EMC E20-555 Exam

Volume: 225 Questions

Question: 1
An Isilon customer is reporting less than expected performance from the cluster and poor space utilization. The customer is using three X400 nodes with N+2:1 protection policy to host webserver log data. Upon further analysis, it is discovered that the webservers write log files 64 KiB in size. The log files are then accessed by an analytics application for reporting.
What should be done to increase write performance of the cluster?

A. Change the protection scheme to a mirroring policy.

B. Add A-Series performance accelerator nodes to the cluster.

C. Add S-Series storage nodes to the cluster.

D. Add SSDs to the X-Series nodes in the cluster.

Answer: A

Question: 2
By default, which method is used by Isilon OneFS for SSDs?

A. Metadata read acceleration

B. Metadata read/write acceleration

C. Data on SSDs

D. Avoid SSDs

Answer: A

Question: 3
An Isilon customer created a SyncIQ policy to replicate data from a primary cluster to an offsite secondary cluster. The primary cluster becomes unavailable, and the customer has completed a failover onto the secondary cluster.
The primary cluster becomes available again, so the customer would like to fail back data to the primary cluster. The failback process does not replicate data.
What is the most likely reason the failback policy does not replicate data to the primary cluster?

A. Clusters are not sharing an Infiniband switch

B. Secondary cluster has modified files on it

C. Original policy was for synchronization

D. Policy contains a SmartLock directory

Answer: C

Question: 4
Refer to the exhibit.

Typical Uncompressed Storage Requirements per Imaging Study (Sample)
** Please see Healthcare Terminology document for descriptions on these Modalities

Modality	Images			Storage/MB		
	Average	Low Range	High Range	Average	Low Range	High Range
CT	60	40	300	32	21	157
CT (thin-slice)	500	200	1000	262	105	524
Magnetic Resonance	200	80	1000	26	11	131
Mammography	6	4	8	108	72	144
Ultrasound	30	20	60	18	12	37
Echocardiography	1125	750	1500	346	230	461

A large hospital chain has approached you to redesign their storage infrastructure. The head of IT believes their requirement is for 60 TB of RAW capacity. The following are the notes from meetings with the department heads.
Which is the minimum cluster configuration that meets the customer's requirements?

A. 3 NL-Series Nodes using SynqIQ to 3 NL-Series Nodes

B. 3 S-Series Nodes using SmartPools and 3 NL-Series Nodes for Archive

C. 5 S-Series Nodes

D. 4 X-Series Nodes using SynqIQ to 4 NL-Series Nodes

Answer: A

Question: 5
-- Exhibit --
We have been engaged by a research hospital to help upgrade their Isilon installation.
They currently have 12 previous generation Isilon nodes with 200TB of capacity and run on a 1Gbps network.
They currently have 6 Illumina Hi-Seq Sequencers and an HPC cluster to process data.

They would like to expand Isilon to 2PB of active data and 1PB of archive data.
They use a third party data and metadata management service (IRODs) to stage data for analysis.
The Isilon cluster is mainly used for analysis work with the HPC cluster.
-- Exhibit --

The customer has a limited budget. What would be the best price/performance solution for their active data?

A. 14 X-Series nodes with no SSD drives and 96GB of RAM

B. 17 X-Series nodes with SSD drives and 48GB of RAM.

C. 14 NL-Series nodes with 24GB of RAM

D. 12 X-Series nodes with no SSD drives and 24GB of RAM

Answer: A

Question: 6
What is the relative latency of a cache hit to L1 cache compared to a hit to L2 cache in an Isilon cluster?

A. 2x

B. 5x

C. 10x

D. 25x

Answer: C

Question: 7
A telecommunications company has a substantial amount of data. This data is being created by network elements within their environment.
The company wants to change the way the network elements Call Detail Records (CDR) are stored and analyzed. The existing infrastructure consolidates all of the CDRs into a table structure, and then ingests them into a large database. Once ingested, a query engine accesses the database and performs analysis on these files. The system is functional; however, since the amount of CDRs generated will increase exponentially over the next year, the company is open to

alternatives for storing and analyzing these records.
In evaluating alternatives, the key requirements are to reduce cost, the amount of storage, and the amount of time to analyze the data. The customer would like to use Hadoop to analyze the CDRs.
After you have conducted an assessment of the workflow, you have recommended an Isilon Cluster to work within the Hadoop environment.
Which protocols would be the best fit when using Isilon for this customer's Hadoop workflow?

A. NDMP and SCP

B. NFS and HDFS

C. CIFS and FTP

D. SyncIQ and HTTP

Answer: B

Question: 8
Your customer has observed a degradation in response time while browsing for media files within the Production Media folder of the Isilon cluster. That directory now contains over five million files. It was confirmed that there are no network or edit station related causes.
What changes to the Isilon cluster will best accelerate the browsing performance?

A. Add Solid State Drives (SSDs) to the nodes

B. Add A-Series Performance Accelerator nodes

C. Upgrade node access to 10 Gbps

D. Upgrade RAM on the nodes

Answer: A

Question: 9
What is the minimum number of connected and available nodes required to maintain quorum in a 25-node Isilon cluster?

A. 10

B. 12

C. 13

D. 17

Answer: C

Question: 10
How many layers are in the Isilon clustering architecture?

A. 2

B. 4

C. 6

D. 8

Answer: B

Question: 11
While configuring Isilon SmartConnect, a customer determined that their workload primarily consists of long-lived NFS and SMB connections. Which load-balancing policy will provide the most efficient client distribution?

A. Random Selection

B. CPU Utilization

C. Network Throughput

D. Connection Count

Answer: C

Question: 12
Which Isilon OneFS job, that runs manually, is responsible for examining the entire file system for inconsistencies?

A. IntegrityScan

B. MediaScan

C. AutoBalance

D. FlexProtect

Answer: A

Question: 13
How many file systems are present in a 20-node Isilon X200 cluster?

A. 1

B. 2

C. 3

D. 4

Answer: A

Question: 14
You have been invited to meet with the Social Media and Marketing Department and gather requirements for a potential File System Project. They primarily use CIFS and are considering deploying a Hadoop cluster to analyze customer demographic data. The Senior Systems Engineer thinks they will need 2PB of usable capacity.
What would you do to gain an understanding of the customer's environment to qualify and develop the opportunity?

A. Create a cluster configuration specifying HDFS, NFS, and CIFS protocols; select 19 x X400 nodes with 144TB per node, and Enhanced Support

B. Request the Windows Systems Administration Team run a PerfMon analysis on the Marketing Servers, consider adding 75 x 3TB drives to your VNX 5500, and contact the DBA Team for their help

C. Ask them to identify how the current data is accessed, where the data is accessed from, and who is accessing the data

D. Send the Social Media Team a sizing and features spreadsheet to complete; download the OneFS Architectural White Paper for them, and create a Logical System diagram in Visio

Answer: B

Question: 15
Refer to the exhibit.

Which tool was used to create this output and what is the most telling characteristic?

A. nfsstat and write-intensive access

B. iostat and write-intensive access

C. Read-intensive access and nfsstat

D. isi_netlogger and moderate metadata read operations

Answer: A

Question: 16
An Isilon customer has two 5-node clusters, one for production and one for disaster recovery (DR). The customer's workflow is a SmartLock workflow and is replicated to the DR cluster through SyncIQ on an individual schedule. The customer needs to shutdown their production cluster for scheduled maintenance.
Assume both clusters have identical shares, exports, user authentication, and that the client applications have been stopped and the DNS re-pointed. What is the correct method to start operations on the DR cluster?

A. Initiate Manual Failover of the SyncIQ Policy

B. Initiate Automated Failover of the SyncIQ Policy

C. No change to the SyncIQ Policy

D. Revert the SyncIQ Policy

Answer: B

Question: 17
When working with Isilon file pool policies, which file attribute can be applied as a filter?

A. Performance

B. File create date

C. File type

D. Permissions

Answer: C

Question: 18
A media and entertainment company has asked for help in creating a new Video On Demand (VOD) storage system. The storage would be delivered to 5000 subscribers simultaneously. They would like to store 5000 hours of full length, High Definition (HD) movies.
What would be the best price-to-performance nodes for this solution?

A. X400 with no SSD and 96GB RAM

B. X200 with no SSD and 48GB RAM

C. Mixed X400 48GB RAM and NL400 24GB

D. X400 with 1.6TB SSD and 24GB RAM

Answer: A

Question: 19
A company currently has numerous file servers providing home directories for its employees. Some departments have their own file servers. All corporate users authenticate using Active Directory. The engineering department has their own untrusted AD domain for their file servers. The company is looking for a consolidated solution that requires minimal changes to the environment, and that creates a single namespace for the home directories.
What is the recommended solution that will meet this company's requirements?

A. Implement an Isilon cluster and utilize Access Zones.

B. Configure two separate clusters, one for each AD domain.

C. Utilize SmartPools to create two pools to separate the domains.

D. Consolidate onto a single cluster and merge the domains.

Answer: A

Question: 20
Which type of data is stored in Endurant Cache of an Isilon node?

A. Write

B. Volume

C. Read

D. Protection

Answer: A

Question: 21
For concurrent I/O, how do SmartCache and Endurant Cache differ?

A. Endurant Cache sends an acknowledgement to the client immediately after mirroring writes in NVRAM

B. Endurant Cache waits for acknowledgement from all nodes before copying to L2 cache

C. SmartCache immediately commits the write to NVRAM on the local node and one peer node

D. SmartCache uses sub-file, granular locking whereas Endurant Cache locks the entire file

Answer: A

Question: 22
Which protocol is integrated with Isilon OneFS to provide on-access file functionality?

A. ICAP

B. IANA

C. HTTPS

D. REST

Answer: A

Question: 23
A customer needs to consolidate 300 TB of home directory servers and shared file systems used by development and test groups. A key requirement is to prevent the systems from consuming all free capacity and impacting home directory content.
Which Isilon node configuration should be proposed?

A. X-Series with SmartQuotas

B. NL-Series with SmartQuotas

C. S-Series with InsightIQ

D. X-Series with SmartPools

Answer: A

Question: 24
Which impact policies are available on an Isilon cluster?

A. High, Medium, Low, Default

B. High, Medium, Low, Paused

C. High, Medium, Low, Auto

D. ASAP, High, Medium, Low

Answer: B

Question: 25
Your customer's initial use case was Home Directories. They implemented the cluster with four 1Gbps ports and LACP. They are planning to expand their cluster to support their core file