



**Exam Code:** e20-820

**Exam Name:** CLARiiON Solutions Expert Exam for  
Technology Architects

**Vendor:** EMC

**Version:** DEMO

## Part: A

1: CE Casinos, Inc. has an application that gathers statistics from slot machines and saves the data to a CLARiiON LUN. Because I/O sizes are small, typically 8 KB or smaller, and the access pattern is very random, RAID-1/0 was chosen for the LUN, which is 512 GB in size. I/Os are consistent at 100 writes/s for 24 hours a day. This LUN must be replicated to a CX400 at a test site 10 km away for read-only data analysis. Data collection occurs between 8 am and 8 pm, and the analysis runs from midnight until 4 am. The link between sites is a dedicated 90 Mbps connection. What is the best solution for the customer's needs?

A. Take a SnapView Snapshot of the Production LUN at 8 pm each night, and use SAN Copy to perform a full copy to the remote site. Stop the Session once analysis is complete.

B. Clone the Production LUN. Fracture the Clone at 8 pm each night, and use SAN Copy to perform a full copy to the remote site. Resynchronize the Clone once analysis is complete.

C. Mirror the Production LUN. Fracture the Mirror at 8 pm each night, and use a SnapView Snapshot of the secondary image for analysis. Resynchronize the Mirror once analysis starts.

D. Clone the Production LUN. Fracture the Clone at 8 pm each night, and use Incremental SAN Copy to perform a copy to the remote site. Resynchronize the Clone once analysis is complete.

E. Use Incremental SAN Copy to a remote LUN with the Production LUN as the source, and run the update at 8 pm each night. Use a Snapshot of the remote LUN for the analysis. Stop the SnapView Session once the analysis completes.

**Correct Answers: C**

2: BGH, Ltd, located close to Heathrow Airport in London is considering implementing a Disaster Recovery solution. The business requires the utmost data availability and can afford only minimal downtime should a disaster occur. The solution's RTO should be considered in seconds to minutes and the RPO should be zero to minimal data loss. BGH currently uses a CLARiiON CX500 at the airport site and plans to install a DWDM link to its remote office 25 kilometers away. BGH also intends to utilize Legato AAM (Automated Availability Manager) to ensure speedy resumption of processing at the remote site. Which replication product would you recommend if BGH purchases a CX500 for the remote site?

A. SAN Copy

B. MirrorView

C. MirrorView A

D. Incremental SAN Copy

**Correct Answers: B**

3: When implementing SAN Copy Incremental over long-distances and the link latency is unknown, which setting will measure latency by sending test I/O to the destination?

A. Set Latency to Auto

B. Set Latency to Test

C. Set Link Bandwidth Auto

D. Set Latency to the lowest setting

**Correct Answers: A**

4: CTM, Ltd wants to use SAN Copy over IP with a McData 3300 FC/IP bridge. After completing the design, you notice that the CTM will have bandwidth problems due to the amount of data transferred in push mode over 10 Mb/s lines. The SAN Copy I/O size will be 512KB and the cable load time is 0.425 second. CTM cannot increase its bandwidth. Which feature can improve the amount of data transferred between two sites?

- A. Set the number of default sessions to 4
- B. Enable the Fast Write feature on the McData device
- C. Set the Throttle value to 10 for all SAN Copy sessions
- D. Change the SAN Copy buffer size value to 2048 blocks

**Correct Answers: B**

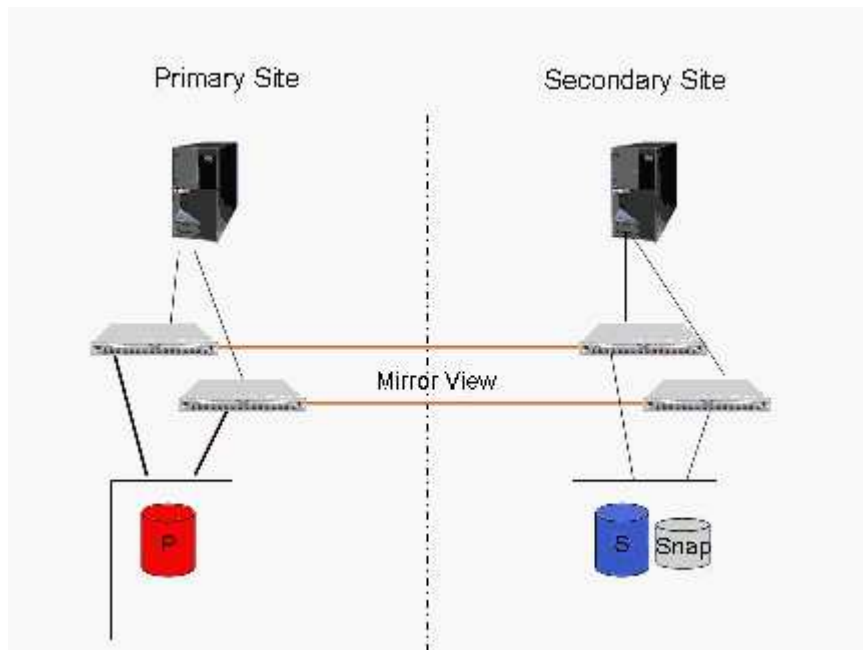
5: Your customer wants to add an additional Storage Group to its existing Exchange environment. You calculated its database uses 20 spindles. How many spindles should you allocate for its Log LUNs?

- A. 2
- B. 5
- C. 6
- D. 8

**Correct Answers: A**

6: Click the Exhibit button.

Review the replication solution shown in the graphic. In the event of production data corruption, which best describes the required steps to recover production data from the remote Snapshot?



- A. Unmount production LUNs, roll back Snap, restore mirror, mount production LUNs
- B. Unmount production LUNs, fracture, roll back Snap, synchronize, promote mirror, mount production LUNs
- C. Unmount production LUNs, promote mirror, fracture, roll back Snap, synchronize, promote mirror, mount production LUNs

D.Unmount production LUNs, roll back Snap ,promote mirror, fracture, synchronize, promote mirror, mount production LUNs

**Correct Answers: C**

7: You need to design a SAN Copy solution for performance. Data will be copied from a source CX700 to a target CX700. The two arrays are attached to the same SAN. There are a total of four source LUNs to be copied to four target LUNs. Single initiator zoning has been created for SAN Copy to include all ports on both CX700 arrays. Initial SAN Copy session settings are as follows:

Throttle level of 10

Buffer size of 2048 Blocks

How do you configure this SAN Copy implementation to ensure maximum throughput?

A.Change Throttle Level to zero and Buffer Size to 512 Blocks

B.Create a separate SAN Copy session for each source LUN and run one SAN Copy session at a time

C.Create a separate SAN Copy session for each source LUN and run all SAN Copy sessions simultaneously

D.Create one SAN Copy session and change zoning from single initiator to one large zone which includes all SP ports on both arrays

**Correct Answers: C**

8: The BMU Company runs an application with several LUNs that it wants to replicate remotely. You obtain the following information:

There are five 4+1 RAID-5 LUNs of 256 GB each

There are two RAID-1/0 LUNs of 128 GB each

The application uses 4 KB random I/Os on the RAID-5 LUNs, with a read/write ratio of 4:1

On the RAID-1/0 LUNs, the application writes sequential 4 KB I/Os, with no reads

Each LUN is on its own RAID Group, consisting of 146 GB drives

Average seek distance on the RAID-5 LUNs is 35 GB

Average seek distance on the RAID-1/0 LUNs is 0 GB

Each RAID-5 LUN performs 400 IOPs

Each RAID-1/0 LUN performs 500 IOPs

RPO is 30 minutes Assume a 2:1 compression ratio for all data.

What is the link speed needed to connect the MirrorView/A sites?

A.52 Mbps

B.104 Mbps

C.156 Mbps

D.208 Mbps

**Correct Answers: A**

9: Volume Managers allow the use of plaids on the CLARiiON. The primary performance impact is the manner in which CLARiiON LUNs are striped. Which two [2] points must be considered?

A.Plaids are only useful when the overlying applications are multi-threaded

B.Use host based RAID implementations that do not require parity calculation

- C. Use host based RAID implementations that require parity calculation (i.e. RAID-3, RAID-5)
- D. LUNs should not be plaid together from RAID groups with different RAID types or stripe sizes
- E. The host manager stripe element size has to be equal to, or smaller than the CLARiiON LUN stripe size

**Correct Answers: B D**

10: CDF Inc. wants to purchase a CLARiiON array to add to its SAN. Path Failover and Load Balancing are requirements. CDF already owns and uses DMP on its Symmetrix. What are two [2] solutions you would recommend?

- A. Dual HBAs with no cross zoning and DMP
- B. Dual HBAs with no cross zoning and PowerPath
- C. Multiple HBAs, Multi-path with cross zoning utilizing four FC ports per SP, and DMP
- D. Dual HBAs, Multi-path with cross zoning utilizing two FC ports per SP, and PowerPath
- E. Multiple HBAs, Multi-path with cross zoning utilizing four FC ports per SP, and PowerPath

**Correct Answers: D E**