

# Amazon-Web-Services

## Exam Questions SAA-C03

AWS Certified Solutions Architect - Associate (SAA-C03)



#### NEW QUESTION 1

A company needs guaranteed Amazon EC2 capacity in three specific Availability Zones in a specific AWS Region for an upcoming event that will last 1 week. What should the company do to guarantee the EC2 capacity?

- A. Purchase Reserved instances that specify the Region needed
- B. Create an On Demand Capacity Reservation that specifies the Region needed
- C. Purchase Reserved instances that specify the Region and three Availability Zones needed
- D. Create an On-Demand Capacity Reservation that specifies the Region and three Availability Zones needed

**Answer: D**

#### Explanation:

Explanation

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ec2-capacity-reservations.html>: "When you create a Capacity Reservation, you specify: The Availability Zone in which to reserve the capacity"

#### NEW QUESTION 2

A company wants to run a gaming application on Amazon EC2 instances that are part of an Auto Scaling group in the AWS Cloud. The application will transmit data by using UDP packets. The company wants to ensure that the application can scale out and in as traffic increases and decreases.

What should a solutions architect do to meet these requirements?

- A. Attach a Network Load Balancer to the Auto Scaling group
- B. Attach an Application Load Balancer to the Auto Scaling group.
- C. Deploy an Amazon Route 53 record set with a weighted policy to route traffic appropriately
- D. Deploy a NAT instance that is configured with port forwarding to the EC2 instances in the Auto Scaling group.

**Answer: B**

#### NEW QUESTION 3

A company is developing a file-sharing application that will use an Amazon S3 bucket for storage. The company wants to serve all the files through an Amazon CloudFront distribution. The company does not want the files to be accessible through direct navigation to the S3 URL.

What should a solutions architect do to meet these requirements?

- A. Write individual policies for each S3 bucket to grant read permission for only CloudFront access.
- B. Create an IAM user
- C. Grant the user read permission to objects in the S3 bucket
- D. Assign the user to CloudFront.
- E. Write an S3 bucket policy that assigns the CloudFront distribution ID as the Principal and assigns the target S3 bucket as the Amazon Resource Name (ARN).
- F. Create an origin access identity (OAI). Assign the OAI to the CloudFront distribution
- G. Configure the S3 bucket permissions so that only the OAI has read permission.

**Answer: D**

#### Explanation:

Explanation

<https://aws.amazon.com/premiumsupport/knowledge-center/cloudfront-access-to-amazon-s3/>

<https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/private-content-restricting-access-to-s3>

#### NEW QUESTION 4

A company runs an on-premises application that is powered by a MySQL database. The company is migrating the application to AWS to increase the application's elasticity and availability.

The current architecture shows heavy read activity on the database during times of normal operation. Every 4 hours the company's development team pulls a full export of the production database to populate a database in the staging environment. During this period, users experience unacceptable application latency. The development team is unable to use the staging environment until the procedure completes.

A solutions architect must recommend replacement architecture that alleviates the application latency issue. The replacement architecture also must give the development team the ability to continue using the staging environment without delay.

Which solution meets these requirements?

- A. Use Amazon Aurora MySQL with Multi-AZ Aurora Replicas for production.
- B. Populate the staging database by implementing a backup and restore process that uses the mysqldump utility.
- C. Use Amazon Aurora MySQL with Multi-AZ Aurora Replicas for production. Use database cloning to create the staging database on-demand.
- D. Use Amazon RDS for MySQL with a Multi-AZ deployment and read replicas for production. Use the standby instance for the staging database.
- E. Use Amazon RDS for MySQL with a Multi-AZ deployment and read replicas for production.
- F. Populate the staging database by implementing a backup and restore process that uses the mysqldump utility.

**Answer: B**

#### NEW QUESTION 5

A development team runs monthly resource-intensive tests on its general purpose Amazon RDS for MySQL DB instance with Performance Insights enabled. The testing lasts for 48 hours once a month and is the only process that uses the database. The team wants to reduce the cost of running the tests without reducing the compute and memory attributes of the DB instance.

Which solution meets these requirements MOST cost-effectively?

- A. Stop the DB instance when tests are complete.
- B. Restart the DB instance when required.
- C. Use an Auto Scaling policy with the DB instance to automatically scale when tests are completed.
- D. Create a snapshot when tests are complete.

- E. Terminate the DB instance and restore the snapshot when required.
- F. Modify the DB instance to a low-capacity instance when tests are complete
- G. Modify the DB instance again when required.

**Answer:** C

#### NEW QUESTION 6

A company hosts a marketing website in an on-premises data center. The website consists of static documents and runs on a single server. An administrator updates the website content infrequently and uses an SFTP client to upload new documents.

The company decides to host its website on AWS and to use Amazon CloudFront. The company's solutions architect creates a CloudFront distribution. The solutions architect must design the most cost-effective and resilient architecture for website hosting to serve as the CloudFront origin.

Which solution will meet these requirements?

- A. Create a virtual server by using Amazon Lightsai
- B. Configure the web server in the Lightsail instance.Upload website content by using an SFTP client.
- C. Create an AWS Auto Scaling group for Amazon EC2 instance
- D. Use an Application Load Balancer.Upload website content by using an SFTP client.
- E. Create a private Amazon S3 bucket
- F. Use an S3 bucket policy to allow access from a CloudFront origin access identity (OAI). Upload website content by using theAWSCLI.
- G. Create a public Amazon S3 bucket
- H. Configure AWS Transfer for SFT
- I. Configure the S3 bucket for website hosting
- J. Upload website content by using the SFTP client.

**Answer:** D

#### NEW QUESTION 7

A solutions architect is designing the architecture of a new application being deployed to the AWS Cloud. The application will run on Amazon EC2 On-Demand Instances and will automatically scale across multiple Availability Zones. The EC2 instances will scale up and down frequently throughout the day. An Application Load Balancer (ALB) will handle the load distribution. The architecture needs to support distributed session data management. The company is willing to make changes to code if needed.

What should the solutions architect do to ensure that the architecture supports distributed session data management?

- A. Use Amazon ElastiCache to manage and store session data.
- B. Use session affinity (sticky sessions) of the ALB to manage session data.
- C. Use Session Manager from AWS Systems Manager to manage the session.
- D. Use the GetSessionToken API operation in AWS Security Token Service (AWS STS) to manage the session

**Answer:** A

#### Explanation:

Explanation

<https://aws.amazon.com/vi/caching/session-management/>

In order to address scalability and to provide a shared data storage for sessions that can be accessible from any individual web server, you can abstract the HTTP sessions from the web servers themselves. A common solution to for this is to leverage an In-Memory Key/Value store such as Redis and Memcached.

ElastiCache offerings for In-Memory key/value stores include ElastiCache for Redis, which can support replication, and ElastiCache for Memcached which does not support replication.

#### NEW QUESTION 8

A company hosts a two-tier application on Amazon EC2 instances and Amazon RDS. The application's demand varies based on the time of day. The load is minimal after work hours and on weekends. The EC2 instances run in an EC2 Auto Scaling group that is configured with a minimum of two instances and a maximum of five instances. The application must be available at all times, but the company is concerned about overall cost.

Which solution meets the availability requirement MOST cost-effectively?

- A. Use all EC2 Spot Instance
- B. Stop the RDS database when it is not in use.
- C. Purchase EC2 Instance Savings Plans to cover five EC2 instance
- D. Purchase an RDS Reserved DB Instance
- E. Purchase two EC2 Reserved Instances Use up to three additional EC2 Spot Instances as needed
- F. Stop the RDS database when it is not in use.
- G. Purchase EC2 Instance Savings Plans to cover two EC2 instance
- H. Use up to three additional EC2 On-Demand Instances as needed
- I. Purchase an RDS Reserved DB Instance.

**Answer:** D

#### NEW QUESTION 9

A company hosts an application on multiple Amazon EC2 instances The application processes messages from an Amazon SQS queue writes to an Amazon RDS table and deletes the message from the queue Occasional duplicate records are found in the RDS table. The SQS queue does not contain any duplicate messages.

What should a solutions architect do to ensure messages are being processed once only?

- A. Use the CreateQueue API call to create a new queue
- B. Use the Add Permission API call to add appropriate permissions
- C. Use the ReceiveMessage API call to set an appropriate wait time
- D. Use the ChangeMessageVisibility API call to increase the visibility timeout

**Answer:** D

**Explanation:**

Explanation

The visibility timeout begins when Amazon SQS returns a message. During this time, the consumer processes and deletes the message. However, if the consumer fails before deleting the message and your system doesn't call the DeleteMessage action for that message before the visibility timeout expires, the message becomes visible to other consumers and the message is received again. If a message must be received only once, your consumer should delete it within the duration of the visibility timeout. <https://docs.aws.amazon.com/AWSSimpleQueueService/latest/SQSDeveloperGuide/sqs-visibility-timeout.html>

Keyword: SQS queue writes to an Amazon RDS From this, Option D best suite & other Options ruled out [Option A - You can't intruduce one more Queue in the existing one; Option B - only Permission & Option C - Only Retrieves Messages] FIFO queues are designed to never introduce duplicate messages. However, your message producer might introduce duplicates in certain scenarios: for example, if the producer sends a message, does not receive a response, and then resends the same message. Amazon SQS APIs provide deduplication functionality that prevents your message producer from sending duplicates. Any duplicates introduced by the message producer are removed within a 5-minute deduplication interval. For standard queues, you might occasionally receive a duplicate copy of a message (at-least- once delivery). If you use a standard queue, you must design your applications to be idempotent (that is, they must not be affected adversely when processing the same message more than once).

**NEW QUESTION 10**

The management account has an Amazon S3 bucket that contains project reports. The company wants to limit access to this S3 bucket to only users of accounts within the organization in AWS Organizations.

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

- A. Add the aws:PrincipalOrgID global condition key with a reference to the organization ID to the S3bucket policy.
- B. Create an organizational unit (OU) for each departmen
- C. Add the aws:PrincipalOrgPaths globalcondition key to the S3 bucket policy.
- D. Use AWS CloudTrail to monitor the CreateAccount, InviteAccountToOrganization,LeaveOrganization, and RemoveAccountFromOrganization event
- E. Update the S3 bucket policyaccordingly.
- F. Tag each user that needs access to the S3 bucke
- G. Add the aws:PrincipalTag global condition key tothe S3 bucket policy.

**Answer:** A

**Explanation:**

Explanation

<https://aws.amazon.com/blogs/security/control-access-to-aws-resources-by-using-the-awsorganization-of-iam-principals/>

The aws:PrincipalOrgID global key provides an alternative to listing all the account IDs for all AWS accounts in an organization. For example, the following Amazon S3 bucket policy allows members of any account in the XXX organization to add an object into the examtopics bucket.

```
{"Version": "2020-09-10",
"Statement": {
  "Sid": "AllowPutObject",
  "Effect": "Allow",
  "Principal": "**",
  "Action": "s3:PutObject",
  "Resource": "arn:aws:s3:::examtopics/*",
  "Condition": { "StringEquals":
{"aws:PrincipalOrgID":["XXX"]}}}}
```

[https://docs.aws.amazon.com/IAM/latest/UserGuide/reference\\_policies\\_condition-keys.html](https://docs.aws.amazon.com/IAM/latest/UserGuide/reference_policies_condition-keys.html)

**NEW QUESTION 10**

A company is hosting a web application on AWS using a single Amazon EC2 instance that stores useruploaded documents in an Amazon EBS volume. For better scalability and availability, the company

duplicated the architecture and created a second EC2 instance and EBS volume in another Availability Zone placing both behind an Application Load Balancer After completing this change, users reported that, each time they refreshed the website, they could see one subset of their documents or the other, but never all of the documents at the same time.

What should a solutions architect propose to ensure users see all of their documents at once?

- A. Copy the data so both EBS volumes contain all the documents.
- B. Configure the Application Load Balancer to direct a user to the server with the documents
- C. Copy the data from both EBS volumes to Amazon EFS Modify the application to save newdocuments to Amazon EFS
- D. Configure the Application Load Balancer to send the request to both servers Return eachdocument from the correct server.

**Answer:** C

**Explanation:**

Explanation

Amazon EFS provides file storage in the AWS Cloud. With Amazon EFS, you can create a file system, mount the file system on an Amazon EC2 instance, and then read and write data to and from your file system. You can mount an Amazon EFS file system in your VPC, through the Network File System versions 4.0 and 4.1 (NFSv4) protocol. We recommend using a current generation Linux NFSv4.1 client, such as those found in the latest Amazon Linux, Redhat, and Ubuntu

AMIs, in conjunction with the Amazon EFS Mount Helper. For instructions, see Using the amazon-efsutils Tools.

For a list of Amazon EC2 Linux Amazon Machine Images (AMIs) that support this protocol, see NFS Support. For some AMIs, you'll need to install an NFS client to mount your file system on your Amazon EC2 instance. For instructions, see Installing the NFS Client.

You can access your Amazon EFS file system concurrently from multiple NFS clients, so applications that scale beyond a single connection can access a file system. Amazon EC2 instances running in multiple Availability Zones within the same AWS Region can access the file system, so that many users can access and share a common data source.



**NEW QUESTION 15**

A company is designing an application. The application uses an AWS Lambda function to receive information through Amazon API Gateway and to store the information in an Amazon Aurora PostgreSQL database.

During the proof-of-concept stage, the company has to increase the Lambda quotas significantly to handle the high volumes of data that the company needs to load into the database. A solutions architect must recommend a new design to improve scalability and minimize the configuration effort.

Which solution will meet these requirements?

- A. Refactor the Lambda function code to Apache Tomcat code that runs on Amazon EC2 instances. Connect the database by using native Java Database Connectivity (JDBC) drivers.
- B. Change the platform from Aurora to Amazon DynamoD
- C. Provision a DynamoDB Accelerator (DAX) cluste
- D. Use the DAX client SDK to point the existing DynamoDB API calls at the DAX cluster.
- E. Set up two Lambda function
- F. Configure one function to receive the informatio
- G. Configure the other function to load the information into the databas
- H. Integrate the Lambda functions by using Amazon Simple Notification Service (Amazon SNS).
- I. Set up two Lambda function
- J. Configure one function to receive the informatio
- K. Configure the other function to load the information into the databas
- L. Integrate the Lambda functions by using an Amazon Simple Queue Service (Amazon SQS) queue.

**Answer:** D

**Explanation:**

Explanation  
bottlenecks can be avoided with queues (SQS).

**NEW QUESTION 20**

A company provides a Voice over Internet Protocol (VoIP) service that uses UDP connections. The service consists of Amazon EC2 instances that run in an Auto Scaling group. The company has deployments across multiple AWS Regions.

The company needs to route users to the Region with the lowest latency. The company also needs automated failover between Regions.

Which solution will meet these requirements?

- A. Deploy a Network Load Balancer (NLB) and an associated target grou
- B. Associate the target group with the Auto Scaling grou
- C. Use the NLB as an AWS Global Accelerator endpoint in each Region.
- D. Deploy an Application Load Balancer (ALB) and an associated target grou
- E. Associate the target group with the Auto Scaling grou
- F. Use the ALB as an AWS Global Accelerator endpoint in each Region.
- G. Deploy a Network Load Balancer (NLB) and an associated target grou
- H. Associate the target group with the Auto Scaling grou
- I. Create an Amazon Route 53 latency record that points to aliases for each NL
- J. Create an AmazonCloudFront distribution that uses the latency record as an origin.
- K. Deploy an Application Load Balancer (ALB) and an associated target grou
- L. Associate the target group with the Auto Scaling grou
- M. Create an Amazon Route 53 weighted record that points to aliases for each AL
- N. Deploy an AmazonCloudFront distribution that uses the weighted record as an origin.

**Answer:** C

**NEW QUESTION 23**

A company runs an online marketplace web application on AWS. The application serves hundreds of thousands of users during peak hours. The company needs a scalable, near-real-time solution to share the details of millions of financial transactions with several other internal applications. Transactions also need to be processed to remove sensitive data before being stored in a document database for low-latency retrieval.

What should a solutions architect recommend to meet these requirements?

- A. Store the transactions data into Amazon DynamoDB. Set up a rule in DynamoDB to remove sensitive data from every transaction upon write. Use DynamoDB Streams to share the transactions data with other applications.
- B. Stream the transactions data into Amazon Kinesis Data Firehose to store data in Amazon DynamoDB and Amazon S3. Use AWS Lambda integration with Kinesis Data Firehose to remove sensitive dat
- C. Other applications can consume the data stored in Amazon S3.
- D. Stream the transactions data into Amazon Kinesis Data Streams. Use AWS Lambda integration to remove sensitive data from every transaction and then store the transactions data in Amazon DynamoDB. Other applications can consume the transactions data off the Kinesis data stream.
- E. Store the batched transactions data in Amazon S3 as file
- F. Use AWS Lambda to process every file and remove sensitive data before updating the files in Amazon S3. The Lambda function then stores the data in Amazon DynamoDB. Other applications can consume transaction files stored in Amazon S3.

**Answer:** C

**Explanation:**

Explanation  
The destination of your Kinesis Data Firehose delivery stream. Kinesis Data Firehose can send data records to various destinations, including Amazon Simple Storage Service (Amazon S3), Amazon Redshift, Amazon OpenSearch Service, and any HTTP endpoint that is owned by you or any of your third-party service providers. The following are the supported destinations:

- \* Amazon OpenSearch Service
- \* Amazon S3
- \* Datadog
- \* Dynatrace
- \* Honeycomb
- \* HTTP Endpoint
- \* Logic Monitor

\* MongoDB Cloud  
\* New Relic  
\* Splunk  
\* Sumo Logic  
<https://docs.aws.amazon.com/firehose/latest/dev/create-name.html>  
<https://aws.amazon.com/kinesis/data-streams/>

Amazon Kinesis Data Streams (KDS) is a massively scalable and durable real-time data streaming service. KDS can continuously capture gigabytes of data per second from hundreds of thousands of sources such as website clickstreams, database event streams, financial transactions, social media feeds, IT logs, and location-tracking events.

#### NEW QUESTION 25

A company hosts its multi-tier applications on AWS. For compliance, governance, auditing, and security, the company must track configuration changes on its AWS resources and record a history of API calls made to these resources. What should a solutions architect do to meet these requirements?

- A. Use AWS CloudTrail to track configuration changes and AWS Config to record API calls
- B. Use AWS Config to track configuration changes and AWS CloudTrail to record API calls
- C. Use AWS Config to track configuration changes and Amazon CloudWatch to record API calls
- D. Use AWS CloudTrail to track configuration changes and Amazon CloudWatch to record API calls

**Answer:** B

#### NEW QUESTION 27

A company recently launched a variety of new workloads on Amazon EC2 instances in its AWS account. The company needs to create a strategy to access and administer the instances remotely and securely. The company needs to implement a repeatable process that works with native AWS services and follows the AWS Well-Architected Framework.

Which solution will meet these requirements with the LEAST operational overhead?

- A. Use the EC2 serial console to directly access the terminal interface of each instance for administration.
- B. Attach the appropriate 1AM role to each existing instance and new instanc
- C. Use AWS Systems Manager Session Manager to establish a remote SSH session.
- D. Create an administrative SSH key pai
- E. Load the public key into each EC2 instanc
- F. Deploy a bastion host in a public subnet to provide a tunnel for administration of each instance.
- G. Establish an AWS Site-to-Site VPN connectio
- H. Instruct administrators to use their local onpremises machines to connect directly to the instances by using SSH keys across the VPN tunnel.

**Answer:** B

#### Explanation:

Explanation

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

#### NEW QUESTION 31

A company runs a highly available image-processing application on Amazon EC2 instances in a single VPC. The EC2 instances run inside several subnets across multiple Availability Zones. The EC2 instances do not communicate with each other. However, the EC2 instances download images from Amazon S3 and upload images to Amazon S3 through a single NAT gateway. The company is concerned about data transfer charges. What is the MOST cost-effective way for the company to avoid Regional data transfer charges?

- A. Launch the NAT gateway in each Availability Zone
- B. Replace the NAT gateway with a NAT instance
- C. Deploy a gateway VPC endpoint for Amazon S3
- D. Provision an EC2 Dedicated Host to run the EC2 instances

**Answer:** C

#### NEW QUESTION 34

A company has an Amazon S3 bucket that contains critical data. The company must protect the data from accidental deletion. Which combination of steps should a solutions architect take to meet these requirements? (Choose two.)

- A. Enable versioning on the S3 bucket.
- B. Enable MFA Delete on the S3 bucket.
- C. Create a bucket policy on the S3 bucket.
- D. Enable default encryption on the S3 bucket.
- E. Create a lifecycle policy for the objects in the S3 bucket.

**Answer:** AB

#### NEW QUESTION 39

A company has an application that provides marketing services to stores. The services are based on previous purchases by store customers. The stores upload transaction data to the company through SFTP, and the data is processed and analyzed to generate new marketing offers. Some of the files can exceed 200 GB in size.

Recently, the company discovered that some of the stores have uploaded files that contain personally identifiable information (PII) that should not have been included. The company wants administrators to be alerted if PII is shared again.

The company also wants to automate remediation.

What should a solutions architect do to meet these requirements with the LEAST development effort?

- A. Use an Amazon S3 bucket as a secure transfer point

- B. Use Amazon Inspector to scan the objects in the bucket.
- C. If objects contain PII.
- D. trigger an S3 Lifecycle policy to remove the objects that contain PII.
- E. Use an Amazon S3 bucket as a secure transfer point.
- F. Use Amazon Macie to scan the objects in the bucket.
- G. If objects contain PII.
- H. Use Amazon Simple Notification Service (Amazon SNS) to trigger a notification to the administrators to remove the objects that contain PII.
- I. Implement custom scanning algorithms in an AWS Lambda function.
- J. Trigger the function when objects are loaded into the bucket.
- K. If objects contain RII.
- L. use Amazon Simple Notification Service (Amazon SNS) to trigger a notification to the administrators to remove the objects that contain PII.
- M. Implement custom scanning algorithms in an AWS Lambda function.
- N. Trigger the function when objects are loaded into the bucket.
- O. If objects contain PII.
- P. use Amazon Simple Email Service (Amazon SES) to trigger a notification to the administrators and trigger on S3 Lifecycle policy to remove the objects that contain PII.

**Answer:** B

#### NEW QUESTION 44

A company's website uses an Amazon EC2 instance store for its catalog of items. The company wants to make sure that the catalog is highly available and that the catalog is stored in a durable location. What should a solutions architect do to meet these requirements?

- A. Move the catalog to Amazon ElastiCache for Redis.
- B. Deploy a larger EC2 instance with a larger instance store.
- C. Move the catalog from the instance store to Amazon S3 Glacier Deep Archive.
- D. Move the catalog to an Amazon Elastic File System (Amazon EFS) file system.

**Answer:** A

#### NEW QUESTION 47

A company has a production workload that runs on 1,000 Amazon EC2 Linux instances. The workload is powered by third-party software. The company needs to patch the third-party software on all EC2 instances as quickly as possible to remediate a critical security vulnerability. What should a solutions architect do to meet these requirements?

- A. Create an AWS Lambda function to apply the patch to all EC2 instances.
- B. Configure AWS Systems Manager Patch Manager to apply the patch to all EC2 instances.
- C. Schedule an AWS Systems Manager maintenance window to apply the patch to all EC2 instances.
- D. Use AWS Systems Manager Run Command to run a custom command that applies the patch to all EC2 instances.

**Answer:** D

#### NEW QUESTION 49

A company needs to keep user transaction data in an Amazon DynamoDB table. The company must retain the data for 7 years. What is the MOST operationally efficient solution that meets these requirements?

- A. Use DynamoDB point-in-time recovery to back up the table continuously.
- B. Use AWS Backup to create backup schedules and retention policies for the table.
- C. Create an on-demand backup of the table by using the DynamoDB console.
- D. Store the backup in an Amazon S3 bucket.
- E. Set an S3 Lifecycle configuration for the S3 bucket.
- F. Create an Amazon EventBridge (Amazon CloudWatch Events) rule to invoke an AWS Lambda function.
- G. Configure the Lambda function to back up the table and to store the backup in an Amazon S3 bucket.
- H. Set an S3 Lifecycle configuration for the S3 bucket.

**Answer:** C

#### NEW QUESTION 51

A company is preparing to store confidential data in Amazon S3. For compliance reasons, the data must be encrypted at rest. Encryption key usage must be logged for auditing purposes. Keys must be rotated every year. Which solution meets these requirements and is the MOST operationally efficient?

- A. Server-side encryption with customer-provided keys (SSE-C)
- B. Server-side encryption with Amazon S3 managed keys (SSE-S3)
- C. Server-side encryption with AWS KMS (SSE-KMS) customer master keys (CMKs) with manual rotation
- D. Server-side encryption with AWS KMS (SSE-KMS) customer master keys (CMKs) with automatic rotation

**Answer:** D

#### Explanation:

<https://docs.aws.amazon.com/kms/latest/developerguide/rotate-keys.html>

When you enable automatic key rotation for a customer managed key, AWS KMS generates new cryptographic material for the KMS key every year. AWS KMS also saves the KMS key's older cryptographic material in perpetuity so it can be used to decrypt data that the KMS key encrypted.

Key rotation in AWS KMS is a cryptographic best practice that is designed to be transparent and easy to use.

AWS KMS supports optional automatic key rotation only for customer managed CMKs. Enable and disable key rotation. Automatic key rotation is disabled by default on customer managed CMKs. When you enable (or re-enable) key rotation, AWS KMS automatically rotates the CMK 365 days after the enable date and every 365 days thereafter.

**NEW QUESTION 55**

A company is running a high performance computing (HPC) workload on AWS across many Linux based Amazon EC2 instances. The company needs a shared storage system that is capable of sub-millisecond latencies, hundreds of Gbps of throughput and millions of IOPS. Users will store millions of small files. Which solution meets these requirements?

- A. Create an Amazon Elastic File System (Amazon EFS) file system Mount the file system on each of the EC2 instances
- B. Create an Amazon S3 bucket Mount the S3 bucket on each of the EC2 instances
- C. Ensure that the EC2 instances use Amazon Elastic Block Store (Amazon EBS) optimized Mount Provisioned IOPS SSD (io2) EBS volumes with Multi-Attach on each instance
- D. Create an Amazon FSx for Lustre file system
- E. Mount the file system on each of the EC2 instances

**Answer: D**

**NEW QUESTION 59**

A company collects data from thousands of remote devices by using a RESTful web services application that runs on an Amazon EC2 instance. The EC2 instance receives the raw data, transforms the raw data, and stores all the data in an Amazon S3 bucket. The number of remote devices will increase into the millions soon. The company needs a highly scalable solution that minimizes operational overhead. Which combination of steps should a solutions architect take to meet these requirements? (Select TWO.)

- A. Use AWS Glue to process the raw data in Amazon S3.
- B. Use Amazon Route 53 to route traffic to different EC2 instances.
- C. Add more EC2 instances to accommodate the increasing amount of incoming data.
- D. Send the raw data to Amazon Simple Queue Service (Amazon SQS). Use EC2 instances to process the data.
- E. Use Amazon API Gateway to send the raw data to an Amazon Kinesis data stream
- F. Configure Amazon Kinesis Data Firehose to use the data stream as a source to deliver the data to Amazon S3.

**Answer: BE**

**NEW QUESTION 62**

A company is planning to build a high performance computing (HPC) workload as a service solution that is hosted on AWS. A group of 16 Amazon EC2 Linux instances requires the lowest possible latency for node-to-node communication. The instances also need a shared block device volume for high-performing storage. Which solution will meet these requirements?

- A. Use a distributed placement group
- B. Attach a single Provisioned IOPS SSD Amazon Elastic Block Store (Amazon EBS) volume to all the instances by using Amazon EBS Multi-Attach
- C. Use a cluster placement group
- D. Create shared file systems across the instances by using Amazon Elastic File System (Amazon EFS)
- E. Use a partition placement group
- F. Create shared tile systems across the instances by using Amazon Elastic File System (Amazon EFS).
- G. Use a spread placement group
- H. Attach a single Provisioned IOPS SSD Amazon Elastic Block Store (Amazon EBS) volume to all the instances by using Amazon EBS Multi-Attach

**Answer: A**

**NEW QUESTION 67**

A company wants to use the AWS Cloud to make an existing application highly available and resilient. The current version of the application resides in the company's data center. The application recently experienced data loss after a database server crashed because of an unexpected power outage. The company needs a solution that avoids any single points of failure. The solution must give the application the ability to scale to meet user demand. Which solution will meet these requirements?

- A. Deploy the application servers by using Amazon EC2 instances in an Auto Scaling group across multiple Availability Zones
- B. Use an Amazon RDS DB instance in a Multi-AZ configuration.
- C. Deploy the application servers by using Amazon EC2 instances in an Auto Scaling group in a single Availability Zone
- D. Deploy the database on an EC2 instance
- E. Enable EC2 Auto Recovery.
- F. Deploy the application servers by using Amazon EC2 instances in an Auto Scaling group across multiple Availability Zones
- G. Use an Amazon RDS DB instance with a read replica in a single Availability Zone
- H. Promote the read replica to replace the primary DB instance if the primary DB instance fails.
- I. Deploy the application servers by using Amazon EC2 instances in an Auto Scaling group across multiple Availability Zones. Deploy the primary and secondary database servers on EC2 instances across multiple Availability Zones. Use Amazon Elastic Block Store (Amazon EBS) Multi-Attach to create shared storage between the instances.

**Answer: A**

**NEW QUESTION 72**

A public-facing web application queries a database hosted on an Amazon EC2 instance in a private subnet. A large number of queries involve multiple table joins, and the application performance has been degrading due to an increase in complex queries. The application team will be performing updates to improve performance. What should a solutions architect recommend to the application team? (Select TWO.)

- A. Cache query data in Amazon SQS
- B. Create a read replica to offload queries
- C. Migrate the database to Amazon Athena
- D. Implement Amazon DynamoDB Accelerator to cache data.
- E. Migrate the database to Amazon RDS



**Answer:** BE

#### NEW QUESTION 74

A company is migrating its on-premises PostgreSQL database to Amazon Aurora PostgreSQL. The on-premises database must remain online and accessible during the migration. The Aurora database must remain synchronized with the on-premises database. Which combination of actions must a solutions architect take to meet these requirements? (Select TWO.)

- A. Create an ongoing replication task.
- B. Create a database backup of the on-premises database
- C. Create an AWS Database Migration Service (AWS DMS) replication server
- D. Convert the database schema by using the AWS Schema Conversion Tool (AWS SCT).
- E. Create an Amazon EventBridge (Amazon CloudWatch Events) rule to monitor the database synchronization

**Answer:** CD

#### NEW QUESTION 77

A company's web application consists of multiple Amazon EC2 instances that run behind an Application Load Balancer in a VPC. An Amazon ROS for MySQL DB instance contains the data. The company needs the ability to automatically detect and respond to suspicious or unexpected behaviour in its AWS environment the company already has added AWS WAF to its architecture.

What should a solutions architect do next to protect against threats?

- A. Use Amazon GuardDuty to perform threat detection
- B. Configure Amazon EventBridge (Amazon CloudWatch Events) to filter for GuardDuty findings and to invoke an AWS Lambda function to adjust the AWS WAF rules
- C. Use AWS Firewall Manager to perform threat detection Configure Amazon EventBridge (Amazon CloudWatch Events) to filter for Firewall Manager findings and to invoke an AWS Lambda function to adjust the AWS WAF web ACL
- D. Use Amazon Inspector to perform threat detection and to update the AWS WAF rules Create a VPC network ACL to limit access to the web application
- E. Use Amazon Macie to perform threat detection and to update the AWS WAF rules Create a VPC network ACL to limit access to the web application

**Answer:** A

#### NEW QUESTION 82

A company is implementing a new business application. The application runs on two Amazon EC2 instances and uses an Amazon S3 bucket for document storage. A solutions architect needs to ensure that the EC2 instances can access the S3 bucket.

What should the solutions architect do to meet this requirement?

- A. Create an IAM role that grants access to the S3 bucket
- B. Attach the role to the EC2 instances.
- C. Create an IAM policy that grants access to the S3 bucket Attach the policy to the EC2 instances
- D. Create an IAM group that grants access to the S3 bucket Attach the group to the EC2 instances
- E. Create an IAM user that grants access to the S3 bucket Attach the user account to the EC2 instances

**Answer:** C

#### NEW QUESTION 84

A company has a three-tier web application that is deployed on AWS. The web servers are deployed in a public subnet in a VPC. The application servers and database servers are deployed in private subnets in the same VPC. The company has deployed a third-party virtual firewall appliance from AWS Marketplace in an inspection VPC. The appliance is configured with an IP interface that can accept IP packets.

A solutions architect needs to integrate the web application with the appliance to inspect all traffic to the application before the traffic reaches the web server.

Which solution will meet these requirements with the LEAST operational overhead?

- A. Create a Network Load Balancer in the public subnet of the application's VPC to route the traffic to the appliance for packet inspection
- B. Create an Application Load Balancer in the public subnet of the application's VPC to route the traffic to the appliance for packet inspection
- C. Deploy a transit gateway in the inspection VPC Configure route tables to route the incoming packets through the transit gateway
- D. Deploy a Gateway Load Balancer in the inspection VPC Create a Gateway Load Balancer endpoint to receive the incoming packets and forward the packets to the appliance

**Answer:** D

#### NEW QUESTION 85

A company's website handles millions of requests each day and the number of requests continues to increase. A solutions architect needs to improve the response time of the web application. The solutions architect determines that the application needs to decrease latency when retrieving product details from the Amazon DynamoDB table.

Which solution will meet these requirements with the LEAST amount of operational overhead?

- A. Set up a DynamoDB Accelerator (DAX) cluster Route all read requests through DAX.
- B. Set up Amazon ElastiCache for Redis between the DynamoDB table and the web application Route all read requests through Redis.
- C. Set up Amazon ElastiCache for Memcached between the DynamoDB table and the web application Route all read requests through Memcached.
- D. Set up Amazon DynamoDB streams on the table and have AWS Lambda read from the table and populate Amazon ElastiCache Route all read requests through ElastiCache

**Answer:** A

#### NEW QUESTION 86

A gaming company has a web application that displays scores. The application runs on Amazon EC2 instances behind an Application Load Balancer. The application stores data in an Amazon RDS for MySQL database. Users are starting to experience long delays and interruptions that are caused by database read performance. The company wants to improve the user experience while minimizing changes to the application's architecture.

What should a solutions architect do to meet these requirements?

- A. Use Amazon ElastiCache in front of the database.
- B. Use RDS Proxy between the application and the database.
- C. Migrate the application from EC2 instances to AWS Lambda.
- D. Migrate the database from Amazon RDS for MySQL to Amazon DynamoDB.

**Answer: C**

#### NEW QUESTION 90

A company's order system sends requests from clients to Amazon EC2 instances. The EC2 instances process the orders and then store the orders in a database on Amazon RDS. Users report that they must reprocess orders when the system fails. The company wants a resilient solution that can process orders automatically if a system outage occurs.

What should a solutions architect do to meet these requirements?

- A. Move the EC2 instances into an Auto Scaling group.
- B. Create an Amazon EventBridge (Amazon CloudWatch Events) rule to target an Amazon Elastic Container Service (Amazon ECS) task.
- C. Move the EC2 instances into an Auto Scaling group behind an Application Load Balancer (ALB). Update the order system to send messages to the ALB endpoint.
- D. Move the EC2 instances into an Auto Scaling group.
- E. Configure the order system to send messages to an Amazon Simple Queue Service (Amazon SQS) queue.
- F. Configure the EC2 instances to consume messages from the queue.
- G. Create an Amazon Simple Notification Service (Amazon SNS) topic.
- H. Create an AWS Lambda function, and subscribe the function to the SNS topic. Configure the order system to send messages to the SNS topic.
- I. Send a command to the EC2 instances to process the messages by using AWS Systems Manager Run Command.

**Answer: C**

#### NEW QUESTION 92

A company is using a SQL database to store movie data that is publicly accessible. The database runs on an Amazon RDS Single-AZ DB instance. A script runs queries at random intervals each day to record the number of new movies that have been added to the database. The script must report a final total during business hours. The company's development team notices that the database performance is inadequate for development tasks when the script is running. A solutions architect must recommend a solution to resolve this issue. Which solution will meet this requirement with the LEAST operational overhead?

- A. Modify the DB instance to be a Multi-AZ deployment.
- B. Create a read replica of the database. Configure the script to query only the read replica.
- C. Instruct the development team to manually export the entries in the database at the end of each day.
- D. Use Amazon ElastiCache to cache the common queries that the script runs against the database.

**Answer: B**

#### NEW QUESTION 95

A company has five organizational units (OUs) as part of its organization in AWS Organization. Each OU correlates to the five businesses that the company owns. The company's research and development (R&D) business is separating from the company and will need its own organization. A solutions architect creates a separate new management account for this purpose.

- A. Have the R&D AWS account be part of both organizations during the transition.
- B. Invite the R&D AWS account to be part of the new organization after the R&D AWS account has left the prior organization.
- C. Create a new R&D AWS account in the new organization.
- D. Migrate resources from the prior R&D AWS account to the new R&D AWS account.
- E. Have the R&D AWS account join the new organization.
- F. Make the new management account a member of the prior organization.

**Answer: B**

#### NEW QUESTION 98

A company has a web-based map application that provides status information about ongoing repairs. The application sometimes has millions of users. Repair teams have a mobile app that sends current location and status in a JSON message to a REST-based endpoint.

Few repairs occur on most days. The company wants the application to be highly available and to scale when large numbers of repairs occur after natural disasters. Customers use the application most often during these times. The company does not want to pay for idle capacity.

- A. Create a webpage that is based on Amazon S3 to display information.
- B. Use Amazon API Gateway and AWS Lambda to receive the JSON status data. Store the JSON data in Amazon S3.
- C. Use Amazon EC2 instances as web servers across multiple Availability Zones.
- D. Run the EC2 instances in an Auto Scaling group.
- E. Use Amazon API Gateway and AWS Lambda to receive the JSON status data. Store the JSON data in Amazon S3.
- F. Use Amazon EC2 instances as web servers across multiple Availability Zones.
- G. Run the EC2 instances in an Auto Scaling group.
- H. Use a REST endpoint on the EC2 instances to receive the JSON status data.
- I. Store the JSON data in an Amazon RDS Multi-AZ DB instance.
- J. Use Amazon EC2 instances as web servers across multiple Availability Zones. Run the EC2 instances in an Auto Scaling group. Use a REST endpoint on the EC2 instances to receive the JSON status data. Store the JSON data in an Amazon DynamoDB table.

**Answer: D**

#### NEW QUESTION 100

A company runs multiple Windows workloads on AWS. The company's employees use Windows file shares that are hosted on two Amazon EC2 instances. The file shares synchronize data between themselves and maintain duplicate copies. The company wants a highly available and durable storage solution that preserves how users currently access the files.

- A. Migrate all the data to Amazon S3 Set up IAM authentication for users to access files
- B. Set up an Amazon S3 File Gatewa
- C. Mount the S3 File Gateway on the existing EC2 Instances.
- D. Extend the file share environment to Amazon FSx for Windows File Server with a Multi-AZ configuratio
- E. Migrate all the data to FSx for Windows File Server.
- F. Extend the file share environment to Amazon Elastic File System (Amazon EFS) with a Multi-AZ configuratio
- G. Migrate all the data to Amazon EFS.

**Answer:** C

#### NEW QUESTION 103

A company's web application consists of an Amazon API Gateway API in front of an AWS Lambda function and an Amazon DynamoDB database. The Lambda function handles the business logic, and the DynamoDB table hosts the data. The application uses Amazon Cognito user pools to identify the individual users of the application. A solutions architect needs to update the application so that only users who have a subscription can access premium content.

- A. Enable API caching and throttling on the API Gateway API
- B. Set up AWS WAF on the API Gateway API Create a rule to filter users who have a subscription
- C. Apply fine-grained IAM permissions to the premium content in the DynamoDB table
- D. Implement API usage plans and API keys to limit the access of users who do not have a subscription.

**Answer:** C

#### NEW QUESTION 107

A company is building an ecommerce application and needs to store sensitive customer information. The company needs to give customers the ability to complete purchase transactions on the website. The company also needs to ensure that sensitive customer data is protected, even from database administrators. Which solution meets these requirements?

- A. Store sensitive data in an Amazon Elastic Block Store (Amazon EBS) volum
- B. Use EBS encryption to encrypt the dat
- C. Use an IAM instance role to restrict access.
- D. Store sensitive data in Amazon RDS for MySQL
- E. Use AWS Key Management Service (AWS KMS) client-side encryption to encrypt the data.
- F. Store sensitive data in Amazon S3. Use AWS Key Management Service (AWS KMS) service-side encryption the dat
- G. Use S3 bucket policies to restrict access.
- H. Store sensitive data in Amazon FSx for Windows Serve
- I. Mount the file share on application servers. Use Windows file permissions to restrict access.

**Answer:** C

#### NEW QUESTION 110

A company has on-premises servers that run a relational database The database serves high-read traffic for users in different locations The company wants to migrate the database to AWS with the least amount of effort The database solution must support high availability and must not affect the company's current traffic flow Which solution meets these requirements?

- A. Use a database in Amazon RDS with Multi-AZ and at least one read replica.
- B. Use a database in Amazon RDS with Multi-AZ and at least one standby replica.
- C. Use databases that are hosted on multiple Amazon EC2 instances in different AWS Regions.
- D. Use databases that are hosted on Amazon EC2 instances behind an Application Load Balancer in different Availability Zones

**Answer:** A

#### Explanation:

<https://aws.amazon.com/blogs/database/implementing-a-disaster-recovery-strategy-with-amazon-rds/>

#### NEW QUESTION 112

A company has an application that runs on Amazon EC2 instances and uses an Amazon Aurora database. The EC2 instances connect to the database by using user names and passwords that are stored locally in a file. The company wants to minimize the operational overhead of credential management. What should a solutions architect do to accomplish this goal?

- A. Use AWS Secrets Manage
- B. Turn on automatic rotation.
- C. Use AWS Systems Manager Parameter Stor
- D. Turn on automatic rotatio
- E. • Create an Amazon S3 bucket to store objects that are encrypted with an AWS Key
- F. Management Service (AWS KMS) encryption ke
- G. Migrate the credential file to the S3 bucke
- H. Point the application to the S3 bucket.
- I. Create an encrypted Amazon Elastic Block Store (Amazon EBS) volume (or each EC2 instanc
- J. Attach the new EBS volume to each EC2 instanc
- K. Migrate the credential file to the new EBS volum
- L. Point the application to the new EBS volume.

**Answer:** C

#### NEW QUESTION 117

A gaming company hosts a browser-based application on AWS The users of the application consume a large number of videos and images that are stored in



Amazon S3. This content is the same for all users

The application has increased in popularity, and millions of users worldwide are accessing these media files. The company wants to provide the files to the users while reducing the load on the origin

Which solution meets these requirements MOST cost-effectively?

- A. Deploy an AWS Global Accelerator accelerator in front of the web servers
- B. Deploy an Amazon CloudFront web distribution in front of the S3 bucket
- C. Deploy an Amazon ElastiCache for Redis instance in front of the web servers
- D. Deploy an Amazon ElastiCache for Memcached instance in front of the web servers

**Answer: B**

**Explanation:**

CloudFront uses Edge Locations to cache content while Global Accelerator uses Edge Locations to find an optimal pathway to the nearest regional endpoint.

#### NEW QUESTION 120

A company has two AWS accounts in the same AWS Region. One account is a publisher account, and the other account is a subscriber account. Each account has its own Amazon S3 bucket.

An application puts media objects into the publisher account's S3 bucket. The objects are encrypted with server-side encryption with customer-provided encryption keys (SSE-C). The company needs a solution that will automatically copy the objects to the subscriber's account's S3 bucket.

Which solution will meet these requirements with the LEAST operational overhead?

- A. Enable S3 Versioning on the publisher account's S3 bucket. Configure S3 Same-Region Replication of the objects to the subscriber account's S3 bucket.
- B. Create an AWS Lambda function that is invoked when objects are published in the publisher account's S3 bucket.
- C. Configure the Lambda function to copy the objects to the subscriber account's S3 bucket.
- D. Configure Amazon EventBridge (Amazon CloudWatch Events) to invoke an AWS Lambda function when objects are published in the publisher account's S3 bucket. Configure the Lambda function to copy the objects to the subscriber account's S3 bucket.
- E. Configure Amazon EventBridge (Amazon CloudWatch Events) to publish Amazon Simple Notification Service (Amazon SNS) notifications when objects are published in the publisher account's S3 bucket. When notifications are received, use the S3 console to copy the objects to the subscriber account's S3 bucket.

**Answer: B**

#### NEW QUESTION 123

A company uses Amazon S3 as its data lake. The company has a new partner that must use SFTP to upload data files. A solutions architect needs to implement a highly available SFTP solution that minimizes operational overhead.

Which solution will meet these requirements?

- A. Use AWS Transfer Family to configure an SFTP-enabled server with a publicly accessible endpoint. Choose the S3 data lake as the destination.
- B. Use Amazon S3 File Gateway as an SFTP server. Expose the S3 File Gateway endpoint URL to the new partner. Share the S3 File Gateway endpoint with the new partner.
- C. Launch an Amazon EC2 instance in a private subnet in a VPC. Instruct the new partner to upload files to the EC2 instance by using a VPN. Run a cron job script on the EC2 instance to upload files to the S3 data lake.
- D. Launch Amazon EC2 instances in a private subnet in a VPC. Place a Network Load Balancer (NLB) in front of the EC2 instances. Create an SFTP listener port for the NLB. Share the NLB hostname with the new partner.
- E. Run a cron job script on the EC2 instances to upload files to the S3 data lake.

**Answer: A**

#### NEW QUESTION 125

A hospital wants to create digital copies for its large collection of historical written records. The hospital will continue to add hundreds of new documents each day. The hospital's data team will scan the documents and will upload the documents to the AWS Cloud.

A solutions architect must implement a solution to analyze the documents: extract the medical information, and store the documents so that an application can run SQL queries on the data. The solution must maximize scalability and operational efficiency.

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

- A. Write the document information to an Amazon EC2 instance that runs a MySQL database.
- B. Write the document information to an Amazon S3 bucket. Use Amazon Athena to query the data.
- C. Create an Auto Scaling group of Amazon EC2 instances to run a custom application that processes the scanned files and extracts the medical information.
- D. Create an AWS Lambda function that runs when new documents are uploaded. Use Amazon Rekognition to convert the documents to raw text. Use Amazon Transcribe Medical to detect and extract relevant medical information from the text.
- E. Create an AWS Lambda function that runs when new documents are uploaded. Use Amazon Textract to convert the documents to raw text. Use Amazon Comprehend Medical to detect and extract relevant medical information from the text.

**Answer: AE**

#### NEW QUESTION 128

An ecommerce company has an order-processing application that uses Amazon API Gateway and an AWS Lambda function. The application stores data in an Amazon Aurora PostgreSQL database. During a recent sales event, a sudden surge in customer orders occurred. Some customers experienced timeouts and the application did not process the orders of those customers. A solutions architect determined that the CPU utilization and memory utilization were high on the database because of a large number of open connections. The solutions architect needs to prevent the timeout errors while making the least possible changes to the application.

Which solution will meet these requirements?

- A. Configure provisioned concurrency for the Lambda function. Modify the database to be a global database in multiple AWS Regions.
- B. Use Amazon RDS Proxy to create a proxy for the database. Modify the Lambda function to use the RDS Proxy endpoint instead of the database endpoint.
- C. Create a read replica for the database in a different AWS Region. Use query string parameters in API Gateway to route traffic to the read replica.
- D. Migrate the data from Aurora PostgreSQL to Amazon DynamoDB by using AWS Database Migration Service (AWS DMS). Modify the Lambda function to use the DynamoDB table.



**Answer:** C

#### NEW QUESTION 129

A company uses a popular content management system (CMS) for its corporate website. However, the required patching and maintenance are burdensome. The company is redesigning its website and wants a new solution. The website will be updated four times a year and does not need to have any dynamic content available. The solution must provide high scalability and enhanced security.

Which combination of changes will meet those requirements with the LEAST operational overhead? (Select TWO)

- A. Deploy an AWS WAF web ACL in front of the website to provide HTTPS functionality
- B. Create and deploy an AWS Lambda function to manage and serve the website content
- C. Create the new website and an Amazon S3 bucket. Deploy the website on the S3 bucket with static website hosting enabled
- D. Create the new website
- E. Deploy the website by using an Auto Scaling group of Amazon EC2 instances behind an Application Load Balancer.

**Answer:** D

#### NEW QUESTION 134

A company is designing a new web application that the company will deploy into a single AWS Region. The application requires a two-tier architecture that will include Amazon EC2 instances and an Amazon RDS DB instance. A solutions architect needs to design the application so that all components are highly available.

- A. Deploy EC2 instances in an additional Region. Create a DB instance with the Multi-AZ option activated.
- B. Deploy all EC2 instances in the same Region and the same Availability Zone.
- C. Create a DB instance with the Multi-AZ option activated.
- D. Deploy the EC2 instances across at least two Availability Zones within the same Region.
- E. Create a DB instance in a single Availability Zone.
- F. Deploy the EC2 instances across at least two Availability Zones within the same Region.
- G. Create a DB instance with the Multi-AZ option activated.

**Answer:** D

#### NEW QUESTION 136

A solutions architect is designing a new hybrid architecture to extend a company's on-premises infrastructure to AWS. The company requires a highly available connection with consistent low latency to an AWS Region. The company needs to minimize costs and is willing to accept slower traffic if the primary connection fails.

What should the solutions architect do to meet these requirements?

- A. Provision an AWS Direct Connect connection to a Region. Provision a VPN connection as a backup if the primary Direct Connect connection fails.
- B. Provision a VPN tunnel connection to a Region for private connectivity.
- C. Provision a second VPN tunnel for private connectivity and as a backup if the primary VPN connection fails.
- D. Provision an AWS Direct Connect connection to a Region. Provision a second Direct Connect connection to the same Region as a backup if the primary Direct Connect connection fails.
- E. Provision an AWS Direct Connect connection to a Region. Use the Direct Connect failover attribute from the AWS CLI to automatically create a backup connection if the primary Direct Connect connection fails.

**Answer:** A

#### NEW QUESTION 137

A company has a business system that generates hundreds of reports each day. The business system saves the reports to a network share in CSV format. The company needs to store this data in the AWS Cloud in near-real time for analysis. Which solution will meet these requirements with the LEAST administrative overhead?

- A. Use AWS DataSync to transfer the files to Amazon S3. Create a scheduled task that runs at the end of each day.
- B. Create an Amazon S3 File Gateway. Update the business system to use a new network share from the S3 File Gateway.
- C. Use AWS DataSync to transfer the files to Amazon S3. Create an application that uses the DataSync API in the automation workflow.
- D. Deploy an AWS Transfer for SFTP endpoint. Create a script that checks for new files on the network share and uploads the new files by using SFTP.

**Answer:** B

#### NEW QUESTION 142

A company is developing a new machine learning (ML) model solution on AWS. The models are developed as independent microservices that fetch approximately 1GB of model data from Amazon S3 at startup and load the data into memory. Users access the models through an asynchronous API. Users can send a request or a batch of requests and specify where the results should be sent.

The company provides models to hundreds of users. The usage patterns for the models are irregular. Some models could be unused for days or weeks. Other models could receive batches of thousands of requests at a time.

Which design should a solutions architect recommend to meet these requirements?

- A. Direct the requests from the API to a Network Load Balancer (NLB). Deploy the models as AWS Lambda functions that are invoked by the NLB.
- B. Direct the requests from the API to an Application Load Balancer (ALB). Deploy the models as Amazon Elastic Container Service (Amazon ECS) services that read from an Amazon Simple Queue Service (Amazon SQS) queue. Use AWS App Mesh to scale the instances of the ECS cluster based on the SQS queue size.
- C. Direct the requests from the API into an Amazon Simple Queue Service (Amazon SQS) queue. Deploy the models as AWS Lambda functions that are invoked by SQS events. Use AWS Auto Scaling to increase the number of vCPUs for the Lambda functions based on the SQS queue size.
- D. Direct the requests from the API into an Amazon Simple Queue Service (Amazon SQS) queue. Deploy the models as Amazon Elastic Container Service (Amazon ECS) services that read from the queue. Enable AWS Auto Scaling on Amazon ECS for both the cluster and copies of the service based on the queue size.

**Answer:** C

**NEW QUESTION 144**

A company is deploying a web portal. The company wants to ensure that only the web portion of the application is publicly accessible. To accomplish this, the VPC was designed with two public subnets and two private subnets. The application will run on several Amazon EC2 instances in an Auto Scaling group. SSL termination must be offloaded from the EC2 instances.

What should a solutions architect do to ensure these requirements are met? Configure a Network Load Balancer in the public subnets. Configure the Auto Scaling

- A. group in the private subnets and associate it with an Application Load Balancer Configure a Network Load Balancer in the public subnet
- B. Configure the Auto Scaling
- C. group in the public subnets and associate it with an Application Load Balancer.
- D. Configure an Application Load Balancer in the public subnet
- E. Configure the Auto Scaling group in the private subnets and associate it with the Application Load
- F. Balancer, Configure an Application Load Balancer in the private subnet
- G. Configure the Auto Scaling group in the private subnets and associate it with the Application Load Balancer.

**Answer: C**

**NEW QUESTION 145**

A company hosts an application on AWS. The application uses AWS Lambda functions and stores data in Amazon DynamoDB tables. The Lambda functions are connected to a VPC that does not have internet access.

The traffic to access DynamoDB must not travel across the internet. The application must have write access to only specific DynamoDB tables.

Which combination of steps should a solutions architect take to meet these requirements? (Select TWO.)

- A. Attach a VPC endpoint policy for DynamoDB to allow write access to only the specific DynamoDB tables.
- B. Attach a security group to the interface VPC endpoint to allow write access to only the specific DynamoDB tables.
- C. Create a resource-based IAM policy to grant write access to only the specific DynamoDB table
- D. Attach the policy to the DynamoDB tables.
- E. Create a gateway VPC endpoint for DynamoDB that is associated with the Lambda VP
- F. Ensure that the Lambda execution role can access the gateway VPC endpoint.
- G. Create an interface VPC endpoint for DynamoDB that is associated with the Lambda VP
- H. Ensure that the Lambda execution role can access the interface VPC endpoint.

**Answer: AD**

**NEW QUESTION 149**

A company is launching a new application and will display application metrics on an Amazon CloudWatch dashboard. The company's product manager needs to access this dashboard periodically. The product manager does not have an AWS account. A solution architect must provide access to the product manager by following the principle of least privilege.

Which solution will meet these requirements?

- A. Share the dashboard from the CloudWatch console
- B. Enter the product manager's email address, and complete the sharing step
- C. Provide a shareable link for the dashboard to the product manager.
- D. Create an IAM user specifically for the product manager
- E. Attach the CloudWatch Read Only Access managed policy to the user
- F. Share the new login credential with the product manager
- G. Share the browser URL of the correct dashboard with the product manager.
- H. Create an IAM user for the company's employees, Attach the View Only Access AWS managed policy to the IAM user
- I. Share the new login credentials with the product manager
- J. Ask the product manager to navigate to the CloudWatch console and locate the dashboard by name in the Dashboards section.
- K. Deploy a bastion server in a public subnet
- L. When the product manager requires access to the dashboard, start the server and share the RDP credential
- M. On the bastion server, ensure that the browser is configured to open the dashboard URL with cached AWS credentials that have appropriate permissions to view the dashboard.

**Answer: A**

**NEW QUESTION 150**

A company wants to build a data lake on AWS from data that is stored in an on-premises Oracle relational database. The data lake must receive ongoing updates from the on-premises database.

Which solution will meet these requirements with the LEAST operational overhead?

- A. Use AWS DataSync to transfer the data to Amazon S3. Use AWS Glue to transform the data and integrate the data into a data lake.
- B. Use AWS Snowball to transfer the data to Amazon S3. Use AWS Batch to transform the data and integrate the data into a data lake.
- C. Use AWS Database Migration Service (AWS DMS) to transfer the data to Amazon S3 Use AWS Glue to transform the data and integrate the data into a data lake.
- D. Use an Amazon EC2 instance to transfer the data to Amazon S3. Configure the EC2 instance to transform the data and integrate the data into a data lake.

**Answer: C**

**NEW QUESTION 154**

A gaming company wants to launch a new internet-facing application in multiple AWS Regions. The application will use the TCP and UDP protocols for communication. The company needs to provide high availability and minimum latency for global users.

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

- A. Create internal Network Load Balancers in front of the application in each Region
- B. Create external Application Load Balancers in front of the application in each Region
- C. Create an AWS Global Accelerator accelerator to route traffic to the load balancers in each Region
- D. Configure Amazon Route 53 to use a geolocation routing policy to distribute the traffic
- E. Configure Amazon CloudFront to handle the traffic and route requests to the application in each Region

**Answer:** AC

**NEW QUESTION 155**

A company wants to use Amazon S3 for the secondary copy of its dataset. The company would rarely need to access this copy. The storage solution's cost should be minimal.

Which storage solution meets these requirements?

- A. S3 Standard
- B. S3 Intelligent-Tiering
- C. S3 Standard-Infrequent Access (S3 Standard-IA)
- D. S3 One Zone-Infrequent Access (S3 One Zone-IA)

**Answer:** C

**NEW QUESTION 160**

A company wants to migrate its on-premises application to AWS. The application produces output files that vary in size from tens of gigabytes to hundreds of terabytes. The application data must be stored in a standard file system structure. The company wants a solution that scales automatically, is highly available, and requires minimum operational overhead.

Which solution will meet these requirements?

- A. Migrate the application to run as containers on Amazon Elastic Container Service (Amazon ECS). Use Amazon S3 for storage.
- B. Migrate the application to run as containers on Amazon Elastic Kubernetes Service (Amazon EKS). Use Amazon Elastic Block Store (Amazon EBS) for storage.
- C. Migrate the application to Amazon EC2 instances in a Multi-AZ Auto Scaling group.
- D. Use Amazon Elastic File System (Amazon EFS) for storage.
- E. Migrate the application to Amazon EC2 instances in a Multi-AZ Auto Scaling group.
- F. Use Amazon Elastic Block Store (Amazon EBS) for storage.

**Answer:** C

**NEW QUESTION 164**

A company has an AWS Glue extract, transform, and load (ETL) job that runs every day at the same time. The job processes XML data that is in an Amazon S3 bucket.

New data is added to the S3 bucket every day. A solutions architect notices that AWS Glue is processing all the data during each run.

What should the solutions architect do to prevent AWS Glue from reprocessing old data?

- A. Edit the job to use job bookmarks.
- B. Edit the job to delete data after the data is processed.
- C. Edit the job by setting the NumberOfWorkers field to 1.
- D. Use a FindMatches machine learning (ML) transform.

**Answer:** B

**NEW QUESTION 166**

A company wants to run applications in containers in the AWS Cloud. Those applications are stateless and can tolerate disruptions. What should a solutions architect do to meet those requirements?

What should a solution architect do to meet these requirements?

- A. Use Spot Instances in an Amazon EC2 Auto Scaling group to run the application containers.
- B. Use Spot Instances in an Amazon Elastic Kubernetes Service (Amazon EKS) managed node group.
- C. Use On-Demand Instances in an Amazon EC2 Auto Scaling group to run the application containers.
- D. Use On-Demand Instances in an Amazon Elastic Kubernetes Service (Amazon EKS) managed node group.

**Answer:** A

**NEW QUESTION 168**

A company uses 50 TB of data for reporting. The company wants to move this data from on-premises to AWS. A custom application in the company's data center runs a weekly data transformation job. The company plans to pause the application until the data transfer is complete and needs to begin the transfer process as soon as possible.

The data center does not have any available network bandwidth for additional workloads. A solutions architect must transfer the data and must configure the transformation job to continue to run in the AWS Cloud.

Which solution will meet these requirements with the LEAST operational overhead?

- A. Use AWS DataSync to move the data. Create a custom transformation job by using AWS Glue.
- B. Order an AWS Snowcone device to move the data. Deploy the transformation application to the device.
- C. Order an AWS Snowball Edge Storage Optimized device.
- D. Copy the data to the device.
- E. Create a custom transformation job by using AWS Glue.
- F. Order an AWS
- G. Snowball Edge Storage Optimized device that includes Amazon EC2 compute. Copy the data to the device. Create a new EC2 instance on AWS to run the transformation application.

**Answer:** D

**NEW QUESTION 171**

A company hosts a website on Amazon EC2 instances behind an Application Load Balancer (ALB). The website serves static content. Website traffic is increasing, and the company is concerned about a potential increase in cost.



What should a solutions architect do to reduce the cost of the website?

- A. Create an Amazon CloudFront distribution to cache static files at edge locations.
- B. Create an Amazon ElastiCache cluster Connect the ALB to the ElastiCache cluster to serve cached files.
- C. Create an AWS WAF web ACL, and associate it with the ALB Add a rule to the web ACL to cache static files.
- D. Create a second ALB in an alternative AWS Region Route user traffic to the closest Region to minimize data transfer costs.

**Answer:** A

#### NEW QUESTION 174

To meet security requirements, a company needs to encrypt all of its application data in transit while communicating with an Amazon RDS MySQL DB instance A recent security audit revealed that encryption at rest is enabled using AWS Key Management Service (AWS KMS). but data in transit is not enabled What should a solutions architect do to satisfy the security requirements?

- A. Enable IAM database authentication on the database.
- B. Provide self-signed certificates, Use the certificates in all connections to the RDS instance
- C. Take a snapshot of the RDS instance Restore the snapshot to a new instance with encryption enabled
- D. Download AWS-provided root certificates Provide the certificates in all connections to the RDS instance

**Answer:** C

#### Explanation:

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

#### NEW QUESTION 175

A company runs its ecommerce application on AWS. Every new order is published as a message in a RabbitMQ queue that runs on an Amazon EC2 instance in a single Availability Zone. These messages are processed by a different application that runs on a separate EC2 instance. This application stores the details in a PostgreSQL database on another EC2 instance. All the EC2 instances are in the same Availability Zone.

The company needs to redesign its architecture to provide the highest availability with the least operational overhead.

What should a solutions architect do to meet these requirements?

- A. Migrate the queue to a redundant pair (active/standby) of RabbitMQ instances on Amazon M
- B. Create a Multi-AZ Auto Scaling group (or EC2 instances that host the applicatio
- C. Create another Multi-AZ Auto Scaling group for EC2 instances that host the PostgreSQL database.
- D. Migrate the queue to a redundant pair (active/standby) of RabbitMQ instances on Amazon M
- E. Create a Multi-AZ Auto Scaling group for EC2 instances that host the applicatio
- F. Migrate the database to run on a Multi-AZ deployment of Amazon RDS for PostgreSQL.
- G. Create a Multi-AZ Auto Scaling group for EC2 instances that host the RabbitMQ queu
- H. Create another Multi-AZ Auto Scaling group for EC2 instances that host the applicatio
- I. Migrate the database to run on a Multi-AZ deployment of Amazon RDS for PostgreSQL.
- J. Create a Multi-AZ Auto Scaling group for EC2 instances that host the RabbitMQ queu
- K. Create another Multi-AZ Auto Scaling group for EC2 instances that host the applicatio
- L. Create a third Multi-AZ AutoScaling group for EC2 instances that host the PostgreSQL database.

**Answer:** C

#### NEW QUESTION 179

A research company runs experiments that are powered by a simulation application and a visualization application. The simulation application runs on Linux and outputs intermediate data to an NFS share every 5 minutes. The visualization application is a Windows desktop application that displays the simulation output and requires an SMB file system.

The company maintains two synchronized file systems. This strategy is causing data duplication and inefficient resource usage. The company needs to migrate the applications to AWS without making code changes to either application.

Which solution will meet these requirements?

- A. Migrate both applications to AWS Lambda Create an Amazon S3 bucket to exchange data between the applications.
- B. Migrate both applications to Amazon Elastic Container Service (Amazon ECS). Configure Amazon FSx File Gateway for storage.
- C. Migrate the simulation application to Linux Amazon EC2 instance
- D. Migrate the visualization application to Windows EC2 instance
- E. Configure Amazon Simple Queue Service (Amazon SQS) to exchange data between the applications.
- F. Migrate the simulation application to Linux Amazon EC2 instance
- G. Migrate the visualization application to Windows EC2 instance
- H. Configure Amazon FSx for NetApp ONTAP for storage.
- I. B

**Answer:** E

#### NEW QUESTION 180

A company wants to run its critical applications in containers to meet requirements for scalability and availability The company prefers to focus on maintenance of the critical applications The company does not want to be responsible for provisioning and managing the underlying infrastructure that runs the containerized workload

What should a solutions architect do to meet those requirements?

- A. Use Amazon EC2 Instances, and Install Docker on the Instances
- B. Use Amazon Elastic Container Service (Amazon ECS) on Amazon EC2 worker nodes
- C. Use Amazon Elastic Container Service (Amazon ECS) on AWS Fargate
- D. Use Amazon EC2 instances from an Amazon Elastic Container Service (Amazon ECS)-optimized Amazon Machine Image (AMI).

**Answer:** C



**Explanation:**

using AWS ECS on AWS Fargate since they requirements are for scalability and availability without having to provision and manage the underlying infrastructure to run the containerized workload. <https://docs.aws.amazon.com/AmazonECS/latest/userguide/what-is-fargate.html>

**NEW QUESTION 181**

A company that recently started using AWS establishes a Site-to-Site VPN between its on-premises data center and AWS. The company's security mandate states that traffic originating from on premises should stay within the company's private IP space when communicating with an Amazon Elastic Container Service (Amazon ECS) cluster that is hosting a sample web application. Which solution meets this requirement?

- A. Configure a gateway endpoint for Amazon EC
- B. Modify the route table to include an entry pointing to the ECS cluster.
- C. Create a Network Load Balancer and AWS PrivateLink endpoint for Amazon ECS in the same VPC that is hosting the ECS cluster.
- D. Create a Network Load Balancer in one VPC and an AWS PrivateLink endpoint for Amazon ECS in another VP
- E. Connect the two by using VPC peering.
- F. Configure an Amazon Route record with Amazon ECS as the target
- G. Apply a server certificate to Route 53 from AWS Certificate Manager (ACM) for SSL offloading.

**Answer:** A

**NEW QUESTION 182**

A company wants to manage Amazon Machine Images (AMIs). The company currently copies AMIs to the same AWS Region where the AMIs were created. The company needs to design an application that captures AWS API calls and sends alerts whenever the Amazon EC2 CreateImage API operation is called within the company's account. Which solution will meet these requirements with the LEAST operational overhead?

- A. Create an AWS Lambda function to query AWS CloudTrail logs and to send an alert when a CreateImage API call is detected
- B. Configure AWS CloudTrail with an Amazon Simple Notification Service (Amazon SNS) notification that occurs when updated logs are sent to Amazon S3. Use Amazon Athena to create a new table and to query on CreateImage when an API call is detected
- C. Create an Amazon EventBridge (Amazon CloudWatch Events) rule for the CreateImage API call. Configure the target as an Amazon Simple Notification Service (Amazon SNS) topic to send an alert when a CreateImage API call is detected
- D. Configure an Amazon Simple Queue Service (Amazon SQS) FIFO queue as a target for AWS CloudTrail logs. Create an AWS Lambda function to send an alert to an Amazon Simple Notification Service (Amazon SNS) topic when a CreateImage API call is detected

**Answer:** B

**NEW QUESTION 183**

A company has two VPCs named Management and Production. The Management VPC uses VPNs through a customer gateway to connect to a single device in the data center. The Production VPC uses a virtual private gateway with two attached AWS Direct Connect connections. The Management and Production VPCs both use a single VPC peering connection to allow communication between the applications. What should a solutions architect do to mitigate any single point of failure in this architecture?

- A. Add a set of VPNs between the Management and Production VPCs
- B. Add a second virtual private gateway and attach it to the Management VPC.
- C. Add a second set of VPNs to the Management VPC from a second customer gateway device
- D. Add a second VPC peering connection between the Management VPC and the Production VPC.

**Answer:** C

**Explanation:**

[https://docs.aws.amazon.com/vpn/latest/s2svpn/images/Multiple\\_Gateways\\_diagram.png](https://docs.aws.amazon.com/vpn/latest/s2svpn/images/Multiple_Gateways_diagram.png)

"To protect against a loss of connectivity in case your customer gateway device becomes unavailable, you can set up a second Site-to-Site VPN connection to your VPC and virtual private gateway by using a second customer gateway device." <https://docs.aws.amazon.com/vpn/latest/s2svpn/vpn-redundant-connection.html>

**NEW QUESTION 187**

A global company hosts its web application on Amazon EC2 instances behind an Application Load Balancer (ALB). The web application has static data and dynamic data. The company stores its static data in an Amazon S3 bucket. The company wants to improve performance and reduce latency for the static data and dynamic data. The company is using its own domain name registered with Amazon Route 53. What should a solutions architect do to meet these requirements?

- A. Create an Amazon CloudFront distribution that has the S3 bucket and the ALB as origins. Configure Route 53 to route traffic to the CloudFront distribution.
- B. Create an Amazon CloudFront distribution that has the ALB as an origin. Create an AWS Global Accelerator standard accelerator that has the S3 bucket as an endpoint.
- C. Configure Route 53 to route traffic to the CloudFront distribution.
- D. Create an Amazon CloudFront distribution that has the S3 bucket as an origin. Create an AWS Global Accelerator standard accelerator that has the ALB and the CloudFront distribution as endpoints. Create a custom domain name that points to the accelerator DNS name. Use the custom domain name as an endpoint for the web application.
- E. Create an Amazon CloudFront distribution that has the ALB as an origin.
- F. Create an AWS Global Accelerator standard accelerator that has the S3 bucket as an endpoint. Create two domain names.
- G. Point one domain name to the CloudFront DNS name for dynamic content, Point the other domain name to the accelerator DNS name for static content. Use the domain names as endpoints for the web application.

**Answer:** D

**NEW QUESTION 191**

A company hosts its web applications in the AWS Cloud. The company configures Elastic Load Balancers to use certificates that are imported into AWS Certificate Manager (ACM). The company's security team must be notified 30 days before the expiration of each certificate.

What should a solutions architect recommend to meet the requirement?

- A. Add a rule in ACM to publish a custom message to an Amazon Simple Notification Service (Amazon SNS) topic every day beginning 30 days before any certificate will expire.
- B. Create an AWS Config rule that checks for certificates that will expire within 30 days
- C. Configure Amazon EventBridge (Amazon CloudWatch Events) to invoke a custom alert by way of Amazon Simple Notification Service (Amazon SNS) when AWS Config reports a noncompliant resource
- D. Use AWS Trusted Advisor to check for certificates that will expire within 30 days
- E. Create an Amazon CloudWatch alarm that is based on Trusted Advisor metrics for check status changes. Configure the alarm to send a custom alert by way of Amazon Simple Notification Service (Amazon SNS)
- F. Create an Amazon EventBridge (Amazon CloudWatch Events) rule to detect any certificates that will expire within 30 days
- G. Configure the rule to invoke an AWS Lambda function
- H. Configure the Lambda function to send a custom alert by way of Amazon Simple Notification Service (Amazon SNS).

**Answer: B**

#### NEW QUESTION 192

A company is developing an internal application that uses a PostgreSQL database. The company has decided to host the database on Amazon Aurora. The application does not need to be highly available but data must be stored in multiple Availability Zones to maximize durability. Which database configuration meets these requirements MOST cost-effectively?

- A. An Aurora PostgreSQL DB cluster with a single DB instance
- B. An Aurora PostgreSQL DB cluster with a primary DB instance and a read replica
- C. An Aurora PostgreSQL DB cluster with Multi-AZ deployment enabled
- D. An Aurora PostgreSQL global database cluster

**Answer: B**

#### NEW QUESTION 194

A company uses NFS to store large video files in on-premises network-attached storage. Each video file ranges in size from 1 MB to 500 GB. The total storage is 70 TB and is no longer growing. The company decides to migrate the video files to Amazon S3. The company must migrate the video files as soon as possible while using the least possible network bandwidth. Which solution will meet these requirements?

- A. Create an S3 bucket. Create an IAM role that has permissions to write to the S3 bucket.
- B. Use the AWS CLI to copy all files locally to the S3 bucket.
- C. Create an AWS Snowball Edge job
- D. Receive a Snowball Edge device on-premise
- E. Use the Snowball Edge client to transfer data to the device
- F. Return the device so that AWS can import the data into Amazon S3.
- G. Deploy an S3 File Gateway on-premise
- H. Create a public service endpoint to connect to the S3 File Gateway. Create an S3 bucket. Create a new NFS file share on the S3 File Gateway. Point the new file share to the S3 bucket.
- I. Transfer the data from the existing NFS file share to the S3 File Gateway.
- J. Set up an AWS Direct Connect connection between the on-premises network and AWS
- K. Deploy an S3 File Gateway on-premise
- L. Create a public virtual interface (VIF) to connect to the S3 File Gateway
- M. Create an S3 bucket
- N. Create a new NFS file share on the S3 File Gateway
- O. Point the new file share to the S3 bucket
- P. Transfer the data from the existing NFS file share to the S3 File Gateway.

**Answer: C**

#### NEW QUESTION 198

A company runs a global web application on Amazon EC2 instances behind an Application Load Balancer. The application stores data in Amazon Aurora. The company needs to create a disaster recovery solution and can tolerate up to 30 minutes of downtime and potential data loss. The solution does not need to handle the load when the primary infrastructure is healthy. What should a solutions architect do to meet these requirements?

- A. Deploy the application with the required infrastructure elements in place. Use Amazon Route 53 to configure active-passive failover. Create an Aurora Replica in a second AWS Region.
- B. Host a scaled-down deployment of the application in a second AWS Region. Use Amazon Route 53 to configure active-active failover. Create an Aurora Replica in the second Region.
- C. Replicate the primary infrastructure in a second AWS Region. Use Amazon Route 53 to configure active-active failover. Create an Aurora database that is restored from the latest snapshot.
- D. Back up data with AWS Backup. Use the backup to create the required infrastructure in a second AWS Region. Use Amazon Route 53 to configure active-passive failover. Create an Aurora second primary instance in the second Region.

**Answer: C**

#### NEW QUESTION 202

A company wants to create a mobile app that allows users to stream slow-motion video clips on their mobile devices. Currently, the app captures video clips and uploads the video clips in raw format into an Amazon S3 bucket. The app retrieves these video clips directly from the S3 bucket. However, the videos are large in their raw format.

Users are experiencing issues with buffering and playback on mobile devices. The company wants to implement solutions to maximize the performance and scalability of the app while minimizing operational overhead.

Which combination of solutions will meet these requirements? (Select TWO.)

- A. Deploy Amazon CloudFront for content delivery and caching
- B. Use AWS DataSync to replicate the video files across AWS Regions in other S3 buckets
- C. Use Amazon Elastic Transcoder to convert the video files to more appropriate formats
- D. Deploy an Auto Scaling group of Amazon EC2 instances in Local Zones for content delivery and caching
- E. Deploy an Auto Scaling group of Amazon EC2 instances to convert the video files to more appropriate formats

**Answer:** CD

#### NEW QUESTION 207

A company hosts an application on AWS Lambda functions that are invoked by an Amazon API Gateway API. The Lambda functions save customer data to an Amazon Aurora MySQL database. Whenever the company upgrades the database, the Lambda functions fail to establish database connections until the upgrade is complete. The result is that customer data is not recorded for some of the event.

A solutions architect needs to design a solution that stores customer data that is created during database upgrades.

Which solution will meet these requirements?

- A. Provision an Amazon RDS proxy to sit between the Lambda functions and the database. Configure the Lambda functions to connect to the RDS proxy.
- B. Increase the run time of the Lambda functions to the maximum. Create a retry mechanism in the code that stores the customer data in the database.
- C. Persist the customer data to Lambda local storage.
- D. Configure new Lambda functions to scan the local storage to save the customer data to the database.
- E. Store the customer data in an Amazon Simple Queue Service (Amazon SQS) FIFO queue. Create a new Lambda function that polls the queue and stores the customer data in the database.

**Answer:** C

#### NEW QUESTION 209

A payment processing company records all voice communication with its customers and stores the audio files in an Amazon S3 bucket. The company needs to capture the text from the audio files. The company must remove from the text any personally identifiable information (PII) that belongs to customers.

What should a solutions architect do to meet these requirements?

- A. Process the audio files by using Amazon Kinesis Video Stream.
- B. Use an AWS Lambda function to scan for known PII patterns.
- C. When an audio file is uploaded to the S3 bucket, invoke an AWS Lambda function to start an Amazon Textract task to analyze the call recordings.
- D. Configure an Amazon Transcribe transcription job with PII redaction turned on.
- E. When an audio file is uploaded to the S3 bucket, invoke an AWS Lambda function to start the transcription job.
- F. Store the output in a separate S3 bucket.
- G. Create an Amazon Connect contact flow that ingests the audio files with transcription turned on.
- H. Embed an AWS Lambda function to scan for known PII patterns.
- I. Use Amazon EventBridge (Amazon CloudWatch Events) to start the contact flow when an audio file is uploaded to the S3 bucket.

**Answer:** C

#### NEW QUESTION 210

A solutions architect is tasked with transferring 750 TB of data from a network-attached file system located at a branch office to Amazon S3 Glacier. The solution must avoid saturating the branch office's low-bandwidth internet connection.

What is the MOST cost-effective solution?

- A. Create a site-to-site VPN tunnel to an Amazon S3 bucket and transfer the files directly.
- B. Create a bucket policy to enforce a VPC endpoint.
- C. Order 10 AWS Snowball appliances and select an S3 Glacier vault as the destination.
- D. Create a bucket policy to enforce a VPC endpoint.
- E. Mount the network-attached file system to Amazon S3 and copy the files directly.
- F. Create a lifecycle policy to transition the S3 objects to Amazon S3 Glacier.
- G. Order 10 AWS Snowball appliances and select an Amazon S3 bucket as the destination.
- H. Create a lifecycle policy to transition the S3 objects to Amazon S3 Glacier.

**Answer:** D

#### NEW QUESTION 212

A solutions architect is creating a new VPC design. There are two public subnets for the load balancer, two private subnets for web servers, and two private subnets for MySQL. The web servers use only HTTPS. The solutions architect has already created a security group for the load balancer allowing port 443 from 0.0.0.0/0.

Company policy requires that each resource has the least access required to still be able to perform its tasks. Which additional configuration strategy should the solutions architect use to meet these requirements?

- A. Create a security group for the web servers and allow port 443 from 0.0.0.0/0. Create a security group for the MySQL servers and allow port 3306 from the web servers security group.
- B. Create a network ACL for the web servers and allow port 443 from 0.0.0.0/0. Create a network ACL for the MySQL servers and allow port 3306 from the web servers security group.
- C. Create a security group for the web servers and allow port 443 from the load balancer.
- D. Create a security group for the MySQL servers and allow port 3306 from the web servers security group.
- E. Create a network ACL for the web servers and allow port 443 from the load balancer.
- F. Create a network ACL for the MySQL servers and allow port 3306 from the web servers security group.

**Answer:** C

#### NEW QUESTION 213

A company is creating a new application that will store a large amount of data. The data will be analyzed hourly and will be modified by several Amazon EC2 Linux instances that are deployed across multiple Availability Zones. The needed amount of storage space will continue to grow for the next 6 months.



Which storage solution should a solutions architect recommend to meet these requirements?

- A. Store the data in Amazon S3 Glacier Update the S3 Glacier vault policy to allow access to the application instances
- B. Store the data in an Amazon Elastic Block Store (Amazon EBS) volume Mount the EBS volume on the application instances.
- C. Store the data in an Amazon Elastic File System (Amazon EFS) file system Mount the file system on the application instances.
- D. Store the data in an Amazon Elastic Block Store (Amazon EBS) Provisioned IOPS volume shared between the application instances.

**Answer: C**

#### NEW QUESTION 215

A company's web application resizes uploaded images for users. The application stores the original images and the resized images in Amazon S3. The company needs to minimize the storage costs for all the images. Original images are viewed frequently, and resized images are viewed infrequently after they are created. Both types of images need to be immediately available.

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

- A. Store the resized images in S3 Standard
- B. Store the original images in S3 Glacier
- C. Store the resized images in S3 Glacier
- D. Store the resized images in S3 One Zone-Infrequent Access (S3 One Zone-IA).

**Answer: AD**

#### NEW QUESTION 217

A company is deploying a new application to Amazon Elastic Kubernetes Service (Amazon EKS) with an AWS Fargate cluster. The application needs a storage solution for data persistence. The solution must be highly available and fault tolerant. The solution also must be shared between multiple application containers. Which solution will meet these requirements with the LEAST operational overhead?

- A. Create Amazon Elastic Block Store (Amazon EBS) volumes in the same Availability Zones where EKS worker nodes are placed.
- B. Register the volumes in a StorageClass object on an EKS cluster. Use EBS Multi-Attach to share the data between containers.
- C. Create an Amazon Elastic File System (Amazon EFS) file system. Register the file system in a StorageClass object on an EKS cluster. Use the same file system for all containers.
- D. Create an Amazon Elastic Block Store (Amazon EBS) volume. Register the volume in a StorageClass object on an EKS cluster. Use the same volume for all containers.
- E. Create Amazon Elastic File System (Amazon EFS) file systems in the same Availability Zones where EKS worker nodes are placed. Register the file systems in a StorageClass object on an EKS cluster. Create an AWS Lambda function to synchronize the data between file systems.

**Answer: B**

#### NEW QUESTION 219

A company stores confidential data in an Amazon Aurora PostgreSQL database in the ap-southeast-3 Region. The database is encrypted with an AWS Key Management Service (AWS KMS) customer managed key. The company was recently acquired and must securely share a backup of the database with the acquiring company's AWS account in ap-southeast-3.

What should a solutions architect do to meet these requirements?

- A. Create a database snapshot. Copy the snapshot to a new unencrypted snapshot. Share the new snapshot with the acquiring company's AWS account.
- B. Create a database snapshot. Add the acquiring company's AWS account to the KMS key policy. Share the snapshot with the acquiring company's AWS account.
- C. Create a database snapshot that uses a different AWS managed KMS key. Add the acquiring company's AWS account to the KMS key policy.
- D. Share the snapshot with the acquiring company's AWS account.
- E. Create a database snapshot. Download the database snapshot. Upload the database snapshot to an Amazon S3 bucket. Update the S3 bucket policy to allow access from the acquiring company's AWS account.

**Answer: A**

#### NEW QUESTION 220

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