

XtremIO Solutions Specialist Exam for Implementation Engineers

EMC E20-368

Version Demo

Total Demo Questions: 15

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QUESTION NO: 1

You are using the GUI to create an XtremIO iSCSI portal.

Where would you navigate to start the configuration process?

- A. Inventory
- B. Configuration
- C. Administration
- D. Clusters

ANSWER: B

Explanation:

Configuration is the correct starting location. In the XtremIO XMS GUI, iSCSI connectivity objects are managed through the Configuration area, which provides access to the iSCSI Portals view. From there, an implementation engineer can initiate creation of a portal and supply the portal's network-related settings, such as the IP address, netmask, gateway, and associated cluster configuration as applicable. This placement is consistent with the GUI's separation of duties: configuration workflows are used to define and manage logical storage and host-connectivity resources, including iSCSI infrastructure. After the iSCSI portal is created, it can be used as part of the required host-connectivity setup and presented to iSCSI initiators according to the deployment design. Dell's XtremIO product documentation is available through the [Dell XtremIO documentation portal](#). Additional Dell support resources for XtremIO products can be accessed through [Dell Support](#).

QUESTION NO: 2

What step must be carried out on the XMS prior to deleting a LUN on an XtremIO?

- A. Unmap from all hosts
- B. Delete all snapshots
- C. Delete all tags
- D. Remove Initiators

ANSWER: A

Explanation:

Before an XtremIO volume can be deleted, it must be unmapped from all hosts. XtremIO presents storage to servers through mappings between the volume and initiator groups or hosts. Removing those mappings on the XMS withdraws the volume's presentation relationship and ensures that the volume is no longer actively assigned to any connected host. This is an essential operational safeguard: a host that still has a mapped device may have active I/O, cached path information, mounted filesystems, or application dependencies associated with that LUN. Administrators should first stop application use of the storage, unmount or otherwise remove the device at the host as appropriate, and then remove every XtremIO mapping through XMS before issuing the volume deletion operation. The XMS inventory and mapping view should be checked to confirm that no host mappings remain. Dell's XtremIO product documentation is available through the [Dell Support XtremIO documentation page](#). Dell also provides lifecycle and configuration guidance through its [XtremIO support knowledge resources](#).

QUESTION NO: 3

Which factor that effects performance can be tuned?

- A. Data Protection XDP
- B. Data compression

C. Data deduplication

ANSWER: B

Explanation:

Data compression is the tunable performance-related factor. XtremIO performs its data services inline, and compression can be configured according to the characteristics and requirements of a workload. This permits an implementation engineer to balance the potential capacity-saving benefit of compression against the small amount of processing associated with compressing and decompressing data. For example, a workload containing highly compressible data may benefit from leaving compression enabled, while a workload already storing compressed or encrypted data may offer little capacity benefit and can be configured appropriately. The relevant setting is applied at the volume level, allowing the configuration to reflect the needs of individual applications rather than imposing one choice on every workload in the cluster. This is a practical tuning control because it can affect the amount of system processing devoted to inline data reduction and the effective capacity delivered to the application. Dell documentation and product-support materials for XtremIO provide the applicable version-specific administration guidance, including volume and data-service configuration details. See the [Dell XtremIO X2 documentation portal](#) and the [Dell Technologies XtremIO product information](#).

QUESTION NO: 4

Which XtremIO capability allows duplicate blocks written to different volumes to be stored only once?

- A. Global inline deduplication
- B. Host-based multipathing
- C. Fibre Channel zoning
- D. Data-at-Rest Encryption

ANSWER: A

Explanation:

Global inline deduplication is correct. XtremIO identifies duplicate content as data enters the array and maintains a single physical instance of matching data blocks, with metadata references for the logical copies. The deduplication scope is global across the cluster rather than limited to an individual volume.

This capability is particularly beneficial for virtual desktop, database-copy, and development environments where many volumes contain common operating-system or application data. Inline processing means the reduction occurs before data is committed to flash media. Dell describes XtremIO data services in the [XtremIO documentation library](#).

QUESTION NO: 5

Which element of the GUI displays the user ID who is logged into the cluster?

- A. Status Bar
- B. Menu Bar
- C. Storage Pane
- D. Inventory Pane

ANSWER: A

Explanation:

Status Bar is correct. In the XtremIO Management Server GUI, the status bar provides persistent session and system context information, including the identity of the user currently authenticated to the cluster. Showing the logged-in user in a

continuously visible area helps administrators confirm which account is performing management actions, which is particularly important where named administrator accounts, role-based access, and audit requirements apply. The status bar is intended to provide this at-a-glance operational context while an administrator navigates among cluster views and management tasks. This placement also makes the active session identity available without requiring the administrator to open a separate inventory or configuration view. Dell EMC XtremIO documentation describes the GUI components and administrative interface behavior in the product documentation available from the XtremIO support portal. See the [Dell XtremIO Series documentation page](#) for product guides and the [Dell XtremIO product support page](#) for related support resources.

QUESTION NO: 6

What is the XMCLI command to verify the encryption capability of the DAE drives?

- A. show-ssds
- B. show-daes
- C. show-volumes
- D. show-local-disks

ANSWER: A

Explanation:

`show-ssds` is the appropriate XMCLI command because XtremIO DAE drive encryption capability is a property reported at the individual SSD level. The command displays the SSD inventory and its detailed attributes, allowing an implementation engineer to review the drive-related encryption information for the SSDs installed in the X-Bricks and DAEs. This is the relevant level of granularity because encryption support is determined by the physical self-encrypting drive capability, rather than by a logical volume or a general enclosure summary.

In an XtremIO environment, XMCLI is used to query system objects and inspect their operational and configuration properties. Reviewing SSD attributes with `show-ssds` is therefore the correct verification step before relying on drive-based encryption functionality or documenting hardware capabilities during implementation. Dell's XtremIO documentation resources, including product documentation and administration references, are available through the [Dell XtremIO documentation page](#). Dell also maintains XtremIO product-support resources at the [XtremIO support page](#), where the applicable software-release documentation and command references can be selected.

QUESTION NO: 7

In a dual X-Brick cluster, how many Storage Controllers are directly powered by the rack's PDUs?

- A. 0
- B. 1
- C. 2
- D. 4

ANSWER: A

Explanation:

0 is correct. In the dual X-Brick rack power design, Storage Controllers are not connected directly to the rack power-distribution units. Their power path includes the rack-mounted uninterruptible power supplies, which provide conditioned, battery-backed power before power reaches the controller power supplies. This arrangement is intentional: the Storage Controllers host the cluster's critical storage services and require sufficient protected power to maintain operation during a brief input-power disruption and to support an orderly shutdown if the interruption continues. Therefore, although the rack PDUs distribute facility power to the rack equipment and UPS units, no Storage Controller is directly powered by a rack PDU. A dual X-Brick cluster has multiple Storage Controllers, but the quantity of controllers does not change the direct-PDU count

because every Storage Controller follows the protected UPS power path. Dell's XtremIO documentation portal provides the platform installation and hardware documentation, including rack and power-cabling guidance: [Dell XtremIO documentation](#). Dell also documents the role of UPS systems in providing battery-backed power and protecting connected equipment from power events: [Dell UPS and battery backup information](#).

QUESTION NO: 8

Which string variables are mandatory when creating a volume using the XMCLI?

- A. Name and size
- B. Name and Block size
- C. Size and Provisioning type
- D. Size and LUN number

ANSWER: A

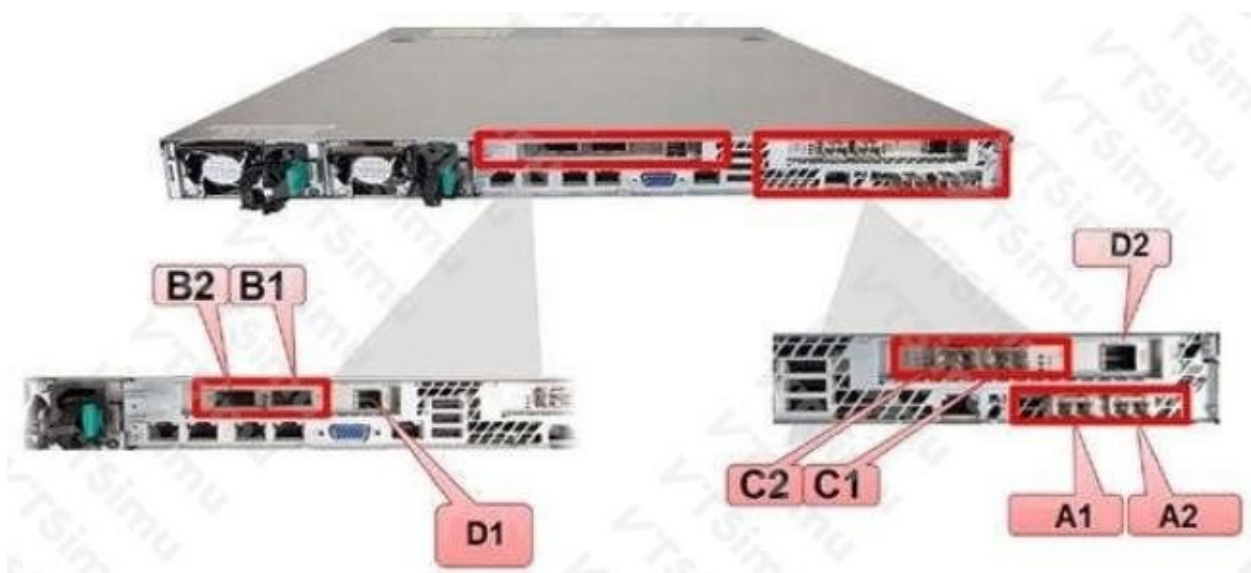
Explanation:

"Name and size" is correct. In XMCLI, volume creation requires a unique volume name and a requested logical capacity. The name identifies the new XtremIO volume object and is subsequently used for management operations, mapping, and reporting. The size specifies the capacity to be presented by that volume, using a supported capacity value and unit. These two values provide the essential identity and capacity definition needed for the array to create the volume.

XtremIO's inline data-reduction architecture and thin-provisioning behavior are intrinsic to the platform, so volume creation is based on defining the volume's logical size rather than requiring a separate provisioning-type value. Likewise, block size is not a mandatory input for the XMCLI volume-create operation; XtremIO volumes use the platform's standard block presentation. A LUN number is assigned in the context of host mapping rather than being required to define the volume itself. For the applicable command syntax and volume-management workflow, consult the XtremIO documentation available through [Dell Technologies XtremIO Documentation](#) and the [Dell Technologies XtremIO Product Support](#) page.

QUESTION NO: 9

Refer to the exhibit.



Which ports are used for external iSCSI connections?

- A. A1 and A2

- B. B1 and B2
- C. C1 and C2
- D. D1 and D2

ANSWER: A

Explanation:

The external iSCSI connections use **A1 and A2**. On an XtremIO X-Brick, the storage-controller external host-facing Ethernet interfaces are dedicated to carrying iSCSI traffic between application hosts and the XtremIO storage system. These ports are connected to the customer's iSCSI switches or host network and provide the redundant paths expected for an iSCSI deployment. Using both interfaces supports high availability and multipathing: hosts can maintain storage access through an alternate path if a cable, switch port, network path, or controller-side interface becomes unavailable. The iSCSI initiators on the hosts discover and log in to the XtremIO iSCSI target addresses presented through these external host-facing ports. Correct cabling and redundant network design are therefore essential before host registration, volume mapping, and multipath configuration are completed. Dell's XtremIO documentation and product-support portal provide the applicable installation, cabling, and host-connectivity documentation for the specific XtremIO software release and hardware generation: [Dell XtremIO documentation](#) and [Dell XtremIO product information](#).

QUESTION NO: 10

You are connecting a VMware cluster to an EMC XtremIO array. The host will be connected to the array using Qlogic Fibre Channel HBAs.

According to EMC best practices, what is the recommended value for the Execution Throttle?

- A. 32
- B. 256
- C. 8,192
- D. 65,536

ANSWER: C

Explanation:

8,192 is the recommended Execution Throttle setting for QLogic Fibre Channel HBAs connected to an XtremIO array. Execution Throttle controls the maximum number of outstanding commands that the HBA can issue to a target port. XtremIO is an all-flash, scale-out array designed for substantial parallel I/O, so its host-connectivity guidance uses a high throttle value to avoid unnecessarily constraining the number of commands that can be in flight.

Configuring the throttle to 8,192 allows the QLogic adapter to sustain the concurrency needed by VMware workloads while maintaining the intended balance between host-side queuing and XtremIO front-end processing. This setting should be applied consistently to the relevant QLogic adapter ports on every ESXi host in the cluster as part of the validated host configuration. It should also be considered alongside the documented HBA driver, firmware, multipathing, and queue-depth recommendations for the particular ESXi and XtremIO software versions in use.

Consult the XtremIO documentation available through the [Dell Technologies XtremIO documentation portal](#) and validate supported host components through the [Dell E-Lab Interoperability Navigator](#) before implementing configuration changes.

QUESTION NO: 11

How is the VM-based XMS distributed?

- A. Open Virtual Appliance image
- B. ISO images of the OS and the XMS application

- C. ZIP file of the OS and the XMS application
- D. GZIP bundle of the application, OS, and VMware Player

ANSWER: A

Explanation:

The VM-based XtremIO Management Server (XMS) is distributed as an Open Virtual Appliance image. This packaging method provides a prebuilt virtual-machine appliance containing the required XMS software and operating-system configuration, so the administrator can import and deploy it into the supported VMware environment rather than separately installing an operating system and then installing the XMS application. In VMware terminology, an OVA is a single-file form of an OVF virtual appliance package, designed for portable distribution and straightforward import into vSphere. This fits the implementation workflow for a virtual XMS: obtain the appliance image, deploy it to the ESXi/vCenter environment, configure the virtual-machine networking and resources, and complete the XMS setup. Dell EMC XtremIO documentation and product resources are available through the [Dell XtremIO documentation portal](#). VMware also documents that OVF/OVA packages are used to distribute and deploy virtual appliances; see the [VMware vSphere OVF and OVA deployment documentation](#).

QUESTION NO: 12

Which NMP policy is recommended for XtremIO volumes assigned to VMware hosts?

- A. Round Robin
- B. Most Recently Used
- C. Fixed Path
- D. Least Recently Used

ANSWER: A

Explanation:

Round Robin is the recommended VMware Native Multipathing Plug-in (NMP) path-selection policy for XtremIO volumes. XtremIO is an active-active, scale-out all-flash array architecture: its front-end paths are designed to provide access to the same volume through multiple storage controllers. Round Robin enables ESXi to distribute I/O across the available active paths rather than concentrating workload on a single preferred path. This provides efficient use of the array's connectivity and host bus adapter resources while retaining multipath resiliency. For XtremIO, the customary implementation recommendation is to use Round Robin with an I/O operations limit of 1, so ESXi can alternate paths at a fine-grained interval and balance I/O effectively across the active paths. The policy should be configured consistently for the XtremIO devices presented to the VMware host, following the applicable XtremIO host-configuration guidance and the ESXi version in use. VMware describes Round Robin as an NMP path-selection policy that rotates I/O among available paths, while Dell's XtremIO documentation provides the platform-specific host integration guidance. See the [VMware vSphere path-selection policy documentation](#) and [Dell XtremIO product documentation](#).

QUESTION NO: 13

Where are the data path IO traces stored?

- A. Two HDDs on each Storage Controller
- B. Two SSDs on each Storage Controller
- C. Two SSDs and two HDDs on the Storage Controllers
- D. Reserved space on each DAE

ANSWER: B

Explanation:

Data-path I/O traces are stored on the two SSDs installed in each XtremIO Storage Controller. These SSDs provide dedicated, persistent local storage for diagnostic trace information generated by the data path. Because I/O tracing can produce substantial volumes of detailed performance and troubleshooting data, SSD-based storage provides the write performance and reliability required to capture traces without relying on the capacity SSDs that make up the XtremIO data repository. The traces can subsequently be collected by qualified support personnel and analyzed when investigating host-connectivity, latency, or data-path behavior. This architecture also keeps diagnostic data local to the controller that generated it, supporting effective fault isolation and serviceability within an X-Brick. Dell's XtremIO documentation and support resources describe the platform hardware and operational procedures, including controller-level diagnostic collection: [Dell Support: XtremIO documentation](#). For additional product-level resources and lifecycle information, see [Dell XtremIO product information](#).

QUESTION NO: 14

While troubleshooting a host performance issue, you need to verify which ports on the XtremIO cluster a host Initiator is connected to.

Which XMCLI command should you use?

- A. show-initiators-connectivity target-details
- B. show-targets-performance
- C. show-initiators-performance
- D. show-targets frequency

ANSWER: A**Explanation:**

`show-initiators-connectivity target-details` is the appropriate XMCLI command because it displays initiator connectivity and includes target-side detail. In this context, an initiator represents the host-side Fibre Channel or iSCSI endpoint, while targets are the XtremIO storage-port endpoints through which that host reaches the cluster. The `target-details` qualifier provides the target information needed to identify the specific XtremIO ports associated with the initiator's active paths. This makes the command useful during host-performance investigation: the engineer can confirm path placement and verify the front-end connectivity seen by the array before correlating that topology with port, initiator, or host-level performance statistics. The output is connectivity-oriented rather than merely a sampled performance report, so it directly answers which cluster target ports the specified host initiator is connected to. Dell's XtremIO documentation collection, including product guides and command-reference materials, is available through the [Dell XtremIO documentation page](#). Additional current Dell technical documentation and support resources can be accessed from the [Dell Support portal](#).

QUESTION NO: 15

An administrator is restoring a 4 TB volume from a snapshot on a 4 X-Brick cluster. What is the Recovery Time Objective (RTO)?

- A. 0 minutes
- B. 4 minutes
- C. 40 minutes
- D. 4 hours

ANSWER: A**Explanation:**

0 minutes is correct because XtremIO snapshot restore is a metadata operation rather than a process that copies all of the volume's user data back from the snapshot. XtremIO uses its content-addressable architecture and metadata mappings to make the snapshot point-in-time image active immediately. Consequently, the logical volume is restored without an RTO that scales with the 4 TB volume size or with the number of X-Bricks in the cluster.

In practical terms, the administrator initiates the restore operation and the system changes the relevant metadata references, allowing hosts to access the restored point-in-time version as soon as the operation completes. The restored volume's apparent size does not require a corresponding data-movement interval, so neither four minutes, forty minutes, nor four hours represents the expected recovery objective. This instantaneous restore behavior is one of the principal operational advantages of XtremIO snapshots for rapid recovery from logical corruption or unintended changes. Dell documentation describes XtremIO as providing metadata-based data services and instant snapshot capabilities; see the [Dell XtremIO product documentation](#) and Dell's [XtremIO storage overview](#).