# Free Questions for D-XTR-OE-A-24

## Shared by William on 04-10-2024

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# Question 1

**Question Type:** MultipleChoice

What is the purpose of Microsoft VSS integration with XtremIO?

## Options:

**A-** Directly transfer data between storage devices

**B-** Compress files before presenting to LUNs

**C-** Allow third-party management of volume operations

**D-** Reclaim space from deleted volumes

## Answer:

C

## Explanation:

The purpose of Microsoft VSS (Volume Shadow Copy Service) integration with XtremIO is to allow third-party management of volume operations.

VSS provides a framework that enables applications to create consistent snapshots, backups, and restores of data without disrupting operations.

This integration is essential for ensuring data integrity and consistency during backup and restore operations.

Dell XtremIO VSS Integration Guide

Microsoft VSS Documentation

# Question 2

**Question Type:** **MultipleChoice**

When will an administrator receive an alert when "Small IO Alerts" are set to "enabled"?

## Options:

**A-** I/Os <4 KB are detected

**B-** I/Os <2 KB are detected

**C-** I/Os <8 KB are detected

**D-** I/Os <1 KB are detected

## Answer:

C

## Explanation:

When 'Small IO Alerts' are set to 'enabled,' an administrator will receive an alert when I/Os smaller than 8 KB are detected.

This setting helps in monitoring and managing small I/O operations that might affect performance and efficiency on the XtremIO array.

Detecting small I/O operations is crucial for maintaining optimal performance, as these can create overhead and impact the array's efficiency.

Dell XtremIO Monitoring Guide

XtremIO Alerts Configuration Documentation

# Question 3

**Question Type:** **MultipleChoice**

In addition to HBA driver configuration, file system queue depth, and data alignment, what other host configuration should be verified when connecting new hosts to XtremIO

arrays?

## Options:

**A-** Volume size

**B-** SSD bandwidth

**C-** Snapshot size

**D-** Path bandwidth

## Answer:

D

## Explanation:

When connecting new hosts to XtremIO arrays, it is essential to verify the path bandwidth in addition to HBA driver configuration, file system queue depth, and data alignment. Path bandwidth refers to the capacity of the data paths between the host and the storage array, which can significantly impact overall performance.

Path Bandwidth: This is the amount of data that can be transferred between the host and the storage array within a certain time frame. Ensuring that the path bandwidth is sufficient is crucial for maintaining high performance and avoiding bottlenecks in data transfer1.

HBA Driver Configuration: The Host Bus Adapter (HBA) drivers must be correctly configured to support the connection to the XtremIO array. This includes setting the appropriate parameters and ensuring that the latest drivers are installed1.

File System Queue Depth: This setting determines how many I/O operations can be queued at the file system level. It should be optimized based on the storage array's capabilities and the expected workload1.

Data Alignment: Proper data alignment is necessary to ensure efficient access to the storage array. Misalignment can lead to performance degradation and increased latency1.

Volume Size (OA): While volume size is an important consideration, it is not typically a host configuration setting that needs to be verified for connectivity purposes.

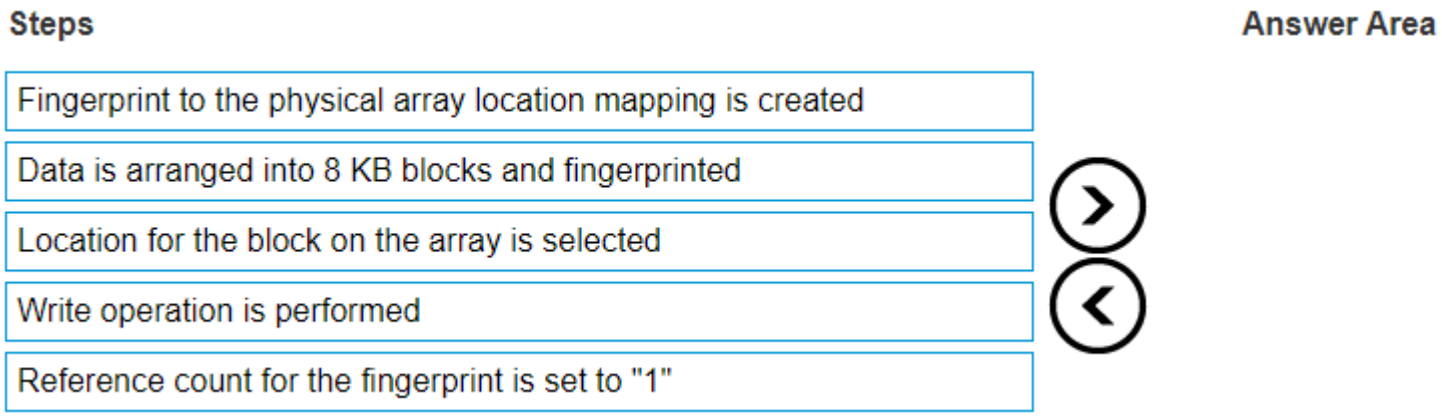
SSD Bandwidth (OB): SSD bandwidth is more related to the storage array's internal performance rather than a host configuration setting.

Snapshot Size (OC): The size of snapshots is managed within the storage array and does not directly impact host configuration for connectivity.

# Question 4

**Question Type:** **OrderList**

If a host writes a unique data block to an XtremIO X1 array, what is the correct sequence of operations?




**Answer:**

# Question 5

**Question Type:** MultipleChoice

A systems administrator needs to create a snapshot of a 10-volume database at exactly 1:00 AM and present them to a backup server. What is the best practice to perform this

task?

## Options:

**A-** Use a Snapshot Restore and Snapshot Set

**B-** Use a Snapshot Set and the Scheduler

**C-** Use a Consistency Group and the Scheduler

**D-** Use a Consistency Group and Snapshot Refresh

## Answer:

C

## Explanation:

Creating a snapshot of a multi-volume database requires careful coordination to ensure data consistency across all volumes. The best practice in this scenario involves using a Consistency Group in conjunction with a Scheduler:

Consistency Group: This is a collection of volumes that are treated as a single entity for snapshot purposes. When a snapshot is taken of a Consistency Group, it captures a point-in-time image of all volumes in the group simultaneously. This ensures that the snapshot reflects a consistent state across all volumes, which is crucial for databases that span multiple volumes1.

Scheduler: The Scheduler is used to automate the snapshot process. By setting up a schedule, the systems administrator can ensure that the snapshot is taken at exactly 1:00 AM without manual intervention. The Scheduler will trigger the snapshot process at the specified time, using the settings defined for the Consistency Group1.

Presenting to a Backup Server: Once the snapshot is created, it can be presented to a backup server. This server will see the snapshot as if it were the actual data, allowing for backup operations to be performed without impacting the production environment1.

Snapshot Restore and Snapshot Set (OA): While these are components of snapshot operations, they do not provide the same level of coordination and automation as a Consistency Group with a Scheduler.

Snapshot Set and the Scheduler (OB): A Snapshot Set is a collection of snapshots, but without the use of a Consistency Group, there is no guarantee that the snapshots will be consistent across all volumes.

Consistency Group and Snapshot Refresh (OD): Snapshot Refresh is a process of updating a snapshot with changes from the source volumes. While useful in certain scenarios, it is not the initial step for creating and presenting snapshots to a backup server.

# Question 6

**Question Type:** MultipleChoice

In a fully-populated Data Protection Group (DPG) with sufficient capacity, how many disk drives need to fail sequentially to stop the XtremIO X2 data services?

## Options:

**A-** 6

**B-** 7

**C-** 2

**D-** 9

## Answer:

D

## Explanation:

In a fully-populated Data Protection Group (DPG) with sufficient capacity, nine disk drives need to fail sequentially to stop the XtremIO X2 data services.

XtremIO is designed with high fault tolerance, and its architecture can withstand multiple disk failures while continuing to operate.

The system uses RAID and other data protection mechanisms to ensure data availability and integrity even in the event of multiple drive failures.

Dell XtremIO X2 Technical Specifications

XtremIO Data Protection Documentation

# Question 7

**Question Type:** MultipleChoice

What is the default Logical Block size when creating an XtremIO volume?

## Options:

**A-** 1024 Bytes

**B-** 8 KB

**C-** 512 Bytes

**D-** 4 KB

## Answer:

D

## Explanation:

The default logical block size when creating an XtremIO volume is 4 KB.

This block size is optimized for performance and efficiency, ensuring that the storage array can handle small random I/O operations effectively.

Properly configured block sizes are essential for achieving optimal performance in high-demand storage environments.

Dell XtremIO X2 Technical Specifications

XtremIO Volume Configuration Guide

# Question 8

**Question Type:** **MultipleChoice**

Which configuration options are available in the XtremIO X2 WebUI cluster security settings?

## Options:

**A-** Event Handlers, User Administration, and VAAI TP Limit

**B-** SNMP Heartbeat, ODX Mode, and Encryption

**C-** Start Cluster, Stop Cluster, and Power-off

**D-** LDAP, Login Banner, and Inactivity Timeout

## Answer:

D

## Explanation:

In the XtremIO X2 WebUI cluster security settings, the available configuration options include LDAP, Login Banner, and Inactivity Timeout.

These settings provide administrators with the ability to manage user authentication, customize login messages, and set inactivity timeouts for enhanced security.

Configuring these options helps in maintaining a secure and compliant storage environment.

Dell XtremIO X2 Administration Guide

XtremIO X2 Security Configuration Documentation

# Question 9

**Question Type:** **MultipleChoice**

What is the design concept of the XtremIO X2-S X-Brick configuration?

## Options:

**A-** High disaster risk reduction

**B-** High fault tolerance

**C-** High physical capacity

**D-** High logical capacity

## Answer:

D

## Explanation:

The design concept of the XtremIO X2-S X-Brick configuration is to provide high logical capacity.

This allows for efficient storage management and data reduction technologies, enabling organizations to maximize their storage resources.

The high logical capacity supports extensive data consolidation and improved storage utilization.

Dell XtremIO X2-S Configuration Guide

XtremIO Product Documentation

# Question 10

**Question Type:** MultipleChoice

A Microsoft Windows host is connected to a traditional hybrid array infrastructure. Host resource utilization increases dramatically during VSS operations. Which host-based

feature can XtremIO leverage to reduce host resource utilization?

## Options:

**A-** MPIO

**B-** VAAI

**C-** VSI

**D-** ODX

## Answer:

D

## Explanation:

Offloaded Data Transfer (ODX) is a feature in Windows that enables efficient data transfer within or between compatible storage arrays, minimizing the host resources used during these operations. When a Microsoft Windows host is connected to an XtremIO array, leveraging ODX can significantly reduce the host's CPU and network resource utilization during Volume Shadow Copy Service (VSS) operations1.

ODX Functionality: ODX offloads the data transfer workload from the host to the storage array itself. This means that data can be moved or copied within the array without passing through the host, thus not consuming host bandwidth or processing power1.

VSS Operations: During VSS operations, which create snapshots or backups of data, there can be a significant amount of data movement. Utilizing ODX allows these operations to be handled more efficiently by the storage array, freeing up the host to perform other tasks1.

XtremIO Compatibility: XtremIO supports ODX, which allows it to handle data movement operations internally. This is particularly beneficial in environments where frequent snapshots or backups are taken, as it ensures minimal impact on host performance1.

Other Options: While MPIO (OA) is used for path redundancy and load balancing, VAAI (OB) offloads certain storage operations to the array, and VSI (OC) is a set of VMware integration tools, none of these specifically address the reduction of host resource utilization during VSS operations as effectively as ODX1.

# Question 11

**Question Type:** MultipleChoice

A new XtremIO X2-S single X-Brick cluster has been installed into a systems administrator's environment. The administrator needs assistance with configuring a group of

volumes with the largest capacity possible.

What is the largest size supported for each volume?

## Options:

**A-** 64 PB

**B-** 64 TB

**C-** 2 PB

**D-** 1 PB

## Answer:

B

## Explanation:

The XtremIO X2-S storage array is designed to support a significant amount of capacity per volume. Based on the information available, the largest size supported for each volume in a single X-Brick cluster is 64 TB1. Here's a detailed explanation:

XtremIO X2-S Capacity: The XtremIO X2-S array allows for scaling up with additional SSDs to increase capacity. A single X-Brick can support a considerable number of SSDs, which contributes to the total volume size it can support1.

Volume Size: The volume size refers to the amount of data storage space that can be allocated for use by applications and services. In the case of XtremIO X2-S, the maximum volume size is designed to accommodate large-scale storage needs1.

Configuration: When configuring volumes on the XtremIO X2-S, administrators can specify the desired size up to the maximum supported limit. This ensures that the storage can be tailored to the specific requirements of the environment1.

Largest Supported Size: The option of 64 TB (OB) aligns with the high-capacity design of the XtremIO X2-S array, making it the correct answer for the largest volume size supported per volume on a single X-Brick cluster1.