk at periodic intervals or as needed.
- D. The initial writes are written to local memory followed by local and partner NVRAMs.

Correct Answer: AB Section: (none) Explanation



Explanation/Reference:

QUESTION 31

Which statement describes how memory and NVRAM are used by ONTAP during write requests?

- A. The write request enters memory and is passed to NVRAM and the partner's NVRAM, a write acknowledgement is sent to the client, and data is written to disk at the next consistency point.
- B. The write request enters NVRAM and is passed to the partner's NVRAM, data is written to disk, and a write acknowledgement is sent to the client.
- C. The write request enters memory and is passed to the partner's NVRAM, data is written to disk, and a write acknowledgement is sent to the client.
- D. The write request enters memory, a write acknowledgement is sent to the client, the request is passed to the partner's NVRAM, and data is written to disk.

Correct Answer: C Section: (none) Explanation

Explanation/Reference:

Reference: https://bitpushr.wordpress.com/category/performance/

QUESTION 32 An A700s system failed to boot. The administrator finds the boot image has been corrupted.

In this scenario, which two actions would be performed to restore the image? (Choose two.)

- A. Copy the image from an external USB drive.
- B. Copy the image from the partner.
- C. Replace the boot device.





D. Copy the image from a Web server using the netboot procedure.

Correct Answer: AB Section: (none) **Explanation**

Explanation/Reference:

QUESTION 33 You need to non-disruptively remove a DS224C shelf from a 4shelf stack. Which three actions should be performed to accomplish this task? (Choose three.)

- A. Ensure that an aggregate relocation has been performed.
- B. Ensure that the HA pair is not in a takeover state.
- C. Ensure that the stack is connected using multipath high availability.
- D. Ensure that each node is in a takeover state when you remove the cables.
- E. Ensure that no aggregates exist on the shelf.

Correct Answer: ABC Section: (none) **Explanation**

Explanation/Reference:

Reference: https://docs.netapp.com/platstor/index.jsp?topic=%2Fcom.netapp.doc.hw-ds-sas3-service%2FGUID-74DE67F4-BDA9-4A70-9551-076F21AC592A.html

QUESTION 34 You are asked to automate storage management tasks, including provisioning, migrating, decommissioning, and cloning storage. CEplus

Which product enables you to accomplish this task?

- A. OnCommand Cloud Manager
- B. OnCommand Insight
- C. OnCommand Unified Manager
- D. OnCommand Workflow Automation

Correct Answer: D Section: (none) **Explanation**

Explanation/Reference:

Reference: https://www.netapp.com/us/media/tr-4588.pdf

QUESTION 35 You want to replicate all volumes of an SVM, including the SVM's configuration data, to another cluster on an hourly schedule.

Which action should you perform to accomplish this task?

- A. Configure SVM disaster recovery between the two SVMs.
- B. Configure SyncMirror between the two clusters.
- C. Configure SnapMirror replication for the volumes with a relationship type of DP.
- D. Configure SnapMirror replication for the volumes with a relationship type of XDP.

Correct Answer: A Section: (none) **Explanation**

Explanation/Reference:



Reference: https://library.netapp.com/ecm/ecm_get_file/ECMLP2496254

QUESTION 36

You have severe database performance issues with a server connected to 8-Gb FC switches to storage. You know that the problem is not the storage because the QoS output indicates that the issue is outside the controller. You need to examine each piece of the chain, such as switch port status and the host contribution to latency.

In this scenario, which NetApp product would provide the required information?

- A. OnCommand Unified Manager
- B. OnCommand Insight
- C. SnapDrive
- D. OnCommand Performance Manager

Correct Answer: D Section: (none) Explanation

Explanation/Reference:

QUESTION 37

You are configuring the transport protocol settings and are connecting to storage systems that are running ONTAP.

Which two protocols are supported by SnapDrive for this task? (Choose two.)

- A. HTTPS
- B. RPC
- C. HTTP
- D. TCP

Correct Answer: AC Section: (none) Explanation



Explanation/Reference:

Reference: https://library.netapp.com/ecm/ecm_download_file/ECMP1506026 (p.13)

QUESTION 38

You have an ONTAP 9.3 cluster and create a new SnapMirror relationship with a SnapMirror type of DP. You initialize the SnapMirror relationship and verify the incremental updates are operating as expected. However, you notice that the SnapMirror type is XDP instead of the specified DP.

In this scenario, which statement is correct?

- A. All new relationships default to XDP.
- B. DP is not supported in ONTAP 9.3
- C. The SnapMirror policy type was set to MirrorAllSnapshots.
- D. The destination cluster is running an older version of ONTAP.

Correct Answer: C Section: (none) Explanation

Explanation/Reference:

Reference: https://docs.netapp.com/ontap-9/index.jsp?topic=%2Fcom.netapp.doc.pow-dap%2FGUID-9FF688E3-9A37-49A4-8239-EB55409FA2D0.html

QUESTION 39

An administrator has created an SVM and would like to replicate it using SVM DR. In this scenario, which two protocol configurations are replicated? (Choose two.)



A. CIFS

B. iSCSI

C. FC

D. NFS

Correct Answer: AD Section: (none) Explanation

Explanation/Reference:

Reference: https://library.netapp.com/ecm/ecm_get_file/ECMLP2496254

QUESTION 40

You need to establish a volume SnapMirror relationship between two different clusters on your network.

Which three elements are necessary for SnapMirror to work? (Choose three.)

A. volume peering

B. intercluster LIFs

C. cluster peering

D. SVM peering

E. cluster LIF

Correct Answer: CBD Section: (none) Explanation

Explanation/Reference:

CEplus

QUESTION 41 You need to restore a large number of files from a Snapshot copy and grant users read/write access to the restored data using CIFS. For comparison reasons, you must ensure that the currently active data in the volume is preserved.

Which restore method should you use to accomplish this task?

- A. Use FlexClone to clone the volume, and specify the Snapshot copy from which to clone.
- B. Use SnapRestore to restore the volume, and specify the Snapshot copy from which to restore.
- C. Use NDMP to restore the data from the Snapshot copy back to the volume.
- D. Grant users read/write access to the Snapshot copy in the snapshot folder of the CIFS share.

Correct Answer: B Section: (none) Explanation

Explanation/Reference:

QUESTION 42

You have a vSphere Essentials Plus environment configured with NetApp LUNs for datastores. You are backing up the environment using the SnapCenter Plug-in for VMware vSphere. However, you are having problems performing restore operations using SnapCenter.

What is a reason for this problem?

- A. NetApp Virtual Storage Console is required for restore operations.
- B. Only NFS datastores are supported with SnapCenter.
- C. A Windows-based vCenter Server is required.
- D. VMware Storage vMotion is not licensed.



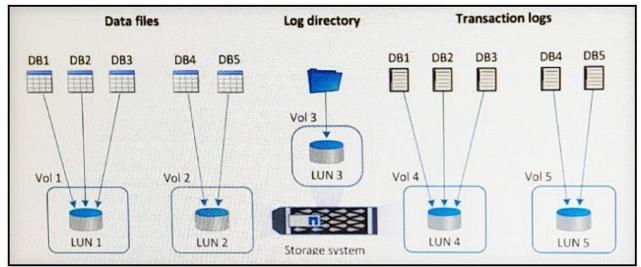
Correct Answer: D Section: (none) Explanation

Explanation/Reference:

Reference: http://docs.netapp.com/ocsc-40/index.jsp?topic=%2Fcom.netapp.doc.ocsc-dpg-vm%2FGUID-49D66AC0-F012-4993-80BD-8F3353F80220.html

QUESTION 43

Click the Exhibit button.



You are using the SnapCenter Plug-in for Microsoft SQL Server to back up a Microsoft SQL Server. Backups and restores are functioning. However, restores for DB2 are slower than the other databases. The storage layout is shown in the exhibit. DB2 is significantly larger than other databases in the environment.

Referring to the exhibit, which two actions should be performed to decrease restore times for DB2? (Choose two.)

A. Move the DB2 data files to a dedicated LUN and volume.

- B. Enable FlexClone technology for DB2.
- C. Move the log directory to faster storage.
- D. Move the DB2 transaction logs to a dedicated LUN and volume.

Correct Answer: BD Section: (none) Explanation

Explanation/Reference:

QUESTION 44 Which two statements are true concerning FlexClone volumes? (Choose two.)

- A. A FlexClone volume can be created in a different aggregate than the parent volume if space is an issue.
- B. A FlexClone volume is created with the same language setting as its parent.
- C. A FlexClone volume is created, any LUNs present in the parent volume are already online and mapped.
- D. A FlexClone volume is a point-in-time, writable copy of the parent FlexVol volume.

Correct Answer: BD Section: (none) Explanation

Explanation/Reference:

Reference: https://library.netapp.com/ecmdocs/ECMP1196986/html/GUID-284A0B23-DE4D-4E97-B333-EF4646D2CB1D.html



QUESTION 45 An upgrade to ONTAP 8.3 and later fails because the cluster contains 32-bit data.

In this scenario, which statement is correct?

- A. Ignore the warning, and use the <code>-force</code> parameter to complete the upgrade.
- B. ONTAP 8.3 and later supports 32-bit data format.
- C. Identify and move the volume with 32-bit data to another node of the cluster.
- D. Identify the 32-bit data and either convert, remove or move out of the cluster.

Correct Answer: D Section: (none) Explanation

Explanation/Reference:

QUESTION 46

Click the Exhibit button.

alphana1::> net port show -node alphana1-01
 (network port show)

Node: alphana1-01

Noue. a.	iphanai (71				Speed (Mbps)	Health
Port	IPspace	Broadcast	Domain	Link	MTU	Admin/Oper	Status
	122222						
a0a	Default	-		up	9000	auto/10000	healthy
a0a-101	Default	alpha servers		up	1500	auto/10000	healthy
a0a-105	Default	nfs		up	9000	auto/10000	healthy
a0b	Default			down	1500	auto/-	-
a0M	Default	mgmt		up	1500	1000/1000	healthy
a0a	Default	(FE)		down	1438	1000/-	£
a0b	Default	=		down	1500	1000/-	<u> </u>
a0c	Default	5 50		up	9000	auto/10000	healthy
a0d	Default	<u>920</u>		up	9000	auto/10000	healthy
a0e	Cluster	Cluster		up	9000	auto/10000	healthy
a0f	Cluster	Cluster		up	9000	auto/10000	healthy



alphanal::> ifgrp show -node alphana1-01 -ifgrp a0a

Node: alphana1-01
Interface Group Name: a0a
Distribution Function: port
Create Policy: multimode
MAC Address: 02:a0:98:76:e5:da
Port Participation: full
Network Ports: e0c, e0d
Up Ports: e0c, e0d

Down Ports: -

Users are experiencing sporadic network connectivity issues to an ONTAP cluster. The network administrator reports a large amount of MAC flapping on the switch ports connected to NetApp ports e0c and e0d. The ONTAP cluster is configured as shown in the exhibit.

Referring to the exhibit, how would this issue be solved?

- A. Ensure that the MTU on the switch is 9000.
- B. Ensure that the switch is configured with VLAN trunking.
- C. Ensure that the switch is configured with static link aggregation.
- D. Change the MTU on port a0a-100 to 9000.



Correct Answer: A Section: (none) **Explanation**

Explanation/Reference:

QUESTION 47 What is the proper command to start a packet trace in ONTAP 9.3?

A. system node run -node * pktt

B. network ping

C. network traceroute D. network tcpdump start

Correct Answer: D Section: (none) **Explanation**

Explanation/Reference:

Reference: https://kb.netapp.com/app/answers/answer_view/a_id/1029833/~/how-to-capture-packet-traces-%28tcpdump%29-on-ontap-9.2%2B-systems-

QUESTION 48

A customer reports that a Linux system is unable to access a required NFS export on an ONTAP SVM named "svm01-02". This is an important server in their NIS environment and users are unable to log in. Referring to the logs, they see several notifications of the message shown below.

"exports.netgroup.dnsNoPtrRec: IP address "192.168.1.13" does not have a reverse mapping for its corresponding hostname in the configured name servers when evaluating the export-policy rules for netgroup "linux_1" on Vserver "svm01-02"." CEplus

In this scenario, what is causing the problem?

- A. The export policy has the wrong netgroups defined.
- B. The DNS server does not have the relevant mapping from the IP address to the hostname.
- C. The ns-switch sources are set to files, dns instead of hosts, dns.
- D. The netgroup definition in NIS is missing the 192.168.1.13 IP address.

Correct Answer: C Section: (none) **Explanation**

Explanation/Reference:

QUESTION 49 You connect your cluster to a new pair of SAN switches and configure several LIFs for FC. You can see the cluster's physical port WWPNs but are unable to see the LIF WWPNs in the FC fabric.

How would you correct this issue?

- A. Enable NPIV on the SAN switches.
- B. Enable CNA mode on the physical NetApp ports.
- C. Enable NPV on the SAN switches.
- D. Enable Selective LUN Mapping (SLM) on the NetApp cluster.

Correct Answer: D Section: (none) **Explanation**

Explanation/Reference:

Reference: https://docs.netapp.com/ontap-9/index.jsp?topic=%2Fcom.netapp.doc.exp-fc-cpg%2FGUID-9D2AAC92-A160-4C01-B381-C6892342E071.html



QUESTION 50

Users are experiencing Kerberos authentication problems when attempting to access CIFS shares on the AcmeFS01 SVM. However, users are able to access shares hosted on Windows servers. You verify that network connectivity, between the SVM and the domain controllers, is working correctly.

What should you do to troubleshoot the authentication issue?

- A. Ensure that the time on the ONTAP cluster is correct.
- B. Verify that the users' computers can resolve DNS hostnames.
- C. Verify that the users' computers can ping the SVM data LIF.
- D. Verify that the SVM data LIF is on its home port.

Correct Answer: B Section: (none) **Explanation**

Explanation/Reference:

QUESTION 51

Click the Exhibit Button.

alphanal::> vserver vscan scanner-pool show -vserver alpha-fs1

Vserver	Scanner Pool	Pool Owner	Servers	Priviliged Users	Scanner Policy
alpha-fs1	vscan-pool	vserver	10.1.10.50 10.1.10.51	alpha.com\ vscanuser	primary
alphana1:	:> vserver vs	can connection	-status show	-vserver alpha-	-fs1

Connected Connected Vserver Node Server-Count Servers alpha-fs1 alphana1-01 0 alpha-fs1 alphana1-02 0 -

alphanal::> vserver vscan on-access-policy show -vserver alpha-fs1 -instance

Vserver : alphana-fs1 Policy: default CIFS Policy Status: on Policy Config Owner: cluster File-Access Protocol: CIFS Filters: -Mandatory Scan: on Max File Size Allowed for Scanning: 2GB File Paths Not to Scan: -File Extensions Not to Scan: -File Extensions to Scan: * Scan Files with no Extensions: true

All CIFS users are unable to access file shares on the SVM alpha-fs1.

Referring to the exhibit, users are unable to access shares because of which two reasons? (Choose two.)

- A. The Policy Config Owner should be vserver.
- B. The scan-mandatory parameter is on.

2 entries were displayed.

C. No Vscan servers have been added to the scanner pool.



D. No Vscan servers are connected.

Correct Answer: AC Section: (none) Explanation

Explanation/Reference:

QUESTION 52 A customer can no longer connect to a data LIF after upgrading from ONTAP 9.1 to ONTAP 9.2. A packet trace shows the data LIF is responding to the initial SYN with a SYN/ACK. This SYN/ACK never makes it to the client.

In this scenario, which statement is correct?

- A. ONTAP 9.2 does not have IP FastPath.
- B. ONTAP 9.2 does not have Large Receive Offload.
- C. ONTAP 9.2 does not have LACP.
- D. ONTAP 9.2 does not have TCP Segmentation Offload.

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

Reference: https://whyistheinternetbroken.wordpress.com/tag/networking/

QUESTION 53

A customer has added a new user account, "jsmith", on a UNIX NFS client using the /etc/passwd file on that client. The NFS client has a mount, "/mountpoint", to an NTFS security style volume from an ONTAP SVM using NFSv3. The user "jsmith" does not exist in the Windows domain. The user "jsmith" must be able to access this mount, but cannot. According to company security policy, the customer cannot add the user "jsmith" to the Active Directory configuration. Which two actions will solve the problem? (Choose two.)

- A. Enable default Windows users for unknown UNIX users.
- B. From the UNIX client, use the chown -R jsmith command/mountpoint.
- C. Add the user to the /etc/passwd file on the storage controller.
- D. Configure the default Windows user to allow access to the proper SMB data.

Correct Answer: BD Section: (none) Explanation

Explanation/Reference:

QUESTION 54

Click the Exhibit button.

```
% showmount -e 10.64.82.96
Export list for 10.64.82.96:
/ (everyone)
/unix (everyone)
/win (everyone)
```

An NFS client is failing to mount a volume exported by an SVM with the 10.64.82.96 IP address. The volume has a junction path of "/unix". The customer attempted to verify access rights by using the command shown in the exhibit. In this scenario, what are two conclusions? (Choose two.)



A. The client is granted access to "/unix".

B. The client has network connectivity to the SVM.

C. The SVM's MOUNT RPC service is registered.

D. The SVM only owns three volumes.

Correct Answer: BD Section: (none) Explanation

Explanation/Reference:

QUESTION 55

Click the Exhibit button.

vserver	policyname	ruleindex	clientmatch	rorule	rwrule	superuser
mysvm	cert	1	192.168.0/24	any	never	none
mysvm	cert	2	192.168.0.11	any	any	any
mysvm	cert	3	@mynetgroup	any	any	none
mysvm	cert	4	0.0.0.0/0	sys	krb5p	none

An end user expects to have read/write access to a volume that has been mounted using NFSv3, but the end user is only able to read. The end user's IP address is 192.168.0.11. You decide to look at the export policy that is applied to the volume in question.

Referring to the exhibit, which rule is applied to the end user?

A. 3

B. 2

C. 1

D. 4

Correct Answer: C Section: (none) Explanation

Explanation/Reference:

QUESTION 56 You are provisioning a LUN for a server running Windows Server 2016.

In this scenario, which ONTAP LUN OS type should you use?

A. hyper_v

B. windows

C. windows_2008
D. windows gpt

Correct Answer: B Section: (none) Explanation

Explanation/Reference:

Reference: https://thinksystem.lenovofiles.com/help/topic/san_administration_guide/M_DDA6B457-8544-43AC-92E8-D846A0BA7671_.pdf (22)





QUESTION 57 Which three protocols does ONTAP support for ALUA? (Choose three.)

A. CIFS

B. FCoE

C. iSCSI

D. FC

E. NFS

Correct Answer: BCD Section: (none) Explanation

Explanation/Reference:

QUESTION 58

Click the Exhibit button.

```
alphanal::> network interface show
     (network interface show)
Vserver Logical
                          Status
                                      Network
                                                         Current
                                                                      Current Is
                                                         Node
         Interface
                          Admin/Oper Address/Mask
                                                                      Port
                                                                              Home
Cluster
          alphana1-01 clus1
                                      169.254.45.43/16
                           up/up
                                                         alphana1-01 e0e
          alphana1-01 clus2
                                      169.254.129.144/16 alphana1-01 e0f
          alphana1-02 clus1
                                      169.254.254.196/16 alphana1-02 e0e
          alphana1-02_clus2
                           up/up
                                      169.254.145.169/16 alphana1-02 e0f
                                                                              true
alpha-fs1
         lab-fs1 lif1
                           up/up
                                                         alphana1-01 a0a-100 true
                                      10.1.100.100/24
5 entries were displayed.
alphanal::> net int create -vserver bravo-fs2 -lif bravo fs2 lif -role data -home-
node alphana1-01 -home-port a0a-105 -address
10.1.100.100 -netmask 255.255.255.0
   (network interface create)
Info: Failed to create logical interface.
Error: command failed: Duplicate ip address 10.1.100.100
```

You are creating a new LIF on a new SVM named "bravo-fs2". The cluster is being used in a multitenancy environment, and the bravo tenant has VLAN 105 assigned to it. You receive the error shown in the exhibit when you are creating the LIF. You have verified that the IP address is correct and the existing IP addresses that are already configured are also correct.

Referring to the exhibit, why is this error occurring?

- A. Two NetApp LIFs cannot have the same IP address assigned.
- B. Another device on VLAN 105 already has the IP address.
- C. The network switch VLAN configuration is incorrect.
- D. Using the same IP address on two LIFs requires different IPspaces.

Correct Answer: C



Section: (none) Explanation

Explanation/Reference:

QUESTION 59

Two end-users are both connecting to the same SMB share, but end-user A sees different files and folders than end-user B.

Which statement is correct in this scenario?

- A. Access Based Enumeration (ABE) explains this behavior.
- B. NetApp Storage Encryption (NSE) explains this behavior.
- C. End-user A is authenticating with NTLM.
- D. NetApp Volume Encryption (NVE) explains this behavior.

Correct Answer: C Section: (none) Explanation

Explanation/Reference:

QUESTION 60 Which two conditions would prevent a normal giveback operation? (Choose two.)

- A. the presence of failed disks
- B. active SnapMirror transfersC. connected NFSv3 sessions
- D. the presence of a failed IOM module

Correct Answer: AB Section: (none) Explanation



Explanation/Reference:

Reference: https://library.netapp.com/ecmdocs/ECMP1210206/html/GUID-E37EC334-C009-4A6A-82A8-BE383D6D5567.html