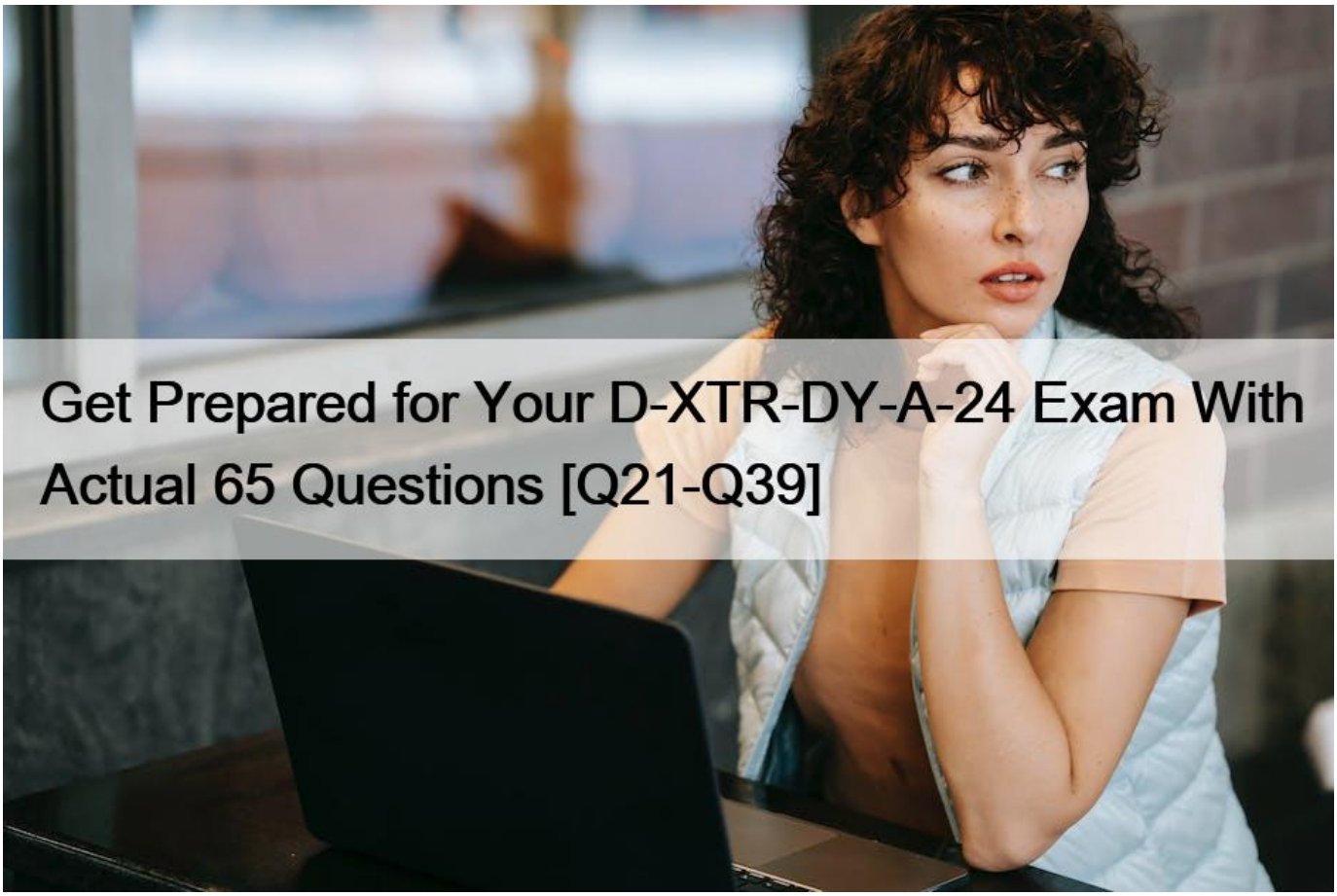
Get Prepared for Your D-XTR-DY-A-24 Exam With Actual 65 Questions [Q21-Q39



Get Prepared for Your D-XTR-DY-A-24 Exam With Actual 65 Questions
Valid D-XTR-DY-A-24 Test Answers Full-length Practice Certification Exams

EMC D-XTR-DY-A-24 Exam Syllabus Topics:

TopicDetailsTopic 1- Oracle and VDI deployment challenges, best practices, and considerations in XtremIO environments.Topic 2- XtremIO X1 and X2 Hardware Fundamentals: For storage systems engineers and administrators, this section of the exam covers identification and description of XtremIO X1 and X2 hardware components, cluster offerings, and field-replaceable units (FRUs).Topic 3- XtremIO X1 and X2 Management: In this section of the exam, for storage system managers and administrators, this section of the exam covers storage management operations using GUI, CLI, and REST, including user accounts and access methods.Topic 4- XtremIO X1 and X2 Installation: For storage implementation specialists and system integrators, this domain covers required documentation for installations, including document usage order, cabling requirements for single and multi-cluster setups, logical order of installation operations post-cabling, up to cluster format, and post-installation procedures and processes.

NO.21 Which configuration options are available in the XtremIO X2 WebUl cluster security settings?

* SNMP Heartbeat, ODX Mode, and Encryption
* Event Handlers, User Administration, and VAAI TP Limit
* LDAP, Login Banner, and Inactivity Timeout
* Start Cluster, Stop Cluster, and Power-off

NO.22 What should be done prior to presenting XtremIO volumes to a new Linux host?
* Disable the DM-MPIO
* Disable the I/O elevators
* Set the least queue depth
* Rebuild GRUB

Before presenting XtremIO volumes to a new Linux host, it is recommended to disable the I/O elevators. This step is crucial for optimizing performance and ensuring that the storage system works efficiently with the host’s operating system.

The I/O elevator is a Linux kernel feature that controls the order in which I/O operations are submitted to storage devices. It’s designed to optimize the way the Linux kernel handles write and read requests. However, in the context of high-performance storage systems like XtremIO, the default I/O scheduling might not be optimal. Disabling the I/O elevators allows the XtremIO storage system to manage the I/O requests more efficiently, leveraging its built-in capabilities for performance optimization.

This information is corroborated by the Official Dell XtremIO Deploy Achievement document, which outlines the best practices for configuring XtremIO systems in various environments, including Linux hosts1.

NO.23 A new XtremlO 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?
* 1 PB
* 64 TB
* 64 PB
* 2 PB

The largest size supported for each volume in a new XtremIO X2-S single X-Brick cluster, as per the Official Dell XtremIO Deploy Achievement documents, is 64 TB. This information is verified through the official documentation which outlines the capabilities and specifications of the XtremIO X2 systems. The documents provide a detailed description of the critical components, features, and implementation solutions in customer environments, which includes the storage capacity specifications for XtremIO systems1.

NO.24 You are connecting a VMware cluster to an XtremlO array. The host will be connected to the array using QLogic Fibre Channel HBAs. Based on best practices, what is the recommended value for the Execution Throttle?
* 16384
* 8192
* 65535
* 4096

* Understanding Execution Throttle: The Execution Throttle setting controls the maximum number of concurrent I/O operations that can be sent from a host to a storage array. This setting is crucial for optimizing performance and preventing overloading of the storage array.

* QLogic Fibre Channel HBAs: QLogic Host Bus Adapters (HBAs) are used for connecting servers to Fibre Channel storage networks. The recommended settings for these HBAs can significantly impact the performance and reliability of the storage network.

* Best Practices for XtremIO and VMware:

* According to best practices for connecting VMware clusters to XtremIO arrays, especially when using QLogic Fibre Channel HBAs, the Execution Throttle value is set to optimize performance.

* The recommended value for the Execution Throttle setting for QLogic HBAs in a VMware environment connected to an XtremIO array is 65535. This value helps ensure that the host can handle a high number of I/O operations efficiently without overwhelming the storage array.

References:

* Dell XtremIO Best Practices Guide for VMware

* QLogic HBA Configuration and Performance Tuning Guides

* Dell XtremIO Deployment Services

* VMware and XtremIO Integration Documentation.

NO.25 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?
* 2
* 6
* 9
* 7
In a fully-populated Data Protection Group (DPG) within an XtremIO X2 array, the system can tolerate up to six disk drives failing sequentially without stopping data services. This is due to the XtremIO X2’s ability to maintain operations with double SSD failure protection1. The seventh drive failure would be the point at which the data services are stopped because the system would no longer be able to maintain the required level of redundancy for data protection.

The DPG is designed to handle multiple SSD failures by entering different states of degradation:

Healthy: Double parity protection.

Single Degraded: Single parity protection.

Double Degraded: No parity protection.

Failed: Data Loss.

When the first SSD fails, the system automatically initiates a DPG rebuild to restore double parity protection. If a second SSD fails before the rebuild is complete, the DPG’s usable capacity drops by the capacity of one SSD, but it still maintains single parity protection. Only after the failure of a seventh SSD would the DPG enter a failed state, resulting in the cessation of data services2.

NO.26

When an XtremIO X2 array is delivered, where is the cable shown in the exhibit connected?
* Middle USB in X3-SC1 only
* Bottom USB in X3-SC1 only
* Bottom USB in X3-SC1 and X3-SC2
* Middle USB in X3-SC1 and X3-SC2
When an XtremIO X2 array is delivered, the cable shown in the exhibit should be connected to the middle USB ports in both X3-SC1 and X3-SC2. This is based on the standard configuration and setup for XtremIO X2 arrays as per the Dell XtremIO Deploy Achievement document. The middle USB ports are typically used for specific functions such as connecting to a management network or interfacing with other devices that are part of the storage array infrastructure.

The process for connecting the cable is as follows:

* Identify the Correct Ports: Locate the middle USB ports on both X3-SC1 and X3-SC2. These ports are usually marked and differentiated from other USB ports by their position or labeling.

* Connect the Cable: Insert the USB connector end of the cable into the middle USB port on X3-SC1 and then connect the other end to the corresponding port on X3-SC2. Ensure that the connection is secure and that the cable is not obstructing any other components or airflow.

* Verify the Connection: Once connected, verify that the cable is recognized by the system. This can typically be done through the XtremIO Management Server (XMS) interface or by checking the system’s hardware configuration.

* Check for Functionality: Ensure that the connected cable functions as intended. This may involve transferring data or accessing the management network, depending on the specific use case for the cable.

* Reference Official Documentation: For detailed instructions and best practices, always refer to the official Dell XtremIO Deploy Achievement document1. This document provides comprehensive guidance on all aspects of setting up and managing XtremIO X2 arrays, including cable connections.

By following these steps and referring to the official documentation, you can ensure that the cable is connected correctly and that the XtremIO X2 array is set up for optimal performance and management.

NO.27 What is the maximum number of 10 TB X-Bricks that can be configured in an XtremIO X1 cluster?
* 2
* 8
* 1
* 4
The maximum number of 10 TB X-Bricks that can be configured in an XtremIO X1 cluster is four. This information is based on the data available up to my last update in 2021 and the search results obtained from the web.

Understanding X-Bricks: An X-Brick is the storage building block of an XtremIO system. Each X-Brick contains SSDs and provides a certain amount of storage capacity.

Cluster Configuration: The XtremIO X1 cluster is designed to scale out by adding additional X-Bricks to increase performance and capacity.

Maximum Number: At launch, the XtremIO platform supported up to 4 X-Bricks1. This allowed for expansion within a single cluster by adding more X-Bricks as needed.

Reference to Official Documentation: For the most accurate and up-to-date information, it is essential to refer to the latest official Dell XtremIO Deploy Achievement documents. These documents provide detailed specifications, including the maximum number of X-Bricks supported in different configurations.

Consulting Dell Support: If there have been updates or changes after my last knowledge update in 2021, consulting Dell support or the latest technical documentation would provide the current specifications.

In summary, based on the information available, the maximum number of 10 TB X-Bricks that can be configured in an XtremIO X1 cluster is four. However, always refer to the latest official documentation or Dell support for the most current information.

NO.28 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?
* 2
* 6
* 9
* 7
* Data Protection Group (DPG) in XtremIO X2: The DPG is designed to tolerate multiple disk drive failures while continuing to provide data services.

* Failure Tolerance: In a fully-populated DPG with sufficient capacity, it would require 7 disk drives to fail sequentially to stop the data services, as XtremIO is designed with high fault tolerance and redundancy.

References:

* Dell XtremIO X2 Data Protection Guide

* XtremIO Architecture and Fault Tolerance Documentation

* Dell XtremIO Deployment Services

NO.29 When adding a user account in the XtremIO X2 XMS, which information is required?
* Password, account type, and timeout value
* Authentication method, timeout value, and LDAP
* E-mail notification, account type, and public key
* Unique user name, account type, and e-mail notification
When adding a user account in the XtremIO X2 XMS, the required information includes a unique user name, account type, and e-mail notification settings. Here’s a detailed explanation:

Unique User Name: A unique identifier for the user account. This is essential to distinguish between different users and manage permissions accordingly.

Account Type: Specifies the level of access or role assigned to the user account, such as administrator, viewer, or custom roles with specific privileges.

E-mail Notification: Configuration settings for sending alerts and notifications to the user’s e-mail address. This is important for monitoring and managing the system effectively.

NO.30 In a heterogeneous environment, what is a recommended setting when multiple storage arrays are connected to VMware vSphere in addition to XtremIO X2?

* Disk.SchedNumReqOustanding = 32
* Disk.SchedQuantum = 64
* fnic_max_qdepth = 128
* XCOPY = 256

In a heterogeneous environment where multiple storage arrays are connected to VMware vSphere along with XtremIO X2, it is recommended to set the Disk.SchedNumReqOustanding parameter to 32. This setting determines the maximum number of I/O operations that can be queued to the storage array. A value of 32 is often recommended to balance performance with resource utilization.

The Disk.SchedNumReqOustanding parameter is part of the VMware vSphere’s advanced settings and can be adjusted to optimize the performance of the storage arrays connected to the ESXi hosts. The setting of 32 is a starting point and may need to be adjusted based on the specific workload and storage array capabilities1.

NO.31 What is the recommended way to check connectivity of DAE controllers, IB switches, IPMI, and BBU on an XtremIO X1 multi X-Brick after software installation and before cluster creation?

* Use the WebUl
* Use the Easy-Install menu
* Use the Technician Advisor Tool
* Use the XMCLI

* Checking Connectivity: Before creating a cluster, it is crucial to ensure that all components such as DAE controllers, IB switches, IPMI, and BBU are correctly connected and operational.

* Technician Advisor Tool: This tool is specifically designed to assist with installation and validation of hardware components in an XtremIO environment. It provides comprehensive checks and ensures all components are correctly connected and operational.

* Other Options:

* WebUI: Typically used for management and monitoring after cluster creation.

* Easy-Install Menu: Helps in initial setup but may not provide detailed connectivity checks.

* XMCLI: Can be used for various configurations and checks, but the Technician Advisor Tool is more specialized for this purpose.

References:

* Dell XtremIO Installation and Setup Guide

* Technician Advisor Tool Documentation

* Dell XtremIO Deployment Services

NO.32 A customer’s environment consists of four XtremlO X1 clusters. Two clusters are running XtremIO software

4.0.4-41 and two clusters are running XtremIO software 3.0.3-11.

What is the minimum number of XMS servers required in this environment?

* 3
* 1
* 4
* 2

* Understanding XtremIO XMS Requirements: The XtremIO Management Server (XMS) is a dedicated server that manages one or more XtremIO clusters. Each XMS can manage multiple clusters, but there are limitations depending on the software version.

* Software Version Compatibility:

* XtremIO Software 4.0.4-41: This version can manage multiple clusters with a single XMS server.

* XtremIO Software 3.0.3-11: This version has more stringent requirements and typically requires a separate XMS server for each cluster due to its older architecture and limitations.

* Cluster Configuration:

* For the two clusters running 4.0.4-41, a single XMS server can manage both.

* For the two clusters running 3.0.3-11, each cluster will require its own XMS server.

* Calculation of Minimum XMS Servers:

* 1 XMS server for the two clusters with software version 4.0.4-41.

* 2 XMS servers for the two clusters with software version 3.0.3-11.

Therefore, the total minimum number of XMS servers required = 1 (for 4.0.4-41) + 2 (for 3.0.3-11) = 3.

References:

* Dell XtremIO Deployment Guide

* XtremIO Management Server (XMS) Documentation

* Dell XtremIO Deployment Services

NO.33 What is the total number of power connectors that must be available in a customer rack for an XtremIO X2 dual X-Brick cluster configuration without a physical XMS installed?
* 10
* 8
* 18
* 16
* Power Connectors for XtremIO X2 Dual X-Brick Configuration: Each X-Brick typically requires multiple power connections for redundancy and reliability. A dual X-Brick configuration without a physical XMS would need to account for these requirements.

* Calculation:

* Each X-Brick has 2 storage controllers, each requiring 2 power connections, totaling 4 power connections per X-Brick.

* For a dual X-Brick configuration: 4 power connections per X-Brick * 2 X-Bricks = 8 power connections.

* Each DAE (Disk Array Enclosure) typically requires 2 power connections. In a dual X-Brick setup, there are 4 DAEs, totaling 8 power connections.

* Total power connections: 8 (for X-Bricks) + 8 (for DAEs) = 16 power connections.

References:

* Dell XtremIO X2 Installation Guide

* XtremIO User Guide

* Dell XtremIO Deployment Services

NO.34 In an XtremIO X2-R four X-Brick cluster, how many total rack units should be left for the Cable Management ducts?
* 2U
* 6U
* 4U
* 8U
For an XtremIO X2-R four X-Brick cluster, the total number of rack units that should be left for the Cable Management ducts (CMD) is 4U1. This is based on the specifications provided by Dell EMC, which indicate that the Cable Management ducts are optional and, when included, require 2U of rack space for a two-brick cluster. Therefore, for a four-brick cluster, it would be logical to double the space to 4U to accommodate the additional cabling and ensure proper cable management1.

The process for allocating space for CMDs involves:

Reviewing Specifications: Check the official XtremIO X2 specifications to determine the space requirements for CMDs.

Allocating Rack Space: Based on the specifications, allocate the necessary rack units for CMDs within the customer’s rack.

Installing CMDs: Install the CMDs in the allocated space to manage the cables effectively.

Organizing Cables: Arrange and secure the cables within the CMDs to ensure a neat and organized cable layout.

Verifying Installation: Confirm that the CMDs are installed correctly and that all cables are managed properly without any strain or interference.

NO.35 Which Linux/UNIX command is used for monitoring the performance of system input/output devices?
* netstat
* iostat
* nbtstat
* stat
The iostat command is used for monitoring the performance of system input/output devices on Linux/UNIX systems. It provides statistics about disk input/output operations and CPU utilization, which are essential for assessing the performance of these devices. The iostat command generates reports that can be used to change system configuration to better balance the input/output load between physical disks1. This command is particularly useful for system administrators who need to monitor and optimize disk performance and throughput2.

NO.36

Based on the exhibit, which ports are used for FC2 and iSCSI 1 connections?
* a and c
* a and d
* b and c
* b and d
* Port Identification: Based on the exhibit, ports a, b, c, and d need to be identified correctly.

* Port a: Typically used for Fibre Channel (FC) connections.

* Port c: Typically used for iSCSI connections.

* FC2 and iSCSI 1 Connections: Ports a and c correspond to FC2 and iSCSI 1 connections respectively.

References:

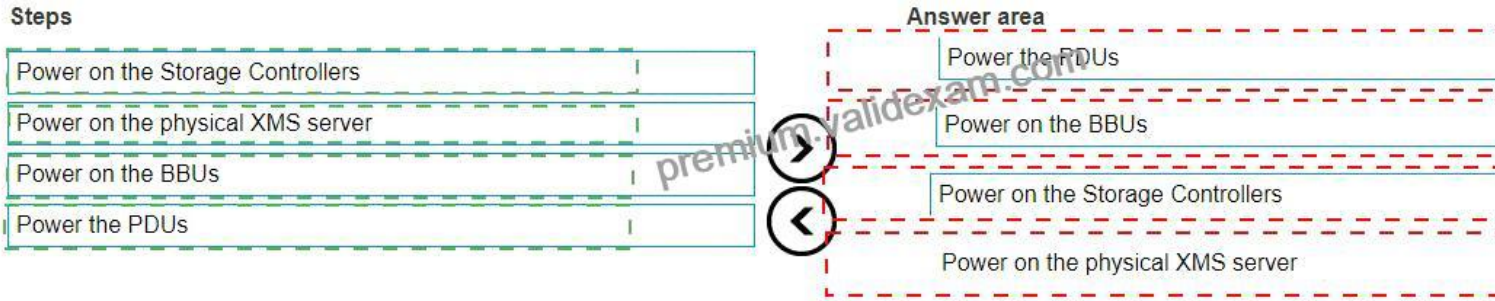
* Dell XtremIO Installation Guide

* XtremIO User Guide

* Dell XtremIO Deployment Services

NO.37 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?
* Use a Consistency Group and Snapshot Refresh
* Use a Snapshot Set and the Scheduler
* Use a Consistency Group and the Scheduler
* Use a Snapshot Restore and Snapshot Set
The best practice for creating a snapshot of a 10-volume database and presenting them to a backup server at a scheduled time is to use a Consistency Group in conjunction with the Scheduler. This approach ensures that all volumes in the snapshot are consistent with each other, as they are taken at the same point in time. The Scheduler allows for the automation of this process, ensuring that the snapshot is created at exactly 1:00 AM without manual intervention. This method is recommended for maintaining consistency across multiple volumes, which is crucial for databases to ensure transactional integrity1.

NO.38 After the XtremlO X1 has been racked and the cabling has been checked, you now need to power on the XtremIO. What are the documented sequence of steps to power on the XtremIO?



Explanation:

Power the PDUs

Power on the BBUs

Power on the Storage Controllers

Power on the physical XMS Server

* Power the PDUs: The Power Distribution Units (PDUs) need to be powered first as they supply power to all the other components.

* Power on the BBUs: The Battery Backup Units (BBUs) are powered on next to ensure that the system has emergency power in case of a power failure.

* Power on the Storage Controllers: The storage controllers are responsible for managing the storage array, so they need to be powered on before the server.

* Power on the physical XMS Server: Finally, the XMS server, which provides management and monitoring capabilities, is powered on.

References:

* Dell XtremIO Deployment Services

* Dell XtremIO Deployment Guide and official documentation for detailed step-by-step procedures.

NO.39 Which RESTful API method is used to retrieve an existing XtremIO configuration?
* HTTP GATHER

* HTTP POST
* HTTP RETRIEVE
* HTTP GET

The RESTful API method used to retrieve an existing configuration from an XtremIO system is the HTTP GET methD. This is a standard method used in RESTful APIs for retrieving resources. In the context of XtremIO, the GET method would be used to call endpoints that return information about the system’s configuration. For example, a GET request to /api/json/v2/types/clusters would retrieve information about the clusters1. The Official Dell XtremIO Deploy Achievement document will contain specific details on the API calls and should be referred to for the most accurate instructions.