

Exam Questions SAP-C02

AWS Certified Solutions Architect - Professional

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NEW QUESTION 1

- (Exam Topic 1)

A solutions architect is designing a publicly accessible web application that is on an Amazon CloudFront distribution with an Amazon S3 website endpoint as the origin. When the solution is deployed, the website returns an Error 403: Access Denied message.

Which steps should the solutions architect take to correct the issue? (Select TWO.)

- A. Remove the S3 block public access option from the S3 bucket.
- B. Remove the requester pays option from the S3 bucket.
- C. Remove the origin access identity (OAI) from the CloudFront distribution.
- D. Change the storage class from S3 Standard to S3 One Zone-Infrequent Access (S3 One Zone-IA).
- E. Disable S3 object versioning.

Answer: AB

Explanation:

See using S3 to host a static website with Cloudfront: <https://aws.amazon.com/premiumsupport/knowledge-center/cloudfront-serve-static-website/>

- Using a REST API endpoint as the origin, with access restricted by an origin access identity (OAI)
- Using a website endpoint as the origin, with anonymous (public) access allowed
- Using a website endpoint as the origin, with access restricted by a Referer header

NEW QUESTION 2

- (Exam Topic 1)

A company is serving files to its customers through an SFTP server that is accessible over the internet. The SFTP server is running on a single Amazon EC2 instance with an Elastic IP address attached. Customers connect to the SFTP server through its Elastic IP address and use SSH for authentication. The EC2 instance also has an attached security group that allows access from all customer IP addresses.

A solutions architect must implement a solution to improve availability, minimize the complexity of infrastructure management, and minimize the disruption to customers who access files. The solution must not change the way customers connect.

Which solution will meet these requirements?

- A. Disassociate the Elastic IP address from the EC2 instance. Create an Amazon S3 bucket to be used for SFTP file hosting. Create an AWS Transfer Family server. Configure the Transfer Family server with a publicly accessible endpoint.
- B. Associate the SFTP Elastic IP address with the new endpoint.
- C. Point the Transfer Family server to the S3 bucket. Sync all files from the SFTP server to the S3 bucket.
- D. Disassociate the Elastic IP address from the EC2 instance.
- E. Create an Amazon S3 bucket to be used for SFTP file hosting. Create an AWS Transfer Family server.
- F. Configure the Transfer Family server with a VPC-hosted internet-facing endpoint.
- G. Associate the SFTP Elastic IP address with the new endpoint.
- H. Attach the security group with customer IP addresses to the new endpoint.
- I. Point the Transfer Family server to the S3 bucket.
- K. Sync all files from the SFTP server to the S3 bucket.
- L. Disassociate the Elastic IP address from the EC2 instance.
- M. Create a new Amazon Elastic File System (Amazon EFS) file system to be used for SFTP file hosting.
- N. Create an AWS Fargate task definition to run an SFTP server.
- O. Specify the EFS file system as a mount in the task definition. Create a Fargate service by using the task definition, and place a Network Load Balancer (NLB) in front of the service. When configuring the service, attach the security group with customer IP addresses to the tasks that run the SFTP server. Associate the Elastic IP address with the NLB. Sync all files from the SFTP server to the S3 bucket.
- P. Disassociate the Elastic IP address from the EC2 instance. Create a multi-attach Amazon Elastic Block Store (Amazon EBS) volume to be used for SFTP file hosting. Create a Network Load Balancer (NLB) with the Elastic IP address attached. Create an Auto Scaling group with EC2 instances that run an SFTP server. Define in the Auto Scaling group that instances that are launched should attach the new multi-attach EBS volume. Configure the Auto Scaling group to automatically add instances behind the NLB. Configure the Auto Scaling group to use the security group that allows customer IP addresses for the EC2 instances that the Auto Scaling group launches. Sync all files from the SFTP server to the new multi-attach EBS volume.

Answer: B

Explanation:

<https://aws.amazon.com/premiumsupport/knowledge-center/aws-sftp-endpoint-type/>

<https://docs.aws.amazon.com/transfer/latest/userguide/create-server-in-vpc.html> <https://aws.amazon.com/premiumsupport/knowledge-center/aws-sftp-endpoint-type/>

NEW QUESTION 3

- (Exam Topic 1)

A company hosts a large on-premises MySQL database at its main office that supports an issue tracking system used by employees around the world. The company already uses AWS for some workloads and has created an Amazon Route 53 entry for the database endpoint that points to the on-premises database. Management is concerned about the database being a single point of failure and wants a solutions architect to migrate the database to AWS without any data loss or downtime.

Which set of actions should the solutions architect implement?

- A. Create an Amazon Aurora DB cluster.
- B. Use AWS Database Migration Service (AWS DMS) to do a full load from the on-premises database to Aurora.
- C. Update the Route 53 entry for the database to point to the Aurora cluster endpoint.
- D. and shut down the on-premises database.
- E. During nonbusiness hours, shut down the on-premises database and create a backup.
- F. Restore this backup to an Amazon Aurora DB cluster.
- G. When the restoration is complete, update the Route 53 entry for the database to point to the Aurora cluster endpoint, and shut down the on-premises database.
- H. Create an Amazon Aurora DB cluster.
- I. Use AWS Database Migration Service (AWS DMS) to do a full load with continuous replication from the on-premises database to Aurora.
- J. When the migration is complete, update the Route 53 entry for the database to point to the Aurora cluster endpoint, and shut down the on-premises database.
- K. Create a backup of the database and restore it to an Amazon Aurora multi-master cluster.

- L. This Aurora cluster will be in a master-master replication configuration with the on-premises databases
- M. Update the Route 53 entry for the database to point to the Aurora cluster endpoint
- N. and shut down the on-premises database.

Answer: C

Explanation:

“Around the world” eliminates possibility for the maintenance window at night. The other difference is ability to leverage continuous replication in MySQL to Aurora case.

NEW QUESTION 4

- (Exam Topic 1)

A financial services company logs personally identifiable information in its application logs stored in Amazon S3. Due to regulatory compliance requirements, the log files must be encrypted at rest. The security team has mandated that the company's on-premises hardware security modules (HSMs) be used to generate the CMK material.

Which steps should the solutions architect take to meet these requirements?

- A. Create an AWS CloudHSM cluster
- B. Create a new CMK in AWS KMS using AWS_CloudHSM as the source (or the key material and an origin of AWS_CLOUDHSM)
- C. Enable automatic key rotation on the CMK with a duration of 1 year
- D. Configure a bucket policy on the logging bucket that disallows uploads of unencrypted data and requires that the encryption source be AWS KMS.
- E. Provision an AWS Direct Connect connection, ensuring there is no overlap of the RFC 1918 address space between on-premises hardware and the VPC
- F. Configure an AWS bucket policy on the logging bucket that requires all objects to be encrypted
- G. Configure the logging application to query the on-premises HSMs from the AWS environment for the encryption key material, and create a unique CMK for each logging event.
- H. Create a CMK in AWS KMS with no key material and an origin of EXTERNAL
- I. Import the key material generated from the on-premises HSMs into the CMK using the public key and import token provided by AWS
- J. Configure a bucket policy on the logging bucket that disallows uploads of non-encrypted data and requires that the encryption source be AWS KMS.
- K. Create a new CMK in AWS KMS with AWS-provided key material and an origin of AWS_KMS
- L. Disable this CMK
- M. and overwrite the key material with the key material from the on-premises HSM using the public key and import token provided by AWS
- N. Re-enable the CMK
- O. Enable automatic key rotation on the CMK with a duration of 1 year
- P. Configure a bucket policy on the logging bucket that disallows uploads of non-encrypted data and requires that the encryption source be AWS KMS.

Answer: C

Explanation:

<https://aws.amazon.com/blogs/security/how-to-byok-bring-your-own-key-to-aws-kms-for-less-than-15-00-a-year>
<https://docs.aws.amazon.com/kms/latest/developerguide/importing-keys-create-cmk.html>

NEW QUESTION 5

- (Exam Topic 1)

A company has many AWS accounts and uses AWS Organizations to manage all of them. A solutions architect must implement a solution that the company can use to share a common network across multiple accounts.

The company's infrastructure team has a dedicated infrastructure account that has a VPC. The infrastructure team must use this account to manage the network. Individual accounts cannot have the ability to manage their own networks. However, individual accounts must be able to create AWS resources within subnets.

Which combination of actions should the solutions architect perform to meet these requirements? (Select TWO.)

- A. Create a transit gateway in the infrastructure account.
- B. Enable resource sharing from the AWS Organizations management account.
- C. Create VPCs in each AWS account within the organization in AWS Organization
- D. Configure the VPCs to share the same CIDR range and subnets as the VPC in the infrastructure account
- E. Peer the VPCs in each individual account with the VPC in the infrastructure account,
- F. Create a resource share in AWS Resource Access Manager in the infrastructure account
- G. Select the specific AWS Organizations OU that will use the shared network
- H. Select each subnet to associate with the resource share.
- I. Create a resource share in AWS Resource Access Manager in the infrastructure account
- J. Select the specific AWS Organizations OU that will use the shared network
- K. Select each prefix list to associate with the resource share.

Answer: CE

Explanation:

<https://docs.aws.amazon.com/vpc/latest/userguide/sharing-managed-prefix-lists.html>

NEW QUESTION 6

- (Exam Topic 1)

A development team has created a new flight tracker application that provides near-real-time data to users. The application has a front end that consists of an Application Load Balancer (ALB) in front of two large Amazon EC2 instances in a single Availability Zone. Data is stored in a single Amazon RDS MySQL DB instance. An Amazon Route 53 DNS record points to the ALB.

Management wants the development team to improve the solution to achieve maximum reliability with the least amount of operational overhead.

Which set of actions should the team take?

- A. Create RDS MySQL read replica
- B. Deploy the application to multiple AWS Regions
- C. Use a Route 53 latency-based routing policy to route to the application.
- D. Configure the DB instance as Multi-AZ
- E. Deploy the application to two additional EC2 instances in different Availability Zones behind an ALB.
- F. Replace the DB instance with Amazon DynamoDB global table

- G. Deploy the application in multiple AWS Region
- H. Use a Route 53 latency-based routing policy to route to the application.
- I. Replace the DB instance with Amazon Aurora with Aurora Replica
- J. Deploy the application to multiple smaller EC2 instances across multiple Availability Zones in an Auto Scaling group behind an ALB.

Answer: D

Explanation:

Multi AZ ASG + ALB + Aurora = Less overhead and automatic scaling

NEW QUESTION 7

- (Exam Topic 1)

A company has a complex web application that leverages Amazon CloudFront for global scalability and performance. Over time, users report that the web application is slowing down.

The company's operations team reports that the CloudFront cache hit ratio has been dropping steadily. The cache metrics report indicates that query strings on some URLs are inconsistently ordered and are specified sometimes in mixed-case letters and sometimes in lowercase letters.

Which set of actions should the solutions architect take to increase the cache hit ratio as quickly as possible?

- A. Deploy a Lambda@Edge function to sort parameters by name and force them to be lowercase
- B. Select the CloudFront viewer request trigger to invoke the function.
- C. Update the CloudFront distribution to disable caching based on query string parameters.
- D. Deploy a reverse proxy after the load balancer to post-process the emitted URLs in the application to force the URL strings to be lowercase.
- E. Update the CloudFront distribution to specify casing-insensitive query string processing.

Answer: A

Explanation:

[https://docs.amazonaws.cn/en_us/AmazonCloudFront/latest/DeveloperGuide/lambda-ex](https://docs.amazonaws.cn/en_us/AmazonCloudFront/latest/DeveloperGuide/lambda-examples.html#lambda-ex) Before CloudFront serves content from the cache it will trigger any Lambda function associated with the Viewer Request, in which we can normalize parameters.

<https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/lambda-examples.html#lambda-examp>

NEW QUESTION 8

- (Exam Topic 1)

A solutions architect is designing the data storage and retrieval architecture for a new application that a company will be launching soon. The application is designed to ingest millions of small records per minute from devices all around the world. Each record is less than 4 KB in size and needs to be stored in a durable location where it can be retrieved with low latency. The data is ephemeral and the company is required to store the data for 120 days only, after which the data can be deleted.

The solutions architect calculates that, during the course of a year, the storage requirements would be about 10-15 TB.

Which storage strategy is the MOST cost-effective and meets the design requirements?

- A. Design the application to store each incoming record as a single .csv file in an Amazon S3 bucket to allow for indexed retrieval
- B. Configure a lifecycle policy to delete data older than 120 days.
- C. Design the application to store each incoming record in an Amazon DynamoDB table properly configured for the scale
- D. Configure the DynamoDB Time to Live (TTL) feature to delete records older than 120 days.
- E. Design the application to store each incoming record in a single table in an Amazon RDS MySQL database
- F. Run a nightly cron job that executes a query to delete any records older than 120 days.
- G. Design the application to batch incoming records before writing them to an Amazon S3 bucket
- H. Update the metadata for the object to contain the list of records in the batch and use the Amazon S3 metadata search feature to retrieve the data
- I. Configure a lifecycle policy to delete the data after 120 days.

Answer: B

Explanation:

DynamoDB with TTL, cheaper for sustained throughput of small items + suited for fast retrievals. S3 cheaper for storage only, much higher costs with writes. RDS not designed for this use case.

NEW QUESTION 9

- (Exam Topic 1)

A fitness tracking company serves users around the world, with its primary markets in North America and Asia. The company needs to design an infrastructure for its read-heavy user authorization application with the following requirements:

- Be resilient to problems with the application in any Region.
- Write to a database in a single Region.
- Read from multiple Regions.
- Support resiliency across application tiers in each Region.
- Support the relational database semantics reflected in the application. Which combination of steps should a solutions architect take? (Select TWO.)

- A. Use an Amazon Route 53 geoproximity routing policy combined with a multivalue answer routing policy.
- B. Deploy web
- C. application, and MySQL database servers to Amazon EC2 instances in each Region
- D. Set up the application so that reads and writes are local to the Region
- E. Create snapshots of the web, application, and database servers and store the snapshots in an Amazon S3 bucket in both Region
- F. Set up cross-Region replication for the database layer.
- G. Use an Amazon Route 53 geolocation routing policy combined with a failover routing policy.
- H. Set up web, application, and Amazon RDS for MySQL instances in each Region
- I. Set up the application so that reads are local and writes are partitioned based on the user
- J. Set up a Multi-AZ failover for the web, application, and database server
- K. Set up cross-Region replication for the database layer.
- L. Set up active-active web and application servers in each Region
- M. Deploy an Amazon Aurora global database with clusters in each Region
- N. Set up the application to use the in-Region Aurora database endpoint

O. Create snapshots of the web and application servers and store them in an Amazon S3 bucket in both Regions.

Answer: CE

Explanation:

<https://docs.aws.amazon.com/Route53/latest/DeveloperGuide/routing-policy.html>

Geoproximity routing policy is good to control the user traffic to specific regions. However, a multivalue answer routing policy may cause the users to be randomly sent to other healthy regions that may be far away from the user's location. You can use geolocation routing policy to direct the North American users to your servers on the North America region and configure failover routing to the Asia region in case the North America region fails. You can configure the same for the Asian users pointed to the Asia region servers and have the North America region as its backup.

NEW QUESTION 10

- (Exam Topic 1)

A company has an application that sells tickets online and experiences bursts of demand every 7 days. The application has a stateless presentation layer running on Amazon EC2, an Oracle database to store unstructured data catalog information, and a backend API layer. The front-end layer uses an Elastic Load Balancer to distribute the load across nine On-Demand Instances over three Availability Zones (AZs). The Oracle database is running on a single EC2 instance. The company is experiencing performance issues when running more than two concurrent campaigns. A solutions architect must design a solution that meets the following requirements:

- Address scalability issues.
- Increase the level of concurrency.
- Eliminate licensing costs.
- Improve reliability.

Which set of steps should the solutions architect take?

- A. Create an Auto Scaling group for the front end with a combination of On-Demand and Spot Instances to reduce cost
- B. Convert the Oracle database into a single Amazon RDS reserved DB instance.
- C. Create an Auto Scaling group for the front end with a combination of On-Demand and Spot Instances to reduce cost
- D. Create two additional copies of the database instance, then distribute the databases in separate AZs.
- E. Create an Auto Scaling group for the front end with a combination of On-Demand and Spot Instances to reduce cost
- F. Convert the tables in the Oracle database into Amazon DynamoDB tables.
- G. Convert the On-Demand Instances into Spot Instances to reduce costs for the front end
- H. Convert the tables in the Oracle database into Amazon DynamoDB tables.

Answer: C

Explanation:

Combination of On-Demand and Spot Instances + DynamoDB.

NEW QUESTION 10

- (Exam Topic 1)

A company wants to retire its Oracle Solaris NFS storage arrays. The company requires rapid data migration over its internet network connection to a combination of destinations for Amazon S3, Amazon Elastic File System (Amazon EFS), and Amazon FSx for Windows File Server. The company also requires a full initial copy, as well as incremental transfers of changes until the retirement of the storage arrays. All data must be encrypted and checked for integrity.

What should a solutions architect recommend to meet these requirements?

- A. Configure CloudEndur
- B. Create a project and deploy the CloudEndure agent and token to the storage array
- C. Run the migration plan to start the transfer.
- D. Configure AWS DataSync
- E. Configure the DataSync agent and deploy it to the local network
- F. Create a transfer task and start the transfer.
- G. Configure the aws S3 sync command
- H. Configure the AWS client on the client side with credential
- I. Run the sync command to start the transfer.
- J. Configure AWS Transfer (or FTP)
- K. Configure the FTP client with credential
- L. Script the client to connect and sync to start the transfer.

Answer: B

NEW QUESTION 11

- (Exam Topic 1)

A company hosts a photography website on AWS that has global visitors. The website has experienced steady increases in traffic during the last 12 months, and users have reported a delay in displaying images. The company wants to configure Amazon CloudFront to deliver photos to visitors with minimal latency.

Which actions will achieve this goal? (Select TWO.)

- A. Set the Minimum TTL and Maximum TTL to 0 in the CloudFront distribution.
- B. Set the Minimum TTL and Maximum TTL to a high value in the CloudFront distribution.
- C. Set the CloudFront distribution to forward all headers, all cookies, and all query strings to the origin.
- D. Set up additional origin servers that are geographically closer to the requester
- E. Configure latency-based routing in Amazon Route 53.
- F. Select Price Class 100 on the CloudFront distribution.

Answer: BD

NEW QUESTION 13

- (Exam Topic 1)

A company has an Amazon VPC that is divided into a public subnet and a private subnet. A web application runs in Amazon VPC, and each subnet has its own NACL. The public subnet has a CIDR of 10.0.0.0/24. An Application Load Balancer is deployed to the public subnet. The private subnet has a CIDR of 10.0.1.0/24.

Amazon EC2 instances that run a web server on port 80 are launched into the private subnet
Only network traffic that is required for the Application Load Balancer to access the web application can be allowed to travel between the public and private subnets
What collection of rules should be written to ensure that the private subnet's NACL meets the requirement? (Select TWO.)

- A. An inbound rule for port 80 from source 0.0.0.0/0
- B. An inbound rule for port 80 from source 10.0.0.0/24
- C. An outbound rule for port 80 to destination 0.0.0.0/0
- D. An outbound rule for port 80 to destination 10.0.0.0/24
- E. An outbound rule for ports 1024 through 65535 to destination 10.0.0.0/24

Answer: BE

Explanation:

Ephemeral ports are not covered in the syllabus so be careful that you don't confuse day to day best practise with what is required for the exam. Link to an explanation on Ephemeral ports here. <https://acloud.guru/forums/aws-certified-solutions-architect-associate/discussion/-KUbcwo4lXefMI7janaK/netw>

NEW QUESTION 17

- (Exam Topic 1)

A company has a three-tier application running on AWS with a web server, an application server, and an Amazon RDS MySQL DB instance. A solutions architect is designing a disaster recovery (OR) solution with an RPO of 5 minutes.

Which solution will meet the company's requirements?

- A. Configure AWS Backup to perform cross-Region backups of all servers every 5 minute
- B. Reprovision the three tiers in the DR Region from the backups using AWS CloudFormation in the event of a disaster.
- C. Maintain another running copy of the web and application server stack in the DR Region using AWS CloudFormation drill detectio
- D. Configure cross-Region snapshots of the DB instance to the DR Region every 5 minute
- E. In the event of a disaster, restore the DB instance using the snapshot in the DR Region.
- F. Use Amazon EC2 Image Builder to create and copy AMIs of the web and application server to both the primary and DR Region
- G. Create a cross-Region read replica of the DB instance in the DR Region
- H. In the event of a disaster, promote the read replica to become the master and reprovision the servers with AWS CloudFormation using the AMIs.
- I. Create AMIs of the web and application servers in the DR Region
- J. Use scheduled AWS Glue jobs to synchronize the DB instance with another DB instance in the DR Region
- K. In the event of a disaster, switch to the DB instance in the DR Region and reprovision the servers with AWS CloudFormation using the AMIs.

Answer: C

Explanation:

deploying a brand new RDS instance will take >30 minutes. You will use EC2 Image builder to put the AMIs into the new region, but not use image builder to LAUNCH them.

NEW QUESTION 18

- (Exam Topic 1)

A finance company is running its business-critical application on current-generation Linux EC2 instances. The application includes a self-managed MySQL database performing heavy I/O operations. The application is working fine to handle a moderate amount of traffic during the month. However, it slows down during the final three days of each month due to month-end reporting, even though the company is using Elastic Load Balancers and Auto Scaling within its infrastructure to meet the increased demand.

Which of the following actions would allow the database to handle the month-end load with the LEAST impact on performance?

- A. Pre-warming Elastic Load Balancers, using a bigger instance type, changing all Amazon EBS volumes to GP2 volumes.
- B. Performing a one-time migration of the database cluster to Amazon RD
- C. and creating several additional read replicas to handle the load during end of month
- D. Using Amazon CloudWatch with AWS Lambda to change the typ
- E. size, or IOPS of Amazon EBS volumes in the cluster based on a specific CloudWatch metric
- F. Replacing all existing Amazon EBS volumes with new PIOPS volumes that have the maximum available storage size and I/O per second by taking snapshots before the end of the month and reverting back afterwards.

Answer: B

Explanation:

In this scenario, the Amazon EC2 instances are in an Auto Scaling group already which means that the database read operations is the possible bottleneck especially during the month-end wherein the reports are generated. This can be solved by creating RDS read replicas.

NEW QUESTION 20

- (Exam Topic 1)

A company wants to host a new global website that consists of static content. A solutions architect is working on a solution that uses Amazon CloudFront with an origin access identity (OAI) to access website content that is stored in a private Amazon S3 bucket.

During testing, the solutions architect receives 404 errors from the S3 bucket. Error messages appear only for attempts to access paths that end with a forward slash, such as `example.com/path/`. These requests should return the existing S3 object `path/index.html`. Any potential solution must not prevent CloudFront from caching the content.

What should the solutions architect do to resolve this problem?

- A. Change the CloudFront origin to an Amazon API Gateway proxy endpoint
- B. Rewrite the S3 request URL by using an AWS Lambda function.
- C. Change the CloudFront origin to an Amazon API Gateway endpoint
- D. Rewrite the S3 request URL in an AWS service integration.
- E. Change the CloudFront configuration to use an AWS Lambda@Edge function that is invoked by a viewer request event to rewrite the S3 request URL.
- F. Change the CloudFront configuration to use an AWS Lambda@Edge function that is invoked by an origin request event to rewrite the S3 request URL.

Answer: C

NEW QUESTION 23

- (Exam Topic 1)

A company is storing data on premises on a Windows file server. The company produces 5 GB of new data daily.

The company migrated part of its Windows-based workload to AWS and needs the data to be available on a file system in the cloud. The company already has established an AWS Direct Connect connection between the on-premises network and AWS.

Which data migration strategy should the company use?

- A. Use the file gateway option in AWS Storage Gateway to replace the existing Windows file server, and point the existing file share to the new file gateway.
- B. Use AWS DataSync to schedule a daily task to replicate data between the on-premises Windows file server and Amazon FSx.
- C. Use AWS Data Pipeline to schedule a daily task to replicate data between the on-premises Windows file server and Amazon Elastic File System (Amazon EFS).
- D. Use AWS DataSync to schedule a daily task to replicate data between the on-premises Windows file server and Amazon Elastic File System (Amazon EFS).

Answer: B

Explanation:

<https://aws.amazon.com/storagegateway/file/> <https://docs.aws.amazon.com/fsx/latest/WindowsGuide/migrate-files-to-fsx-datasync.html>

<https://docs.aws.amazon.com/systems-manager/latest/userguide/prereqs-operating-systems.html#prereqs-os-win>

NEW QUESTION 24

- (Exam Topic 1)

A scientific organization requires the processing of text and picture data stored in an Amazon S3 bucket. The data is gathered from numerous radar stations during a mission's live, time-critical phase. The data is uploaded by the radar stations to the source S3 bucket. The data is preceded with the identification number of the radar station.

In a second account, the business built a destination S3 bucket. To satisfy a compliance target, data must be transferred from the source S3 bucket to the destination S3 bucket. Replication is accomplished by using an S3 replication rule that covers all items in the source S3 bucket.

A single radar station has been recognized as having the most precise data. At this radar station, data replication must be completed within 30 minutes of the radar station uploading the items to the source S3 bucket.

What actions should a solutions architect take to ensure that these criteria are met?

- A. Set up an AWS DataSync agent to replicate the prefixed data from the source S3 bucket to the destination S3 bucket
- B. Select to use at available bandwidth on the task, and monitor the task to ensure that it is in the TRANSFERRING status
- C. Create an Amazon EventBridge (Amazon CloudWatch Events) rule to trigger an alert if this status changes.
- D. In the second account, create another S3 bucket to receive data from the radar station with the most accurate data Set up a new replication rule for this new S3 bucket to separate the replication from the other radar stations Monitor the maximum replication time to the destination
- E. Create an Amazon EventBridge (Amazon CloudWatch Events) rule to trigger an alert when the time exceeds the desired threshold
- F. Enable Amazon S3 Transfer Acceleration on the source S3 bucket, and configure the radar station with the most accurate data to use the new endpoint Monitor the S3 destination bucket's TotalRequestLatency metric Create an Amazon EventBridge (Amazon CloudWatch Events) rule to trigger an alert if this status changes
- G. Create a new S3 replication rule on the source S3 bucket that filters for the keys that use the prefix of the radar station with the most accurate data Enable S3 Replication Time Control (S3 RTC) Monitor the maximum replication time to the destination Create an Amazon EventBridge (Amazon CloudWatch Events) rule to trigger an alert when the time exceeds the desired threshold

Answer: D

Explanation:

<https://docs.aws.amazon.com/AmazonS3/latest/userguide/replication-time-control.html>

NEW QUESTION 25

- (Exam Topic 1)

The company needs to determine which costs on the monthly AWS bill are attributable to each application or team. The company also must be able to create reports to compare costs from the last 12 months and to help forecast costs for the next 12 months. A solutions architect must recommend an AWS Billing and Cost Management solution that provides these cost reports.

Which combination of actions will meet these requirements? (Select THREE.)

- A. Activate the user-defined cost allocation tags that represent the application and the team.
- B. Activate the AWS generated cost allocation tags that represent the application and the team.
- C. Create a cost category for each application in Billing and Cost Management.
- D. Activate IAM access to Billing and Cost Management.
- E. Create a cost budget.
- F. Enable Cost Explorer.

Answer: ACF

Explanation:

<https://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/manage-cost-categories.html> <https://aws.amazon.com/premiumsupport/knowledge-center/cost-explorer-analyze-spending-and-usage/> <https://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/manage-cost-categories.html>

<https://docs.aws.amazon.com/cost-management/latest/userguide/ce-enable.html>

NEW QUESTION 30

- (Exam Topic 1)

A company has a new application that needs to run on five Amazon EC2 instances in a single AWS Region. The application requires high-throughput, low-latency network connections between all of the EC2 instances where the application will run. There is no requirement for the application to be fault tolerant.

Which solution will meet these requirements?

- A. Launch five new EC2 instances into a cluster placement group
- B. Ensure that the EC2 instance type supports enhanced networking.
- C. Launch five new EC2 instances into an Auto Scaling group in the same Availability Zone
- D. Attach an extra elastic network interface to each EC2 instance.
- E. Launch five new EC2 instances into a partition placement group

- F. Ensure that the EC2 instance type supports enhanced networking.
- G. Launch five new EC2 instances into a spread placement group.
- H. Attach an extra elastic network interface to each EC2 instance.

Answer: A

Explanation:

When you launch EC2 instances in a cluster they benefit from performance and low latency. No redundancy though as per the question
<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/placement-groups.html>.

NEW QUESTION 33

- (Exam Topic 1)

A company is running a data-intensive application on AWS. The application runs on a cluster of hundreds of Amazon EC2 instances. A shared file system also runs on several EC2 instances that store 200 TB of data. The application reads and modifies the data on the shared file system and generates a report. The job runs once monthly, reads a subset of the files from the shared file system, and takes about 72 hours to complete. The compute instances scale in an Auto Scaling group, but the instances that host the shared file system run continuously. The compute and storage instances are all in the same AWS Region. A solutions architect needs to reduce costs by replacing the shared file system instances. The file system must provide high performance access to the needed data for the duration of the 72-hour run.

Which solution will provide the LARGEST overall cost reduction while meeting these requirements?

- A. Migrate the data from the existing shared file system to an Amazon S3 bucket that uses the S3 Intelligent-Tiering storage class.
- B. Before the job runs each month, use Amazon FSx for Lustre to create a new file system with the data from Amazon S3 by using lazy loading.
- C. Use the new file system as the shared storage for the duration of the job.
- D. Delete the file system when the job is complete.
- E. Migrate the data from the existing shared file system to a large Amazon Elastic Block Store (Amazon EBS) volume with Multi-Attach enabled.
- F. Attach the EBS volume to each of the instances by using a user data script in the Auto Scaling group launch template.
- G. Use the EBS volume as the shared storage for the duration of the job.
- H. Detach the EBS volume when the job is complete.
- I. Migrate the data from the existing shared file system to an Amazon S3 bucket that uses the S3 Standard storage class.
- J. Before the job runs each month, use Amazon FSx for Lustre to create a new file system with the data from Amazon S3 by using batch loading.
- K. Use the new file system as the shared storage for the duration of the job.
- L. Delete the file system when the job is complete.
- M. Migrate the data from the existing shared file system to an Amazon S3 bucket.
- N. Before the job runs each month, use AWS Storage Gateway to create a file gateway with the data from Amazon S3. Use the file gateway as the shared storage for the job.
- O. Delete the file gateway when the job is complete.

Answer: B

NEW QUESTION 37

- (Exam Topic 1)

An e-commerce company is revamping its IT infrastructure and is planning to use AWS services. The company's CIO has asked a solutions architect to design a simple, highly available, and loosely coupled order processing application. The application is responsible for receiving and processing orders before storing them in an Amazon DynamoDB table. The application has a sporadic traffic pattern and should be able to scale during marketing campaigns to process the orders with minimal delays.

Which of the following is the MOST reliable approach to meet the requirements?

- A. Receive the orders in an Amazon EC2-hosted database and use EC2 instances to process them.
- B. Receive the orders in an Amazon SQS queue and trigger an AWS Lambda function to process them.
- C. Receive the orders using the AWS Step Functions program and trigger an Amazon ECS container to process them.
- D. Receive the orders in Amazon Kinesis Data Streams and use Amazon EC2 instances to process them.

Answer: B

Explanation:

Q: How does Amazon Kinesis Data Streams differ from Amazon SQS?

Amazon Kinesis Data Streams enables real-time processing of streaming big data. It provides ordering of records, as well as the ability to read and/or replay records in the same order to multiple Amazon Kinesis Applications. The Amazon Kinesis Client Library (KCL) delivers all records for a given partition key to the same record processor, making it easier to build multiple applications reading from the same Amazon Kinesis data stream (for example, to perform counting, aggregation, and filtering).

<https://aws.amazon.com/kinesis/data-streams/faqs/>

<https://aws.amazon.com/blogs/big-data/unite-real-time-and-batch-analytics-using-the-big-data-lambda-architect>

NEW QUESTION 39

- (Exam Topic 1)

A company has application services that have been containerized and deployed on multiple Amazon EC2 instances with public IPs. An Apache Kafka cluster has been deployed to the EC2 instances. A PostgreSQL database has been migrated to Amazon RDS for PostgreSQL. The company expects a significant increase of orders on its platform when a new version of its flagship product is released.

What changes to the current architecture will reduce operational overhead and support the product release?

- A. Create an EC2 Auto Scaling group behind an Application Load Balance.
- B. Create additional read replicas for the DB instance.
- C. Create Amazon Kinesis data streams and configure the application services to use the data stream.
- D. Store and serve static content directly from Amazon S3.
- E. Create an EC2 Auto Scaling group behind an Application Load Balance.
- F. Deploy the DB instance in Multi-AZ mode and enable storage autoscaling.
- G. Create Amazon Kinesis data streams and configure the application services to use the data stream.
- H. Store and serve static content directly from Amazon S3.
- I. Deploy the application on a Kubernetes cluster created on the EC2 instances behind an Application Load Balance.
- J. Deploy the DB instance in Multi-AZ mode and enable storage autoscaling.

- K. Create an Amazon Managed Streaming for Apache Kafka cluster and configure the application services to use the cluster.
- L. Store static content in Amazon S3 behind an Amazon CloudFront distribution.
- M. Deploy the application on Amazon Elastic Kubernetes Service (Amazon EKS) with AWS Fargate and enable auto scaling behind an Application Load Balancer.
- N. Create additional read replicas for the DB instance.
- O. Create an Amazon Managed Streaming for Apache Kafka cluster and configure the application services to use the cluster.
- P. Store static content in Amazon S3 behind an Amazon CloudFront distribution.

Answer: D

Explanation:

Deploy the application on Amazon Elastic Kubernetes Service (Amazon EKS) with AWS Fargate and enable auto scaling behind an Application Load Balancer. Create additional read replicas for the DB instance. Create an Amazon Managed Streaming for Apache Kafka cluster and configure the application services to use the cluster. Store static content in Amazon S3 behind an Amazon CloudFront distribution.

NEW QUESTION 40

- (Exam Topic 1)

A solutions architect needs to advise a company on how to migrate its on-premises data processing application to the AWS Cloud. Currently, users upload input files through a web portal. The web server then stores the uploaded files on NAS and messages the processing server over a message queue. Each media file can take up to 1 hour to process. The company has determined that the number of media files awaiting processing is significantly higher during business hours, with the number of files rapidly declining after business hours.

What is the MOST cost-effective migration recommendation?

- A. Create a queue using Amazon SQS.
- B. Configure the existing web server to publish to the new queue. When there are messages in the queue, invoke an AWS Lambda function to pull requests from the queue and process the file.
- C. Store the processed files in an Amazon S3 bucket.
- D. Create a queue using Amazon MQ.
- E. Configure the existing web server to publish to the new queue. When there are messages in the queue, create a new Amazon EC2 instance to pull requests from the queue and process the file.
- F. Store the processed files in Amazon EFS.
- G. Shut down the EC2 instance after the task is complete.
- H. Create a queue using Amazon SNS.
- I. Configure the existing web server to publish to the new queue. When there are messages in the queue, invoke an AWS Lambda function to pull requests from the queue and process the file.
- J. Store the processed files in Amazon EFS.
- K. Create a queue using Amazon SNS.
- L. Configure the existing web server to publish to the new queue.
- M. Use Amazon EC2 instances in an EC2 Auto Scaling group to pull requests from the queue and process the file.
- N. Scale the EC2 instances based on the SQS queue length.
- O. Store the processed files in an Amazon S3 bucket.

Answer: D

Explanation:

<https://aws.amazon.com/blogs/compute/operating-lambda-performance-optimization-part-1/>

NEW QUESTION 42

- (Exam Topic 1)

A web application is hosted in a dedicated VPC that is connected to a company's on-premises data center over a Site-to-Site VPN connection. The application is accessible from the company network only. This is a temporary non-production application that is used during business hours. The workload is generally low with occasional surges.

The application has an Amazon Aurora MySQL provisioned database cluster on the backend. The VPC has an internet gateway and a NAT gateway attached. The web servers are in private subnets in an Auto Scaling group behind an Elastic Load Balancer. The web servers also upload data to an Amazon S3 bucket through the internet.

A solutions architect needs to reduce operational costs and simplify the architecture. Which strategy should the solutions architect use?

- A. Review the Auto Scaling group settings and ensure the scheduled actions are specified to operate the Amazon EC2 instances during business hours only.
- B. Use 3-year scheduled Reserved Instances for the web server EC2 instance.
- C. Detach the internet gateway and remove the NAT gateways from the VPC.
- D. Use an Aurora Serverless database and set up a VPC endpoint for the S3 bucket.
- E. Review the Auto Scaling group settings and ensure the scheduled actions are specified to operate the Amazon EC2 instances during business hours only.
- F. Detach the internet gateway and remove the NAT gateways from the VPC.
- G. Use an Aurora Serverless database and set up a VPC endpoint for the S3 bucket, then update the network routing and security rules and policies related to the changes.
- H. Review the Auto Scaling group settings and ensure the scheduled actions are specified to operate the Amazon EC2 instances during business hours only.
- I. Detach the internet gateway from the VPC, and use an Aurora Serverless database.
- J. Set up a VPC endpoint for the S3 bucket, then update the network routing and security rules and policies related to the changes.
- K. Use 3-year scheduled Reserved Instances for the web server Amazon EC2 instance.
- L. Remove the NAT gateways from the VPC, and set up a VPC endpoint for the S3 bucket.
- M. Use Amazon CloudWatch and AWS Lambda to stop and start the Aurora DB cluster so it operates during business hours only.
- O. Update the network routing and security rules and policies related to the changes.

Answer: B

Explanation:

The application is accessible from the company network only. Remove NAT and IGW, application - S3 with VPC endpoint. Non-Production application no need to go for Reserved instances.

To build site-to-site VPN, you don't need internet gateway. Instead, customer gateway is needed.

<https://docs.aws.amazon.com/vpn/latest/s2svpn/SetUpVPNConnections.html#vpn-create-cgw>

NEW QUESTION 46

- (Exam Topic 1)

A company needs to store and process image data that will be uploaded from mobile devices using a custom mobile app. Usage peaks between 8 AM and 5 PM on weekdays, with thousands of uploads per minute. The app is rarely used at any other time A user is notified when image processing is complete. Which combination of actions should a solutions architect take to ensure image processing can scale to handle the load? (Select THREE.)

- A. Upload files from the mobile software directly to Amazon S3. Use S3 event notifications to create a message in an Amazon MQ queue.
- B. Upload files from the mobile software directly to Amazon S3. Use S3 event notifications to create a message in an Amazon Simple Queue Service (Amazon SQS) standard queue.
- C. Invoke an AWS Lambda function to perform image processing when a message is available in the queue.
- D. Invoke an S3 Batch Operations job to perform image processing when a message is available in the queue.
- E. Send a push notification to the mobile app by using Amazon Simple Notification Service (Amazon SNS) when processing is complete.
- F. Send a push notification to the mobile app by using Amazon Simple Email Service (Amazon SES) when processing is complete.

Answer: BCE

Explanation:

<https://docs.aws.amazon.com/AmazonS3/latest/userguide/batch-ops-basics.html>

NEW QUESTION 47

- (Exam Topic 1)

An online retail company hosts its stateful web-based application and MySQL database in an on-premises data center on a single server. The company wants to increase its customer base by conducting more marketing campaigns and promotions. In preparation, the company wants to migrate its application and database to AWS to increase the reliability of its architecture.

Which solution should provide the HIGHEST level of reliability?

- A. Migrate the database to an Amazon RDS MySQL Multi-AZ DB instance
- B. Deploy the application in an Auto Scaling group on Amazon EC2 instances behind an Application Load Balance
- C. Store sessions in Amazon Neptune.
- D. Migrate the database to Amazon Aurora MySQL
- E. Deploy the application in an Auto Scaling group on Amazon EC2 instances behind an Application Load Balance
- F. Store sessions in an Amazon ElastiCache for Redis replication group.
- G. Migrate the database to Amazon DocumentDB (with MongoDB compatibility). Deploy the application in an Auto Scaling group on Amazon EC2 instances behind a Network Load Balance
- H. Store sessions in Amazon Kinesis Data Firehose.
- I. Migrate the database to an Amazon RDS MariaDB Multi-AZ DB instance
- J. Deploy the application in an Auto Scaling group on Amazon EC2 instances behind an Application Load Balance
- K. Store sessions in Amazon ElastiCache for Memcached.

Answer: B

NEW QUESTION 48

- (Exam Topic 1)

To abide by industry regulations, a solutions architect must design a solution that will store a company's critical data in multiple public AWS Regions, including in the United States, where the company's headquarters is located. The solutions architect is required to provide access to the data stored in AWS to the company's global WAN network. The security team mandates that no traffic accessing this data should traverse the public internet.

How should the solutions architect design a highly available solution that meets the requirements and is cost-effective?

- A. Establish AWS Direct Connect connections from the company headquarters to all AWS Regions in use. Use the company WAN to send traffic over to the headquarters and then to the respective DX connection to access the data.
- B. Establish two AWS Direct Connect connections from the company headquarters to an AWS Region. Use the company WAN to send traffic over a DX connection
- C. Use inter-region VPC peering to access the data in other AWS Regions.
- D. Establish two AWS Direct Connect connections from the company headquarters to an AWS Region. Use the company WAN to send traffic over a DX connection
- E. Use an AWS transit VPC solution to access data in other AWS Regions.
- F. Establish two AWS Direct Connect connections from the company headquarters to an AWS Region. Use the company WAN to send traffic over a DX connection
- G. Use Direct Connect Gateway to access data in other AWS Regions.

Answer: D

Explanation:

This feature also allows you to connect to any of the participating VPCs from any Direct Connect location, further reducing your costs for making using AWS services on a cross-region basis. <https://aws.amazon.com/blogs/aws/new-aws-direct-connect-gateway-inter-region-vpc-access/>

<https://docs.aws.amazon.com/whitepapers/latest/aws-vpc-connectivity-options/aws-direct-connect-aws-transit-g>

NEW QUESTION 51

- (Exam Topic 1)

A company has an application that generates reports and stores them in an Amazon S3 bucket. When a user accesses their report, the application generates a signed URL to allow the user to download the report. The company's security team has discovered that the files are public and that anyone can download them without authentication. The company has suspended the generation of new reports until the problem is resolved.

Which set of actions will immediately remediate the security issue without impacting the application's normal workflow?

- A. Create an AWS Lambda function that applies a deny all policy for users who are not authenticated. Create a scheduled event to invoke the Lambda function.
- B. Review the AWS Trusted Advisor bucket permissions check and implement the recommended actions.
- C. Run a script that puts a private ACL on all of the objects in the bucket.
- D. Use the Block Public Access feature in Amazon S3 to set the IgnorePublicAcls option to TRUE on the bucket.

Answer: D

Explanation:

The S3 bucket is allowing public access and this must be immediately disabled. Setting the IgnorePublicAcls option to TRUE causes Amazon S3 to ignore all

public ACLs on a bucket and any objects that it contains. The other settings you can configure with the Block Public Access Feature are:

- o BlockPublicAcls – PUT bucket ACL and PUT objects requests are blocked if granting public access.
- o BlockPublicPolicy – Rejects requests to PUT a bucket policy if granting public access.
- o RestrictPublicBuckets – Restricts access to principles in the bucket owners' AWS account. <https://aws.amazon.com/s3/features/block-public-access/>

NEW QUESTION 52

- (Exam Topic 1)

A large company in Europe plans to migrate its applications to the AWS Cloud. The company uses multiple AWS accounts for various business groups. A data privacy law requires the company to restrict developers' access to AWS European Regions only.

What should the solutions architect do to meet this requirement with the LEAST amount of management overhead?

- A. Create IAM users and IAM groups in each account
- B. Create IAM policies to limit access to non-European Regions Attach the IAM policies to the IAM groups
- C. Enable AWS Organizations, attach the AWS accounts, and create OUs for European Regions and non-European Region
- D. Create SCPs to limit access to non-European Regions and attach the policies to the OUs.
- E. Set up AWS Single Sign-On and attach AWS account
- F. Create permission sets with policies to restrict access to non-European Regions Create IAM users and IAM groups in each account.
- G. Enable AWS Organizations, attach the AWS accounts, and create OUs for European Regions and non-European Region
- H. Create permission sets with policies to restrict access to non-European Region
- I. Create IAM users and IAM groups in the primary account.

Answer: B

Explanation:

"This policy uses the Deny effect to deny access to all requests for operations that don't target one of the two approved regions (eu-central-1 and eu-west-1)."

https://docs.aws.amazon.com/organizations/latest/userguide/orgs_manage_policies_scps_examples_general.htm

https://docs.aws.amazon.com/IAM/latest/UserGuide/reference_policies_elements_condition.html

NEW QUESTION 54

- (Exam Topic 1)

A company is building a hybrid solution between its existing on-premises systems and a new backend in AWS. The company has a management application to monitor the state of its current IT infrastructure and automate responses to issues. The company wants to incorporate the status of its consumed AWS services into the application. The application uses an HTTPS endpoint to receive updates.

Which approach meets these requirements with the LEAST amount of operational overhead?

- A. Configure AWS Systems Manager OpsCenter to ingest operational events from the on-premises systems Retire the on-premises management application and adopt OpsCenter as the hub
- B. Configure Amazon EventBridge (Amazon CloudWatch Events) to detect and react to changes for AWS Health events from the AWS Personal Health Dashboard Configure the EventBridge (CloudWatch Events) event to publish a message to an Amazon Simple Notification Service (Amazon SNS) topic and subscribe the topic to the HTTPS endpoint of the management application
- C. Modify the on-premises management application to call the AWS Health API to poll for status events of AWS services.
- D. Configure Amazon EventBridge (Amazon CloudWatch Events) to detect and react to changes for AWS Health events from the AWS Service Health Dashboard Configure the EventBridge (CloudWatch Events) event to publish a message to an Amazon Simple Notification Service (Amazon SNS) topic and subscribe the topic to an HTTPS endpoint for the management application with a topic filter corresponding to the services being used

Answer: A

Explanation:

ALB & NLB both supports IPs as targets. Questions is based on TCP traffic over VPN to on-premise. TCP is layer 4 and the , load balancer should be NLB. Then next questions does NLB supports loadbalancing traffic over VPN. And answer is YEs based on below URL.

<https://aws.amazon.com/about-aws/whats-new/2018/09/network-load-balancer-now-supports-aws-vpn/>

Target as IPs for NLB & ALB: <https://aws.amazon.com/elasticloadbalancing/faqs/?nc=sn&loc=5> <https://aws.amazon.com/elasticloadbalancing/application-load-balancer/>

NEW QUESTION 59

- (Exam Topic 1)

A company is building an image service on the web that will allow users to upload and search random photos. At peak usage, up to 10,000 users worldwide will upload their images. The service will then overlay text on the uploaded images, which will then be published on the company website.

Which design should a solutions architect implement?

- A. Store the uploaded images in Amazon Elastic File System (Amazon EFS). Send application log information about each image to Amazon CloudWatch Log
- B. Create a fleet of Amazon EC2 instances that use CloudWatch Logs to determine which images need to be processed
- C. Place processed images in another directory in Amazon EFS
- D. Enable Amazon CloudFront and configure the origin to be the one of the EC2 instances in the fleet.
- E. Store the uploaded images in an Amazon S3 bucket and configure an S3 bucket event notification to send a message to Amazon Simple Notification Service (Amazon SNS). Create a fleet of Amazon EC2 instances behind an Application Load Balancer (ALB) to pull messages from Amazon SNS to process the images and place them in Amazon Elastic File System (Amazon EFS). Use Amazon CloudWatch metrics for the SNS message volume to scale out EC2 instance
- F. Enable Amazon CloudFront and configure the origin to be the ALB in front of the EC2 instances.
- G. Store the uploaded images in an Amazon S3 bucket and configure an S3 bucket event notification to send a message to the Amazon Simple Queue Service (Amazon SQS) queue
- H. Create a fleet of Amazon EC2 instances to pull messages from the SQS queue to process the images and place them in another S3 bucket
- I. Use Amazon CloudWatch metrics for queue depth to scale out EC2 instance
- J. Enable Amazon CloudFront and configure the origin to be the S3 bucket that contains the processed images.
- K. Store the uploaded images on a shared Amazon Elastic Block Store (Amazon EBS) volume mounted to a fleet of Amazon EC2 Spot instance
- L. Create an Amazon DynamoDB table that contains information about each uploaded image and whether it has been processed
- M. Use an Amazon EventBridge (Amazon CloudWatch Events) rule to scale out EC2 instance
- N. Enable Amazon CloudFront and configure the origin to reference an Elastic Load Balancer in front of the fleet of EC2 instances.

Answer: C

NEW QUESTION 61

- (Exam Topic 1)

A company plans to migrate to AWS. A solutions architect uses AWS Application Discovery Service over the fleet and discovers that there is an Oracle data warehouse and several PostgreSQL databases. Which combination of migration patterns will reduce licensing costs and operational overhead? (Select TWO.)

- A. Lift and shift the Oracle data warehouse to Amazon EC2 using AWS DMS.
- B. Migrate the Oracle data warehouse to Amazon Redshift using AWS SCT and AWS QMS.
- C. Lift and shift the PostgreSQL databases to Amazon EC2 using AWS DMS.
- D. Migrate the PostgreSQL databases to Amazon RDS for PostgreSQL using AWS DMS
- E. Migrate the Oracle data warehouse to an Amazon EMR managed cluster using AWS DMS.

Answer: BD

Explanation:

<https://aws.amazon.com/getting-started/hands-on/migrate-oracle-to-amazon-redshift/> <https://docs.aws.amazon.com/prescriptive-guidance/latest/patterns/migrate-an-on-premises-postgresql-database>

NEW QUESTION 66

- (Exam Topic 1)

A solutions architect is evaluating the reliability of a recently migrated application running on AWS. The front end is hosted on Amazon S3 and accelerated by Amazon CloudFront. The application layer is running in a stateless Docker container on an Amazon EC2 On-Demand Instance with an Elastic IP address. The storage layer is a MongoDB database running on an EC2 Reserved Instance in the same Availability Zone as the application layer.

Which combination of steps should the solutions architect take to eliminate single points of failure with minimal application code changes? (Select TWO.)

- A. Create a REST API in Amazon API Gateway and use AWS Lambda functions as the application layer.
- B. Create an Application Load Balancer and migrate the Docker container to AWS Fargate.
- C. Migrate the storage layer to Amazon DynamoD8.
- D. Migrate the storage layer to Amazon DocumentD8 (with MongoDB compatibility).
- E. Create an Application Load Balancer and move the storage layer to an EC2 Auto Scaling group.

Answer: BD

Explanation:

https://aws.amazon.com/documentdb/?nc1=h_ls

<https://aws.amazon.com/blogs/containers/using-alb-ingress-controller-with-amazon-eks-on-fargate/>

NEW QUESTION 71

- (Exam Topic 1)

A company is running an application distributed over several Amazon EC2 instances in an Auto Seating group behind an Application Load Balancer The security team requires that all application access attempts be made available for analysis information about the client IP address, connection type, and user agent must be included

Which solution will meet these requirements?

- A. Enable EC2 detailed monitoring, and include network log
- B. Send all logs through Amazon Kinesis Data Firehose to an Amazon Elasticsearch Service (Amazon ES) cluster that the security team uses for analysis.
- C. Enable VPC Flow Logs for all EC2 instance network interfaces Publish VPC Flow Logs to an Amazon S3 bucket Have the security team use Amazon Athena to query and analyze the logs.
- D. Enable access logs for the Application Load Balancer, and publish the logs to an Amazon S3 bucket.Have the security team use Amazon Athena to query and analyze the logs
- E. Enable Traffic Mirroring and specify all EC2 instance network interfaces as the source
- F. Send all traffic information through Amazon Kinesis Data Firehose to an Amazon Elasticsearch Service (Amazon ES) cluster that the security team uses for analysis.

Answer: C

Explanation:

<https://docs.aws.amazon.com/elasticloadbalancing/latest/application/load-balancer-access-logs.html> <https://docs.aws.amazon.com/vpc/latest/mirroring/what-is-traffic-mirroring.html>

NEW QUESTION 72

- (Exam Topic 1)

A company is creating a REST API to share information with six of its partners based in the United States. The company has created an Amazon API Gateway Regional endpoint. Each of the six partners will access the API once per day to post daily sales figures.

After initial deployment, the company observes 1.000 requests per second originating from 500 different IP addresses around the world. The company believes this traffic is originating from a botnet and wants to secure its API while minimizing cost.

Which approach should the company take to secure its API?

- A. Create an Amazon CloudFront distribution with the API as the origin
- B. Create an AWS WAF web ACL with a rule to block clients "hat submit more than five requests per da
- C. Associate the web ACL with the CloudFront distributio
- D. Configure CloudFront with an origin access identity (OAI) and associate it with the distributio
- E. Configure API Gateway to ensure only the OAI can execute the POST method.
- F. Create an Amazon CloudFront distribution with the API as the origi
- G. Create an AWS WAF web ACL with a rule to block clients that submit more than five requests per da
- H. Associate the web ACL with the CloudFront distributio
- I. Add a custom header to the CloudFront distribution populated with an API ke
- J. Configure the API to require an API key on the POST method.
- K. Create an AWS WAF web ACL with a rule to allow access to the IP addresses used by the six partners.Associate the web ACL with the AP
- L. Create a resource policy with a request limit and associate it with the AP

- M. Configure the API to require an API key on the POST method.
- N. Associate the web ACL with the AP
- O. Create a usage plan with a request limit and associate it with the AP
- P. Create an API key and add it to the usage plan.

Answer: D

Explanation:

"A usage plan specifies who can access one or more deployed API stages and methods—and also how much and how fast they can access them. The plan uses API keys to identify API clients and meters access to the associated API stages for each key. It also lets you configure throttling limits and quota limits that are enforced on individual client API keys."

<https://docs.aws.amazon.com/apigateway/latest/developerguide/api-gateway-api-usage-plans.html>

NEW QUESTION 73

- (Exam Topic 1)

A company with global offices has a single 1 Gbps AWS Direct Connect connection to a single AWS Region. The company's on-premises network uses the connection to communicate with the company's resources in the AWS Cloud. The connection has a single private virtual interface that connects to a single VPC. A solutions architect must implement a solution that adds a redundant Direct Connect connection in the same Region. The solution also must provide connectivity to other Regions through the same pair of Direct Connect connections as the company expands into other Regions. Which solution meets these requirements?

- A. Provision a Direct Connect gateway
- B. Delete the existing private virtual interface from the existing connectio
- C. Create the second Direct Connect connectio
- D. Create a new private virtual interlace on each connection, and connect both private virtual interfaces to the Direct Connect gateway
- E. Connect the Direct Connect gateway to the single VPC.
- F. Keep the existing private virtual interfac
- G. Create the second Direct Connect connectio
- H. Create a new private virtual interface on the new connection, and connect the new private virtual interface to the single VPC.
- I. Keep the existing private virtual interfac
- J. Create the second Direct Connect connectio
- K. Create a new public virtual interface on the new connection, and connect the new public virtual interface to the single VPC.
- L. Provision a transit gateway
- M. Delete the existing private virtual interface from the existing connection.Create the second Direct Connect connectio
- N. Create a new private virtual interface on each connection, and connect both private virtual interfaces to the transit gateway
- O. Associate the transit gateway with the single VPC.

Answer: A

Explanation:

A Direct Connect gateway is a globally available resource. You can create the Direct Connect gateway in any Region and access it from all other Regions. The following describe scenarios where you can use a Direct Connect gateway.

<https://docs.aws.amazon.com/directconnect/latest/UserGuide/direct-connect-gateways-intro.html>

NEW QUESTION 75

- (Exam Topic 1)

A company is serving files to its customers through an SFTP server that is accessible over the internet. The SFTP server is running on a single Amazon EC2 instance with an Elastic IP address attached. Customers connect to the SFTP server through its Elastic IP address and use SSH (or authentication). The EC2 instance also has an attached security group that allows access from all customer IP addresses.

A solutions architect must implement a solution to improve availability, minimize the complexity of infrastructure management, and minimize the disruption to customers who access files. The solution must not change the way customers connect.

Which solution will meet these requirements?

- A. Disassociate the Elastic IP address from the EC2 instanc
- B. Create an Amazon S3 bucket to be used for SFTP file hostin
- C. Create an AWS Transfer Family server. Configure the Transfer Family server with a publicly accessible endpoint. Associate the SFTP Elastic IP address with the new endpoint. Point the Transfer Family server to the S3 bucke
- D. Sync all files from the SFTP server to the S3 bucket.
- E. Disassociate the Elastic IP address from the EC2 instanc
- F. Create an Amazon S3 bucket to be used for SFTP file hostin
- G. Create an AWS Transfer Family serve
- H. Configure the Transfer Family server with a VPC-hoste
- I. Internet-facing endpoint
- J. Associate the SFTP Elastic IP address with the new endpoint
- K. Attach the security group with customer IP addresses to the new endpoint
- L. Point the Transfer Family server to the S3 bucket. Sync all files from the SFTP server to the S3 bucket.
- M. Disassociate the Elastic IP address from the EC2 instanc
- N. Create a new Amazon Elastic File System (Amazon EFS) file system to be used for SFTP file hostin
- O. Create an AWS Fargate task definition to run an SFTP serve
- P. Specify the EFS file system as a mount in the task definitio
- Q. Create a Fargate service by using the task definition, and place a Network Load Balancer (NLB) in front of the service. When configuring the service, attach the security group with customer IP addresses to the tasks that run the SFTP serve
- R. Associate the Elastic IP address with the NL
- S. Sync all files from the SFTP server to the S3 bucket.
- T. Disassociate the Elastic IP address from the EC2 instanc
- . Create a multi-attach Amazon Elastic Block Store (Amazon EBS) volume to be used for SFTP file hostin
- . Create a Network Load Balancer (NLB) with the Elastic IP address attache
- . Create an Auto Scaling group with EC2 instances that run an SFTP server. Define in the Auto Scaling group that instances that are launched should attach the new multi-attach EBS volume. Configure the Auto Scaling group to automatically add instances behind the NLB. Configure the Auto Scaling group to use the security group that allows customer IP addresses for the EC2 instances that the Auto Scaling group launch
- . Sync all files from the SFTP server to the new multi-attach EBS volume.

Answer: B

Explanation:

<https://docs.aws.amazon.com/transfer/latest/userguide/create-server-in-vpc.html> <https://aws.amazon.com/premiumsupport/knowledge-center/aws-sftp-endpoint-type/>

NEW QUESTION 76

- (Exam Topic 1)

A solutions architect is building a web application that uses an Amazon RDS for PostgreSQL DB instance. The DB instance is expected to receive many more reads than writes. The solutions architect needs to ensure that the large amount of read traffic can be accommodated and that the DB instance is highly available. Which steps should the solutions architect take to meet these requirements? (Select THREE.)

- A. Create multiple read replicas and put them into an Auto Scaling group
- B. Create multiple read replicas in different Availability Zones.
- C. Create an Amazon Route 53 hosted zone and a record set for each read replica with a TTL and a weighted routing policy
- D. Create an Application Load Balancer (ALB) and put the read replicas behind the ALB.
- E. Configure an Amazon CloudWatch alarm to detect a failed read replica. Set the alarm to directly invoke an AWS Lambda function to delete its Route 53 record set.
- F. Configure an Amazon Route 53 health check for each read replica using its endpoint

Answer: BCF

Explanation:

<https://aws.amazon.com/premiumsupport/knowledge-center/requests-rds-read-replicas/>

You can use Amazon Route 53 weighted record sets to distribute requests across your read replicas. Within a Route 53 hosted zone, create individual record sets for each DNS endpoint associated with your read replicas and give them the same weight. Then, direct requests to the endpoint of the record set. You can incorporate Route 53 health checks to be sure that Route 53 directs traffic away from unavailable read replicas.

NEW QUESTION 79

- (Exam Topic 1)

A company is moving a business-critical multi-tier application to AWS. The architecture consists of a desktop client application and server infrastructure. The server infrastructure resides in an on-premises data center that frequently fails to maintain the application uptime SLA of 99.95%. A solutions architect must re-architect the application to ensure that it can meet or exceed the SLA.

The application contains a PostgreSQL database running on a single virtual machine. The business logic and presentation layers are load balanced between multiple virtual machines. Remote users complain about slow load times while using this latency-sensitive application.

Which of the following will meet the availability requirements with little change to the application while improving user experience and minimizing costs?

- A. Migrate the database to a PostgreSQL database in Amazon EC2. Host the application and presentation layers in automatically scaled Amazon ECS containers behind an Application Load Balance.
- B. Allocate an Amazon Workspaces Workspace for each end user to improve the user experience.
- C. Migrate the database to an Amazon RDS Aurora PostgreSQL configuration.
- D. Host the application and presentation layers in an Auto Scaling configuration on Amazon EC2 instances behind an Application Load Balance.
- E. Use Amazon AppStream 2.0 to improve the user experience.
- F. Migrate the database to an Amazon RDS PostgreSQL Multi-AZ configuration.
- G. Host the application and presentation layers in automatically scaled AWS Fargate containers behind a Network Load Balance.
- H. Use Amazon ElastiCache to improve the user experience.
- I. Migrate the database to an Amazon Redshift cluster with at least two nodes.
- J. Combine and host the application and presentation layers in automatically scaled Amazon ECS containers behind an Application Load Balance.
- K. Use Amazon CloudFront to improve the user experience.

Answer: B

Explanation:

Aurora would improve availability that can replicate to multiple AZ (6 copies). Auto scaling would improve the performance together with a ALB. AppStream is like Citrix that deliver hosted Apps to users.

NEW QUESTION 83

- (Exam Topic 1)

A company wants to migrate its corporate data center from on premises to the AWS Cloud. The data center includes physical servers and VMs that use VMware and Hyper-V. An administrator needs to select the correct services to collect data (or the initial migration discovery process). The data format should be supported by AWS Migration Hub. The company also needs the ability to generate reports from the data.

Which solution meets these requirements?

- A. Use the AWS Agentless Discovery Connector for data collection on physical servers and all VMs.
- B. Store the collected data in Amazon S3. Query the data with S3 Select.
- C. Generate reports by using Kibana hosted on Amazon EC2.
- D. Use the AWS Application Discovery Service agent for data collection on physical servers and all VMs. Store the collected data in Amazon Elastic File System (Amazon EFS). Query the data and generate reports with Amazon Athena.
- E. Use the AWS Application Discovery Service agent for data collection on physical servers and Hyper-V.
- F. Use the AWS Agentless Discovery Connector for data collection on VMware.
- G. Store the collected data in Amazon S3. Query the data with Amazon Athena.
- H. Generate reports by using Amazon QuickSight.
- I. Use the AWS Systems Manager agent for data collection on physical server.
- J. Use the AWS Agentless Discovery Connector for data collection on all VMs.
- K. Store, query, and generate reports from the collected data by using Amazon Redshift.

Answer: C

Explanation:

<https://docs.aws.amazon.com/application-discovery/latest/userguide/discovery-agent.html> <https://docs.aws.amazon.com/application-discovery/latest/userguide/discovery-agent.html>

[discovery/latest/userguide/discovery-connector.html](#)

NEW QUESTION 88

- (Exam Topic 1)

A North American company with headquarters on the East Coast is deploying a new web application running on Amazon EC2 in the us-east-1 Region. The application should dynamically scale to meet user demand and maintain resiliency. Additionally, the application must have disaster recovery capabilities in an active-passive configuration with the us-west-1 Region.

Which steps should a solutions architect take after creating a VPC in the us-east-1 Region?

- A. Create a VPC in the us-west-1 Region
- B. Use inter-Region VPC peering to connect both VPC
- C. Deploy an Application Load Balancer (ALB) spanning multiple Availability Zones (AZs) to the VPC in the us-east-1 Region
- D. Deploy EC2 instances across multiple AZs in each Region as part of an Auto Scaling group spanning both VPCs and served by the ALB.
- E. Deploy an Application Load Balancer (ALB) spanning multiple Availability Zones (AZs) to the VPC in the us-east-1 Region
- F. Deploy EC2 instances across multiple AZs as part of an Auto Scaling group served by the AL
- G. Deploy the same solution to the us-west-1 Region Create an Amazon Route 53 record set with a failover routing policy and health checks enabled to provide high availability across both Regions.
- H. Create a VPC in the us-west-1 Region
- I. Use inter-Region VPC peering to connect both VPCs Deploy an Application Load Balancer (ALB) that spans both VPCs Deploy EC2 instances across multiple Availability Zones as part of an Auto Scaling group in each VPC served by the AL
- J. Create an Amazon Route 53 record that points to the ALB.
- K. Deploy an Application Load Balancer (ALB) spanning multiple Availability Zones (AZs) to the VPC in the us-east-1 Region
- L. Deploy EC2 instances across multiple AZs as part of an Auto Scaling group served by the AL
- M. Deploy the same solution to the us-west-1 Region
- N. Create separate Amazon Route 53 records in each Region that point to the ALB in the Region
- O. Use Route 53 health checks to provide high availability across both Regions.

Answer: B

Explanation:

A new web application in an active-passive DR mode. a Route 53 record set with a failover routing policy.

NEW QUESTION 92

- (Exam Topic 1)

A company's AWS architecture currently uses access keys and secret access keys stored on each instance to access AWS services. Database credentials are hard-coded on each instance. SSH keys for command-line remote access are stored in a secured Amazon S3 bucket. The company has asked its solutions architect to improve the security posture of the architecture without adding operational complexity.

Which combination of steps should the solutions architect take to accomplish this? (Select THREE.)

- A. Use Amazon EC2 instance profiles with an IAM role.
- B. Use AWS Secrets Manager to store access keys and secret access keys.
- C. Use AWS Systems Manager Parameter Store to store database credentials.
- D. Use a secure fleet of Amazon EC2 bastion hosts (or remote access).
- E. Use AWS KMS to store database credentials.
- F. Use AWS Systems Manager Session Manager for remote access

Answer: ACF

Explanation:

<https://docs.aws.amazon.com/systems-manager/latest/userguide/session-manager.html>

NEW QUESTION 97

- (Exam Topic 1)

A company has implemented an ordering system using an event-driven architecture. During initial testing, the system stopped processing orders. Further analysis revealed that one order message in an Amazon Simple Queue Service (Amazon SQS) standard queue was causing an error on the backend and blocking all subsequent order messages. The visibility timeout of the queue is set to 30 seconds, and the backend processing timeout is set to 10 seconds. A solutions architect needs to analyze faulty order messages and ensure that the system continues to process subsequent messages.

Which step should the solutions architect take to meet these requirements?

- A. Increase the backend processing timeout to 30 seconds to match the visibility timeout
- B. Reduce the visibility timeout of the queue to automatically remove the faulty message
- C. Configure a new SQS FIFO queue as a dead-letter queue to isolate the faulty messages
- D. Configure a new SQS standard queue as a dead-letter queue to isolate the faulty messages.

Answer: D

NEW QUESTION 101

- (Exam Topic 1)

A company runs a popular web application in an on-premises data center. The application receives four million views weekly. The company expects traffic to increase by 200% because of an advertisement that will be published soon.

The company needs to decrease the load on the origin before the increase of traffic occurs. The company does not have enough time to move the entire application to the AWS Cloud.

Which solution will meet these requirements?

- A. Create an Amazon CloudFront content delivery network (CDN). Enable query forwarding to the origin. Create a managed cache policy that includes query string
- B. Use an on-premises load balancer as the origin
- C. Offload the DNS querying to AWS to handle CloudFront CDN traffic.
- D. Create an Amazon CloudFront content delivery network (CDN) that uses a Real Time Messaging Protocol (RTMP) distribution
- E. Enable query forwarding to the origin

- F. Use an on-premises load balancer as the origin
- G. Offload the DNS querying to AWS to handle CloudFront CDN traffic.
- H. Create an accelerator in AWS Global Accelerator
- I. Add listeners for HTTP and HTTPS TCP ports. Create an endpoint group
- J. Create a Network Load Balancer (NLB), and attach it to the endpoint group
- K. Point the NLB to the on-premises server
- L. Offload the DNS querying to AWS to handle AWS Global Accelerator traffic.
- M. Create an accelerator in AWS Global Accelerator
- N. Add listeners for HTTP and HTTPS TCP ports. Create an endpoint group
- O. Create an Application Load Balancer (ALB), and attach it to the endpoint group
- P. Point the ALB to the on-premises server
- Q. Offload the DNS querying to AWS to handle AWS Global Accelerator traffic.

Answer: D

NEW QUESTION 102

- (Exam Topic 1)

A multimedia company needs to deliver its video-on-demand (VOD) content to its subscribers in a cost-effective way. The video files range in size from 1-15 GB and are typically viewed frequently for the first 6 months after creation, and then access decreases considerably. The company requires all video files to remain immediately available for subscribers. There are now roughly 30,000 files, and the company anticipates doubling that number over time.

What is the MOST cost-effective solution for delivering the company's VOD content?

- A. Store the video files in an Amazon S3 bucket using S3 Intelligent-Tiering
- B. Use Amazon CloudFront to deliver the content with the S3 bucket as the origin.
- C. Use AWS Elemental MediaConvert and store the adaptive bitrate video files in Amazon S3. Configure an AWS Elemental MediaPackage endpoint to deliver the content from Amazon S3.
- D. Store the video files in Amazon Elastic File System (Amazon EFS) Standard
- E. Enable EFS lifecycle management to move the video files to EFS Infrequent Access after 6 months
- F. Create an Amazon EC2 Auto Scaling group behind an Elastic Load Balancer to deliver the content from Amazon EFS.
- G. Store the video files in Amazon S3 Standard
- H. Create S3 Lifecycle rules to move the video files to S3 Standard-Infrequent Access (S3 Standard-IA) after 6 months and to S3 Glacier Deep Archive after 1 year
- I. Use Amazon CloudFront to deliver the content with the S3 bucket as the origin.

Answer: A

Explanation:

<https://d1.awsstatic.com/whitepapers/amazon-cloudfront-for-media.pdf> <https://aws.amazon.com/solutions/implementations/video-on-demand-on-aws/>

NEW QUESTION 103

- (Exam Topic 1)

A public retail web application uses an Application Load Balancer (ALB) in front of Amazon EC2 instances running across multiple Availability Zones (AZs) in a Region backed by an Amazon RDS MySQL Multi-AZ deployment. Target group health checks are configured to use HTTP and pointed at the product catalogue page. Auto Scaling is configured to maintain the web fleet size based on the ALB health check.

Recently, the application experienced an outage. Auto Scaling continuously replaced the instances during the outage. A subsequent investigation determined that the web server metrics were within the normal range, but the database tier was experiencing high load, resulting in severely elevated query response times.

Which of the following changes together would remediate these issues while improving monitoring capabilities for the availability and functionality of the entire application stack for future growth? (Select TWO.)

- A. Configure read replicas for Amazon RDS MySQL and use the single reader endpoint in the web application to reduce the load on the backend database tier.
- B. Configure the target group health check to point at a simple HTML page instead of a product catalog page and the Amazon Route 53 health check against the product page to evaluate full application functionality
- C. Configure Amazon CloudWatch alarms to notify administrators when the site fails.
- D. Configure the target group health check to use a TCP check of the Amazon EC2 web server and the Amazon Route 53 health check against the product page to evaluate full application functionality
- E. Configure Amazon CloudWatch alarms to notify administrators when the site fails.
- F. Configure an Amazon CloudWatch alarm for Amazon RDS with an action to recover a high-load, impaired RDS instance in the database tier.
- G. Configure an Amazon ElastiCache cluster and place it between the web application and RDS MySQL instances to reduce the load on the backend database tier.

Answer: BE

Explanation:

<https://docs.aws.amazon.com/Route53/latest/DeveloperGuide/health-checks-types.html>

NEW QUESTION 104

- (Exam Topic 1)

A company has an internal application running on AWS that is used to track and process shipments in the company's warehouse. Currently, after the system receives an order, it emails the staff the information needed to ship a package. Once the package is shipped, the staff replies to the email and the order is marked as shipped.

The company wants to stop using email in the application and move to a serverless application model. Which architecture solution meets these requirements?

- A. Use AWS Batch to configure the different tasks required to ship a package
- B. Have AWS Batch trigger an AWS Lambda function that creates and prints a shipping label
- C. Once that label is scanned
- D. as it leaves the warehouse, have another Lambda function move the process to the next step in the AWS Batch job
- E. When a new order is created, store the order information in Amazon SQS
- F. Have AWS Lambda check the queue every 5 minutes and process any needed work
- G. When an order needs to be shipped, have Lambda print the label in the warehouse
- H. Once the label has been scanned, as it leaves the warehouse, have an Amazon EC2 instance update Amazon S3.

- I. Update the application to store new order information in Amazon DynamoD
- J. When a new order is created, trigger an AWS Step Functions workflow, mark the orders as "in progress," and print a package label to the warehous
- K. Once the label has been scanned and fulfilled, the application will trigger an AWS Lambda function that will mark the order as shipped and complete the workflow.
- L. Store new order information in Amazon EF
- M. Have instances pull the new information from the NFS and send that information to printers in the warehous
- N. Once the label has been scanned, as it leaves the warehouse, have Amazon API Gateway call the instances to remove the order information from Amazon EFS.

Answer: C

NEW QUESTION 106

- (Exam Topic 1)

A company has a policy that all Amazon EC2 instances that are running a database must exist within the same subnets in a shared VPC Administrators must follow security compliance requirements and are not allowed to directly log in to the shared account All company accounts are members of the same organization in AWS Organizations. The number of accounts will rapidly increase as the company grows.

A solutions architect uses AWS Resource Access Manager to create a resource share in the shared account What is the MOST operationally efficient configuration to meet these requirements?

- A. Add the VPC to the resource shar
- B. Add the account IDs as principals
- C. Add all subnets within the VPC to the resource shar
- D. Add the account IDs as principals
- E. Add all subnets within the VPC to the resource shar
- F. Add the organization as a principal.
- G. Add the VPC to the resource shar
- H. Add the organization as a principal

Answer: C

Explanation:

<https://docs.aws.amazon.com/ram/latest/userguide/getting-started-sharing.html#getting-started-sharing-create> To restrict resource sharing to only principals in your organization, choose Allow sharing with principals in your organization only.

<https://docs.aws.amazon.com/ram/latest/userguide/ram-ug.pdf>

NEW QUESTION 110

- (Exam Topic 1)

A company is migrating its three-tier web application from on-premises to the AWS Cloud. The company has the following requirements for the migration process:

- Ingest machine images from the on-premises environment.
- Synchronize changes from the on-premises environment to the AWS environment until the production cutover.
- Minimize downtime when executing the production cutover.
- Migrate the virtual machines' root volumes and data volumes.

Which solution will satisfy these requirements with minimal operational overhead?

- A. Use AWS Server Migration Service (SMS) to create and launch a replication job for each tier of the applicatio
- B. Launch instances from the AMIs created by AWS SM
- C. After initial testing, perform a final replication and create new instances from the updated AMIs.
- D. Create an AWS CLIVM Import/Export script to migrate each virtual machin
- E. Schedule the script to runincrementally to maintain changes in the applicatio
- F. Launch instances from the AMIs created by VM Import/Expor
- G. Once testing is done, rerun the script to do a final import and launch the instances from the AMIs.
- H. Use AWS Server Migration Service (SMS) to upload the operating system volume
- I. Use the AWS CLI import-snaps hot command 'or the data volume
- J. Launch instances from the AMIs created by AWS SMS and attach the data volumes to the instance
- K. After initial testing, perform a final replication, launch new instances from the replicated AMI
- L. and attach the data volumes to the instances.
- M. Use AWS Application Discovery Service and AWS Migration Hub to group the virtual machines as an applicatio
- N. Use the AWS CLI VM Import/Export script to import the virtual machines as AMI
- O. Schedule the script to run incrementally to maintain changes in the applicatio
- P. Launch instances from the AMI
- Q. After initial testing, perform a final virtual machine import and launch new instances from the AMIs.

Answer: A

Explanation:

SMS can handle migrating the data volumes:

<https://aws.amazon.com/about-aws/whats-new/2018/09/aws-server-migration-service-adds-support-for-migratin>

NEW QUESTION 114

- (Exam Topic 1)

A company is running a web application with On-Demand Amazon EC2 instances in Auto Scaling groups that scale dynamically based on custom metrics After extensive testing, the company determines that the m5.2xlarge instance size is optimal for the workload Application data is stored in db.r4.4xlarge Amazon RDS instances that are confirmed to be optimal. The traffic to the web application spikes randomly during the day.

What other cost-optimization methods should the company implement to further reduce costs without impacting the reliability of the application?

- A. Double the instance count in the Auto Scaling groups and reduce the instance size to m5.large
- B. Reserve capacity for the RDS database and the minimum number of EC2 instances that are constantly running.
- C. Reduce the RDS instance size to db.r4.xlarge and add five equivalent^ sized read replicas to provide reliability.
- D. Reserve capacity for all EC2 instances and leverage Spot Instance pricing for the RDS database.

Answer: B

Explanation:

People are being confused by the term 'reserve capacity'. This is not the same as an on-demand capacity reservation. This article by AWS clearly states that by 'reserving capacity' you are reserving the instances and reducing your costs. See <https://aws.amazon.com/aws-cost-management/aws-cost-optimization/reserved-instances/>

NEW QUESTION 115

- (Exam Topic 1)

A company wants to migrate a 30 TB Oracle data warehouse from on premises to Amazon Redshift The company used the AWS Schema Conversion Tool (AWS SCT) to convert the schema of the existing data warehouse to an Amazon Redshift schema The company also used a migration assessment report to identify manual tasks to complete.

The company needs to migrate the data to the new Amazon Redshift cluster during an upcoming data freeze period of 2 weeks The only network connection between the on-premises data warehouse and AWS is a 50 Mops internet connection

Which migration strategy meets these requirements?

- A. Create an AWS Database Migration Service (AWS DMS) replication instanc
- B. Authorize the public IP address of the replication instance to reach the data warehouse through the corporate firewall Create a migration task to run at the beginning of the data freeze period.
- C. Install the AWS SCT extraction agents on the on-premises server
- D. Define the extract, upload, and copy tasks to send the data to an Amazon S3 bucke
- E. Copy the data into the Amazon Redshift cluste
- F. Run the tasks at the beginning of the data freeze period.
- G. install the AWS SCT extraction agents on the on-premises server
- H. Create a Site-to-Site VPN connection Create an AWS Database Migration Service (AWS DMS) replication instance that is the appropriate size Authorize the IP address of the replication instance to be able to access the on-premises data warehouse through the VPN connection
- I. Create a job in AWS Snowball Edge to import data into Amazon S3 Install AWS SCT extraction agents on the on-premises servers Define the local and AWS Database Migration Service (AWS DMS) tasks to send the data to the Snowball Edge device When the Snowball Edge device is returned to AWS and the data is available in Amazon S3, run the AWS DMS subtask to copy the data to Amazon Redshift.

Answer: D

Explanation:

AWS Database Migration Service (AWS DMS) can use Snowball Edge and Amazon S3 to migrate large databases more quickly than by other methods

https://docs.aws.amazon.com/dms/latest/userguide/CHAP_LargeDBs.html

https://www.calctool.org/CALC/prof/computing/transfer_time

NEW QUESTION 120

- (Exam Topic 1)

A company runs an application on AWS. An AWS Lambda function uses credentials to authenticate to an Amazon RDS tor MySQL DB instance. A security risk assessment identified that these credentials are not frequently rotated. Also, encryption at rest is not enabled for the DB instance. The security team requires that both of these issues be resolved.

Which strategy should a solutions architect recommend to remediate these security risks?

- A. Configure the Lambda function to store and retrieve the database credentials in AWS Secrets Manager and enable rotation of the credential
- B. Take a snapshot ol the DB instance and encrypt a copy of that snapsho
- C. Replace the DB instance with a new DB instance that is based on the encrypted snapshot.
- D. Enable IAM DB authentication on the DB instanc
- E. Grant the Lambda execution role access to the DB instanc
- F. Modify the DB instance and enable encryption.
- G. Enable IAM DB authentication on the DB instanc
- H. Grant the Lambda execution role access to the DB instanc
- I. Create an encrypted read replica of the DB instanc
- J. Promote lthe encrypted read replica to be the new primary node.
- K. Configure the Lambda function to store and retrieve the database credentials as encrypted AWS Systems Manager Parameter Store parameter
- L. Create another Lambda function to automatically rotate the credential
- M. Create an encrypted read replica of the DB instanc
- N. Promote the encrypted read replica to be the new primary node.

Answer: A

Explanation:

Parameter store can store DB credentials as secure string but CANNOT rotate secrets, hence, go with A + Cannot enable encryption on existing MySQL RDS instance, must create a new encrypted one from unencrypted snapshot.

<https://aws.amazon.com/blogs/security/rotate-amazon-rds-database-credentials-automatically-with-aws-secrets-> Encrypting a unencrypted instance of DB or creating a encrypted replica of an un encrypted DB instance are not possible Hence A is the only solution possible.

<https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/Overview.Encryption.html#Overview.Encryption>.

NEW QUESTION 121

- (Exam Topic 1)

A company is migrating applications from on premises to the AWS Cloud. These applications power the company's internal web forms. These web forms collect data for specific events several times each quarter. The web forms use simple SQL statements to save the data to a local relational database.

Data collection occurs for each event, and the on-premises servers are idle most of the time. The company needs to minimize the amount of idle infrastructure that supports the web forms.

Which solution will meet these requirements?

- A. Use Amazon EC2 Image Builder to create AMIs for the legacy server
- B. Use the AMIs to provision EC2 instances to recreate the applications in the AWS.Clou
- C. Place an Application Load Balancer (ALB) in front of the EC2 instance
- D. Use Amazon Route 53 to point the DNS names of the web forms to the ALB.

- E. Create one Amazon DynamoDB table to store data for all the data input Use the application form name as the table key to distinguish data item
- F. Create an Amazon Kinesis data stream to receive the data input and store the input in DynamoD
- G. Use Amazon Route 53 to point the DNS names of the web forms to the Kinesis data stream's endpoint.
- H. Create Docker images for each server of the legacy web form application
- I. Create an Amazon Elastic Container Service (Amazon ECS) cluster on AWS Fargat
- J. Place an Application Load Balancer in front of the ECS cluste
- K. Use Fargate task storage to store the web form data.
- L. Provision an Amazon Aurora Serverless cluste
- M. Build multiple schemas for each web form's data storag
- N. Use Amazon API Gateway and an AWS Lambda function to recreate the data input form
- O. Use Amazon Route 53 to point the DNS names of the web forms to their corresponding API Gateway endpoint.

Answer: D

Explanation:

Provision an Amazon Aurora Serverless cluster. Build multiple schemas for each web forms data storage. Use Amazon API Gateway and an AWS Lambda function to recreate the data input forms. Use Amazon Route 53 to point the DNS names of the web forms to their corresponding API Gateway endpoint.

NEW QUESTION 126

- (Exam Topic 1)

An ecommerce website running on AWS uses an Amazon RDS for MySQL DB instance with General Purpose SSD storage. The developers chose an appropriate instance type based on demand, and configured 100 GB of storage with a sufficient amount of free space.

The website was running smoothly for a few weeks until a marketing campaign launched. On the second day of the campaign, users reported long wait times and time outs. Amazon CloudWatch metrics indicated that both reads and writes to the DB instance were experiencing long response times. The CloudWatch metrics show 40% to 50% CPU and memory utilization, and sufficient free storage space is still available. The application server logs show no evidence of database connectivity issues.

What could be the root cause of the issue with the marketing campaign?

- A. It exhausted the I/O credit balance due to provisioning low disk storage during the setup phase.
- B. It caused the data in the tables to change frequently, requiring indexes to be rebuilt to optimize queries.
- C. It exhausted the maximum number of allowed connections to the database instance.
- D. It exhausted the network bandwidth available to the RDS for MySQL DB instance.

Answer: A

Explanation:

"When using General Purpose SSD storage, your DB instance receives an initial I/O credit balance of 5.4 million I/O credits. This initial credit balance is enough to sustain a burst performance of 3,000 IOPS for 30 minutes."

<https://aws.amazon.com/blogs/database/how-to-use-cloudwatch-metrics-to-decide-between-general-purpose-or>

NEW QUESTION 128

- (Exam Topic 1)

A solutions architect at a large company needs to set up network security for outbound traffic to the internet from all AWS accounts within an organization m AWS Organizations The organization has more than 100 AWS accounts, and the accounts route to each other by using a centralized AWS Transit Gateway. Each account has both an internet gateway and a NAT gateway for outbound traffic to the interne) The company deploys resources only Into a single AWS Region The company needs the ability to add centrally managed rule-based filtering on all outbound traffic to the internet for all AWS accounts in the organization The peak load of outbound traffic will not exceed 25 Gbps in each Availability Zone

Which solution meets these requirements?

- A. Creates a new VPC for outbound traffic to the internet Connect the existing transit gateway to the new VPC Configure a new NAT gateway Create an Auto Scaling group of Amazon EC2 Instances that run an open-source internet proxy for rule-based filtering across all Availability Zones in the Region Modify all default routes to point to the proxy's Auto Scaling group
- B. Create a new VPC for outbound traffic to the internet Connect the existing transit gateway to the new VPC Configure a new NAT gateway Use an AWS Network Firewall firewall for rule-based filtering Create Network Firewall endpoints In each Availability Zone Modify all default routes to point to the Network Firewall endpoints
- C. Create an AWS Network Firewall firewal for rule-based filtering in each AWS account Modify all default routes to point to the Network Firewall firewalls in each account.
- D. In each AWS account, create an Auto Scaling group of network-optimized Amazon EC2 instances that run an open-source internet proxy for rule-based filtering Modify all default routes to point to the proxy's Auto Scaling group.

Answer: B

Explanation:

<https://aws.amazon.com/blogs/networking-and-content-delivery/deployment-models-for-aws-network-firewall/>

<https://aws.amazon.com/blogs/networking-and-content-delivery/deploy-centralized-traffic-filtering-using-aws-n>

NEW QUESTION 131

- (Exam Topic 1)

A company needs to implement a patching process for its servers. The on-premises servers and Amazon EC2 instances use a variety of tools to perform patching. Management requires a single report showing the patch status of all the servers and instances.

Which set of actions should a solutions architect take to meet these requirements?

- A. Use AWS Systems Manager to manage patches on the on-premises servers and EC2 instance
- B. Use Systems Manager to generate patch compliance reports.
- C. Use AWS OpsWorks to manage patches on the on-premises servers and EC2 instance
- D. Use Amazon QuickSight integration with OpsWorks to generate patch compliance reports.
- E. Use an Amazon EventBridge (Amazon CloudWatch Events) rule to apply patches by scheduling an AWS Systems Manager patch remediation jo
- F. Use Amazon Inspector to generate patch compliance reports.
- G. Use AWS OpsWorks to manage patches on the on-premises servers and EC2 instance
- H. Use AWS X-Ray to post the patch status to AWS Systems Manager OpsCenter to generate patch compliance reports.

Answer: A

Explanation:

<https://docs.aws.amazon.com/systems-manager/latest/userguide/systems-manager-patch.html>

NEW QUESTION 135

- (Exam Topic 2)

A life sciences company is using a combination of open source tools to manage data analysis workflows and Docker containers running on servers in its on-premises data center to process genomics data. Sequencing data is generated and stored on a local storage area network (SAN), and then the data is processed. The research and development teams are running into capacity issues and have decided to re-architect their genomics analysis platform on AWS to scale based on workload demands and reduce the turnaround time from weeks to days. The company has a high-speed AWS Direct Connect connection. Sequencers will generate around 200 GB of data for each genome, and individual jobs can take several hours to process the data with ideal compute capacity. The end result will be stored in Amazon S3. The company is expecting 10-15 job requests each day. Which solution meets these requirements?

- A. Use regularly scheduled AWS Snowball Edge devices to transfer the sequencing data into AWS. When AWS receives the Snowball Edge device and the data is loaded into Amazon S3, use S3 events to trigger an AWS Lambda function to process the data.
- B. Use AWS Data Pipeline to transfer the sequencing data to Amazon S3. Use S3 events to trigger an Amazon EC2 Auto Scaling group to launch custom-AMI EC2 instances running the Docker containers to process the data.
- C. Use AWS DataSync to transfer the sequencing data to Amazon S3. Use S3 events to trigger an AWS Lambda function that starts an AWS Step Functions workflow. Store the Docker images in Amazon Elastic Container Registry (Amazon ECR) and trigger AWS Batch to run the container and process the sequencing data.
- D. Use an AWS Storage Gateway file gateway to transfer the sequencing data to Amazon S3. Use S3 events to trigger an AWS Batch job that runs on Amazon EC2 instances running the Docker containers to process the data.

Answer: C

NEW QUESTION 136

- (Exam Topic 2)

A company is in the process of implementing AWS Organizations to constrain its developers to use only Amazon EC2, Amazon S3, and Amazon DynamoDB. The developers' account resides in a dedicated organizational unit (OU). The solutions architect has implemented the following SCP on the developers' account:

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Sid": "AllowEC2",
      "Effect": "Allow",
      "Action": "ec2:*",
      "Resource": "*"
    },
    {
      "Sid": "AllowDynamoDB",
      "Effect": "Allow",
      "Action": "dynamodb:*",
      "Resource": "*"
    },
    {
      "Sid": "AllowS3",
      "Effect": "Allow",
      "Action": "s3:*",
      "Resource": "*"
    }
  ]
}
```

When this policy is deployed, IAM users in the developers' account are still able to use AWS services that are not listed in the policy. What should the solutions architect do to eliminate the developers' ability to use services outside the scope of this policy?

- A. Create an explicit deny statement for each AWS service that should be constrained.
- B. Remove the Full AWS Access SCP from the developer account's OU.
- C. Modify the Full AWS Access SCP to explicitly deny all services.
- D. Add an explicit deny statement using a wildcard to the end of the SCP.

Answer: B

NEW QUESTION 141

- (Exam Topic 2)

A company that develops consumer electronics with offices in Europe and Asia has 60 TB of software images stored on premises in Europe. The company wants to transfer the images to an Amazon S3 bucket in the ap-northeast-1 Region. New software images are created daily and must be encrypted in transit. The company needs a solution that does not require custom development to automatically transfer all existing and new software images to Amazon S3. What is the next step in the transfer process?

- A. Deploy an AWS DataSync agent and configure a task to transfer the images to the S3 bucket.
- B. Configure Amazon Kinesis Data Firehose to transfer the images using S3 Transfer Acceleration.
- C. Use an AWS Snowball device to transfer the images with the S3 bucket as the target.
- D. Transfer the images over a Site-to-Site VPN connection using the S3 API with multipart upload.

Answer: A

NEW QUESTION 146

- (Exam Topic 2)

A company has developed a new billing application that will be released in two weeks. Developers are testing the application running on 10 EC2 instances managed by an Auto Scaling group in subnet 172.31.0.0/24 within VPC A with CIDR block 172.31.0.0/16. The developers noticed connection timeout errors in the application logs while connecting to an Oracle database running on an Amazon EC2 instance in the same region within VPC B with CIDR block 172.50.0.0/16. The IP of the database instance is hard-coded in the application instances.

Which recommendations should a solutions architect present to the developers to solve the problem in a secure way with minimal maintenance and overhead?"

- A. Disable the SrcDestCheck attribute for all instances running the application and Oracle Database. Change the default route of VPC A to point ENI of the Oracle Database that has an IP address assigned within the range of 172.50.0.0/16
- B. Create and attach internet gateways for both VPC
- C. Configure default routes to the internet gateways for both VPC
- D. Assign an Elastic IP for each Amazon EC2 instance in VPC A
- E. Create a VPC peering connection between the two VPCs and add a route to the routing table of VPC A that points to the IP address range of 172.50.0.0/16
- F. Create an additional Amazon EC2 instance for each VPC as a customer gateway; create one virtual private gateway (VGW) for each VP
- G. configure an end-to-end VPC, and advertise the routes for 172.50.0.0/16

Answer: C

NEW QUESTION 148

- (Exam Topic 2)

A company that runs applications on AWS recently subscribed to a new software-as-a-service (SaaS) data vendor. The vendor provides the data by way of a REST API that the vendor hosts in its AWS environment. The vendor offers multiple options for connectivity to the API and is working with the company to find the best way to connect.

The company's AWS account does not allow outbound internet access from its AWS environment. The vendor's services run on AWS in the same AWS Region as the company's applications.

A solutions architect must implement connectivity to the vendor's API so that the API is highly available in the company's VPC.

Which solution will meet these requirements?

- A. Connect to the vendor's public API address for the data service.
- B. Connect to the vendor by way of a VPC peering connection between the vendor's VPC and the company's VPC
- C. Connect to the vendor by way of a VPC endpoint service that uses AWS PrivateLink
- D. Connect to a public bastion host that the vendor provides. Tunnel the API traffic.

Answer: C

NEW QUESTION 150

- (Exam Topic 2)

A company is using an Amazon CloudFront distribution to distribute both static and dynamic content from a web application running behind an Application Load Balancer. The web application requires user authorization and session tracking for dynamic content. The CloudFront distribution has a single cache behavior configured to forward the Authorization, Host, and Agent HTTP allow list headers and a session cookie to the origin. All other cache behavior settings are set to their default value.

A valid ACM certificate is applied to the CloudFront distribution with a matching CNAME in the distribution settings. The ACM certificate is also applied to the HTTPS listener for the Application Load Balancer. The CloudFront origin protocol policy is set to HTTPS only. Analysis of the cache statistics report shows that the miss rate for this distribution is very high.

What can the solutions architect do to improve the cache hit rate for this distribution without causing the SSL/TLS handshake between CloudFront and the Application Load Balancer to fail?

- A. Create two cache behaviors for static and dynamic content. Remove the user-Agent and Host HTTP headers from the allow list headers section on both of the cache behaviors. Remove the session cookie from the allow list cookies section and the Authorization HTTP header from the allow list headers section for cache behavior configured for static content.
- B. Remove the user-Agent and Authorization HTTP headers from the allow list headers section of the cache behaviour.
- C. Then update the cache behaviour to use resigned cookies for authorization.
- D. Remove the Host HTTP header from the allow list headers section and remove the session cookie from the allow list cookies section for the default cache behaviour. Enable automatic object compression and use Lambda@Edge viewer request events for user authorization.
- E. Create two cache behaviours for static and dynamic content. Remove the User-Agent HTTP header from the allow list headers section on both of the cache behaviours. Remove the session cookie from the allow list cookies section and the Authorization HTTP header from the allow list headers section for cache behaviour configured for static content.

Answer: D

Explanation:

<https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/understanding-the-cache-key.html> Removing the host header will result in failed flow between CloudFront and ALB, because they have same certificate.

NEW QUESTION 155

- (Exam Topic 2)

A fleet of Amazon ECS instances is used to poll an Amazon SQS queue and update items in an Amazon DynamoDB database. Items in the table are not being updated, and the SQS queue is filling up. Amazon CloudWatch Logs are showing consistent 400 errors when attempting to update the table. The provisioned write capacity units are appropriately configured, and no throttling is occurring.

What is the LIKELY cause of the failure*?

- A. The ECS service was deleted.
- B. The ECS configuration does not contain an Auto Scaling group.
- C. The ECS instance task execution IAM role was modified.
- D. The ECS task role was modified.

Answer: D

NEW QUESTION 156

- (Exam Topic 2)

A large company has many business units. Each business unit has multiple AWS accounts for different purposes. The CIO of the company sees that each business unit has data that would be useful to share with other parts of the company. In total, there are about 10 PB of data that needs to be shared with users in 1,000 AWS accounts. The data is proprietary, so some of it should only be available to users with specific job types. Some of the data is used for throughput of intensive workloads such as simulations. The number of accounts changes frequently because of new initiatives, acquisitions, and divestitures.

A solutions architect has been asked to design a system that will allow for sharing data for use in AWS with all of the employees in the company.

Which approach will allow for secure data sharing in a scalable way?

- A. Store the data in a single Amazon S3 bucket. Create an IAM role for every combination of job type and business unit that allows for appropriate read/write access based on object prefixes in the S3 bucket. The roles should have trust policies that allow the business unit's AWS accounts to assume their roles. Use IAM in each business unit's AWS account to prevent them from assuming roles for a different job type. Users get credentials to access the data by using AssumeRole from their business unit's AWS account. Users can then use those credentials with an S3 client.
- B. Store the data in a single Amazon S3 bucket. Write a bucket policy that uses conditions to grant read and write access where appropriate based on each user's business unit and job type.
- C. Determine the business unit with the AWS account accessing the bucket and the job type with a prefix in the IAM user's name. Users can access data by using IAM credentials from their business unit's AWS account with an S3 client.
- D. Store the data in a series of Amazon S3 buckets. Create an application running on Amazon EC2 that is integrated with the company's identity provider (IdP) that authenticates users and allows them to download or upload data through the application. The application uses the business unit and job type information in the IdP to control what users can upload and download through the application. The users can access the data through the application's API.
- E. Store the data in a series of Amazon S3 buckets. Create an AWS STS token vending machine that is integrated with the company's identity provider (IdP). When a user logs in, have the token vending machine attach an IAM policy that assumes the role that limits the user's access and/or upload only the data the user is authorized to access. Users can get credentials by authenticating to the token vending machine's website or API and then use those credentials with an S3 client.
- F. D.

Answer: E

NEW QUESTION 161

- (Exam Topic 2)

A company has more than 10,000 sensors that send data to an on-premises Apache Kafka server by using the Message Queuing Telemetry Transport (MQTT) protocol. The on-premises Kafka server transforms the data and then stores the results as objects in an Amazon S3 bucket.

Recently, the Kafka server crashed. The company lost sensor data while the server was being restored. A solutions architect must create a new design on AWS that is highly available and scalable to prevent a similar occurrence.

Which solution will meet these requirements?

- A. Launch two Amazon EC2 instances to host the Kafka server in an active/standby configuration across two Availability Zones.
- B. Create a domain name in Amazon Route 53. Create a Route 53 failover policy. Route the sensors to send the data to the domain name.
- C. Migrate the on-premises Kafka server to Amazon Managed Streaming for Apache Kafka (Amazon MSK). Create a Network Load Balancer (NLB) that points to the Amazon MSK broker.
- D. Enable NLB health checks. Route the sensors to send the data to the NLB.
- E. Deploy AWS IoT Core, and connect it to an Amazon Kinesis Data Firehose delivery stream. Use an AWS Lambda function to handle data transformation. Route the sensors to send the data to AWS IoT Core.
- F. Deploy AWS IoT Core, and launch an Amazon EC2 instance to host the Kafka server. Configure AWS IoT Core to send the data to the EC2 instance. Route the sensors to send the data to AWS IoT Core.

Answer: A

NEW QUESTION 163

- (Exam Topic 2)

A company uses AWS Organizations with a single OU named Production to manage multiple accounts. All accounts are members of the Production OU. Administrators use deny list SCPs in the root of the organization to manage access to restricted services.

The company recently acquired a new business unit and invited the new unit's existing AWS account to the

organization. Once onboarded, the administrators of the new business unit discovered that they are not able to update existing AWS Config rules to meet the company's policies.

Which option will allow administrators to make changes and continue to enforce the current policies without introducing additional long-term maintenance?

- A. Remove the organization's root SCPs that limit access to AWS Config. Create AWS Service Catalog products for the company's standard AWS Config rules and deploy them throughout the organization, including the new account.
- B. Create a temporary OU named Onboarding for the new account. Apply an SCP to the Onboarding OU to allow AWS Config actions. Move the new account to the Production OU when adjustments to AWS Config are complete.
- C. Convert the organization's root SCPs from deny list SCPs to allow list SCPs to allow the required services only. Temporarily apply an SCP to the organization's root that allows AWS Config actions for principals only in the new account.
- D. Create a temporary OU named Onboarding for the new account. Apply an SCP to the Onboarding OU to allow AWS Config actions.
- E. Move the organization's root SCP to the Production OU.
- F. Move the new account to the Production OU when adjustments to AWS Config are complete.

Answer: D

NEW QUESTION 165

- (Exam Topic 2)

A company has deployed an application to multiple environments in AWS, including production and testing. The company has separate accounts for production and testing, and users are allowed to create additional

application users for team members or services, as needed. The security team has asked the operations team for better isolation between production and testing with centralized controls on security credentials and improved management of permissions between environments.

Which of the following options would MOST securely accomplish this goal?

- A. Create a new AWS account to hold user and service accounts, such as an identity account. Create users and groups in the identity account.
- B. Create roles with appropriate permissions in the production and testing accounts. Add the identity account to the trust policies for the roles.
- C. Modify permissions in the production and testing accounts to limit creating new IAM users to members of the operations team. Set a strong IAM password policy on each account. Create new IAM users and groups in each account to limit developer access to just the services required to complete their job function.

- D. Create a script that runs on each account that checks user accounts For adherence to a security policy.Disable any user or service accounts that do not comply.
- E. Create all user accounts in the production account Create roles for access in me production account and testing account
- F. Grant cross-account access from the production account to the testing account

Answer: A

NEW QUESTION 169

- (Exam Topic 2)

A company is migrating its data centre from on premises to the AWS Cloud. The migration will take several months to complete. The company will use Amazon Route 53 for private DNS zones.

During the migration, the company must Keep its AWS services pointed at the VPC's Route 53 Resolver for DNS. The company also must maintain the ability to resolve addresses from its on-premises DNS server A solutions architect must set up DNS so that Amazon EC2 instances can use native Route 53 endpoints to resolve on-premises DNS queries

Which configuration writ meet these requirements?

- A. Configure Vie VPC DHCP options set to point to on-premises DNS server IP addresse
- B. Ensure that security groups for EC2 instances allow outbound access to port 53 on those DNS server IP addresses.
- C. Launch an EC2 instance that has DNS BIND installed and configure
- D. Ensure that the security groups that are attached to the EC2 instance can access the on-premises DNS server IP address on port 53. Configure BIND to forward DNS queries to on-premises DNS server IP addresses Configure each migrated EC2 instances DNS settings to point to the BIND server IP address.
- E. Create a new outbound endpoint in Route 53. and attach me endpoint to the VP
- F. Ensure that the security groups that are attached to the endpoint can access the on-premises DNS server IP address on port 53 Create a new Route 53 Resolver rule that routes on-premises designated traffic to theon-premises DNS server.
- G. Create a new private DNS zone in Route 53 with the same domain name as the on-premises domain.Create a single wildcard record with the on-premises DNS server IP address as the record's address.

Answer: A

NEW QUESTION 170

- (Exam Topic 2)

A solutions architect has been assigned to migrate a 50 TB Oracle data warehouse that contains sales data from on-premises to Amazon Redshift Major updates to the sales data occur on the final calendar day of the month For the remainder of the month, the data warehouse only receives minor daily updates and is primarily used for reading and reporting Because of this the migration process must start on the first day of the month and must be complete before the next set of updates occur. This provides approximately 30 days to complete the migration and ensure that the minor daily changes have been synchronized with the Amazon Redshift data warehouse Because the migration cannot impact normal business network operations, the bandwidth allocated to the migration for moving data over the internet is 50 Mbps The company wants to keep data migration costs low

Which steps will allow the solutions architect to perform the migration within the specified timeline?

- A. Install Oracle database software on an Amazon EC2 instance Configure VPN connectivity between AWS and the company's data center Configure the Oracle database running on Amazon EC2 to join the Oracle Real Application Clusters (RAC) When the Oracle database on Amazon EC2 finishes synchronizing, create an AWS DMS ongoing replication task to migrate the data from the Oracle database on Amazon EC2 to Amazon Redshift Verify the data migration is complete and perform the cut over to Amazon Redshift.
- B. Create an AWS Snowball import job Export a backup of the Oracle data warehouse Copy the exported data to the Snowball device Return the Snowball device to AWS Create an Amazon RDS for Oracle database and restore the backup file to that RDS instance Create an AWS DMS task to migrate the data from the RDS for Oracle database to Amazon Redshift Copy daily incremental backups from Oracle in the data center to the RDS for Oracle database over the internet Verify the data migration is complete and perform the cut over to Amazon Redshift.
- C. Install Oracle database software on an Amazon EC2 instance To minimize the migration time configure VPN connectivity between AWS and the company's data center by provisioning a 1 Gbps AWS Direct Connect connection Configure the Oracle database running on Amazon EC2 to be a read replica of the data center Oracle database Start the synchronization process between the company's on-premises data center and the Oracle database on Amazon EC2 When the Oracle database on Amazon EC2 is synchronized with the on-premises database create an AWS DMS ongoing replication task from the Oracle database read replica that is running on Amazon EC2 to Amazon Redshift Verify the data migration is complete and perform the cut over to Amazon Redshift.
- D. Create an AWS Snowball import jo
- E. Configure a server in the company€™s data center with an extraction agen
- F. Use AWS SCT to manage the extraction agent and convert the Oracle schema to an Amazon Redshift schem
- G. Create a new project in AWS SCT using the registered data extraction agen
- H. Create a local task and an AWS DMS task in AWS SCT with replication of ongoing change
- I. Copy data to the Snowball device and return the Snowball device to AW
- J. Allow AWS DMS to copy data from Amazon S3 to Amazon Redshif
- K. Verify that the data migration is complete and perform the cut over to Amazon Redshift.

Answer: D

Explanation:

Create an AWS Snowball import job. Configure a server in the company€™s data center with an extraction agent. Use AWS SCT to manage the extraction agent and convert the Oracle schema to an Amazon Redshift schema. Create a new project in AWS SCT using the registered data extraction agent. Create a local task and an AWS DMS task in AWS SCT with replication of ongoing changes. Copy data to the Snowball device and return the Snowball device to AWS. Allow AWS DMS to copy data from Amazon S3 to Amazon Redshift. Verify that the data migration is complete and perform the cut over to Amazon Redshift.

<https://aws.amazon.com/getting-started/hands-on/migrate-oracle-to-amazon-redshift/>

NEW QUESTION 174

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