

# **IBM**

## **Exam C9020-562**

### **IBM Storwize Family Technical Solutions V4**

**Verson: Demo**

**[ Total Questions: 10 ]**

**Question No : 1**

A customer is concerned that its volumes would not have access to the full system cache but wants to create pools to limit the amount of space that different departments use.

Which activity allows the customer to meet these requirements?

- A. Create several small pools that correspond to LUN size policies
- B. Create a single storage pool that contains all the MDisks
- C. Create LUN size policy in the GUI and set system cache to global via the CLI
- D. Create a single parent pool that contains smaller child pools

**Answer: D**

**Explanation:**

Before V7.4, the disk space of a storage pool was provided from MDisks, so the capacity of a storage pool depended on the MDisks' capacity. Creating or splitting a storage pool is not possible and a user cannot freely make a storage pool with a particular capacity they want. A child pool is a new logical object that is created from a physical storage pool and provides most of the functions that Pools have (for example, volume creation), but the user can specify the capacity of the child pool at creation.

A child pool is an object similar to a storage pool, and can be used interchangeably with a storage pool. It supports volume copy and migration.

References: Implementing the IBM Storwize V7000 and IBM Spectrum Virtualize V7.6, page 89

<http://www.redbooks.ibm.com/redbooks/pdfs/sg247938.pdf>

**Question No : 2**

A customer wants to create file shares for its Windows clients. The customer is interested in an IBM Storwize V7000 Unified.

Which protocol should the customer use for file-sharing?

- A. SMB
- B. NFS
- C. SNMP
- D. iSCSI

**Answer: B**

**Explanation:**

Using the NFS protocol, you can transfer files between computers running Windows and other non-Windows operating systems, such as Linux or UNIX.

Note: Shares and exports can be managed through the GUI or CLI by Storwize V7000 Unified administrative users that have a user role definition that is authorized to perform share and export management functions.

A share or export results from making a disk space accessible through the protocols specified during its creation. HTTP, SCP, FTP, CIFS and NFS shares and exports can be created, provided that the corresponding protocol is enabled for the system. Shares and exports can only be created for data that is stored in the GPFS file system of the Storwize V7000 Unified system. Non-GPFS file system content cannot be shared or exported.

References: [https://technet.microsoft.com/en-us/library/jj592688\(v=ws.11\).aspx](https://technet.microsoft.com/en-us/library/jj592688(v=ws.11).aspx)  
[http://www.ibm.com/support/knowledgecenter/ST5Q4U/com.ibm.storwize.v7000.unified.143.doc/mng\\_exports\\_topic\\_welcome.html](http://www.ibm.com/support/knowledgecenter/ST5Q4U/com.ibm.storwize.v7000.unified.143.doc/mng_exports_topic_welcome.html)

**Question No : 3**

An IBM i customer decided to take advantage of the performance of flash-based storage and is implementing an IBM FlashSystem V9000. The customer plans to move all data to the V9000 with native IBM i attachment.

Which connection protocol is required for this environment?

- A. FC
- B. FTP
- C. 10 Gb FCoE
- D. InfiniBand

**Answer: A**

**Explanation:**

IBM FlashSystem V9000 can be attached to IBM i in the following ways:

\* Native connection without using Virtual I/O Server (VIOS)

Native connection with SAN switches can be done with these adapters:

4 Gb Fibre Channel (FC) adapters, feature number 5774 or 5276

8 Gb FC adapters, feature number 5735 or 5273

16 Gb FC adapters, feature number EN0A or EN0B

Direct native connection without SAN switches can be done with these adapters:

4 Gb FC adapters in IBM i connected to 8 Gb adapters in IBM FlashSystem V9000

16 Gb adapters in IBM i connected to 16 Gb adapters in IBM FlashSystem V9000

\* Connection with VIOS in N\_Port ID Virtualization (NPIV) mode

There are rules for mapping server virtual FC adapters to the ports in VIOS when implementing IBM i in VIOS NPIV connection.

\* Connection with VIOS in virtual SCSI (VSCSI) mode

References: Introducing and Implementing IBM FlashSystem V9000, page 272

<http://www.redbooks.ibm.com/redpieces/pdfs/sg248273.pdf>

**Question No : 4**

A NetApp customer has been concerned about the fragmentation of its system. The customer is considering moving to an IBM Storwize solution.

What does the IBM Storwize Family use as the foundational file system for file sharing?

- A. HDFS
- B. SMB
- C. GPFS
- D. NFS

**Answer: C**

**Explanation:**

Shares and exports can be managed through the GUI or CLI by Storwize V7000 Unified administrative users that have a user role definition that is authorized to perform share and export management functions.

A share or export results from making a disk space accessible through the protocols specified during its creation. HTTP, SCP, FTP, CIFS and NFS shares and exports can be created, provided that the corresponding protocol is enabled for the system. Shares and exports can only be created for data that is stored in the GPFS file system of the Storwize V7000 Unified system. Non-GPFS file system content cannot be shared or exported.

References:[http://www.ibm.com/support/knowledgecenter/ST5Q4U/com.ibm.storwize.v7000.unified.143.doc/mng\\_exports\\_topic\\_welcome.html](http://www.ibm.com/support/knowledgecenter/ST5Q4U/com.ibm.storwize.v7000.unified.143.doc/mng_exports_topic_welcome.html)

**Question No : 5**

What is the minimum of connections that an IBM Storwize node canister should have to a host according to best practices?

- A. 4
- B. 1
- C. 2
- D. 6

**Answer: C**

**Explanation:**

The system contains a Storwize V7000 storage system. Each Storwize V7000 single processing unit is a node canister, which is also called a node. The two nodes within their canisters make an I/O group that is attached to the SAN fabric.

Each Storwize V7000 control enclosure requires two Ethernet cables to connect it to an Ethernet switch or hub. One cable connects to port 1 of the left node canister, and the other cable connects to port 1 of the right node canister. A 10/100/1000 Mb Ethernet connection is required for each cable. Both Internet Protocol Version 4 (IPv4) and Internet Protocol Version 6 (IPv6) are supported.

Note: For increased redundancy, an optional second Ethernet connection is supported for each Storwize V7000 node canister.

References:[http://www.ibm.com/support/knowledgecenter/ST3FR7\\_7.7.0/com.ibm.storwize.v7000.770.doc/svc\\_portsandconnect\\_gen2.html](http://www.ibm.com/support/knowledgecenter/ST3FR7_7.7.0/com.ibm.storwize.v7000.770.doc/svc_portsandconnect_gen2.html)

**Question No : 6**

A company currently has EMC VNX systems at both production and DR sites, with asynchronous replication between the sites. The company desperately needs to refresh the storage at its production site because of performance and capacity needs, as well as high maintenance costs. The VNX at the DR site is newer and still under lease. They don't have the budget to replace both systems.

How could the IBM Storwize Family solve the problem?

- A. Replace production system and use host-based replication to DR site
- B. Replace production system and externally virtualize DR system
- C. Externally virtualize production system and use Real-time Compression
- D. Externally virtualize both production and DR systems

**Answer: B**

**Question No : 7**

A data center provides a Cloud Software as a Service environment primarily for websites and online transactions. Each client is allocated a standard 400 GB LUN for storage. The data center wants to reclaim usable capacity and avoid the need to purchase new disks.

How can this be achieved using IBM Storwize V5020?

- A. Implement IBM Real-Time Compression to the existing LUNs to provide more free space.

- B. Add a Thin-Provisioned copy to a fully allocated LUN, then remove the fully allocated LUN.
- C. Use external storage virtualization to add new LUNs.
- D. Reconfigure internal drives from RAID5 to RAID6.

**Answer: A**

**Explanation:**

Store up to five times as much active data in the same physical space with IBM Real-time Compression. It is supported by the three StorwizeV5000 hybrid models: IBM Storwize V5030, IBM Storwize V5020 and IBM Storwize V5010.

References:[http://www-03.ibm.com/systems/storage/disk/storwize\\_v5000/overview.html](http://www-03.ibm.com/systems/storage/disk/storwize_v5000/overview.html)

**Question No : 8**

A small customer has an old VNXe with iSCSI and needs a new storage system that is easy to manage. Price is a concern.

Which IBM Storwize family product should the technical specialist recommend to the customer?

- A. Storwize V5010
- B. Storwize V5020
- C. Storwize V7000
- D. Storwize V5030

**Answer: A**

**Question No : 9**

A customer wants a better understanding of how storage is being used in the file systems of various servers.

Which IBM Spectrum Control tool gathers these details?

- A. Storage Resource Agents
- B. STAT
- C. Tiered Storage Optimizer
- D. Capacity reporting

**Answer: A**

**Explanation:**

Storage Resource agents provide file system and local disk information.

You deploy Storage Resource agents if you want to enable full server monitoring for internal resources, such as controllers, disks, and file systems.

**Question No : 10**

A customer has a requirement for highly available data in their IBM Storwize environment and currently uses IBM Spectrum Virtualize Software V7.5. The process to enable a volume to be addressed by two I/O groups simultaneously is challenging.

How can the customer benefit from upgrading to V7.6 of the software?

- A. HyperSwap GUI support
- B. Two I/O groups supported by two nodes
- C. Remote mirroring cluster support
- D. Stretch cluster wizard

**Answer: A**

**Explanation:**

New functionalities in the Version 7.6 release of SpectrumVirtualize include:

HyperSwap GUI support: Current local HyperSwap is functionally complete, but requires complex configuration through the existing command-line interface. This new release of HyperSwap offers a new command-line interface which greatly simplifies the set up process to a handful of commands, and also adds the ability to configure and manage local HyperSwap through the GUI.

References:[http://www-01.ibm.com/common/ssi/cgi-](http://www-01.ibm.com/common/ssi/cgi-bin/ssialias?subtype=ca&infotype=an&appname=iSource&supplier=897&letternum=ENUS215-391)

[bin/ssialias?subtype=ca&infotype=an&appname=iSource&supplier=897&letternum=ENUS215-391](http://www-01.ibm.com/common/ssi/cgi-bin/ssialias?subtype=ca&infotype=an&appname=iSource&supplier=897&letternum=ENUS215-391)



