

100% Money Back
Guarantee

Vendor:EMC

Exam Code:E20-526

Exam Name:XtremIO Solutions and Design Specialist
Exam for Technology Architects

Version:Demo

QUESTION 1

A physical XtremIO Management Server (XMS) has failed and requires replacement. Which two software packages are required for recovery?

- A. XMS image and OVA image
- B. Xtremapp and OVA image
- C. XMS image and Xtremapp
- D. Xtremapp and MPIO

Correct Answer: C

The first step is to re-install the XMS image, in the event it is a physical XMS then you may install an image via a USB flash drive or for a virtual XMS simply deploy the provided VMware OVA image.

The following step is to upload the XMS software to the images directory of the XMS and login with install mode

Once logged into the XMS console with xinstall then perform the following sequence of steps:

1. Configuration
5. Perform XMS installation only
11. Run XMS Recovery

```
Install menu
1. Configuration
2. Check configuration
3. Display configuration
4. Display installed Xtremapp version
5. Perform XMS installation only
6. Perform "fresh" installation(XMS + storage controllers)
7. Set IP Client Configuration
8. Start IP Client Installation
9. Set Policy Manager configuration
10. Start Policy Manager Installation
11. Run XMS Recovery
12. Reboot
99. Exit
```

Options to choose when running the "XMS Recovery":

```

>> 11
Enter IP Address or Host Name of the System Manager Storage Controller (usually the first) (previous value: '');
> 172.    .40
Input received: '172.    .40'
Enter selection for Keeping the GUID of the old XMS (Y/N) (previous value: 'N'):
> N
Input received: 'N'
Enter selection for restoring the original DB in case of failure (Y/N) (previous value: 'Y'):
> Y
Input received: 'Y'
Running: /xtremapp/bin/xms-recovery 172.    .40

```

References: <https://davidring.ie/2015/02/20/emc-xtremio-redeploying-xms-xtremio-management-server/>

QUESTION 2

Based on best practice, what is the maximum number of paths a host should have to an XtremIO volume?

- A. 4
- B. 8
- C. 16
- D. 32

Correct Answer: C

The recommended maximum number of paths to storage ports per host is 16 as per the table below.

2 HBAs	2 X-Bricks		Ports Per Cluster
HBA1	X1_SC1_FC1	X1_SC2_FC1	8
	X2_SC1_FC1	X2_SC2_FC1	
HBA2	X1_SC1_FC2	X1_SC2_FC2	
	X2_SC1_FC2	X2_SC2_FC2	
4 HBAs	2 X-Bricks		Ports per Cluster
HBA1	X1_SC1_FC1	X1_SC2_FC1	16
	X2_SC1_FC1	X2_SC2_FC1	
HBA2	X1_SC1_FC2	X1_SC2_FC2	
	X2_SC1_FC2	X2_SC2_FC2	
HBA3	X1_SC1_FC1	X1_SC2_FC1	
	X2_SC1_FC1	X2_SC2_FC1	
HBA4	X1_SC1_FC2	X1_SC2_FC2	
	X2_SC1_FC2	X2_SC2_FC2	

QUESTION 3

A customer has purchased a two X-Brick XtremIO array with a physical XtremIO Management Server (XMS). The customer plans to use all Fibre Channel connectivity in the environment.

What are the physical connectivity requirements for the cluster?

- A. 1 Copper Ethernet connection, 4 Fibre Channel Optical connections
- B. 3 Copper Ethernet connections, 8 Fibre Channel Optical connections
- C. 4 Copper Ethernet connections, 16 Fibre Channel Optical connections
- D. 5 Copper Ethernet connections, 8 Fibre Channel Optical connections

Correct Answer: B

EMC XTREMIO 4.0 SYSTEM SPECIFICATIONS

Host Connectivity (Based on number of X-Bricks in the array)	Starter X-Brick	1 X-Brick	2 X-Brick Cluster	4 X-Brick Cluster	6 X-Brick Cluster	8 X-Brick Cluster
Fibre Channel Ports (8Gbps)	4	4	8	16	24	32
iSCSI Ethernet Ports (10Gbps)	4	4	8	16	24	32

Management	Starter X-Brick	1 X-Brick	2 X-Brick Cluster	4 X-Brick Cluster	6 X-Brick Cluster	8 X-Brick Cluster
Ethernet Ports (1Gbps)	2	2	4	8	12	16

QUESTION 4

A customer's storage administration team wants to receive e-mail notifications when the XtremIO cluster detects an issue of major severity. The customer has successfully configured and tested the e-mail server in the XtremIO GUI. However, the e-mail server is not receiving the expected notifications when major severity issues appear.

What is the cause of this issue?

- A. Alert definitions have not been defined
- B. Event handlers have not been defined
- C. Public reports have not been defined
- D. Private reports have not been defined

Correct Answer: A

QUESTION 5

A customer wants to use the Cinder driver to manage XtremIO storage in an OpenStack environment. What is a potential concern?

- A. Compression is not supported
- B. Deduplication is not supported
- C. Snapshots of snapshots are not supported
- D. Volume expansion cannot be reversed

Correct Answer: D

Incorrect Answers:

B: OpenStack Cinder features include:

Clone a volume: With inline deduplication, compression and thin provisioning.

C, D: EMC XtremIO OpenStack Block Storage driver, supported operations: Create, delete, clone, attach, and detach volumes Create and delete volume snapshots Create a volume from a snapshot Copy an image to a volume Copy a volume to an image Extend a volume

References: <https://docs.openstack.org/juno/config-reference/content/XtremIO-cinder-driver.html>
<https://www.emc.com/collateral/data-sheet/h13287-ds-xtremio-openstack.pdf>

QUESTION 6

A customer has decided to use VMware Horizon View as their desktop virtualization technology. Their VDI environment will consist of XtremIO storage and ESXi hosts. They are looking for increased speed and low latencies while performing file copy operations.

What should the setting for VAAI XCOPY I/O size be set to in order to achieve this requirement?

- A. 8 kB
- B. 63 kB
- C. 256 kB
- D. 4 MB

Correct Answer: C

The VAAI XCOPY I/O size of 256 kB gives the best performance. 4 MB is the default value.

References: <https://www.emc.com/collateral/white-papers/h14279-wp-vmware-horizon-xtremio-designconsiderations.pdf>, page 57

QUESTION 7

Based on XtremIO Data Protection, how many dedicated hot spare disks per X-Brick are required?

- A. 0
- B. 1
- C. 2
- D. 3

Correct Answer: A

XtremIO Data Protection (XDP) doesn't require any configuration, nor does it need hot spare drives. Instead it uses "hot spaces" free space in the array.

References: <https://www.emc.com/collateral/white-paper/h13036-wp-xtremio-data-protection.pdf> , page 23

QUESTION 8

A customer has a requirement to replicate their VDI to a newly purchased data center located 5 miles away. They require 10-day retention at each site and a continuous replication RPO. However, they want to have the same storage platform at each site. They have a limited budget but need to meet their requirements.

Which solution should be recommended to the customer?

- A. XtremIO and OpenStack
- B. XtremIO with VPLEX and RecoverPoint
- C. XtremIO and RecoverPoint
- D. XtremIO and MirrorView/A replication

Correct Answer: C

The EMC RecoverPoint family provides cost-effective, local continuous data protection (CDP), continuous remote replication (CRR), and continuous local and remote replication (CLR) that allows for any-point-in-time data recovery and a new "snap and replicate" mechanism for local and remote replication (XRP).

Native replication support for XtremIO The native replication support for XtremIO is designed for high-performance and low-latency applications that provides a low Recovery Point Objective of one minute or less and immediate RTO.

The benefits include: Block level remote or local replication Asynchronous local and remote replication Policy-based replication to enable optimizing storage and network resources, while obtaining desired RPO and RTO Application-aware integration

Incorrect Answers:

- A: OpenStack is the open platform for managing private and public clouds.
- B: XtremIO with VPLEX and RecoverPoint is a valid solution, but it would be more costly.

References: Introduction to the EMC XtremIO STORAGE ARRAY (April 2015), page 52

QUESTION 9

A customer is considering migrating their existing non-EMC storage arrays to an XtremIO array. The current environment consists of 350 servers running VMware ESXi 5.5 with 5000 virtual machines. The customer has various tools in place to monitor performance and collect statistics. On average, their service time is 32 ms and utilization is at 75%. In the past, the customer has had performance issues.

Based on Little's Law, what is the calculated response time on the existing environment?

- A. 128 ms
- B. 192 ms
- C. 256 ms
- D. 332 ms

Correct Answer: A

Disk service time $T(s) = 32$ ms (service time for one I/O).

Response time $T(r)$ is calculated as: $T(s) / (1 - \text{Utilization})$, which here calculates to $32 \text{ ms} / (1 - 0.75) = 128$

ms.

References: <https://community.emc.com/thread/145100?tstart=0>

QUESTION 10

A customer is interested in transitioning their traditional infrastructure to the Cloud by implementing ViPR software-defined storage in an XtremIO environment. Which capabilities will EMC ViPR software-defined storage provide to XtremIO?

- A. Delivers SaaS Centralized management and monitoring Chargeback and billing capabilities
- B. Chargeback reporting capability Centralizes reactive monitoring capability Policy-driven configuration management
- C. Automatically grows storage volumes Slows growth of data Centralized auto-deletes of aging files
- D. Creates virtual storage pools Automates disaster recovery Replaces chargeback capabilities

Correct Answer: A

EMC ViPR Controller is a software-defined storage platform that abstracts, pools and automates a data center's underlying physical storage infrastructure. It provides data center administrators with a single control plane for heterogeneous storage systems.

ViPR enables software-defined data centers by providing features including:

* Comprehensive and customizable platform reporting capabilities that include capacity metering, chargeback, and performance monitoring through the included ViPR SolutionPack

References: Introduction to the EMC XtremIO STORAGE ARRAY (April 2015), page 60

QUESTION 11

A customer has two XtremIO clusters running 3.x software release. The customer just purchased a new XtremIO array that will be installed with the latest 4.x software release.

What is the minimum number of XtremIO Management Server(s) that will be required to manage all clusters?

- A. 1
- B. 2
- C. 3
- D. 4

Correct Answer: C

The system operation is controlled via a stand-alone dedicated Linux-based server, called the XtremIO Management Server (XMS). A single XMS can manage multiple clusters. Multiple cluster management is supported from version 4.0 and up. System version 4.0 supports up to eight clusters managed by an XMS in a given site.

References: Introduction to the EMC XtremIO STORAGE ARRAY (April 2015), page 48

QUESTION 12

A user attempts to create a quorum disk for a host cluster. Volume parameters are: Size = 1000 kB Name 1MB_Vol

However, the volume creation fails. What caused the process to fail?

- A. Quorum disks cannot have an 8kB block size
- B. Volume size is too small
- C. Volume name is invalid
- D. XtremIO volumes cannot be quorum disks

Correct Answer: B

The volume size must be specified in MB, GB, TB, and not in KB.

Incorrect Answers:

D: Quorum disks on XtremIO The SAN Volume Controller cluster will select disks that are presented by the XtremIO storage system as quorum disks. To maintain availability for the cluster, ideally each quorum disk should reside on a separate disk subsystem.

The quorum device can be any disk device that is shared between two or more nodes. EMC Symmetrix, VNX series, or XtremIO devices are commonly used for this purpose.

References: <https://vcdx133.com/2014/09/14/emc-xtremio-provisioning-a-lun/>

