

EMC

Exam E20-324

VNX Solutions Design Exam for Technology Architects

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[Total Questions: 233]

Question No : 1

A customer has a VNX environment and wants to begin using compression. You have been asked to perform an evaluation and make recommendations. What would you recommend?

- A. Apply file compression to exported NFS and CIFS data
- B. Avoid large LUNs since they must be fully decompressed to read
- C. Avoid large LUNs since they must be fully decompressed to write
- D. Archive Log Files are good candidates for block level compression

Answer: A

Question No : 2

A customer has 20 physical hosts which will be virtualized. They will then be connected to a new VNX system. All hosts will use virtual disks with a block size of 1 MB.

The customer shows you performance statistics from the physical hosts. You note that they all perform a mix of 8 kB and 64 kB I/Os. The customer asks what the I/O profile on the new VNX system will be.

What should you tell the customer?

- A. The virtual hosts will perform a mix of 8 kB and 64 kB I/Os
- B. The virtual hosts will perform I/Os of 1 MB exclusively
- C. The virtual hosts will perform 8 kB and 64 kB I/Os, and the hypervisor will perform 1 MB I/O
- D. iSCSI virtual hosts will perform 8 kB and 64 kB I/Os, and Fibre Channel hosts will perform 1 MB I/Os

Answer: A

Question No : 3

You are gathering data on a customer's VNX for analysis. Which Navisphere Secure CLI command can be used to display cumulative numbers for Total Reads and Total Writes?

- A. getcontrol
- B. getcache
- C. getlun
- D. getdisk

Answer: A

Question No : 4

Your customer has purchased a VNX to upgrade the storage for an Exchange Server cluster. What tool should you use to gather performance data from the Exchange cluster?

- A. iostat
- B. sar
- C. esxtop
- D. perfmon

Answer: D

Question No : 5

Your customer has recently purchased a new VNX. They have chosen SAN Copy to migrate data from their existing CLARiiON to the new VNX.

The customer has stated that only 50% of the capacity within each of the source LUNs is actually consumed.

Source LUNs are 500 GiB RAID 5 on 1 TB SATA disks. All LUNs and RAID Groups on the source array are configured the same.

Using best practices, which target LUN configuration should you use?

- A. Target LUN must be equal to or greater than size of source LUN.
- B. Target LUN must use same RAID type as source LUN.
- C. Target LUN must use same disk type as source LUN.
- D. Target LUN must be equal to or greater than consumed capacity of source LUN.

Answer: A

Question No : 6

A VNX customer is making a decision on the type of splitters to use with RecoverPoint/SE 3.x in their environment. The environment has a small number of Microsoft Windows hosts with several LUNs greater than 2 TB. After making a decision to use host splitters, the customer realizes this is not a viable solution.

Why would the customer reach this conclusion?

- A. VNX splitters must be used when the LUN size is greater than 2 TB
- B. VNX splitters must be used if there are under 20 hosts
- C. Host splitters are only best for a large number of hosts
- D. VNX splitters must be used if there are only Windows hosts

Answer: A

Question No : 7

Refer to the exhibit.



You are using Analyzer Helper to review NAR files from a customer's VNX array.

Which characteristic is indicated by the graph?

- A. % Dirty Pages
- B. % FAST Cache Used
- C. % Cache Prefetch Used
- D. % SP Utilization

Answer: A

Question No : 8

How is RPO calculated in MirrorView/A environments?

- A. Half the update cycle
- B. Chunks used divided by link bandwidth
- C. Twice the update cycle
- D. Blocks transferred divided by link bandwidth

Answer: C

Question No : 9

A customer asked for your assistance in the design and migration of their existing storage to a new VNX system. The customer provided the graphical data from their performance monitoring tool showing data IOPs for the server. The monitoring tool uses iostat which gathers data every 15 minutes.

Which primary factor should be explained to the customer when requesting alternate performance data?

- A. Collection Interval
- B. Running Average
- C. Peak Workload
- D. Data Quantity

Answer: A

Question No : 10

Click on the calculator icon in the upper left-hand corner. A customer wants to add a SnapView snapshot to a 500 GiB LUN. Captured data show that the LUN performs 500 4 KiB IOPs with a read/write ratio of 3:1. What is the expected initial bandwidth at which data chunks will be written into the Reserved LUN Pool?

- A. 7.813 MiB/s
- B. 3.906 MiB/s
- C. 500 KiB/s
- D. 2.125 MiB/s

Answer: A

Question No : 11

Your customer has two clustered SQL servers that require direct access to LUNs located on their VNX storage array.

Both servers are located in the customer's main office. The VNX storage array is located in the customer's data center, which is approximately 1.5 km from their office. Both facilities are interconnected using their existing IP network.

Which protocol should be used to connect the servers to the storage array?

- A. FC
- B. iSCSI
- C. CIFS
- D. FCIP

Answer: B

Question No : 12

A customer requests to have 90 SnapSure checkpoints for every file system. After an interview with the administrator, you learn that the company has to comply with an industry requirement of keeping data on disk for a quarter.

What approach solves the requirement with least disk overhead?

A.

Create three checkpoint schedules:

Snap a checkpoint every day, every even hour, keep 4.

Snap a checkpoint Mon-Sat, at 5pm, keep 6.

Snap a checkpoint on Sun, at 6pm, keep 80.

B.

Create four checkpoint schedules:

Snap a checkpoint every day, every hour between 8am and 4pm, keep 7.

Snap a checkpoint Mon-Sat, at 5pm, keep 6.

Snap a checkpoint on Sun, at 5pm, keep 3.

Snap a checkpoint every 1st of the month, at 6pm, keep 3.

C. Create two checkpoint schedules:

Snap a checkpoint every day, every hour, keep 12.

Snap a checkpoint Mon, at 5pm, keep 12.

D. Create one checkpoint schedule.

Snap a checkpoint every day, at 5pm, keep 90.

Answer: B

Question No : 13

Click on the calculator icon in the upper left-hand corner. A customer has a 2 TiB LUN which will be mirrored with MirrorView/S. Analyzer shows the current workload to be 500 8 KiB IOPs with a R/W ratio of 3:1. The customer requires that the mirror should resynchronize within 2 hours if fractured for 10 minutes or less. How much bandwidth is required to meet customer requirements?

A. 10 Mb/s

B. 20 Mb/s

C. 54 Mb/s

D. 114 Mb/s

Answer: D

Question No : 14

Your customer plans to use Incremental SAN Copy as part of a DR solution. The Source LUN is 512 GiB in size, and a clone of this LUN will be used as the ISC source LUN. The host accessing the LUN generates 500 4 KiB IOPS with a R/W ratio of 3:1. The clone is fractured every 30 minutes, and an ISC update is performed.

How much data is moved across the link in the 30-minute period?

- A. 900 MiB
- B. 28 GiB
- C. 56 GiB
- D. 1800 MiB

Answer: C

Question No : 15

Which two scopes are only used by a VNX system while logging into USM?

- A. Local, LDAP
- B. Global, LDAP
- C. Global, Local
- D. Local, Kerberos

Answer: B

Question No : 16

A customer has a Microsoft Server 2008 R2 using VNX block storage. They are looking at multipathing options to ensure failover and load-balancing. Following the EMC best practices, what would you recommend?

- A. Use PowerPath with the CLAROpt algorithm
- B. Use Microsoft Multi-Path I/O with the CLAROpt algorithm
- C. Use PowerPath with the Windows Round Robin with Subset algorithm
- D. Use Microsoft MultiPath I/O with the Windows Round Robin with Subset algorithm

Answer: A

Question No : 17

The majority of your customer's servers have highly utilized database applications that require predictable performance.

What type of storage do you recommend?

- A. RAID Groups with traditional LUNs
- B. Storage groups with thick LUNs
- C. Pool with traditional LUNs
- D. RAID Groups with thin LUNs

Answer: A

Question No : 18

You are doing performance analysis on a VNX5100 that is configured with three virtual pools. You determine that FAST Cache would benefit overall performance. Why are you unable to configure FAST Cache on the array?

- A. Virtual pools have already been enabled.
- B. Cache memory needs to be disabled.
- C. Cache memory needs to be enabled.
- D. Engineering mode is required to enable FAST Cache.

Answer: A

Question No : 19

Click on the calculator icon in the upper left-hand corner. A customer has four (4) LUNs of 500 GiB each, six (6) LUNs of 250 GiB each, and five (5) LUNs of 100 GiB each. All the drives presently in their VNX system are SAS and NL-SAS. They wish to implement FAST Cache. Your data collection shows the skew to be 95%. What is the minimum size of FAST Cache recommended for this environment?

- A. 200 GiB
- B. 100 GiB
- C. 400 GiB
- D. 500 GiB

Answer: A

Question No : 20

A customer plans to deploy a SQL server farm on their fully virtually provisioned VNX array. They want to make sure the SQL volumes always get the best performance.

To what should initial data placement be set?

- A. Highest Available Tier
- B. Auto-Tier
- C. Lowest Available Tier
- D. None

Answer: A

Question No : 21

When is the Copy on First Write mechanism enabled?

- A. When the SnapView session is started
- B. When the SnapView session is being rolled back
- C. When the Snapshot is activated
- D. When the Snapshot is created

Answer: C

Question No : 22

Your customer is troubleshooting a performance issue using Analyzer but needs to gather data in 30 second intervals.

What would you tell the customer?

- A. Intervals can be changed to shorter than 60 seconds only in engineering mode.
- B. Intervals can only be changed to shorter than 60 seconds using Unisphere CLI.
- C. Intervals can easily be changed higher or lower than the default in the Analyzer GUI.
- D. Intervals can only be modified when the Advanced button is checked in the Analyzer GUI.

Answer: A