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Exam Code: E20-329

Exam Name: Technology Architect Backup and Recovery Solutions Design Exam



VCEPlus

Exam A

QUESTION 1

An EMC Avamar customer's Gen-1 system with 4 TB of GSAN capacity has reached read-only threshold. The customer indicates that the deduplicated backup data accounts for approximately 3.5 TB.

What is the most likely cause for the read-only threshold being reached? www.Test-inexam.com

- A. Deduplication rate is less than expected, accounting for the remaining GSAN capacity
- B. Combination of system overhead, logs, and checkpoints account for the remaining GSAN capacity
- C. RAIN overhead accounts for the remaining available GSAN capacity
- D. Checkpoints and logs account for the remaining GSAN capacity

Correct Answer: C Section: (none) Explanation

Explanation/Reference:

QUESTION 2

A customer has an operational EMC NetWorker environment using an Avamar deduplication node. They want to protect the Avamar deduplication node using replication. The customer has approached EMC for advice on what considerations they should take into account.

What is a consideration in this environment?

- A. NetWorker automatically configures all replication targets associated with a given deduplication node
- B. Scheduled replications of a NetWorker deduplication node must be set up in Avamar
- C. Recovery from the replications node must be performed from Avamar Administrator
- D. Scheduled replications of a NetWorker deduplication node must be set up in NetWorker

Correct Answer: B Section: (none) Explanation

Explanation/Reference:

QUESTION 3

The EMC account team has been asked to design a NetWorker backup solution with the following requirements.

- 1. One copy of backup data needs to be stored locally.
- 2. An additional copy of backup data needs to be stored on tape at an offsite location. What should be done to satisfy the new regulations with minimal



impact to the current backup performance?

- A. Clone to tape and send the clone copy to the remote location
- B. Back up the data concurrently to the remote and local locations
- C. Archive the backup data to the remote location
- D. Archive the data to the remote location before being backed up locally

Correct Answer: B Section: (none) Explanation

Explanation/Reference:

QUESTION 4

An organization is backing up a combination of databases, e-mail, and file system data types in their data center to a Data Domain appliance using a single backup server. The backup system administrator creates separate subdirectories for each of the three data types under the default share. What benefit is provided by this approach?

- A. Analyze compression with moregranularity
- B. Simplify backup device configuration
- C. Enhance performance of the database backup
- D. Improve file system cleaning performance 1 / 67

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 5

A customer has a new Avamar server with four 2 TB data nodes. This server is backing up two Avamar clients. The first client has 8 GB of RAM and two file systems. The first file system has 3 million files consuming 75 TB. The second file system contains 5 million files consuming 1 TB of space. The second client has 10 GB of RAM and one file system containing 4 million files consuming 1.2 TB of space. Both clients will belong to the same backup group. How long will the steady-state backup group be expected to run?

- A. 5 hours
- B. 6 hours



C. 7 hours

D. 8 Hours

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 6

An EMC NetWorker customer wants to use the deduplication option. The requirement for a database server in their environment is to perform deduplication backups for file system data and NetWorker tape backups for database data. They want to allow a maximum of two parallel streams for file system backups and a maximum of four streams for database backups.

How can this be accomplished?

Exhibit A

Group: FS Backups

Parallelism: 2

Client for FS backups

Parallelism: 0

Group: DB Backups Parallelism: 4

Client for DB backups Parallelism: 0

Exhibit B



Group: FS Backups

Parallelism: 0

Client for FS backups

Parallelism: 2

Group: DB Backups

Parallelism: 0

Client for DB backups

Parallelism: 4

Exhibit C

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Group: Backup

Parallelism: 0

Client for FS backups

Parallelism: 2

Client for DB backups

Parallelism: 4

Exhibit D



Group: Backup Parallelism: 4

Client for FS backups Parallelism: 2

Client for DB backups Parallelism: 4

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Correct Answer: C Section: (none) Explanation

Explanation/Reference:

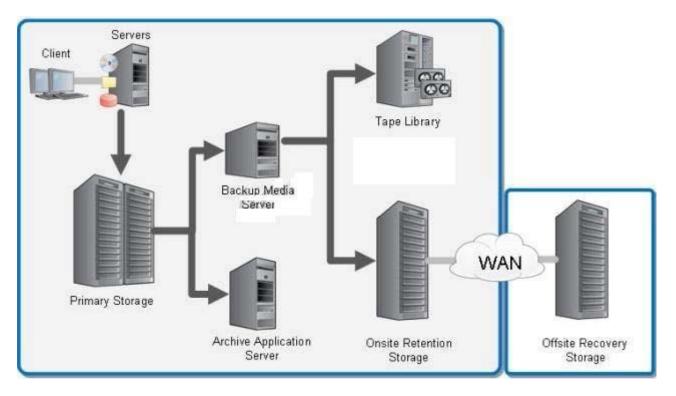
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QUESTION 7

As illustrated in the exhibit, a customer has a backup environment that includes clients and server managed by a backup media server. Data is written to a primary storage device and archived to an application server. The customer has onsite retention strorage, which is replicated to a disaster recovery site. In addition, archive-to-tape is requires.

Which components would you replace when initiating a Data Domain solution?





- A. onsite retention storage and offsite disaster recovery storage
- B. Backup media server and clients
- C. Primary storage and onsite retention storage
- D. Backup media server and archive application server

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 8

A customer has a Data Domain appliance that has reached 90% of maximum capacity. The customer does not want to purchase any additional storage. What will increase the average available capacity of the Data Domain appliance?

A. Decrease the backup retention period



B. Increase the snapshot expiration period

====== SYSTEM SHOW PERFORMANCE =======

- C. Increase the number of streams
- D. Decrease the cleaning frequency

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 9

A customer is piloting a Data Domain appliance and notices that performance in the writing of backups is not optimal. Based on the System Show Performance metrics represented in the exhibit, which operation will provide the most improved the most improved performance?

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	Through	hput (MB/s)	L	Jtiliza	tion	-	Compres	sion	Ca	ache M	viss			Streams:	State	Utilization	-8
Read Write	Repl Networ	k Repl Pre-comp	proc	recvi	send i	dle	gcomp lc	omp	thra un	us ovi	nd dat	a me	ta rd∧	wr/rw/xx 'CDV	MS' C	PU disk	
	In/out	in/out														avg/max -ma	ах-
0.2 17.0	0.02/ 0.74	0.00/ 67.95	99%	0%	0%	0%	6.4	1.6	5%	27%	72%	7%	0%	52/2/ 0/14	V	18%/21%[0]	7%[11]
0.3 18.3	0.04/ 1.46	0.00/88.07	99%	0%	0%	0%	6.8	1.6	2%	24%	59%	3%	0%	52/3/ 0/15	C-V	21%/23%[0]	5%[01]
0.2 14.1	0.12/ 3.49	0.00/153.47	99%	0%	0%	0%	5.7	1.6	1%	18%	54%	1%	0%	52/3/ 0/13	C-V	40%/43%[0]	16%[09]
0.2 13.3	0.02/ 0.68	0.00/56.35	99%	0%	0%	0%	5.3	1.5	1%	8%	53%	2%	0%	52/3/ 0/10	C-V	37%/39%[0]	15%[01]
0.2 12.5	0.03/ 2.40	0.00/79.23	99%	0%	0%	0%	5.4	1.5	3%	29%	62%	3%	1%	52/4/ 0/10	C-V	32%/34%[0]	18%[03]
0.2 14.4	0.04/ 3.55	0.00/89.55	99%	0%	0%	0%	6.1	1.6	1%	18%	54%	1%	0%	52/4/ 0/14	C-V	39%/41%[0]	15%[00]
0.2 14.2	0.02/ 0.72	0.00/ 58.74	98%	0%	0%	1%	5.9	1.5	1%	11%	52%	2%	0%	53/3/ 0/13	C	38%/40%[0]	14%[01]
5.1 83.7	0.02/ 0.76	0.00/62.90	98%	0%	0%	1%	11.9	1.4	0%	11%	51%	1%	0%	52/3/ 0/17	C	61%/63%[0]	14%[08]

7.9 1.5

2% 37% 59% 1% 0%

52/3/ 0/16

C-V--

67%/70%[0] 18%[07]

0.00/150.16 92% 0% 0% 7%

A. Reduce the read streams

0.12/ 3.69

- B. Suspend verification
- C. Disable cleaning

6.8 99.8

D. Disable replication

Correct Answer: A Section: (none)

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Explanation

Explanation/Reference:

QUESTION 10

A customer is using Data Protection Advisor (DPA) to monitor their backup environment. What is a benefit of using remote Collectors?

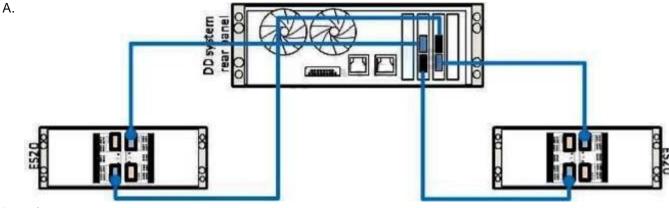
- A. Reduces the amount of information being transferred to the DPA server
- B. Collects system-related statistics for a given host
- C. Improves the collection performance of backup statistics
- D. Provides more complete backup reports

Correct Answer: B Section: (none) Explanation

Explanation/Reference:

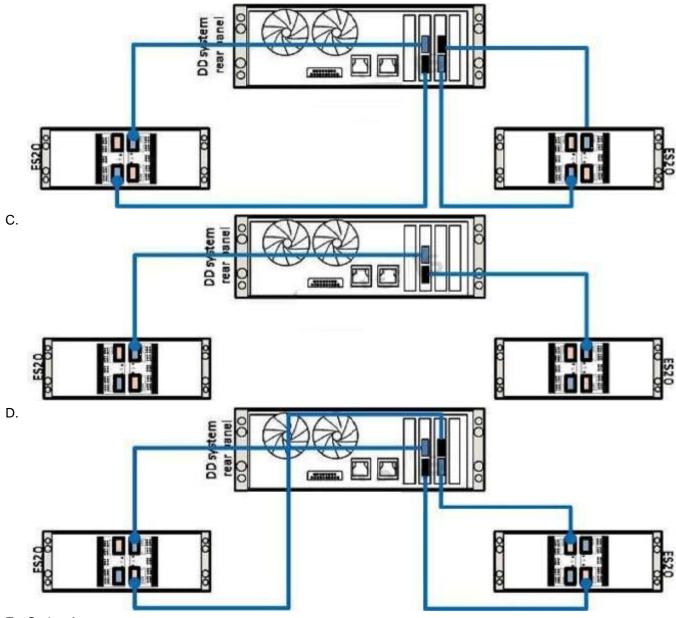
QUESTION 11

A customer is implementing s Data Domain system with two expansion shelves. They require that access to the data can be reached even when a single path fails. The customer does not want the HBA card to be the single point of failure.



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E. Option A

F. Option B



G. Option C

H. Option D

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 12

The EMC account team has been asked to redesign a NetWorker backup solution. The existing backup environment consists of one NetWorker server and one storage node to back up approximately 80 clients. Over time, the amount of data increased, resulting in daily backups taking more than 24 hours to complete.

Analysis has determined that the tape infrastructure and the network are not the bottleneck. What would you recommend to improve the backup performance with minimal costs?

- A. Add a storage node and balance the clients across the storage nodes
- B. Add an EMC NetWorker server and balance the clients across the EMC NetWorker servers
- C. Configure the existing storage node as a dedicated storage node 6 / 67
- D. Change the backup schedules so that they start as different times during the day

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 13

Which critical network elements are assessed by the Network Assessment Tool?

- A. Tracert, Ping, and Packet Loss
- B. Latency, Latency Jitterand Packet Loss
- C. Latency, Load, and Latency Jitter
- D. Latency, Latency Jitter, and Tracert

Correct Answer: B Section: (none) Explanation



Explanation/Reference:

QUESTION 14

An EMC NetWorker customer performs all backups to physical. The customer backs up file systems, application servers, VMware guests multiple 10 TB database, and a large 20 TB NetApp filer. They have a primary and disaster recovery data center with an OC-12 circuit between the two sites. The customer's physical tape libraries are approaching end of support life and they are looking to replace them with deduplication technology. In addition, they want to improve NDMP backup times for their 20 TB NetApp filer.

Which recommendation will address the customer's requirements?

- A. NetWorker deduplication for NDMP backups, databases, and application servers Data Domain for file systems and VMware
- B. NetWorker deduplication for file systems, VMware, and NDMPData Domain for databases and application servers
- C. NetWorker deduplication for file systems, application servers, and VMware Avamar for NDMPData Domain for databases
- D. NetWorker deduplication for NDMP Avamar for VmwareData Domain for databases, application servers, and file systems

Correct Answer: D Section: (none) Explanation

Explanation/Reference:

QUESTION 15

A customer has approached you to advise them on how their backup environment will integrate into their new iSCSI application server deployment. Which network characteristic would have the greatest impact on their backup environment?

- A. Dynamic DNS
- B. LDAP authentication domain
- C. Traffic segmentation
- D. IP version level

Correct Answer: C Section: (none) Explanation

Explanation/Reference:

QUESTION 16

A customer has a database server with 300 GB of Oracle database data. Using the default hash cache setting, what is the total amount of physical RAM



required on the client?

A. 250 MB

B. 384 MB

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C. 3 GB

D. 6 GB

Correct Answer: D Section: (none) Explanation

Explanation/Reference:

QUESTION 17

What is a key consideration when assessing a nested mount file system and an NDMP Volume Based Backup (VBB) backup strategy?

- A. Multithreaded PAX format for enhanced backup performance is supported
- B. Directory Direct Access Recovery (DDAR) for fast recovery is supported
- C. Selectively backing up a subset of the file system is unsupported
- D. Individual file recovery without the destructive restore flag is unsupported

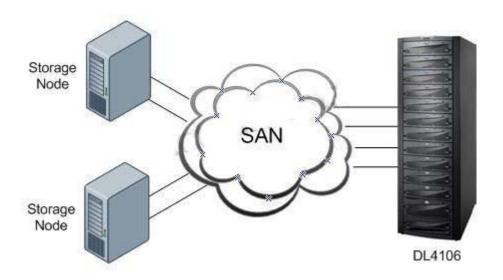
Correct Answer: C Section: (none) Explanation

Explanation/Reference:

QUESTION 18

An EMC NetWorker customer is considering using an EMC Disk Library as a target as shown in the exhibit. Two storage nodes need to access the same pool of virtual tapes. In addition, the customer wants to load balance the usage of virtual tape drives across the available connections. Based on EMC best practices, which satisfies these requirements?





- A. Assign each host initiator port a different set of virtual tape drives from the same virtual library
- B. Configure each host initiator with a different virtual tape library, pointing to a common pool of virtual tapes
- C. Assign all virtual drives to all host initiator ports and use Power Path
- D. configure all virtual tape drives on all initiators and enable Active Engine Failover

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 19

A customer has twofiles that have been locked and backed up to Data Domain appliance with the following parameters: File1=atime=20 years File1=atime=5 years The Data Domain global retention

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periods are configured as follows: ·Min=2 years

•Max=10 years The administrator changes the Data Domain maximum retention period to 4 years. After how many years can File 2 be deleted?

A. 2



B. 4

C. 5

D. 10

Correct Answer: C Section: (none) Explanation

Explanation/Reference:

QUESTION 20

An EMC NetWorker customer has an Oracle database client. To achieve acceptable backup performance, they have configured the backup to use four RMAN channels. The customer wants to benefit from adding Avamar deduplication for this backup. What is a consideration before proposing this design change?

- A. Data from each RMAN channel must be sent to a separate deduplication node
- B. Less than six RMAN channels in a deduplicated backup will perform poorly
- C. More than two RMAN channels in a deduplicated backup will cause the backup to fail
- D. Separate cache files are recommended for each RMAN channel

Correct Answer: D Section: (none) Explanation

Explanation/Reference:

QUESTION 21

A customer has asked you to design a backup solution that has a NAS device with several terabytes of encrypted data spread across three different file systems. Which backup option should be avoided in this environment?

A. Multiplexing

B. NDMP

C. Hot or online backup

D. Deduplication

Correct Answer: D Section: (none) Explanation



Explanation/Reference:

QUESTION 22

What are the key concerns when discussing the implementation of a Celerra two-way NDMP backup design utilizing the SnapSure feature?

- A. Rate of data change, network bandwidth to the backup server, and the second primary Data Mover I/O load
- B. Backup server I/O rate, network bandwidth, and amount of source data
- C. Network bandwidth between both primary Data Movers, backup server I/O rate, and Data Mover II/O loads
- D. Amount of source data, rate of data change, and Data Mover I/O load

Correct Answer: D Section: (none) Explanation

Explanation/Reference:

QUESTION 23

An EMC NetWorker customer is experiencing poor backup performance, Your analysis determines that significant host resources are used to manage low-level network handshaking operations during backup.

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Based on EMC recommendations, what can you do to alleviate the handshake issue?

- A. Upgrade the network driver
- B. Upgrade the LAN
- C. Install a TCP offload engine card
- D. Install a second network interface card

Correct Answer: C Section: (none) Explanation

Explanation/Reference:

QUESTION 24

A customer has purchased Data Protection Advisor (DPA) to provide a single enterprise report on backup compliance across their 24 geographically

disperse locations. How many DPA servers should be installed?



- A. Twenty- four one at each location
- B. One in the primary data center
- C. Five deployed regionally to balance the load
- D. Two in the primary data center for redundancy

Correct Answer: B Section: (none) Explanation

Explanation/Reference:

QUESTION 25

A customer requires a backup host to be located at their primary data center and a tape library at their disaster recovery data center. The distance between the two data centers is 500 kilometers. What is the recommended connectivity solution between the data center and the tape library to address the customer's requirement?

- A. Fibre Channel-to-IP bridge or router
- B. Fibre Channel inter-swith link
- C. Dedicated Fibre Channel link
- D. Fibre Channel Arbitrated Loop

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 26

Which environment will yield the optimal data deduplication for backup purposes?

- A. An advertising organization where multimedia files are backed up and store indefinitely
- B. Database environment where large transaction logs are backup up on a daily basis and for one month
- C. Hospital environment where compliance requires patient information (CAT scans, MRI, x-rays) to be backed up, stored, and accessible for up to 10 years
- D. Virtualized environment where OS images are stored in a SAN environment and backed up and retained for 3-6 months



Correct Answer: D Section: (none) Explanation

Explanation/Reference:

QUESTION 27

You have been asked to design a new backup solution for a customer to satisfy operational backup requirements. After an initial analysis you decide to implement a two-tier solution. The first tier is disk; the second tier is tape. A retention period needs to be defined for the first tier that will determine when backup data will be moved to the second tier.

What is an important piece of information you need to consider when determining this retention period?

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- A. Available bandwidth
- B. Recovery point objective
- C. Frequency of restore requests
- D. Type of backup

Correct Answer: C Section: (none) Explanation

Explanation/Reference:

QUESTION 28

An EMC Avamar customer has a heavily utilized ESX system CPU utilization is a concern. Each guest system, all of which are Linux must be backed up with file granularity. The customer has both Avamar and NetWorker available and is looking to EMC for guidance What is considered the most suitable approach to meet these requirements?

- A. Install the Avamar agent directly on each system
- B. Install the NetWorker agent directly on each guest system
- C. Use Avamar VCB to offload the ESX server
- D. Use NetWorker VCB to offload the ESX server

Correct Answer: B Section: (none) Explanation

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Explanation/Reference:

QUESTION 29

An EMC NetWorker customer is considering using the deduplication feature with Avamar. What is a requirement when performing backups to a deduplication node?

- A. Deduplication backup metadata must be stored on tape
- B. NetWorker client host can only perform deduplication backups
- C. Deduplication node must be RAIN protected
- D. First backup to a deduplication node must be a Full backup

Correct Answer: D Section: (none) Explanation

Explanation/Reference:

QUESTION 30

A customer has recently added a Celerra to their environment and has asked you to assess their current data protection methodology. They currently have an EMC NetWorker environment using an EMC Disk Library (EDL) as the primary backup location before they move the virtual tapes to physical tapes. How over, the rate of change of the data on the Celerra is too high for their RPO using the EDL for single file recovery if their backups are performed only at the end of the business day. What would you incorporate to lessen the impact of their once-a-day backup schedule on the Celerra data with minimal impact to their backup administration processes?

- A. Implement Snap Sure to make point-in-time copies of the file systems more frequently to recover individual files when requested ad perform full system backups at the end of the day
- B. Configure a local tape device on the primary Data Mover and use NDMP incrementally back up the file system more frequently than the once-a-day full backup
- C. Replicate the source data to a remote target using Replicator and use the target data as bothfile recovery and backup source
- D. Create an internal SVTLU on the primary Data Mover and use NDMP2D to incrementally back up the file system more frequently than the once-aday full backup

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

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QUESTION 31

You are designing a backup solution for an EMC NetWorker customer. Based on EMC best practices, how many CPU cycles are needed by the storage node when backing up clients over the network to local tape drives at a rate of 100 MB/s?

A. 0.2 Hz

B. 0.5 Hz

C. 1.2 GHz

D. 2.4 GHz

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 32

A customer plans to integrate an EMC Disk Library (EDL) with NetWorker. The customer has purchased an Embedded Storage Node License to clone virtual taped from the EDL to a physical tape library. What should be included in the design document design to ensure the Embedded Storage Node reads the data from virtual tape during a clone operation?

- A. VTL Auto-changer resource needs the Embed Storage Node defined as the Read Host Name
- B. Client resource of the Embedded Storage Node needs the Embedded Storage Node defined as the Clone Storage Node
- C. Client resource of the NetWorker server needs the Embedded Storage Node defined as the Clone Storage Node
- D. Each backup client resource needs the Embedded Storage Node defined as the Clone Storage Node

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 33

A customer is considering the use of offsite physical tape vaulting rotation for compliance purposes. What is a key concern to discuss with the customer?

- A. Additional resources needed during the backup window for the production data
- B. Amount of tape media is twice as large as the actual production data size
- C. Inefficient tape media utilization when adhering to time-regulated timetables



D. Media retention is always three times the length of the RPO value

Correct Answer: C Section: (none) Explanation

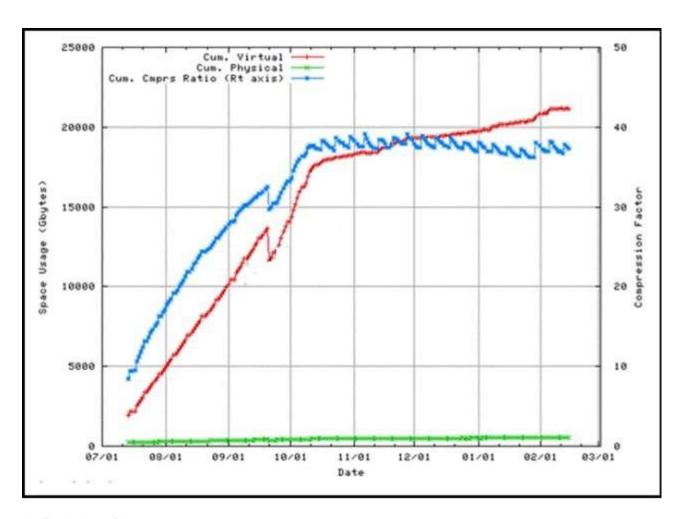
Explanation/Reference:

QUESTION 34

While running a three-month pilot using a Data Domain appliance, a customer produces the space utilization graph shown in the exhibit. What does the "saw tooth" line for the compression ratio represent?

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- A. Expiration of data
- B. Sanitization of data
- C. Retention of data
- D. Reclamation of data space

Correct Answer: D Section: (none) Explanation

Explanation/Reference:



QUESTION 35

You are designing an EMC NetWorker deduplication solution for a customer. When performing a restore of a backup containing multiple save sets from a deduplication node. What is the maximum number of save sets that can be recovered concurrently?

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

Correct Answer: C Section: (none) Explanation

Explanation/Reference:

QUESTION 36

An existing EMC customer notices that garbage collection is not running in Avamar because the capacity limit has reached. At which capacity limit does garbage collection stop running?

- A. 85%
- B. 90%
- C. 95%
- D. 100%

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

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QUESTION 37

A customer is piloting a Data Domain system. Based on the Data Domain statistics represented in the exhibit, which type of date is being backed up?



SSH Session# system show stats 2

10/29 12:34:26 INTERVAL: 2 secs

CPU	FS	FS	Net M	Disk K				NVRAM	Repl	
busy	ops/s	proc	in	out	read		write	busy	KiB/s	KB/s
						-				
10%	119	7%	17951	436		0	2034	0%	17816	0
9%	121	7%	17651	413		0	14	1%	17455	0
10%	120	7%	17831	424		0	26	0%	17663	0
8%	121	7%	18269	455		2	23	0%	18111	0
9%	105	7%	17829	433		0	54	0%	17654	0
10%	90	7%	17440	422		0	28	0%	17322	0

- A. New data
- B. Block data
- C. Encrypted data
- D. Redundant data

Correct Answer: D Section: (none) Explanation

Explanation/Reference:

QUESTION 38

You are recommending a NetWorker deduplication solution with Avamar for a current EMC NetWorker customer. The customer is planning to back up eight of their existing clients to the Avamar deduplication node.

What is an EMC best practice when performing deduplication backups for these clients?

- A. Set the first backup level to Full
- B. Remove all client-side NetWorker directives
- C. Set the client parallelism value to 8
- D. Add the Avamar server name to each client's server file

Correct Answer: A Section: (none)

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Explanation

Explanation/Reference:

QUESTION 39

A customer has been using Avamar to leverage deduplication for VMware. They have been performing guest-level backups and now want to perform. vmdlk backups for disaster recovery.

What is a requirement to perform VCB backups?

- A. Proxy host with Microsoft Windows 2003 SP1 or 64-bit Red Hat Linux
- B. Guests with VCB and Virtual Center server software installed
- C. ESX server with Fibre Channel SAN storage hosting VMFS or RDMS
- D. Guests with the Avamar client and the Avamar VCB Interoperability Module

Correct Answer: C Section: (none) Explanation

Explanation/Reference:

QUESTION 40

A customer has an existing environment that uses a Data Domain appliance as a disk backup target. The customer now wants to implement a disaster recovery site using an existing T1 Internet connection.

Consider the following:

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- · 100 GB of data has been backed up on the primary Data Domain appliance · Retention policy is set for 6 months What is a best practice implementation for this environment?
- A. Run a snapshot command over the LAN and then ship the Data Domain appliance onsite
- B. Configure and seed replication over the LAN and then ship the Data Domain appliance onsite
- C. Ship the Data Domain appliance onsite, and then run a fastcopy command over the WAN
- D. Ship the Data Domain appliance onsite, and then configure and seed replication over the WAN

Correct Answer: D Section: (none) Explanation

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Explanation/Reference:

QUESTION 41

The EMC account team has been asked to design a NetWorker backup solution for a Microsoft SharePoint server. The customer's environment consists of a Microsoft SharePoint Server 2007 distributed farm deployment on a CLARiiON disk array with EMC VSS Provider and an EMC Disk Library. The customer wants to leverage a Microsoft VSS framework to provide disaster recovery of the SharePoint Saver 2007 distributed farm environment. What is an important design consideration?

- A. Individual SharePoint wed application can be restored
- B. Individual SharePoint content database cannot be restored
- C. Recovery operation can be initiated from any SharePoint web front-end server
- D. Rollback recovery is unsupported

Correct Answer: D Section: (none) Explanation

Explanation/Reference:

QUESTION 42

In a Microsoft Windows environment, how fast does a split have to occur for VSS to work?

- A. Within 2 seconds
- B. Within 5 seconds
- C. Within 10 seconds
- D. Within 15 seconds

Correct Answer: C Section: (none) Explanation

Explanation/Reference:

QUESTION 43

A customer wants to know why their backup performance to the Avamar multinode f\grid has decreased. Initially they were seeing an ingestion rate of around 5 to 7 GB/hr/node. Recently they estimated that it has slowed to around 3 to 5 GB/hr/node. What is a probable cause for the decrease in the average ingestion rate?



- A. HFS check has not been completing successfully
- B. A large number of backups have been expired, causing new stripes to be created
- C. New stripes are no longer being created and steady-state has been achieved
- D. Garbage collection is not running, causing stripes to fill and new stripes to be created

Correct Answer: C Section: (none) Explanation

Explanation/Reference:

QUESTION 44

An EMC NetWorker customer has three backup servers with four storage nodes reporting to each of the backup servers. All servers run Microsoft Windows. A dual-engine EMC Disk Library with Active Engine Failover is being proposed for this environment with embedded storage nodes for to physical tape.

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What is a consideration for this solution?

- A. Active Engine Failover is unsupported in a Windows environment
- B. Multiple instances of the embedded storage node will need to be configured
- C. Each embedded storage node can only serve a single data zone
- D. NetWorker servers must be configured as read storage nodes for the cloning operation

Correct Answer: B Section: (none) Explanation

Explanation/Reference:

QUESTION 45

A customer is planning a new database rollout using Oracle and wants to perform online backups. Initial tests with NetWorker have shown that the backups cannot be completed within the backup window of 6 hours.

You have analyzed your backup environment and there are adequate resources to meet this stringent backup window. What is one of the first things to check in NetWorker or RMAN to increase performance without adding cost and complexity?

- A. Adjust the maximum number of files in a backup set to be less than the number of open files
- B. Adjust RMAN channels to have multiple streams per tape device



- C. Adjust RMAN multiplexing to be less than the tape multiplexing setting
- D. Adjust RMAN multiplexing to be equal to or greater than the tape multiplexing setting

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 46

A customer with an existing VMware infrastructure is interested in Avamar as a potential backup solution. The customer needs to back up 10 virtual machines with a total of 2.9 TB of data. The daily change rate is 6 GB per day. Which solution would you recommend?

- A. Avamar Data Transport
- B. Avamar Virtual Edition
- C. Physical Avamar server
- D. Virtual Avamar multinode server

Correct Answer: C Section: (none) Explanation

Explanation/Reference:

QUESTION 47

A customer has requested assistance with several backup and recovery challenges. You use the EMC backup scripts to perform the data collection. Which type of data is collected using the backup quick scripts?

- A. Backup failure rates
- B. Expired backup data
- C. Capacity and health of the backup environment
- D. CPU. networker, and network utilization

Correct Answer: C Section: (none) Explanation

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Explanation/Reference:

QUESTION 48

A customer has Oracle 9i running on a Microsoft Windows server. They want to deploy hot backups because the database cannot be shut down. What is a design consideration for backups when using the

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Avamar plug-in for Oracle?

- A. Use of exclude/include lists in a dataset is supported
- B. Backups initiated through Avamar Administrator are always Full backups
- C. File system backup should include the entire root directory for each Oracle instance
- D. Full and incremental backups are initiated through Avamar Administrator

Correct Answer: B Section: (none) Explanation

Explanation/Reference:

QUESTION 49

An EMC Avamar customer wants to start backing up their VMware environment. The customer's goal is to have image-level backup while having a low impact on the ESX server. In addition, they want the ability to perform file-level restores of their Microsoft Windows clients. Which backup method will meet the customer's needs?

- A. VMware Consolidated Backup
- B. Avamar agent on each guest OS
- C. AcCelerrator Node
- D. Avamar agent on the ESX server console

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 50



A single-engine EMC Disk Library (EDL) is being proposed with Remote Copy functionality replicate data to a remote EDL. One of the EDLs will have four network connections while the other one will have two network connections.

How many ports will be used in each EDL during a replication session?

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

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 51

A customer has acquired multiple companies with a combination of IBM Tivoli Storage Manager, EMC NetWorker, and IBM iSeries BRMS backups to physical tape in their data center. They have a data carter 15 miles away that plan to use for disaster recovery. Dark fiber between the two sites exists. The customer has asked EMC to help improve their backup performance and reliability. They also want to eliminate the need to move physical tapes offsite each day. Which recomme4ndation satisfies the customer's requirements?

- A. Install Data Domain and Data Protection Advisor at the data center and replicate to Data Domain over FC at the disaster recovery site
- B. Install an EMC Disk Library (EDL) at the data center with Data Protection Advisor and use Remote Copy replication to EDL at the disaster recovery site over IP
- C. Install Data Domain at the data center with OST and replicate to Data Domain over IP at the disaster recovery site
- D. install an EMC Disk Library (EDL) and Data Protection Advisor at the data center with a backup application vaulting to the EDL at the disaster recovery site over FC 17 / 67

Correct Answer: D Section: (none) Explanation

Explanation/Reference:

QUESTION 52

An Avamar customer is using replication between two data centers. There is a T1 line between the data centers and it is dedicated to Avamar replication. The customer is concerned that Avamar replication is only getting throughput of 1.1 megabits per second during replication. What should be changed in the design and implementation of this solution?



- A. Turn off replication encryption
- B. Obtain more bandwidth
- C. Add the --throttle flag during replication
- D. Use the --all nodes flag during replication

Correct Answer: B Section: (none) Explanation

Explanation/Reference:

QUESTION 53

A Symantec Backup Exec customer purchased an EMC Disk Library (EDL) last year and performs 1.5 TB of nightly backups. Backup Exec is used to copy EDL virtual tapes to physical tapes to satisfy offsite requirements. The daily backup and tape copying workload is becoming a challenge for their Backup Exec server.

The customer is exploring EDL-to-EDL replication to a second a second site seven miles always to eliminate physical tape and reduce the Backup Exec server workload. Which EDL relocation option meets the customer's requirements?

- A. Remote Copy over an IP connection
- B. Consolidated Media Management over extended Fibre Channel
- C. Tape Caching over extended Fibre Channel
- D. Auto Archive over an IP connection

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 54

A data center consisting of six Microsoft Windows file servers must be backed up. Each file server contains 750,000 files and approximately 150 GB of data. The file servers have been tested simultaneously. Each file server can read data from the network and write it to disk at the rate of 75 GB per hour. The data center has a 10 Gigabit Ethernet backbone. What is the minimum number of Avamar 2 TB data nodes that should be ordered to perform a recovery of all six file servers and achieve a recovery time objective of 8 hours?

- A. 1
- B. 3
- C. 5

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D. 7

Correct Answer: B Section: (none) Explanation

Explanation/Reference:

QUESTION 55

The EMC account team has been asked to design a Network backup solution for a VMware ESX3.5 environment with the following requirements:

1. Reduce workload on the ESX server during backups

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- 2. Eliminate backup traffic from the LAN by moving data directly from the SAN
- 3. Support file-level backups for virtual machines running Microsoft Windows What is a recommended backup solution?
- A. VMware service console backup
- B. VMware vStorage API backup
- C. VMware Consolidated Backup
- D. VMware guest backup

Correct Answer: C Section: (none) Explanation

Explanation/Reference:

QUESTION 56

A customer is considering implementing an EMC Disk Library with Active Engine Failover (AEF). Front-end ports 1, 3, and 4 from Engine A will be connected to the SAN. On Engine B, front-end ports 7, 8, and 11 will be connected to the SAN.

To ensure proper AEF functionality, what is the total number of front-end ports from both engines that need to be connected to the SAN?

- A. 3
- B. 6
- C. 8
- D. 12

Correct Answer: B



Section: (none) Explanation

Explanation/Reference:

QUESTION 57

A customer has a current EMC NetWorker LAN backup environment. The environment is using a local EMC Disk Library (EDL) with replication to a remote disaster recovery site. They want to introduce a four Data Mover Celerra into their environment for consolidated Windows user collaborative data on CIFS shares.

Which backup deployment would you suggest that has the least disruptive hardware impact to the customer's current backup procedure?

- A. Implement a dedicated network link between two primary Data Movers on the Celerra and use NDMP three-way backup to back up to directly attached tape devices
- B. Utilize the Celerra NDMP2D feature on a second primary Data Mover and use NDMP-to-Disk backup to save the first primary Data Mover data to internally configured virtual tapes
- C. Implement a segmented dedicated backup network infrastructure and LAN backup the Celerra data to their existing backup servers
- D. Directly attach an EDL, through Fibre Channel, to the production Data Mover and use NDMP to back up the production Data Mover data to the EDL

Correct Answer: B Section: (none) Explanation

Explanation/Reference:

QUESTION 58

A NetWorker customer has a single data zone with three storage nodes backing up 250 clients. A dual-engine EMC Disk Library is being proposed as the backup-to-disk solution. What is the minimum number of virtual tape libraries required?

- A. 1
- B. 2

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- C. 3
- D. 4

Correct Answer: A Section: (none) Explanation

Explanation/Reference:



QUESTION 59

You are proposing Data Protection Advisor (DPA) to provide a single reporting interface in a multi-vendor backup environment. The environment consists of IBM Tivoli Storage Manager (TSM), Symantec Net Backup, NetWorker, and Avamar. Each application manages 200 clients. What needs to be considered with regards to DPA licensing?

- A. Avamar requires a separate capacity-based license
- B. Avamar requires a client-based license and a capacity-based license
- C. TSM client count cannot be combined with other applications
- D. Client licenses for all backup applications can be combined

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 60

An existing EMC NetWorker customer has recently undertaken an LDAP authentication network infrastructure reconfiguration to ensure an improved validation response time. The reconfiguration does not involve the addition of any physical network hardware to the infrastructure. However, they have now approached you to assist with an increased latency they are experiencing on their network. What is the most likely cause of their increased latency after the reconfiguration?

- A. LADP authentication has added packet latency required for the NIS authentication
- B. LADP authentication has reduced the available bandwidth for the backup data stream
- C. End-to-end duplex setting for their backup data has become mismatched
- D. End-to-end backup data path now has additional hop counts added to the packets

Correct Answer: C Section: (none) Explanation

Explanation/Reference:

QUESTION 61

A customer has an existing EMC NetWorker backup group consisting of one file server. The file server has dual quad-core 2.9-GHz CPUs, 16 GB of RAM, and a single file system with a total of 6 TB of data. Due to a recent loss of backup tapes during shipment, the customer needs to encrypt the backups. The customer wants to prevent any possibility of backup data being intercepted during the transmission of backup data from the client to the



NetWorker storage node. In addition, they want to minimize the change to their file server hardware and minimize operational changes. Which method meets the customer's requirements?

- A. AES encryption directive
- B. Inline encryption device
- C. Tape drive hardware encryption
- D. Layer-2 encryption device

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 62

An EMC customer has a 2 TB single-node Avamar server at a local site. The server is replicating to another 2 TB single-node Avamar at a remote site. The customer wants to add at least 1 TB of capacity

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for future growth.

Which solution would you recommended?

- A. Add a 1x3 RAIN Avamar server using 1 TB nodes at the local site and move the local 2 TB single-node Avamar server to the remote site.
- B. Add one 2 TB single node at the local site replicating to a new 2 TB single-node Avamar server at the remote site.
- C. Convert both the single node at the local and remote sites to a 1x2 Avamar server by ordering two 1 TB nodes and two utility nodes.
- D. Add a 1x3 RAIN Avamar server using 1 TB nodes at the remote site and move the remote site 2 TB single-node Avamar server to the local site.

Correct Answer: B Section: (none) Explanation

Explanation/Reference:

QUESTION 63

A customer has purchased an EMC Disk Library (EDL) to reduce backup times to fit within their available backup window. What is an important design consideration to achieve this objective?

A. Zone each backup server to a dedicated EDL FC port to eliminate bandwidth contention.



- B. Configure the maximum number of front-end FC ports and many concurrent backup streams.
- C. Configure the maximum number of virtual tape drives per library to improve performance.
- D. Configure the minimum number of virtual tapes to reduce VTL emulation overhead.

Correct Answer: B Section: (none) Explanation

Explanation/Reference:

QUESTION 64

An EMC Avamar customer has a 750 GB Oracle server and a file server to back up. What is a consideration when designing an Avamar Virtual Edition (AVE) solution?

- A. Average size of the file system and the database.
- B. Ratio between the largest file and the largest tablespace.
- C. Ratio between the size of the file system and the database.
- D. Average size of the largest file and the largest tablespace.

Correct Answer: C Section: (none) Explanation

Explanation/Reference:

QUESTION 65

An EMC NetWorker customer is performing all backups to physical tape. This includes weekly 10 TB backups of static medical imaging data stored on a Dell NAS requiring 8 months retention. Their current tape libraries are approaching end of support life.

The customer has asked EMC for a recommendation that will improve operational backup and restore reliability for their image data with a minimum amount of change. What will meet the customer's requirements?

- A. EMC Disk Library
- B. Deduplication Node
- C. Avamar
- D. Data Domain

Correct Answer: D Section: (none)



Explanation

Explanation/Reference:

QUESTION 66

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A customer has a DMZ and needs to connect to the NetWorker Management Console through the firewall. Three service ports are required for connections between the Console server and a Console client. When configuring the ports, which process uses a port value that cannot be changed?

- A. dbsrv9
- B. nsrd
- C. gstd
- D. gsttclsh

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 67

The EMC account team has been asked to design a NetWorker backup solution for a Microsoft Exchange server. The customer's environment consists of a Microsoft Exchange Server 2007 Cluster Continuous Replication (CCR) deployment on a CLARiiON disk array with EMC VSS Provider and an EMC Disk Library.

The customer wants to leverage the Microsoft VSS framework to protect the Exchange Server 2007 CCR environment. What needs to be considered when designing a backup solution?

- A. Microsoft Exchange Server 2007 system path and transaction logs must reside on separate directories.
- B. Exchange server can only be backed up through a Proxy Node.
- C. Microsoft Exchange Server 2007 database and transaction logs must reside on the same volume.
- D. Exchange server can be backed up from the Exchange Server 2007 CCR passive node.

Correct Answer: A Section: (none) Explanation

Explanation/Reference:



QUESTION 68

A customer is considering an EMC Avamar backup solution, they have askedwhether the backup data stored inside the Avamar server can be protected with encryption.

What are the "encryption-at-resr considerations?

- A. Can only be set at installation and impacts available capacity
- B. Can be set at anytime and impacts available capacity
- C. Can onlybe set at installation time and has no performance penalty
- D. Can be changed at anytime and has no performance penally

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 69

You are designing a backup solution for an EMC NetWorker customer. Based on EMC best practices, how many CPU cycles are needed by tie storage node when backing up clients over the network to local tape drives at a rate of 100 MB/s?

A. 0.2 GHz

B. 0.5 GHz

C. 1.2 GHz

D. 2.4 Ghz

Correct Answer: B Section: (none) Explanation

Explanation/Reference:

QUESTION 70

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A potential EMC customer has a T1 circuit betweentheir production data centreand their disasterrecoverydata centre that are 2,000 miles apart. They currently backup their Linux systems to physical tape using HP Data Protector They backup an average of 20 TB each night. The customer wants a backup solution that improves backup and restore reliability treduces overall costs. and eliminates physical tape.

What is recommended solution?



- A. Data Domain with replication over IP
- B. EMC Disk Library with Remote Copy over IP
- C. EMC Disk Library with Consolidated MediaManagement over FC
- D. Data Domain with OST and replication over IP

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 71

A long-term EMC SRDF customer wants to make their backups tapeless. The customer has asked for your recommendation on the bandwidth required for replication of 10 TB of daily backup data that is currently going to tape nightly. Bandwidth is provided by two OC-3 circuits between the source and target data center locations.

Which information is needed to architect a solution for the customer?

- A. Available bandwidth, latency, and throughput objective
- B. Total bandwidth, trace route, and hops
- C. Circuit distance, line condition, and transmission rate
- D. Total bandwidth, latency, and compression rate

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 72

A customer has asked you to assess their current backup environment. The environment is currently using an offsite physical tape vaulting rotation for compliance purposes. What is a key concern that you should discuss with the customer?

- A. Recovery data is at least one backup cycle behind the production site in the event of a disaster
- B. Media retention period consideration is three times the length of the RPO value
- C. Need for additional resources during the backup window for the production data
- D. Amount of tape media is consistently double the size of the actual production data



Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 73

You are designing a Data Protection Advisor (DPA) solution to support a NAS environment. The environment consists of a Celerra, a NetApp file server, a backup infrastructure of 185 NetWorker clients, and 300 Symantec NetBackup clients. What are the appropriate DPA licensing requirements?

- A. Backup option for 500 clients and one file server option for each NAS system
- B. Backup option for 185 NetWorker and 300 NetBackup clients, and 1 Celerra, and 1 NetApp client
- C. Backup option for 500 clients and a single file server option for the NAS systems
- D. Backup option for required client count, a Celerra file server, and a NetApp file server option

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

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QUESTION 74

A customer is considering an EMC Avamar backup solution. They want to know whether Avamar can provide the security benefit of data encryption between the clients and the Avamar server.

What are the "in-flight encryption" considerations?

- A. Can be changed at any time and has no performance penalty
- B. Can only be set at installation time and has no performance penalty
- C. Can be changed at any time and has a significant performance penalty
- D. Can only be set at installation and has a significant performance penalty

Correct Answer: A Section: (none) Explanation

Explanation/Reference:



QUESTION 75

An EMC Avamar customer has a heavily utilized ESX system where CPU utilization is a concern. Each guest system, all of which are Linux, must be backed up with file granularity. The customer has both Avamar and NetWorker available and is looking to EMC for guidance What is considered the most suitable approach to meet these requirements?

- A. Install the Avamar agent directly on each guest system
- B. Install the NetWorker agent directly on each guest system
- C. Use Avamar VCB to offload the ESX server
- D. Use NetWorker VCB to offload the ESX server

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 76

A customer wants to deploy encryption-at-rest for Avamar. When sizing a new solution, which key encryption-at-rest factor(s) should be considered?

- A. Consumes more system resources
- B. Does not require significant system resources
- C. Consumes more resources and requires 35% more disk capacity
- D. Requires 50% more disk capacity

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 77

A potential Avamar customer has 4 TB of data to back up, which is spread across many clients. All clients are in the same data center as the Avamar server with Gigabit Ethernet connecting all hosts. The customer has a requirement to perform their initial backups within 80 hours. What is the minimum number of 2 TB data nodes needed to satisfy this requirement?

- A. 3
- B. 6
- C. 10



D. 16

Correct Answer: C Section: (none) Explanation

Explanation/Reference:

QUESTION 78

A customer wants to back up VMware using Avamar to leverage deduplication. They have been and want

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to continue performing VCB backups.

Where will the Avamar client and the Avamar VCB Interoperability Module be installed?

- A. Backup proxy server
- B. ESX server and backup proxy server
- C. Virtual machines guest operating system
- D. Virtual machines and backup proxy server

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 79

An EMC Avamar customer wants to start backing up their VMware environment. The customer's goal is to obtain the highest level of data deduplication support for file system and application backups. In addition, they do not want to have to train their administrators on a new backup method. Which method of VMware backup will meet the customer's needs?

- A. Install an Avamar agent on each guest OS
- B. Install the Avamar agent on the ESX server console
- C. Use a snapshot mounted to a proxy server over the SAN
- D. Use VMware Consolidated Backup

Correct Answer: A Section: (none)

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Explanation

Explanation/Reference:

QUESTION 80

A new EMC Avamar customer wants advice on setting up their groups and schedules. The customer has a mixed environment and is migrating from a traditional tape backup solution with a mixed retention policy. Which follows EMC best practices for setting up groups and policies?

- A. Minimize the number of groups, combine different OSs in datasets, and implement advanced retention.
- B. Group clients by OS, make unique datasets for each OS, and create unique retention policies for Monthly, Daily, Weekly, and Yearly.
- C. Enable the default group and use the group for all policies. Every client is added to this groupupon activation.
- D. Create a unique group for each dataset, schedule, and retention.

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 81

An EMC Avamar customer has a file server with 3 million files. Using the default cache setting, how much of the physical RAM is required on the client for the Avamar file cache?

- A. 133 MB
- B. 512 MB
- C. 1.5 GB
- D. 4 GB

Correct Answer: C Section: (none) Explanation

Explanation/Reference:

QUESTION 82

An existing Avamar customer wants to add a new large client to their Avamar system. This is a moderately full Avamar single-node server running in steady-state. What is the estimated time to ingest the customer's large file system if the size, after deduplication, is 10

GB?

A. 10 - 20 minutes

B. 30 minutes

C. 1 hour

D. 2 - 4 hours

Correct Answer: D Section: (none) Explanation

Explanation/Reference:

QUESTION 83

A new Avamar customer is concerned with data security since all backup data is stored on disk. To minimize the customer's concerns, you have recommended the encryption-at-rest feature.

What is a consideration when using this feature?

- A. Must be enabled at install time and results in noticeable performance reduction
- B. Can be enabled anytime and requires additional GSAN capacity
- C. Must be enabled on a per-client basis and has no impact on performance
- D. Must be enabled on a per node basis and requires the use of the consolidate option for backups

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 84

An EMC NetWorker customer is currently performing all backups to physical tape. This includes multiple 7 TB databases with 2 weeks retention. Their current tape libraries are approaching end of support life. The customer has asked for an EMC recommendation that will improve operational backup and restore reliability. What will meet the customer's requirements?

- A. EMC Disk Library
- B. Data Domain



C. Avamar

D. Deduplication Node

Correct Answer: A Section: (none) Explanation

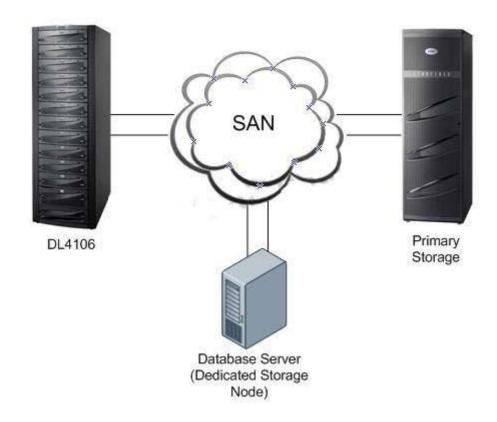
Explanation/Reference:

QUESTION 85

An EMC NetWorker customer is planning on directing the backups of a database server to the single-engine EMC Disk Library (EDL) as shown in the exhibit. The data to be backed up is accessed by the host through a redundant connection and resides on primary storage. Based on EMC best practice, what needs to be adjusted in the solution?

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- A. Add a separate HBA to the dedicated storage node for EDL traffic
- B. Replace the dedicated storage node with a standard storage node
- C. Add a proxy host
- D. Implement a second single-engine EDL for redundancy

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 86

A customer is interested in implementing two DL4000 systems. One system is located at a central site. The second is at a remote site as a target for Remote Copy operations. Policies will be configured to replicate certain tapes to the target.



Which process is necessary to make the virtual tapes available on the target?

- A. Promote the replica resources to virtual tapes and move them into a VTL
- B. Move the replicated virtual tapes from the virtual vault to a VTL
- C. Remove the replication setting on the target virtual tapes to make them write enabled
- D. Import the replicated virtual tapes on the target

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 87

A potential EMC customer has a T1 circuit between their production data center and their disaster recovery data center that are 2,000 miles apart. They currently back up their Linux systems to physical tape using HP Data Protector. They back up an average of 20 TB each night. The customer wants a backup solution that improves backup and restore reliability, reduces overall costs,

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and eliminates physical tape. What is a recommended solution?

- A. Data Domain with replication over IP
- B. EMC Disk Library with Consolidated Media Management over FC
- C. EMC Disk Library with Remote Copy over IP
- D. Data Domain with OST and replication over IP

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 88

A customer uses EMC NetWorker on HP-UX to back up 20 TB per day to physical tape. They currently restore 10 TB of database data twice a week. The customer needs a new backup solution that will reduce backup and restore times and is highly available.

What is a recommended EMC solution?

A. Dual-engine EMC Disk Library appliance without AEF



- B. Dual-engine Data Domain appliance with OST
- C. Dual-engine EMC Disk Library appliance with AEF
- D. Dual-engine Data Domain appliance without OST

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 89

A customer is interested in using a Remote Copy policy to replicate data between two single-engine EMC Disk Library (EDL) systems. The customer is concerned about the readiness of replicated tapes in case of a failure on the source system.

What can be done to minimize the exposure on the target?

- A. Use small virtual tapes
- B. Implement a TCP network accelerator
- C. Use jumbo frames
- D. Increase the number of EDL ports connected to the IP network

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 90

An EMC customer is evaluating a single-engine EMC Disk Library (EDL) system. They placed the EDL on their test infrastructure and performed 15 simultaneous backup jobs. The customer is concerned that the overall performance numbers are substantially lower than the published numbers. Each job is sent to a separate virtual tape at an average rate of 18 MB/s. The EDL is connected to the SAN through two FC ports at 4 GB/s. There are a total of 15 LUNs for virtual tape storage. The infrastructure has been certified to sustain performance in excess of the EDL's capability. What would you recommend to improve the overall performance?

- A. Increase the number of simultaneous streams to at least 22
- B. Disable Remote Copy
- C. Increase the number of FC port connections to 4 and redistribute the tape drive assignment
- D. Disable Capacity on Demand



Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 91

A Symantec NetBackup customer is planning to add a second data center. They would like to leverage

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deduplication technology to improve backup operations and disaster recovery with a minimum amount of change to their existing backup environment. The customer's primary design goals are:

- 1. Improve backup performance
- 2. Electronic vaulting for disaster recovery
- 3. Maintain NetBackup as their primary tool for backup control and visibility What should be included with a high-end Data Domain appliance?
- A. NetBackup OST
- B. 8 GB Fibre Channel
- C. iSCSI over 10 GB Ethernet
- D. CIFS protocol over 10 GB Ethernet

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 92

A customer has two files that have been locked and backed up to the Data Domain appliance with the following parameters:

- . File1 = atime = 20 years
- . File2 = atime = 5 years

The Data Domain global retention periods are configured as follows: .

Min = 2 years

. Max = 10 years

The administrator changes the Data Domain maximum retention period to 4 years. After how many years can File2 be deleted?

- A. 2
- B. 4
- C. 5



D. 10

Correct Answer: C Section: (none) Explanation

Explanation/Reference:

QUESTION 93

A customer performs weekly full backups and daily incremental backups. A typical full backup is 5 TB. There is usually a 20% daily change rate in data. A full backup completes in 10 hours while an incremental backup completes in 4 hours. Based on best practices, what is the minimum Data Domain throughput required?

A. 292 333 GB/hr

B. 450 550 GB/hr

C. 585 666 GB/hr

D. 1170 1332 GB/hr

Correct Answer: C Section: (none) Explanation

Explanation/Reference:

QUESTION 94

The EMC account team has been asked to design a NetWorker backup solution. The customer's environment consists of a Microsoft Exchange Server 2007 Cluster Continuous Replication (CCR) deployment on a CLARiiON disk array with EMC VSS Provider and an EMC Disk Library. The customer wants to leverage the Microsoft VSS framework to back up their Exchange server from the

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Exchange Server 2007 CCR passive node. What needs to be considered when designing this backup solution?

- A. Backup from the Exchange Server 2007 CCR passive node will fail after Exchange Server 2007 CCR role change
- B. NetWorker Module for Exchange needs to be installed on both the Exchange Server 2007 CCR active node and passive node
- C. Exchange Server 2007 database and transaction logs must reside on the same volume
- D. Exchange Server 2007 system path and transaction logs must reside on separate directories

Correct Answer: A



Section: (none) Explanation

Explanation/Reference:

QUESTION 95

The EMC account team has been asked to design a NetWorker backup solution for a Microsoft Exchange server. The customer's environment consists of a Microsoft Exchange Server 2007 Cluster Continuous Replication (CCR) deployment on a CLARiiON disk array with EMC VSS Provider and an EMC Disk Library.

The customer wants to leverage the Microsoft VSS framework to protect the Exchange Server 2007 CCR environment. What needs to be considered when designing a backup solution?

- A. Exchange server can be backed up from the Exchange Server 2007 CCR passive node
- B. Exchange server can only be backed up through a Proxy Node
- C. Microsoft Exchange Server 2007 database and transaction logs must reside on the same volume
- D. Microsoft Exchange Server 2007 system path and transaction logs must reside on separate directories

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 96

An EMC NetWorker customer is considering implementing NetWorker AES encryption to secure backups on one of their application servers. What is a concern when using AES?

- A. Increased CPU utilization on the backup client
- B. Tape must be used as a destination device
- C. Backup data cannot be multiplexed
- D. Increased CPU utilization on the backup server

Correct Answer: A Section: (none) Explanation

Explanation/Reference:



QUESTION 97

The EMC account team has been asked to design a new EMC NetWorker backup solution for Microsoft Exchange Server 2007. The customer's environment consists of Microsoft Exchange Server 2007 hosted on an EMC CLARiiON disk array with EMC VSS Provider and an EMC Disk Library. Your design needs to include a server-less backup solution for the Microsoft Exchange Server 2007 environment by leveraging the Microsoft VSS framework. What is a recommended approach to meet the customer's requirements?

- A. NetWorker Module for Microsoft Applications
- B. NetWorker PowerSnap Module
- C. NetWorker Module for Microsoft Exchange Server
- D. NetWorker VSS Client for Microsoft Windows 30 / 67

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 98

A customer has had a failure of the primary deduplication node and needs EMC NetWorker to recover the data from the replication node. What will enable recovery from the replication target node?

- A. Replication node is specified in the replication node field of the client resource
- B. NetWorker deduplication node is configured as a dedicated replication target
- C. Replication between deduplication nodes is controlled by the NetWorker server
- D. Replication process and restore of replicated data require native Avamar for recovery

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 99

You are adding an Avamar deduplication node to a customer's EMC NetWorker environment. Clients currently back up to tape and perform full backups on Sunday and incrementals on all other days. In the new solution, these clients will back up to the deduplication node. The speed of recovery is important to the customer. Which changes may be required to the backup schedule?

A. Perform Full on Sunday and Level 1 backups on all other days of each week



- B. No changes are required to the backup schedule
- C. Perform initial Full backup and Level 1 backups forever
- D. Perform Full backups every day

Correct Answer: D Section: (none) Explanation

Explanation/Reference:

QUESTION 100

You are redesigning an EMC NetWorker customer's backup solution. Currently some of the file system clients are backing up to an Avamar deduplication node. The customer wants to back up these clients to a new Avamar deduplication node. What is an implication of this decision?

- A. New instance of each client must be created on the NetWorker server
- B. New full deduplication backup of each client is required
- C. Clients must first be retired on the old deduplication node
- D. All previously backed up data must first be replicated to the new deduplication node

Correct Answer: B Section: (none) Explanation

Explanation/Reference:

QUESTION 101

An EMC NetWorker customer performs daily full LAN backups of a busy application server to physical tape. The application server uses the compressasm directive to reduce LAN backup traffic. While the backup completes within the required backup window, the customer notices that the application is performing poorly.

What can be done to improve application performance while maintaining minimum network traffic?

- A. Disable software compression
- B. Increase the max sessions on the tape drive
- C. Install a dedicated storage node on the backup client
- D. Replace the physical library with an EMC Disk Library 31 / 67



Correct Answer: C Section: (none) Explanation

Explanation/Reference:

QUESTION 102

In an EMC NetWorker environment, a firewall is configured to allow communication over ports 9000 and 9001 from the DMZ. The NetWorker Management Console can be accessed from the DMZ but database queries cannot be performed. Which port needs to be opened on the firewall?

A. 111

B. 2638

C. 7937

D. 7938

Correct Answer: B Section: (none) Explanation

Explanation/Reference:

QUESTION 103

Based on EMC best practices, when sizing a NetWorker storage node, how many CPU MHz are recommended for each MB/s of data backed up?

A. 5

B. 10

C. 12

D. 24

Correct Answer: C Section: (none) Explanation

Explanation/Reference:

QUESTION 104

A customer uses EMC NetWorker with a deduplication node. The deduplication node is physically located in a remote office connected by a slow link.



The customer is using an AFTD to store the save set containing the deduplicated backup metadata. What is the NetWorker behavior if the deduplication node is unavailable?

- A. Perform a non-deduplication backup sending all backup data to the defined device
- B. Fail the backup, indicating the deduplication node is unavailable
- C. Perform a non-deduplication backup sending all data to the default pool
- D. Attempt to contact the deduplication node for a maximum of one hour before failing the backup

Correct Answer: B Section: (none) Explanation

Explanation/Reference:

QUESTION 105

An EMC NetWorker customer is considering backup options for their VMware environment. What is an advantage of using the VMware Console Backup option?

- A. File-level restore granularity
- B. No proxy server is required
- C. No load on the ESX server during backups
- D. Application backup data is crash-consistent

Correct Answer: B Section: (none) Explanation

Explanation/Reference:

QUESTION 106

An EMC customer has been using NetWorker backup and has recently added an Avamar system for file

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system backups. The customer wants to move all backups to the Avamar system to take advantage of deduplication. They are currently backing up Sybase and SAP with NetWorker.

What is your recommendation to meet these requirements?

A. Configure Avamar as a deduplication Storage Node in NetWorker to administer all backups



- B. Utilize native database tools to back up to flat files, then use Avamar to back up the resulting files
- C. Use pre- and post-processing scripts to shut down the databases and perform a cold backup with Avamar
- D. Use snapshots to mount the databases to a proxy server for backups

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 107

An EMC NetWorker customer has been using an EMC Disk Library (EDL) for over 4 years. The EDL has reached its capacity limits. The customer is in the process of virtualizing as many physical servers as possible to reclaim data center floor space. They are backing up numerous 8 TB databases. The customer is interested in replacing the EDL. The replacement must maintain a single point of backup administration and reduce backup times for their growing virtualized environment.

What is the recommended solution?

- A. Add a deduplication Storage Node to NetWorker for VMware backups and replace the EDL with Data Domain for large databases
- B. Add an Avamar Data Store for VMware backups with Data Domain under NetWorker for physical servers and large databases
- C. Add Data Domain for deduplication under NetWorker to replace the EDL for VMware and Avamar for database backups
- D. Add Data Domain under NetWorker to replace the EDL for VMware and a deduplication Storage Node for database backups

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 108

The EMC account team has been asked to design a NetWorker backup solution for a VMware ESX environment with the following requirements:

- 1. Supports online backup of their Microsoft Exchange server running on the virtual machine.
- 2. Supports file-level backup and recovery for all virtual machines running Microsoft Windows.

What is a recommended backup solution?

- A. VMware guest backup
- B. VMware Consolidated Backup
- C. VMware service console backup
- D. NetWorker PowerSnap backup



Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 109

A customer is piloting a Data Domain system.

Based on the Data Domain statistics represented in the exhibit, which type of data is being backed up?

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SSH Session# system show stats 2

10/29 12:34:26 INTERVAL: 2 secs

CPU FS		FS	Net MB/s		Disk KIB/S		Disk	NVRAM	Repl
busy	ops/s	proc	in	out	read	write	busy	KiB/s	KB/s
10%	119	7%	17951	436	234	7532	2%	17816	0
9%	121	7%	17651	413	232	6543	1%	17455	0
10%	120	7%	17831	424	234	3405	2%	17663	0
8%	121	7%	18269	455	231	3345	3%	18111	0
9%	105	7%	17829	433	123	8345	5%	17654	0
10%	90	7%	17440	422	123	3453	2%	17322	0

A. Redundant data

B. New data

C. Encrypted data

D. Block data

Correct Answer: B Section: (none) Explanation

Explanation/Reference:



QUESTION 110

A data center company is using two EMC NetWorker servers (NetWorker_A and NetWorker_B). Each server has three storage nodes to protect 650 server applications and data. The total amount of data being backed up is 100 TB. NetWorker_A server protects 60 TB and NetWorker_B server protects 40 TB. To minimize cost and ease licensing management for NetWorker, the company decided to switch from a traditional licensing model to a capacity licensing model. How many licenses are needed to support the company's requirements?

- A. 2 Source Capacity Datazone Enabler and Source Capacity 10 TB tier 4 licenses
- B. 2 Source Capacity Datazone Enabler and Source Capacity 10 TB tier 3 licenses
- C. 2 Base license and 10 Source Capacity TB tier 3 licenses
- D. 2 Source Capacity Datazone Enabler and 650 Standard Client Connection licenses

Correct Answer: D Section: (none) Explanation

Explanation/Reference:

QUESTION 111

A customer has a large VMware environment that they are currently backing up using the EMC Avamar client option at the guest level. Performance has never been an issue. As the customer adds more guests, how can they avoid performance issues?

- A. Create a production network for Avamar client backups
- B. Run full backups on the ESX host
- C. Limit simultaneous backups of guests on a single ESX host
- D. Configure SHA-5 on the ESX host

Correct Answer: C Section: (none) Explanation

Explanation/Reference:

QUESTION 112

A customer has asked you to design an EMC Avamar and Data Domain integrated solution for their environment. As you review the design for the Microsoft Exchange portion of the solution, the customer would like you to explain the backup process.

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How would you respond?

- A. Avamar instructs the Exchange server to send both backup data and metadata to the Data Domain appliance
- B. Work order is received from the Avamar server backup data is sent to the Data Domain appliance, and then metadata is sent to the Avamar
- C. Exchange API, using a plug-in, sends all data directly to the Data Domain appliance
- D. Work order is sent from the Avamar Management Console to the Exchange server, and then data and metadata are sent to the Avamar system

Correct Answer: B Section: (none) Explanation

Explanation/Reference:

QUESTION 113

You are designing an EMC NetWorker deduplication solution using EMC Avamar for a customer. When performing a backup containing multiple save sets to a deduplication node, what is the recommended maximum number of save sets that can be backed up concurrently?

- A. 2
- B. 4
- C. 6
- D. 8

Correct Answer: B Section: (none) Explanation

Explanation/Reference:

QUESTION 114

A customer is using Data Protection Advisor (DPA) to perform system monitoring of both Microsoft Windows and Solaris clients. When deciding where to place the Collector(s) in the environment, what is a consideration?

- A. The Collector installed on the DPA server host can monitor all hosts in the environment.
- B. A Collector installed on one of the Windows hosts can monitor other Windows hosts.
- C. A Collector must be installed on each Windows host.
- D. One Collector is required to monitor Windows hosts and one Collector is required to monitor Solaris hosts.



Correct Answer: D Section: (none) Explanation

Explanation/Reference:

QUESTION 115

A customer has data at several remote offices that need to be backed up over a secure Internet connection to their data center. However, bandwidth is constrained. A major portion of their backup data will be file system data. In addition, they have a 6 TB database in the primary data center with a 6% change rate that needs to be backed up.

Which EMC backup solution will work best for this customer?

- A. Avamar with AVE
- B. Avamar-Data Domain integration
- C. NetWorker with Data Domain VTL
- D. NetWorker with VTL

Correct Answer: B Section: (none) Explanation

Explanation/Reference:

QUESTION 116

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A customer is concerned about data remaining on their new EMC Avamar system after an individual backup is deleted. The securedelete function has been run after the backup was deleted. To ensure the process is complete, what else should be done?

- A. Run garbage collection on the Avamar server
- B. Roll back any checkpoints that contain the data and execute securedelete
- C. First execution of the securedelete function will remove all data
- D. Administrators should modify the user account to prevent access

Correct Answer: B Section: (none) Explanation

Explanation/Reference:



QUESTION 117

You are having a preliminary discussion with a prospective customer. The customer would like to know the deduplication rates that are typically when running initial EMC Avamar backups for file system and database data.

Which information should be provided to the customer?

A. File System = 20% Database = 80%

B. File System = 50% Database = 50%

C. File System = 70% Database = 35%

D. File System = 80% Database = 20%

Correct Answer: C Section: (none) Explanation

Explanation/Reference:

QUESTION 118

As shown in the exhibit, a customer has configured EMC Data Domain for management. They have noticed performance issues when using the configuration. How many Mtrees should be removed to improve the performance?

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A. 1

B. 2

C. 3

D. 4

Correct Answer: C Section: (none) Explanation

Explanation/Reference:

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QUESTION 119

A customer performs weekly full backups and daily incremental backups. A typical full backup is 5 TB. A full backup completes in 10 hours v incremental backup completes in 4 hours. Based on best practices, what is the minimum EMC Data Domain throughput required?



Α.	292	- 333	GB/hr
┌.	Z3Z	- 000	00/11

B. 340 - 440 GB/hr

C. 585 - 666 GB/hr

D. 1170-1332 GB/hr

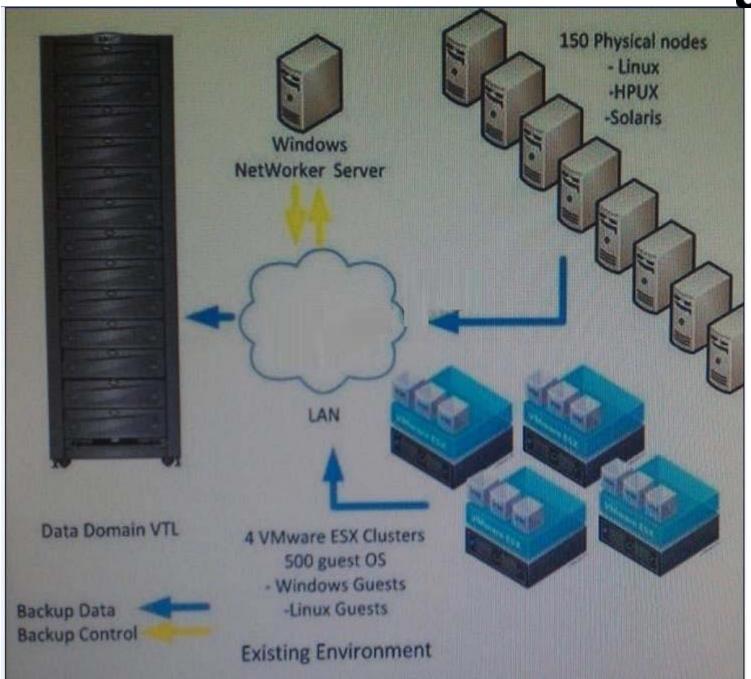
Correct Answer: C Section: (none) Explanation

Explanation/Reference:

QUESTION 120

A customer is running the backup and recovery configuration shown in the exhibit. They added a new VMware cluster with 100 virtual machines. They are now experiencing slow backups at certain times. What should the customer have done prior to making changes to the configuration?

VCEPlus





- A. Increase EMC NetWorker server memory
- B. Capture baseline performance of the backup environment
- C. Configure alert notification of the backup environment
- D. Add network cards to the EMC NetWorker server

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

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QUESTION 121

A customer is interested in using Data Protection Adviser (DPA) for monitoring TimeFinder replication on their Symmetric arrays. After discussing the Recoverability Analysis features within DPA, they are interested in a proof of concept.

Which operating system and database requirements should be provided to the customer for the DPA server?

- A. Linux server running Oracle or iAnywhere
- B. UNIX or Linux server running iAnywhere
- C. Windows server running Oracle
- D. Windows server running iAnywhere or SQL

Correct Answer: C Section: (none) Explanation

Explanation/Reference:

QUESTION 122

You are designing a Data Protection Advisor (DPA) solution for a customer. As a part of the engagement, you are required to configure the DPA stores. What is the minimum size you would recommend for configuring the stores?

A. Config: 150 MB DataminE.5 MB Illuminator: 1 MB
B. Config: 150 MB DataminE.5 GB Illuminator: 1 GB
C. Config: 150 GB DataminE.5 MB Illuminator: 1 GB
D. Config: 150 GB DataminE.5 GB Illuminator: 1 GB

Correct Answer: B



Section: (none) Explanation

Explanation/Reference:

QUESTION 123

A customer wants to know why their backup performance to an EMC Avamar multi-node server has decreased. Initially they were seeing an ingest rate of approximately 5 to 7 GB/hr/node. Recently they estimated that the ingest rate has slowed to around 3 to 5 GB/hr/node. What is a probable cause for the decrease in the average ingest rate?

- A. Garbage collection is not running causing new stripes to be created
- B. HFS check has found errors and has not been completing successfully
- C. A large number of backups have expired causing new, relatively empty stripes to be created
- D. Stripes contain more data and steady state has been achieved

Correct Answer: C Section: (none) Explanation

Explanation/Reference:

QUESTION 124

You are designing a backup solution for an EMC NetWorker customer. Given a conservative estimate, how many CPU cycles are needed by the storage node when backing up clients over the network to local tape drives at a rate of 100 MB/s?

- A. 0.2 GHz
- B. 0.5 GHz
- C. 1 GHz
- 39 / 67
- D. 2 GHz

Correct Answer: C Section: (none) Explanation

Explanation/Reference:

QUESTION 125



A customer's environment consists of the following:

-Linux servers with an Oracle database -Microsoft Windows with SQL -Full weekly backups for Oracle with a one-month retention period -Dairy incremental with a two-week retention -Full weekly backups for SQL with two retention periods

You collect the information in order to determine the capacity needed for an EMC Data Domain solution. Which calculation will show the best trade-off between retention and compression?

- A. Calculations with the compression rate for the database
- B. Calculations with longer retention times
- C. Calculations across a range of retention times
- D. Calculations with minimal compression rates

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 126

An EMC NetWorker customer is experiencing poor backup performance. Your analysis determines that significant host resources are used to manage low-level network handshaking operations during backup. Based on EMC recommendations, what can be done to alleviate the handshake issue?

- A. Install 3 TCP offload engine card
- B. Install a second network interface card
- C. Upgrade the LAN
- D. Upgrade the network driver

Correct Answer: B Section: (none) Explanation

Explanation/Reference:

QUESTION 127

A customer has a new EMC Avamar server with four 3.9 TB data nodes. This server is backing up two Avamar clients. The first client has 10 GB of RAM and two file systems. The first file system has 2 million files consuming .75 TB. The second file system contains 3 million files consuming 1 TB of space. The second client has 8 GB of RAM and one file system containing 4 million files is consuming 1.2 TB of space. Both clients will belong to the same backup group. How long will the steady state backup group be expected to run?

A. 4 hours



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C. 6 hours

D. 9 hours

Correct Answer: D Section: (none) Explanation

Explanation/Reference:

QUESTION 128

A customer is planning a new database rollout using Oracle and wants to perform online backups. Initial tests with EMC NetWorker have shown that the backups cannot be completed within the backup window of six hours.

You have analyzed the backup environment and there are adequate resources to meet this backup

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window. What is one of the first things to check in NetWorker or RMAN to increase performance without adding cost and complexity?

- A. Number of streams should match the number of target devices to be written to concurrently
- B. All large system tables are excluded from the daily backups
- C. RMAN multiplexing setting is equal to NetWorker multiplexing
- D. Maximum number of files in a saveset is greater than the maximum number of open files

Correct Answer: C Section: (none) Explanation

Explanation/Reference:

QUESTION 129

You are redesigning an EMC NetWorker customer's backup solution. Currently all file system clients are backing up to an EMC Avamar deduplication node. The customer wants to add another Avamar server and back up some of the larger clients to the new Avamar deduplication node. What is the impact of this decision?

- A. New initial full backups of these clients must be run
- B. Existing backups on the old deduplication node for these clients must be expired
- C. Previously backed up data for these clients must be replicated to the new deduplication node



D. New NetWorker client resources must be created

Correct Answer: D Section: (none) Explanation

Explanation/Reference:

QUESTION 130

When sizing an EMC Avamar or Data Domain solution, what are important challenges that should be taken into consideration?

- A. Data types, change rate, and growth rate
- B. Hardware type, change rate, and backup policy
- C. Data frequency type, and backup and restore policies
- D. Industry growth rate and deduplication ratio

Correct Answer: C Section: (none) Explanation

Explanation/Reference:

QUESTION 131

A customer is considering EMC Avamar for backing up servers in their remote offices. Currently they are facing WAN capacity issues and the backup of their Microsoft Exchange server at the primary site is critical. Which type of Avamar solution is suitable for the customer's environment?

- A. Single-node Avamar server at the primary
- B. Multi-node Avamar server for the remote offices
- C. AVE at each remote office location
- D. Centralized Avamar servers

Correct Answer: B Section: (none) Explanation

Explanation/Reference:

QUESTION 132



An EMC Data Domain customer has ordered three expansion shelves to increase the active tier storage capacity for backup. After successfully installing the new expansion shelves, the Data Domain GUI is partially showing the new extra capacity.

What is the reason for this issue?

- A. One Active tier and one Archive tier licenses are needed 41 / 67
- B. Data Domain needs to be reconfigured to recognize the new capacity
- C. Only one Expansion Storage license was not installed
- D. Only one Shelf Capacity license was installed

Correct Answer: D Section: (none) Explanation

Explanation/Reference:

QUESTION 133

The EMC account team has been asked to design an EMC NetWorker backup solution for a VMware ESX environment with the following requirements:

- 1. Online backup of the Microsoft Exchange server running on a virtual machine
- 2. File-level backup and recovery for all virtual machines running Microsoft Windows.

Which backup solution addresses both requirements?

- A. vCenter backup
- B. Proxy backup
- C. Guest backup
- D. Image backup

Correct Answer: B Section: (none) Explanation

Explanation/Reference:

QUESTION 134

An EMC Data Domain customer is planning to implement a replication solution in order to have their production environment protected at a remote site. The bandwidth for their SRDF replica is 40 Mbps which they are planning to share with the Data Domain replica. Based on the exhibit and given an 8-hour replication window, which information will determine the bandwidth requirements?

Filesys Compress:					
From: 2011-08-23	06:00 To: 2	2011-08-30 0	5:00		
	Pre-Comp (GiB)	Post-Comp (GiB)	Global-Comp Factor	Local-Comp Factor	Total-Comp Factor (Reduction %)
		18200.5			27.8x (96.4)
Currently Used: Written:*	505616.3	16200.5			21.00 (2011)
Last 7 days	46268.3	1415.3	18.2x	1.8x	32.7x (96.9)
Last 24 hrs	5903.4	176.0	18.2x	1.8x	33.5x (97.0)

- A. Post-Comp in the last 24 hours
- B. Pre-Comp in the last 7 days
- C. Currently used Post-Comp
- D. Post-Comp in the last 7 days

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 135

An existing EMC Avamar customer wants to add a new file system client to their Avamar system. This is a moderately full Avamar single-node server running in steady state. What is the estimated time to backup this file server of 3 million files?

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Δ	Less	than	1	hour
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B. 1-2 hours

C. 3-4 hours

D. 5-6 hours

Correct Answer: C Section: (none) Explanation

Explanation/Reference:

QUESTION 136

You are discussing various EMC assessments to a customer. They want to know the basic difference between Data Deduplication Assessments (DDAA) and Data Deduplication Assessments (DDAB) assessments. How would you respond to the customer's inquiry?

- A. DDA A scans and reports on the file structure. DDAB reports, in detail, on the files themselves
- B. DDA.reports on and evaluates the contents of the file for deduplication DDAB reports commonality and characteristics of the files.
- C. DDA A runs a simulated backup of the share and reports on the characteristics. DDAB examines the contents of the file to determine the ability to deduplicate.
- D. DDAA is a single pass scan DDAB is a multiple pass scan of the file system or database.

Correct Answer: C Section: (none) Explanation

Explanation/Reference:

QUESTION 137

At a customer meeting, you discover that the backup administrator is new to the position. What can be used to determine the health of their backup environment?

- A. Asset Management and Planning Appliance
- B. Data Deduplication Assessment
- C. EMC Backup Assessment
- D. File System Assessment

Correct Answer: B



Section: (none) Explanation

Explanation/Reference:

QUESTION 138

An existing customer has an EMC Data Domain system that is the same model as that used in the Data Domain Archiver. The customer has decided to retain a portion of their backups for five years. They would like to upgrade their Data Domain system to an Archiver. Because the customer manages their existing Data Domain system, they would like to perform the installation themselves. How would you advise the customer?

- A. An upgrade to a Data Domain Archiver is not supported in the field
- B. A license must be purchased to expand the active tier above 146 TB
- C. Customer can convert a regular file system to an archive system
- D. An archive limitation of three years for all archive unit exists

Correct Answer: B Section: (none) Explanation

Explanation/Reference:

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QUESTION 139

A company purchased an EMC Avamar and Data Domain integrated solution six months ago. Their environment contains file system, Microsoft Exchange, and Microsoft SharePoint data. They are now ready to purchase a replication solution to support their disaster recovery strategy. Which design supports their environment?

- A. Avamar primary server and Data Domain primary system replicating to a secondary Data Domain.
- B. Avamar primary server replicating internal data to the primary Data Domain system. Data Domain replicating to a secondary Data Domain.
- C. Avamar primary server replicating to an Avamar secondary server. Data Domain primary system replicating to a secondary Data Domain.
- D. Data Domain system replicating both Avamar and Data Domain to secondary systems.

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 140



An EMC NetWorker customer has an Oracle database client. To achieve acceptable backup performance, they have configured the backup to use multiple RMAN channels. The customer wants to add EMC Avamar deduplication for this backup.

What is a consideration before proposing this design change?

- A. Data from each RMAN channel must be sent to a separate deduplication node
- B. More than 2 RMAN channels in a deduplicated backup will cause the backup to fail
- C. Less than 4 RMAN channels in a deduplicated backup will perform poorly
- D. Multiple cache files are created on the client when using multiple channels

Correct Answer: D Section: (none) Explanation

Explanation/Reference:

QUESTION 141

A new customer is using EMC NetWorker to manage backup and recovery within their environment. They would like to have all backup data go to Advanced File Type devices and be spread across the four devices that they are currently using.

The customer wants to use an additional device for new streams once there are eight running on a single device Backups should not queue if another device is unavailable.

Which parameter should be set?

- A. Pool Parallelism
- B. Savegroup Parallelism
- C. Max Sessions
- D. Target Sessions

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 142

You are meeting with a customer regarding an EMC Avamar and Data Domain integrated solution. The customer states that they would like their backup window to be 24 hours.

What is a consideration?

A. Maintenance windows



- B. Multiplexing of backups
- C. Number of storage nodes 44 / 67
- D. Proprietary network infrastructure

Correct Answer: B Section: (none) Explanation

Explanation/Reference:

QUESTION 143

A customer wants to change their backup and recovery strategy for their VMware Windows environment. They do not need to use encryption for the backup of the virtual machines. The customer plans to implement Avamar full image backups. Over 80% of restore requests are for single files. As a result of the restore, which item is unavailable?

- A. ACL
- B. VMDK
- C. Proxy
- D. File

Correct Answer: B Section: (none) Explanation

Explanation/Reference:

QUESTION 144

A company has a business model where they purchase small companies and let them run independently. Storage, backup and recovery, and server technology implementations vary between the companies. The company has determined that they must initiate a backup and recovery strategy that will allow for recovery of any of the small companies in case of a complete site failure. In addition, they want to start to use a single standard model in an effort to move forward towards standardization across the entire enterprise.

A backup and recovery audit has found that the companies all use a basic method of backup and recovery consisting of enterprise backup software backing up to a tape library for all critical corporate data. The company wants to replicate backup sets from each site to their corporate location. Which EMC solution should be used to minimize impact on the environment while minimizing cost?

- A. Install Avamar as the backup technology at each site and replicate to a central Avamar for recovery
- B. Install Data Domain as a VTL for each site and replicate to a central Data Domain forrecovery
- C. Install Data Domain as a VTL with NetWorker for each site and replicate to a central Data Domain for recovery



D. Install NetWorker at each site and configure NetWorker Archiver to a central Data Domain for recovery

Correct Answer: C Section: (none) Explanation

Explanation/Reference:

QUESTION 145

A customer is piloting an EMC Data Domain system. Based on the Data Domain statistics shown in the exhibit, which type of data is being backed up?

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SSH Session# system show stats 2 10/29 12:34:26 INTERVAL: 2 secs									
CPU busy	FS ops/s	FS proc	Net ME	out	Disk Kit	3/s write	Disk busy	NVRAM KiB/s	Repl KB/s
10% 9% 10% 8% 9% 10%	119 121 120 121 105 90	7% 7% 7% 7% 7% 7%	17951 17651 17831 18269 17829 17440	436 413 424 455 433 422	234 232 234 231 123 123	7532 6543 3405 3345 8345 8345	2% 1% 2% 3% 5% 2%	17816 17455 17663 18111 17654 17322	0 0 0 0 0 0

- A. New data
- B. DD Boost backups



C. Redundant data

D. Replicated data

Correct Answer: C Section: (none) Explanation

Explanation/Reference:

QUESTION 146

An EMC NetWorker customer has been using an EMC Disk Library (EDL) for over four years. The EDL has reached its capacity limits. The customer is in the process of virtualizing as many physical servers as possible to reclaim data center floor space. They are backing up numerous 8 TB databases. The customer is interested in replacing the EDL and is concerned about the amount of backup traffic over the network. The replacement must maintain a single point of backup administration and reduce backup times for their growing virtualized environment.

What is the recommended solution?

- A. Replace the EDL with Data Domain using DD Boost
- B. Add a deduplication storage node to NetWorker for VMware backups and replace the EDL with Data Domain for large databases
- C. Add an Avamar server for VMware backups and use NetWorker with DD Boost to back up the physical servers and large databases to a Data Domain
- D. Add a deduplication storage node to NetWorker for database backups and replace the EDL with Data Domain for VMware and physical servers

Correct Answer: D Section: (none) Explanation

Explanation/Reference:

QUESTION 147

During final design conversations with an EMC Avamar customer, they indicate that they have certain data that needs to be carefully secured during transit. This data is typically transferred at different times and in different groups.

Which type of encryption would address the customer's concern?

- A. Blowfish encryption enabled at the group policy level
- B. AES-256 encryption automatically enabled for all backups
- C. AES-256 encryption set at the time of the backup operation
- D. AES-128 encryption set at the time of server installation 46 / 67

Correct Answer:



Section: (none) Explanation

Explanation/Reference:

Answer: C ReferencE.http://cloud.croc.ru/en/services/baas.php(expand details; see 5th bulleted point and 3rdsub bulleted point)

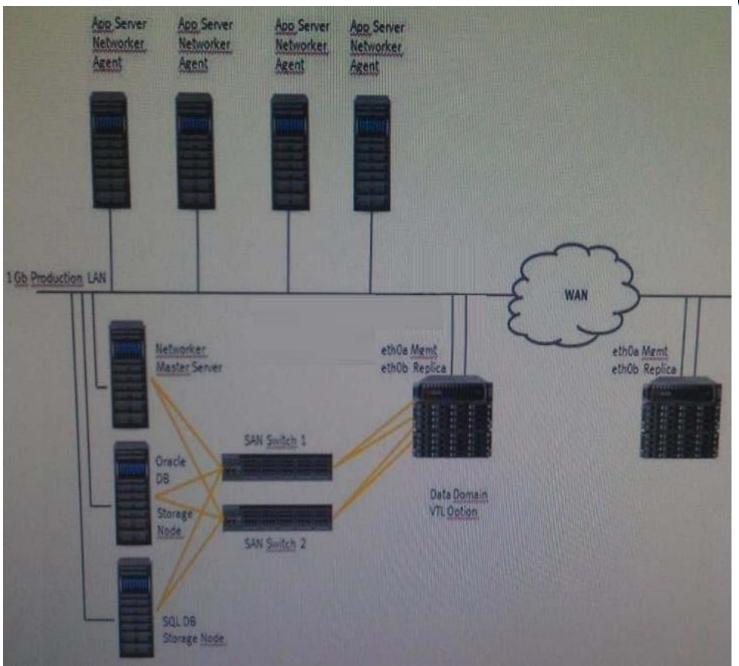
QUESTION 148

Refer to the Exhibit.

A customer is planning to have a disaster recovery solution for their backup environment. As part of Phase 1, they want a replica for their EMC Data Domain system. Due to some budget restrictions, they need to have a low investment solution.

What is the recommended minimum configuration needed for the replica?







- A. Replication on both Data Domain systems
- B. Replication and VTL on both Data Domain systems
- C. Optimized duplication on both Data Domain systems
- D. DD Boost and replication on both Data Domain systems

Correct Answer: C Section: (none) Explanation

Explanation/Reference:

QUESTION 149

An existing EMC NetWorker customer has been backing up their VMware environment using VMDKs to a CIFS-attached EMC Data Domain system. Recently, they have added another 80 TB to their primary VM storage. While their deduplication rates have exceeded expectations, they are starting to overrun their backup window.

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Which solution compliments their existing infrastructure?

- A. Introduce a VTL configuration to the Data Domain system and transfer data over Fibre Channel
- B. Add additional NetWorker storage nodes into the backup environment
- C. Switch the NetWorker VMDK configuration to a NetWorker guest client configuration
- D. Use Change Block Tracking on the VMware side and introduce DD Boost into the NetWorker and Data Domain configuration

Correct Answer: B Section: (none) Explanation

Explanation/Reference:

QUESTION 150

An EMC Avamar customer is in the testing phase of their new solution. They have backed up several clients and are now doing some restore tests. They have found that the restore time is not consistent. The restore time decreases if more than one attempt at the same restore is performed. Why is the customer seeing these results?

- A. Backup jobs are running
- B. Restore data is in memory



- C. Garbage collection is running
- D. Restore data is on faster disks

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 151

A new EMC Avamar customer wants advice on setting up their groups and schedules. They are migrating from a traditional tape backup solution with a mixed retention policy. Both Microsoft Windows and Solaris clients will be backed up.
What follows EMC best practices for setting up groups and policies?

- A. Minimize the number of groups by including the different operating systems in the same dataset and using advanced retention
- B. Create a unique group for each dataset, schedule, and retention policy
- C. Enable the default group and use that group for all backups as every client is added to this group upon activation
- D. Use a separate group and dataset for each operating system type and create unique retention policies for Monthly, Daily, Weekly, and Yearly backups

Correct Answer: D Section: (none) Explanation

Explanation/Reference:

QUESTION 152

An EMC NetWorker customer is backing up all clients using EMC Avamar deduplication. They have a requirement for backup redundancy for disaster recovery.

What is recommended to provide this protection?

- A. Replicate backup data in Avamar, clone deduplication metadata in NetWorker
- B. Replicate backup data and deduplication metadata in Avamar
- C. Replicate deduplication metadata in Avamar, clone backup data in NetWorker
- D. Clone backup data and deduplication metadata in NetWorker

Correct Answer: A Section: (none) Explanation



Explanation/Reference:

QUESTION 153

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A customer wants to improve the performance of their EMC Data Domain system. After checking their weekly reports, they notice that on the same day each week, file system performance is impacted. At first the customer thought the performance issue was caused by full backups that run on Friday. However, the performance issue is occurring on Tuesday.

What is a possible reason for this behavior?

- A. Cleaning throttle is set to 90
- B. Directory replication is running
- C. File system is in a disabled state
- D. Full database backups are running

Correct Answer: B Section: (none) Explanation

Explanation/Reference:

QUESTION 154

An existing EMC NetWorker customer is evaluating options for upgrades within their backup solution. The customer is interested in replacing their current tape-based infrastructure with a backup-to-disk product. The customer currently uses EMC VNX arrays for their SAN storage. The solution needs the ability to retain certain backups for long periods of time due to compliance reasons as well as minimize the amount of power and rack space required. In addition, all backups must go offsite on a daily basis.

Finally, the customer wants the ability to use a new 10 GigE infrastructure they are planning to deploy within their data center. They want to minimize the amount of disruption to their current daily procedures in order to avoid re-training existing staff.

Which storage solution can be integrated with NetWorker to satisfy these requirements?

- A. LUNs from the VNX
- B. DD Archiver appliance with VTL
- C. Avamar server
- D. DD Archiver appliance with DD Boost

Correct Answer: B Section: (none) Explanation



Explanation/Reference:

QUESTION 155

An EMC NetWorker customer is considering backup options for their VMware environment. The environment consists of Microsoft Windows file servers an Oracle database server running on Solaris. What is an advantage of using the VMware image backup operation?

- A. Application backup data is crash-consistent
- B. File-level restore granularity available for all systems
- C. Low load on the ESX server during backups
- D. No proxy server required for the backup environment

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 156

A large EMC NetWorker customer is gathering installation requirements for a new NetWorker installation. Based on best practices, where should the NetWorker indexes be located to provide the most flexibility?

- A. Separate internal disk from the O/S
- B. Protected NAS share
- C. SAN volume 49 / 67
- D. Large SCSI-attached disk

Correct Answer: B Section: (none) Explanation

Explanation/Reference:

QUESTION 157

A customer has been using Iz Local Compression when backing up their data to an EMC Data Domain system An audit of their storage content shows that they can effectively use gz compression for their data. What should be considered before changing the Local Compression type?



- A. Overall system performance will improve with the new compression
- B. Existing data will not be recompressed; only new data will be gz compressed
- C. New compression on the old data will not take effect until the next system cleaning
- D. Changes must be made at the beginning of a 20-hour backup window

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 158

You are designing a Data Protection Advisor (DPA) solution to support an environment consisting of:

- . 2 VNX-File
- . 1 NetApp File Server
- . 185 EMC NetWorker clients
- . 300 Symantec NetBackup clients

What are the appropriate DPA licensing requirements?

- A. Backup option for 185 NetWorker clients Backup option for 300 NetBackup clients 2 File Server options for VNX-File 1 File Server option for NetApp
- B. Backup option for 485 clients Backup option for VNX-File Backup option for NetApp
- C. Backup option for 500 clients 1 File Sewer option for VNX-File 1 File Server option for NetApp File Server
- D. Backup option for the amount of managed backup capacity 1 File Server option for the NAS systems

Correct Answer: C Section: (none) Explanation

Explanation/Reference:

QUESTION 159

A Symantec NetBackup customer is planning to add a second data center. They would like to leverage deduplication technology to improve backup operations and disaster recovery with a minimum amount of change to their existing backup environment. The customer's primary design goals are:

- 1. Improve backup performance
- 2. Electronic vaulting for disaster recovery
- 3. Maintain NetBackup as their primary tool for backup control and visibility What should be included with a high-end Data Domain appliance?
- A. NetBackup OST
- B. 8 GB Fibre Channel



C. iSCSI over 10 GB Ethernet

D. CIFS protocol over 10 GB Ethernet

Correct Answer: B Section: (none) Explanation

Explanation/Reference:

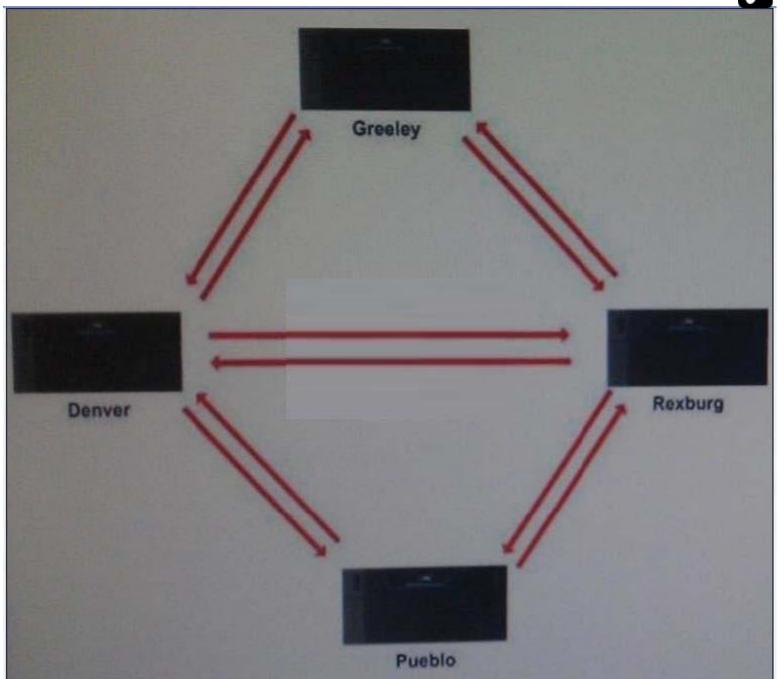
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QUESTION 160

Refer to the Exhibit.

A large mining company wants to implement replication using EMC Data Domain systems in multiple cities. How should the customer's design requirements be addressed?

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- A. Bi-directional replication can be used at two or more sites concurrently
- B. Bi-directional replication should be established between Greeley and Pueblo
- C. Replication between Denver and Rexburg should be in one direction only
- D. Replication between Denver and Rexburg is not supported

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 161

Refer to Scenario 4.

An enterprise customer would like to better address business continuity at all branch offices. Their corporate data center resides in Chicago, Illinois and they would like all branch office data centers to use Chicago as the destination for replicating backups.

Each branch office has a mixture of databases, e-mail, and other data that need full backups on Friday evenings and daily incremental backups. Based on their new Chief Technology Officer's experience with deduplication, they are installing EMC Data Domain devices at all sites to take advantage of the lower bandwidth requirements for backup replications.

The backup requirements for the branch offices are:

New York, Denver, and Houston = 100 GB full, 20% daily incremental

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SCO, Seattle, and Kansas City = 20 GB full, 20% dairy incremental The backup window for all branch offices is 15 hours on Friday evenings. What is the throughput required between Seattle and Chicago to enable these replications?

- A. 1.33 GB/hour
- B. 2.67 GB/hour
- C. 26.7 GB/hour
- D. 13.33 GB/hour

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 162



Refer to Scenario 4.

An enterprise customer would like to better address business continuity at all branch offices. Their corporate data center resides in Chicago, Illinois and they would like all branch office data centers to use Chicago as the destination for replicating backups.

Each branch office has a mixture of databases, e-mail, and other data that need full backups on Friday evenings and daily incremental backups. Based on their new Chief Technology Officer's experience with deduplication, they are installing EMC Data Domain devices at all sites to take advantage of the lower bandwidth requirements for backup replications.

The backup requirements for the branch offices are:

New York, Denver, and Houston = 100 GB full, 20% daily incremental SCO, Seattle, and Kansas City = 20 GB full, 20% dairy incremental The San Francisco branch office has an existing VTL infrastructure. Which type of replication is recommended for their backups?

- A. Collection
- B. Pool
- C. Directory
- D. MTree

Correct Answer: D Section: (none) Explanation

Explanation/Reference:

QUESTION 163

Refer to Scenario 1.

The Chief Technical Officer (CTO) of a large company has directed their IT management staff to examine corporate wide operations and find ways to limit the cost of operations. The corporate directives have prompted adoption of company policies that include the use of virilization for all new servers and as many services as possible. The company is subject to government regulations concerning data retention policies for confidential data. Data has to be retained for seven years. An audit of the backup and recovery environment is performed. The exhibit shows a typical site and how it is connected to the disaster recovery environment. Data in the primary site is configured on VMAX storage using FAST-VP to support multiple work load types on a single storage array. Data is protected by SRDF/A to a remote VMAX which acts as a target for multiple sites. The remote copy of the data is snapped and copied to tape. Retention is accomplished to governmental standards by offsite storage of tape in a remote protected facility.

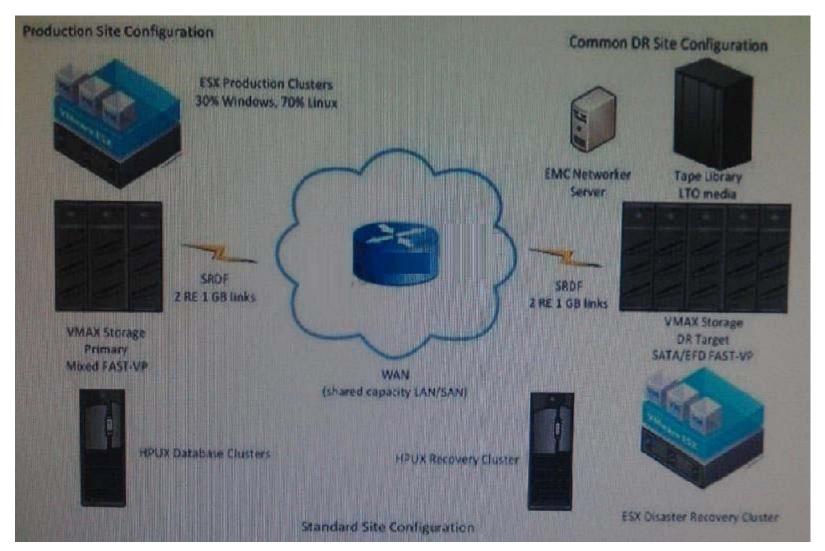
The company has noted that it has the following requirements in any proposed architecture for the backup and recovery environment:

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- . Reduced power consumption
- . Reduced floor space consumption
- . Reduced storage capacity consumption
- . Lower WAN bandwidth utilization
- . Shorten RPO
- . Decrease RTO
- . Increase security
- . Lower Total Cost of Ownership (TCO)



To satisfy the stated requirements, the customer wants to use a virtual appliance to limit power and space consumption in their smaller locations. To replace the current SRDF/A replication model, which EMC technology should be recovered in 10. replace the current SRDF/A replication model, which EMC technology should be recommended?



- A. Data Domain
- B. NetWorker NDMP
- C. Avamar AVE



D. NetWorker Archiver

Correct Answer: B Section: (none) Explanation

Explanation/Reference:

QUESTION 164

Refer to Scenario 1.

The Chief Technical Officer (CTO) of a large company has directed their IT management staff to examine corporate wide operations and find ways to limit the cost of operations. The corporate directives have prompted adoption of company policies that include the use of virtualization for all new servers and as many services as possible. The company is subject to government regulations concerning data retention policies for confidential data. Data has to be retained for seven years. An audit of the backup and recovery environment is performed. The exhibit shows a typical site and how it is connected to the disaster recovery environment. Data in the primary site is configured on VMAX storage using FAST-VP to support multiple work load types on a single storage array.

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Data is protected by SRDF/A to a remote VMAX which acts as a target for multiple sites. The remote copy of the data is snapped and copied to tape. Retention is accomplished to governmental standards by offsite storage of tape in a remote protected facility.

The company has noted that it has the following requirements in any proposed architecture for the backup and recovery environment:

- . Reduced power consumption
- . Reduced floor space consumption
- . Reduced storage capacity consumption
- . Lower WAN bandwidth utilization
- . Shorten RPO
- . Decrease RTO
- . Increase security
- . Lower Total Cost of Ownership (TCO)

The company has been unable to achieve the RTO required by their Service Level Agreement to their major clients. If they want to limit TCO, which EMC solution should be proposed?

- A. Avamar
- B. NetWorker and Avamar
- C. NetWorker and Data Domain
- D. Data Domain

Correct Answer: B Section: (none) Explanation



Explanation/Reference:

QUESTION 165

Refer to Scenario 1.

The Chief Technical Officer (CTO) of a large company has directed their IT management staff to examine corporate wide operations and find ways to limit the cost of operations. The corporate directives have prompted adoption of company policies that include the use of virilization for all new servers and as many services as possible. The company is subject to government regulations concerning data retention policies for confidential data. Data has to be retained for seven years. An audit of the backup and recovery environment is performed. The exhibit shows a typical site and how it is connected to the disaster recovery environment. Data in the primary site is configured on VMAX storage using FAST-VP to support multiple work load types on a single storage array. Data is protected by SRDF/A to a remote VMAX which acts as a target for multiple sites. The remote copy of the data is snapped and copied to tape. Retention is accomplished to governmental standards by offsite storage of tape in a remote protected facility.

The company has noted that it has the following requirements in any proposed architecture for the backup and recovery environment:

-Reduced power consumption -Reduced floor space consumption -Reduced storage capacity consumption -Lower WAN bandwidth utilization -Shorten RPO -Decrease RTO -Increase security -Lower Total Cost of Ownership (TCO)

The company wants to replace their SRDF/A technology with an EMC solution that can satisfy all of the requirements stated by the CTO. Which technology should be used to replace replication SRDF?

- A. RecoverPoint
- B. NetWorker
- C. Avamar 54 / 67
- D. Data Domain

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 166

Refer to Scenario 2.

A customer is looking to modernize their backup infrastructure. The current environment consists of a single centralized data center and several remote sites. The centralized data center hosts all core services and applications. The remote office primarily consists of sales personnel with 4000 use-North America, 500 in Europe, and 300 in Asia using file servers. The current backup environment at the primary site uses CommVault backing up to a Fibre Channel tape library that contains four ITO-4 tape drives. Currently they are backing up a number of file servers as well as several databases that have average change rates of 7% daily Remote office backups are currently performed by having users copy files to regional file servers that are then backed up to tape. In the past few months, the customer has experienced problems with getting backups to finish within their defined windows as well as issues with the tape library hardware. They now have concerns about gaps in their backup coverage as well as the reliability of the tape media. In addition, an internal audit shows a large amount of user-generated data is unprotected on remote user laptops. The customer is looking for a common platform to



standardize their backups. They want a solution which allows for a centralized infrastructure so -they do not need to rely on remote resources to address hardware and software issues. The other goal is to move away from tape to a more reliable disk-based solution.

The customer is impressed by the performance of Avamar file system backups. However, they have concerns about its ability to handle the backups of their databases. Which solution should be recommended?

- A. Continue to backup the databases to tape
- B. Configure a standalone Data Domain appliance
- C. Integrate a Data Domain appliance with Avamar
- D. Add more storage nodes to the Avamar system

Correct Answer: C Section: (none) Explanation

Explanation/Reference:

QUESTION 167

Refer to Scenario 2.

A customer is looking to modernize their backup infrastructure. The current environment consists of a single centralized data center and several remote sites. The centralized data center hosts all core services and applications. The remote office primarily consists of sales personnel with 4000 use-North America, 500 in Europe, and 300 in Asia using file servers. The current backup environment at the primary site uses CommVault backing up to a Fibre Channel tape library that contains four ITO-4 tape drives. Currently they are backing up a number of file servers as well as several databases that have average change rates of 7% daily Remote office backups are currently performed by having users copy files to regional file servers that are then backed up to tape. In the past few months, the customer has expenenced problems with getting backups to finish within their defined windows as well as issues with the tape library hardware. They now have concerns about gaps in their backup coverage as well as the reliability of the tape media. In addition, an internal audit shows a large amount of user-generated data is unprotected on remote user laptops.

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The customer is looking for a common platform to standardize their backups. They want a solution which allows for a centralized infrastructure so -they do not need to rely on remote resources to address hardware and software issues. The other goal is to move away from tape to a more reliable disk-based solution.

The customer is interested in Avamar to backup all their worldwide remote users. Based on best practices, which EMC solution will satisfy the customer's requirements?

- A. Deploy a single Avamar system at the primary location to back up all clients
- B. Deploy Avamar systems into each major geographical location, including Asia, Europe, and North America
- C. Deploy Avamar single-node systems at the remote sites and an Avamar system at the primary location as a replication target
- D. Deploy three Avamar grids to the primary location, each grid will be dedicated to a specific region



Correct Answer: D Section: (none) Explanation

Explanation/Reference:

QUESTION 168

Refer to Scenario 2.

A customer is looking to modernize their backup infrastructure. The current environment consists of a single centralized data center and several remote sites. The centralized data center hosts all core services and applications. The remote office primarily consists of sales personnel with 4000 use-North America, 500 in Europe, and 300 in Asia using file servers. The current backup environment at the primary site uses CommVault backing up to a Fibre Channel tape library that contains four ITO-4 tape drives. Currently they are backing up a number of file servers as well as several databases that have average change rates of 7% daily Remote office backups are currently performed by having users copy files to regional file servers that are then backed up to tape. In the past few months, the customer has experienced problems with getting backups to finish within their defined windows as well as issues with the tape library hardware. They now have concerns about gaps in their backup coverage as well as the reliability of the tape media. In addition, an internal audit shows a large amount of user-generated data is unprotected on remote user laptops. The customer is looking for a common platform to standardize their backups. They want a solution which allows for a centralized infrastructure so -they do not need to rely on remote resources to address hardware and software issues. The other goal is to move away from tape to a more reliable disk-based solution.

The customer is evaluating EMC Avamar as a possible solution to backup their remote users. They are estimating that each machine will take approximately 10 minutes to backup. They would like all backups to complete in 8 hours.

What is the minimum number of storage nodes needed to support the necessary connections to complete the backups of the North American system in the defined window?

A. 3

B. 4

C. 5

D. 6

Correct Answer: B Section: (none) Explanation

Explanation/Reference:

QUESTION 169

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A customer has an existing EMC Data Domain system that backs up their web services data. Their business is growing and they would like to expand storage by adding two ES30 hard drive shelves to their existing ES20 shelf set.

Which option can be used for increasing capacity?



- A. Install a separate shelf set for the ES30 shelves
- B. Add only one additional ES30 shelf to the shelf set
- C. Use Infiniband style cables between the ES20 and ES30 shelves in the shelf set
- D. Install one additional ES20 to allow the additional two ES30 shelves to the existing shelf set

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 170

A customer has been using EMC Avamar to leverage deduplication for VMware. They have been performing guest-level backups and now want to also perform VMware image backups for disaster recovery.

In order to use image backups, what is recommended in the environment?

- A. SAN-attached Data Store
- B. Image proxy Windows host
- C. Avamar client agent running on the vCenter server
- D. Avamar client running on each guest

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 171

An EMC NetWorker customer is considering capacity-based licensing. What can be used to determine the capacity size they would need to license?

- A. Asset Management and Planning appliance
- B. NetWorker License Conformance Report
- C. NetWorker Management Console Status reports
- D. Combined capacity of all NetWorker devices

Correct Answer: A Section: (none)

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Explanation

Explanation/Reference:

QUESTION 172

In an EMC Data Domain environment, what is considered a valid Archiver replication type?

- A. Archiver-to-Archiver Directory
- B. Appliance-to-Archiver Collection
- C. GDA-to-Archiver Collection
- D. GDA-to-Archiver Directory

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 173

A customer wants to implement a Data Protection Advisor solution in their Microsoft Windows backup environment. After the proof of concept installation, you discover that performance of the iAnywhere database is degraded. What is the most likely reason?

- A. More than 250 clients 57 / 67
- B. O/S environment is unsupported
- C. Exceeds the number of databases
- D. TCP ports are disabled

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 174

A customer has decided on EMC Avamar as a solution. They are interested in the replication features to accommodate multiple off-site locations. The customer wants to know the longest time they can run replication.



According to EMC best practices, what is the maximum time to recommend to the customer?

Α.	6	Hours

B. 8 Hours

C. 12 Hours

D. 16 Hours

Correct Answer: B Section: (none) Explanation

Explanation/Reference:

QUESTION 175

An EMC Avamar customer is receiving capacity warning messages from their system. They recently deleted several clients including their backup data. The deleted client data is 2 TB in size. After garbage collection completed, the customer saw less space collected than they had anticipated. What would cause this behavior?

- A. Chunks are used for other backups
- B. HFS check still needs to run
- C. Partials have been removed
- D. HFS check failed

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 176

A new EMC NetWorker customer has decided to use the traditional licensing model even though they have a large number of licenses that they will need to load. Which option is available to quickly install these licenses?

- A. Download an nsradmin file from Powerlink and import the file
- B. Download a text file of license keys and import through the NetWorker Management Console
- C. Check for licenses automatically with the License Conformance Reporter
- D. Copy and paste the licenses from the automatically generated e-mail



Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 177

An EMC NetWorker customer has recently added an Avamar system for file system backups. They want to move all backups to the Avamar system to take advantage of deduplication. They are currently backing up Sybase and SAP with NetWorker.

Which recommendation will meet these requirements?

- A. Configure Avamar as a deduplication storage node in NetWorker and use deduplication for all backups
- B. Use native database tools to back up to flat files, and then use Avamar to back up the resulting files 58 / 67
- C. Use pre- and post-processing scripts to shut down the databases and perform a cold backup with Avamar
- D. Use Avamar instead of NetWorker for all backups

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 178

A customer has recently purchased Data Protection Advisor (DPA) to monitor their EMC NetWorker backup environment. They are currently monitoring the NetWorker servers and storage nodes. Which other devices can be monitored without additional DPA licenses?

- A. Physical or virtual tape libraries, IP and Fibre Channel switches, and databases on backup clients
- B. NAS devices and performance data on backup clients
- C. IP switches, Fibre Channel switches, tape libraries, and NAS devices
- D. Physical or virtual tape libraries and IP or Fibre Channel switches only

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 179



The EMC account team has been asked to redesign an EMC NetWorker backup solution. The existing backup environment consists of one NetWorker server and one storage node to back up approximately 80 clients. Over time, the amount of data increased, resulting in daily backups taking more than 24 hours to complete.

What should be recommended to improve the backup performance with minimal costs?

- A. Convert several of the large clients into dedicated storage nodes
- B. Add a NetWorker server and balance the clients across the two servers
- C. Assign different NetWorker schedule resources to the backups to start at different times during the day
- D. Configure the existing storage node as a dedicated storage node

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 180

An EMC Avamar customer has Oracle 11g running on a Microsoft Windows server. They want to deploy hot backups. What is a design consideration for hot backups when using the Avamar plug-in for Oracle?

- A. Incremental backups are supported using RMAN BCT
- B. Backups initiated with Avamar Administrator must be full-level backups
- C. Use of exclude/include lists in a dataset is supported
- D. Restores must be to the original database location

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 181

A customer has informed you that they would like to purchase an EMC Avamar solution. They plan to implement enhanced security by encrypting all backup data that is stored on the Avamar server. During the final sizing of this solution, what should be taken into consideration?

- A. System resources may be impacted by as much as 33%
- B. System capacity may be increased by a maximum of 5%
- C. Server performance will decrease by 43%



D. Backup windows should be modified by 10% 59 / 67

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 182

An existing EMC Avamar customer wants to start backing up their VMware environment. The customer requires the ability to perform file level restores of their Microsoft Windows clients and is concerned about any potential negative impact of backups on the ESX server. In addition, there is a short backup window so it is important that backups complete as fast as possible.

Which backup method will meet the customer's needs?

- A. VMware image backup with an Avamar agent on a proxy host
- B. VMware image backup with an Avamar agent on the ESX server
- C. VMware guest backup using an Avamar agent on each virtual machine
- D. VMware guest backup using an Avamar agent on the vCenter server

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 183

A customer has asked you to design an EMC Avamar and Data Domain integrated solution for their environment. As you review the design for the Microsoft Exchange portion of the solution, the customer would like you to explain the backup process. How would you respond?

- A. Work order is received from the Avamar server, backup data is sent to the Data Domain appliance, and then metadata is sent to the Avamar server
- B. Avamar instructs the Exchange server to send both backup data and metadata to the Data Domain appliance
- C. Work order is sent from the Avamar Management Console to the Exchange server, and then data and metadata are sent to the Avamar system
- D. Exchange API, using a plug-in, sends all data directly to the Data Domain appliance

Correct Answer: A Section: (none) Explanation



Explanation/Reference:

QUESTION 184

A customer wants to back up VMware using EMC Avamar to leverage deduplication. They want to use the VMware Image Backup option. Which component of the backup environment requires the Avamar client agent?

- A. VMware image proxy
- B. ESX server
- C. vCenter server
- D. Client virtual machines

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 185

A new customer wants to use EMC NetWorker to protect the servers in their environment. One of their requirements is that NetWorker be configured with the NetWorker server clustered for high availability. What is required for the NetWorker server to be used in this configuration?

- A. NetWorker Power Edition license
- B. NetWorker Cluster Client licenses 60 / 67
- C. A separate NetWorker Network Edition license for each physical node that makes up the cluster
- D. An additional storage node license for each physical node that makes up the NetWorker server cluster

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 186

A customer has decided on EMC Avamar as a solution. They are trying to decide on the amount of nodes to purchase. They want maximum storage capacity.

What is a recommended maximum number of data nodes for an initial Avamar server configuration?



Δ	7

B. 8

C. 14

D. 16

Correct Answer: C Section: (none) Explanation

Explanation/Reference:

QUESTION 187

Which features will have a negative impact on the performance of an EMC Data Domain system?

- A. Cleaning, gz Compression, 25 MTrees, and encryption
- B. Network collisions, replication, cleaning, and encryption
- C. Encryption, replication, cleaning, and Mtrees
- D. Global deduplication, replication, DD Boost, and 25 Mtrees

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 188

A new EMC Avamar customer is concerned with data security since all backup data is stored on disk. To minimize the customer's concerns, you have recommended the encryption-at-rest feature.

What is a consideration when using this feature?

- A. Must be enabled at Avamar server installation time and has an impact on server resources
- B. Specified at the time of each backup operation or in a group definition
- C. Must be enabled when each client is installed and cannot be changed
- D. Uses an Avamar proprietary encryption method which requires an encryption key

Correct Answer: A Section: (none)

VCEPlus

Explanation

Explanation/Reference:

QUESTION 189

A customer has a new EMC Avamar server with four 3.9 TB data nodes. This server is backing up two Avamar clients. The first client has 8 GB of RAM and two file systems. The first file system has 3 million files consuming .75 TB. The second file system contains 5 million files consuming 1 TB of space. The second client has 10 GB of RAM and one file system containing 4 million files is consuming 1.2 TB of space. Both clients will belong to the same backup group. How long will the steady state backup group be expected to run?

- A. 5 hours
- B. 6 hours
- C. 8 hours
- D. 12 hours

Correct Answer: C Section: (none) Explanation

Explanation/Reference:

61/67

QUESTION 190

A customer's backup solution is reaching the end of warranty. The customer has installed an Avamar solution for their file server and ESX servers. They want to move all the backups to this environment. Deduplication for the databases is critical and they want to maintain the EMC Data Domain VTL. In order to integrate Data Domain into the Avamar installation, which hardware and software options need to be installed on the Data Domain system?

- A. DD Boost and two 1 Gb NIC cards
- B. OST Plug-in and 10 Gb NIC card
- C. DD Boost and one 10 Gb NIC card
- D. OST Plug-in, DD Boost, and 1 Gb NIC card

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 191



Your customer has been a long time Avamar Virtual Environment (AVE) customer. They have older AVE installations along with newer installations. They notice that older configurations are not receiving the same performance as the newer configurations.

The customer points out that both configurations have fairly high I/O requirements but use different disk pools. They understand performance is affected by RAID levels and would like your recommendation. Based on best practice, which RAID level is recommended for virtual machines with high disk usage?

- A. RAID 0 or RAID 1
- B. RAID 1 or RAID 10
- C. RAID 3
- D. RAID 5 or RAID 6

Correct Answer: B Section: (none) Explanation

Explanation/Reference:

QUESTION 192

A customer currently has a multi-node EMC Avamar solution with eight active storage nodes. They are currently at 85% GSAN capacity and receiving capacity warning messages. The customer would like to purchase additional capacity for the system.

What is a best practice for adding capacity?

- A. Add two nodes
- B. Add one node
- C. No nodes can be added. Add a new Avamar system.
- D. No nodes can be added. Migrate to a larger system.

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 193

A customer has difficulty keeping up with their restore requests on their existing backup solution. Currently each restore requires the backup team to engage and manually process each restore request. The customer wants the clients to be able to restore and browse their own data using only their account credentials.

Which EMC solution meets the customer's requirements?



- A. Avamar DTLT 62 / 67
- B. NetWorker with VTL
- C. NetWorker with Data Domain Boost
- D. VMware Guest Backups

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 194

A customer has an Avamar system that has reached 100% of maximum capacity. The environment consists of a 16 active data node system. What can be done to decrease the utilized capacity?

- A. Move clients to a new system with larger data nodes
- B. Decrease retention times on backups
- C. Add additional nodes to the current system
- D. Increase the size of the existing nodes

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 195

You have suggested to a customer that a Data Deduplication Assessment A (DDA:A) would help them evaluate deduplication in their environment. What would you recommend after the completion of the DDA:A scan?

- A. Schedule and run a File System Assessment
- B. Map drives for the DDA:B scan
- C. Rerun the DDA:A scan within one week of the first scan
- D. Perform the DDA:A backup script

Correct Answer: A Section: (none)

VCEPlus

Explanation

Explanation/Reference:

QUESTION 196

An EMC Avamar customer is unable to successfully complete a nightly backup of a large file server within their defined backup window. The server is a single quad core system with 2 GBs of RAM. The file system data is being stored on a RAID 5 SAN disk.

Currently, the server has 7 million files totaling 1 TB of data spread across three volumes. The Avamar agent was installed and configured using the default settings. What should be recommended to increase the performance of the nightly backup?

- A. Increase the size of the local file cache
- B. Migrate the data volumes to RAID 1/0 disks
- C. Increase the speed of the network connection
- D. Increase the size of the local hash cache

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 197

A customer is considering an EMC Avamar backup solution. They want to know whether Avamar can provide the security benefit of data encryption between the clients and the Avamar server.

What are the in-flight encryption considerations?

- A. Encryption strength can be specified when configuring a backup group
- B. An encryption option must be selected at installation time and impacts server resources 63 / 67
- C. Some type of encryption, either medium or high, must be specified for each backup
- D. Encryption must be selected at installation time and is the same for all clients

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 198

VCEPlus

An existing EMC Data Domain customer is evaluating new backup software and hardware for their environment. Their current environment consists of a single data center along with several remote sites. The customer is interested in consolidating all backup hardware into their primary data center while still being able to do remote backups. In addition, they want the ability to perform backups directly to tape for certain applications in order to send the tapes offsite for long-term retention. The customer plans to keep their current Data Domain system as part of any new configuration. However, they want to look at options to optimize performance without adding additional infrastructure. The final requirement is that the entire solution be managed from a single unified interface in order to configure and track backup jobs. Which EMC solutions can address these requirements?

- A. NetWorker with DD Boost and an integrated Avamar system
- B. NetWorker with DD Boost along with remote storage nodes
- C. Avamar with an integrated Data Domain system
- D. NetWorker with DD VTL and an integrated Avamar system

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 199

A customer is currently running Data Protection Advisor. Over time, concerns have been expressed about performance degradation. After a complete review, you discovered that performance was being impacted due to data gathered by Collectors being maintained with configuration data. What is the most likely reason for keeping these two types of data separate?

- A. Dynamic nature and large size
- B. Static nature and large size
- C. Dynamic nature and small size
- D. Static nature and small size

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 200

An EMC Data Domain customer has ordered two expansion shelves to increase the active tier storage capacity for backup. After successfully installing the new expansion shelves, the Data Domain GUI does not display the increased capacity.

What is the reason for this issue?



- A. Shelf Capacity licenses were not installed
- B. Disk drives need to be reconfigured
- C. Expansion Storage license was not installed
- D. Active tier and Archive tier licenses are needed

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 201

A customer has an EMC Data Domain appliance that has reached 90% of maximum capacity. The

64 / 67

customer does not want to purchase any additional storage. What will increase the average available capacity of the Data Domain appliance?

- A. Decrease the backup retention period
- B. Decrease the cleaning frequency
- C. Increase the snapshot expiration period
- D. Increase the number of streams

Correct Answer: C Section: (none) Explanation

Explanation/Reference:

QUESTION 202

A potential customer is evaluating an EMC Avamar system as a backup solution. After initial sizing, they added a requirement to encrypt all backup data on the Avamar system. The original sizing documents indicated that the customer required 54 TB of storage capacity. What is the total amount of storage required to support the performance impact of the encryption?

- A. 54 TB
- B. 64 TB
- C. 72 TB
- D. 81 TB



Correct Answer: D Section: (none) Explanation

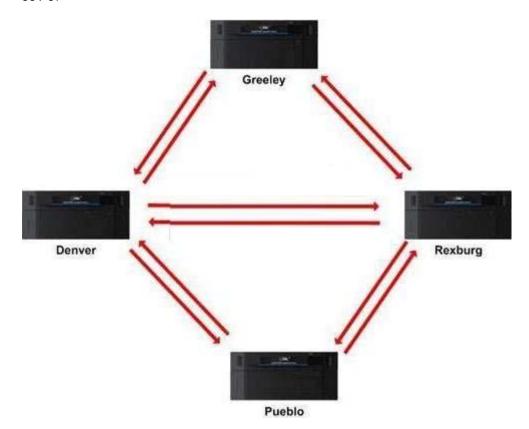
Explanation/Reference:

QUESTION 203

Refer to the Exhibit.

A large mining company wants to implement collection replication using EMC Data Domain systems in multiple cities. They want to replicate data at the Rexburg site to and from the Denver site. In addition, the company wants to replicate data at the Rexburg site to and from the Greeley site. How should the customer's design requirements be addressed?

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- A. Bi-directional replication can be used at two or more sites concurrently
- B. Replication between Denver and Rexburg should be in one direction only
- C. Replication between Denver and Rexburg is not supported
- D. Bi-directional replication should be established between Greeley and Pueblo

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 204

Refer to Scenario 3

EMC NetWorker, using a VADP proxy, is backing up 12 virtual machines concurrently. What is the total recommended additional RAM needed on the proxy?

- A. 6 GB
- B. 8 GB
- C. 10 GB
- D. 12 GB

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

QUESTION 205

Refer to Scenario 3

When using EMC NetWorker and DD Boost, what are the recommended maximum concurrent backups for the VADP proxy server?

- A. 40
- B. 50
- C. 100
 - 66 / 67
- D. 160



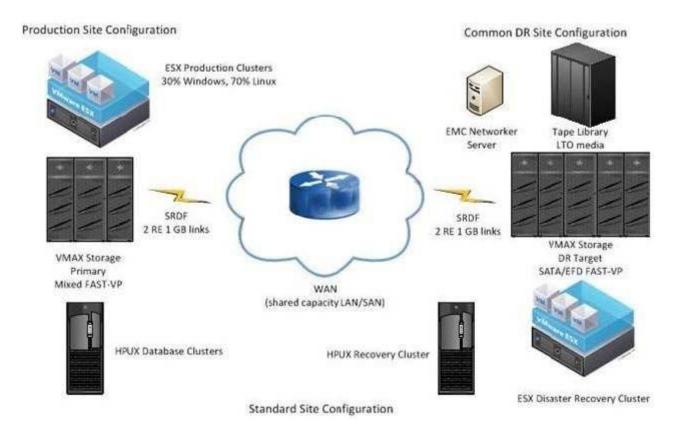
Correct Answer: C Section: (none) Explanation

Explanation/Reference:

QUESTION 206

Refer to Scenario 1.

The company wants to replace their SRDF/A technology with an EMC solution that can satisfy all of the requirements stated by the CTO. Which technology should be used to replace replication SRDF?



- A. Data Domain
- B. Avamar



C. NetWorker

D. RecoverPoint

Correct Answer: A Section: (none) Explanation

Explanation/Reference: 67 / 67