Q1. A client is concerned that someone other than approved administrators is trying to gain access to the linux web app instances in their vpc. she asks what sort of network access logging can be added. which of the following might you recommend?

- Use event log filters to trigger alerts that are forwarded to cloudwatch.

x Set up a flow log for the group of instances and forward them to s3.

x Set up a flow log for the group of instances and forward them to cloudwatch.

x Flow logs can be set up for a vpc, subnet, or individual network interface. the data can be published to cloudwatch logs or amazon s3.

- Set up a traffic logging rule on the network firewall and direct the log to cloudwatch or s3.

Q2. You work for a large software company in seattle. they have their production environment provisioned on aws inside a custom vpc. the vpc contains both a public and private subnet. the company tests their applications on custom ec2 instances inside a private subnet. there are approximately 500 instances, and they communicate to the outside world via a proxy server. at 3am every night, the ec2 instances pull down os updates, which are usually 150mb or so. they then apply these updates and reboot: if the software has not downloaded within half an hour, then the update will attempt to download the following day. you notice that a number of ec2 instances are continually failing to download the updates in the allotted time. which of the following answers might explain this failure?

- The proxy server has an inadequately sized ebs volume attached to it. the network buffer is stored on the ebs volume, and it is running out of disk space when trying to buffer the 500 simultaneous connections. you should provision an ebs volume with provisioned iops.

- The proxy server has only one elastic ip address added to it. to increase network throughput, you should add additional elastic ip addresses.

x The proxy server is in a private subnet and uses a nat instance to connect to the internet. however, this instance is too small to handle the required network traffic. you should re-provision the nat solution so that it's able to handle the throughput.

- Your proxy server is blacklisting the address from which the updates are being downloaded, resulting in failed downloads.

x The proxy server is on an inadequately sized ec2 instance and does not have sufficient network throughput to handle all updates simultaneously. you should increase the instance size or type of the ec2 instance for the proxy server.

Q3. When using ec2 instances with dedicated hosting, which of the following modes are you able to transition between by stopping the instance and starting it again?

x Dedicated & host

- Dedicated & default

- Host & default

- Non-dedicated & dedicated

Q4. Which of the following strategies does aws use to deliver the promised levels of dynamodb performance?

- Aws deploy caching instances in front of the dynamodb cluster.

x The database is partitioned across a number of nodes.

x Data is stored on solid state drives (ssds).

- Aws deploys read replicas of the database to balance the load.

- Dynamodb instances can be configured with ebs-optimised connections.

Q5. You run a meme creation website that stores the original images in s3 and each meme's metadata in dynamodb. you need to decide upon a low-cost storage option for the memes, themselves. if a meme object is unavailable or lost, a lambda function will automatically recreate it but at a $10 licensing cost per creation. there is a very large number of files, and they require rapid access when needed. which storage solution should you use to store the memes in a cost effective way that guards against the possibility of high license fees?

- S3 - onezone-ia

x S3 - ia

- S3 - rrs

- S3

- Glacier

Q6. Your company has a policy of encrypting all data at rest. you host your production environment on ec2 in a bespoke vpc. attached to your ec2 instances are multiple ebs volumes, and you must ensure this data is encrypted. which of the following options will allow you to do this?

x Encrypt the data using native encryption tools available in the operating system (such as windows bitlocker).

- Ebs volumes are encrypted by default. you do not need to do anything.

x Use third party volume encryption tools.

x Encrypt your data inside your application, before storing it on ebs.

- Install ssl certificates on the servers so as to encrypt your data

Q7. You are a solutions architect working for a large anti-virus company and your job is to secure your company’s production aws environment. a new policy dictates that a particular public-facing subnet needs to allow rdp on port 3389 at the network acl layer. you create an inbound rule allowing traffic to port 3389 on the acl level. however, users complain that they still cannot connect. which of the following answers may represent the root cause of the connectivity issues?

- Updates to network access control lists can take time to propagate.

- Network access control lists are stateful.

x Network access control lists are stateless.

x You need to create an outbound rule allowing rdp response traffic to go back out again.

Q8. You are a consultant planning to deploy dynamodb across three azs. your lead dba is concerned about data consistency. which of the following do you advise the lead dba to do?

- To ask the development team to code for strongly consistent reads, as it will impact the read times slightly, but not the throughput capacity.

- To ask the development team to code to check for a successful completion code (200) at the completion of every write.

- To ask the development team to implement a checksum algorithm to confirm that the data is consistent across all the azs.

x To ask the development team to code for strongly consistent reads. as the consultant, you will advise the cto it may have higher latency than eventually consistent reads.

- To ask the development team to code a lambda function to check data consistency after each write.

- To ask the development team to code an maintenance task to run on a schedule to check consistency.

Q9. You have been asked by your employer to create an identical copy of your production environment in another region for disaster recovery purposes. in the list below, which aws resources would you not need to recreate, because they are available universally across the console?

x Identity access management roles

- Security groups

- Elastic load balancers

- Ec2 key pairs

x Route 53

Q10. Your company provides an online image recognition service and uses sqs to decouple system components. your ec2 instances poll the image queue as often as possible to keep end-to-end throughput as high as possible, but you realize that all this polling is resulting in both a large number of cpu cycles and skyrocketing costs. how can you reduce cost without compromising service?

- Enable short polling by setting the receivemessagewaittimeminutes to a number > 0.

- Enable long polling by setting the receivemessagewaittimeminutes to a number > 0.

x Enable long polling by setting the receivemessagewaittimeseconds to a number > 0.

- Enable short polling by setting the receivemessagewaittimeseconds to a number > 0.

Q11. You work for a popular media outlet about to release a story that is expected to go viral. during load testing on the website, you discover that there is read contention on the database tier of your application. your rds instance consists of a mysql database on an extra large instance. which of the following approaches would be best to further scale this instance to meet the anticipated increase in traffic your viral story will generate?

x Use elasticache to cache the frequently read, static data.

x Add an rds read replica for increased read performance.

- Add an rds multi-az for increased read performance.

- Shard the mysql database into multiple copies.

x Provision a larger instance size with provisioned iops.

Q12. When coding a routine to upload to s3, you have the option of using either single part upload or multipart upload. identify all the possible reasons below to use multipart upload.

- Multipart upload delivers improved security in transit.

x Multipart upload delivers the ability to begin an upload before you know the final object size.

- Multipart upload delivers the ability to append data into an open data file.

x Multipart upload delivers quick recovery from network issues.

x Multipart upload delivers the ability to pause and resume object uploads.

x Multipart upload delivers improved throughput.

Q13. You have been engaged by a company to design and lead the migration to an aws environment. an argument has broken out about how to meet future backup & archive requirements and how to transition. the security manager and cto are concerned about backup continuity and the ability to continue to access old tape archives. the senior engineer is adamant that there is no way to retain the old backup solution in the aws environment, and that they will lose access to all the current archives. what information can you share that will satisfy both parties in a cost-effective manner?

- Meet with the management team and explain that the senior engineer is correct: there is no mechanism for retaining the existing backup/archive solution as the aws data centers are closed facilities.

x Meet with both parties and brief them on the aws storage gateway vtl solution. explain that it can initially be installed in the on-premises environment utilizing the existing enterprise backup product to start the transition without losing access to the existing backups and archives. over the duration of the migration, most (if not all) the backup cycles will be replaced by the new vtl & vts tapes.

- Propose that after transition access to archive tapes could be managed via a 3rd party service provider for the odd occasion that a historical archive is required.

- Suggest that in order to maintain access to the existing archives, after transition a aws storage gateway solution could be commissioned in a partner data center using the existing equipment.

x Suggest that during transition, a second aws storage gateway vtl solution could be commissioned in the customer's new vpc and integrated with existing vts. at the same time, the existing enterprise backup solution could be used to perform tape-to-tape copies to migrate the archives from tape to vtl/vts virtual tape.

- Propose using the aws import/export service to import the contents of the backup and archive tapes into s3/glacier to preserve them in case they are required later.

Q14. Dynamodb has many use cases. which of the following are legitimate use cases for dynamodb?

x Storing the metadata of blob data stored in s3

- Storing data that requires relational joins and highly complex updates

x Storing web session data

x Storing json

- Storing archive data that you do not need to access often

Q15. You are a solutions architect working for an oil and gas company. they are moving their production environment to aws and need a custom vpc into which to put it. you have been asked to create a public subnet. you create the vpc with a subnet bearing the cidr address range of 10.0.1.0/24. which of the following steps should you take to make this subnet public?

x Create a route in the route table of the subnet allowing a route out of the internet gateway (igw).

- Create a route in the route table of the subnet allowing a route out of the customer gateway (cgw).

x Attach an internet gateway (igw) to the vpc.

- Attach a customer gateway (cgw).

- In the aws console, right-click on the subnet and then select the make public option.

Q16. You need to restrict access to an s3 bucket. which of the following methods can you use to do so?

x S3 bucket policies

- Cloudfront

- Identity federation with active directory

- Cloudwatch

x Access control lists for s3 (permissions)

Q17. Which native aws service will act as a file system mounted on an s3 bucket?

x File gateway

- Amazon s3

- Amazon elastic file system

- Amazon elastic block store

Q18. Amazon elasticache can fulfill a number of roles. choose the operations from the following list which can be implemented using elasticache for redis.

- Relational data store

x Sorted sets

x Pub/sub

x In-memory data store

Q19. You are reviewing change control requests, and you note that there is a change designed to reduce wasted cpu cycles by increasing the value of your amazon sqs "visibilitytimeout" attribute. what does this mean?

- When a new message is added to the sqs queue, it will be hidden from consumer instances for a fixed period.

- While processing a message, a consumer instance can amend the message visibility counter by a fixed amount.

- When the consumer instance polls for new work the sqs service will allow it to wait a certain time for a message to be available before closing the connection.

- While processing a message, a consumer instance can reset the message visibility by restarting the preset timeout counter.

- When the consumer instance polls for new work, the consumer instance will wait a certain time until it has a full workload before closing the connection.

x When a consumer instance retrieves a message, that message will be hidden from other consumer instances for a fixed period.

Q20. You need a storage service that delivers the lowest-latency access to data for a database running on a single ec2 instance. which of the following aws storage services is suitable for this use case?

- Amazon efs

- Glacier

x Amazon ebs

- Amazon s3

Q21. You need to store some easily re-creatable objects on s3. with rapid access times and cost-effectiveness in mind, which s3 storage class should you consider?

- S3 glacier

- S3 standard

x S3 one zone-ia

- S3 provisioned iops

- Snowball

Q22. You have created a vpc that contains two ec2 instances in different availability zones. both are running web servers, hosting the same content. these web servers will be accessible via the internet. which of the following dns configurations could you consider?

- Assign each ec2 instance with an elastic ip address. configure a route 53 "a" multi-value record with both eip’s and health checks.

- Set up an application load balancer and place your instances behind this elb. configure a route 53 alias record to point to the resource of the application load balancer.

- Set up an application load balancer and place your instances behind this elb. configure a route 53 cname to use the public ip address of the application load balancer.

- Configure a nat instance within your vpc. create a route via the nat instance and associate it with all private subnets within your vpc. create a route 53 "a" record to point to the public ip address of the nat.

Q23. You are reviewing change control requests and you note that there is a proposed change designed to reduce errors due to sqs eventual consistency by updating the "delayseconds" attribute. what does this mean?

- When the consumer instance polls for new work the sqs service will allow it to wait a certain time for a message to be available before closing the connection.

x When a new message is added to the sqs queue, it will be hidden from consumer instances for a fixed period.

- While processing a message, a consumer instance can amend the message visibility counter by a fixed amount.

- When a consumer instance retrieves a message, that message will be hidden from other consumer instances for a fixed period.

- While processing a message, a consumer instance can reset the message visibility by restarting the preset timeout counter.

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