NetApp

NS0-520

NetApp Certified Implementation

Engineer SAN Specialist, ONTAP

Netapp

Exam NS0-520

NetApp Certified Implementation Engineer - SAN Specialist ONTAP

Version: 4.0

[Total Questions: 234]

Topic break down

Topic	No. of Questions
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Topic 1, Exam Pool A

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Question No : 1 - (Topic 1)

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

In this scenario, what would cause this problem?

A. The host and storage are connected to different switches.
B. The flow control was disabled on the storage.
C. The hardware initiators were used instead of software.
D. The flow control is enabled on the storage.

Answer: B

<div style="border:1px solid #a00; padding:4px;">

Question No : 2 - (Topic 1)

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Question	Exhibit

```
AFF::> ucadmin show

                         Current      Current      Rending      Rending      Admin
Node          Adapter    Mode         Type         Mode         Type         Status

AFF_1         0e         cna          target       -            -            online
AFF_1         0f         cna          target       -            -            online
AFF_1         0g         cna          target       -            -            online
AFF_1         0h         cna          target       -            -            online
AFF_1         1a         fc           target       -            -            online
AFF_1         1b         fc           target       -            -            online
AFF_2         0e         fc           target       -            -            online
AFF_2         0f         fc           target       -            -            online
AFF_2         0g         fc           target       -            -            online
AFF_2         0h         fc           target       -            -
10 entries were displayed.
```
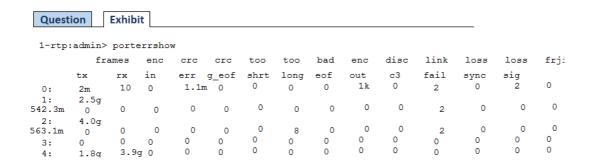
A customer needs to change ports 0e and 0f on AFF_1 to support FC.

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

A. Issue the ucadmin modify -node AFF_1 -adapter 0e -mode FC -type target command.
B. Issue the ucadmin modify -node AFF_1 -adapter 0e -mode FC -type initiator command.
C. Restart the FC service.
D. Take ports 0e and 0f offline.
E. Reboot the node.

Answer: B,C,D

Question No : 3 - (Topic 1)

| Question | Exhibit |

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

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

A. The transmit and receive links were switched.
B. The SFP+ is faulty.
C. The receive power is lower.
D. The link is not connected.

Answer: C

Question No : 4 - (Topic 1)

Click the Exhibit button.

| Question | Exhibit |

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

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

A. The LUN has misaligned I/O.
B. The LUN has aligned I/O.
C. The LUN's space is reserved.
D. The LUN's space is not reserved.

Answer: B,D

Question No : 5 - (Topic 1)

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

What other information is required to successfully create this SVM?

A. name servers
B. SVM Management LIF network details
C. search domains
D. root volume security style

Answer: D

Question No : 6 - (Topic 1)

Question	Exhibit

```
cl1::> ucadmin show

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

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

A. 01b, 0h
B. 01a, 0g
C. 01a, 0h
D. 01b, 0g

Answer: D

Question No : 7 - (Topic 1)

Click the Exhibit button.

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

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

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

A. FlexClone
B. SnapRestore
C. FlexGroup
D. SnapMirror

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

Question No : 8 - (Topic 1)

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

In this scenario, which method will accomplish this task?

A. dot1q
B. IPsec
C. NVMe
D. CHAP

Answer: B

Explanation: References:

Question No : 9 - (Topic 1)

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

A. 8
B. 12
C. 16
D. 4

Answer: A

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

Question No : 10 - (Topic 1)

As a system administrator, you perform a routine check of available storage space on your FAS2750. You notice that the vol_1 volume is approaching 100% capacity. The volume is configured with the space guarantee set to volume and the LUN reservation is disabled. You want to free up space in the volume without increasing its size.

Which action would accomplish this task?

A. Increase the size of the LUN.

B. Increase the Snapshot Reserve.

C. Increase the aggregate size.

D. Use deduplication.

Answer: C

Question No : 11 - (Topic 1)

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

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

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

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

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

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

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

Answer: A,B,D

Question No : 12 - (Topic 1)

Click the Exhibit button.

```
switch# show npv status

npiv is enabled

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

  Number of External Interfaces: 3
```

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

In this scenario, which action will solve this problem?

A. Configure the physical link of interface ext17 as an F_Port.
B. Configure the external interface to a different virtual SAN (VSAN) on both ends.
C. Connect the external link to a Cisco MDS switch.
D. Turn N_Port ID virtualization (NPIV) off.

Answer: C

Reference: https://www.cisco.com/en/US/products/ps5989/
prod_troubleshooting_guide_chapter09186a00808c82f1.html
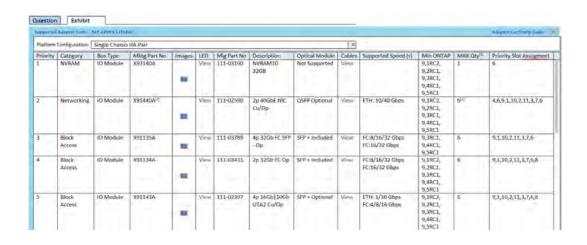
Question No : 13 - (Topic 1)

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

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

A. Additional management switches are required.
B. An upgrade to ONTAP 9.5 is required.
C. Cluster switches are required.
D. Additional DS224C shelves are needed.

Answer: A

Question No : 14 - (Topic 1)

A customer wants to add a 2-port, 32 Gb FC card to support NVMe in an AFF A700 2-node cluster. Currently, there are cards in slots 1, 2, 4, 6, 8, and 9.

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

A. 10
B. 3
C. 5
D. 7

Answer: C

Question No : 15 - (Topic 1)

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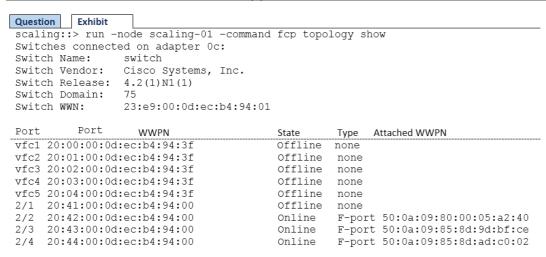
What is the solution to this error?

A. Add the host WWPN to the subsystem.
B. Disable the host HBA and re-enable it to clear the buffers.
C. Add the host NQN to the subsystem.
D. Use the nvme ns-rescan /dev/nvme0 command to rescan the bus.

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

Question No : 16 - (Topic 1)

Question | Exhibit

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


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

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

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

A. Trunking needs to be enabled.
B. VSAN needs to be enabled.
C. NPIV needs to be enabled.
D. VFC needs to be enabled.

Answer: D

Question No : 17 - (Topic 1)

Question | Exhibit

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


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

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

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

A. Create new LIFs with the iSCSI data protocol.
B. Create new igroups with the host IQNs.
C. Add iSCSI to the data protocol of the existing LIFs.
D. Map LUNs to the igroups.

Answer: D

Question No : 18 - (Topic 1)

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

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

A. Create a new portset.
B. Create a new VLAN.
C. Create a new broadcast domain.
D. Create a new AD object.

Answer: B,C

Question No : 19 - (Topic 1)

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

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

A. NPIV has not been enabled on the switches.
B. The switch port topology is set incorrectly to the E_Port.
C. ALUA has not been set up on the FAS8200.
D. Zoning is incorrectly configured between the Linux server and the ONTAP cluster.

Answer: A,C

Question No : 20 - (Topic 1)

A customer has an existing 8-node cluster that consists of six FAS2650 nodes and two FAS2554 nodes. The customer wants to expand the cluster by adding two AFF A220 nodes.

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

A. Interoperability Matrix Tool (IMT)
B. Config Advisor
C. OneCollect
D. Hardware Universe (HWU)

Answer: B

Question No : 21 - (Topic 1)

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

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

A. Configure the FCP service for the node that has the LUN that is being accessed.
B. Confirm that the FC HBA driver and firmware is supported according to the Interoperability Matrix Tool (IMT)
C. Configure portsets to support the availability of multiple paths.
D. Configure an igroup with the WWPN from the host initiator for LUN access.
E. Confirm that the switch firmware is supported according to the Interoperability Matrix Tool (IMT).

Answer: C,D,E

Question No : 22 - (Topic 1)

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

by NetApp?

A. SAN Configuration Guide
B. Hardware Universe (HWU)
C. Active IQ
D. Interoperability Matrix Tool (IMT)

Answer: A

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

Question No : 23 - (Topic 1)

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

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

A. 6
B. 8
C. 4
D. 2

Answer: B

Question No : 24 - (Topic 1)