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**Exam Code: HPE0-J68**

**Exam Name: HPE Storage Solutions**



## Exam A

### QUESTION 1

A customer with several HPE 3PAR StoreServ arrays has reported latencies with newly updated applications.

You have proposed changes to the AO configuration and need to provide high-resolution reports on how the change has affected the latencies.

What should you propose on delivering the service time and I/O workload information daily for you and the customer?

- A. Use IMC to schedule performance data gathering and email delivery.
- B. Schedule SSMC System Reporter to send the defined email reports.
- C. Enable the Service Processor to gather Performance data and schedule data transfer.
- D. Login to InfoSight and analyze Advanced Performance history.

**Correct Answer: B**

**Section:**

**Explanation:**

The HPE 3PAR SSMC (StoreServ Management Console) System Reporter is the tool that should be used to generate and schedule high-resolution performance reports, including service time and I/O workload information. By configuring System Reporter to send daily email reports, both you and the customer can monitor the impact of changes made to the Adaptive Optimization (AO) configuration. This ensures that any latency issues or performance improvements are documented and can be analyzed regularly.

HPE 3PAR SSMC System Reporter

HPE Performance Monitoring Tools

### QUESTION 2

A customer is implementing a new high performance database environment.

What type of storage should you recommend?

- A. scale-out storage
- B. object store
- C. system-defined storage
- D. network-attached storage

**Correct Answer: A**

**Section:**

**Explanation:**

For a high-performance database environment, scale-out storage (Option A) is the recommended solution. Scale-out storage architectures allow for the expansion of storage capacity and performance by adding more nodes to the storage cluster. This approach provides linear scalability, enabling the environment to grow as the database's demands increase. It is particularly effective for high-performance workloads because it balances the load across multiple nodes, reducing bottlenecks and ensuring consistent performance.

Scale-out storage also supports high availability and resilience, which are critical for maintaining uptime and reliability in database environments that require rapid data access and processing.

HPE Scale-Out Storage Solutions

HPE Storage Overview

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### QUESTION 3

You are designing a new enterprise array solution. The customer is interested in a caching tier that provides extremely low-latency and persistent storage at the same time. They also need to support more than 500GB.

Which technology should you recommend?



- A. DRAM
- B. SRAM
- C. NVMe SCM
- D. NAND SSD

**Correct Answer: C**

**Section:**

**Explanation:**

For the customer requiring a caching tier that offers extremely low-latency and persistent storage, NVMe Storage Class Memory (SCM) (Option C) is the ideal technology. NVMe SCM provides the performance characteristics of DRAM with the persistence of traditional storage, making it suitable for caching applications where ultra-low latency is crucial. NVMe SCM also supports capacities exceeding 500GB, which aligns with the customer's requirement.

This technology is particularly advantageous in environments where quick access to data is critical, such as in financial services or real-time analytics applications. It bridges the gap between volatile DRAM and slower NAND SSDs, providing a highly responsive and durable storage solution.

HPE NVMe Storage Solutions

HPE Storage Class Memory

#### QUESTION 4

A customer is implementing an SAP HANA environment and is looking for an alternative to an entirely in-memory database.

Which storage technology should you recommend?

- A. SAS SSD
- B. NVMe SSD
- C. NVMe SCM
- D. Intel Optane

**Correct Answer: C**

**Section:**

**Explanation:**

In an SAP HANA environment, the speed and latency of storage are critical for performance, especially when dealing with large datasets. While SAP HANA is designed to run entirely in memory, some customers may seek alternatives that offer a balance between performance and cost.

NVMe SCM (Storage Class Memory) is a cutting-edge storage technology that offers extremely low latency and high performance, making it an ideal alternative for environments like SAP HANA. NVMe SCM provides faster data access speeds than traditional SSDs and even NVMe SSDs, making it a perfect fit for workloads that demand high-speed data processing, such as SAP HANA.

HPE Storage for SAP HANA

HPE NVMe Storage Solutions

#### QUESTION 5

HOTSPOT

You need to create an N:M relationship between VMware hypervisors and virtual volumes with the least amount of administrative overhead.

Click the option where you can create a group of VMware hypervisors for volumes provisioning.

**Hot Area:**



Navigation menu with categories: GENERAL, BLOCK PERSONA, STORAGE OPTIMIZATION, DATA PROTECTION, STORAGE SYSTEMS, SYSTEM REPORTER, SECURITY, VMWARE. Includes sub-items like Dashboard, Hosts, Priority Optimization, RMC Instances, Systems, Reports, Users, Virtual Machines, etc.

● HDP_datastore	SDP1
● HDP_datastore.r	SDP2-Alex-Gonzalez
● ME-Demo-AutoCPG	SDP1
● ME-Demo-AutoCPG.r	SDP2-Alex-Gonzalez
● ME-Demo.0	SDP1
● ME-Demo.1	SDP1
● test.1	SDP1
● test.2	SDP1
● test.3	SDP1
● test_IFM	SDP1
● test_IFM_clone	SDP1
● test_k	SDP1

Configuration details for a storage system:

- Compaction Type: 9.4:1
- Provisioning: Base
- Dedup: Thin
- Compression: Yes
- Mode: Yes
- RAID: Read/Write RAID 6
- Adaptive optimization: -
- CPG: SSD r6
- Copy CPG: SSD r6
- Comments: -
- Virtual Machines: 0
- App Volume Set: -

Performance and Copies metrics:

- Average throughput in KiB/Sec: 0 KiB/Sec
- Average latency in ms: 0 ms
- Copies: Clones 0, Snapshots 0, Snapshot policy none, Remote copy group HDP Demo Replication.r518789



Answer Area:

System Name	SDP	Compaction Type	Provisioning	Dedup	Compression Mode	RAID	Adaptive optimization	CPG	Copy CPG	Comments	Virtual Machines	App Volume Set
HDP_datastore	SDP1	9.4:1	Base	Thin	Yes	Yes	Read/Write	RAID 6	-	SSD r6	SSD r6	-
HDP_datastore.r	SDP2-Alex-Gonzalez											
ME-Demo-AutoCPG	SDP1											
ME-Demo-AutoCPG.r	SDP2-Alex-Gonzalez											
ME-Demo.0	SDP1											
ME-Demo.1	SDP1											
test.1	SDP1											
test.2	SDP1											
test.3	SDP1											
test_IFM	SDP1											
test_IFM_clone	SDP1											
test_k	SDP1											

Section:  
Explanation:

**QUESTION 6**

Which tool is used to determine current compaction ratios on Primera arrays?

- A. WebUI
- B. Storage Management Utility (SMU)
- C. NinjaStars
- D. SSMC System Reporter

**Correct Answer: C**

Section:

Explanation:

When managing HPE Primera arrays, it's important to assess the current compaction ratios to understand how effectively data is being stored. NinjaStars is an HPE tool specifically designed to analyze and report on data reduction technologies, including deduplication and compression, on HPE storage arrays like Primera. It helps in determining the compaction ratios, providing insights into how efficiently the storage capacity is being utilized.

HPE Primera Storage  
HPE NinjaTools Suite

**QUESTION 7**

A customer wants to make a full copy replica of a database to use for performance testing. Which technology should they use to create the copy?

- A. deduplication
- B. snapshot
- C. clone
- D. synthetic full

**Correct Answer: C**

**Section:**

**Explanation:**

When a customer needs to create a full copy replica of a database for performance testing, the best technology to use is a clone. A clone creates an exact, independent copy of a volume, which can be used separately from the original. This is particularly useful for scenarios such as testing, development, or backup, where an exact copy of the data is required without affecting the production environment.

HPE 3PAR and Primera Clone Technology

HPE Data Protection and Replication

#### QUESTION 8

You are advising a customer on a new backup strategy to deploy HPE StoreOnce.

What should you recommend to ensure the best storage utilization and performance?

- A. consolidate activity windows for housekeeping tasks
- B. size solution for a single backup device
- C. combine management and backup Ethernet traffic
- D. use separate backup targets for different data types

**Correct Answer: D**

**Section:**

**Explanation:**

When deploying HPE StoreOnce, it is essential to use separate backup targets for different data types to ensure optimal storage utilization and performance. Different data types may have varying deduplication ratios, backup windows, and recovery requirements. By segregating these data types into separate backup targets, the system can more efficiently manage deduplication, compression, and storage allocation, leading to better performance and reduced storage costs.

HPE StoreOnce Best Practices

HPE Backup Solutions

#### QUESTION 9

Refer to the exhibit.





You are designing a new Primera solution and demonstrating performance numbers to the customer. The customer reviews the configuration and requests a change to the configuration that will increase Random Write IOPS. Which action will satisfy the customer request?

- A. Add more disks of smaller capacity
- B. Upgrade the HPE Primera base model
- C. Change to larger SSDs
- D. Add more FC Ports

**Correct Answer: A**

**Section:**

**Explanation:**

In the scenario presented, the customer requests an increase in Random Write IOPS for their HPE Primera solution. To achieve this, adding more disks of smaller capacity is the most effective approach (Option A). By increasing the number of disks, the storage system can distribute the write operations across more disks, thereby reducing the write latency and improving the overall Random Write IOPS performance. Smaller capacity disks typically allow for better IOPS performance per GB due to their higher spindle speed and lower data density, which reduces seek times.

This strategy also aligns with best practices in storage design, where increasing the number of spindles (disks) generally enhances the performance of random workloads, particularly in write-intensive environments.

HPE Primera Overview

HPE Storage Products Overview

HPE Flash and Hybrid Storage Solutions

**QUESTION 10**

Which of the following are part of the SimpliVity Data Virtualization Platform architecture? (Choose two.)

- A. Presentation Layer
- B. User Management Layer
- C. Security Layer
- D. Data Management Layer

**Correct Answer: A, D**

**Section:**

**Explanation:**

The HPE SimpliVity Data Virtualization Platform is designed with a modular architecture that includes several key layers. Among these, the Presentation Layer and the Data Management Layer are fundamental components (Options A and D).



The Presentation Layer is responsible for the user interface and the interaction between the user and the system. It provides the tools necessary for administrators to manage and monitor the storage environment efficiently. The Data Management Layer handles the core functions of the SimpliVity platform, including data deduplication, compression, and optimization. This layer ensures that data is stored and managed efficiently, reducing storage costs and improving performance.

These layers work together to deliver the full capabilities of the SimpliVity platform, enabling simplified management and robust data services in a hyper-converged infrastructure environment.

[HPE SimpliVity Overview](#)

[HPE SimpliVity Data Virtualization](#)

#### QUESTION 11

A customer implemented the HPE StoreEver MSL6480 Tape Library.

Which HPE Software can the system administrator use to check the health of the library and monitor its utilization?

- A. OneView
- B. StoreServe TapeAssure Advanced
- C. StoreEver Data Verification
- D. InfoSight

**Correct Answer: B**

**Section:**

**Explanation:**

For monitoring the health and utilization of the HPE StoreEver MSL6480 Tape Library, StoreServ TapeAssure Advanced is the recommended software. TapeAssure Advanced provides detailed insights into the operational status of tape libraries, including health checks, utilization metrics, and predictive analytics. This tool is essential for ensuring the reliability and efficiency of tape storage environments.

[HPE StoreEver Tape Libraries](#)

[HPE TapeAssure Advanced](#)

#### QUESTION 12

A customer environment includes:

10 DL380 Gen8 servers in a VMware Cluster

2 MSA storage arrays

2 8GB b-series fibre channel switches

The customer needs to replace their environment because it is end of life. They have limited budget. The customer is primarily concerned with management because they have limited IT staff, and they want to move away from fibre channel.

Which HPE Storage should you recommend?

- A. HPE Primera
- B. HPE XP8
- C. HPE Nimble dHCI
- D. HPE StoreOnce

**Correct Answer: C**

**Section:**

**Explanation:**

In this scenario, the customer is looking to replace their existing environment, which includes servers, MSA storage arrays, and Fibre Channel switches. They are budget-conscious, have limited IT staff, and prefer to move away from Fibre Channel technology. The HPE Nimble dHCI (Option C) is the ideal solution to recommend.

HPE Nimble dHCI offers a converged infrastructure that simplifies management, making it easier for organizations with limited IT resources to maintain their environment. It is designed to be easy to deploy and manage, providing the benefits of both hyper-converged infrastructure (HCI) and traditional converged solutions. This solution integrates compute, storage, and networking with advanced data services, and it moves away from Fibre Channel by leveraging iSCSI or Ethernet-based connectivity. The Nimble dHCI also provides excellent performance and reliability at a lower cost, which aligns with the customer's budget constraints.

[HPE Nimble Storage dHCI Overview](#)

[HPE Storage Solutions](#)





**QUESTION 13**

You are designing an HPE MSA iSCSI for a customer.

Which components are typically part of the solution? (Choose two.)

- A. Drives
- B. SFPs
- C. Service Processor
- D. All-inclusive Multi-system software
- E. Switch zones

**Correct Answer: A, B**

**Section:**

**Explanation:**

When designing an HPE MSA iSCSI storage solution, two critical components that are typically part of the solution are Drives (Option A) and SFPs (Small Form-factor Pluggables) (Option B).

Drives: These are the storage devices (e.g., SSDs or HDDs) that provide the necessary capacity and performance for the MSA array. The choice of drives can be tailored based on the performance and capacity needs of the customer.

SFPs: These are essential for establishing iSCSI or Fibre Channel connectivity between the storage array and the network switches. They play a crucial role in ensuring that the storage solution can be integrated into the customer's existing network infrastructure.

The inclusion of these components ensures that the HPE MSA solution is fully functional and can meet the performance and connectivity requirements of the customer's environment.

[HPE MSA Storage Overview](#)

[HPE Storage Components](#)

**QUESTION 14**

A customer is planning to upgrade their HF40 controllers to support additional I/O requirements.

To which model can they upgrade to meet their new requirements?

- A. AF60
- B. AF40
- C. HF60
- D. HF40C

**Correct Answer: C**

**Section:**

**Explanation:**

For a customer planning to upgrade their HF40 controllers to support additional I/O requirements, upgrading to the HF60 (Option C) is the recommended path. The HPE Nimble HF60 offers enhanced performance, greater scalability, and improved I/O capabilities compared to the HF40. This upgrade ensures that the storage array can handle more demanding workloads and support future growth.

The HF60 model is designed to meet the needs of environments requiring higher performance and capacity, making it suitable for customers looking to expand their infrastructure without a complete overhaul.

[HPE Nimble Storage Solutions](#)

[HPE Nimble Storage Controller Upgrade Path](#)

**QUESTION 15**

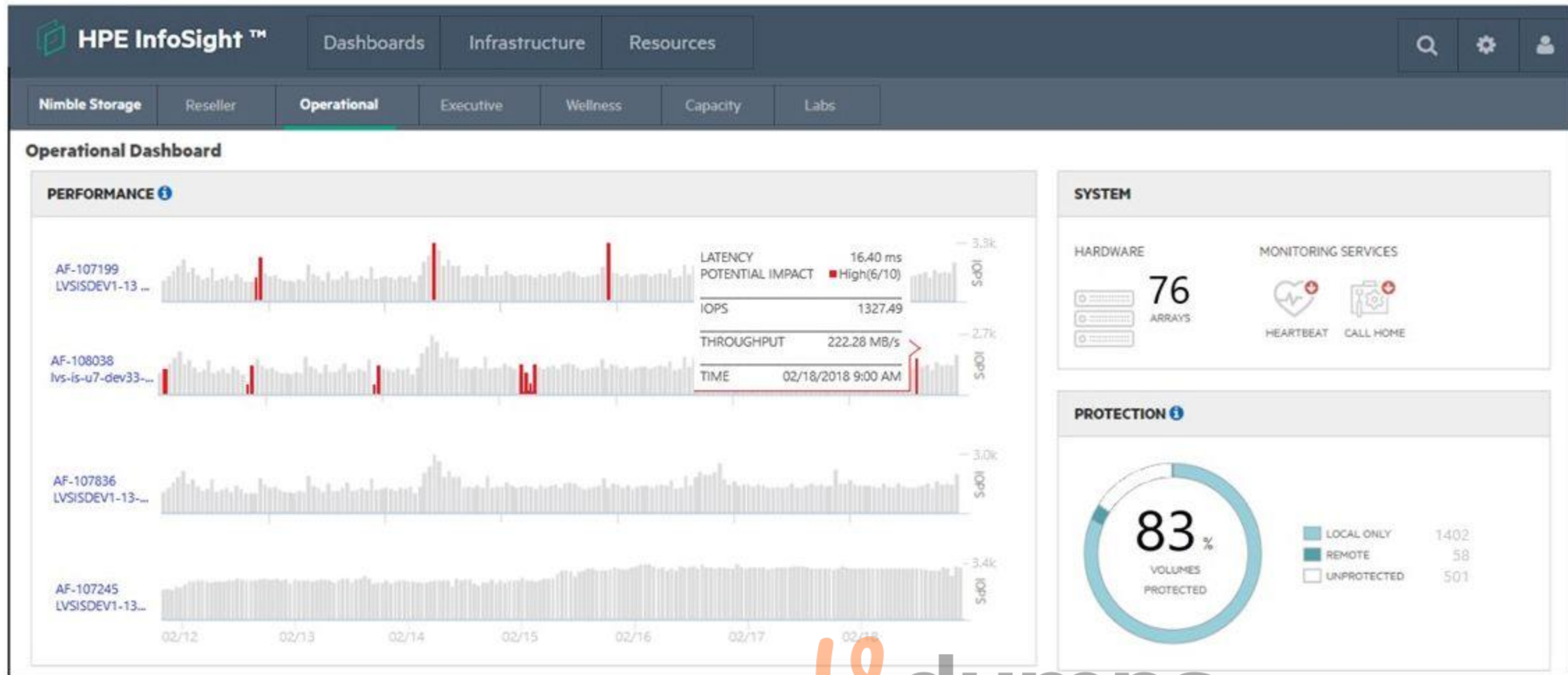
HOTSPOT

A customer has a Nimble HF40 and needs to create a support ticket.

Click the option in the InfoSight portal where the customer can perform this task.

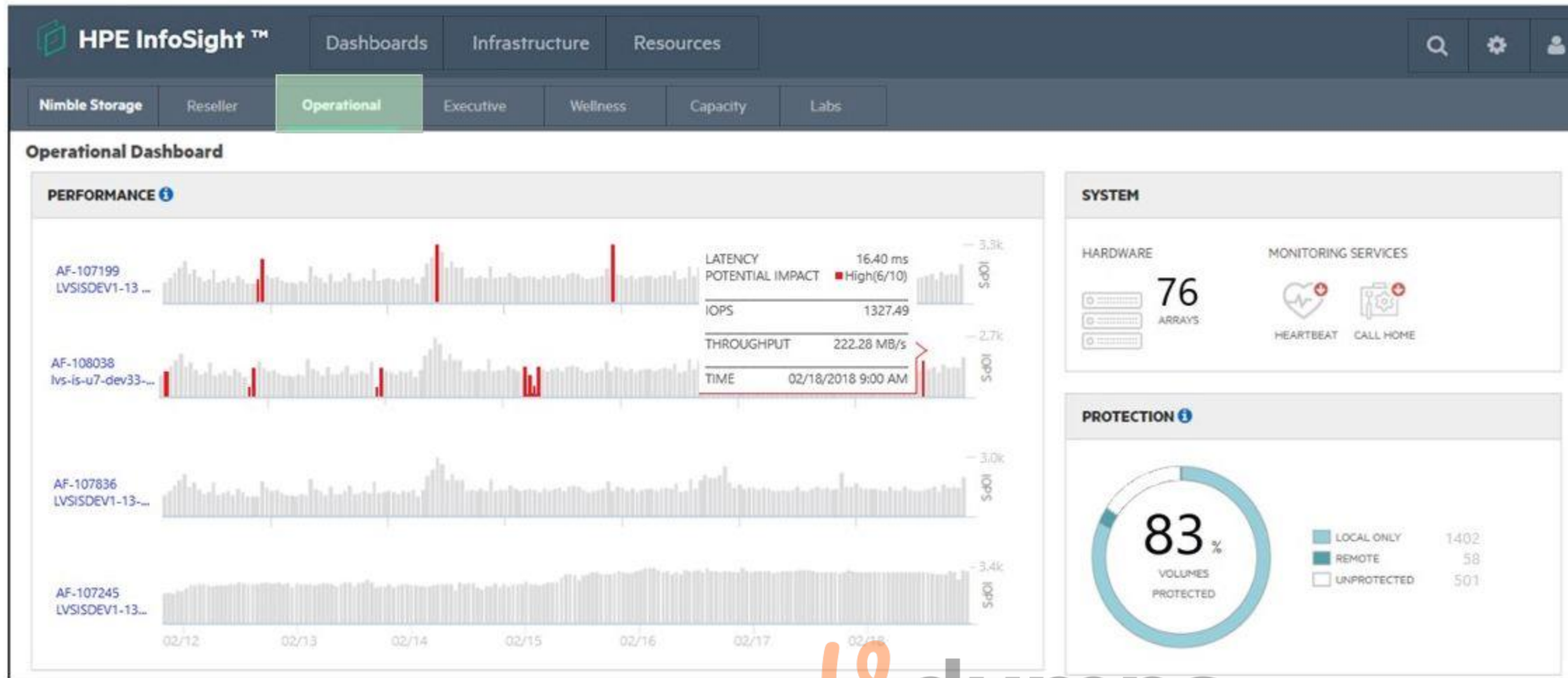
**Hot Area:**





Answer Area:





**Section:**  
**Explanation:**

**QUESTION 16**

A customer is planning to replace their existing LTO-6 tape library with a new HPE StoreEver MSL2024 tape library. They want to reuse their existing LTO-6 tape cartridges for reads and writes. What is the latest tape drive technology that will provide backward compatibility?

- A. LTO8
- B. LTO5
- C. LTO6
- D. LTO7

**Correct Answer: D**

**Section:**  
**Explanation:**

When replacing an existing LTO-6 tape library with a new HPE StoreEver MSL2024 tape library, and the customer wants to reuse their LTO-6 tape cartridges, LTO7 (Option D) is the latest tape drive technology that provides backward compatibility with LTO-6 tapes.

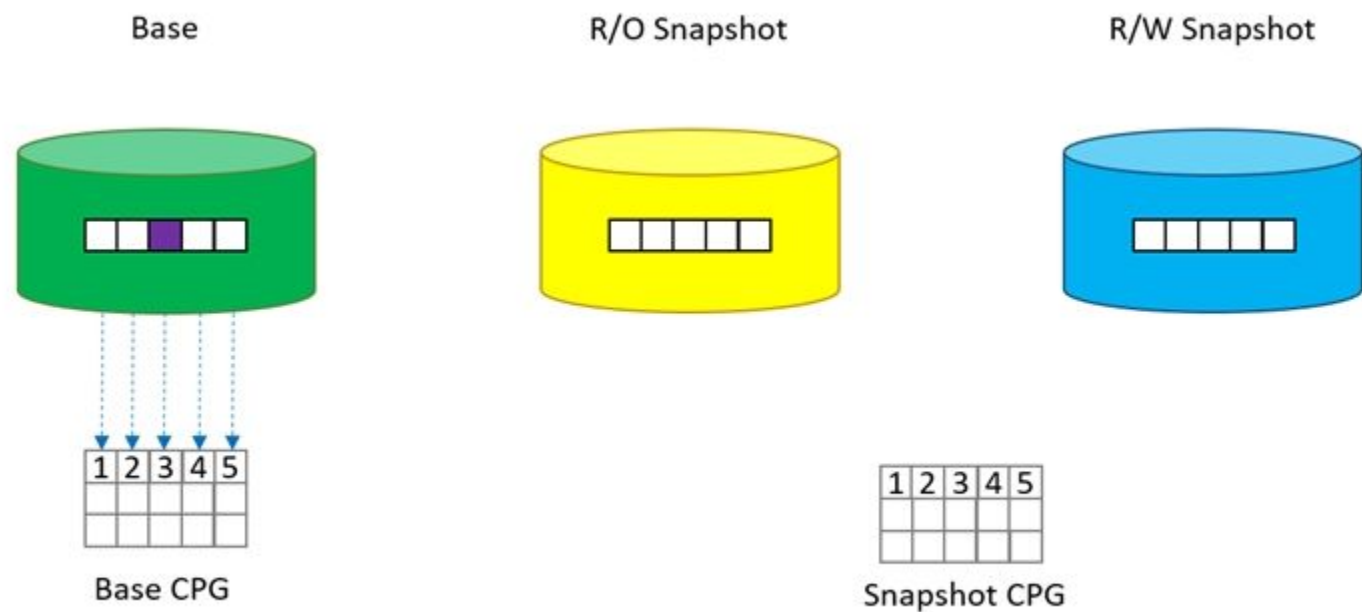
LTO7 drives can read and write to LTO-6 cartridges, making them the optimal choice for ensuring the customer's existing media can be utilized effectively while also providing the benefits of newer tape technology, such as higher capacity and faster data transfer rates.

HPE StoreEver Tape Solutions  
HPE LTO Tape Technology

**QUESTION 17**

DRAG DROP

Refer to the exhibit.



You create two snapshots of a thin provisioned base volume in an HPE Primera. One snapshot is read only and the other is read-write. A write occurs at the location shown in in the diagram. Place the actions on the left into the order they are taken on the right.

Select and Place:

Action

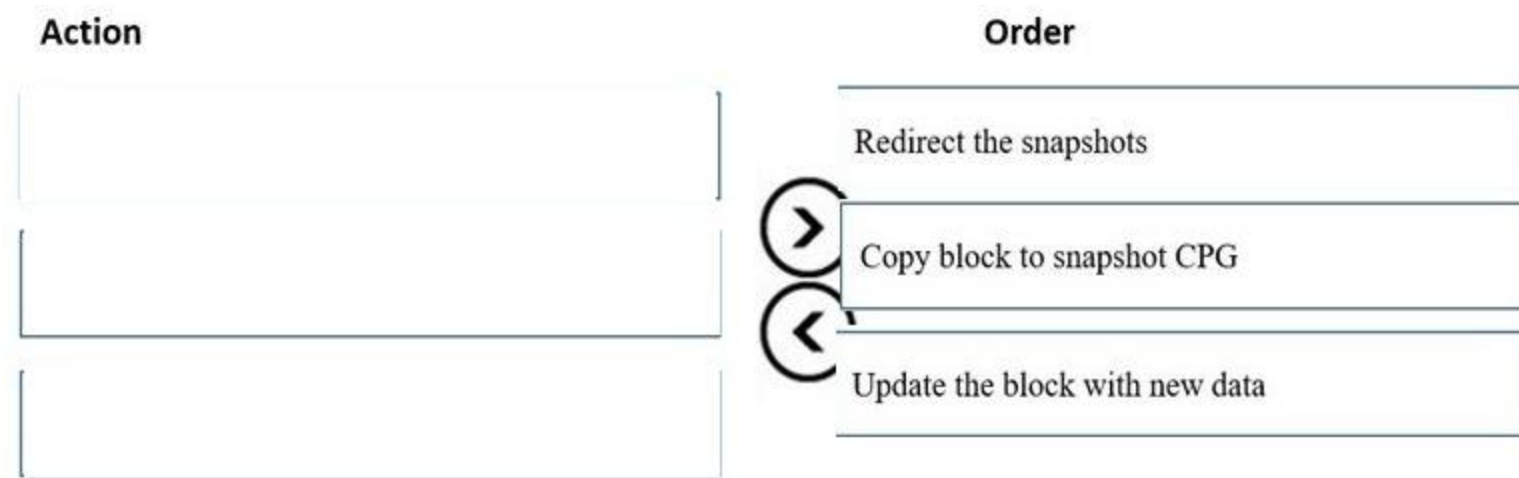
- Copy block to snapshot CPG
- Redirect the snapshots
- Update the block with new data



Order



Correct Answer:



**Section:**

**Explanation:**

Redirect the snapshots

Copy block to snapshot CPG

Update the block with new data

**QUESTION 18**

A customer asks you for a recommendation on setting up their new StoreOnce appliance. They plan to use NetBackup and need the highest performance setup they can get. Their local hosts are connected via FC and the rest are connected via a WAN.

Which backup target type should you recommend?

- A. VTL
- B. S3
- C. CIFS
- D. Catalyst



**Correct Answer: A**

**Section:**

**Explanation:**

When setting up a new HPE StoreOnce appliance for a customer who is using NetBackup and requires the highest performance setup, the best backup target type to recommend is VTL (Virtual Tape Library). VTLs are optimized for high-performance environments, particularly when connected via Fibre Channel (FC), which the customer has in their local setup. VTLs provide the speed and reliability of disk-based storage while emulating the tape systems that many backup solutions, like NetBackup, are designed to work with. This setup will ensure the highest throughput and performance for backup operations over FC.

HPE StoreOnce Overview

HPE VTL Solutions

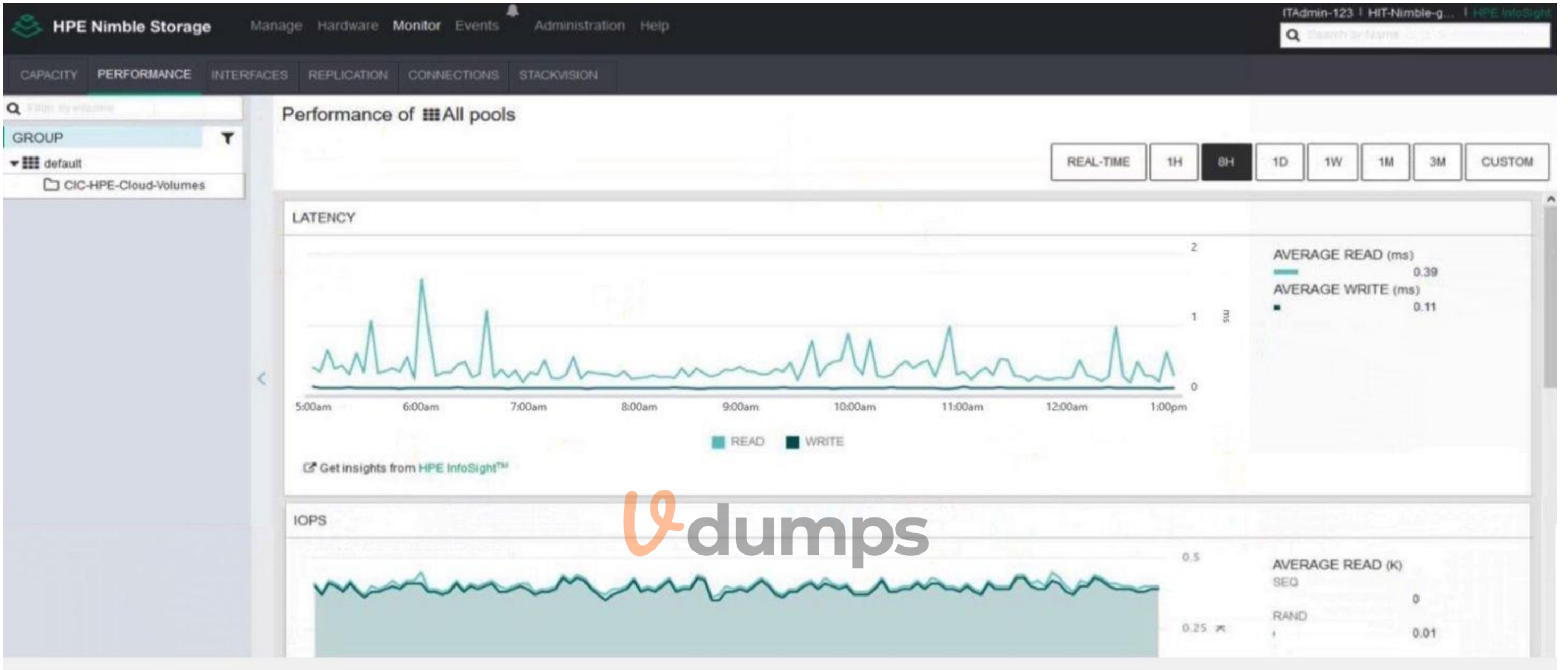
**QUESTION 19**

**HOTSPOT**

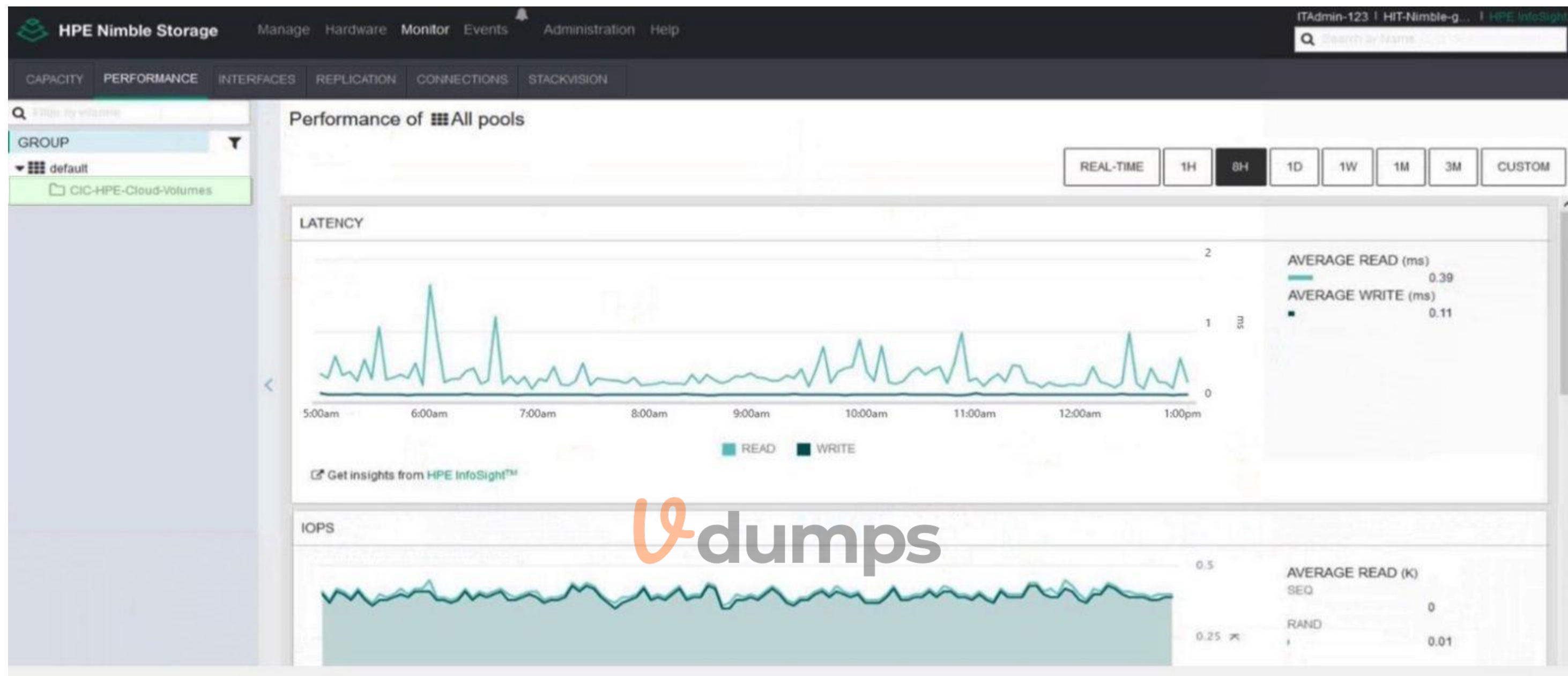
You are handing over the installed array to customer. The customer wants to review the amount of HDDs and SSDs in the system.

Click the relevant menu option where the front panel of the head shelf can be visualized.

**Hot Area:**



Answer Area:



**Section:**

**Explanation:**

**QUESTION 20**

A customer successfully implemented an HPE Primera solution.

Which tool can be used to verify performance counters, such as IOPS, match customer requirements?

- A. NinjaCrawler
- B. OneView
- C. Recovery Manager Central
- D. Primera on-node management GUI

**Correct Answer: D**

**Section:**

**Explanation:**

After implementing an HPE Primera solution, the most appropriate tool to verify performance counters such as IOPS (Input/Output Operations Per Second) is the Primera on-node management GUI. This GUI provides real-time monitoring and detailed performance analytics directly from the Primera storage system itself. It allows users to track various performance metrics and ensure they align with the customer's requirements.

**QUESTION 21**

A customer successfully implemented an HPE Primera solution.

Which tool can be used to verify achieved savings from deduplication and compression in the customer solution?

- A. NinjaSTARS
- B. 3PAR Service Processor
- C. NinjaCrawler
- D. StoreServ System Management Console

**Correct Answer: A**

**Section:**

**Explanation:**

To verify achieved savings from deduplication and compression in an HPE Primera solution, the most suitable tool is NinjaSTARS. NinjaSTARS is part of the HPE NinjaTools suite, which is specifically designed to analyze storage efficiency metrics, including deduplication and compression ratios. This tool provides detailed insights into how much space has been saved through these data reduction technologies, helping to ensure that the solution is meeting expectations for storage efficiency.

[HPE NinjaTools Overview](#)

[HPE Primera Deduplication and Compression](#)

**QUESTION 22**

A customer has the following requirements for a storage solution:

VMware environment

20 TB of standard business data

400 TB of video archive files

10 GB iSCSI connectivity

They are most concerned with the cost of the solution.

Which HPE storage solution offers the lowest cost while meeting the customer requirements?

- A. HPE Nimble
- B. HPE SimpliVity
- C. HPE Primera
- D. HPE MSA

**Correct Answer: D**

**Section:**

**Explanation:**

Given the customer's requirements for a storage solution in a VMware environment, with 20 TB of standard business data, 400 TB of video archive files, and a concern for cost, HPE MSA is the most cost-effective solution that meets these needs. HPE MSA offers affordable storage with enterprise features such as snapshots and replication. It supports iSCSI connectivity, which aligns with the customer's 10 GB iSCSI requirements. Additionally, MSA provides a balance of performance and capacity, making it a suitable choice for environments where budget is a primary concern.

**QUESTION 23**

You are proposing a StoreOnce solution to a customer that has always used tape for a backup target.

What should you suggest to ensure that the StoreOnce deduplication is correctly sized?

- A. StoreOnce timeless storage
- B. DDAnalyzer





- C. proof of concept with StoreOnce VSA
- D. OCA

**Correct Answer: D**

**Section:**

**Explanation:**

When proposing a StoreOnce solution to a customer transitioning from tape backups, it's crucial to correctly size the deduplication requirements. OCA (Outcome-based Capacity Analyzer) is the recommended tool for this purpose. OCA helps to predict and size the deduplication storage needs by analyzing the data types and patterns, ensuring that the StoreOnce system is correctly configured to handle the customer's backup workloads efficiently.

#### QUESTION 24

A customer is purchasing an HPE MSA 2050 for a branch office. They will use it for critical data services. The customer is concerned that 64 snapshots will not be adequate as they grow. What can be added to the array to address the customer's concerns?

- A. Advanced Data Services Suite license
- B. All-inclusive Multi-system license
- C. Virtual Copy license
- D. Adaptive Optimization license

**Correct Answer: A**

**Section:**

**Explanation:**

The HPE MSA 2050 comes with a base set of features, including the ability to create up to 64 snapshots. However, for customers who require more extensive snapshot capabilities as their data services grow, the Advanced Data Services Suite license is the appropriate solution. This license extends the functionality of the MSA, including an increase in the number of snapshots that can be created and managed, thus addressing the customer's concerns about future growth.

HPE MSA 2050 Storage

HPE MSA Advanced Data Services

#### QUESTION 25

You have proposed a Primera array to a customer for new primary storage. The customer currently has an older 3PAR array that they will continue to use moving forward. The customer would like high availability configured. Which RMC Peer Copy pre-requisites do you need to point out to the customer? (Choose two.)

- A. No license is required
- B. 2-port 10 Gb Ethernet Adapter (NIC) is required
- C. 4-port 1 Gb Ethernet Adapter (NIC) is required in each array
- D. RMC 6.2 is required
- E. Target drive type must match source drive type

**Correct Answer: B, D**

**Section:**

**Explanation:**

When configuring high availability with HPE Primera and 3PAR arrays using RMC (Recovery Manager Central) Peer Copy, there are specific prerequisites that must be met:

2-port 10 Gb Ethernet Adapter (NIC): Each array must be equipped with a 2-port 10 Gb Ethernet Adapter to support the high-speed data transfer required for Peer Copy operations.

RMC 6.2: The customer must have RMC version 6.2 or later installed, as this version includes the necessary features and enhancements to support Peer Copy between Primera and 3PAR arrays.

These prerequisites are crucial to ensure seamless integration and optimal performance when setting up high availability between the two storage arrays.

HPE Primera and 3PAR Integration

HPE RMC Overview

**QUESTION 26**

Which protocol can be used for accessing StoreOnce VTL target from Veeam?

- A. FC
- B. NFSv4
- C. iSCSI
- D. SMBv3

**Correct Answer: A**

**Section:**

**Explanation:**

For accessing StoreOnce VTL (Virtual Tape Library) targets from Veeam, the recommended protocol is FC (Fibre Channel). FC provides the high throughput and low latency necessary for backup operations, making it ideal for environments where speed and reliability are critical. StoreOnce VTL supports FC as a primary protocol for integrating with backup applications like Veeam.

[HPE StoreOnce VTL](#)

[Veeam and HPE StoreOnce Integration](#)

**QUESTION 27**

You have proposed a Primera array to a customer for primary storage. The customer currently has an older HPE 3PAR array and will continue to use it moving forward. The customer would like high availability configured. Which RMC Peer Copy pre-requisites do you need to point out to the customer? (Choose two.)

- A. 4-port 1 Gb Ethernet Adapter (NIC) is required in each array
- B. Target drive type must match source drive type
- C. 2-port 10 Gb Ethernet Adapter (NIC) is required in each array
- D. Check that the 3PAR OS version is supported
- E. Required license must be provided
- F. RMC 6.2

**Correct Answer: D, F**

**Section:**

**Explanation:**

When proposing a Primera array and ensuring high availability with an existing HPE 3PAR array, there are specific RMC (Recovery Manager Central) Peer Copy prerequisites that need to be addressed:

Check that the 3PAR OS version is supported (Option D): It is crucial to verify that the HPE 3PAR OS version is compatible with the RMC version being used. Incompatibility between the OS versions can lead to failures in replication or other high availability features.

RMC 6.2 (Option F): RMC 6.2 is the required version for ensuring compatibility with the features necessary for Peer Copy between Primera and 3PAR arrays. Ensuring that this version is installed and correctly configured is essential for successful implementation.

These prerequisites help ensure that the high availability setup between the Primera and 3PAR arrays functions correctly and that the data protection mechanisms are reliable.

[HPE RMC Overview](#)

[HPE 3PAR and Primera Compatibility](#)

**QUESTION 28**

Which tool is used to provide centralized management of 3PAR and Primera arrays?

- A. SMU
- B. Primera UI
- C. WebUI
- D. SSMC



**Correct Answer: D**

**Section:**

**Explanation:**

The StoreServ Management Console (SSMC) (Option D) is the tool used for centralized management of both HPE 3PAR and Primera arrays. SSMC provides a unified interface for managing storage arrays, enabling administrators to monitor, configure, and maintain their storage infrastructure from a single console. It offers advanced features for performance tuning, capacity planning, and data protection, making it an essential tool for organizations using these storage systems.

SSMC simplifies the management process and enhances the efficiency of storage operations, which is particularly beneficial in environments with complex storage requirements.

HPE StoreServ Management Console

HPE SSMC Overview

#### **QUESTION 29**

You need to deploy a Recovery Manager Central appliance and integrate it with a customer's 3PAR system.

Which information must be collected from the customer in order to proceed with the installer? (Choose two.)

- A. StoreOnce store name
- B. vCenter IP address or hostname
- C. HPE 3PAR used capacity
- D. IP address of the RMC
- E. NFS path

**Correct Answer: B, D**

**Section:**

**Explanation:**

When deploying a Recovery Manager Central (RMC) appliance and integrating it with a customer's HPE 3PAR system, the following information is critical:

vCenter IP address or hostname (Option B): The RMC appliance needs to communicate with the VMware vCenter server for managing virtual machines and performing data protection tasks. The IP address or hostname of the vCenter server is necessary for this integration.

IP address of the RMC (Option D): The IP address of the RMC appliance itself is required during the installation process to ensure proper network configuration and communication between the RMC appliance, the 3PAR storage system, and other network components.

Collecting this information beforehand ensures that the installation process proceeds smoothly and that the RMC appliance can be correctly configured to protect the customer's data environment.

HPE RMC Installation Guide

HPE 3PAR Integration with RMC

#### **QUESTION 30**

DRAG DROP

Match each HPE storage solution to its use case.

**Select and Place:**

## Solution

Primera

MSA

Nimble

Nimble dHCI

SimpliVity

## Use Case

Smaller site traditional deployments

Complete solution for virtualized environments

Enterprise class storage for SMB

Enterprise class storage with Tier-0 features

hyperconverged control with independent compute and storage scalability

Correct Answer:

## Solution

Nimble

Nimble dHCI

MSA

Primera

SimpliVity

## Use Case

Smaller site traditional deployments

Complete solution for virtualized environments

Enterprise class storage for SMB

Enterprise class storage with Tier-0 features

hyperconverged control with independent compute and storage scalability

Section:

Explanation:

### QUESTION 31

What is the typical protocol used to access data from object storage?

- A. FC
- B. NVMe
- C. HTTP
- D. iSCSI

Correct Answer: C

Section:

Explanation:

The typical protocol used to access data from object storage is HTTP (Option C). Object storage systems, such as those used in cloud environments, typically expose their data through RESTful APIs over HTTP. This allows for easy access and manipulation of data objects over the web. Unlike traditional block or file storage, object storage is designed for scalability and is commonly used for storing large amounts of unstructured data, such as media files, backups, and archives.

HTTP is the standard protocol for web communications, making it the ideal choice for accessing data in object storage environments, which are often cloud-based or designed for remote access.

[HPE Object Storage Overview](#)

[HPE Cloud and Object Storage Solutions](#)

[Topic 2, More Questions](#)

#### QUESTION 32

Which functionality available in an HPE 3 Par StoreServ 8400 system that is not available in an HPE 3par Storesrve 7200

- A. Data at Rest Encryption
- B. Persistent Checksum end-to-end data integrity (correct)
- C. Adaptive optimization and dynamic Optimization
- D. Online import license

**Correct Answer: B**

**Section:**

**Explanation:**

The HPE 3PAR StoreServ 8400 system includes the Persistent Checksum feature, which provides end-to-end data integrity. This functionality ensures that data remains consistent and uncorrupted as it travels through the system, from the host to the storage array and back. This feature is particularly important for environments where data integrity is critical, such as financial services or healthcare. The HPE 3PAR StoreServ 7200 does not offer this feature, making it a significant differentiator between the two systems.

[HPE 3PAR StoreServ 8000 Series](#)

[HPE Persistent Checksum](#)



#### QUESTION 33

Which storage principle would benefits of customer who has several departments in their organization with different storage needs?

- A. Autonomic Management
- B. Federated storage
- C. Scale out storage
- D. Multi-tenancy

**Correct Answer: D**

**Section:**

**Explanation:**

Multi-tenancy is a storage principle that allows multiple departments or tenants within an organization to share the same storage infrastructure while maintaining logical separation of data. This approach benefits organizations with different departments that have varying storage needs by providing isolated storage environments within a single physical system. It optimizes storage resource utilization and enhances data security, making it ideal for environments where multiple workloads coexist.

[HPE 3PAR Multi-tenancy](#)

[HPE Storage Virtualization](#)

#### QUESTION 34

A customer with restricted budget has an existing HPE 3PAR storeserver 8200 using 10kfast class and near line drives because of the implementation of new application .the workload has shifted to be read intensive therefore ,they want to increase the read I/O performance

What should they add to their environment ?

- A. A tier with 15k fast class 600 GB drive for new CPG, configure AO policy to advantage of new resources

- B. Two 400 GB SSD drives and enable adaptive flash cache (page 173) need to check
- C. A tier with 15k fast class drive and implement thin provisioned deduplicated virtual volumes
- D. A tier of SSD and implement thin provisioned virtual volume

**Correct Answer: D**

**Section:**

**Explanation:**

Given the shift to a read-intensive workload, adding a tier of SSD (Solid State Drives) will significantly improve the read I/O performance of the environment. Implementing thin provisioned virtual volumes allows the storage to be allocated more efficiently, optimizing the use of available SSD resources. This combination ensures that the customer can meet the new performance demands without overspending, making it the best option for a budget-restricted scenario.

HPE 3PAR StoreServ 8000 Series

HPE Thin Provisioning

#### QUESTION 35

Which management interface uses four basic commands (Create, read, update and delete) to enable administrators to define and radically simplify management processes?

- A. Rest API
- B. WMI
- C. SMI-S
- D. WEBEM

**Correct Answer: A**

**Section:**

**Explanation:**

The REST API (Representational State Transfer Application Programming Interface) uses four basic commands: Create, Read, Update, and Delete (often abbreviated as CRUD). These commands enable administrators to define and simplify management processes in a programmatic way. REST APIs are widely used in modern IT environments for their simplicity and efficiency in managing and interacting with systems, including storage and networking solutions.

HPE REST API Documentation

Introduction to REST API

#### QUESTION 36

What can move data directly from a snapshot to backup storage independent of backup server software?

- A. SSMC
- B. Virtual Lock
- C. CLI
- D. Express Protect

**Correct Answer: D**

**Section:**

**Explanation:**

Express Protect is a feature that allows data to be moved directly from a snapshot to backup storage independently of the backup server software. This feature is available in HPE's backup and recovery solutions, and it is designed to streamline the backup process, reduce load on the backup server, and improve overall backup efficiency.

HPE Backup Solutions

HPE StoreOnce Express Protect

#### QUESTION 37

What are the benefits of HPE synergy? (Select 2)

- A. It can present block storage services from HPE 3par as part of the resource pool
- B. It support up to 3 HPE store Virtual VSA nodes for storage RAID
- C. It can use HPE 3PAR file persona for objet storage
- D. It can compose and reclaim DAS storage
- E. It support HPE blade system C-Class Flex Fabrics Interconnect module (need to check)

**Correct Answer: A, D**

**Section:**

**Explanation:**

HPE Synergy is a composable infrastructure solution that provides flexibility and scalability for data centers. The benefits include:

Block Storage Services from HPE 3PAR: HPE Synergy can integrate with HPE 3PAR storage to present block storage services as part of its resource pool. This allows for a more unified and efficient management of storage resources across the infrastructure.

Composing and Reclaiming DAS Storage: HPE Synergy allows administrators to compose and reclaim direct-attached storage (DAS) as needed, optimizing the use of available storage resources and improving overall efficiency. These features make HPE Synergy a powerful solution for modern data centers that require flexible, scalable, and efficient infrastructure management.

HPE Synergy Overview

HPE 3PAR and Synergy Integration

### QUESTION 38

A large organization is experiencing exponential data growth of object storage due to recent mergers and acquisition .They need an on-premise solution to optimize cost at petabyte scale  
Which components should you recommend for a software-defined solution ?(select two)

- A. HPE Appolo 4510 server
- B. HPE Complete --Scalability RING
- C. HPE Synergy 660 Gen10 compute modules
- D. HPE complete --CTERA
- E. HPE 3PAR Storeserv 9450c



**Correct Answer: A, B**

**Section:**

**Explanation:**

For a large organization experiencing exponential data growth in object storage, particularly at a petabyte scale, a software-defined solution is recommended. The components to consider are:

HPE Apollo 4510 Server: The Apollo 4510 is designed for massive storage capacities, making it ideal for handling large-scale data storage needs in an efficient manner.

HPE Complete -- Scalability RING: The Scalability RING is a software-defined storage solution that provides scalable object storage capabilities. It is well-suited for environments that require on-premise solutions to optimize costs at petabyte scales.

These components provide the necessary infrastructure to manage large volumes of object storage efficiently and cost-effectively.

HPE Apollo 4000 Systems

HPE Complete -- Scalability RING

### QUESTION 39

A customer migrate their infrastructure from a 3rd party storage to a Nimble environment. During an architecture workshop, you discuss VMvision with the customer and the system engineer. Which statement is correct when implementing performance monitoring using VMVision?

- A. Nibmle service processor collects relevant per VM performance data and send them using SSL port 443 to VMvision
- B. VMvision is an agentless integration into infosight and needs only the Vcenter server appliance credentials to connect. (page 112)
- C. VMware vSphere storage API's array integration (VAAI)has to be configured to combine storage and VM performance metrics
- D. SNMP trap service has to be configured to send traps to infosight and integrate performance data using VMvision.

**Correct Answer: B**

**Section:**

**Explanation:**

VMvision is a feature within HPE InfoSight that provides deep visibility into the performance and resource utilization of virtual machines (VMs) running on HPE Nimble Storage arrays. It offers an agentless approach, meaning it does not require any additional software or agents to be installed on the VMs or hosts. Instead, VMvision leverages the vCenter server appliance credentials to directly gather data from the VMware environment.

Once integrated with vCenter, VMvision can collect and analyze VM-level performance data, such as latency, IOPS, and throughput, in real-time. This data is then correlated with storage performance metrics, allowing administrators to easily identify bottlenecks and optimize VM performance. The agentless nature of VMvision simplifies the deployment process and reduces the management overhead associated with performance monitoring.

Unlike traditional performance monitoring tools that may require configuring SNMP traps or deploying agents on each VM, VMvision's integration with InfoSight streamlines the process by using existing vCenter APIs to gather the necessary data. This approach not only ensures a seamless integration but also enhances the accuracy of the performance insights provided by InfoSight.

For more details, refer to the following HPE Storage references:

HPE Nimble Storage

HPE InfoSight for Storage

HPE Flash and Hybrid Storage

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#### QUESTION 40

Which SAN topology offers the highest centralized data access performance?

- A. Meshed
- B. Cascaded
- C. Core-Edge
- D. Ring

**Correct Answer: C**

**Section:**

**Explanation:**

The Core-Edge SAN topology offers the highest centralized data access performance. In this topology, the core switch provides centralized connectivity, and the edge switches connect to the hosts and storage devices. This architecture is highly scalable and supports high-performance data access while maintaining low latency. It is ideal for large SAN environments where centralized data management and high throughput are crucial.

HPE SAN Solutions

SAN Topology Guide

#### QUESTION 41

A customer needs to implement a new SAN fabric for their growing environment. The new SAN should provide a high performance and port-efficient network with many-to-many connectivity. Because of changing requirements and the possible acquisition of another company in the near future, the customer cannot predict the I/O traffic pattern within the SAN. The customer is also concerned about availability. Which type of SAN topology should you recommend?

- A. Core-edge fabric
- B. Single switch fabric
- C. Cascaded fabric
- D. Meshed fabric

**Correct Answer: D**

**Section:**

**Explanation:**

A Meshed fabric SAN topology is recommended when the customer requires a high-performance, port-efficient network with many-to-many connectivity and cannot predict I/O traffic patterns. This topology provides multiple paths between devices, ensuring high availability and redundancy. It is flexible and can easily accommodate changes in the network, such as the acquisition of another company, making it ideal for environments with dynamic requirements.

HPE SAN Fabric Design





**QUESTION 42**

Which storage tool in the storage assessment foundry provide data protection analysis?

- A. Ninja protected+ (318)
- B. NinjaCrawler
- C. Ninja Thin
- D. Ninja Stars

**Correct Answer: A**

**Section:**

**Explanation:**

NinjaProtected+ is a storage assessment tool from HPE that provides data protection analysis. It helps customers understand their data protection landscape, assess backup and recovery needs, and optimize data protection strategies. This tool is particularly useful for ensuring that the data is adequately protected across different storage environments.

[HPE Ninja Tools Overview](#)

[NinjaProtected+ Tool](#)

**QUESTION 43**

A customer is a cloud service provider with infrastructure powered by HPE 3PAR StoreServ 9000. The customer is concerned about their ability to ensure the quality of service and protect their tenants from unpredictable bursts of I/O from other tenants. What should you recommend to your customer ?

- A. Use priority optimization to enable service level for workloads
- B. Use virtual domain to automatically set multi-tenant policies
- C. Use dynamic optimization to automatically manage quality of service
- D. Use adaptive optimization to optimize service level automatically



**Correct Answer: A**

**Section:**

**Explanation:**

For a cloud service provider using HPE 3PAR StoreServ 9000, Priority Optimization is the recommended solution to ensure the quality of service (QoS) and protect tenants from unpredictable bursts of I/O from other tenants. Priority Optimization allows administrators to set service levels for different workloads, ensuring that critical workloads receive the necessary resources while maintaining overall system performance. This feature helps manage and enforce QoS in a multi-tenant environment, providing predictable performance and preventing noisy neighbors from impacting other tenants.

[HPE 3PAR Priority Optimization](#)

[HPE 3PAR StoreServ 9000 Overview](#)

**QUESTION 44**

A customer has an existing configuration consisting of first class and nearline SAS drive in an 8000 SFF enclosure. They add two SFF 8000 enclosure that are fully populated with nearline drives to an existing HPE 3Par storeServ 8400 array. What should the customer do to optimize their storage configuration?

- A. Defrag the CPG and run align drive on their system
- B. Run tunesys and on the array (275)
- C. Enable space reclamation
- D. Create new CPG for the newly installed drivers

**Correct Answer: B**

**Section:**

**Explanation:**

The correct action to optimize the storage configuration when adding new enclosures and drives to an existing HPE 3PAR StoreServ 8400 array is to run the tunesys command. This utility performs a system-wide optimization that includes rebalancing the data across all physical disks to ensure optimal performance and space utilization. tunesys is especially useful when new drives are added because it ensures that the workload is evenly distributed across both the new and existing drives, preventing potential hotspots and improving overall system efficiency. Defragmenting the Common Provisioning Groups (CPGs) and aligning the drives would be beneficial in certain scenarios, but the first and most comprehensive step is to use tunesys.

For more details, refer to the following HPE Storage references:

HPE 3PAR StoreServ Storage

#### QUESTION 45

Which storage protocol is supported by virtual connect Flex-10?

- A. FCoE
- B. FC
- C. iSCSI
- D. FCIP

**Correct Answer: A**

**Section:**

**Explanation:**

Virtual Connect Flex-10 modules support Fibre Channel over Ethernet (FCoE). FCoE is a storage protocol that encapsulates Fibre Channel frames within Ethernet packets, allowing for the consolidation of LAN and SAN traffic over a single Ethernet infrastructure. This protocol is especially useful in converged network environments where space and cabling efficiency are critical. Flex-10 technology allows for the dynamic allocation of bandwidth between different network protocols, and FCoE is fully supported within this architecture.

For more details, refer to the following HPE Storage references:

HPE Virtual Connect Technology

#### QUESTION 46

A customer needs a new storage system for a virtual desktop infrastructure environment to reduce the time required to provision new desktops. Which HPE solution should you recommend to fulfill this customer's requirements?

- A. Snapclones on HPE MSA 2040
- B. SmartClone on HPE StoreVirtual VSA(54)
- C. Storage pool on HPE StoreEasy
- D. Virtual Copy on HPE 3PAR StoreServ

**Correct Answer: B**

**Section:**

**Explanation:**

For a Virtual Desktop Infrastructure (VDI) environment where rapid provisioning of new desktops is a key requirement, HPE StoreVirtual VSA's SmartClone technology is an ideal solution. SmartClone allows for the creation of space-efficient clones of existing volumes, which can significantly reduce the time and storage space needed to provision new desktops. This technology creates clones that only use additional space for changes made to the cloned data, making it highly efficient in environments with many similar or identical data sets, like VDI.

For more details, refer to the following HPE Storage references:

HPE StoreVirtual VSA

#### QUESTION 47

A customer needs to be manually map out preferred paths within a multi-switch fabric, based on application ,priority ,and topology, while allowing failover to a non-preferred path if the preferred path fails, Which B-series FC switch functionality should be used to provide this?

- A. Quality of services
- B. Enhanced group management

- C. Frame filtering
- D. Traffic isolation Zones

**Correct Answer: D**

**Section:**

**Explanation:**

In a multi-switch fabric where it is necessary to manually map out preferred paths based on application priority and topology, while still allowing failover to non-preferred paths if needed, Traffic Isolation Zones (TIZs) are the recommended functionality. TIZs provide a mechanism to segregate and control traffic within a Fibre Channel (FC) fabric, ensuring that specific application traffic follows the preferred paths while providing the necessary failover capabilities. This enhances the performance and reliability of critical applications by keeping their traffic on dedicated paths, reducing the risk of congestion and ensuring that failover paths are used only when necessary.

For more details, refer to the following HPE Storage references:

HPE B-series FC Switches

#### **QUESTION 48**

What allows volume level data to be copied between an HPE 3PAR and an HPE store Virtual VSA?

- A. Store virtual Peer motion
- B. HPE 3PAR Remote Copy
- C. Recovery Manager central
- D. StoreServ Peer Motion

**Correct Answer: A**

**Section:**

**Explanation:**

StoreVirtual Peer Motion allows for seamless data migration and load balancing at the volume level between different storage systems, such as an HPE 3PAR and an HPE StoreVirtual VSA. This feature is critical for environments where maintaining continuous data availability and optimizing storage performance are key priorities. StoreVirtual Peer Motion operates by enabling the non-disruptive movement of data between storage systems, allowing organizations to balance workloads, improve resource utilization, and manage data across hybrid cloud environments.

HPE StoreVirtual Peer Motion supports federated storage, allowing customers to migrate data between HPE storage systems without impacting applications. This process is particularly useful in environments leveraging both HPE 3PAR and StoreVirtual VSA systems, providing flexibility and scalability across heterogeneous storage platforms.

HPE Data Storage Products

HPE Storage Solutions

#### **QUESTION 49**

A customer has an existing environment with 3PAR, Nimble and MS

- A. They are providing file servicing from all arrays with multiple virtual machine but preference is not adequate. What should you add to the environment to increase performance ,increase availability, and reduce management overhead?
- B. StoreEasy 3850 Gateway
- C. StoreEasy 5000
- D. 3PAR File Persona
- E. Simplvity 380

**Correct Answer: C**

**Section:**

**Explanation:**

The customer's current environment consists of HPE 3PAR, Nimble, and MSA arrays, all providing file services through multiple virtual machines. The key issues presented are the need to increase performance, enhance availability, and reduce management overhead.

HPE 3PAR File Persona is the best solution among the given options because it integrates file and block services natively within the 3PAR system. This solution offers several advantages:

Performance: 3PAR File Persona is designed to handle high-performance workloads by utilizing the 3PAR architecture, which is known for its efficiency and speed. This will significantly increase the overall performance of file services compared to traditional virtual machine-based file services.

Availability: HPE 3PAR File Persona benefits from the robust, high-availability architecture of the 3PAR system, which includes features like advanced data protection, automated failover, and seamless data mobility. These features enhance the availability of the file services provided by the system.

Reduced Management Overhead: By integrating file services directly into the 3PAR array, File Persona reduces the complexity associated with managing multiple virtual machines for file serving. It simplifies management through a unified interface that handles both block and file services, reducing the need for separate management tools or additional hardware like gateways.

In contrast:

StoreEasy 3850 Gateway and StoreEasy 5000 are dedicated NAS appliances designed for file storage. However, they would add additional hardware and management complexity to the environment.

Simplivity 380 is a hyper-converged solution focused on virtualized environments but would not directly address the file serving needs in the way 3PAR File Persona does.

HPE Storage

Reference:

HPE 3PAR File Persona Overview

HPE 3PAR Storage Systems

HPE 3PAR Architecture

#### QUESTION 50

Which statement describes HPE StoreVirtual Network RAID functionality?

- A. Redundancy is managed on a per-volume basis.
- B. With Network RAID 10+2 data is striped and mirrored across two or more storage systems.
- C. Network RAID 10 requires an even number of storage nodes.
- D. Volumes remain available if an odd number of nodes are available.

**Correct Answer: A**

**Section:**

**Explanation:**

HPE StoreVirtual Network RAID provides redundancy by managing it on a per-volume basis. This means that the level of RAID protection (e.g., Network RAID 0, 10, 10+1, etc.) is set individually for each volume, allowing flexibility in how data protection is applied depending on the importance and performance requirements of the data stored. Unlike traditional RAID, which is managed at the disk level, Network RAID in StoreVirtual VSA allows for more granular control and can be tailored to the specific needs of different workloads.

#### QUESTION 51

During a proof-of-concept you need to implement an inter-switch-link (ISL) between two HPE SN6000B switches. Which port mode must be set enable communication between the switches?

- A. N\_PORT
- B. FL\_PORT (WRONG)
- C. F\_PORT
- D. E\_PORT (Correct)

**Correct Answer: D**

**Section:**

**Explanation:**

When implementing an Inter-Switch Link (ISL) between two HPE SN6000B switches, the correct port mode that must be set to enable communication between the switches is E\_PORT. E\_PORT stands for Expansion Port and is used to connect switches in a fabric. It facilitates the creation of an ISL that allows traffic to be routed between the switches in the fabric, enabling the switches to share the connected devices' routing tables and maintain a unified fabric.

#### QUESTION 52

In an iSCSI based storage system Proof-Of-Concept project, the customer is not satisfied with the performance of their video streaming application. What would you recommend to the customer to optimize the existing environment?

- A. Enable hardware iSCSI initiator
- B. Increase the switch buffer to buffer credits
- C. Enable jumbo frames on required components
- D. Consolidate the heterogeneous switches in the network

**Correct Answer: C**

**Section:**

**Explanation:**

For optimizing an iSCSI-based storage system, especially in environments handling large data volumes such as video streaming, enabling jumbo frames is recommended. Jumbo frames allow the transmission of larger data packets over the network, reducing the overhead caused by smaller packets and improving overall network efficiency. This is particularly important in video streaming, where continuous, high-bandwidth data transfer is required. Enabling jumbo frames across all components, including switches, network interface cards (NICs), and storage devices, can significantly improve performance.

#### QUESTION 53

You are designing a new HPE 3PAR StoreServ all-flash array for the customer.. Which ratio should you expect to have the highest efficiency?

- A. Read/write ratio
- B. Reclamation ratio
- C. Compaction Ratio
- D. Thin provisioning ratio

**Correct Answer: C**

**Section:**

**Explanation:**

In an all-flash array like the HPE 3PAR StoreServ, the compaction ratio typically offers the highest efficiency. Compaction includes both deduplication and compression, which reduces the amount of physical storage needed by eliminating redundant data and compressing the data that is stored. The compaction ratio directly impacts storage efficiency, allowing for more effective utilization of the available flash storage, thereby reducing the total cost of ownership and improving performance.

HPE 3PAR StoreServ All-Flash Arrays

HPE Storage Efficiency

#### QUESTION 54

Match the HPE converged Strategy principle with its function

- A. Federated Storage:- Move data between storage systems in peer-to-peer relationship simply, dynamically and nondestructively
- B. Deduplication:-Reduce allocated capacity by eliminating data redundancy
- C. Thin provisioning:-Reduce TCO ,Opex and CPEX by using virtualization technology to make storage resources more efficient.
- D. Storage tiering:-Use combination of I/O accelerator to place data to meet price, performance, and latency requirements .
- E. Storage virtualization:- Deliver simplified management ,higher utilization ,efficient, and agility by separating the logical and physical resource.

**Correct Answer: E**

**Section:**

**Explanation:**

These principles represent key components of HPE's converged strategy, each contributing to more efficient, agile, and cost-effective storage management:

Federated Storage: This principle allows seamless data movement between storage systems, enhancing flexibility and simplifying data management.

Deduplication: Reduces storage space by eliminating duplicate data, resulting in more efficient use of resources.

Thin Provisioning: Allows over-provisioning of storage to optimize costs while ensuring that resources are available when needed.

Storage Tiering: Dynamically places data on the appropriate storage tier based on performance and cost requirements, optimizing storage utilization.

Storage Virtualization: Separates the physical storage hardware from the logical storage services, providing greater flexibility and efficiency in managing storage resources.

HPE Storage  
Reference:  
HPE Storage Solutions  
HPE Converged Storage Strategy

**QUESTION 55**

Which function is built into the HPE 3par OS and enable users to move data and workloads between array without impacting applications, users, or services?

- A. Peer persistence
- B. Adaptive optimization
- C. Peer motion
- D. Remote copy

**Correct Answer: C**

**Section:**

**Explanation:**

HPE 3PAR Peer Motion is a feature built into the HPE 3PAR OS that allows users to move data and workloads between arrays without impacting applications, users, or services. This non-disruptive data migration capability is particularly useful during hardware refreshes, technology upgrades, or when balancing workloads across arrays. Peer Motion facilitates seamless, online data migration, ensuring continuity of operations and zero downtime during the process.

HPE 3PAR Peer Motion

HPE Storage Migration Solutions

**QUESTION 56**

An existing Nimble customer is interested in adding storage to their environment to store his Backups, but has a constrained budget and limited personal .The solution must scale to allow for substantial growth over the next five years?

- A. Nimble SF series
- B. Nimble AF series
- C. Nimble cloud volume
- D. Nimble CS series

**Correct Answer: D**

**Section:**

**Explanation:**

For a customer with a constrained budget and limited personnel, who requires a storage solution for backups that can scale significantly over the next five years, the HPE Nimble CS series is the most appropriate choice. The Nimble CS series offers hybrid storage capabilities, combining flash and disk storage to balance performance and cost. It is designed to be cost-effective while still providing the ability to scale as the customer's storage needs grow. The Nimble CS series also integrates easily with existing environments, making it an ideal solution for backup storage with room for future expansion.

HPE Nimble Storage CS Series

HPE Storage Solutions for Backup

**QUESTION 57**

A customer has a 3PAR storeserv with FC and SSD drives who would like to improve the performance for random reads. Which 3PAR Storeserve feature would provide better read performance?

- A. Adaptive Flash Cache
- B. Deduplication
- C. Smart Cache
- D. Express Layout

**Correct Answer: A**

**Section:**

**Explanation:**

Adaptive Flash Cache (AFC) is a feature in HPE 3PAR StoreServ arrays that improves performance for random reads by using flash storage as an extended cache. This feature is especially beneficial for workloads with high random read activity, as it accelerates read operations by storing frequently accessed data in the flash cache, reducing latency and improving overall performance.

HPE 3PAR Adaptive Flash Cache

HPE Storage Performance Features

#### QUESTION 58

Which statement is correct when comparing functionalities of the AF,CF, and SF series in the nimble storage portfolio?

- A. Zero copy clone are unique feature of all flash array within the nimble portfolio
- B. SF series supports storage snapshots and replication using veeeam backup & replication CS and AF series support storage snapshot only.
- C. Inline deduplication for complete array capacity in combination with compression is offered by the AF and SF series only (67) need to check
- D. 99.9999% availability measured and guaranteed for AF and CF series arrays, SF series array offer 99.999% availability.

**Correct Answer: C**

**Section:**

**Explanation:**

Inline deduplication and compression are advanced features offered in the HPE Nimble AF (All-Flash) and SF (Secondary Flash) series. These features reduce the amount of physical storage required by eliminating duplicate data and compressing stored data, making it more space-efficient. This capability is available across the entire capacity of the AF and SF series arrays, allowing for substantial savings in storage space and cost. The AF series is designed for primary workloads requiring high performance, while the SF series is optimized for secondary workloads, such as backups and archival, with similar data reduction benefits.

#### QUESTION 59

Which software feature should an HPE 3PAR Storeserv 8000 customer use to optimize data protection and recovery, including rapid online recovery for his VMware environment?(select two)

- A. HPE 3PAR Virtual Copy software
- B. HPE 3PAR Remote copy software
- C. HPE 3PAR Security software suite
- D. HPE 3PAR File persona Software suite
- E. HPE StoreOnce recovery manager central for VMware

**Correct Answer: A, E**

**Section:**

**Explanation:**

HPE 3PAR Virtual Copy software is designed to create snapshots of data, which allows for rapid online recovery by preserving data integrity in VMware environments. These snapshots can be used for various purposes including backups, testing, and recovery, providing a flexible and efficient data protection strategy.

HPE StoreOnce Recovery Manager Central (RMC) for VMware integrates with HPE 3PAR and VMware to provide a seamless data protection and recovery solution. RMC enables application-consistent snapshots and backups directly from the storage array, reducing the backup window and providing quick restore options.

These features are crucial for optimizing data protection and recovery in VMware environments, ensuring both efficiency and reliability. For more detailed information, refer to the following HPE resources:

HPE 3PAR Virtual Copy Software

HPE StoreOnce Recovery Manager Central

#### QUESTION 60

You are presenting the HPE StoreEver portfolio to a media agency.

What advantage is offered when using LTFS?

- A. file management capabilities will be provided with tape cartridges

- B. WORM functionality for file, block and object storage access on tape
- C. file encryption with public and private key management
- D. file and block data management within an HPE HSM solution

**Correct Answer: A**

**Section:**

**Explanation:**

The Linear Tape File System (LTFS) provides an easy and intuitive way to manage files stored on tape cartridges. LTFS allows users to organize, browse, and access files directly from the tape as if they were on a disk. This file system presents tape as a drive letter on Windows or as a mount point on Linux, making it simpler to use tape for data archiving and management. This capability makes LTFS an attractive option for organizations that require long-term data storage with easy access.

For further details, visit:

HPE StoreEver LTFS

#### QUESTION 61

A customer asks for an integrated solution for their remote office with All-Flash storage and ease of management. Application-aware replication to their main office is an important requirement. Which HPE solution component should you discuss with the customer first?

- A. HPE SimpliVity 380
- B. HPE MSA 2052 Storage
- C. HPE Nimble CS1000 system
- D. HPE 3PAR StoreServ 8200

**Correct Answer: C**

**Section:**

**Explanation:**

The HPE Nimble CS1000 system is a suitable solution for remote offices that require All-Flash storage with simplified management. Nimble Storage offers predictive analytics with HPE InfoSight, providing ease of management and performance optimization. Additionally, the system supports application-aware replication, which is critical for disaster recovery scenarios by replicating data to a central site, ensuring data integrity and availability.

This solution addresses the need for All-Flash performance, ease of management, and robust replication features in remote office environments.

For more information, refer to:

HPE Nimble Storage

#### QUESTION 62

While demonstrating an HPE 3PAR StoreServ 9450 array, the customer asks you to demonstrate the File Persona features.

Which objects do you need to create to demonstrate these features? (Choose two.)

- A. File share
- B. Storage container
- C. Host
- D. Remote copy group
- E. Virtual file server

**Correct Answer: A, E**

**Section:**

**Explanation:**

When demonstrating HPE 3PAR StoreServ 9450 array's File Persona features, creating a File Share and a Virtual File Server is essential. The File Persona feature extends the functionality of 3PAR storage arrays to include file-level storage, enabling the creation and management of file shares directly on the array. A Virtual File Server acts as a logical entity within the 3PAR system to manage these file shares and provide access to users.

This functionality allows organizations to consolidate their block and file storage needs into a single platform, simplifying storage management and reducing costs.



For additional details, visit:  
HPE 3PAR File Persona

#### QUESTION 63

How does the HPE StoreVirtual VSA storage platform scale performance and capacity?

- A. eliminates the need for storage controllers
- B. enables access through multiple protocols
- C. aggregates all resources into a single storage pool
- D. recreates storage pools on multiple devices

**Correct Answer: C**

**Section:**

**Explanation:**

The HPE StoreVirtual VSA platform scales performance and capacity by aggregating all resources (storage, compute, and networking) into a single, unified storage pool. This approach allows for seamless scalability as additional resources can be added to the storage pool without disrupting operations. The unified pool of resources ensures that the storage platform can efficiently handle growing workloads and increasing data storage demands.

HPE StoreVirtual VSA

HPE Software-Defined Storage Solutions

#### QUESTION 64

Which statement is correct when discussing the RAID layout of an HPE Nimble HF-series storage system?

- A. RAID 6 triple parity is set up -21 data drives are used for RAID stripes.
- B. RAID 6 triple parity is set up -18 data drives are used for RAID stripes.
- C. RAID 6 or RAID 1 can be set up -24 data drives are used for RAID stripes.
- D. RAID 6 or RAID 1 can be set up -18 data drives are used for RAID stripes.



**Correct Answer: D**

**Section:**

**Explanation:**

In the HPE Nimble HF-series storage system, RAID 6 with triple parity is the default RAID setup, which uses 18 data drives for RAID stripes. RAID 6 provides high redundancy by allowing for the failure of up to two drives without data loss, making it an ideal configuration for environments that require a balance between performance, capacity, and fault tolerance.

HPE Nimble Storage RAID Configurations

HPE Storage Best Practices

#### QUESTION 65

A customer's growing environment has a mix of HPE 3PAR StoreServ 8200 with 10K HDD, HPE 3PAR StoreServ 9450, and HPE 3PAR StoreServ 2080D with 3 tiers of storage deployed in the same data center.

The customer needs to optimize performance by being able to move workloads to the most appropriate array as needed.

Which solution enables the customer to achieve this goal?

- A. HPE OneView to automate cpg migration based on user defined policies.
- B. HPE 3PAR Remote Copy in a Synchronous Long Distance topology.
- C. HPE Smart SAN to provide autonomic federated management.
- D. HPE 3PAR Peer Motion with SSMC to manage storage federation.

**Correct Answer: D**

**Section:****Explanation:**

HPE 3PAR Peer Motion, combined with the SSMC (StoreServ Management Console), is the optimal solution for a customer who needs to move workloads between different HPE 3PAR StoreServ arrays within the same data center. Peer Motion allows for seamless and non-disruptive data migration across different arrays, enabling the customer to optimize performance by moving workloads to the most appropriate storage tier or array as needed. This capability ensures that the storage environment remains flexible and responsive to changing performance demands.

HPE 3PAR Peer Motion

HPE SSMC Overview

**QUESTION 66**

A customer with an HPE 3PAR StoreServ needs to upgrade their aging backup solution to a more advanced solution using snapshots and deduplication.

Which HPE products would meet the customer's needs? (Choose two.)

- A. HPE 3PAR File Persona
- B. HPE StoreEver
- C. HPE 3PAR Remote Copy
- D. HPE StoreOnce
- E. HPE Recovery Manager Central

**Correct Answer: D, E**

**Section:****Explanation:**

To upgrade the backup solution for an HPE 3PAR StoreServ system, HPE StoreOnce and HPE Recovery Manager Central (RMC) are the optimal products. HPE StoreOnce offers advanced deduplication technology, significantly reducing the storage footprint required for backups, making it more efficient and cost-effective. It integrates seamlessly with various environments, including 3PAR, to provide high-speed data protection and recovery.

HPE Recovery Manager Central (RMC) complements StoreOnce by enabling application-consistent snapshots and direct backup to StoreOnce appliances. This combination allows for fast, efficient, and reliable backups while leveraging the deduplication capabilities of StoreOnce.

For more information, refer to:

HPE StoreOnce

HPE Recovery Manager Central

**QUESTION 67**

Where does HPE 3PAR StoreServ Data-at-Rest Encryption occur?

- A. ASIC
- B. physical disk
- C. processor
- D. host

**Correct Answer: A**

**Section:****Explanation:**

HPE 3PAR StoreServ systems perform Data-at-Rest Encryption at the ASIC (Application-Specific Integrated Circuit) level. This approach ensures that encryption is handled efficiently with minimal impact on performance. The ASIC is responsible for encrypting all data as it is written to the physical disks, providing a secure layer of protection for stored data without compromising the high performance that 3PAR systems are known for.

For more details, refer to:

HPE 3PAR StoreServ Encryption

**QUESTION 68**

A customer is evaluating an HPE 3PAR StoreServ system in a proof-of-concept project. The customer wants to receive emails about important storage system events and alerts.

What feature do you need to configure?

- A. HPE OneView integration
- B. Secure Service Agent
- C. Real-time Alert Processing
- D. Local Notification Service

**Correct Answer: D**

**Section:**

**Explanation:**

To receive emails about important storage system events and alerts in an HPE 3PAR StoreServ system, the Local Notification Service (LNS) needs to be configured. LNS allows administrators to set up email notifications for various events and alerts, ensuring that they are promptly informed of any critical issues that may arise. This feature is essential for maintaining the health and performance of the storage system by enabling proactive management.

For more information, refer to:

HPE 3PAR StoreServ Management

#### QUESTION 69

A customer wants to implement a management and monitoring tool for an HPE B-series SAN switch environment. You plan to recommend the HPE SAN Network Advisor.

Which information about the customer's environment will help you to decide which edition to recommend?

- A. FCIP support
- B. Amount of used fabrics
- C. FCoE support
- D. Fabric OS version

**Correct Answer: B**

**Section:**

**Explanation:**

When recommending the HPE SAN Network Advisor for managing and monitoring an HPE B-series SAN switch environment, the amount of used fabrics is a crucial factor in determining the appropriate edition. The HPE SAN Network Advisor comes in different editions, with each edition supporting a different number of fabrics. By assessing the number of fabrics in the customer's environment, you can choose the edition that best fits their needs, ensuring effective management and monitoring capabilities.

For more details, refer to:

HPE SAN Network Advisor

#### QUESTION 70

Which storage sizing tool, designed specifically for the HPE 3PAR StoreServ environment, shows the expected deduplication ratio based on actual data analysis of the customer's current environment?

- A. NinjaCrawler
- B. StoreVista
- C. NinjaThin
- D. NinjaStars

**Correct Answer: A**

**Section:**

**Explanation:**

NinjaCrawler is a storage sizing tool specifically designed for the HPE 3PAR StoreServ environment. It analyzes the customer's current data and provides insights into the expected deduplication ratio based on actual data patterns. This tool is crucial for accurately sizing storage solutions and optimizing capacity planning in environments that utilize deduplication features.

HPE Storage Sizing Tools

NinjaCrawler for HPE 3PAR



**QUESTION 71**

A customer has an HPE 3PAR StoreServ 8200 with eight 3.84 TB SSD's configured with RAID5 7+1. They plan to add four more 3.84 TB SSD's. What needs to be changed on the configuration once the new SSD's are installed?

- A. Reconfigure the cpg setsize as RAID6 6+2 and wait for tunesys to complete.
- B. Change the availability level from cage to magazine.
- C. Adjust the cpg growth value to match amount of SSD's.
- D. Change the cpg setsize to RAID5 5+1 and run tunesys.

**Correct Answer: D**

**Section:**

**Explanation:**

When adding additional SSDs to the HPE 3PAR StoreServ 8200 with an existing RAID5 7+1 configuration, it is advisable to reconfigure the CPG (Common Provisioning Group) setsize to RAID5 5+1. This reconfiguration will allow the array to better balance the additional drives and optimize the use of available storage. After changing the setsize, running tunesys will ensure that the data is redistributed across the new set of drives, optimizing performance and availability.

HPE 3PAR StoreServ Configuration Guidelines

HPE 3PAR StoreServ RAID Levels

**QUESTION 72**

A customer has a large deployment of HPE Synergy compute modules, HPE 3PAR StoreServ storage, and HPE StoreOnce systems in a single data center. They are concerned about the risk of data loss due to site disaster. What is the reason to propose HPE CloudBank?

- A. To easily move workloads to AWS or Azure in the event of site disaster.
- B. To improve RPO/RTO objectives by automating snapshot-based integrating between 3PAR and StoreOnce.
- C. To regularly send backups to the cloud for the purposes of DR protection.
- D. To leverage 3PAR snapshots and utilize StoreOnce recovery capabilities to minimize data loss and downtime.

**Correct Answer: C**

**Section:**

**Explanation:**

HPE CloudBank is a feature of the HPE StoreOnce system that enables cloud-based backup and disaster recovery (DR) solutions. It integrates with HPE 3PAR StoreServ and HPE StoreOnce systems to send backups securely to public cloud services like AWS, Azure, or private cloud environments. The primary benefit of CloudBank in the context of disaster recovery is that it ensures off-site storage of backups, protecting against site disasters by storing data in geographically dispersed locations.

By sending backups regularly to the cloud, CloudBank ensures that data is protected and can be restored in the event of a disaster, minimizing potential data loss and downtime.

HPE StoreOnce with CloudBank

HPE StoreOnce Overview

**QUESTION 73**

Which HPE storage solutions offer a two-tier backup solution for hybrid cloud with optimal recovery time? (Choose two.)

- A. Simplivity 380
- B. Nimble SF series
- C. 3PAR 8000 series
- D. StoreOnce with Catalyst
- E. Nimble CS series

**Correct Answer: C, D**

**Section:**

**Explanation:**

HPE offers several storage solutions that provide optimized backup and recovery solutions for hybrid cloud environments:

HPE StoreOnce with Catalyst: This solution provides an efficient, two-tier backup architecture that integrates with cloud storage, offering deduplication and data movement capabilities. It ensures fast recovery times and supports hybrid cloud environments, where backups can be seamlessly moved to the cloud for DR protection and retrieved quickly when needed.

HPE 3PAR 8000 Series: The HPE 3PAR StoreServ 8000 series includes robust data protection features, such as snapshot and replication capabilities, which can be integrated with cloud services through solutions like CloudBank. This integration allows for efficient, cloud-enabled data protection, optimizing recovery time and offering flexibility in a hybrid cloud environment.

These solutions provide a comprehensive approach to data protection, ensuring fast recovery times while leveraging the cloud for long-term storage and disaster recovery.

HPE StoreOnce Solutions

HPE 3PAR StoreServ 8000

**QUESTION 74**

You are planning a single-site Nimble solution with iSCSI connectivity. Two 10GbE SFP+ dual port NICs are included in the configuration. You designed an Intelligent Resilient Framework (IRF) stack with HPE FlexFabric 5900CP switches.

Which statement is correct when discussing the IRF limits for this configuration?

- A. When connecting an iSCSI storage to an IRF stack, a minimum of four 10GbE ports must be used per switch.
- B. A maximum of two switches can be used in an IRF stack when connecting storage.
- C. In an IRF stack with storage connectivity, the 40GbE ports cannot be used.
- D. The used IRF ports for iSCSI traffic have to be configured as 10GbE converged ports.

**Correct Answer: B**

**Section:**

**Explanation:**

When designing an Intelligent Resilient Framework (IRF) stack for a Nimble storage solution using HPE FlexFabric 5900CP switches with iSCSI connectivity, the IRF stack typically supports up to two switches for optimal performance and redundancy. This limitation ensures that the iSCSI traffic is managed effectively without overcomplicating the network topology, which could potentially introduce latency or complexity in managing the stack.

Utilizing more than two switches in an IRF stack when connecting to storage could result in diminished returns in performance or increased management overhead, which is why HPE typically recommends limiting the IRF stack to two switches in such configurations.

For further details, refer to:

HPE Nimble Storage Overview

HPE FlexFabric Switches

**QUESTION 75**

You are presenting the HPE StoreEver portfolio to a media agency.

What advantage is offered when using LTFS?

- A. file management capabilities will be provided with tape cartridges
- B. WORM functionality for file, block and object storage access on tape
- C. file encryption with public and private key management
- D. file and block data management within an HPE HSM solution

**Correct Answer: A**

**Section:**

**Explanation:**

Linear Tape File System (LTFS) is a file system that enables tape to be used in a manner similar to disk storage, providing file management capabilities directly on the tape cartridges. This allows users to access files stored on tape in a more intuitive way, with the ability to drag and drop files, just like on a traditional file system. LTFS makes tape more accessible and easier to use, especially for archival and data retrieval purposes, which is particularly advantageous for media agencies that manage large volumes of data.

LTFS does not inherently provide WORM (Write Once, Read Many) functionality or file encryption; these features require additional software or configurations.

For more information, see:

**QUESTION 76**

Which value does an HPE Nimble solution provide in addition to other HPE storage solutions

- A. All inclusive software licensing over 5 years and additional capacity upgrades
- B. Upfront option for free controller upgrade after 3 years
- C. Flat support pricing for all hardware components
- D. Tier 1 and tier 2 phone support

**Correct Answer: C**

**Section:**

**Explanation:**

One of the key value propositions of the HPE Nimble storage solution, in addition to its technical capabilities, is the flat support pricing model for all hardware components. This means that customers can expect consistent and predictable support costs over the lifespan of the storage system, which is particularly beneficial for budgeting and financial planning. This flat pricing model contrasts with other storage solutions where support costs can vary significantly as the system ages.

Nimble's support model, combined with its predictive analytics and all-inclusive software, ensures that customers have a comprehensive and cost-effective storage solution.

For more insights, refer to:

HPE Nimble Storage

HPE Storage Solutions

**QUESTION 77**

A customer needs to upgrade their HPE storage environment, including driver and firmware levels and OS, to the latest version.

Where can you find the needed information about supported versions?

- A. HPE Storage Assessment Foundry
- B. HPE SAN Design Reference Guide
- C. HPE OneView
- D. HPE SPOCK

**Correct Answer: D**

**Section:**

**Explanation:**

HPE SPOCK (Single Point of Connectivity Knowledge) is the authoritative source for information on supported configurations, firmware levels, drivers, and operating systems for HPE storage products. It provides detailed compatibility matrices and reference documents for ensuring that all components in the HPE storage environment, including storage arrays, SAN switches, servers, and operating systems, are compatible and supported. SPOCK is regularly updated with the latest information, making it an essential tool for planning upgrades and ensuring a stable, supported configuration in HPE storage environments.

HPE SPOCK

HPE Storage Overview

**QUESTION 78**

Which protocols are currently used in the front end by HPE 3PAR StoreServ systems? (Choose two.)

- A. iSCSI
- B. Infiniband
- C. SAS
- D. NVMe
- E. FC



**Correct Answer: A, E**

**Section:**

**Explanation:**

HPE 3PAR StoreServ systems support multiple front-end protocols to provide connectivity options suitable for various enterprise environments. The two primary protocols used in the front end by HPE 3PAR StoreServ systems are:

iSCSI (Internet Small Computer System Interface): A popular protocol for connecting storage devices over IP networks, iSCSI allows data to be transferred over long distances using existing network infrastructure. It is widely used in environments where cost-effective IP-based storage solutions are required.

FC (Fibre Channel): A high-speed network technology primarily used for storage networking. It provides a reliable and fast connection for block storage, making it ideal for high-performance environments requiring low latency and high throughput.

These protocols enable HPE 3PAR systems to integrate seamlessly into a wide range of IT infrastructures, providing flexibility and performance for various workloads.

[HPE 3PAR StoreServ Overview](#)

[HPE Storage Protocols](#)

#### QUESTION 79

A customer's environment consists of two HPE Synergy frames running VMware vSphere, HPE FlexFabric 5700 switches, and one HPE Nimble HF-series array connected via 10GbE-T ports to the FlexFabric switches. The customer is concerned about performance management of the whole solution stack.

When using InfoSight with VMVision and analyzing end-to-end latency, which of the components within the stack are displayed? (Choose Three)

- A. iSCSI network(SAN)
- B. Ethernet network (LAN)
- C. storage
- D. application
- E. operating system
- F. host

**Correct Answer: A, C, F**

**Section:**

**Explanation:**

When using HPE InfoSight with VMVision to analyze end-to-end latency in a VMware vSphere environment connected to HPE storage solutions, the following components are displayed:

iSCSI network (SAN): InfoSight with VMVision provides insights into the performance of the storage area network (SAN) layer, specifically the iSCSI connections that are used for data transfer between the storage array and the compute infrastructure.

Storage: The storage component of the stack, which includes the HPE Nimble HF-series array, is monitored for performance metrics such as latency, throughput, and IOPS. InfoSight analyzes these metrics to identify potential bottlenecks and optimize storage performance.

Host: The host component refers to the VMware vSphere hosts running on the HPE Synergy frames. InfoSight provides detailed visibility into the performance of these hosts, including CPU, memory, and I/O operations, helping administrators to identify and resolve performance issues at the host level.

These components are critical for comprehensive performance management and troubleshooting, ensuring optimal operation of the entire solution stack.

[HPE InfoSight Overview](#)

[HPE Nimble Storage with InfoSight](#)

#### QUESTION 80

Which storage feature is supported by both the HPE StoreVirtual and the HPE 3PAR StoreServ storage, and is a key differentiator of HPE storage solutions in the industry?

- A. Network RAID
- B. Peer Motion
- C. virtual Copy
- D. Dynamic Optimization

**Correct Answer: B**



**Section:****Explanation:**

Peer Motion is a storage feature supported by both HPE StoreVirtual and HPE 3PAR StoreServ storage systems. It is a key differentiator of HPE storage solutions because it allows for non-disruptive, federated data mobility across storage systems. Peer Motion enables customers to move volumes between storage arrays seamlessly without downtime, making it ideal for data migration, load balancing, and tiering across heterogeneous environments.

This feature enhances flexibility and simplifies storage management, allowing organizations to optimize their storage resources dynamically and reduce the complexity of managing multiple storage systems.

[HPE Peer Motion Overview](#)

[HPE 3PAR StoreServ and StoreVirtual](#)

**QUESTION 81**

Which built-in HPE 3PAR StoreServ technology reduces database transaction logs response time?

- A. Express Writes
- B. Adaptive Flash Cache
- C. Thin provisioning
- D. Thin Deduplication

**Correct Answer: A**

**Section:****Explanation:**

HPE 3PAR StoreServ's Express Writes technology is designed to reduce database transaction log response times. Express Writes optimizes the write path within the array, improving latency and boosting overall I/O performance. This feature is particularly beneficial for workloads that require high transaction rates, such as databases, by reducing the time it takes for each write operation to complete, thereby enhancing the efficiency of the database transaction logs.

This technology is built into the HPE 3PAR StoreServ architecture, ensuring faster response times and better performance in demanding environments.

For more information, refer to:

[HPE 3PAR StoreServ](#)

**QUESTION 82**

A customer has a large deployment of HPE Synergy compute modules, HPE 3PAR StoreServ arrays, and HPE StoreOnce system in a single data center. They are concerned about the risk of data loss due to site disaster and seeks cost-effective offsite Disaster Recovery protection without the need to deploy a secondary site.

Which HPE solution should you recommend?

- A. HPE StoreOnce VSA
- B. HPE StoreOnce CloudBank
- C. HPE StoreOnce RMC
- D. HPE StoreOnce Catalyst

**Correct Answer: B**

**Section:****Explanation:**

For a customer concerned about offsite disaster recovery without the need to deploy a secondary site, HPE StoreOnce CloudBank is the ideal solution. CloudBank extends HPE StoreOnce to the cloud, providing cost-effective, scalable, and secure offsite storage for long-term data retention and disaster recovery. It allows customers to back up data directly to the cloud (public or private), offering a simple and affordable way to protect against site disasters without the overhead of managing a secondary physical site.

StoreOnce CloudBank supports integration with existing backup and data management solutions, ensuring a seamless disaster recovery process.

For detailed information, refer to:

[HPE StoreOnce Overview](#)

**QUESTION 83**

Which statement is correct when comparing functionalities of the AF and HF series in the Nimble storage portfolio? (Choose Two)



- A. Zero Copy Clones are a unique feature of All-Flash arrays within the Nimble Portfolio.
- B. >99.9999% availability is measured and guaranteed for AF and HF series arrays.
- C. HF series has a dedicated read cache and AF series does not have a dedicated reach cache.
- D. HF series supports storage snapshots and replication using Veeam Backup & Replication, HF and AF series support storage snapshots only

**Correct Answer: B, C**

**Section:**

**Explanation:**

B . >99.9999% availability: HPE Nimble Storage AF (All-Flash) and HF (Hybrid Flash) series both offer a guaranteed uptime of greater than 99.9999%. This high availability is achieved through advanced architecture, data protection features, and proactive support mechanisms, making both series reliable choices for enterprises that require near-continuous access to data.

C . HF series has a dedicated read cache: The HF series in the Nimble portfolio includes a dedicated read cache, which is designed to accelerate read operations by caching frequently accessed data. The AF series, being an all-flash array, inherently delivers high-speed read operations due to its flash architecture and does not require a separate read cache.

These features highlight the robustness and high performance of both the AF and HF series, with the HF series being optimized for environments that benefit from a hybrid approach.

For more details, please refer to:

[HPE Nimble Storage Overview](#)

#### QUESTION 84

Which HPE 3PAR StoreServ feature allows a host to continue I/O uninterrupted during a firmware upgrade?

- A. Peer Persistence
- B. Persistent Ports
- C. Persistent Memory
- D. Persistent Cache

**Correct Answer: B**

**Section:**

**Explanation:**

When using a federated storage approach with HPE 3PAR StoreServ systems, customers can benefit from:

Load Balancing: Federated storage enables the distribution of workloads across multiple storage systems, optimizing resource utilization and ensuring that no single system becomes a bottleneck. This load balancing improves performance and enhances overall system efficiency.

Easier Migration: Federation simplifies the process of migrating data between storage systems. With features like Peer Motion, data can be moved between systems non-disruptively, allowing for seamless upgrades or expansions without impacting ongoing operations. This capability is particularly beneficial in reducing downtime and maintaining business continuity during migrations.

[HPE 3PAR StoreServ Federation](#)

[HPE Peer Motion Technology](#)

#### QUESTION 85

A customer run several HPE 3PAR storeserv system in their environment using data rest encryption .The customer needs to add an HPE 3PAR Storeserv 8000system to the storage pool and an external key manager for all systems.. What is the requirement for this solution?

- A. Boot server for the existing 3PAR storeserv array must be replaced with self-encrypting drive
- B. All drives of the new HPE 3PAR storeserv array must be self-encrypting
- C. HPE ESKM FIPS mode must be disabled by the administrator
- D. Data on the existing HPE 3PAR storeserv array must be decrypted and re-encrypted with new keys

**Correct Answer: B**

**Section:**

**Explanation:**



When adding a new HPE 3PAR StoreServ 8000 system to a storage pool that uses data-at-rest encryption and an external key manager, it is mandatory that all drives in the new system are self-encrypting drives (SEDs). This ensures consistent encryption across all systems within the storage pool and compliance with the security policies managed by the external key manager. The SEDs in the new array will use encryption keys provided by the external key manager, maintaining data security across the environment.

HPE 3PAR StoreServ Encryption  
HPE External Key Manager

#### QUESTION 86

A customer has a SAN based on HPE B-series switches with Gen6 fibre channel technology. Their workload is continually growing and they are experiencing performance issues. They need a solution to enable real-time monitoring and to speed up troubleshooting in his SAN backend.

Which unique feature of the HPE B-series Gen6 switches should you recommend? (Choose two.)

- A. Fabric Watch
- B. MAPS
- C. Advanced Trunking
- D. Fabric Vision
- E. Extended Fabrics

**Correct Answer: B, D**

**Section:**

**Explanation:**

In HPE B-series Gen6 Fibre Channel switches, two key features that address the need for real-time monitoring and accelerated troubleshooting are MAPS (Monitoring and Alerting Policy Suite) and Fabric Vision.

MAPS provides proactive monitoring and alerting, allowing administrators to establish policies that automatically trigger alerts when performance thresholds are crossed, helping prevent issues before they impact the environment.

Fabric Vision is a comprehensive monitoring and diagnostics tool that enables administrators to visualize the health and performance of the SAN fabric, allowing for rapid identification and resolution of issues. Together, these features help maintain high performance and reliability in SAN environments.

HPE B-series Gen6 Fibre Channel Switches

HPE Fabric Vision Technology

#### QUESTION 87

A customer need to server 40TB via file protocols including SMB and FTP to a board range of client operating system in one location .security protocol dictate that data must be encrypted with FIPS 140-2 compliance. Which HPE storage solution you recommend?

- A. HPE MSA 2052 storage with HPE StoreEasy 3850 Gateway
- B. HPE 3PAR 8200 using self-encrypting drive with 3PAR file persona
- C. HPE StoreOnce 5500with data in flight encryption .
- D. HPE XP7 storage with encryption ready disk adapters

**Correct Answer: B**

**Section:**

**Explanation:**

For a customer needing to serve 40TB of data via file protocols such as SMB and FTP while ensuring FIPS 140-2 compliance, the best solution is HPE 3PAR 8200 with self-encrypting drives (SEDs) combined with 3PAR File Persona. The self-encrypting drives ensure that data at rest is encrypted to meet FIPS 140-2 compliance, while the 3PAR File Persona enables file services directly from the 3PAR storage system, supporting SMB, FTP, and other protocols natively. This combination provides secure, high-performance file storage that meets regulatory requirements.

HPE 3PAR StoreServ File Persona

HPE 3PAR Self-Encrypting Drives

#### QUESTION 88

A Company using an existing 1GB ISCSI storage array is experiencing storage access performance issue. They are interested in deploying HPE 3PAR Storeserv with 16GB /S FC end to-end to improve the performance to the

minimal changes to the environment. The existing environment consists of these HPE products

\* HPE C7000 Blade system platinum blade enclosure with HP virtual connect Flex 10 interconnect modules.

\* Configuration of HPE Proliant Gen8 and Gen9 blade servers

\* HPE 2920 Switches

Which HPE products must be included to support new HPE 3PAR StoreServ?(Select two)

- A. HPE B-Series 16GB SAN switch for HPE Blade system C-class series
- B. HPE 16GB/s Fibre channel HBA for Blade servers
- C. HP 5900CP switch series with 16GB/S SFP+ Modules
- D. HPE Flex fabric 20GB,2-Port 630 FLB adapter
- E. HPE Virtual connect Flex fabric 20/40 f8 modules

**Correct Answer: A, B**

**Section:**

**Explanation:**

To support the deployment of HPE 3PAR StoreServ with 16GB/s Fibre Channel (FC) in an existing environment that includes HPE BladeSystem with Virtual Connect Flex-10 and ProLiant Gen8/Gen9 servers, the appropriate products to include are:

HPE B-Series 16GB SAN switch: This switch is necessary to provide the high-speed 16GB/s FC connectivity between the BladeSystem and the 3PAR StoreServ array, ensuring that the performance issues are addressed with minimal changes to the environment.

HPE 16GB/s Fibre Channel HBA for Blade servers: The FC HBAs (Host Bus Adapters) are required for the blade servers to connect to the 16GB/s FC SAN, enabling end-to-end high-speed connectivity from the servers to the storage array.

HPE B-Series SAN Switches

HPE 3PAR StoreServ Integration with BladeSystem

#### QUESTION 89

A customer has a new Nimble CS3000 21T storage systems and is facing latency issues for his 2TB ERP database. What would be a design approach to solve this issue ?

- A. Perform controller upgrade to a Nimble CS3000 storage systems
- B. Add additional SSD drives as cache to the system and PIN the volume
- C. Enable storage tiering on the system and map the volume to the new tier
- D. Change RAID of the drives to RAID -1and setup quality of services for the volume

**Correct Answer: B**

**Section:**

**Explanation:**

For resolving latency issues on a Nimble CS3000 storage system, particularly for a high-demand application like a 2TB ERP database, the best approach is to add additional SSD drives to the system as cache and PIN the volume. This ensures that the entire database or frequently accessed parts of it are always stored in the fastest storage tier (SSD), significantly reducing latency and improving overall performance for the ERP database.

HPE Nimble Storage

HPE Storage Performance Optimization

#### QUESTION 90

A customer want to implement a virtualized environment and want to provide independent storage access to individual virtual servers. Which feature need to enabled on the B-series FC switches to support this solution?

- A. FCIP
- B. NPIV
- C. ALPA
- D. RSCN

**Correct Answer: B**

**Section:**

**Explanation:**

For resolving latency issues on a Nimble CS3000 storage system, particularly for a high-demand application like a 2TB ERP database, the best approach is to add additional SSD drives to the system as cache and PIN the volume. This ensures that the entire database or frequently accessed parts of it are always stored in the fastest storage tier (SSD), significantly reducing latency and improving overall performance for the ERP database.

HPE Nimble Storage

HPE Storage Performance Optimization

**QUESTION 91**

You are planning a single-site Nimble solution with iSCSI connectivity. Two 10GbE SFP+ dual port NICS are included in the configuration. You designed an intelligent Resilient Framework (IRF) stack with HPE FlexFabric 5900CP switches.

Which statements is correct when discussing the IRF limits for this configuration?

- A. When connecting an iSCSI storage to an IRF stack, a minimum of four 10GbE ports must be used per switch.
- B. A maximum of two switches can be used in an IRF stack when connecting storage.
- C. In an IRF stack with storage connectivity, the 40GbE ports cannot be used.
- D. The used IRF ports for iSCSI traffic have to be configured as 10GbE converged ports.

**Correct Answer: B**

**Section:**

**Explanation:**

In a Nimble solution with iSCSI connectivity using an Intelligent Resilient Framework (IRF) stack with HPE FlexFabric 5900CP switches, there is a limitation on the number of switches that can be used in the IRF stack when connecting storage. Specifically, a maximum of two switches can be included in the IRF stack to ensure optimal performance and reliability when managing iSCSI traffic. This configuration ensures that the storage network maintains high availability and efficient data handling without overcomplicating the stack.

HPE FlexFabric Switches and IRF

HPE Nimble Storage and Networking Best Practices

**QUESTION 92**

A customer is concerned about media and transmission errors caused by any component in the I/O stack from the server host bus adapter (HBA) into the HPE 3PAR StoreServ ports.

Which feature will address the customer's concern?

- A. Persistent Checksum
- B. Persistent Cache
- C. Peer Persistence
- D. Persistent Ports

**Correct Answer: A**

**Section:**

**Explanation:**

Persistent Checksum is a feature in HPE 3PAR StoreServ that helps detect and correct media and transmission errors that may occur anywhere in the I/O stack, from the server's Host Bus Adapter (HBA) to the HPE 3PAR StoreServ ports. This feature ensures data integrity by verifying that data read from or written to the storage array matches the original data, providing an extra layer of protection against data corruption caused by hardware issues or transmission errors.

HPE 3PAR StoreServ Data Integrity

HPE Persistent Checksum Overview

**QUESTION 93**

Refer to the exhibit.

← Volume VMwareDS-GF.0

Normal

**Health**  
Status: Normal

**General**  
Application set: VMwareDatastores-GF  
Storage tier: SSD 150 K (CPG: SSD\_r6)  
Snapshot tier: SSD 150 K (CPG: SSD\_r6)  
WWN: 60002AC0000000000000000620007EA8D

**Capacity**  
Virtual size: 20.00 GiB  
Used: 0%  
Host written: 0%  
Space warning:   
Space limit:   
Space warning:   
Space limit:   
Space warning:   
Space limit:

**Efficiency**  
Data reduction:   
Compaction ratio:

**Copies**  
6 copies exist for this volume

**Host Set Exports**  
1 host set export exists for this volume

**Host Exports**  
0 host exports exist for this volume



You are configuring a new HPE array and verifying properties of a set of volumes. Which RAID level is used on the VMwareDatastores-GF volume?

- A. RAID 0
- B. RAID 6
- C. Triple Parity+
- D. RAID 5

**Correct Answer: D**

**Section:**

**Explanation:**

The exhibit refers to a configuration scenario where properties of a volume set, specifically VMwareDatastores-GF, are being verified. The question focuses on identifying the RAID level used on this volume. RAID 5 is a common configuration in many storage arrays because it provides a balance of performance, capacity, and data protection. In RAID 5, data is striped across multiple disks with parity information distributed among the disks. This parity allows for the recovery of data in the event of a single disk failure, making it a preferred choice for environments that require efficient storage utilization with a degree of fault tolerance. HPE storage solutions, such as HPE Nimble Storage and HPE 3PAR, often employ RAID 5 for use cases involving virtualized environments like VMware datastores. These solutions are optimized for high performance and data protection, ensuring that even with a single drive failure, the data remains accessible and the system can continue to operate without significant performance degradation.

HPE Storage Products

HPE Flash and Hybrid Storage

HPE Nimble Storage

These resources provide comprehensive information on HPE's RAID configurations, data protection mechanisms, and how they integrate with enterprise storage environments.

**QUESTION 94**

You have proposed that a customer replace their legacy SAN switches with new ?-Series switches. They are concerned about the management of all the devices, so you have included SANnav in the proposal. What are the benefits of SANnav that you should emphasize to this customer? (Choose two.)

- A. It runs in a dedicated JVM
- B. It offers automated SPOCK validation
- C. It runs in a browser
- D. It provides a global View
- E. It provides fine-grain visibility into Storage Fabrics (FC + Ethernet)

**Correct Answer: C, E**

**Section:**

**Explanation:**

SANnav Management Portal is an advanced management tool designed to simplify the complexity of SAN (Storage Area Network) environments. It provides a modern, user-friendly interface that runs directly in a web browser, making it accessible without the need for dedicated client software (Option C). This ensures that the management of storage fabrics can be done remotely, securely, and with minimal setup, which is crucial for organizations with distributed IT environments.

Furthermore, SANnav offers fine-grain visibility into both Fibre Channel (FC) and Ethernet-based storage fabrics (Option E). This level of visibility allows IT administrators to monitor and manage the performance, health, and configuration of their storage networks more effectively. It also aids in troubleshooting by providing detailed insights into the connectivity and data paths, helping to ensure that the storage environment is optimized for performance and reliability.

These features are particularly beneficial in modern data centers where mixed storage environments are common, and maintaining a comprehensive view across all storage fabrics is critical for operational efficiency and quick resolution of issues.

[HPE Storage Products Overview](#)

[HPE Storage](#)

[HPE SANnav Management Portal](#)

[HPE SAN Solutions](#)

#### QUESTION 95

A customer has completely virtualized their datacenter with VMware. You propose a SimpliVity solution to replace their aging hardware. Which SimpliVity features should you emphasize in your presentation? (Choose two.)

- A. It uses native hypervisor management tools for management
- B. It utilizes the Storage Management Utility for management and monitoring
- C. It utilizes a unified ASIC for performance
- D. It includes deduplication and backup capabilities
- E. It provides S3 file access

**Correct Answer: A, D**

**Section:**

**Explanation:**

When proposing a SimpliVity solution for a customer who has fully virtualized their datacenter with VMware, it is essential to highlight the features that will offer the most value in a virtualized environment.

**Native Hypervisor Management Tools:** SimpliVity integrates seamlessly with existing hypervisor management tools, such as VMware vCenter, allowing customers to manage their virtualized infrastructure using familiar interfaces. This integration simplifies operations and reduces the learning curve for IT staff.

**Deduplication and Backup Capabilities:** SimpliVity's built-in data efficiency features, including inline deduplication, compression, and optimization, significantly reduce the amount of data stored and transferred. This results in cost savings and improved backup performance, which are critical in a virtualized environment where storage efficiency is paramount.

These features directly address the needs of a virtualized datacenter, providing enhanced data protection, simplified management, and improved performance.

[HPE SimpliVity Overview](#)

[HPE SimpliVity for Virtualized Environments](#)

#### QUESTION 96

You want to deploy Recovery Manager Central to a customer environment.

How can you accomplish this? (Choose two.)

- A. Install RMC on top of the virtual or physical RHEL system using the GUI wizard
- B. Deploy an RMC virtual appliance to Microsoft Hyper-V hypervisor
- C. Deploy RMC on top of the virtual CentOS system using the CLI
- D. Deploy RMC on top of the virtual CentOS system using the GUI wizard
- E. Install RMC on the top of the virtual or physical RHEL system using the CLI
- F. Deploy an RMC virtual appliance to VMware ESXi hypervisor

**Correct Answer: A, F**

**Section:**

**Explanation:**

Recovery Manager Central (RMC) is a powerful tool that integrates with HPE storage solutions to provide efficient and effective data protection. When deploying RMC in a customer environment, there are multiple options available depending on the infrastructure:

Installing RMC on RHEL Systems: RMC can be installed on top of a virtual or physical Red Hat Enterprise Linux (RHEL) system using the GUI wizard. This method is user-friendly and offers flexibility in deployment across different types of RHEL environments.

Deploying RMC on VMware ESXi: Another common deployment method is to deploy the RMC as a virtual appliance on a VMware ESXi hypervisor. This allows for seamless integration with virtualized environments, providing comprehensive data protection capabilities.

These deployment options provide flexibility for various customer environments, ensuring that RMC can be effectively integrated into their existing infrastructure.

HPE Recovery Manager Central (RMC)

HPE RMC Deployment Guide

#### QUESTION 97

A customer uses Veeam to backup their entire datacenter.

Which Veeam feature allows them to recover a single email from their Exchange server?

- A. Changed block tracking
- B. Explorer for Storage Snapshots
- C. Data Mover Service
- D. SureBackup

**Correct Answer: B**

**Section:**

**Explanation:**

Veeam's integration with HPE storage solutions, particularly in backup and recovery scenarios, includes features that allow granular recovery of data, such as individual emails.

Explorer for Storage Snapshots is a feature within Veeam that enables customers to perform granular recovery from storage snapshots, including individual items such as emails from an Exchange server. This feature is crucial for minimizing downtime and ensuring quick recovery of specific data without the need to restore entire databases or systems.

This capability provides an efficient and user-friendly way to handle data recovery tasks, which is particularly valuable in environments where data availability and quick recovery are critical.

Veeam and HPE Integration

Veeam Explorer for Storage Snapshots

#### QUESTION 98

When using a HPE 3PAR StoreServ array to enable a user to apply array--based data services to specific application and VM's. What is the benefit of implementing VM-level gradually of Volts?

- A. Data sprawls eliminated by performing the migration functions at the array level using 3PAR HPE Dynamic Optimization
- B. Efficiency is maintained by reclaiming space from deleted or migrated VMs using capabilities built into the storage ASIC
- C. Performing is accelerated by detecting and moving the most frequently --accessed VMs into the fast class tier
- D. Performance is accelerated by leveraging the deduplication capabilities built into the storage ASIC



**Correct Answer: B**

**Section:**

**Explanation:**

NPIV (N\_Port ID Virtualization) is the feature that needs to be enabled on B-series FC switches to allow individual virtual servers to have independent storage access. NPIV allows multiple virtual machines to share a single physical Fibre Channel port while maintaining separate identities (N\_Port IDs), enabling each virtual machine to be seen as a separate entity on the SAN. This is crucial in a virtualized environment where individual virtual servers need direct storage access.

HPE B-Series SAN Switches

HPE Virtualization Solutions

**QUESTION 99**

A customer needs to add another HPE 3PAR StoreServ system and plans to use the federated storage approach.

Which advantages can the customer expect? (Choose two.)

- A. load balancing
- B. reduced power, cooling, and environmental impacts
- C. allows multiple management tools
- D. easier migration
- E. federated deduplication

**Correct Answer: A, D**

**Section:**

**Explanation:**

When using a federated storage approach with HPE 3PAR StoreServ systems, customers can benefit from:

**Load Balancing:** Federated storage enables the distribution of workloads across multiple storage systems, optimizing resource utilization and ensuring that no single system becomes a bottleneck. This load balancing improves performance and enhances overall system efficiency.

**Easier Migration:** Federation simplifies the process of migrating data between storage systems. With features like Peer Motion, data can be moved between systems non-disruptively, allowing for seamless upgrades or expansions without impacting ongoing operations. This capability is particularly beneficial in reducing downtime and maintaining business continuity during migrations.

HPE 3PAR StoreServ Federation

HPE Peer Motion Technology

**QUESTION 100**

A customer currently has a CS1000H and wants to upgrade to a CS3000.

What must be considered before upgrading?

- A. This upgrade is disruptive and needs planned downtime.
- B. A capacity upgrade to a fully populated array has to be performed first.
- C. Timeless storage support is not offered for CS1000H entry-level systems.
- D. A controller upgrade to a CS1000F has to be performed first.

**Correct Answer: A**

**Section:**

**Explanation:**

Upgrading from a HPE Nimble Storage CS1000H to a CS3000 involves a disruptive upgrade process, meaning that planned downtime will be required. The disruption occurs because such an upgrade involves significant changes to the storage system, including hardware replacements and potentially data migration, which cannot be performed while the system is online.

Proper planning and scheduling of the downtime are essential to minimize the impact on business operations.

For more details, refer to:

HPE Nimble Storage Overview



**QUESTION 101**

What is used to migrate data between nodes in an HPE StoreVirtual VSA environment?

- A. Network RAID
- B. Peer Motion
- C. SmartClone
- D. Remote Copy

**Correct Answer: A**

**Section:**

**Explanation:**

In an HPE StoreVirtual VSA environment, Network RAID is used to manage data across multiple nodes. Network RAID mirrors or stripes data across different nodes in the cluster, providing resilience and high availability.

During data migration or when rebalancing the load between nodes, Network RAID ensures that the data is protected and that the migration process does not disrupt ongoing operations.

This technology allows for automatic data redistribution across nodes in the event of a failure or during scaling operations, ensuring consistent performance and availability.

HPE StoreVirtual VSA Overview

HPE Network RAID

**QUESTION 102**

You are designing a solution that will have a new HPE Synergy frame and an HPE 3PAR StoreServ 8200 storage array with only the built-in ports. This new environment must keep the infrastructure within the data center to a minimum.

Which interconnect module will achieve this goal?

- A. Synergy 25-50Gb F8 Switch Module
- B. 6125G/XG Ethernet Blade Switch
- C. Synergy 20Gb Interconnect Link Module
- D. Virtual Connect SE 40Gb F8 Module



**Correct Answer: D**

**Section:**

**Explanation:**

The Virtual Connect SE 40Gb F8 Module is the appropriate interconnect module for a scenario that involves a new HPE Synergy frame and an HPE 3PAR StoreServ 8200 storage array with minimal infrastructure. This module simplifies the network infrastructure by consolidating multiple network functions into a single device, reducing the number of components needed in the data center.

The Virtual Connect SE 40Gb F8 Module provides high bandwidth, flexibility, and simplified management, allowing the environment to scale efficiently while minimizing the physical footprint and power consumption in the data center.

HPE Synergy Interconnects

Virtual Connect SE 40Gb F8 Module

**QUESTION 103**

A customer needs to store a large amount of unstructured data that must be queried quickly.

Which type of storage meets the customer's needs?

- A. object
- B. hash
- C. file
- D. flash

**Correct Answer: A**

**Section:**

**Explanation:**

For storing a large amount of unstructured data that must be queried quickly, object storage is the most suitable option. Object storage is designed to handle massive amounts of unstructured data, such as documents, images, videos, and other media types. It stores data in a flat address space, using unique identifiers (objects), making it highly scalable and efficient for quick querying.

HPE offers solutions like HPE Scalify RING, which provides robust object storage capabilities optimized for scalability and performance. Object storage is particularly effective in big data environments and applications that require rapid access to large datasets.

For more information, see:

[HPE Object Storage Solutions](#)

**QUESTION 104**

Users are complaining about poor performance with their Data Warehouse application.

What is an effective solution to increase their performance at minimal cost?

- A. HPE 3PAR Adaptive Flash Cache
- B. HPE 3PAR Priority Optimization
- C. HPE 3PAR Dynamic Optimization
- D. HPE 3PAR Adaptive Optimization

**Correct Answer: D**

**Section:**

**Explanation:**

When users experience poor performance with their Data Warehouse applications, HPE 3PAR Adaptive Optimization is an effective solution to enhance performance at minimal cost. Adaptive Optimization dynamically moves data between different tiers of storage based on usage patterns, ensuring that the most frequently accessed data resides on the fastest storage media (such as SSDs), while less frequently accessed data is stored on slower, more cost-effective media.

This approach optimizes storage resources, delivering improved performance for high-demand applications like Data Warehouses without requiring significant additional investment.

For further details, refer to:

[HPE 3PAR StoreServ](#)

**QUESTION 105**

Your customer is running out of space on their HPE StoreOnce while it appears there are barely any backups present. Which of the following options could resolve this?

- A. Ensure HPE StoreOnce blackout windows allow housekeeping to run
- B. Run defragmentation via HPE StoreOnce CLI
- C. Configure backup application to run unmap when backup is expired
- D. Trigger space reclamation via HPE StoreOnce local UI

**Correct Answer: A**

**Section:**

**Explanation:**

If an HPE StoreOnce system appears to be running out of space despite having few backups, it is crucial to ensure that HPE StoreOnce blackout windows allow housekeeping to run. Housekeeping processes are essential for reclaiming space by cleaning up expired backups and optimizing storage. If these processes are blocked or not scheduled correctly, the system may show limited available space even when data should be purged.

For more details, refer to:

[HPE StoreOnce User Guide](#)