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**Exam Code: HP0-J67**

**Exam Name: Architecting Multi-site HP Storage Solutions**



## Exam A

### QUESTION 1

Refer to the exhibit. You are presenting a converged infrastructure proposal to the director of IT and the infrastructure administration team. The configuration is to refresh the infrastructure at a wholly-owned subsidiary company. They plan to have a SQL standby server in their main data center for recovery. The director informs you that the subsidiary IT staff has been laid off and that the configuration needs to be as easy to manage as possible because it will be done remotely. What should you to improve the proposal TCO?

### Exhibit:



- A. Recommend an HP Flat SAN
- B. Add an HP StoreEasy 3000 Gateway
- C. Change HP 3PAR StoreServ 7400 to HP StoreVirtual 4530
- D. Fibre Channel connect the HP StoreOnce 4420

**Correct Answer:** A

**Section:** (none)

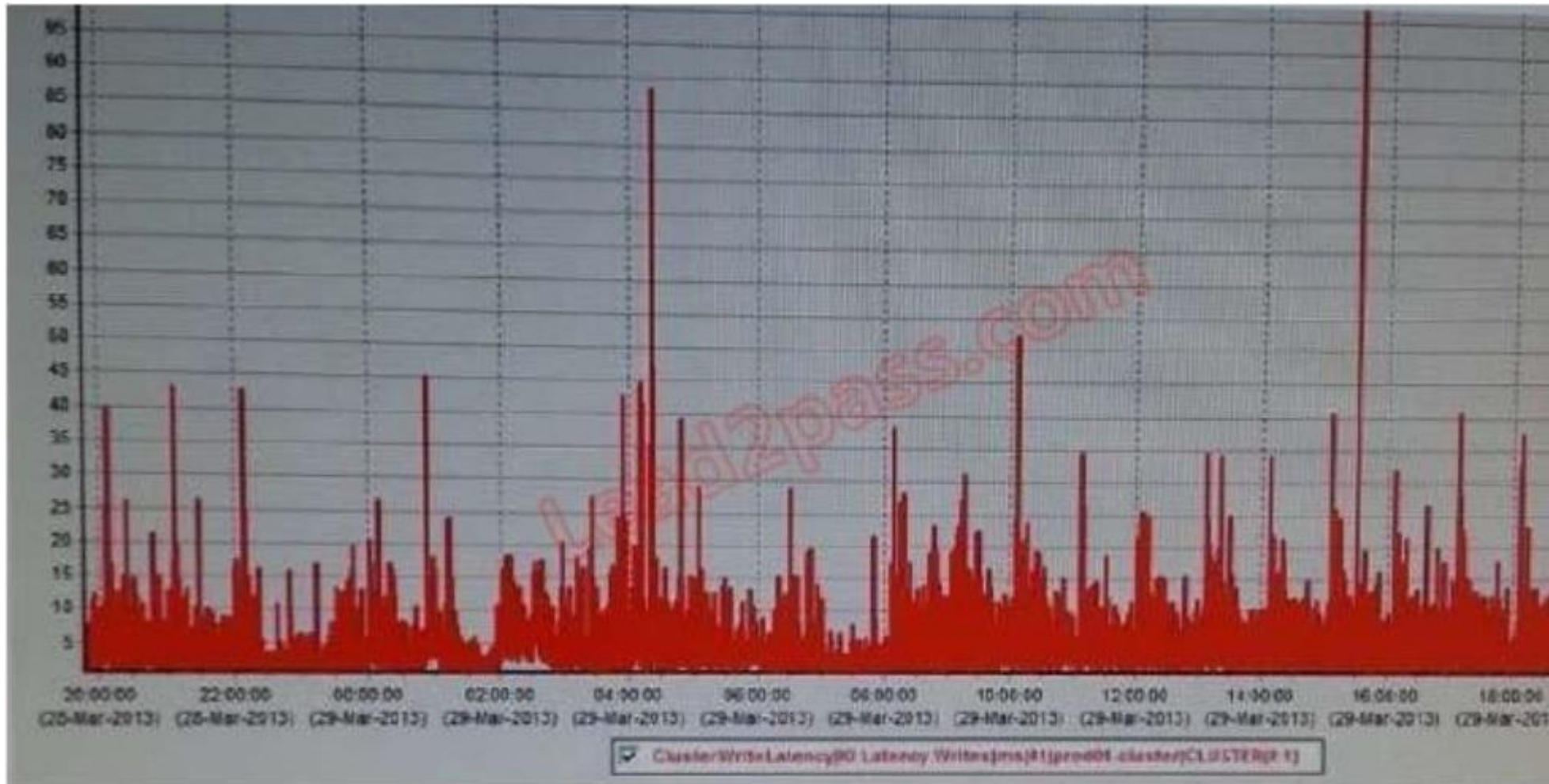
**Explanation**

**Explanation/Reference:**

## QUESTION 2

Refer to the exhibit. A customer reports poor application performance on their Oracle database, which is on an existing two node HP P4500 virtualization SAN. The customer provides you with the chart in the exhibit. Which assumption can you make based on this graph?

**Exhibit:**



- A. Asynchronous replication from this cluster causes a bottleneck.
- B. Database read operations cause a bottleneck on the cluster
- C. Hard drive background tasks cause a bottleneck on the cluster
- D. Writing archive logs causes a bottleneck on the cluster

**Correct Answer:** C

**Section:** (none)

**Explanation**

**Explanation/Reference:****QUESTION 3**

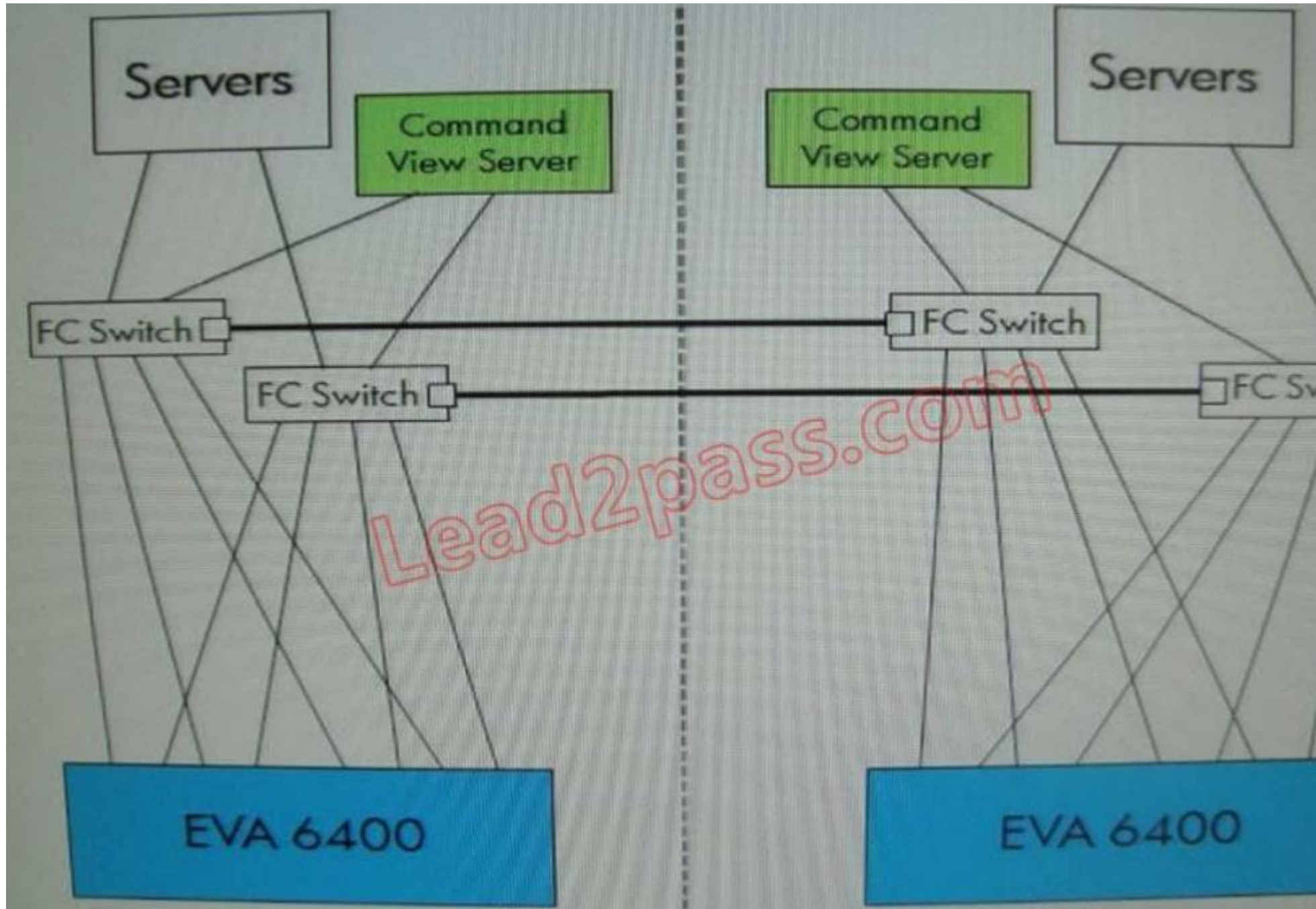
Refer to the exhibit. The central IT department of a local city government has data centers in two buildings, which are several kilometers apart and are connected by long wave SFPs. They have implemented two HP 6400 Enterprise Virtual Arrays with synchronous HP Continuous Access EVA zoned for a 6- logical-fabric solution. They are using redundant HP StorageWorks 4/32 SAN Switches at each site.

Central IT recently expanded to include more city departments and added 45 more servers and 23 TB of additional data into their solution. However the users are reporting poor application performance.

Which Tool will enable the IT department to gather information about the DR tunnel in the environment?

**Exhibit:**





- A. HP B-Series SAN Network Advisor
- B. HP Command View EVA EVAperf
- C. HP DataCenter Fabric Manager
- D. HP Intelligent infrastructure Analyzer Software

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### **QUESTION 4**

Which connection protocol supports dual-ported drives and is optimized for backplane interconnections?

- A. ATA
- B. SATA
- C. IDE
- D. SAS

**Correct Answer:** D

**Section:** (none)

**Explanation**

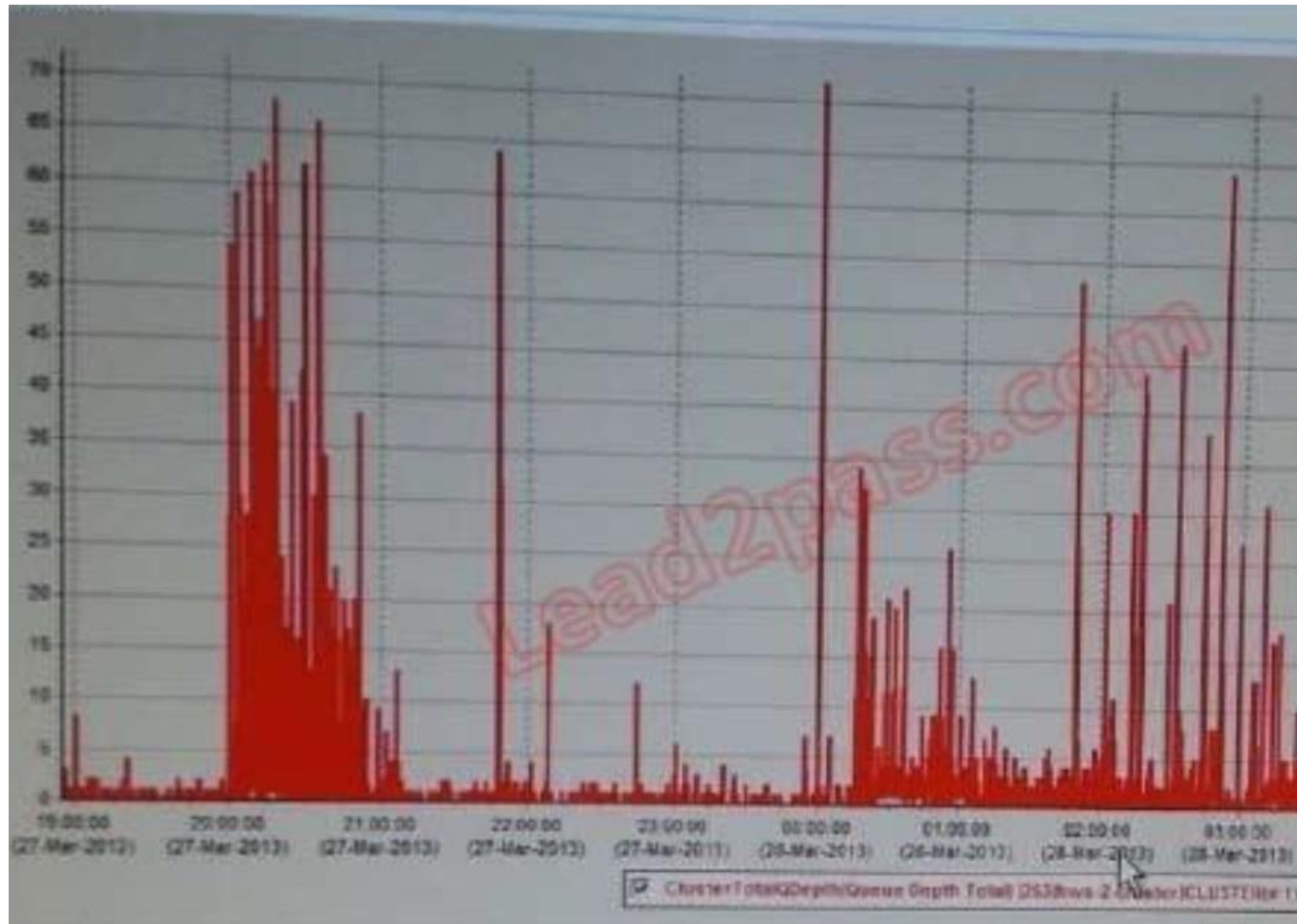
**Explanation/Reference:**

#### **QUESTION 5**

Refer to the exhibit. A customer complains about poor application performance on their existing two-node HP P4500 Virtualization SAN and provides you the chart in the exhibit. Which conclusion can you draw from this graph?

**Exhibit:**





- A. Queue depth of the storage cluster is in the optimal range, and throughput should be checked
- B. Queue depth is acceptable, and total latency peaks are too High during business hours
- C. Queue depth of the storage environment is acceptable, and performance issues should be checked on the application level
- D. Queue depth of the cluster exceeds the recommend limit, and total disk I/O should be checked

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### QUESTION 6

You are working with a local manufacturing company to design a new SAN fabric for their primary and DR data centers. The customer requirements include:

- *Fabric issues occurring in one SAN fabric must not impact or affect the other SAN fabric*
- *The ability to isolate the test environment from the production environment*
- *The primary and DR data centers need to utilize the same infrastructure to reduce the administration load on SAN administrators*

Which storage technology should you propose to meet the stated requirements?

- A. HP H series switches with Transparent Routing (TR)
- B. HP C Series switches with Inter VSAN Routing (IVR)
- C. HP C series switches with FlexAttach (FA)
- D. HP B series switches with Administrative Domains (AD)

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### QUESTION 7

You are tuning a customer HP StoreOnce Backup System and notice they are running backups 20 hours a day. As a result, backup jobs are running during the same time as replication jobs. What can you do to limit the available bandwidth and not saturate the link with replication traffic?

- A. Enable multiplexing and set concurrency to 1.

- B. Enable concurrency control.
- C. Map multiple source libraries into a single target library.
- D. Enable compression.

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

## QUESTION 8

Your customer has a number of existing HP P4000 G2 clusters across two sites. They are installing a new upgraded HP StoreVirtual 4000 environment. The customer asks for the best method with the least amount of downtime to migrate the data from the physical servers to the new storage arrays. Which method do you suggest?

- A. HP REMOTE COPY
- B. VmWARE Vmotion
- C. Cluster Swap
- D. HP MPX200

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

## QUESTION 9

You have designed a new SAN fabric for a customer. The fabric consists of CISCO MDS 8/24c Fabric switches for HP BladeSystem C class. Which feature allows automatic mapping of physical WWNs to virtual WWNs using NAT?

- A. FlexFabric
- B. FlexAttach
- C. Virtual Domain
- D. Access Gateways

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 10**

When sizing a solution involving deduplication, how does the rate of changed blocks between back ups affect dedup ratio?

- A. The lowest the block change rate the highest the deduplication ratio
- B. No changed blocks between backups result in a dedup ration of 0%
- C. Dedup ration is only affected by the back up software
- D. The rate of changed blocks does not affect deduplication efficiency.

**Correct Answer: A**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 11**

A customer has outgrown the internal tape drive on their media server. You recommend eliminating tape and leveraging an HP StoreOnce solution that enables replication. If the customer media server uses 10GbE network connections, what is the smallest Hp StoreOnce solution you can recommend?

- A. HP StoreOnce 4220 Backup System
- B. HP StoreOnce 4420 Backup System
- C. HP StoreOnce 4210iSCSI Backup System
- D. HP StoreOnce 4210fc Backup System

**Correct Answer: B**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 12**

You are discussing cost reduction, quality management and business growth with a client. According to industry best practises, which CxO are you meeting with?

- A. CIO
- B. COO

- C. CFO
- D. CEO

**Correct Answer: C**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

### **QUESTION 13**

A customer has an outdated 4Gb Fiber Channel infrastructure environment that needs to be updated. The customer uses two data centers on a campus with a dual redundant fabric layout interconnected by customer owned fiber and an evenly spread port count. The total port count is 86 ports per fabric and is unlikely to increase data to the continuing virtualization of physical servers. The customer is concerned about data security and requires the connections between data centers to be encrypted.

What should you propose to meet the customer requirements?

- A. four HP StoreFabric SN6000B Switches
- B. six HP B series 8/40 switches
- C. eight HP StoreFabric SN3000B switches
- D. ten HP StoreFabric SN6000 switches

**Correct Answer: A**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

### **QUESTION 14**

A customer needs to implement a strategy that manages and protects the growing amount of data at a remote office.

Which type of solution should they implement?

- A. a bridging technology for iSCSI routers and bridges across both networks
- B. block level data deduplication, permitting more backups to be retained on less storage
- C. a network storage pool for file-level or block-level access
- D. a unified storage architecture for consolidating block level data and NAS on a single device

**Correct Answer: B**

**Section: (none)**

**Explanation**

## Explanation/Reference:

### QUESTION 15

Your customer wants to replicate backup data from branch offices to a primary data center where an HP StoreOnce 4430 Backup System using HP StoreOnce Catalyst is located. The main backup application is HP Data Protector 7.01. The file and application servers have Windows 2003, Windows 2008, and SUSE Linux 9 and 10 installed. The file and application servers are a mixture of 32 and 64 bit Windows and Linux operating systems. As a long-term strategy, the customer wants to migrate all services to the primary data center. No additional hardware can be purchased for the branch offices, and complexity should be minimized.

Which deduplication type is optimal for this customer?

- A. source-side
- B. application-side
- C. target-side
- D. server-side

**Correct Answer: D**

**Section: (none)**

**Explanation**

## Explanation/Reference:

### QUESTION 16

In addition to being able to wide-stripe data over many physical disks, what is another unique feature of an HP 3PAR StoreServ compared to competitor block based arrays?

- A. Asynchronous remote replication
- B. Controller functions based on a software implementation of RAID
- C. Block storage functions facilitated by software emulation
- D. Customer ASIC enabled Thin Provisioning

**Correct Answer: D**

**Section: (none)**

**Explanation**

## Explanation/Reference:

### QUESTION 17



A large regional telecommunications company specializing in mobile services has experienced rapid growth. They currently have 149 million subscribers in 11 markets, including 4 million subscribers locally. The year-on-year data growth between 2003 and 2012 was approximately 15%. The projected growth for 2013 and the next several years is 30% annually. The proposed mission critical solution needs to work with the existing application modules and deliver a minimum data transfer rate of 6.5 TB per hour and a capacity of 120 TB. Financially, the solution has to offer low Total Cost of Ownership (TCO) over the next 5 years, and solution capacity has to accommodate the performance and growth model. Which mission critical backup solution and support level should you propose? (Select two.)

- A. HP Same day hardware support
- B. HP StoreOnce 4430 with two upgrade kits
- C. HP 6 HOUR CALL to repair support
- D. HP StoreOnce B6200 with three 48 expansion kits
- E. HP 24/7 4 hour response support

**Correct Answer:** CE

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### QUESTION 18

A small manufacturing customer has a data center that is prone to flooding. The customer has a limited budget. The customer has two HP 3PAR StoreServ 7000 Storage systems in the primary data center, which will be split between data centers. Used capacity of each storage system is 10 TB of data. The replication between data centers is performed via Ethernet/IP and it will be asynchronous, the maximum RPO is 30 minutes, and daily change rate is 0.5 %. What is the required minimum bandwidth between the data centers for replication?

- A. 5 Mb half-duplex
- B. 10 Mb full-duplex
- C. 20 Mb full-duplex
- D. 40 Mb half-duplex

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### QUESTION 19

You need to review design due to complaints from the customer regarding performance of virtual volumes. You make following notes:

- *Primary DC to Secondary DC = 30 miles and 5 ms roundtrip latency, synchronous replication*
- *Primary DC to Disaster Recovery DC = 200 miles and 15 ms latency, periodic Async. replication.*

How should you resolve their performance problem?

- A. Convert all replication jobs to Synchronous Long Distance.
- B. Convert the replication job from the primary DC to the DR DC to Synchronous Long Distance.
- C. Convert the replication job from the primary DC to the; Secondary DC to Synchronous Long Distance.
- D. Convert all replication jobs to Periodic Asynchronous.

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

## QUESTION 20

Backup solution for customer with a primary and secondary data center on the same campus.. Backed up fileserver data should be replicated across the data centers by VLT replication after a backup completed. The customer give you sizing requirements:

- *Backup of one file server with 6 partitions, 150 Gb each Daily full backup*
- *Daily change rate by less than 1% of original data*
- *Backup application is DP 7.01*
- *Retention time is 120 days*
- *Uni-directional replication between sites.*

Which product is good?

- A. 2620
- B. 4210
- C. 4220
- D. 4420

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 21**

Your customer asks you to assist in designing a new cost-effective storage solution. The solution will be used to store archive data. It must be able to replicate a point-in-time copy of data at the primary site to a remote site. The solution must provide block-level access and support for FC. There is very little rack space available at the primary site.

Which solution meets the customer requirements?

- A. HP MSA
- B. HP 3PAR StoreServ
- C. HP StoreVirtual
- D. HP EVA

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 22**

After proposing an HP 3PAR StoreServ 7000 Storage System solution, a customer asks about the benefits of future disk drive expansion. What are the primary performance and capacity differentiators for existing or new volumes when adding disk drives? (Select two)

- A. Capacity is available to existing or new volumes
- B. Performance is available only to new volumes
- C. Performance is available only to existing volumes
- D. Performance is available to existing or new volumes
- E. Capacity is available only to existing volumes
- F. Capacity is available only to new volumes

**Correct Answer:** AD

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 23**

A company is implementing a disk-based backup strategy that requires maximum efficiency of the backup storage. Which technology provides this capability?

- A. clustering
- B. deduplication
- C. cloning
- D. replication

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### **QUESTION 24**

A customer extends their Oracle Database on a virtual volume residing on an HP 3PAR StoreServ array. After the extension is complete, the customer asks you why the additional allocated space by the database is not reflected in the occupation level on their HP 3PAR StoreServ array. You explain the superior TCO and ROI of HP 3PAR StoreServ arrays to the customer.

Which HP 3PAR StoreServ technology increases the efficiency of HP 3PAR StoreServ arrays and improves TCO and ROI?

- A. HP 3PAR Virtual Array
- B. HP 3PAR Thin Provisioning
- C. HP 3PAR REplication
- D. HP 3PAR Wide Striping

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### **QUESTION 25**

A customer requires a multitenancy high-performance, and massively-scalable storage solution. Which technology should the customer use to meet this requirement?

- A. converged utility storage
- B. scale-out storage software
- C. standardized storage platforms
- D. server-based storage virtualization

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

## QUESTION 26

A network administrator needs to consolidate cables, adapters, and switches in a mixed Ethernet and Fibre Channel environment. Which protocol enables the administrator to accomplish this task?

- A. Fibre Channel over ATM
- B. FCoE
- C. TCP/IP
- D. FCIP

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

## QUESTION 27

Your customer needs a solution to provide non-disruptive data steaming across two sites. The customer is not limited to an existing transport protocol environment but wants to use deduplication for their office data. Which HP storage solution should you recommend?

- A. HP StoreOnce
- B. HP StoreEasy
- C. HP EVA
- D. HP 3PAR StoreServ

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

## QUESTION 28

Which HP 3PAR StoreServ features help you meet IT improvement goals? (Select two.)

- A. Virtual Copy
- B. Persistence Ports
- C. Virtual Domains
- D. Virtual Lock
- E. Thin provisioning

**Correct Answer:** BE

**Section:** (none)

**Explanation**

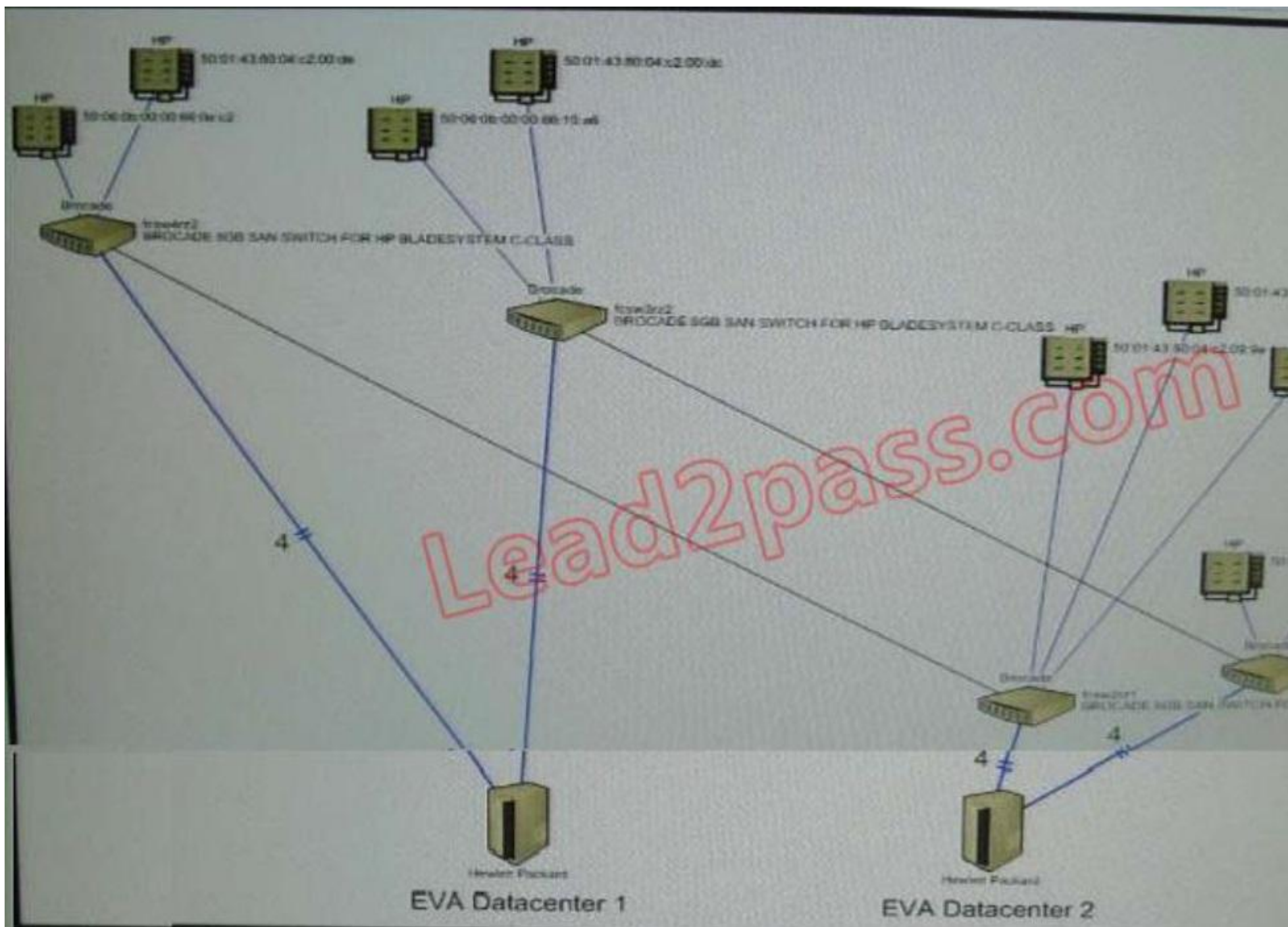
**Explanation/Reference:**

**QUESTION 29**

Refer to the exhibit. A customer reports performance issues in their newly-installed storage environment, which you designed. A storage performance report shows that the storage system is not over utilized. What should you recommend to solve the problem?

**Exhibit:**





- A. Add additional ISLs between the data centers.
- B. Add more host ports to the attached server systems.
- C. Add additional Fibre Channel cards in the storage system.
- D. Trunk the existing ISLs between the data centers.

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

## QUESTION 30

A customer has multiple eight-node SQL clusters that are currently connected to three HP EVA 8400 storage systems. The customer has I/O latency problems on the servers and sees high queue depths on the EVA ports. What should you recommend to solve this problem?

- A. HP 3PAR StoreServ 10000 with 32 host ports
- B. HP StoreVirtual multi-node with FC support
- C. HP StoreVirtual with iSCSI to eliminate queue depths
- D. HP EVA P6000 which has higher queue depths

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

## QUESTION 31

A customer wants to enable a long distance (~50km/31 miles) replication for their Fibre Channel- Based enterprise storage solution. Because of budget restrictions, they want a low-cost solution that supports replication. Which type of solution meet these requirements?

- A. Network Storage Router
- B. Extended SAN switch
- C. WAN Accelerator
- D. IP Distance Gateway

**Correct Answer:** D

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 32**

Drag and Drop Questions

Match the architecture type with the correct storage solution.

**Select and Place:**

Match the architecture type with the correct storage solution

Monolithic

HP XP Storage

Scale Up

HP StoreSure

Grid

HP StoreVirtual

Scale Out

HP 3PAR Storage

**Correct Answer:**

Match the architecture type with the correct storage solution

Monolithic

Scale Up

Scale Out

Grid



**Section: (none)**

**Explanation**

**Explanation/Reference:**

## **QUESTION 33**

An enterprise company needs the fastest deduplication technology for both backup and restore. Which technology should the company implement?

- A. hash-based chunking
- B. object-level differencing
- C. application-based cloning
- D. host-based file swapping

**Correct Answer: B**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

## **QUESTION 34**

A company is planning to implement a backup and archiving solution. They have the following requirements:

- *Corrupt data files must be restored within seconds*
- *Archived data must be available for 15 years.*
- *Archived data must be stored off-site.*

Which types of solutions should the company use? (Select two.)

- A. Remote replication for backup data
- B. Remote replication for archived data
- C. Tape-based storage for backup data
- D. Tape-based storage for archived data
- E. Disk-based storage for backup data
- F. Disk-based storage for archived data

**Correct Answer: DE**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 35**

You are designing a new storage solution for a customer that provides Thin Provisioning support for Solid State Disks (SSD) and the ability to isolate SAN Administrators so they only manage storage resources that they are responsible for. Additionally, the customer needs to ensure performance for cache-oriented I/O for specific hosts.

Which HP Storage system should you recommend to meet the customer requirements?

- A. HP XP P9500
- B. HP StoreVirtual 4530
- C. HP EVA P6550
- D. HP 3PAR StoreServ 10000

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 36**

A customer has an environment spanning two datacenters in a campus environment. The primary storage is an HP 3PAR StoreServ 10400 Storage system. Data is replicated between sites with an RPO of zero.

There has recently been a hurricane and extensive flooding. While the customer was not directly impacted, they are now questioning whether they have adequate protection. You have been brought in to analyze the customer environment and make recommendations. You suggest creating a data center at a remote location and actively replicating data to it.

What are the implications of adding the third data center to the data network? (Select two)

- A. Jumbo Frames should be enabled
- B. The data network must support converged enhanced ethernet
- C. A new subnet must be added to interconnect the 3PAR arrays
- D. The data network must support Open Stack
- E. 10 GbE links are needed to interconnect to HP 3PAR StoreServ Arrays

**Correct Answer:** AC

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 37**

You are reviewing a colleagues extended fabric design, which proposes an HP 1606 Extension SAN Switch. Which customer requirement should lead you to choose an HP Multi-Protocol Router blade for the B-Series as an alternative?

- A. Concerns around fabric stability
- B. Requirement to extend the fabric between sites
- C. Requirement to support dark fiber metro connectivity
- D. Need for up to 10 Gbs replication bandwidth

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 38**

You propose an HP 3PAR StoreServ Storage solution to your customer. The customer wants to know what sets this solution apart from the competition and why they should purchase it.

What are unique features of an HP 3PAR StoreServ compared to competitor block-based arrays? (Select two)

- A. Hardware implemented Thin Provisioning
- B. Wide-striping of data over many physical disks
- C. Linear performance scalability due to a custom ASIC
- D. Block storage functions facilitated by software emulation
- E. Controller functions based on a software implementation of RAID

**Correct Answer:** AC

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 39**

Your customer wants to replicate backup data from branch offices to a primary data center where an HP StoreOnce 4430 Backup system using StoreOnce Catalyst is located. The backup application is HP Data Protector 7.01. The file and application servers have Windows 2003, Windows 2008 and Suse Linux 9 and 10 installed. As a long term strategy. The customer wants to migrate all services to the primary data center. No additional hardware can be purchased for the branch offices and complexity should be minimized.

Which HP resources should be used to validate interoperability of a new solution? (Select two)

- A. HP Data Protector Platform and Integration Matrix
- B. HP Enterprise Backup Solution Compatibility Matrix
- C. HP SAN Design Reference Guide
- D. HP Enterprise Backup Solution Design Guide
- E. HP Data Protector concepts guide

**Correct Answer:** AD

**Section:** (none)

**Explanation**

**Explanation/Reference:**

## QUESTION 40

A customer has heavy bandwidth traffic on their WAN link that they have isolated to HP 3PAR StoreServ Remote Copy replication between their primary and DR site. They are not concerned with the RTO but would like to improve the RPO.

Which recommendation should you make to decrease their WAN link traffic?

- A. Replicate just the database logs
- B. Create more Remote Copy volume groups
- C. Use synchronous mode replication of the entire database
- D. Use synchronous long distance mode of the entire database

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

## QUESTION 41

Which HP 3PAR StoreServ Features help you meet IT improvement goals? (Select two)

- A. Thin Provisioning
- B. Virtual Copy
- C. Virtual Lock
- D. Virtual Domains
- E. Persistent Ports

**Correct Answer:** AE

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### **QUESTION 42**

An enterprise has several remote locations with restricted access for the operators. They need a backup solutions with a maximum of 10 TB of backup per location. The data must be archived to tape daily at a central location for compliance purposes.

Which storage solution should the enterprise deploy?

- A. HP 3PAR StoreServ
- B. HP StoreAll
- C. HP StoreVirtual
- D. HP StoreOnce

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### **QUESTION 43**

You are architecting an HP StoreOnce Backup System solution for a customer with a primary and a secondary data center on the same campus.

Backed up files server data should be replicated across the data centers by VTL replication after a backup is completed. The customer gives you these sizing requirements:

- Backup of one fileserver with 6 partitions, 150 GB each
- Daily full backup
- Daily change rate by less than 1% of the original files
- Backup application is HP Data Protector 7.01
- Retention time of 120 days should be achieved
- Uni-directional replication between sites

Which HP StoreOnce backup system is the most cost-effective and meets the customer requirements?

- A. HP StoreOnce 2620 Backup System
- B. HP StoreOnce 4210 Backup System
- C. HP StoreOnce 4220 Backup System

D. HP StoreOnce 4420 Backup System

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### **QUESTION 44**

Your customer wants to upgrade their existing HP 3PAR S-Class array. A competitor has suggested a non-HP storage array. Your conversation with the customer focuses on the notable architectural enhancements within the new generation of HP 3PAR StoreServ 7400 platforms. Which enhancements should you focus on? (Select two.)

- A. The 64-bit OS enables scalable headroom for performance and capacity
- B. Logical Disk regions have increased from 256 MB and are now 1 GB in size
- C. The tightly coupled cache-coherent clustering is built into the Gen4 ASIC
- D. Write cache mirroring is now implemented N+N across the 7x00 controllers
- E. New HP StoreServ 7x00 now supports 16Gb FibreChannel Speeds

**Correct Answer:** AC

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### **QUESTION 45**

A company is planning to deploy a database application that requires high availability. In the event of a host failure, the application must sustain only minimal service interruption. Which technology should the company use?

- A. remote data replication
- B. local data replication
- C. clustering
- D. two-stage backup

**Correct Answer:** C

**Section:** (none)

**Explanation**



## Explanation/Reference:

### QUESTION 46

A customer has an environment spanning two data centers on a campus environment. The primary storage is an HP 3PAR StoreServ 10400 system. Data replicated between sites with an RPO of zero. The customer is questioning whether they have adequate protection. You suggest creating a DR site and actively replicate the data to it. What are the implications of adding the third data center to the data network?

- A. 10 GbE links are needed to interconnect the HP StoreServ 3PAR arrays.
- B. The data network must support OpenStack.
- C. The data network must support Converged Enhanced Ethernet
- D. A dedicated subnet must be added to interconnect the 3PAR arrays

**Correct Answer: D**

**Section: (none)**

**Explanation**

## Explanation/Reference:

### QUESTION 47

What is a main difference between Small Form Factor Pluggable (SFP) and Small Form Factor Pluggable plus (SFP+) modules?

- A. Port density
- B. Physical size
- C. Maximum transfer rate
- D. Different pinout

**Correct Answer: C**

**Section: (none)**

**Explanation**

## Explanation/Reference:

### QUESTION 48

A customer with a B series fabric needs to establish FC IP connected between their primary data center fabric and DR data center fabric to enable replication. However they are concerned that fabric instability issues in the DR fabric will cause issues in their production fabric. Which HP Storage solution should you recommend?

- A. HP SN6000 FC Switch
- B. HP 1606 Extension SAN switch
- C. HP C-Series MD5 9222i Multiservices Modular Fabric Switch
- D. HP MPX200 Multifunction router

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### **QUESTION 49**

Your customer wants to replace the aging storage and servers infrastructures with the latest technology to run the entire transaction processing and Oracle data warehouse applications. The client data warehouse holds a minimum of 2 years of trading and market data reporting, trading and regular functions. The current storage system is an HP 3PAR F400 that has been operational for almost 4 years without downtime. The client needs 150 TB of raw capacity.

Which proposed solution follows the configuration best practises and future proofing?

- A. HP 3PAR StoreServ 7200 with SSD and NL drives
- B. HP 3PAR StoreServ 7400-4 with SSD and NL drives
- C. HP 3PAR StoreServ 7400-4 with 15k SAS and NL drives
- D. HP 3PAR StoreServ 7200 with 15k SAS and NL drives

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### **QUESTION 50**

You are meeting with a customer that has a small business with an unpredictable workload in a virtualized environment. Which product family from the HP array portfolio do you lead your discussion with?

- A. P2000
- B. P4000
- C. X3000
- D. P6000

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

## QUESTION 51

Which tool does the HP StoreVirtual 4000 solution provide to help customers monitor array health?

- A. Command View
- B. Centralized Management Console
- C. FCTool
- D. SAN Toolbox

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

## QUESTION 52

A company with a first-generation deduplication appliance is migrating to an HP StoreOnce 6200 Backup System. After migration, what will be the size of the deduplication block?

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

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

## QUESTION 53

A customer plans to migrate data from an HP EVA4400 to an HP 3PAR StoreServ 7000. The customer has VMware vSphere 5 that uses the HP EVA4400.

How can the customer migrate the VMware storage without disruption?

- A. by configuring load-balancing between storage systems
- B. by verifying the EVA is running a supported firmware
- C. by upgrading the VMware vSphere version
- D. by configuring multipathing between storage systems

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### **QUESTION 54**

Which HP 3PAR StoreServ features improves storage array resiliency?

- A. Persistence Ports
- B. Virtual Copy
- C. Virtual Domains
- D. Virtual Lock

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### **QUESTION 55**

A company is experiencing performance problems on a third-party storage system with a large VMware environment. The company plans to migrate to an HP 3PAR StoreServ 7000.

Which benefit will the company realize from this migration?

- A. ability to handle demand spikes
- B. automated operating system deployment
- C. support for VMware VAAI
- D. built-in virtual machine management

**Correct Answer:** C

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 56**

A customer is planning to implement an HP StoreVirtual 4330FC Storage System Which type of cable do they need to connect the storage system to the fabric?

- A. SC Fibre Channel
- B. LC Fibre Channel
- C. iSCSI
- D. SAS

**Correct Answer: D**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 57**

A customer uses HP 3PAK System Reporter and Adaptive Optimization with an HP 3PAR StoreServ 10000 Storage System that runs HP 3PAR OS 3.1.1. The customer is planning to upgrade the storage system to HP 3PAR OS 3.1.2. The customer needs to use System Reporter and Adaptive Optimization on the storage system after the upgrade.

Which complications will the customer encounter after performing the upgrade? (Select two)

- A. System Reporter backups must be reconfigured
- B. System Reporter data does not migrate
- C. Adaptive Optimization is disabled
- D. System Reporter databases become corrupt
- E. Adaptive Optimization must be reconfigured.

**Correct Answer: BC**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 58**

A customer's network environment contains a third-party storage system and an HP BladeSystem with ProLiant server blades. The customer plans to migrate data to an HP StoreVirtual Storage System.

The storage system must contain at least 20 TB of raw capacity.

Which HP StoreVirtual Storage System should the customer deploy?

- A. HP StoreVirtual 4630
- B. HP StoreVirtual 4530
- C. HP StoreVirtual 4330
- D. HP StoreVirtual 4130

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 59**

A customer plans to migrate data from a third-party storage system to an HP 3PAR StoreServ 7200 Storage System.

The new storage system must provide up to 128 disk drives.

How many additional drive chassis does the customer need?

- A. Three
- B. Four
- C. Five
- D. Six

**Correct Answer:** C

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 60**

A customer plans to implement an HP StoreOnce B6200 Backup System. The customer has two subnets that the backup system must utilize to communicate.

What should be used to meet these requirements?

- A. DHCP for both subnets

- B. DHCP for one subnet and a static IP for the other
- C. a single network gateway for both subnets
- D. an IP address for each subnet

**Correct Answer:** C

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### **QUESTION 61**

A customer branch office backup and restore strategy integrates replication using HP StoreOnce D2D4109i Backup system in the main data center. After a presentation of a new HP StoreOnce Backup system and its functionalities, the customer wants to use HP StoreOnce Catalyst with HP Data Protector installation for the existing replication environment. What has to be done to integrate the concept? (select two)

- A. Upgrade existing HW with RAM and drives for Catalyst compatibility
- B. Propose StoreOnce Catalyst DP licenses for existing models
- C. Upgrade backup system SW to an StoreOnce Catalyst aware ver.
- D. trade in the branch office systems and propose StoreOnce 4210 Backup Systems
- E. Recommended HP DataProtector StoreOnce replication licenses.

**Correct Answer:** BC

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### **QUESTION 62**

You have designed a new SAN fabric for a customer. Fabric consist of Cisco MDS 8/24 Fabric Switches for BladeSystem C-class. Which mode and feature allows automatic mapping of physical WWNs to virtual WWNs using NAT? (select 2)

- A. NPV
- B. FlexFabric
- C. Virtual Domains
- D. Access gateway
- E. FlexAttach

**Correct Answer:** AE

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 63**

A customer has an environment spanning two data centers in a campus environment. The primary storage is an HP 3PARS StoreServ 10400 Storage System. Data is replicated between two sites with RPO of zero. There has recently been a hurricane and extensive flooding; the customer was not directly impacted, but they are now questioning whether they have adequate protection. You have been brought in to analyze the customer environment and make recommendations. You suggest creating a DR data center at a remote location and actively replicating the data to it. What are the implications of adding the third data center to the data network? (Select 2)

- A. A new subnet must be added to interconnect the 3PAR arrays
- B. The data network must support OpenStack
- C. The data network must support Converged Enhanced Ethernet
- D. 10 GbE links are needed to interconnect the HP StoreServ 3PAR arrays

**Correct Answer: A**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 64**

You propose a solution to a VMware customer. The solution consists of two HP 3PAR StoreServ Storage systems, one for each datacenter that the customer currently operates. The customer requires that the solution be capable of making a transparent failover between the primary and secondary datacenter even in case of a complete data center failure. Which HP 3PAR licenses should be included in the proposal? (Select two.)

- A. Virtual Copy
- B. Remote Optimization
- C. Peer Persistence
- D. Peer Motion
- E. Remote Copy

**Correct Answer: CE**

**Section: (none)**

**Explanation**

**Explanation/Reference:**



**QUESTION 65**

You are designing a storage solution for a customer concerned about storage availability during code upgrades. Which HP 3PAR Port Persistent Node identity handles host I/O requests, thus providing greater resiliency during code upgrades?

- A. Master
- B. Slave
- C. Guest
- D. Native

**Correct Answer: C**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 66**

You are working with a local manufacturing company to design a new SAN fabric for their primary and DR data center that will support replication. The customer is concerned that problems occurring in one SAN fabric might potentially affect the other SAN fabric. The customer also wants to be able to utilize the same equipment to isolate their test environment from their production environment. They have requested that both the primary and DR data centers utilize the same infrastructure so that the administration burden on their SAN administrators is minimized. Which storage technology should you propose to meet the stated requirements?

- A. HP C-Series switches with Inter-VSAN Routing (IVR)
- B. HP C-Series switches with FlexAttach (FA)
- C. HP B-Series switches with Administrative Domains (AD)
- D. HP H-Series switches with Transparent Routing (TR)

**Correct Answer: D**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 67**

At a customer meeting with the CEO and CFO you present a storage solution consisting of several HP 3PAR StoreServ 7400 systems for their long term storage strategy. While elaborating on the storage system performance directly related to the number of disks and linear scalability in your proposed solution, you realize that the attention of your audience has started to decline.

What has gone wrong?

- A. Rather than stating the obvious you should have focused more on disk technology firmware features
- B. The CxOs of the customer are more interested in future
- C. This is not the correct audience for storage system performance scalability
- D. These CxOs would have liked you to inform them about improved infrastructure requirements

**Correct Answer: C**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

#### **QUESTION 68**

A customer has an environment spanning two data centers in a campus environment. The primary storage is an HP 3PARS StoreServ 10400 Storage System. Data is replicated between two sites with RPO of zero. There has been flooding; the customer was not directly impacted; they are now recently been a hurricane and extensive questioning whether they have adequate protection.

You have been brought in to analyze the customer environment and make recommendations.

You suggest creating a data center at a remote location and actively replicating the data to it.

What are the implications of adding the third data center to the data network? (Select 2)

- A. Jumbo frames should be enabled
- B. The data network must support OpenStack
- C. The data network must support Converged Enhanced Ethernet
- D. 10 GbE links are needed to interconnect the HP StoreServ 3PAR arrays
- E. A new subnet must be added to interconnect the 3PAR arrays

**Correct Answer: AE**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

#### **QUESTION 69**

After talking with a sporting equipment manufacturer, you decide to propose a two-node HP 3PAR StoreServ 7400. The manufacturer will use the following criteria to select the winning proposal:

- *Approximately 4TB of performance data and 24TB of archive data*
- *Most availability and performance for the price*

- *Simple and easy to manage*
- *Open to recommendations that provide significant cost savings without other impacts*

Which configuration should you present, based on HP best practices?

- A. 4 add on SFF Shelves with 26 x 300GB 15k and 1 LFF Shelf with 24 x 2TB NL
- B. 3 add on LFF Shelves with 8 x 100GB SSD and 28 x 2TB NL
- C. 4 add on SFF Shelves with 52 x 900GB 10k
- D. 4 add on SFF Shelves with 8 x 100GB SSD and 98 x 450GB 10k

**Correct Answer: C**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

#### **QUESTION 70**

Refer to the exhibit.

—Missing—

- A. offers link redundancy
- B. low-cost expansion option
- C. reduces cluster latency
- D. passive security filter

**Correct Answer: B**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

#### **QUESTION 71**

You are planning an HP StoreVirtual multi-site storage configuration with two HP StoreVirtual 4530 nodes at each site. The Network iSCSI switches have jumbo frames enabled and each site is in a separate VLAN. Your customer reports that their network which connects the two sites has a bandwidth of 1Gb/s and a network latency of approximately 5ms. You need to implement a solution that avoids impacting the disk I/O.

What should you consider to achieve this goal? (Select two.)

- A. VLAN design
- B. latency

- C. number of storage nodes
- D. jumbo frames
- E. application design

**Correct Answer:** AB

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### **QUESTION 72**

HP Converged Storage offers scale-out interfaces that enable storage software to run consistently on industry standard hardware. Which benefit does this approach provide to customers?

- A. flexible, purpose-designed data repositories
- B. unified storage for NAS and SAN in a single architecture
- C. isolation between server, storage, and networking, providing high availability
- D. enhanced data services for file, block, and backup storage

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### **QUESTION 73**

Your customer is migrating to VMware vSphere 5. Your solution includes HP 3PAR StoreServ Storage with licenses for Remote Copy and sub-LUN tiering. The customer is interested in implementing VMware Storage I/O Control and asks if there are any interoperability concerns with your solution. How does the inclusion of VMware Storage I/O Control impact your solution?

- A. HP 3PAR Adaptive Optimization cannot be used in the solution
- B. VMware Storage I/O Control integrates into the proposed solution with no changes
- C. VMware Adaptive Queue Depth Throttling must be enabled
- D. HP 3PAR Application Software Suite for VMware must be added to the solutions

**Correct Answer:** D

**Section:** (none)

**Explanation**

## Explanation/Reference:

### QUESTION 74

You are designing a new storage solution for a customer that provides Thin Provisioning, support for Solid State Disk Drives (SSD), and the ability to isolate SAN Administrators so they only manage storage resources that they are responsible for. Additionally, the customer needs to ensure performance for cache-oriented I/O for specified hosts

Which HP Storage system should you recommend to meet the customer requirements?

- A. HP EVA P6550
- B. HP 3PAR StoreServ 10000
- C. HP StoreVirtual 4530
- D. HP XP P9500

**Correct Answer:** D

**Section:** (none)

**Explanation**

## Explanation/Reference:

### QUESTION 75

A client with high volume data requirements wants a new storage environment. The business can allow for an RTO of 45 minutes and an RPO of 15 minutes. The client has a one-year data retention period during which data can be called upon at any given time. You propose four HP 3PAR StoreServ 7400 Storage Systems.

Which HP 3PAR software suites should you recommend? (Select two.)

- A. Replication
- B. Data Optimization
- C. Thin
- D. System Tuner
- E. Security

**Correct Answer:** AB

**Section:** (none)

**Explanation**

## Explanation/Reference:

**QUESTION 76**

You are proposing an HP 3PAR StoreServ Storage solution to a customer who regularly misses exporting new virtual volumes to all hosts that need access to the LUN. Which feature of an HP 3PAR StoreServ Storage system solves this problem?

- A. Autonomic Rebalance
- B. Persistent Ports
- C. Common Provisioning groups
- D. Autonomic groups

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 77**

You are discussing cost reduction, quality management, and business growth with a client. According to industry best practices, which CxO are you meeting with?

- A. CEO
- B. COO
- C. CFO
- D. CIO

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 78**

A large regional telecommunications company specialized on mobile services has experienced rapid growth, they currently have 149 million subscribers in 11 markets, including 4 million subscribers locally, the year-on-year growth between 2003 and 2013 was approximately 15%. The projected growth for 2013 and the next several years is 30% annually.

The proposed mission critical solution needs to work with the existing application modules and deliver a minimum data transfer rate of 6.5 TB per hour and a capacity of 120 TB. Financially, the solution has to offer low Total Cost of Ownership (TCO) over the next 5 years, and solution capacity has to accommodate the performance and growth model.

Which mission critical backup solution and support level should you propose? (Select two )

- A. HP 24/7 4-hour response support
- B. HP same-day hardware support
- C. HP 6-hour call-to-repair support
- D. HP StoreOnce 4430 with two upgrade kits
- E. HP StoreOnce B6200 with three - 48TB expansion kits

**Correct Answer:** AE

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### **QUESTION 79**

You need to gather data in order to size a new storage system for a customer that has an existing HP StorageWorks Enterprise Virtual Array 5000. The customer wants as much data analyzed as possible with the least amount of impact. Additionally, the customer wants to assess the environment during month-end closing to gather the data.

Which tools should you use to accomplish this goal? (Select two )

- A. NinjaThin
- B. HP Storage Sizer
- C. HP Command View EVA EVAperf
- D. HP Data Center Fabric Manager
- E. HP P6000 Performance Advisor

**Correct Answer:** AC

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### **QUESTION 80**

A customer asks you to architect a new SAN fabric infrastructure comprised of redundant fabrics for a test/dev server environment. They need to provide selective connectivity for array based snapshots from disk arrays hosted on the existing Cisco MDS 9506 Multilayer director-based production fabric, to hosts on the test/dev fabric. A customer requirement is to utilize a different vendor for the test/dev fabric. Which SAN technology enables the test/dev SAN fabric to maintain interoperability between the two fabrics and meet the stated requirements?

- A. HP H-Series with Inter-Fabric Routing (IFR)
- B. HP B-Series with Inter-VSAN Routing (IVR)

- C. HP H Series with Transparent Router (TR)
- D. HP B-Series with Transparent Router (TR)

**Correct Answer:** C

**Section:** (none)

**Explanation**

**Explanation/Reference:**

## QUESTION 81

You are tuning a customer HP StoreOnce Backup System and notice that they are running backups 20 hours a day. As a result, backup jobs are running during the same time as replication jobs. What can you do to limit the available bandwidth and not saturate the link with replication traffic?

- A. Map multiple source libraries into a single target library
- B. Enable concurrency control
- C. Implement housekeeping blackout windows
- D. Enable multiplexing and set concurrency to 1

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

## QUESTION 82

Which HP 3PAR StoreServ features help you meet IT improvement goals? (Select two.)

- A. Persistence Ports
- B. Thin Provisioning
- C. Virtual Domains
- D. Virtual Lock
- E. Virtual Copy

**Correct Answer:** AB

**Section:** (none)

**Explanation**

**Explanation/Reference:**



**QUESTION 83**

When sizing a solution involving deduplication, how does the rate of changed blocks between backups affect the deduplication ratio?

- A. Deduplication ratio is only affected by the backup software.
- B. The lower the block change rate, the higher the deduplication ratio.
- C. No changed blocks between backups result in a deduplication ratio of 0%
- D. The rate of changed blocks does not affect deduplication efficiency

**Correct Answer: B**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 84**

A customer has an environment that spans two data centers in a campus environment. The primary storage is HP 3PAR 10400, and data is replicated between sites with an RPO of zero.

Recent bad weather has caused flooding near the customer site and the customer is questioning whether they have adequate protection. You suggest creating a data center at a remote location and actively replicating the data to it. The customer is concerned that the remote link to the third site will have insufficient bandwidth and will create a local replication bottleneck.

Which statement addresses the customer concerns?

- A. Synchronous Long Distance will schedule data replication outside high latency periods autonomically
- B. Data is transmitted in a continuous stream with write order being handled by the target array.
- C. Remote Copy uses multiple connections over the same link from multiple volumes.
- D. Over provisioning of the remote link will ensure enough bandwidth is always available for replication.

**Correct Answer: C**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 85**

You are designing an HP 3PAR StoreServ solution that replicates to a second 3PAR StoreServ array at the customer secondary data center, which is 20 miles away. You determine that the round trip latency between sites is 5ms.

Which replication solution should you recommend?

- A. Synchronous Long Distance
- B. Asynchronous Periodic
- C. Synchronous
- D. Asynchronous Real Time

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### **QUESTION 86**

A system administrator is integrating a tape library into a SAN environment to facilitate the SAN backup process. The administrator needs to simplify configuration and maintenance procedures and to manage security and reliability across the SAN.

What should the administrator do to accomplish these tasks?

- A. Implement a Fibre Channel interface controller.
- B. Configure the SAN for automatic zoning information updates.
- C. Install DAT drives that use DDS technology and automated disaster recovery.
- D. Implement an FC-AL topology by modifying an N\_Port to be an NL\_Port

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### **QUESTION 87**

Your customer has made a strategic decision to implement a DR solution that will incorporate an active/active bi-directional replication configuration. The two sites in

Qwill have live applications running at both locations, and both sites will have a fluid server estate with new systems coming online on a regular basis.

Additionally, there is an aggressive server replacement schedule keeping instep with the HP server generation roadmap.

All of the customer servers will utilize Boot from SAN. The sites are 55 km apart with a single 1G Ethernet link that is at 50% utilization. There is no SLA.

The customer has already purchased one pair of MPX200 FCIP gateways per site.

What is a potential effect of this configuration? (Select two.)

- A. The link speed will need to be upgraded to 10Gb
- B. WAN instability will cause fabric instability.

- C. Multiple 1 Gb links will form a single 10Gb link.
- D. LSANs will maintain fabric stability.
- E. The fabric will be extended across the two sites.

**Correct Answer:** BE

**Section:** (none)

**Explanation**

**Explanation/Reference:**

## QUESTION 88

A customer has heavy bandwidth traffic on their WAN link that they have isolated to HP 3PAR StoreServ Remote Copy replication between their primary and DR site. They are not concerned with the RTO but would like to improve the RPO. Which recommendation should you make to decrease their WAN link traffic?

- A. Use synchronous long distance mode of the entire database
- B. Use synchronous mode replication of the entire database
- C. Create more Remote Copy volume groups
- D. Replicate Just the database logs

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

## QUESTION 89

A retail customer has primary data centers, distribution centers, and retail stores. The retail locations are smaller sites that have less than 2 TB of data that need to be highly available. Each location is consolidating between six and twelve physical servers into a virtual cluster running on two HP ProLiant DL380 Gen8 servers.

The customer needs a low-cost storage solution that they can use at each retail location and can scale using similar technology for the distribution centers. The solution also needs to integrate with VMware and provide future replication with no additional cost.

Which HP Storage solution should you recommend?

- A. HP Storevirtual
- B. HP 3PAR StoreServ
- C. HP MSA
- D. HP EVA

**Correct Answer: C**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 90**

A backup administrator has an HP D2D4112 G2 Backup System, which was upgraded to 3.x software and uses HP Data Protector 7.01. The administrator is ready to implement HP StoreOnce Catalyst. What should the administrator purchase so the existing infrastructure and software investment is maximized?

- A. a new HP StoreOnce B6200 Backup System with HP Catalyst license
- B. a new HP StoreOnce 4220 Backup System with HP Catalyst license
- C. HP Catalyst license for the existing HP StoreOnce system
- D. HP Data Protector Catalyst license

**Correct Answer: C**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 91**

A customer experiences a sudden loss in write performance on the HP 3PAR StoreServ array on the primary site. Reads are not affected, but writes slowed down significantly. What should you advise the customer to check first in order to solve the issue?

- A. replication type (if set to asynchronous periodic, set it to synchronous)
- B. Fibre Channel infrastructure and optical cabling for malfunctioning components
- C. host multi-pathing software (update it to the newest available version)
- D. replication type (if set to synchronous, set it to asynchronous periodic)

**Correct Answer: D**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 92**

Which SCSI bus specification supports a maximum distance of 12 meters?

- A. Single-Ended SCSI
- B. High-Voltage Differential SCSI
- C. Serial-Attached SCSI
- D. Low-Voltage Differential SCSI

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 93**

Your customer asks you to assist in designing a new cost effective storage solution. The solution will be used to store archive data. It must be able to replicate point-in-time copy of data at the primary site to a remote site. The solution must provide block-level access and support Fibre Channel. There is very little rack space available at the primary site.

Which solution meets the customer requirements?

- A. HP StoreVirtual
- B. HP EVA
- C. HP MSA
- D. HP 3PAR StoreServ

**Correct Answer:** C

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 94**

You are discussing cost reduction, quality management, and business growth with a client. According to industry best practices, which CxO are you meeting with?

- A. CEO
- B. COO
- C. CFO

D. CIO

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

## QUESTION 95

Your VMware customer has a requirement for transparent failover between campus data centers. Which HP 3PAR StoreServ feature enables the customer to fulfill this requirement?

- A. Synchronous Long Distance replication
- B. Peer Persistence
- C. One-to-One replication
- D. Port Persistence

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

## QUESTION 96

A customer branch office backup and recovery strategy integrates replication using several HP StoreOnce D2D4109i in the branch offices and an HP StoreOnce D2D4312 Backup system in the main data center. After a presentation of the new HP StoreOnce Backup System and its functionalities, the customer wants to HP StoreOnce Catalyst with the HP Data Protector installation for the existing replication environment. What has to be done to integrate this concept? (Select two.)

- A. Update existing hardware with additional RAM and drives for HP Catalyst compatibility.
- B. Propose StoreOnce Catalyst DP licenses for existing models
- C. Upgrade the backup system software to an HP StoreOnce Catalyst aware version.
- D. Trade in the branch office systems and propose HP StoreOnce 4210 Backup Systems.
- E. Recommended HP DataProtector StoreOnce replication licenses.

**Correct Answer:** CE

**Section:** (none)

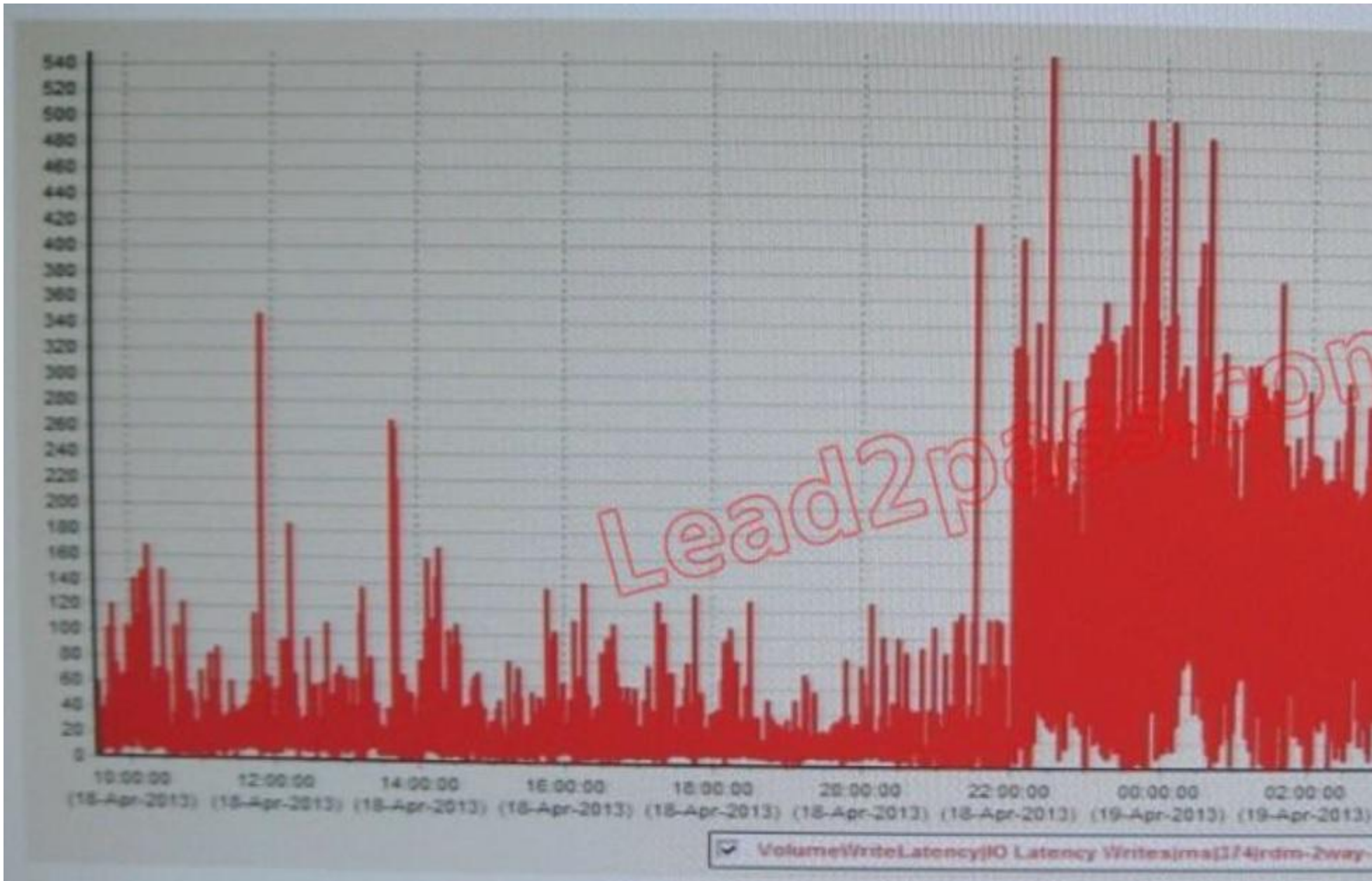
**Explanation**

**Explanation/Reference:**

**QUESTION 97**

Refer to the exhibit. A customer reports poor application performance on their OLTP database, which is on an existing two-node HP P4500 Virtualization provides you with the chart in the exhibit. Which conclusion can you draw from this graph?

**Exhibit:**





- A. Maximum acceptable response time is reached during business hours.
- B. Maximum acceptable response time is reached during backup.
- C. Optimal response time is not reached during the whole measure period.
- D. Optimal response time is reached during business hours.

**Correct Answer:** C

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### QUESTION 98

Refer to the exhibit. You run the EVAperf cs command and generate the output in the exhibit. What must you do to display the administrator-defined EVA names when using EVAperf?

**Exhibit:**

CPU	Data	Ctlr	Serial	Node
%	%			
84	82	A	P8398FXAAR2003	5000-1FE1-
99	97	B	P8398FXAAR200B	5000-1FE1-
3	3	A	P8398FXAAR301Q	5000-1FE1-
12	8	B	P8398FXAAQZ001	5000-1FE1-

- A. Upload the Command View naming table by using the CLI.
- B. Turn beaconing of the EVA on by using the EVAperf be command on the CLI.
- C. Import the friendly names from Command View by using CLI.
- D. Establish a relationship between Command View and EVAperf by using the System Options menu in the GUI.

**Correct Answer:** C

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 99**

Refer to the exhibit. You are preparing an installation plan with one of your storage engineers.

The customer wants to extend their SAN fabric from four switches to eight switches.

What must be taken into account when integrating the new solution design?

**q99-1 (exhibit):**

## Fabric "MyComponentGroup" Details

### MyComponentGroup: Switches

Name	IP Address	Description	WWNN	Domain	FW	d
<a href="#">fcsw4rz2</a>	172.17.225.197	Brocade BROC ADE 8GB SAN SWITCH FOR HP BLADESYSTEM C-CLASS	10:00:00:05:1e:bf:53:93	22	v6.2.1 b	24/7 (29.17%)
<a href="#">fcsw3rz2</a>	172.17.225.198	Brocade BROC ADE 8GB SAN SWITCH FOR HP BLADESYSTEM C CLASS	10:00:00:05:1e:c3:e4:a 1	1	v6.2.1 b	24/7 (29.17%)
<a href="#">fcsw2rz1</a>	172.17.225.199	Brocade BROC ADE 8GB SAN SWITCH FOR HP BLADESYSTEM C-CLASS	10:00:00:05:1e:be:f6:74	12	v6.2.1 b	24/8 (33.33%)
<a href="#">fcsw1rz1</a>	172.17.225.200	Brocade BROC ADE 8GB SAN SWITCH FOR HP BLADESYSTEM C-CLASS	10:00:00:05:1e:bf:50:25	11	v6.2.1 b	24/8 (33.33%)

### MyComponentGroup: Storage Devices

Name	WWNN	Manufacturer	Model	Description
<a href="#">EVA6400_02:5e:13:70</a>	50:01:43:80:02:5e:13:70	Hewlett Packard	EVA6400	HP StorageWorks HSV400 - EVA6400_RZ2 - CR18CB
<a href="#">EVA6400_04:c5:e7:90</a>	50:01:43:80:04:c5:e7:90	Hewlett Packard	EVA6400	HP StorageWorks HSV400 - EVA6400_RZ1 - CR18CB

### MyComponentGroup: Hosts

HostName	HostIP	HostUID	OSname	OSversion
----------	--------	---------	--------	-----------

### MyComponentGroup: Virtual Hosts

HostName	HostIP	HostUID	OSname	OSversion
----------	--------	---------	--------	-----------

q99-2 (exhibit):

MyComponentGroup: HBAs					
VVNN	VVNN	Manufacturer	Model	Driver	Firmware
50:01:43:80:04:c2:00:de	50:01:43:80:04:c2:00:d f	Hewlett Packard	QMH2462	DVR:v9.1.8 .28	FW:v5.03. 6
50:06:0b:00:00:66:0e:c2	50:06:0b:00:00:66:0e:c 3	Hewlett Packard	HPAE311A	DVR:v9.1.9 .25	FW:v5.04. 2
50:01:43:80:04:c2:00:dc	50:01:43:80:04:c2:00:d d	Hewlett Packard	QMH2462	DVR:v9.1.8 .28	FW:v5.03. 6
50:06:0b:00:00:66:15:a6	50:06:0b:00:00:66:15:a 7	Hewlett Packard	HPAE311A	DVR:v9.1.9 .25	FW:v5.04. 2

- A. EVA6400 will achieve more host port throughput with higher switch count in the fabric.
- B. Connected hosts will fail fabric login.
- C. BladeSystem SAN switches cannot be extended with external switches by default.
- D. Merging of fabrics could fail if no further configuration or planning is performed.

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### QUESTION 100

Your customer needs a solution to provide non-disruptive data streaming across two sites. The customer is not limited to an existing transport protocol in their environment but wants to use deduplication for their office data. Which HP storage solution should you recommend?

- A. HP StoreOnce
- B. HP EVA
- C. HP StoreEasy
- D. HP 3PAR StoreServ

**Correct Answer:** D

**Section:** (none)

## **Explanation**

### **Explanation/Reference:**

#### **QUESTION 101**

You are reviewing a colleague's design for a new storage environment. The solution consists of two HP 3PAR StoreServ arrays. The colleague also proposes an HP Multi-protocol Router Blade for the B-Series to extend the fabric. Which customer requirements should lead you to choose an HP MPX200 Multi-protocol Router as an alternative? (Select two.)

- A. need for up to 10Gbs replication bandwidth
- B. need for FCoE support
- C. need for online migrations
- D. need for fabric stability
- E. need to prioritize array replication over WANs, over less critical traffic

**Correct Answer:** AC

**Section:** (none)

## **Explanation**

### **Explanation/Reference:**

#### **QUESTION 102**

You are working with a customer to design and install a Fibre Channel storage solution based on HP 3PAR StoreServ Storage. The customer wants data migration to be part of the solution. The IT environment includes VMware vSphere 5 and Windows 2008 R2 servers. The customer intends to utilize the existing non-HP array for Tier 2 storage on the Windows 2008 R2 servers. The existing array is also being used as the target of the customer backups, and that data will not be migrated. The customer wants to capitalize on their previous purchases and spend as little as possible for data migration.

What should you recommend the customer use to migrate the data? (Select two)

- A. HP 3PAR Remote Copy
- B. HP MPX200 Multifunction Router
- C. HP 3PAR Online Import
- D. HP 1606 Extension SAN Switch
- E. VMware Storage VMotion

**Correct Answer:** BE

**Section:** (none)

## **Explanation**

**Explanation/Reference:**

**QUESTION 103**

You are sizing a solution based on performance requirements. How do you calculate the number of front-end I/Os versus back-end I/O when doing single writes? (Select three.)

- A. On RAID 1, a single front-end I/O results in 1 back-end I/O
- B. On RAID 5, a single front-end I/O results in 4 back-end I/Os
- C. On RAID 5, a single front-end I/O results in 3 back-end I/Os
- D. On RAID 6, a single front-end I/O results in 4 back-end I/Os
- E. On RAID 6, a single front-end I/O results in 6 back-end I/Os
- F. On RAID 1, a single front-end I/O results in 2 back-end I/Os

**Correct Answer:** BEF

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 104**

You are designing a storage solution for a customer who has three data centers on a campus and a 10Gb/s network infrastructure. The business requirements state that a complete site failure must be tolerated. You propose six HP StoreVirtual 4530 nodes split evenly between the sites. Which Network RAID level should you recommend to the customer to meet their business availability needs?

- A. Network RAID 5
- B. Network RAID 10+1
- C. Network RAID 10+2
- D. Network RAID 6

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 105**

An existing environment contains a two-node HP 3PAR StoreServ 10400 storage array with approximately 60 TB of capacity spread across three tiers. The customer plans to replicate their business critical data to a remote DR site. The customer cannot afford to lose any of this data. You propose that



the customer install an HP 3PAR StoreServ 7400 Storage system at the DR site.

The CFO does not want the remote equipment to sit idle, so the customer will use that equipment for data mining. The results must be replicated back to the main site. The customer also requires that the replication of the data mining results have zero impact on the data mining performance. Which HP 3PAR technology enables the proposed solution to meet the customer requirements?

- A. Peer Motion
- B. Mixed Mode Replication
- C. Online Import
- D. Adaptive Optimization

**Correct Answer: B**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

## QUESTION 106

Your customer has a number of existing HP P4500 clusters across two sites. They are installing a new upgraded HP StoreVirtual 4000 environment, with new management groups. The new environment consists of:

- *HP BladeSystem c7000 enclosures with HP Virtual Connect Flex-10 modules*
- *HP ProLiant BL4 60c Server Blades running VMware vSphere and Windows 2008 on physical server systems*
- *HP StoreVirtual 4430*
- *Cisco Nexus 5000 switches*

The HP Virtual Connect Flex-10 modules connect to the switches in three 10Gb shared uplink sets. The storage connects to the switches via 10Gb. During a design meeting for the new environment the customer asks for the method with the least amount of downtime to migrate the data for their physical servers to the new storage arrays.

Which method should you suggest?

- A. HP Peer Motion
- B. HP Remote Copy
- C. HP MPX200
- D. VMware VMotion

**Correct Answer: B**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 107**

Your customer has two data centers in a campus. The environment consists of:

- *HP BladeSystem c7000 enclosures with HP Virtual Connect Flex-10 modules*
- *HP ProLiant BL4 60c Server Blades*
- *HP StoreVirtual 4430*
- *HP 5900 Switches*

The HP Virtual Connect Flex-10 modules connect to the switches in three 10Gb Shared Uplink sets. The flat architecture storage connects to the switches via 10Gb. The customer wants to migrate their network to a and simplify managements. What should you implement to meet the customer requirements?

- A. HP Intelligent Resilient Framework (IRF)
- B. HP Virtual Connect Enterprise Manager (VCEM)
- C. Spanning Tree Protocol (STP)
- D. HP Intelligent Management Center (IMC)

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 108**

A NetBackup customer needs to improve the RTO after a disaster is declared at the primary data center. They have failed several disaster recovery audits because of extended recovery times.

You recommend that they replace tape library with an HP StoreOnce Backup System that replicates the primary data center backups to the remote site. Which device interface provides the lowest RTO?

- A. HP StoreOnce NAS
- B. HP StoreOnce Catalyst
- C. HP StoreOnce VTL iSCSI
- D. HP StoreOnce VTL FC

**Correct Answer:** D

**Section:** (none)

**Explanation**



**Explanation/Reference:**

**QUESTION 109**

A customer has an environment spanning two data centers in a campus environment. The primary storage is an HP 3PAR StoreServ 10400 System. Data is replicated between existing sites with an RPO of zero. There has been flooding. While the customer was not directly impacted, they are now recently been a hurricane and extensive questioning whether they have adequate protection. You have been brought in to analyze the customer environment and make recommendations. You suggest creating a data center at a remote location and actively replicating the data to it. Which HP 3PAR replication solution meets the customer requirements?

- A. Many-to-One
- B. Synchronous Long Distance
- C. Bi-directional One-to-One
- D. One-to-Two

**Correct Answer: B**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 110**

Your customer has an existing HP LeftHand P4500 SAN with four nodes. They have deployed the array to feed latency-sensitive high-definition video traffic to their student population around the campus. The array complies to HP best practices and has a physically dedicated iSCSI network comprising of two 1Gb HP ProCurve 2920 Switches. Jumbo frames are enabled. The customer asks you to investigate reported performance issues. Which quick-fix solution should you suggest before running in-depth performance analysis?

- A. Upgrade each switch with two additional 10G SFP+
- B. Add more nodes to the cluster to improve the I/O latency
- C. Upgrade firmware on HP ProCurve 2920 switches.
- D. Disable Jumbo frames in the network switches

**Correct Answer: C**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 111**

A client wants to deploy a new HP 3PAR 7400 storage environment. They want to utilize additional features of the array to optimize their backup and data restore capabilities.

Which HP 3PAR software suite should you recommend?

- A. Replication
- B. Thin
- C. System Tuner
- D. Security

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 112**

A customer experiences a sudden loss in write performance on the HP 3PAR StoreServ array on the primary site. Reads are not affected, but writes slowed down significantly.

What should you advise the customer to check first in order to solve the issue?

- A. host multi-pathing software (update it to the newest available version)
- B. replication type (if set to asynchronous periodic, set it to synchronous)
- C. replication type (if set to synchronous, set it to asynchronous periodic)
- D. Fibre Channel infrastructure and optical cabling for malfunctioning components

**Correct Answer:** C

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 113**

A customer plans to purchase an HP 3PAR StoreServ Storage solution. The system will experience heavy use of virtual copies for backup and rollback purposes. Additionally, the customer will use three tiers of storage in their system, but the snapshots must not use capacity from the SSD tier.

What is a best practice for snapshot space allocation?

- A. The CPG for the snapshots must be different from the CPG for the source volume.
- B. The snapshots must reside on the same CPG as the source volume.

- C. Virtual volumes managed by an Adaptive Optimization policy can only be copied as full copy clones on a separate CPG
- D. Snapshots of virtual volumes residing on tiered storage cannot be created.

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### **QUESTION 114**

A customer has two large data centers on a campus. The Fibre Channel network has grown over the years to more than 200 ports per fabric, utilizing Fibre Channel switches from 8 to 40 ports, each in a dual-redundant layout. The administrative effort to manage this environment has grown substantially, and the customer needs to consolidate the network as well as update to the latest technology. A customer-owned fiber connection between the data centers needs to be encrypted due to legal requirements. The solution must scale beyond 300 ports with the least management effort while providing full redundancy.

Which infrastructure product should you propose?

- A. HP SN9500C Director
- B. HP SN8000B SAN Director
- C. HP DC SAN Director
- D. HP SN8000C Director

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### **QUESTION 115**

Which business requirement is addressed with an HP StoreVirtual family with Peer Motion?

- A. increases data redundancy
- B. allows for higher availability and SLAs
- C. reduces the RPO
- D. allows data migration between multi-site clusters

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 116**

Your customer wants to replicate backup data from branch offices to a primary data center where an HP StoreOnce 4430 Backup System using HP StoreOnce Catalyst IS located. The main backup application is HP Data Protector 7.01. The file and application servers have Windows 2003, Windows 2008, and SUSE Linux 9 and 10 installed. As a long-term strategy, the customer wants to migrate all services to the primary data center. No additional hardware can be purchased for the branch offices, and complexity should be minimized. Which HP resources should be used to validate interoperability of a new solution?

- A. HP Data Protector Concepts Guide
- B. HP Data Protector Platform and Integration Matrix
- C. HP SAN Design Reference Guide
- D. HP Enterprise Backup Solution Design Guide
- E. HP Enterprise Backup Solution Compatibility Matrix

**Correct Answer:** DE

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 117**

Your customer wants to replicate backup data from branch offices to a primary data center where an HP StoreOnce 4430 Backup System using HP StoreOnce Catalyst is located. The backup application is HP Data Protector 7.01. The file and application servers have Windows 2003, Windows 2008 and SUSE Linux 9 and 10 installed. As a long-term strategy, the customer wants to migrate all services to the primary data center. No additional hardware can be purchased for the branch offices, and complexity should be minimized. In addition to the HP EBS Compatibility Matrix, which additional HP resource should be used to validate interoperability of a new solution?

- A. HP Data Protector Concepts Guide
- B. HP Data Protector Platform and Integration Matrix
- C. HP SAN Design Reference Guide
- D. HP Enterprise Backup Solution Design Guide

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 118**

Your client has just purchased an HP 3PAR StoreServ array and wants to architect and implement a DR strategy. During a disaster, they need to be back in operation within 2 hours after the disaster has been declared. Declaration of a disaster is estimated to 1 hour. The business can afford to lose 5 minutes worth of data.

What is the most cost-efficient data replication strategy for this client?

- A. Continuous Access
- B. Synchronous
- C. Asynchronous Periodic Mode
- D. Snapshots

**Correct Answer:** C

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 119**

Your client has just purchased an HP 3PAR StoreServ array and wants to architect and implement a DR strategy. During a disaster, they need to be back in operation within two hours after the disaster has been declared. Declaration of a disaster is estimated to one hour. The business can afford to lose five minutes worth of data. Which RTO and RPO, defined in minutes, does the customer have?

- A. RTO = 120, RPO = 5
- B. RTO = 180, RPO = 5
- C. RTO = 180, RPO = 65
- D. RTO = 5, RPO = 120

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 120**

You are working on a project with an initial investment of \$200 and an anticipated cash flow as shown in the exhibit.

- A. NPV=325 and IRR=18

- B. NPV=310 and IRR=26
- C. NPV=355 and IRR=18
- D. NPV=340 and IRR=26

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

## QUESTION 121

You are performing a demo of an HP StoreOnce 2620i Backup System solution in combination with HP Data Protector. All best practice guidelines for the VTL and Data Protector have been adhered to. However, you receive the following error when formatting a cartridge in a previously- created VTL.

```
[Normal] From: MMA@demo.local "Drive_Demo" Time: 4/23/2013 10:26:09 PM Tape0:0:0:0C
Initializing new medium: "[4E94F289] 4E94F289"
[Major] From: MMA0demo.local "Drive_Demo" Time: 4/23/2013 10:26:10 PM [90:51] Tape0:0:0:0C
Cannot write to device ([87] Wrong parameter. )
[Major] From: MMA0demo.local "Drive_Demo" Time: 4/23/2013 10:26:10 PM Initialization of medium failed.
[Normal] From MMA0demo.local "Drive_Demo" Time: 4/23/2013 10:26:14 PM Ejecting medium Tape0:0:0:0C".
```

What must you do to perform a successful demo?

- A. Add an iSNS-Server in the media Server iSCSI configuration, and restart the iSCSI service.
- B. Disable "Automatically discover changed SCSI address" for the VTL drives, and rescan the library.
- C. Disable "SCSI Reserve /Release (drive)" for all of the drives and robotics in the environment and rescan the library.
- D. Change the maximum transfer length of the iSCSI initiator in regedit. and restart the media server.

**Correct Answer:** C

**Section:** (none)

**Explanation**

**Explanation/Reference:**

## QUESTION 122

During an HP customer assessment workshop, the Alinean report shown in the exhibit is created.

Which cost saving should you highlight in your presentation when positioning the value of HP 3PAR StoreServ Thin Technologies?

**Exhibit:**

Three year TCO Current (As-Is) Vs. New HP 3PAR New HP 3PAR		Details		Existing	HP - 3PAR
✓	Hardware Cost		Details	16.527€	54
✓	Software Cost		Details	115.387€	23
✓	Service and Support Cost		Details	434.403€	22
✓	Total Capacity Cost		Details	248.215€	72
✓	Incremental Infrastructure Cost		Details	7.323€	
✓	Storage Administration and Management Cost		Details	211.132€	21
✓	Other Services (Professional, Consulting etc.)		Details	0€	
✓	Power and Cooling Costs		Details	63.118€	20
✓	Data Centre Floor Space Cost		Details	10.328€	1
✓	Implementation Cost		1	0€	8
✓	Cost Of Unplanned Downtime (High Availability)		Details	81.282€	
✓	Cost Of Planned Downtime (Maintenance,Upgrades)		Details	29.767€	
✓	Time To Solution (PO, Create New Environments)		Details	26.801€	3
✓	Application Integration (e.g. VMWare, Oracle...)		Details	28.605€	22
Total				1.272.886€	252

- A. planned downtime
- B. unplanned downtime
- C. application integration
- D. power and cooling

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 123**

You need to ensure data integrity on physical disks within the proposed HP 3PAR StoreServ Storage array.  
Which HP 3PAR StoreServ Storage component calculates the value of the disk T10 Data Integrity Feature (DIF)?

- A. HP Service Processor
- B. HP InServ Controllers CPUs
- C. Controller Cache Algorithm
- D. HP 3PAR Gen4 ASIC

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 124**

While discussing a remote replication solution consisting of two HP 3PAR StoreServ arrays, the customer asks you about performance penalties when implementing synchronous replication to a second HP 3PAR StoreServ array.  
How should you respond?

- A. Synchronous replication affects write performance on the source array.
- B. Synchronous replication affects both read and write performance on the source array.
- C. Synchronous replication affects read performance on the source array.
- D. Synchronous remote replication does not affect performance on the source array.

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 125**

You are designing a new storage solution for a customer that must have the ability to reserve areas of cache memory for frequently accessed data for specific host LUNS. Which HP Storage system should you recommend to meet the customer requirements?

- A. HP XP P9500



- B. HP EVA P6550
- C. HP 3PAR StoreServ 10000
- D. HP StoreVirtual 4530

**Correct Answer: C**

**Section: (none)**

**Explanation**

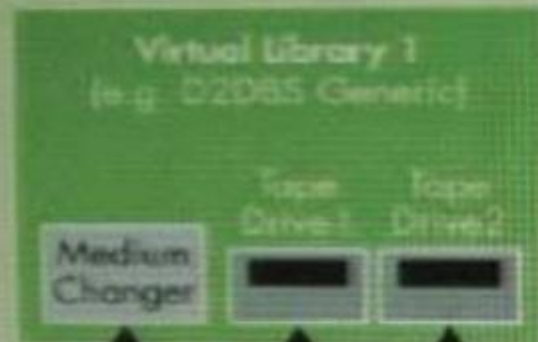
**Explanation/Reference:**

## **QUESTION 126**

Refer to the exhibit. How does the cabling scheme ensure high availability for Virtual Library 2?

**Exhibit:**

## HP StoreOnce Backup system



Lead2pass.com

FC Port 1

FC Port 2

SAN

FC HBA

Host 1

FC HBA

Host 2

- A. The Virtual Tape Libraries are spread across both Fibre Channel ports and offer load balancing across the SAN.
- B. The medium changer and drives are connected redundantly to the Fibre Channel ports of the system and the SAN.
- C. The drives are presented through both Fibre Channel ports of the HP StoreOnce Backup System.
- D. The medium changer is connected redundantly, and the drives, by default, are connected 50% to each port.

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

## QUESTION 127

You have designed a new SAN fabric for a customer. The fabric consists of Cisco MDS 8/24c Fabric Switches for HP BladeSystem c-Class. Which mode allows automatic mapping of physical WWNs to virtual WWNs using NAT?

- A. Access Gateway
- B. FlexFabric
- C. NPV
- D. Virtual Domains

**Correct Answer:** C

**Section:** (none)

**Explanation**

**Explanation/Reference:**

## QUESTION 128

Your customer is migrating to VMware vSphere 5. Your solution includes HP 3PAR StoreServ Storage with licenses for Remote Copy and Adaptive Optimization. The customer is interested in implementing VMware Storage DRS and asks if there are any interoperability concerns with your solution. What should you recommend to ensure that VMware Storage DRS coexists with your solution?

- A. VMware Storage DRS should be configured for capacity-based decisions
- B. HP 3PAR Security Software Suite must be added to the solution
- C. HP 3PAR Remote Copy must be configured for synchronous replication.
- D. VMware Storage DRS should be set up in manual mode with I/O metric enabled.

**Correct Answer:** D

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 129**

You are designing an HP SPAR StoreServ solution to host a customer Microsoft Hyper-V 2012 environment load on the transport network?

- A. T10 Unmap (T10U)
- B. Offload Data Transfer (ODX)
- C. vStorage APIs for Array Integration (VAAI)
- D. T10 Data Integrity Field (DIF)

**Correct Answer: B**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 130**

Drag and Drop Questions

You present an HP 3PAR StoreServ concept to a customer. The customer wants to know how your design solves their technical and business needs and reduces their TCO. Map the HP 3PAR StoreServ solution component to the correct TCO element.

**Select and Place:**

You present an HP 3PAR StoreServ concept to a customer. The customer wants to solve their technical and business needs and reduce their TCO. Map the HP 3PAR component to the correct TCO element.

Cost of unplanned downtime

Power and cooling costs

Improved service time

Administration costs

Cage Availability

Autonomic

Thin Tech

Adaptive O

Correct Answer:



You present an HP 3PAR StoreServ concept to a customer. The customer wants to solve their technical and business needs and reduce their TCO. Map the HP 3PAR component to the correct TCO element.

Cost of unplanned downtime

Power and cooling costs

Improved service time

Administration costs

Cost of unplanned

Administration

Power and cooling

Improved servi

Section: (none)  
Explanation

**Explanation/Reference:**

**QUESTION 131**

A customer branch office backup and recovery strategy integrates replication using several HP StoreOnce D2D4112i in the branch offices and an HP StoreOnce D2D4312 Backup system in the main data center. After a presentation of the new HP StoreOnce Backup System and its functionalities the customer wants to use HP StoreOnce Catalyst with the HP Data Protector installation in the main data center.

What has to be done to integrate this concept?

- A. Update existing hardware with additional RAM and drives for HP Catalyst compatibility.
- B. Trade in the branch office systems and propose HP StoreOnce 4210 Backup System.
- C. Upgrade the backup system Software in the data center to an HP StoreOnce Catalyst aware version.
- D. Recommend HP Data Protector StoreOnce replication licenses.

**Correct Answer: C**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 132**

You are working with a local children's hospital on a full storage refresh proposal. The hospital has implemented a three-tier storage strategy as detailed below.

Tier 1 - Business critical 24x7 databases, email applications, and data warehouses. Also includes any other applications that have high availability and heavy write performance. This data is replicated to a disaster recovery site to ensure no data loss occurs in addition to standard backup practices. Currently 50 TB on HP XP12000.

Tier 2 - General user file shares and non-critical databases. Minimal downtime can be tolerated, and high performance is not required. This data is backed up daily. Currently 150 TB on multiple HP EVAs.

Tier 3 - Long-term archives of user data. The data is moved from Tier 2 to Tier 3 as it ages. Downtime can be tolerated, but data must be maintained. Backups are only done when new data is added to the archive. There are currently 250 TB on multiple HP P2000s.

Costs for ongoing maintenance and management are escalating, and the hospital is looking for ways to reduce costs and re-deploy storage management staff even with the annual 10% growth.

You are designing an HP 3PAR StoreServ solution to meet their needs and are using the HP Storage Sizer to make your calculations.

Which workload mix meets the hospital's needs for storage for the next year?

A.

3PAR Groups									
Group Name	Disk	RAID	Usable TB	Raw TB	Overhead TB	Disks	VVol R:W	ART Rd/All	%
Auto Group of...	300GB 15K FC Disk	Mixed		100.30	0.00	336	Mixed		
	300GB 15K FC Disk	RAID10 1:1	50.00	100.00	0.00	335.01	Thin 90/10	20/18.10 ms	
Auto Group of...	600GB 15K FC Disk	Mixed		172.55	11.02	288	Mixed		
	600GB 15K FC Disk	RAID50 8:1	150.00	179.77	11.02	300.04	Thin 75/25	20/15.25 ms	
Auto Group of...	2TB NL DISK	Mixed		372.12	9.70	192	Mixed		
	2TB NL DISK	RAID60 14:2	300.00	352.56	9.70	181.91	Thin 30/70	20/6.70 ms	



B.

3PAR Groups									
Group Name	Disk	RAID	Usable TB	Raw TB	Overhead TB	Disks	VVol R:W	ART Rd/All	%C
Auto Group of...	300GB 15K FC Disk	Mixed		109.85	0.00	368	Mixed		
	300GB 15K FC Disk	RAID10 1:1	55.00	110.00	0.00	368.51	Thin 90/10	20/18.10 ms	
Auto Group of...	600GB 15K FC Disk	Mixed		194.12	12.22	324	Mixed		
	600GB 15K FC Disk	RAID50 8:1	165.00	197.84	12.22	330.21	Thin 75/25	20/15.25 ms	
Auto Group of...	2TB NL DISK	Mixed		434.14	9.70	224	Mixed		
	2TB NL DISK	RAID60 14:2	330.00	386.84	9.70	199.60	Thin 30/70	20/6.70 ms	
<div> <div></div> <div>111</div> </div>									

C.

3PAR Groups									
Group Name	Disk	RAID	Usable TB	Raw TB	Overhead TB	Disks	VVol R:W	ART Rd/All	%
Auto Group of...	300GB 15K FC Disk	Mixed		109.85	0.00	368	Mixed		
	300GB 15K FC Disk	RAID10 1:1	55.00	110.00	0.00	368.51	Thin 50/50	20/10.50 ms	
Auto Group of...	600GB 15K FC Disk	Mixed		194.12	12.22	324	Mixed		
	600GB 15K FC Disk	RAID50 8:1	165.00	197.84	12.22	330.21	Thin 75/25	20/15.25 ms	
Auto Group of...	2TB NL DISK	Mixed		434.14	9.70	224	Mixed		
	2TB NL DISK	RAID60 14:2	330.00	386.84	9.70	199.60	Thin 30/70	20/6.70 ms	
<div> <div>4</div> <div>111</div> </div>									

D.

3PAR Groups									
Group Name	Disk	RAID	Usable TB	Raw TB	Overhead TB	Disks	VVol R:W	ART Rd/All	%
Auto Group of...	300GB 15K FC Disk	Mixed		100.30	0.00	336	Mixed		
	300GB 15K FC Disk	RAID10 1:1	50.00	100.00	0.00	335.01	Thin 50/50	20/10.50 ms	
Auto Group of...	600GB 15K FC Disk	Mixed		172.55	11.02	288	Mixed		
	600GB 15K FC Disk	RAID50 8:1	150.00	179.77	11.02	300.04	Thin 75/25	20/15.25 ms	
Auto Group of...	2TB NL DISK	Mixed		372.12	9.70	192	Mixed		
	2TB NL DISK	RAID60 14:2	300.00	352.56	9.70	181.91	Thin 30/70	20/6.70 ms	

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

## Case 1

### QUESTION 1

Scenario 1:

Based on the discussions with the client, you determine that the current DR strategy is not optimal. You want to propose a new layout that utilizes three data facilities, as shown in the exhibit.

Refer to the scenario.

How should you build the storage and backup based on this DR strategy?

#### (Case Study):

A large publicity-traded motion picture exhibitor that is a leader in digital and 3D cinema deployments operates 233 theaters and more than 2,200 screens in small to mid-sized communities in 35 states around the United States. They rely on MS Exchange Server 2010 for email, MS SQL Server 2010 for analyzing data about movies and theater-goers, and MS Excel 2010 for crunching numbers. The company runs nightly incremental backups and a full weekly backup that consists of close to 7TB of data which takes up to 72 hours to complete. The quarterly backups add an additional 7 TB of data.

Tapes are inventoried and transported from the main data center to the disaster recovery site 150 miles away. The process of transporting tape cartridges to and from the Disaster Recovery site requires hours of daily work.

The company currently relies on an aging robotic tape library and a process that takes the nightly backup tapes of site every morning. Additionally, the company keeps an inventory, and if a restore is necessary, they have to retrieve the tapes from the DR site and transport them to the main data center site. They have a 7 year data retention plan, and the tapes are expensive and not always reliable. Given the company's current system, if a full weekly backup fails over a weekend, the re-run could take up to 10 hours, even if just one job failed.

The company has deployed a virtualized server infrastructure which runs VMware vSphere 5 on HP BladeSystem c7000 enclosures and BL460c servers interconnected with HP Virtual Connect Flex-10 10Gb Ethernet modules as well as several HP ProLiant DL380 servers. The company's top four IT improvements goals are as follows:

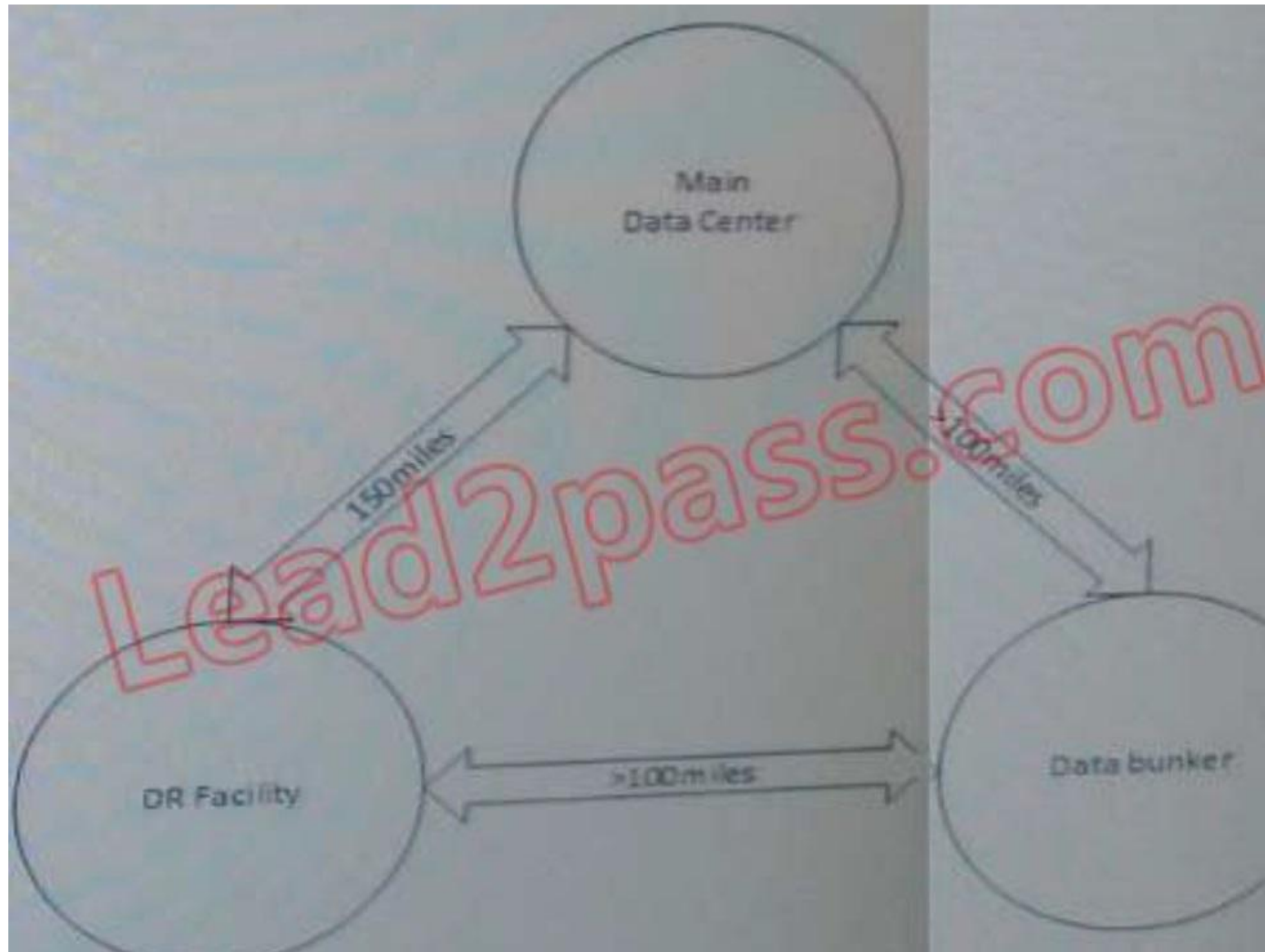
- *replacing the aging robotic tape library*
- *enabling replication of backed up data from the main data center to the disaster recovery site (150 miles)*
- *retaining more backup data in smaller disk space*
- *increasing efficiency, reliability and ease of system administration.*

Moreover, the company's top three business benefit goals are as follows:

- *increased confidence in disaster recovery*
- *Minimal disruption by backup during regular business hours*
- *improved management of external audits.*

The company has asked that you create multiple solution proposals and prioritize one when you return for a presentation.

**Exhibit:**





- A. Use data replication between the Main Data Center and the DR site.  
Use an HP StoreOnce 4430 Backup solution in the data bunker.  
Use an MSL library in the data bunker for archiving, and have a small MSL library in the other two sites for recovery.
- B. Use an HP StoreOnce 4430 Backup solution in each facility.  
Use an MSL library in the data bunker  
for archiving, and have a small it/ISL library in the other two sites for recovery
- C. Use an HP StoreOnce 4430 Backup solution to replicate data between the three facilities
- D. Use data replication between the three sites.  
Use an MSL library in the data bunker for archiving.

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

## QUESTION 2

Scenario 1:

Refer to the scenario.

During a design workshop, you become aware that the customer also has a number of application serves to be included in the backup environment. What is the minimum number of stores you need to create in order to achieve optimal deduplication performance?

### (Case Study):

A large publicity-traded motion picture exhibitor that is a leader In digital and 3D cinema deployments operates 233 theaters and more than 2,200 screens in small to midsized communities in 35 states around United States. They rely on MS Exchange Server 2010 for email, MS SQL. Server 2010 for analyzing data about movies and theater-goers, and MS Excel 2010 for crunching numbers. The company runs nightly incremental backups and a full weekly backup that consists of close to 7TB of data which takes up 72 hours to complete. The quarterly backups add an additional 7 TB of data. Tapes are inventoried and transported from the main data center to the disaster recovery site 150 miles away. The process of transporting tape cartridges to and from the Disaster Recovery site requires hours of daily work.

The company currently relies on an aging robotic tape library and a process that takes the nightly backup tapes of site every morning. Additionally, the company keeps an inventory, and if a restore is necessary, they have to retrieve the tapes from the DR site and transport them to the main data center site. They have a 7 year data retention plan, and the tapes are expensive and not always reliable. Given the company's current system, if a full weekly backup fails over a weekend, the re-run could take up to 10 hours, even if just one job failed.

The company has deployed a virtualized server infrastructure which runs VmWare VSphere 5 on HP Bladesystem c7000 enclosures and BL460c servers interconnected with HP virtual Connect Flex-10 10Gb Ethernet modules as well as several HP ProLiant DL380 servers. The company top four IT improvements goal are as follows:

- *replacing the aging robotic tape library*
- *enabling replication of backed up data from the main data center to the disaster recovery site (150miles)*

- *retaining more backup data in smaller disk space*
- *increasing efficiency, reliability and ease of System administration.*

Moreover the company's top three business benefit goals are as follows:

- *increased confidence in disaster recovery*
- *Minimal disruption by backup during regular business hours*
- *improved management of external audits.*

The company has asked that you create multiple solution proposals and prioritize one when you return for a presentation.

- A. 1
- B. 3
- C. 4
- D. 8

**Correct Answer: C**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

### **QUESTION 3**

Scenario 1:

Refer to the scenario.

How does an HP StoreOnce Backup solution meet the customer IT and business needs?

#### **(Case Study):**

A large publicity-traded motion picture exhibitor that is a leader in digital and 3D cinema deployments operates 233 theaters and more than 2,200 screens in small to mid-sized communities in 35 states around United States. They rely on MS Exchange Server 2010 for email, MS SQL Server 2010 for analyzing data about movies and theater-goers, and MS Excel 2010 for crunching numbers. The company runs nightly incremental backups and a full weekly backup that consists of close to 7TB of data which takes up 72 hours to complete. The quarterly backups add an additional 7 TB of data. Tapes are inventoried and transported from the main data center to the disaster recovery site 150 miles away. The process of transporting tape cartridges to and from the Disaster Recovery site requires hours of daily work.

The company currently relies on an aging robotic tape library and a process that takes the nightly backup tapes of site every morning. Additionally, the company keeps an inventory, and if a restore is necessary, they have to retrieve the tapes from the DR site and transport them to the main data center site. They have a 7 year data retention plan, and the tapes are expensive and not always reliable. Given the company's current system, if a full weekly backup fails over a weekend, the re-run could take up to 10 hours, even if just one job failed.

The company has deployed a virtualized server infrastructure which runs VMware vSphere 5 on HP BladeSystem c7000 enclosures and BL460c servers interconnected with HP Virtual Connect Flex-10 10Gb Ethernet modules as well as several HP ProLiant DL380 servers. The company top four IT

improvements goal are as follows:

- *replacing the aging robotic tape library*
- *enabling replication of backed up data from the main data center to the disaster recovery site (150miles)*
- *retaining more backup data in smaller disk space*
- *increasing efficiency, reliability and ease of System administration.*

Moreover the company's top three business benefit goals are as follows:

- *increased confidence in disaster recovery*
- *Minimal disruption by backup during regular business hours*
- *improved management of external audits.*

The company has asked that you create multiple solution proposals and prioritize one when you return for a presentation.

- A. eliminates the need for tape backups for long-term archiving
- B. multiplies the data, which is then replicated to a remote location
- C. backs up the data via a WAN link
- D. provides a bandwidth-effective replication to remote sites

**Correct Answer: D**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

#### **QUESTION 4**

Scenario 1:

During a design workshop, you become aware that the customer is adding a number of application servers into the virtualized environment to be included in the backup environment. What is the minimum number of stores you need to create in order to achieve optimal deduplication performance?

Refer to the scenario.

You have proposed an HP StoreOnce 4430 Backup System with HP Data Protector at both the primary and DR site. Which benefit of the proposed solution will allow you to meet to the stated IT objectives? (Select two.)

#### **(Case Study):**

A large publicity-traded motion picture exhibitor that is a leader in digital and 3D cinema deployments operates 233 theaters and more than 2,200 screens in small to mid-sized communities in 35 states around United States. They rely on MS Exchange Server 2010 for email, MS SQL Server 2010 for analyzing data about movies and theater-goers, and MS Excel 2010 for crunching numbers. The company runs nightly incremental backups and a full weekly backup that consists of close to 7TB of data which takes up 72 hours to complete. The quarterly backups add an additional 7 TB of data. Tapes are inventoried and transported from the main data center to the disaster recovery site 150 miles away. The process of transporting tape cartridges to and from the Disaster Recovery site requires hours of daily work.



The company currently relies on an aging robotic tape library and a process that takes the nightly backup tapes of site every morning. Additionally, the company keeps an inventory, and if a restore is necessary, they have to retrieve the tapes from the DR site and transport them to the main data center site. They have a 7 year data retention plan, and the tapes are expensive and not always reliable. Given the company's current system, if a full weekly backup fails over a weekend, the re-run could take up to 10 hours, even if just one job failed.

The company has deployed an virtualized server infrastructure which runs VmWare VSphere 5 on HP Bladesystem c7000 enclosures and BL460c servers interconnected with HP virtual Connect Flex-10 10Gb Ethernet modules as well as several HP ProLiant DL380 servers. The company top four IT improvements goal are as follows:

- *replacing the aging robotic tape library*
- *enabling replication of backed up data from the main data center to the disaster recovery site (150miles)*
- *retaining more backup data in smaller disk space*
- *increasing efficiency, reliability and ease of System administration.*

Moreover the company's top three business benefit goals are as follows:

- *increased confidence in disaster recovery*
- *Minimal disruption by backup during regular business hours*
- *improved management of external audits.*

The company has asked that you create multiple solution proposals and prioritize one when you return for a presentation.

- A. multi-site replication plus deduplication at the source, server or target
- B. built-on scale-out converged storage architecture eliminating any single points of failure
- C. eliminates the need for tape backup and offsite tape storage
- D. scalable Up to 768 TB of storage and provides up to 100 TB/hr of throughput
- E. backup and recovery for multiple hypervisors and physical servers from a single console.

**Correct Answer:** AE

**Section:** (none)

**Explanation**

**Explanation/Reference:**

## QUESTION 5

Scenario 1:

Refer to the scenario.

During a follow-up meeting with your customer, you learn that there is an additional business requirement to limit the total downtime of data center systems to 72 hours, and no more than 24 hours of data can be lost. The IT department indicates that they have an existing 2-hour response time SLA with their business users for critical systems.

What should you use for their RTO and RPO when designing a new backup solution?

**(Case Study):**

A large publicity-traded motion picture exhibitor that is a leader in digital and 3D cinema deployments operates 233 theaters and more than 2,200 screens in small to midsized communities in 35 states around United States. They rely on MS Exchange Server 2010 for email, MS SQL Server 2010 for analyzing data about movies and theater-goers, and MS Excel 2010 for crunching numbers. The company runs nightly incremental backups and a full weekly backup that consists of close to 7TB of data which takes up 72 hours to complete. The quarterly backups add an additional 7 TB of data. Tapes are inventoried and transported from the main data center to the disaster recovery site 150 miles away. The process of transporting tape cartridges to and from the Disaster Recovery site requires hours of daily work.

The company currently relies on an aging robotic tape library and a process that takes the nightly backup tapes of site every morning. Additionally, the company keeps an inventory, and if a restore is necessary, they have to retrieve the tapes from the DR site and transport them to the main data center site. They have a 7 year data retention plan, and the tapes are expensive and not always reliable. Given the company's current system, if a full weekly backup fails over a weekend, the re-run could take up to 10 hours, even if just one job failed.

The company has deployed a virtualized server infrastructure which runs VMware vSphere 5 on HP BladeSystem c7000 enclosures and BL460c servers interconnected with HP Virtual Connect Flex-10 10Gb Ethernet modules as well as several HP ProLiant DL380 servers. The company top four IT improvements goal are as follows:

- *replacing the aging robotic tape library*
- *enabling replication of backed up data from the main data center to the disaster recovery site (150miles)*
- *retaining more backup data in smaller disk space*
- *increasing efficiency, reliability and ease of System administration.*

Moreover the company's top three business benefit goals are as follows:

- *increased confidence in disaster recovery*
- *Minimal disruption by backup during regular business hours*
- *improved management of external audits.*

The company has asked that you create multiple solution proposals and prioritize one when you return for a presentation.

- A. RTO 72 hours
- B. RPO 24 hours
- C. ???
- D. ???

**Correct Answer: AB**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 6**

Scenario 1:

Refer to the scenario.

Which additional information do you require to validate the customer DR strategy? (Select three.)

**(Case Study):**

A large publicity-traded motion picture exhibitor that is a leader in digital and 3D cinema deployments operates 233 theaters and more than 2,200 screens in small to mid-sized communities in 35 states around the United States. They rely on MS Exchange Server 2010 for email, MS SQL Server 2010 for analyzing data about movies and theater-goers, and MS Excel 2010 for crunching numbers. The company runs nightly incremental backups and a full weekly backup that consists of close to 7TB of data which takes up 72 hours to complete. The quarterly backups add an additional 7 TB of data. Tapes are inventoried and transported from the main data center to the disaster recovery site 150 miles away. The process of transporting tape cartridges to and from the Disaster Recovery site requires hours of daily work.

The company currently relies on an aging robotic tape library and a process that takes the nightly backup tapes of site every morning. Additionally, the company keeps an inventory, and if a restore is necessary, they have to retrieve the tapes from the DR site and transport them to the main data center site. They have a 7 year data retention plan, and the tapes are expensive and not always reliable. Given the company's current system, if a full weekly backup fails over a weekend, the re-run could take up to 10 hours, even if just one job failed.

The company has deployed a virtualized server infrastructure which runs VMware vSphere 5 on HP BladeSystem c7000 enclosures and BL460c servers interconnected with HP Virtual Connect Flex-10 10Gb Ethernet modules as well as several HP ProLiant DL380 servers. The company's top four IT improvements goal are as follows:

- *replacing the aging robotic tape library*
- *enabling replication of backed up data from the main data center to the disaster recovery site (150 miles)*
- *retaining more backup data in smaller disk space*
- *increasing efficiency, reliability and ease of system administration.*

Moreover, the company's top three business benefit goals are as follows:

- *increased confidence in disaster recovery*
- *Minimal disruption by backup during regular business hours*
- *improved management of external audits.*

The company has asked that you create multiple solution proposals and prioritize one when you return for a presentation.

- A. WAN latency
- B. data structure
- C. number of hosts
- D. RTO and RPO
- E. data change rate
- F. distance between data centers

**Correct Answer:** ADE

**Section: (none)**  
**Explanation**

**Explanation/Reference:**

## **QUESTION 7**

Scenario 1:

Refer to the scenario.

Which additional information do you require to validate the customer DR strategy? (Select two.)

### **(Case Study):**

A large publicity-traded motion picture exhibitor that is a leader in digital and 3D cinema deployments operates 233 theaters and more than 2,200 screens in small to mid-sized communities in 35 states around United States. They rely on MS Exchange Server 2010 for email, MS SQL Server 2010 for analyzing data about movies and theater-goers, and MS Excel 2010 for crunching numbers. The company runs nightly incremental backups and a full weekly backup that consists of close to 7TB of data which takes up 72 hours to complete. The quarterly backups add an additional 7 TB of data. Tapes are inventoried and transported from the main data center to the disaster recovery site 150 miles away. The process of transporting tape cartridges to and from the Disaster Recovery site requires hours of daily work.

The company currently relies on an aging robotic tape library and a process that takes the nightly backup tapes of site every morning. Additionally, the company keeps an inventory, and if a restore is necessary, they have to retrieve the tapes from the DR site and transport them to the main data center site. They have a 7 year data retention plan, and the tapes are expensive and not always reliable. Given the company's current system, if a full weekly backup fails over a weekend, the re-run could take up to 10 hours, even if just one job failed.

The company has deployed an virtualized server infrastructure which runs VmWare VSphere 5 on HP BladeSystem c7000 enclosures and BL460c servers interconnected with HP virtual Connect Flex-10 10Gb Ethernet modules as well as several HP ProLiant DL380 servers. The company top four IT improvements goal are as follows:

- *replacing the aging robotic tape library*
- *enabling replication of backed up data from the main data center to the disaster recovery site (150miles)*
- *retaining more backup data in smaller disk space*
- *increasing efficiency, reliability and ease of System administration.*

Moreover the company's top three business benefit goals are as follows:

- *increased confidence in disaster recovery*
- *Minimal disruption by backup during regular business hours*
- *improved management of external audits.*

The company has asked that you create multiple solution proposals and prioritize one when you return for a presentation.

- A. RTO and RPO
- B. data structure

- C. data change rate
- D. number of hosts
- E. distance between data centers

**Correct Answer:** AC

**Section:** (none)

**Explanation**

**Explanation/Reference:**

## QUESTION 8

Scenario 1:

Refer to the scenario.

Which additional information do you require to validate the customer DR strategy? (Select two.)

### (Case Study):

A large publicity-traded motion picture exhibitor that is a leader in digital and 3D cinema deployments operates 233 theaters and more than 2,200 screens in small to midsize communities in 35 states around United States. They rely on MS Exchange Server 2010 for email, MS SQL. Server 2010 for analyzing data about movies and theater-goers, and MS Excel 2010 for crunching numbers. The company runs nightly incremental backups and a full weekly backup that consists of close to 7TB of data which takes up 72 hours to complete. The quarterly backups add an additional 7 TB of data.

Tapes are inventoried and transported from the main data center to the disaster recovery site 150 miles away. The process of transporting tape cartridges to and from the Disaster Recovery site requires hours of daily work.

The company currently relies on an aging robotic tape library and a process that takes the nightly backup tapes of site every morning. Additionally, the company keeps an inventory, and if a restore is necessary, they have to retrieve the tapes from the DR site and transport them to the main data center site. They have a 7 year data retention plan, and the tapes are expensive and not always reliable. Given the company's current system, if a full weekly backup fails over a weekend, the re-run could take up to 10 hours, even if just one job failed.

The company has deployed a virtualized server infrastructure which runs VmWare VSphere 5 on HP BladeSystem c7000 enclosures and BL460c servers interconnected with HP virtual Connect Flex-10 10Gb Ethernet modules as well as several HP ProLiant DL380 servers. The company top four IT improvements goal are as follows:

- *replacing the aging robotic tape library*
- *enabling replication of backed up data from the main data center to the disaster recovery site (150miles)*
- *retaining more backup data in smaller disk space*
- *increasing efficiency, reliability and ease of System administration.*

Moreover the company's top three business benefit goals are as follows:

- *increased confidence in disaster recovery*
- *Minimal disruption by backup during regular business hours*
- *improved management of external audits.*

The company has asked that you create multiple solution proposals and prioritize one when you return for a presentation.

- A. WAN latency
- B. data structure
- C. data change rate
- D. number of hosts
- E. distance between data centers

**Correct Answer:** AC

**Section:** (none)

**Explanation**

**Explanation/Reference:**

## QUESTION 9

Scenario 1:

Refer to the scenario.

You have proposed an HP StoreOnce 4430 Backup System with HP Data Protector at both the primary and DR site. Which benefit of the proposed solution will allow you to meet to the stated IT objectives?

### (Case Study):

A large publicity-traded motion picture exhibitor that is a leader in digital and 3D cinema deployments operates 233 theaters and more than 2,200 screens in small to mid-sized communities in 35 states around United States. They rely on MS Exchange Server 2010 for email, MS SQL Server 2010 for analyzing data about movies and theater-goers, and MS Excel 2010 for crunching numbers. The company runs nightly incremental backups and a full weekly backup that consists of close to 7TB of data which takes up 72 hours to complete. The quarterly backups add an additional 7 TB of data. Tapes are inventoried and transported from the main data center to the disaster recovery site 150 miles away. The process of transporting tape cartridges to and from the Disaster Recovery site requires hours of daily work.

The company currently relies on an aging robotic tape library and a process that takes the nightly backup tapes of site every morning. Additionally, the company keeps an inventory, and if a restore is necessary, they have to retrieve the tapes from the DR site and transport them to the main data center site. They have a 7 year data retention plan, and the tapes are expensive and not always reliable. Given the company's current system, if a full weekly backup fails over a weekend, the re-run could take up to 10 hours, even if just one job failed.

The company has deployed a virtualized server infrastructure which runs VMware vSphere 5 on HP BladeSystem c7000 enclosures and BL460c servers interconnected with HP virtual Connect Flex-10 10Gb Ethernet modules as well as several HP ProLiant DL380 servers. The company top four IT improvements goal are as follows:

- *replacing the aging robotic tape library*
- *enabling replication of backed up data from the main data center to the disaster recovery site (150miles)*
- *retaining more backup data in smaller disk space*
- *increasing efficiency, reliability and ease of System administration.*

Moreover the company's top three business benefit goals are as follows:

- *increased confidence in disaster recovery*
- *Minimal disruption by backup during regular business hours*
- *improved management of external audits.*

The company has asked that you create multiple solution proposals and prioritize one when you return for a presentation.

- A. backup and recovery for multiple hypervisors and physical servers from a single console.
- B. built-on scale-out converged storage architecture eliminating any single points of failure
- C. eliminates the need for tape backup and offsite tape storage
- D. scalable Up to 768 TB of storage and provides up to 100 TB/hr of throughput

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

## Case 2

### QUESTION 1

#### Scenario 2.

Refer to the scenario.

Which HP best practices should you follow'? (Select two.)

#### (Case Study):

A university provides liberal arts training to 2,500 students in 68 classrooms and provides a growing suite of IT services that encompass dorm rooms and classrooms. All 2,500 students are provisioned an HP EliteBook Tablet PC to access these services. Students use these tablet PCs for taking notes, handling documents, communicating with each other and with instructors, and participating in distance-education classes. Additionally, by using their tablet PCs as thin clients, science and engineering students leverage virtual desktop infrastructure (VDI) and HP Remote Graphics Software to access applications that run on high-powered HP blade servers. All 68 classrooms are multi-media equipped, enabling instructors to record lectures for the college's closed circuit TV system. The university has implemented enterprise content management (ECM) applications, including Microsoft SharePoint for document imaging and workflow for staff and faculty, as well as for external accrediting bodies. Additionally, a recent initiative to implement voice-over-IP telephone communications on campus has started. The compute environment is based on VMware vSphere using HP BL460c and BL680c G7 server blades in c7000 enclosures within two data centers. The university needs to develop computing solutions to address the following problems and current initiatives:

- *The current backup-to-tape environment creates downtime for backups of 6 to 12 hours.*
- *Each incoming class of 600 floods the registration system within the first hours after it opens. The server and network gridlock caused by this high workload prolongs the registration process by as much as one hour per student.*
- *Proof of concept is necessary for distance education involving large volumes of video and major bandwidth requirements.*
- *Top tier data must be replicated between two data centers over a 10 Gbps network. Disaster recovery has a recovery time objective (RTO) of 120 minutes and network utilization should be minimized.*
- *Seven TB of first tier data needs to be migrated from the current fibre channel storage solution to nearline storage.*
- *Second tier data requires deployment of a separate storage solution.*

The university's top four IT improvements goals are as follows:

- *Provide a robust replication capability between data centers.*
- *Reduce server downtime with faster backups.*
- *Retain more backup data in smaller disk space.*
- *Increase efficiency, reliability, and ease of system administration.*

Moreover the college's top three business benefit goals are as follows:

- *Reduce student registration time.*



- Increase number of servers while minimizing the need for additional staff to support them.
- Utilize IT resources and staff as efficiently as possible.

The company has asked that you create multiple solution proposals and prioritize one when you return for a presentation.

- A. SSD CPG set size of 3+1
- B. Availability = Magazine-level
- C. Growth increment = 4GB
- D. Availability = Cage-level
- E. SSD CPG set size of 2+1

**Correct Answer:** AD

**Section:** (none)

**Explanation**

**Explanation/Reference:**

## QUESTION 2

Scenario 2.

Refer to the scenario.

You propose a solution consisting of two HP 3PAR StoreServ 7400s for first-tier storage and two HP StoreVirtual 4530 systems as second-tier storage. What is required to replicate the first-tier data redundantly over an existing 10GbE network and provide improved ROI by migrating the existing data onto the HP StoreVirtual 4530?

### (Case Study):

A university provides liberal arts training to 2,500 students in 68 classrooms and provides a growing suite of IT services that encompass dorm rooms and classrooms. All 2,500 students are provisioned an HP EliteBook Tablet PC to access these services. Students use these tablet PCs for taking notes, handling documents, communicating with each other and with instructors, and participating in distance-education classes.

Additionally, by using their tablet PCs as thin clients, science and engineering students leverage virtual desktop infrastructure (VDI) and HP Remote Graphics Software to access applications that run on high-powered HP blade servers. All 68 classrooms are multi-media equipped, enabling instructors to record lectures for the college's closed circuit TV system.

The university has implemented enterprise content management (ECM) applications, including Microsoft SharePoint for document imaging and workflow for staff and faculty, as well as for external accrediting bodies.

Additionally, a recent initiative to implement voice-over-IP telephone communications on campus has started.

The compute environment is based on VMware vSphere using HP BL460c and BL680c G7 server blades in c7000 enclosures within two data centers.

The university needs to develop computing solutions to address the following problems and current initiatives:

- The current backup-to-tape environment creates downtime for backups of 6 to 12 hours.
- Each incoming class of 600 floods the registration system within the first hours after it opens. The server

*and network gridlock caused by this high workload prolongs the registration process by as much as one hour per student.*

- Proof of concept is necessary for distance education involving large volumes of video and major bandwidth requirements.*
- Top tier data must be replicated between two data centers over a 10 Gbps network Disaster recovery has a recovery time objective (RTO) of 120 minutes and network utilization should be minimized.*
- Seven TB of first tier data needs to be migrated from the current fibre channel storage solution to nearline storage.*
- Second tier data requires deployment of a separate storage solution.*

The university's top four IT improvements goals are as follows:

- Provide a robust replication capability between data centers.*
- Reduce server downtime with faster backups.*
- Retain more backup data in smaller disk space.*
- Increase efficiency, reliability, and ease of system administration.*

Moreover the college's top three business benefit goals are as follows:

- Reduce student registration time.*
- Increase number of servers while minimizing the need for additional staff to support them.*
- Utilize IT resources and staff as efficiently as possible.*

The company has asked that you create multiple solution proposals and prioritize one when you return for a presentation.

- A. one HP MPX200 one 5TB migration license
- B. two HP MPX200s two 5TB migration licenses
- C. three HP MPX200s two 5TB migration licenses
- D. four HP MPX200s two 5TB migration licenses

**Correct Answer: D**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

### **QUESTION 3**

Scenario 2:

Refer to the scenario.

You are proposing two HP StoreVirtual 4530 arrays for the secondary storage.

Which feature of HP LeftHand OS meets the IT improvement goals? (Select two.)

**(Case Study):**

A university provides liberal arts training to 2,500 students in 68 classrooms and provides a growing suite of IT services that encompass dorm rooms and classrooms. All 2,500 students are provisioned an HP EliteBook Tablet PC to access these services. Students use these tablet PCs for taking notes, handling documents, communicating with each other and with instructors, and participating in distance-education classes.

Additionally, by using their tablet PCs as thin clients, science and engineering students leverage virtual desktop infrastructure (VDI) and HP Remote Graphics Software to access applications that run on high-powered HP blade servers. All 68 classrooms are multi-media equipped, enabling instructors to record lectures for the college's closed circuit TV system.

The university has implemented enterprise content management (ECM) applications, including Microsoft SharePoint for document imaging and workflow for staff and faculty, as well as for external accrediting bodies.

Additionally, a recent initiative to implement voice-over-IP telephone communications on campus has started.

The compute environment is based on VMware vSphere using HP BL460c and BL680c G7 server blades in c7000 enclosures within two data centers.

The university needs to develop computing solutions to address the following problems and current initiatives:

- *The current backup-to-tape environment creates downtime for backups of 6 to 12 hours.*
- *Each incoming class of 600 floods the registration system within the first hours after it opens. The server and network gridlock caused by this high workload prolongs the registration process by as much as one hour per student.*
- *Proof of concept is necessary for distance education involving large volumes of video and major bandwidth requirements.*
- *Top tier data must be replicated between two data centers over a 10 Gbps network. Disaster recovery has a recovery time objective (RTO) of 120 minutes and network utilization should be minimized.*
- *Seven TB of first tier data needs to be migrated from the current fibre channel storage solution to nearline storage.*
- *Second tier data requires deployment of a separate storage solution.*

The university's top four IT improvements goals are as follows:

- *Provide a robust replication capability between data centers.*
- *Reduce server downtime with faster backups.*
- *Retain more backup data in smaller disk space.*
- *Increase efficiency, reliability, and ease of system administration.*

Moreover the college's top three business benefit goals are as follows:

- *Reduce student registration time.*
- *Increase number of servers while minimizing the need for additional staff to support them.*
- *Utilize IT resources and staff as efficiently as possible.*

The company has asked that you create multiple solution proposals and prioritize one when you return for a presentation.

- A. Thin Provisioning
- B. Volume Resynchronization

- C. Network RAID
- D. Port Persistence
- E. Peer Motion

**Correct Answer:** AE

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### **QUESTION 4**

Scenario 2.

Refer to the scenario.

Which business and IT objective can be addressed by proposing a server automation initiative?

##### **(Case Study):**

A university provides liberal arts training to 2,500 students in 68 classrooms and provides a growing suite of IT services that encompass dorm rooms and classrooms. All 2,500 students are provisioned an HP EliteBook Tablet PC to access these services. Students use these tablet PCs for taking notes, handling documents, communicating with each other and with instructors, and participating in distance-education classes.

Additionally, by using their tablet PCs as thin clients, science and engineering students leverage virtual desktop infrastructure (VDI) and HP Remote Graphics Software to access applications that run on high-powered HP blade servers. All 68 classrooms are multi-media equipped, enabling instructors to record lectures for the college's closed circuit TV system.

The university has implemented enterprise content management (ECM) applications, including Microsoft SharePoint for document imaging and workflow for staff and faculty, as well as for external accrediting bodies.

Additionally, a recent initiative to implement voice-over-IP telephone communications on campus has started.

The compute environment is based on VMware vSphere using HP BL460c and BL680c G7 server blades in c7000 enclosures within two data centers.

The university needs to develop computing solutions to address the following problems and current initiatives:

- *The current backup-to-tape environment creates downtime for backups of 6 to 12 hours.*
- *Each incoming class of 600 floods the registration system within the first hours after it opens. The server and network gridlock caused by this high workload prolongs the registration process by as much as one hour per student.*
- *Proof of concept is necessary for distance education involving large volumes of video and major bandwidth requirements.*
- *Top tier data must be replicated between two data centers over a 10 Gbps network. Disaster recovery has a recovery time objective (RTO) of 120 minutes and network utilization should be minimized.*
- *Seven TB of first tier data needs to be migrated from the current fibre channel storage solution to nearline storage.*
- *Second tier data requires deployment of a separate storage solution.*

The university's top four IT improvements goals are as follows:

- *Provide a robust replication capability between data centers.*
- *Reduce server downtime with faster backups.*
- *Retain more backup data in smaller disk space.*
- *Increase efficiency, reliability, and ease of system administration.*

Moreover the college's top three business benefit goals are as follows:

- *Reduce student registration time.*
- *Increase number of servers while minimizing the need for additional staff to support them.*
- *Utilize IT resources and staff as efficiently as possible.*

The company has asked that you create multiple solution proposals and prioritize one when you return for a presentation.

- A. reduced the need for proof of Concepts.
- B. robust replication capability between data centers
- C. increased efficiency, reliability, and ease of system administration
- D. reduced server downtime and faster backup

**Correct Answer: C**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

## **QUESTION 5**

Scenario 2.

Refer to the scenario.

What is required to license the top tier storage system in order to achieve the desired RTO?

### **(Case Study):**

A university provides liberal arts training to 2,500 students in 68 classrooms and provides a growing suite of IT services that encompass dorm rooms and classrooms. All 2,500 students are provisioned an HP EliteBook Tablet PC to access these services. Students use these tablet PCs for taking notes, handling documents, communicating with each other and with instructors, and participating in distance-education classes.

Additionally, by using their tablet PCs as thin clients, science and engineering students leverage virtual desktop infrastructure (VDI) and HP Remote Graphics Software to access applications that run on high-powered HP blade servers. All 68 classrooms are multi-media equipped, enabling instructors to record lectures for the college's closed circuit TV system.

The university has implemented enterprise content management (ECM) applications, including Microsoft SharePoint for document imaging and workflow for staff and faculty, as well as for external accrediting bodies.

Additionally, a recent initiative to implement voice-over-IP telephone communications on campus has started. The compute environment is based on VMware vSphere using HP BL460c and BL680c G7 server blades in c7000 enclosures within two data centers. The university needs to develop computing solutions to address the following problems and current initiatives:

- *The current backup-to-tape environment creates downtime for backups of 6 to 12 hours.*
- *Each incoming class of 600 floods the registration system within the first hours after it opens. The server and network gridlock caused by this high workload prolongs the registration process by as much as one hour per student.*
- *Proof of concept is necessary for distance education involving large volumes of video and major bandwidth requirements.*
- *Top tier data must be replicated between two data centers over a 10 Gbps network. Disaster recovery has a recovery time objective (RTO) of 120 minutes and network utilization should be minimized.*
- *Seven TB of first tier data needs to be migrated from the current fibre channel storage solution to nearline storage.*
- *Second tier data requires deployment of a separate storage solution.*

The university's top four IT improvements goals are as follows:

- *Provide a robust replication capability between data centers.*
- *Reduce server downtime with faster backups.*
- *Retain more backup data in smaller disk space.*
- *Increase efficiency, reliability, and ease of system administration.*

Moreover the college's top three business benefit goals are as follows:

- *Reduce student registration time.*
- *Increase number of servers while minimizing the need for additional staff to support them.*
- *Utilize IT resources and staff as efficiently as possible.*

The company has asked that you create multiple solution proposals and prioritize one when you return for a presentation.

- A. HP 3PAR Remote Copy
- B. HP 3PAR Cluster Extension
- C. HP 3PAR Online Import
- D. HP 3PAR Adaptive Optimization

**Correct Answer: B**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

## QUESTION 6

### Scenario 2.

Refer to the scenario.

Which HP 3PAR Storage technology will allow the customer to automatically migrate data between different disk types to meet one of the stated business goals?

#### **(Case Study):**

A university provides liberal arts training to 2,500 students in 68 classrooms and provides a growing suite of IT services that encompass dorm rooms and classrooms. All 2,500 students are provisioned an HP EliteBook Tablet PC to access these services. Students use these tablet PCs for taking notes, handling documents, communicating with each other and with instructors, and participating in distance-education classes.

Additionally, by using their tablet PCs as thin clients, science and engineering students leverage virtual desktop infrastructure (VDI) and HP Remote Graphics Software to access applications that run on high-powered HP blade servers. All 68 classrooms are multi-media equipped, enabling instructors to record lectures for the college's closed circuit TV system.

The university has implemented enterprise content management (ECM) applications, including Microsoft SharePoint for document imaging and workflow for staff and faculty, as well as for external accrediting bodies.

Additionally, a recent initiative to implement voice-over-IP telephone communications on campus has started.

The compute environment is based on VMware vSphere using HP BL460c and BL680c G7 server blades in c7000 enclosures within two data centers.

The university needs to develop computing solutions to address the following problems and current initiatives:

- *The current backup-to-tape environment creates downtime for backups of 6 to 12 hours.*
- *Each incoming class of 600 floods the registration system within the first hours after it opens. The server and network gridlock caused by this high workload prolongs the registration process by as much as one hour per student.*
- *Proof of concept is necessary for distance education involving large volumes of video and major bandwidth requirements.*
- *Top tier data must be replicated between two data centers over a 10 Gbps network. Disaster recovery has a recovery time objective (RTO) of 120 minutes and network utilization should be minimized.*
- *Seven TB of first tier data needs to be migrated from the current fibre channel storage solution to nearline storage.*
- *Second tier data requires deployment of a separate storage solution.*

The university's top four IT improvements goals are as follows:

- *Provide a robust replication capability between data centers.*
- *Reduce server downtime with faster backups.*
- *Retain more backup data in smaller disk space.*
- *Increase efficiency, reliability, and ease of system administration.*

Moreover the college's top three business benefit goals are as follows:

- *Reduce student registration time.*
- *Increase number of servers while minimizing the need for additional staff to support them.*

- *Utilize IT resources and staff as efficiently as possible.*

The company has asked that you create multiple solution proposals and prioritize one when you return for a presentation.

- A. Autonomic Rebalance
- B. Dynamic Optimization
- C. Peer Motion
- D. Adaptive Optimization

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**



### Case 3

#### QUESTION 1

Scenario 3.

Refer to the scenario.

In addition to thin technology. Which storage technology should you present to help meet business benefit goals?

#### (Case Study):

A leading automotive technology company wants to increase the performance and capacity of the storage infrastructure that supports the design and manufacture of its line of Formula 1 racing cars. The company is also interested in safe-guarding its mission-critical data and eliminating the threat of business disruption.

Due to the massive engineering and technical effort required to create a new race car design and to enable regular delivery of upgraded parts to the race track while maintaining a competitive edge, it is necessary to have advanced applications running on a high-performance IT infrastructure. The company operates out of two data centers. The centers support a Plant Lifecycle Management database, an Enterprise Resource Planning (ERP) system, and various trackside systems to set up the race car and aid race strategy. In addition, the centers run applications for Computer-Aided Design (CAD) Computer-Aided Manufacturing (CAM), and Computational Fluid Dynamics (CFD) packages.

The company has deployed Oracle and SQL databases, VMware virtual machines, email, and all other applications on an HP 6400 Enterprise virtual Array (EVA). The EVAs automatically replicate between the two data centers to guard against failure. The EVAs are aging, applications are more sophisticated, data volumes have grown exponentially, and bottlenecks in the storage system are now having a significant effect on the performance of the simulation and analysis tools that are vital to the company's competitive position. The data storage problem has reached a point where the company is forced to store primary data at the secondary site causing the loss of their disaster recovery capability.

The company's top five IT Improvement goals are:

- *Reduce complaints about storage system availability.*
- *increase support for sophisticated design and manufacturing applications.*
- *Provide a robust replication capability between data centers.*
- *increase storage utilization while deploying additional capacity.*
- *Simplify operations during peak workloads.*

Moreover, the company's top three business benefit goals are:

- *Ensure rapid data retrieval to aid in quick decision making.*
- *Protect mission-critical data and ensure business continuity.*
- *Recover costs from existing infrastructure, thus providing increased IT funds for additional projects.*

The company has asked that you create multiple solution proposals and prioritize one when you return for a presentation.

- A. storage tiering technology
- B. snapshot technology
- C. storage federation technology
- D. remote replication technology

**Correct Answer: C**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

## **QUESTION 2**

Scenario 3.

Refer to the scenario.

Which storage technologies should you present to help meet business benefit goals? (Select two)

### **(Case Study):**

A leading automotive technology company wants to increase the performance and capacity of the storage infrastructure that supports the design and manufacture of its line of Formula 1 racing cars. The company is also interested in safe-guarding its mission-critical data and eliminating the threat of business disruption.

Due to the massive engineering and technical effort required to create a new race car design and to enable regular delivery of upgraded parts to the race track while maintaining a competitive edge, it is necessary to have advanced applications running on a high-performance IT infrastructure. The company operates out of two data centers. The centers support a Plant Lifecycle Management database, an Enterprise Resource Planning (ERP) system, and various trackside systems to set up the race car and aid race strategy. In addition, the centers run applications for Computer-Aided Design (CAD) Computer-Aided Manufacturing (CAM), and Computational Fluid Dynamics (CFD) packages.

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The company's top five IT Improvement goals are:

- *Reduce complaints about storage system availability.*
- *increase support for sophisticated design and manufacturing applications.*
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Moreover, the company's top three business benefit goals are:

- *Ensure rapid data retrieval to aid in quick decision making.*
- *Protect mission-critical data and ensure business continuity.*
- *Recover costs from existing infrastructure, thus providing increased IT funds for additional projects.*

The company has asked that you create multiple solution proposals and prioritize one when you return for a presentation.

- A. storage tiering technology
- B. storage federation technology
- C. snapshot technology
- D. thin technology
- E. remote replication technology

**Correct Answer:** AB

**Section:** (none)

**Explanation**

**Explanation/Reference:**

U - but looking to question 1 my answer will A+D

### **QUESTION 3**

Scenario 3.

Refer to the scenario.

Further investigation reveals that the data centers are 175 meters apart with two diversely-routed 50 micron multi-mode fiber optic cables. The solution requires 16 Gbs of bandwidth between sites. Which additional information is needed from your customer to ensure their interconnect goals are met?

#### **(Case Study):**

A leading automotive technology company wants to increase the performance and capacity of the storage infrastructure that supports the design and manufacture of its line of Formula 1 racing cars. The company is also interested in safe-guarding its mission-critical data and eliminating the threat of business disruption.

Due to the massive engineering and technical effort required to create a new race car design and to enable regular delivery of upgraded parts to the race track while maintaining a competitive edge, it is necessary to have advanced applications running on a high-performance IT infrastructure. The company operates out of two data centers. The centers support a Plant Lifecycle Management database, an Enterprise Resource Planning (ERP) system, and various trackside systems to set up the race car and aid race strategy. In addition, the centers run applications for Computer-Aided Design (CAD) Computer-Aided Manufacturing (CAM), and Computational Fluid Dynamics (CFD) packages.

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The company's top five IT Improvement goals are:

- *Reduce complaints about storage system availability.*
- *increase support for sophisticated design and manufacturing applications.*
- *Provide a robust replication capability between data centers.*
- *increase storage utilization while deploying additional capacity.*

- *Simplify operations during peak workloads.*

Moreover, the company's top three business benefit goals are:

- *Ensure rapid data retrieval to aid in quick decision making.*
- *Protect mission-critical data and ensure business continuity.*
- *Recover costs from existing infrastructure, thus providing increased IT funds for additional projects.*

The company has asked that you create multiple solution proposals and prioritize one when you return for a presentation.

- A. cable ISO classification type
- B. cable buffering type
- C. cable termination type
- D. SFP laser wavelength

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### **QUESTION 4**

Scenario 3:

Refer to the scenario. You are planning to use HP StoreOnce Backup Systems and HP StoreOnce Catalyst to replicate data to the primary data center after a Formula 1 race and then to the secondary data center.

Which information is relevant to size this solution component? (Select two.)

#### **(Case Study):**

A leading automotive technology company wants to increase the performance and capacity of the storage infrastructure that supports the design and manufacture of its line of Formula 1 racing cars. The company is also interested in safe-guarding its mission-critical data and eliminating the threat of business disruption.

Due to the massive engineering and technical effort required to create a new race car design and to enable regular delivery of upgraded parts to the race track while maintaining a competitive edge, it is necessary to have advanced applications running on a high-performance IT infrastructure. The company operates out of two data centers. The centers support a Plant Lifecycle Management database, an Enterprise Resource Planning (ERP) system, and various trackside systems to set up the race car and aid race strategy. In addition, the centers run applications for Computer-Aided Design (CAD) Computer-Aided Manufacturing (CAM), and Computational Fluid Dynamics (CFD) packages.

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The company's top five IT Improvement goals are:

- *Reduce complaints about storage system availability.*
- *increase support for sophisticated design and manufacturing applications.*
- *Provide a robust replication capability between data centers.*
- *increase storage utilization while deploying additional capacity.*
- *Simplify operations during peak workloads.*

Moreover, the company's top three business benefit goals are:

- *Ensure rapid data retrieval to aid in quick decision making.*
- *Protect mission-critical data and ensure business continuity.*
- *Recover costs from existing infrastructure, thus providing increased IT funds for additional projects.*

The company has asked that you create multiple solution proposals and prioritize one when you return for a presentation.

- A. which type of application data is used at the Formula 1 race track
- B. how many users will access the data during the weekend
- C. how much data has changed during a race weekend
- D. which online storage is used at the race track and data center
- E. which hypervisor is used on the servers at the race track

**Correct Answer:** CD

**Section:** (none)

**Explanation**

**Explanation/Reference:**

## **QUESTION 5**

Scenario 3.

Refer to the scenario.

You are proposing HP 3PAR StoreServ 7400s for the two data centers, and the HP 6400 Enterprise Virtual Arrays must be retired in three months. Which feature of your proposal allows data migration to the new storage array?

### **(Case Study):**

A leading automotive technology company wants to increase the performance and capacity of the storage infrastructure that supports the design and manufacture of its line of Formula 1 racing cars. The company is also interested in safe-guarding its mission-critical data and eliminating the threat of business disruption.

Due to the massive engineering and technical effort required to create a new race car design and to enable regular delivery of upgraded parts to the

race track while maintaining a competitive edge, it is necessary to have advanced applications running on a high-performance IT infrastructure. The company operates out of two data centers. The centers support a Plant Lifecycle Management database, an Enterprise Resource Planning (ERP) system, and various trackside systems to set up the race car and aid race strategy. In addition, the centers run applications for Computer-Aided Design (CAD) Computer-Aided Manufacturing (CAM), and Computational Fluid Dynamics (CFD) packages.

The company has deployed Oracle and SQL databases, VMware virtual machines, email, and all other applications on an HP 6400 Enterprise virtual Array (EVA). The EVAs automatically replicate between the two data centers to guard against failure. The EVAs are aging, applications are more sophisticated, data volumes have grown exponentially, and bottlenecks in the storage system are now having a significant effect on the performance of the simulation and analysis tools that are vital to the company's competitive position. The data storage problem has reached a point where the company is forced to store primary data at the secondary site causing the loss of their disaster recovery capability.

The company's top five IT Improvement goals are:

- *Reduce complaints about storage system availability.*
- *increase support for sophisticated design and manufacturing applications.*
- *Provide a robust replication capability between data centers.*
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- *Simplify operations during peak workloads.*

Moreover, the company's top three business benefit goals are:

- *Ensure rapid data retrieval to aid in quick decision making.*
- *Protect mission-critical data and ensure business continuity.*
- *Recover costs from existing infrastructure, thus providing increased IT funds for additional projects.*

The company has asked that you create multiple solution proposals and prioritize one when you return for a presentation.

- A. HP Remote Copy
- B. HP Peer Motion
- C. HP Online Import
- D. HP MPX200 Router

**Correct Answer: C**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

## **QUESTION 6**

Scenario 3.

Refer to the scenario.

You are proposing an HP StoreOnce Backup System solution.

Which tuning should be planned to performance and meet the customer business goals?

**(Case Study):**

A leading automotive technology company wants to increase the performance and capacity of the storage infrastructure that supports the design and manufacture of its line of Formula 1 racing cars. The company is also interested in safe-guarding its mission-critical data and eliminating the threat of business disruption.

Due to the massive engineering and technical effort required to create a new race car design and to enable regular delivery of upgraded parts to the race track while maintaining a competitive edge, it is necessary to have advanced applications running on a high-performance IT infrastructure. The company operates out of two data centers. The centers support a Plant Lifecycle Management database, an Enterprise Resource Planning (ERP) system, and various trackside systems to set up the race car and aid race strategy. In addition, the centers run applications for Computer-Aided Design (CAD) Computer-Aided Manufacturing (CAM), and Computational Fluid Dynamics (CFD) packages.

The company has deployed Oracle and SQL databases, VMware virtual machines, email, and all other applications on an HP 6400 Enterprise virtual Array (EVA). The EVAs automatically replicate between the two data centers to guard against failure. The EVAs are aging, applications are more sophisticated, data volumes have grown exponentially, and bottlenecks in the storage system are now having a significant effect on the performance of the simulation and analysis tools that are vital to the company's competitive position. The data storage problem has reached a point where the company is forced to store primary data at the secondary site causing the loss of their disaster recovery capability.

The company's top five IT Improvement goals are:

- *Reduce complaints about storage system availability.*
- *increase support for sophisticated design and manufacturing applications.*
- *Provide a robust replication capability between data centers.*
- *increase storage utilization while deploying additional capacity.*
- *Simplify operations during peak workloads.*

Moreover, the company's top three business benefit goals are:

- *Ensure rapid data retrieval to aid in quick decision making.*
- *Protect mission-critical data and ensure business continuity.*
- *Recover costs from existing infrastructure, thus providing increased IT funds for additional projects.*

The company has asked that you create multiple solution proposals and prioritize one when you return for a presentation.

- A. Set up appendable pools.
- B. Configure multistreaming.
- C. Enable multiplexing
- D. Disable housekeeping.

**Correct Answer: B**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

## QUESTION 7

Scenario 3:

Refer to the scenario.

Which feature of the HP 3PAR StoreServ Storage system used in the solution allows the customer to meet technical goals while reducing capital expenses?

### (Case Study):

A leading automotive technology company wants to increase the performance and capacity of the storage infrastructure that supports the design and manufacture of its line of Formula 1 racing cars. The company is also interested in safe-guarding its mission-critical data and eliminating the threat of business disruption.

Due to the massive engineering and technical effort required to create a new race car design and to enable regular delivery of upgraded parts to the race track while maintaining a competitive edge, it is necessary to have advanced applications running on a high-performance IT infrastructure. The company operates out of two data centers. The centers support a Plant Lifecycle Management database, an Enterprise Resource Planning (ERP) system, and various trackside systems to set up the race car and aid race strategy. In addition, the centers run applications for Computer-Aided Design (CAD) Computer-Aided Manufacturing (CAM), and Computational Fluid Dynamics (CFD) packages.

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The company's top five IT Improvement goals are:

- *Reduce complaints about storage system availability.*
- *increase support for sophisticated design and manufacturing applications.*
- *Provide a robust replication capability between data centers.*
- *increase storage utilization while deploying additional capacity.*
- *Simplify operations during peak workloads.*

Moreover, the company's top three business benefit goals are:

- *Ensure rapid data retrieval to aid in quick decision making.*
- *Protect mission-critical data and ensure business continuity.*
- *Recover costs from existing infrastructure, thus providing increased IT funds for additional projects.*

The company has asked that you create multiple solution proposals and prioritize one when you return for a presentation.

- A. HP 3PAR Gen3 ASIC per interface car
- B. large capacity SATA NL drives
- C. cache extension via SSD drives
- D. RCIP ports on each node



**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

## **QUESTION 8**

Scenario 3.

Refer to the scenario.

During your presentation, the customer suggests using Thin Provisioning on the existing EVA to alleviate the capacity issue. What prevents HP EVA Thin Provisioning from being a valid solution?

### **(Case Study):**

A leading automotive technology company wants to increase the performance and capacity of the storage infrastructure that supports the design and manufacture of its line of Formula 1 racing cars. The company is also interested in safe-guarding its mission-critical data and eliminating the threat of business disruption.

Due to the massive engineering and technical effort required to create a new race car design and to enable regular delivery of upgraded parts to the race track while maintaining a competitive edge, it is necessary to have advanced applications running on a high-performance IT infrastructure. The company operates out of two data centers. The centers support a Plant Lifecycle Management database, an Enterprise Resource Planning (ERP) system, and various trackside systems to set up the race car and aid race strategy. In addition, the centers run applications for Computer-Aided Design (CAD) Computer-Aided Manufacturing (CAM), and Computational Fluid Dynamics (CFD) packages.

The company has deployed Oracle and SQL databases, VMware virtual machines, email, and all other applications on an HP 6400 Enterprise virtual Array (EVA). The EVAs automatically replicate between the two data centers to guard against failure. The EVAs are aging, applications are more sophisticated, data volumes have grown exponentially, and bottlenecks in the storage system are now having a significant effect on the performance of the simulation and analysis tools that are vital to the company's competitive position. The data storage problem has reached a point where the company is forced to store primary data at the secondary site causing the loss of their disaster recovery capability.

The company's top five IT Improvement goals are:

- *Reduce complaints about storage system availability.*
- *increase support for sophisticated design and manufacturing applications.*
- *Provide a robust replication capability between data centers.*
- *increase storage utilization while deploying additional capacity.*
- *Simplify operations during peak workloads.*

Moreover, the company's top three business benefit goals are:

- *Ensure rapid data retrieval to aid in quick decision making.*
- *Protect mission-critical data and ensure business continuity.*
- *Recover costs from existing infrastructure, thus providing increased IT funds for additional projects.*

The company has asked that you create multiple solution proposals and prioritize one when you return for a presentation.

- A. A minimum of 20% free space is required to convert the virtual disks.
- B. DR groups must be suspended prior to conversion.
- C. Thin Provisioning is only available on HP EVA P65xx.
- D. DR groups cannot contain Thin Provisioned virtual disks.

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**