Exam SAA-C02

AWS Certified Solutions Architect - Associate (SAA-C02)

Version: 46.0

[Total Questions: 408]

Topic 1, Exam Pool A

1. - (Exam Topic 1)

A company hosts an application on AWS. The application interacts with an Amazon DynamoDB table that has 10 read capacity units (RCUs) Data from Amazon CloudWatch alarms shows that throttling is occurring on read requests to the DynamoDB table. The company needs to prevent this issue from happening in the future as the application continues to grow.

What should a solutions architect recommend to meet these requirements?

A. Add an Elastic Load Balancer in front of the DynamoDB table.

B. Change the RCUs for the DynamoDB table to 20.

C. Provision 20 write capacity units (WCUs) for the DynamoDB table to offset the throttling on read requests.

D. Enable auto scaling for the DynamoDB table

Answer: D

2. - (Exam Topic 1)

A company needs to store 160TB of data for an indefinite of time. The company must be able to use standard SQL and business intelligence tools to query all of the data. The data will be queried no more than twice each month.

What is the MOST cost-effective solution that meets these requirements?

A. Store the data in Amazon Aurora Serverles with MySQL . Use an SQL client to query the data.

B. Store the data in Amazon S3. Use AWS Glue. Amazon Athena. IDBC and COBC drivers to query the data.

C. Store the data in an Amazon EMR cluster with EMR File System (EMRFS) as the storage layer use Apache Presto to query the data.

D. Store a subnet of the data in Amazon Redshift, and store the remaining data in Amazon S3. Use Amazon Redshift Spectrum to query the S3 data.

Answer: D

3. - (Exam Topic 1)

A company's website provides users with downloadable historical performance reports. The website needs
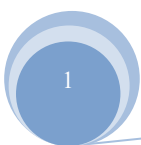
a solution that will scale to meet the company's website demands globally. The solution should be cost-effective, limit the provisioning of infrastructure resources, and provide the fastest possible response time.

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

A. Amazon CloudFront and Amazon S3

B. AWS Lambda and Amazon DynamoDB

C. Application Load Balancer with Amazon EC2 Auto Scaling

D. Amazon Route 53 with internal Application Load Balancers

Answer: A

4. - (Exam Topic 1)

A company is launching a new application that will be hosted on Amazon EC2 instances. A solutions architect needs to design a solution that does not allow public IPv4 access that originates from the internet. However, the solution must allow the EC2 instances to make outbound IPv4 internet requests.

The initial design proposal shows that the EC2 instances would be located in two private subnets across two Availability Zones. The entire architecture must be highly available.
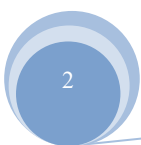
How should the solutions architect change the architecture to meet these requirements?

A. Deploy a NAT gateway in public subnets in both Availability Zones. Create and configure one route table for each private subnet.

B. Deploy an internet gateway in public subnets in both Availability Zones. Create and configure a shared route table for the private subnets.

C. Deploy a NAT gateway in public subnets in both Availability Zones. Create and configure a shared route table for the private subnets.

D. Deploy an egress-only internet gateway in public subnets in both Availability Zones. Create and configure one route table for each private subnet.

Answer: C

5. - (Exam Topic 1)

A company is designing a new web service that will run on Amazon EC2 instances behind an Elastic Load Balancer. However many of the web service clients can only reach IP addresses whitelisted on their

firewalls.

What should a solutions architect recommend to meet the clients' needs?

A. A Network Load Balancer with an associated Elastic IP address

B. An Application Load Balancer with an associated Elastic IP address.

C. An A record in an Amazon Route 53 hosted zone pointing to an Elastic IP address

D. An EC2 instance with a public IP address running as a proxy in front of the load balancer.

Answer: A

6. - (Exam Topic 1)

A company processes large amounts of data. The output data is stored in Amazon S3 Standard storage in an S3 bucket, where it is analyzed for 1 month. The data must remain immediately accessible after the 1-month analysis period.

Which storage solution meets these requirements MOST cost-effectively?

A. Configure an S3 Lifecycle policy to transition the objects to S3 Glacier after 30 days.

B. Configure S3 Intelligent-Tiering to transition the objects to S3 Glacier after 30 days.

C. Configure an S3 Lifecycle policy to transition the objects to S3 One Zone-Infrequent Access (S3 One Zone-IA) after 30 days.

D. Configure an S3 Lifecycle policy to delete the objects after 30 days. Enable versioning on the S3 bucket so that deleted objects can still be immediately restored as needed.

Answer: B

7. - (Exam Topic 1)

A solutions architect is designing a security solution for a company that wants to provide developers with individual AWS accounts through AWS Organizations, while also maintaining standard security controls Because the individual developers will have AWS account root user-level access to their own accounts, the solutions architect wants to ensure that the mandatory AWS CloudTrail configuration that is applied to new developer accounts is not modified.

Which action meets these requirements?

A. Create an IAM policy that prohibits changes to CloudTrail, and attach it to the root user

B. Create a new trail in CloudTrail from within the developer accounts with the organization trails option

enabled.

C. Create a service control policy (SCP) the prohibits changes to CloudTrail, and attach it the developer

accounts

D. Create a service-linked role for CloudTrail with a policy condition that allows changes only from an

Amazon Resource Name (ARN) in the master account

Answer: C

8. - (Exam Topic 1)

A company has a stateless web application that runs on AWS Lambda functions that are invoked by

Amazon API Gateway. The company wants to deploy the application across multiple AWS Regions to

provide Regional failover capabilities.

What should a solutions architect do to route traffic to multiple Regions?

A. Configure Amazon Route 53 health checks for each Region. Use an active-active failover configuration.

B. Create an Amazon CloudFront distribution with an origin for each Region. Use CloudFront health checks

to route traffic.

C. Create an AWS Transit Gateway Attach the transit gateway to the API Gateway endpoint in each Region

Configure the transit gateway to route requests.

D. Use AWS Global Accelerator to create an accelerator with endpoints in each Region. Allow Global

Accelerator to automatically monitor the health of endpoints and route requests.

Answer: A

9. - (Exam Topic 1)

A company has an application that calls AWS Lambda functions. A recent code review found database

credentials stored in the source code. The database credentials needs to be removed from the Lambda

source code. The credentials must then be securely stored and rotated on a on-going basis to meet security

policy requirements.

What should a solutions architect recommend meet these requirements?

A. Store the password in AWS CloudHSM. Associate the Lambda function with a role that can review the

password from CloudHSM given key ID.

B. Store the password in AWS Secrets Manager . A associate the Lambda function with a role that can

retrieve the password from secrets Manager given its secret ID.

C. Move the database password to an environment variable associate the Lambda function Retrieve the

password from the environment variable upon execution.

D. Store the password in AWS Key Management Service (AWS KMS). Associate the Lambda function with

a role that can retrieve the password from AWS KMS given its key ID.

Answer: B

10. - (Exam Topic 1)

A company's facility has badge readers at every entrance throughout the building. When badges are

scanned, the readers send a message over HTTPS to indicate who attempted to access that particular

entrance.

A solutions architect must design a system to process these messages from the sensors. The solution must

be highly available, and the results must be made available for the company's security team to analyze.

Which system architecture should the solutions architect recommend?

A. Launch an Amazon EC2 instance to serve as the HTTPS endpoint and to process the messages

Configure the EC2 instance to save the results to an Amazon S3 bucket.

B. Create an HTTPS endpoint in Amazon API Gateway. Configure the API Gateway endpoint to invoke an

AWS Lambda function to process the messages and save the results to an Amazon DynamoDB table.

C. Use Amazon Route 53 to direct incoming sensor messages to an AWS Lambda function. Configure the

Lambda function to process the messages and save the results to an Amazon DynamoDB table.

D. Create a gateway VPC endpoint for Amazon S3. Configure a Site-to-Site VPN connection from the

facility network to the VPC so that sensor data can be written directly to an S3 bucket by way of the VPC

endpoint

Answer: B

11. - (Exam Topic 1)

A company is running a web application on Amazon EC2 instances in an Auto Scaling group. The

application uses a database that runs on an Amazon RDS for PostgreSQL DB instance. The application

performs slowly as traffic increases, and the database experiences a heavy read load during periods of

high traffic.
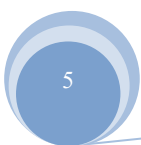
Which actions should a solutions architect take to resolve these performance issues? (Select TWO.)

A. Enable auto scaling for the DB instance.

B. Create a read replica for the DB instance. Configure the application to send read traffic to the read replica.

C. Enable Multi-AZ for the DB instance. Configure the application to send read traffic to the standby DB instance.

D. Create an Amazon ElastiCache cluster. Configure the application to cache query results in the ElastiCache cluster.

E. Configure the Auto Scaling group subnets to ensure that the EC2 instances are provisioned in the same Availability Zone as the DB instance.

Answer: A D

12. - (Exam Topic 1)

A company receives data from millions of users totalling about 1 TB each day. The company providers its users with usage report going back 12 months. All usage data must be stored for at least 5 years to comply with regularly and auditing requirement?

Which storage solution is MOST cost-effective?

A. Store the data in Amazon S3 Standard Set a lifecycle Set a lifecycle rule to transmission the data S3 Glacier Deep after 1 year. Set a lifecycle rule to data the data after 5 years.

B. Store the data in Amazon S3 One Zone-Infrequent Access (S3 One Zone-IA) Set a lifecycle rule to transition the data to S3 Glacier after 1 year set the lifecycle rule to delete the data after 5 years.

C. Store the data in Amazon Standard Set a lifecycle rule to transmission the data to S3 Standard-infrequence Access (S3 Standard-IA) after 1 year Set a lifecycle rule to delete the data after 5 years.

D. Store the data in Amazon S3 Standard Set a lifecycle rule to transition the data to S3 Zone-Infrequent Access (S3 One Zones-IA) after 1 year. Set a lifecycle rule to delete the data after 5 years.

Answer: A

13. - (Exam Topic 1)

A leasing company generates and emails PDF statements every month for all its customers. Each
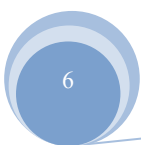
statement is about 400 KB in size Customers can download their statements from the website for up to 30

days from when the statements were generated At the end of their 3-year lease, the customers are emailed

a ZIP file that contains all the statements

What is the MOST cost-effective storage solution for this situation?

A. Store the statements using the Amazon S3 Standard storage class Create a lifecycle policy to move the

statements to Amazon S3 Glacier storage after 1 day.

B. Store the statements using the Amazon S3 Glacier storage class Create a lifecycle policy to move the

statements to Amazon S3 Glacier Deep Archive storage after 30 days.

C. Store the statements using the Amazon S3 Standard storage class Create a lifecycle policy to move the

statements to Amazon S3 One Zone-Infrequent Access (S3 One Zone-IA) storage after 30 days.

D. Store the statements using the Amazon S3 Standard-Infrequent Access (S3 Standard-IA) storage class.

Create a lifecycle policy to move the statements to Amazon S3 Glacier storage after 30 days.

Answer: D

14. - (Exam Topic 1)

The following IAM policy is attached to an IAM group. This is the only policy applied to the group.

```
{
    "Version": "2012-10-17",
    "Statement": [
        {
            "Sid": "1",
            "Effect": "Allow",
            "Action": "ec2:*",
            "Resource": "*",
            "Condition": {
                "StringEquals": {
                    "ec2:Region": "us-east-1"
                }
            }
        },
        {
            "Sid": "2",
            "Effect": "Deny",
            "Action": [
                "ec2:StopInstances",
                "ec2:TerminateInstances"
            ],
            "Resource": "*",
            "Condition": {
                "BoolIfExists": {"aws:MultiFactorAuthPresent": false}
            }
        }
    ]
}


        {
            "Sid": "2",
            "Effect": "Deny",
            "Action": [
                "ec2:StopInstances",
                "ec2:TerminateInstances"
            ],
            "Resource": "*",
            "Condition": {
                "BoolIfExists": {"aws:MultiFactorAuthPresent": false}
            }
        }
    ]
}
```

What are the effective IAM permissions of this policy for group members?

A. Group members are permitted any Amazon EC2 action within the us-east-1 Region. Statements after the Allow permission are not applied.

B. Group members are denied any Amazon EC2 permissions in the us-east-1 Region unless they are logged in with multi-factor authentication (MFA).

C. Group members are allowed the ec2 StopInstances and ec2. TerminateInstances permissions for all Regions when logged in with multi-factor authentication (MFA) Group members are permitted any other

Amazon EC2 action.

D. Group members are allowed the ec2 StopInstances and ec2. Terminateinstances permissions for the us-east-1 Region only when logged in with multi-factor authentication (MFA) Group members are permitted any other Amazon EC2 action within the us-east-1 Region.

Answer: D

15. - (Exam Topic 1)

A company is automating an order management application. The company's development team has decided to use SFTP to transfer and store the business-critical information files The files must be encrypted and must be highly available. The files also must be automatically deleted a month after they are created. Which solution meets these requirements with the LEAST operational overhead?

A. Configure an Amazon S3 bucket with encryption enabled. Use AWS transfer for SFTP to securely transfer the files to the S3 bucket Apply an AWS Transfer for SFTP file retention policy to delete the files after a month

B. Install an SFTP service on an Amazon EC2 instance Mount an Amazon Elastic File System (Amazon EFS) file share on the EC2 instance. Enable cron to delete the files after a month

C. Configure an Amazon Elastic File System (Amazon EFS) file system with encryption enabled. Use AWS Transfer for SFTP to securely transfer the files to the EFS file system. Apply an EFS lifecycle policy to automatically delete the files after a month.

D. Configure an Amazon S3 bucket with encryption enabled. Use AWS Transfer for SFTP to securely transfer the files to the S3 bucket. Apply S3 Lifecycle rules to automatically delete the files after a month.

Answer: D

16. - (Exam Topic 1)

A company's security team requests that network traffic be captured in VPC Flow Logs The logs will be frequently accessed for 90 days and then accessed intermittently What should a solutions architect do to meet these requirements when configuring the logs?

A. Use Amazon CloudWatch as the target. Set the CloudWatch log group with an expiration of 90 days.

B. Use Amazon Kinesis as the target Configure the Kinesis stream to always retain the logs for 90 days

C. Use AWS CloudTrail as the target. Configure CloudTrail to save to an Amazon S3 bucket, and enable

S3 Intelligent-Tiering

D. Use Amazon S3 as the target Enable an S3 Lifecycle policy to transition the logs to S3

Standard-Infrequent Access (S3 Standard-IA) after 90 days

Answer: D

17. - (Exam Topic 1)

A solutions architect needs to design a managed storage solution for a company's application that includes

high-performance machine learning This application runs on AWS Fargate, and the connected storage

needs to have concurrent access to files and deliver high performance

Which storage option should the solutions architect recommend?

A. Create an Amazon S3 bucket for the application and establish an IAM role for Fargate to communicate

with Amazon S3

B. Create an Amazon FSx for Lustre file share and establish an IAM role that allows Fargate to

communicate with FSx for Lustre

C. Create an Amazon Elastic File System (Amazon EFS) file share and establish an IAM role that allows

Fargate to communicate with Amazon EFS.

D. Create an Amazon Elastic Block Store (Amazon EBS) volume for the application and establish an IAM

role that allows Fargate to communicate with Amazon EBS

Answer: B

18. - (Exam Topic 1)

A solutions architect is designing the cloud architecture for a new application that is being deployed on

AWS. The application's users will interactively download and upload files. Files that are more than 90 days

old will be accessed less frequently than newer files, but all files need to be instantly available. The

solutions architect must ensure that the application can scale to store petabytes of data with maximum

durability.

Which solution meets these requirements?

A. Store the files in Amazon S3 Standard. Create an S3 Lifecycle policy that moves objects that are more

than 90 days old to S3 Glacier.

B. Store the tiles in Amazon S3 Standard. Create an S3 Lifecycle policy that moves objects that are more

than 90 days old to S3 Standard-Infrequent Access (S3 Standard-IA).

C. Store the files in Amazon Elastic Block Store (Amazon EBS) volumes. Schedule snapshots of the volumes. Use the snapshots to archive data that is more than 90 days old.

D. Store the files in RAID-striped Amazon Elastic Block Store (Amazon EBS) volumes. Schedule snapshots of the volumes. Use the snapshots to archive data that is more than 90 days old.

Answer: A

19. - (Exam Topic 1)

A company needs to provide its employees with secure access to confidential and sensitive files. The company wants to ensure that the tiles can be accessed only by authorized users. The files must be downloaded securely to the employees' devices.

The tiles are stored in an on-premises Windows file server. However, due to an increase in remote usage, the file server is running out of capacity.

Which solution will meet these requirements?

A. Migrate the file server to an Amazon EC2 instance in a public subnet. Configure the security group to limit inbound traffic to the employees' IP addresses.

B. Migrate the files to an Amazon FSx for Windows File Server file system. Integrate the Amazon FSx file system with the on-premises Active Directory. Configure AWS Client VPN.

C. Migrate the tiles to Amazon S3, and create a private VPC endpoint. Create a signed URL to allow download.

D. Migrate the tiles to Amazon S3, and create a public VPC endpoint. Allow employees to sign on with AWS Single Sign-On.
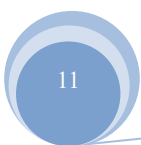
Answer: D

20. - (Exam Topic 1)

A company runs an application on Amazon EC2 instances. The application is deployed in private subnets in three Availability Zones of the us-east-1 Region. The instances must be able to connect to the internet to download files The company wants a design that is highly available across the Region.

Which solution should be implemented to ensure that there are no disruptions to internet connectivity?

A. Deploy a NAT instance in a private subnet of each Availability Zone.

B. Deploy a NAT gateway in a public subnet of each Availability Zone

C. Deploy a transit gateway in a private subnet of each Availability Zone.

D. Deploy an internet gateway in a public subnet of each Availability Zone

Answer: B

21. - (Exam Topic 1)

A computer is reviewing a recent migration of a three-tier application to a VPC. The security team discover

that the principle of lest privilege is not being applied to Amazon EC2 security group ingress and egress

rules between the application tiers.

What should a solution architect do to connect issue?

A. Create security group rules using the instance ID as the source destination.

B. Create security group rules using the security ID as the source or destination.

C. Create security group rules using the VPC CDR blocks as the source or destination

D. Create security group rules using the subnet CDR blocks as the source or destination

Answer: A

Explanation:

https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/security-group-rules.html

22. - (Exam Topic 1)

A company stores project information in a shared spreadsheet. The company wants to create a web

application to replace the spreadsheet The company has chosen Amazon DynamoDB to store the

spreadsheet's data and is

designing the web application to display the project information that is obtained from DynamoDB.

A solutions architect must design the web application's backend by using managed services that require

minimal operational maintenance.

Which architectures meet these requirements? (Select TWO.)

A. An Amazon API Gateway REST API accesses the project information that is in DynamoDB.

B. An Elastic Load Balancer forwards requests to a target group with DynamoDB set up as the target.

C. An Amazon API Gateway REST API invokes an AWS Lambda function. The Lambda function accesses

DynamoDB.

D. An Amazon Route 53 hosted zone routes requests to an AWS Lambda endpoint to invoke a Lambda function that accesses DynamoDB.

E. An Elastic Load Balancer forwards requests to a target group of Amazon EC2 instances The EC2 instances run an application that accesses DynamoDB.

Answer: A E

23. - (Exam Topic 1)

A disaster response team is using drones to collect images of recent storm damage. The response team's laptops lack the storage and compute capacity to transfer the images and process the data While the team has Amazon EC2 instances for processing and Amazon S3 buckets for storage, network connectivity is intermittent and unreliable. The images need to be processed to evaluate the damage.

What should a solutions architect recommend'?

A. Use AWS Snowball Edge devices to process and store the images

B. Upload the images to Amazon Simple Queue Service (Amazon SQS) during intermittent connectivity to EC2 instances.

C. Configure Amazon Kinesis Data Firehose to create multiple delivery streams aimed separately at the S3 buckets for storage and the EC2 instances for processing the images

D. Use AWS Storage Gateway pre-installed on a hardware appliance to cache the images locally for Amazon S3 to process the images when connectivity becomes available.

Answer: A

24. - (Exam Topic 1)

A company is planning to migrate a TCP-based application into the company's VPC The application is publicly accessible on a nonstandard TCP port through a hardware appliance in the company's data centre. This public endpoint can process up to 3 million requests per second with low latency. The company requires the same level of performance for the new public endpoint in AWS.

What should a solutions architect recommend to meet this requirement?

A. Deploy a Network Load Balancer (NLB). Configure the NLB to be publicly accessible over the TCP port that the application requires.

B. Deploy an Application Load Balancer (ALB). Configure the ALB to be publicly accessible over the TCP

port that the application requires

C. Deploy an Amazon CloudFront distribution that listens on the TCP port that the application requires Use an Application Load Balancer as the origin.

D. Deploy an Amazon API Gateway API that is configured with the TCP port that the application requires. Configure AWS Lambda functions with provisioned concurrency to process the requests.

Answer: A

25. - (Exam Topic 1)

A company recently signed a contract with an AWS Managed Service Provider (MSP) Partner for help with an application migration initiative. A solutions architect needs to share an Amazon Machine Image (AMI) from an existing AWS account with the MSP Partner's AWS account. The AMI is backed by Amazon Elastic Block Store (Amazon EBS) and uses a customer managed customer master key (CMK) to encrypt EBS volume snapshots.

What is the MOST secure way for the solutions architect to share the AMI with the MSP Partner's AWS account?

A. Make the encrypted AMI and snapshots publicly available. Modify the CMK's key policy to allow the MSP Partner's AWS account to use the key

B. Modify the launchPermission property of the AMI. Share the AMI with the MSP Partner's AWS account only. Modify the CMK's key policy to allow the MSP Partner's AWS account to use the key.

C. Modify the launchPermission property of the AMI Share the AMI with the MSP Partner's AWS account only. Modify the CMK's key policy to trust a new CMK that is owned by the MSP Partner for encryption.

D. Export the AMI from the source account to an Amazon S3 bucket in the MSP Partner's AWS account. Encrypt the S3 bucket with a CMK that is owned by the MSP Partner Copy and launch the AMI in the MSP Partner's AWS account.

Answer: A

26. - (Exam Topic 1)

A company is running a highly sensitive application on Amazon EC2 backed by an Amazon RDS database Compliance regulations mandate that all personally identifiable information (PII) be encrypted at rest.

Which solution should a solutions architect recommend to meet this requirement with the LEAST amount of
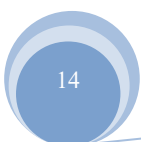
changes to the infrastructure?

A. Deploy AWS Certificate Manager to generate certificates Use the certificates to encrypt the database volume

B. Deploy AWS CloudHSM, generate encryption keys, and use the customer master key (CMK) to encrypt database volumes

C. Configure SSL encryption using AWS Key Management Service customer master keys (AWS KMS CMKs) to encrypt database volumes.

D. Configure Amazon Elastic Block Store (Amazon EBS) encryption and Amazon RDS encryption with AWS Key Management Service (AWS KMS) keys to encrypt instance and database volumes

Answer: D

27. - (Exam Topic 1)

A company needs to connect its on-premises data center network to a new VPC. The data center network has a 100 Mbps symmetrical internet connection. An application that is running on premises will transfer multiple gigabytes of data each day. The application will use an Amazon Kinesis Data Firehose delivery stream for processing

What should a solutions architect recommend for maximum performance?

A. Create a VPC peering connection between the on-premises network and the VPC Configure routing for the on-premises network to use the VPC peering connection.

B. Procure an AWS Snowball Edge Storage Optimized device. After several days' worth of data has accumulated, copy the data to the device and ship the device to AWS for expedited transfer to Kinesis Data Firehose Repeat as needed

C. Create an AWS Site-to-Site VPN connection between the on-premises network and the VPC Configure BGP routing between the customer gateway and the virtual private gateway. Use the VPN connection to send the data from on premises to Kinesis Data Firehose.

D. Use AWS PrivateLink to create an interface VPC endpoint for Kinesis Data Firehose in the VPC. Set up a 1 Gbps AWS Direct Connect connection between the on-premises network and AWS Use the PrivateLink endpoint to send the data from on premises to Kinesis Data Firehose.

Answer: D
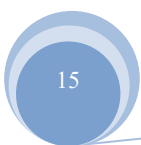
28. - (Exam Topic 1)

An application runs on Amazon EC2 instances across multiple Availability Zones The instances run in an

Amazon EC2 Auto Scaling group behind an Application Load Balancer The application performs best when

the CPU utilization of the EC2 instances is at or near 40%.

What should a solutions architect do to maintain the desired performance across all instances in the group?

A. Use a simple scaling policy to dynamically scale the Auto Scaling group

B. Use a target tracking policy to dynamically scale the Auto Scaling group

C. Use an AWS Lambda function to update the desired Auto Scaling group capacity.

D. Use scheduled scaling actions to scale up and scale down the Auto Scaling group

Answer: B

29. - (Exam Topic 1)

A company recently started using Amazon Aurora as the data store for its global ecommerce application

When large reports are run developers report that the ecommerce application is performing poorly After

reviewing metrics in Amazon CloudWatch, a solutions architect finds that the ReadIOPS and CPUUtilization

metrics are spiking when monthly reports run.

What is the MOST cost-effective solution?

A. Migrate the monthly reporting to Amazon Redshift.

B. Migrate the monthly reporting to an Aurora Replica

C. Migrate the Aurora database to a larger instance class

D. Increase the Provisioned IOPS on the Aurora instance

Answer: D

30. - (Exam Topic 1)

A company is designing a new web service that will run on Amazon EC2 instances behind an Elastic Load

Balancer. However, many of the web service clients can only reach IP addresses whitelisted on their

firewalls.

What should a solutions architect recommend to meet the clients' needs?

A. A Network Load Balancer with an associated Elastic IP address

B. An Application Load Balancer with an associated Elastic IP address

C. An A record in an Amazon Route 53 hosted zone pointing to an Elastic IP address

D. An EC2 instance with a public IP address running as a proxy in front of the load balancer

Answer: A

31. - (Exam Topic 1)

A company runs a multi-tier web application that hosts news content. The application runs on Amazon EC2 instances behind an Application Load Balancer. The instances run in an EC2 Auto Scaling group across multiple Availability Zones and use an Amazon Aurora database A solutions architect needs to make the application more resilient to periodic increases in request rates.

Which architecture should the solutions architect implement? (Select TWO.)

A. Add AWS Shield

B. Add Aurora Replicas.

C. Add AWS Direct Connect

D. Add AWS Global Accelerator.

E. Add an Amazon CloudFront distribution in front of the Application Load Balancer

Answer: B E

32. - (Exam Topic 1)

A company is concerned about the security of its public web application due to recent web attacks. The application uses an Application Load Balancer (ALB). A solutions architect must reduce the risk of DDoS attacks against the application

What should the solutions architect do to meet this requirement?

A. Add an Amazon Inspector agent to the ALB

B. Configure Amazon Made to prevent attacks.

C. Enable AWS Shield Advanced to prevent attacks.

D. Configure Amazon GuardDuty to monitor the ALB

Answer: C

33. - (Exam Topic 1)

A solutions architect must transfer 750 TB of data from an on-premises network-attached file system to
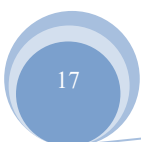
Amazon S3 Glacier. The migration must not saturate the on-premises 10 Mbps internet connection.

Which solution will meet these requirements?

A. Create an AWS Site-to-Site VPN tunnel to an S3 bucket Transfer the files directly by using the AWS CLI.

B. Order 10 AWS Snowball Edge Storage Optimized devices, and select an S3 Glacier vault as the destination.

C. Mount the network-attached file system to an S3 bucket, and copy the files directly. Create an S3 Lifecycle policy to transition the S3 objects to S3 Glacier.

D. Order 10 AWS Snowball Edge Storage Optimized devices, and select an S3 bucket as the destination. Create an S3 Lifecycle policy to transition the S3 objects to S3 Glacier.

Answer: D

34. - (Exam Topic 1)

A solutions architect is designing a multi-tier application for a company The application's users upload images from a mobile device. The application generates a thumbnail of each image and returns a message to the user to confirm that the image was uploaded successfully.

The thumbnail generation can take up to 60 seconds, but the company wants to provide a faster response time to its users to notify them that the original image was received. The solutions architect must design the application to asynchronously dispatch requests to the different application tiers.

What should the solutions architect do to meet these requirements?

A. Write a custom AWS Lambda function to generate the thumbnail and alert the user. Use the image upload process as an event source to invoke the Lambda function.

B. Create an AWS Step Functions workflow Configure Step Functions to handle the orchestration between the application tiers and alert the user when thumbnail generation is complete

C. Create an Amazon Simple Queue Service (Amazon SQS) message queue. As images are uploaded, place a message on the SQS queue for thumbnail generation. Alert the user through an application message that the image was received

D. Create Amazon Simple Notification Service (Amazon SNS) notification topics and subscriptions Use one subscription with the application to generate the thumbnail after the image upload is complete. Use a second subscription to message the user's mobile app by way of a push notification after thumbnail generation is complete.

Answer: A

35. - (Exam Topic 1)

A manufacturing company has machine sensors that upload csv files to an Amazon S3 bucket These csv files must be converted into images and must be made available as soon as possible for the automatic generation of graphical reports.

The images become irrelevant after 1 month, but the csv files must be kept to train machine learning (ML) models twice a year. The ML trainings and audits are planned weeks in advance.

Which combination of steps will meet these requirements MOST cost-effectively? (Select TWO)

A. Launch an Amazon EC2 Spot Instance that downloads the .csv files every hour, generates the image files, and uploads the images to the S3 bucket.

B. Design an AWS Lambda function that converts the .csv files into images and stores the images in the S3 bucket Invoke the Lambda function when a csv file is uploaded.

C. Create S3 Lifecycle rules for .csv files and image files in the S3 bucket Transition the csv files from S3 Standard to S3 Glacier 1 day after they are uploaded. Expire the image files after 30 days.

D. Create S3 Lifecycle rules for csv files and image files in the S3 bucket Transition the csv files from S3 Standard to S3 One Zone-Infrequent Access (S3 One Zone-IA) 1 day after they are uploaded Expire the image files after 30 days

E. Create S3 Lifecycle rules for .csv files and image files in the S3 bucket. Transition the csv files from S3 Standard to S3 Standard-Infrequent Access (S3 Standard-IA) 1 day after they are uploaded. Keep the image files in Reduced Redundancy Storage (RRS).

Answer: B D

36. - (Exam Topic 1)

A company hosls historical weather records in Amazon S3 The records are downloaded from the company's website by way of a URL that resolves to a domain name Users all over the world access this content through subscriptions A third-party provider hosts the company's root domain name, but the company recently migrated some of its services to Amazon Route 53. The company wants to consolidate contracts, reduce latency for users, and reduce costs related to serving the application to subscribers

Which solution meets these requirements?

A. Create a web distribution on Amazon CloudFront to serve the S3 content for the application Create a CNAME record in a Route 53 hosted zone that points to the CloudFront distribution, resolving to the application's URL domain name.

B. Create a web distribution on Amazon CloudFront to serve the S3 content for the application. Create an ALIAS record in the Amazon Route 53 hosted zone that points to the CloudFront distribution, resolving to the application's URL domain name.

C. Create an A record in a Route 53 hosted zone for the application. Create a Route 53 traffic policy for the web application, and configure a geolocation rule Configure health checks to check the health of the endpoint and route DNS queries to other endpoints if an endpoint is unhealthy.

D. Create an A record in a Route 53 hosted zone for the application Create a Route 53 traffic policy for the web application, and configure a geoproximity rule. Configure health checks to check the health of the endpoint and route DNS queries to other endpoints if an endpoint is unhealthy

Answer: C

37. - (Exam Topic 1)

A solutions architect needs to design a network that will allow multiple Amazon EC2 instances to access a common data source used for mission-critical data that can be accessed by all the EC2 instances simultaneously. The solution must be highly scalable, easy to implement, and support the NFS protocol Which solution meets these requirements?

A. Create an Amazon EFS file system Configure a mount target in each Availability Zone. Attach each instance to the appropriate mount target

B. Create an additional EC2 instance and configure it as a file server Create a security group that allows communication between the instances and apply that to the additional instance.

C. Create an Amazon S3 bucket with the appropriate permissions Create a role in AWS IAM that grants the correct permissions to the S3 bucket. Attach the role to the EC2 instances that need access to the data

D. Create an Amazon EBS volume with the appropriate permissions. Create a role in AWS IAM that grants the correct permissions to the EBS volume. Attach the role to the EC2 instances that need access to the data.

Answer: A

38. - (Exam Topic 1)

A company wants to run an in-memory database for a latency-sensitive application that runs on Amazon EC2 instances. The application processes more than 100,000 transactions each minute and requires high network throughput. A solutions architect needs to provide a cost-effective network design that minimizes data transfer charges.

Which solution meets these requirements?

A. Launch all EC2 instances in the same Availability Zone within the same AWS Region. Specify a placement group with cluster strategy when launching EC2 instances.

B. Launch all EC2 instances in different Availability Zones within the same AWS Region. Specify a placement group with partition strategy when launching EC2 instances.

C. Deploy an Auto Scaling group to launch EC2 instances in different Availability Zones based on a network utilization target.

D. Deploy an Auto Scaling group with a step scaling policy to launch EC2 instances in different Availability Zones.

Answer: A

39. - (Exam Topic 1)

A company's infrastructure consists of hundreds of Amazon EC2 instances that use Amazon Elastic Block Store (Amazon EBS) storage. A solutions architect must ensure that every EC2 instance can be recovered after a disaster

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

A. Take a snapshot of the EBS storage that is attached to each EC2 instance Create an AWS CloudFormation template to launch new EC2 instances from the EBS storage.

B. Take a snapshot of the EBS storage that is attached to each EC2 instance. Use AWS Elastic Beanstalk to set the environment based on the EC2 template and attach the EBS storage.

C. Use AWS Backup to set up a backup plan for the entire group of EC2 instances. Use the AWS Backup API or the AWS CLI to speed up the restore process for multiple EC2 instances

D. Create an AWS Lambda function to take a snapshot of the EBS storage that is attached to each EC2 instance and copy the Amazon Machine Images (AMIs). Create another Lambda function to perform the restores with the copied AMIs and attach the EBS storage.
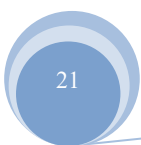
Answer: C

40. - (Exam Topic 1)

A company is developing a new online gaming application. The application will run on Amazon EC2 instances in multiple AWS Regions and will have a high number of globally distributed users A solutions architect must design the application to optimize network latency for the users.

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

A. Configure AWS Global Accelerator Create Regional endpoint groups in each Region where an EC2 fleet is hosted

B. Create a content delivery network (CDN) by using Amazon CloudFront Enable caching for static and dynamic content, and specify a high expiration period

C. Integrate AWS Client VPN into the application. Instruct users to select which Region is closest to them after they launch the application. Establish a VPN connection to that Region

D. Create an Amazon Route 53 weighted routing policy Configure the routing policy to give the highest weight to the EC2 instances in the Region that has the largest number of users.

E. Configure an Amazon API Gateway endpoint in each Region where an EC2 fleet is hosted Instruct users to select which Region is closest to them after they launch the application. Use the API Gateway endpoint that is closest to them.

Answer: A B

41. - (Exam Topic 1)

A solutions architect is redesigning a monolithic application to be a loosely coupled application composed of two microservices: Microservice A and Microservice B

Microservice A places messages in a mam Amazon Simple Queue Service (Amazon SOS) queue for Microservice B to consume When Microservice B fails to process a message after four retries, the message needs to be removed from the queue and stored for further investigation.

What should the solutions architect do to meet these requirements?

A. Create an SQS dead-letter queue Microservice B adds failed messages to that queue after it receives and fails to process the message four times.

B. Create an SQS dead-letter queue Configure the main SQS queue to deliver messages to the dead-letter

queue after the message has been received four times.

C. Create an SQS queue for failed messages Microservice A adds failed messages to that queue after Microservice B receives and fails to process the message four times.

D. Create an SQS queue for failed messages. Configure the SQS queue for failed messages to pull messages from the main SQS queue after the original message has been received four times.

Answer: B

Explanation:

https://docs.aws.amazon.com/AWSSimpleQueueService/latest/SQSDeveloperGuide/sqs-dead-letter-queues.htm

42. - (Exam Topic 1)

A company is running an application on Amazon EC2 instances. Traffic to the workload increases substantially during business hours and decreases afterward. The CPU utilization of an EC2 instance is a strong indicator of end-user demand on the application. The company has configured an Auto Scaling group to have a minimum group size of 2 EC2 instances and a maximum group size of 10 EC2 instances. The company is concerned that the current scaling policy that is associated with the Auto Scaling group might not be correct. The company must avoid over-provisioning EC2 instances and incurring unnecessary costs. What should a solutions architect recommend to meet these requirements?

A. Configure Amazon EC2 Auto Scaling to use a scheduled scaling plan and launch an additional 8 EC2 instances during business hours.

B. Configure AWS Auto Scaling to use a scaling plan that enables predictive scaling. Configure predictive scaling with a scaling mode of forecast and scale, and to enforce the maximum capacity setting during scaling.

C. Configure a step scaling policy to add 4 EC2 instances at 50% CPU utilization and add another 4 EC2 instances at 90% CPU utilization. Configure scale-in policies to perform the reverse and remove EC2 instances based on the two values.

D. Configure AWS Auto Scaling to have a desired capacity of 5 EC2 instances, and disable any existing scaling policies. Monitor the CPU utilization metric for 1 week. Then create dynamic scaling policies that are based on the observed values.

Answer: B
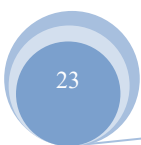
43. - (Exam Topic 1)

A company is using AWS Key Management Service (AWS KMS) customer master keys (CMKs) to encrypt

AWS Lambda environment variables A solutions architect needs to ensure that the required permissions

are in place to decrypt and use the environment variables.

Which steps must the solutions architect take to implement the correct permissions? (Select TWO.)

A. Add AWS KMS permissions in the Lambda resource policy

B. Add AWS KMS permissions in the Lambda execution role

C. Add AWS KMS permissions in the Lambda function policy.

D. Allow the Lambda execution role in the AWS KMS key policy

E. Allow the Lambda resource policy in the AWS KMS key policy.

**Answer:** B C

44. - (Exam Topic 1)

A company has developed a microservices application. It uses a client-facing API with Amazon API

Gateway and multiple internal services hosted on Amazon EC2 instances to process user requests The API

is designed to support unpredictable surges in traffic, but internal services may become overwhelmed and

unresponsive for a period of time during surges A solutions architect needs to design a more reliable

solution that reduces errors when internal services become unresponsive or unavailable

Which solution meets these requirements?

A. Use AWS Auto Scaling to scale up internal services when there is a surge in traffic

B. Use different Availability Zones to host internal services. Send a notification to a system administrator

when an internal service becomes unresponsive.

C. Use an Elastic Load Balancer to distribute the traffic between internal services Configure Amazon

CloudWatch metrics to monitor traffic to internal services.

D. Use Amazon Simple Queue Service (Amazon SQS) to store user requests as they arrive. Change the

internal services to retrieve the requests from the queue for processing.

Answer: D

45. - (Exam Topic 1)
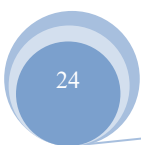
An application running on AWS uses an Amazon Aurora Multi-AZ deployment for its database When

evaluating performance metrics, a solutions architect discovered that the database reads are causing high

I/O and adding latency to the write requests against the database

What should the solutions architect do to separate the read requests from the write requests?

A. Enable read-through caching on the Amazon Aurora database.

B. Update the application to read from the Multi-AZ standby instance

C. Create a read replica and modify the application to use the appropriate endpoint.

D. Create a second Amazon Aurora database and link it to the primary database as a read replica

Answer: C

46. - (Exam Topic 1)

A solutions architect must provide a fully managed replacement for an on-premises solution that allows

employees and partners to exchange files The solution must be easily accessible to employees connecting

from on-premises systems, remote employees, and external partners

Which solution meets these requirements?

A. Use AWS Transfer for SFTP to transfer files into and out of Amazon S3.

B. Use AWS Snowball Edge for local storage and large-scale data transfers

C. Use Amazon FSx to store and transfer files to make them available remotely.

D. Use AWS Storage Gateway to create a volume gateway to store and transfer files to Amazon S3

Answer: A

47. - (Exam Topic 1)

A bicycle sharing company is developing a multi-tier architecture to track the location of its bicycles during

peak operating hours The company wants to use these data points in its existing analytics platform A

solutions architect must determine the most viable multi-tier option to support this architecture The data

points must be accessible from the REST API.

Which action meets these requirements for storing and retrieving location data?

A. Use Amazon Athena with Amazon S3

B. Use Amazon API Gateway with AWS Lambda

C. Use Amazon QuickSight with Amazon Redshift.
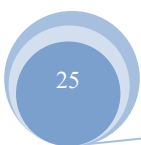
D. Use Amazon API Gateway with Amazon Kinesis Data Analytics

Answer: D

48. - (Exam Topic 1)

A company is designing a new application that runs in a VPC on Amazon EC2 instances. The application stores data in Amazon S3 and uses Amazon DynamoDB as its database For compliance reasons, the company prohibits all traffic between the EC2 instances and other AWS services from passing over the public internet

What can a solutions architect do to meet this requirement?

A. Configure gateway VPC endpoints to Amazon S3 and DynamoDB

B. Configure interface VPC endpoints to Amazon S3 and DynamoDB

C. Configure a gateway VPC endpoint to Amazon S3. Configure an interface VPC endpoint to DynamoDB.

D. Configure a gateway VPC endpoint to DynamoDB Configure an interface VPC endpoint to Amazon S3

Answer: A

49. - (Exam Topic 1)

A company has a mobile chat application with a data store based in Amazon DynamoDB. Users would like new messages to be need with as little latency as possible. A possible architect needs design an optimal solution that requires minimal application changes.

Which method should the solution architect select?

A. Configure amazon DynamoDB Accelerator (DAX) for the new messages table. Update the code to use DAX endpoint.

B. AddDynamoDB read replicas to handle the increased read lead the application to point to the read endpoint for the read replicas.

C. Double the number of read capacity units for the new messages table in DynamoDB. Continue to use the existing DynamoDB endpoint.

D. Add an Amazon ElastiCache for Redis cache to the application stack. Update the application to point to the Redis cache endpoint of DynamoDB.

Answer: A
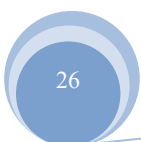
50. - (Exam Topic 1)

A solution architect is designing a new service behind API Gateway. The request pattern for the service will be unpredictable and can change suddenly from 0 request to over 500 per second. The total size of the data that needs to be persisted database is currently less than 1 GB unpredictable future growth. Date can be queried using sampling key –value request.

Which combination of AWS services would meet these requirements? (Select TWO.)

A. AWS Fargete

B. AWS Lambda

C. Amazon DynamoDB

D. Amazon EC2 Auto Scaling

E. MySQL-compatible Amazon Aurora

Answer: B C


51. - (Exam Topic 1)

An ecommerce company is creating an application that requires a connection to a third-party payment service to process payments. The payment service needs to explicitly allow the public IP address of the server that is making the payment request. However, the company's security policies do not allow any server to be exposed directly to the public internet.

Which solution will meet these requirements?

A. Provision an Elastic IP address. Host the application servers on Amazon EC2 instances in a private subnet. Assign the public IP address to the application servers.

B. Create a NAT gateway in a public subnet. Host the application servers on Amazon EC2 instances in a private subnet Route payment requests through the NAT gateway.

C. Deploy an Application Load Balancer (ALB). Host the application servers on Amazon EC2 instances in a private subnet. Route the payment requests through the ALB.

D. Set up an AWS Client VPN connection to the payment service Host the application servers on Amazon EC2 instances in a private subnet Route the payment requests through the VPN.

Answer: C

52. - (Exam Topic 1)
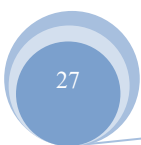
A company's website runs on Amazon EC2 instances behind an Application Load Balancer (ALB). The website has a mix of dynamic and static content. Users around the globe are reporting that the website is slow

Which set of actions will improve website performance for users worldwide?

A. Create an Amazon CloudFront distribution and configure the ALB as an origin. Then update the Amazon Route 53 record to point to the CloudFront distribution

B. Create a latency-based Amazon Route 53 record for the ALB. Then launch new EC2 instances with larger instance sizes and register the instances with the ALB

C. Launch new EC2 instances hosting the same web application in different Regions closer to the users. Then register the instances with the same ALB using cross-Region VPC peering.

D. Host the website in an Amazon S3 bucket in the Regions closest to the users and delete the ALB and EC2 instances. Then update an Amazon Route 53 record to point to the S3 buckets.

Answer: A

53. - (Exam Topic 1)

A company has created an isolated backup of its environment in another Region The application is running in warm standby mode and is fronted by an Application Load Balancer (ALB) The current failover process is manual and requires updating a DNS alias record to point to the secondary ALB in another Region

What should a solutions architect do to automate the failover process?

A. Enable an ALB health check

B. Enable an Amazon Route 53 health check

C. Create a CNAME record on Amazon Route 53 pointing to the ALB endpoint.

D. Create conditional forwarding rules on Amazon Route 53 pointing to an internal BIND DNS server

Answer: B

54. - (Exam Topic 1)

A company is deploying a two-tier web application in a VPC. The web tier is using an Amazon EC2 Auto Scaling group with public subnets that span multiple Availability Zones. The database tier consists of an Amazon RDS for MySQL DB instance in separate private subnets. The web tier requires access to the database to retrieve product information.

The web application is not working as intended. The web application reports that it cannot connect to the database. The database is confirmed to be up and running. All configurations for the network ACLs. security groups, and route tables are still in their default states.

What should a solutions architect recommend to fix the application?

A. Add an explicit rule to the private subnet's network ACL to allow traffic from the web tier's EC2 instances.

B. Add a route in the VPC route table to allow traffic between the web tier's EC2 instances and Ihe database tier.

C. Deploy the web tier's EC2 instances and the database tier's RDS instance into two separate VPCs. and configure VPC peering.

D. Add an inbound rule to the security group of the database tier's RDS instance to allow traffic from the web tier's security group.

Answer: D

55. - (Exam Topic 1)

A solutions architect needs to design a resilient solution for Windows users' home directories. The solution must provide fault tolerance, file-level backup and recovery, and access control, based upon the company's Active Directory.

Which storage solution meets these requirements?

A. Configure Amazon S3 to store the users' home directories. Join Amazon S3 to Active Directory

B. Configure a Multi-AZ file system with Amazon FSx for Windows File Server Join Amazon FSx to Active Directory

C. Configure Amazon Elastic File System (Amazon EFS) for the users home directories. Configure AWS Single Sign-On with Active Directory.

D. Configure Amazon Elastic Block Store (Amazon EBS) to store the users home directories Configure AWS Single Sign-On with Active Directory

Answer: B

56. - (Exam Topic 1)

A medical research lab produces data that is related to a new study. The lab wants to make the data available with minimum latency to clinics across the country for their on-premises file-based applications.
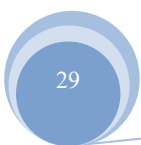
The data files are stored in an Amazon S3 bucket that has read-only permissions for each clinic.

What should a solutions architect recommend to meet these requirements?

A. Deploy an AWS Storage Gateway file gateway as a virtual machine (VM) on premises at each clinic.

B. Migrate the files to each clinic's on-premises applications by using AWS DataSync for processing

C. Deploy an AWS Storage Gateway volume gateway as a virtual machine (VM) on premises at each clinic.

D. Attach an Amazon Elastic File System (Amazon EFS) file system to each clinic's on-premises servers

Answer: A

57. - (Exam Topic 1)

A company has created a multi-tier application for its ecommerce website The website uses an Application Load Balancer that resides in the public subnets, a web tier in the public subnets, and a MySQL cluster hosted on Amazon EC2 instances in the private subnets. The MySQL database needs to retrieve product catalog and pricing information that is hosted on the internet by a third-party provider A solutions architect must devise a strategy that maximizes security without increasing operational overhead

What should the solutions architect do to meet these requirements?

A. Deploy a NAT instance in the VPC Route all the internet-based traffic through the NAT instance

B. Deploy a NAT gateway in the public subnets. Modify the private subnet route table to direct all internet-bound traffic to the NAT gateway.

C. Configure an internet gateway and attach it to the VPC Modify the private subnet route table to direct internet-bound traffic to the internet gateway

D. Configure a virtual private gateway and attach it to the VPC Modify the private subnet route table to direct internet-bound traffic to the virtual private gateway.

Answer: B

58. - (Exam Topic 1)

An administrator of a large company wants to monitor for and prevent any cryptocurrency-related attacks on the company's AWS accounts Which AWS service can the administrator use to protect the company against attacks?

A. Amazon Cognito

B. Amazon GuardDuty
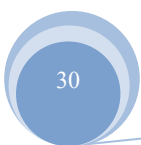
C. Amazon Inspector

D. Amazon Macie

Answer: B

59. - (Exam Topic 1)

A company hosts historical weather records in Amazon S3. The records are downloaded from the company's website by way of a URL that resolves to a domain name Users all over the world access this content through subscriptions. A third-party provider hosts the company's root domain name, but the company recently migrated some of its services to Amazon Route 53 The company wants to consolidate contracts, reduce latency for users, and reduce costs related to serving the application to subscribers. Which solution meets these requirements?

A. Create a web distribution on Amazon CloudFront to serve the S3 content for the application Create a CNAME record in a Route 53 hosted zone that points to the CloudFront distribution, resolving to the application's URL domain name.

B. Create a web distribution on Amazon CloudFront to serve the S3 content for the application Create an ALIAS record in the Amazon Route 53 hosted zone that points to the CloudFront distribution, resolving to the application's URL domain name.

C. Create an A record in a Route 53 hosted zone for the application. Create a Route 53 traffic policy for the web application, and configure a geolocation rule. Configure health checks to check the health of the endpoint and route DNS queries to other endpoints if an endpoint is unhealthy.

D. Create an A record in a Route 53 hosted zone for the application. Create a Route 53 traffic policy for the web application, and configure a geoproximity rule. Configure health checks to check the health of the endpoint and route DNS queries to other endpoints if an endpoint is unhealthy

Answer: C

60. - (Exam Topic 1)

A company has a service that produces event data. The company wants to use AWS to process the event data as it is received. The data is written in a specific order that must be maintained throughout processing The company wants to implement a solution that minimizes operational overhead.

How should a solutions architect accomplish this?

A. Create an Amazon Simple Queue Service (Amazon SQS) FIFO queue to hold messages Set up an AWS Lambda function to process messages from the queue

B. Create an Amazon Simple Notification Service (Amazon SNS) topic to deliver notifications containing payloads to process Configure an AWS Lambda function as a subscriber.

C. Create an Amazon Simple Queue Service (Amazon SQS) standard queue to hold messages. Set up an AWS Lambda function to process messages from the queue independently

D. Create an Amazon Simple Notification Service (Amazon SNS) topic to deliver notifications containing payloads to process. Configure an Amazon Simple Queue Service (Amazon SQS) queue as a subscriber.

Answer: A

61. - (Exam Topic 1)

A company is hosting an application in its own data center The application uses Amazon S3 for data storage The application transfers several hundred terabytes of data every month to and from Amazon S3 The company needs to minimize the cost of this data transfer

Which solution meets this requirement?

A. Establish an AWS Direct Connect connection between the AWS Region in use and the company's data center Route traffic to Amazon S3 over the Direct Connect connection

B. Establish an AWS Site-to-Site VPN connection between the company's data center and a VPC in the AWS Region in use. Create a VPC endpoint for Amazon S3 in the VPC. Route traffic to Amazon S3 over the VPN connection to the S3 endpoint.

C. Create an AWS Storage Gateway file gateway Deploy the software appliance in the company's data center Configure the application to use the file gateway to store and retrieve files

D. Create an FTPS server by using AWS Transfer Family. Configure the application to use the FTPS server to store and retrieve files

Answer: C

62. - (Exam Topic 1)

An Amazon EC2 administrator created the following policy associated with an IAM group containing several users
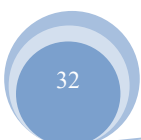
```
{
    "Version": "2012-10-17",
    "Statement": [
        {
            "Effect": "Allow",
            "Action": "ec2:TerminateInstances",
            "Resource": "*",
            "Condition": {
                "IpAddress": {
                    "aws:SourceIp": "10.100.100.0/24"
                }
            }
        },
        {
            "Effect": "Deny",
            "Action": "ec2:*",
            "Resource": "*",
            "Condition": {
                "StringNotEquals": {
                    "ec2:Region": "us-east-1"
                }
            }
        }
    ]
}
```

What is the effect of this policy?

A. Users can terminate an EC2 instance in any AWS Region except us-east-1.

B. Users can terminate an EC2 instance with the IP address 10 100 100 1 in the us-east-1 Region

C. Users can terminate an EC2 instance in the us-east-1 Region when the user's source IP is 10.100.100.254.

D. Users cannot terminate an EC2 instance in the us-east-1 Region when the user's source IP is 10.100 100.254

Answer: A

63. - (Exam Topic 1)

A development team needs to host a website that will be accessed by other teams. The website contents consist of HTML. CSS, client-side JavaScript, and images Which method is the MOST cost-effective for hosting the website?

A. Containerize the website and host it in AWS Fargate.

B. Create an Amazon S3 bucket and host the website there

C. Deploy a web server on an Amazon EC2 instance to host the website.
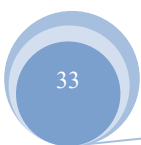
D. Configure an Application Loa d Balancer with an AWS Lambda target that uses the Express js

framework.

Answer: B

64. - (Exam Topic 1)

An application runs on Amazon EC2 instances across multiple Availability Zones. The instances run in an

Amazon EC2 Auto Scaling group behind an Application Load Balancer The application performs best when

the CPU utilization of the EC2 instances is at or near 40%.

What should a solutions architect do to maintain the desired performance across all instances in the group?

A. Use a simple scaling policy to dynam

B. Amazon DynamoDB global tables

C. Amazon RDS for MySQL with Multi-AZ enabled

D. Amazon RDS for MySQL with a cross-Region snapshot copy

Answer: A

65. - (Exam Topic 1)

A company's database is hosted on an Amazon Aurora MySQL DB cluster in the us-east-1 Region The

database is 4 TB in size. The company needs to expand its disaster recovery strategy to the us-west-2

Region The company must have the ability to fail over to us-west-2 with a recovery time objective (RTO) of

15 minutes.

What should a solutions architect recommend to meet these requirements?

A. Create a Multi-Region Aurora MySQL DB cluster in us-east-1 and us-west-2 Use an Amazon Route 53

health check to monitor us-east-1 and fail over to us-west-2 upon failure

B. Take a snapshot of the DB cluster in us-east-1. Configure an Amazon EventBridge (Amazon

CloudWatch Events) rule that invokes an AWS Lambda function upon receipt of resource events Configure

the Lambda function to copy the snapshot to us-west-2 and restore the snapshot in us-west-2

when failure is detected.

C. Create an AWS CloudFormation script to create another Aurora MySQL DB cluster in us-west-2 in case

of failure Configure an Amazon EventBridge (Amazon CloudWatch Events) rule that invokes an AWS

Lambda function upon receipt of resource events. Configure the Lambda function to deploy the AWS

CloudFormation stack in us-west-2 when failure is detected.

D. Recreate the database as an Aurora global database with the primary DB cluster in us-east-1 and a secondary DB cluster in us-west-2 Configure an Amazon EventBridge (Amazon CloudWatch Events) rule that invokes an AWS Lambda function upon receipt of resource events Configure the Lambda function to promote the DB cluster in us-west-2 when failure is detected.

Answer: B

66. - (Exam Topic 1)

A company runs an application on a group of Amazon Linux EC2 instances. For compliance reasons, the company must retain all application log files for 7 years. The log files will be analyzed by a reporting tool that must be able to access all the files concurrently.

Which storage solution meets these requirements MOST cost-effectively?

A. Amazon Elastic Block Store (Amazon EBS)

B. Amazon Elastic File System (Amazon EFS)

C. Amazon EC2 instance store

D. Amazon S3

Answer: D

67. - (Exam Topic 1)

A company captures ordered clickstream data from multiple websites and uses batch processing to analyze the data. The company receives 100 million event records, all approximately 1 KB in size, each day. The company loads the data into Amazon Redshift each night, and business analysts consume the data.

The company wants to move toward near-real-time data processing for timely insights. The solution should process the streaming data while requiring the least possible operational overhead.

Which combination of AWS services will meet these requirements MOST cost-effectively? (Select TWO.)

A. Amazon EC2

B. AWS Batch

C. Amazon Simple Queue Service (Amazon SQS)

D. Amazon Kinesis Data Firehose

E. Amazon Kinesis Data Analytics

Answer: B C

68. - (Exam Topic 1)

A company runs a web application that is backed by Amazon RDS. A new database administrator caused data loss by accidentally editing information in a database table To help recover from this type of incident, the company wants the ability to restore the database to its state from 5 minutes before any change within the last 30 days.

Which feature should the solutions architect include in the design to meet this requirement?

A. Read replicas

B. Manual snapshots

C. Automated backups

D. Multi-AZ deployments

Answer: C
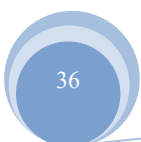
69. - (Exam Topic 1)

A company has deployed a multiplayer game for mobile devices. The game requires live location tracking of players based on latitude and longitude. The data store for the game must support rapid updates and retrieval of locations.

The game uses an Amazon RDS for PostgreSQL DB instance with read replicas to store the location data. During peak usage periods, the database is unable to maintain the performance that is needed for reading and writing updates. The game's user base is increasing rapidly.

What should a solutions architect do to improve the performance of the data tier?

A. Take a snapshot of the existing DB instance. Restore the snapshot with Multi-AZ enabled.

B. Migrate from Amazon RDS to Amazon Elasticsearch Service (Amazon ES) with Kibana.

C. Deploy Amazon DynamoDB Accelerator (DAX) in front of the existing DB instance. Modify the game to use DAX.

D. Deploy an Amazon ElastiCache for Redis cluster in front of the existing DB instance. Modify the game to use Redis.

Answer: D

70. - (Exam Topic 1)

A company is migrating a large, mission-critical database to AWS. A solutions architect has decided to use an Amazon RDS for MySQL Multi-AZ DB instance that Is deployed with 80,000 Provisioned IOPS for storage The solutions architect is using AWS Database Migration Service (AWS DMS) to perform the data migration. The migration is taking longer than expected, and the company wants to speed up the process. The company's network team has ruled out bandwidth as a limiting factor.

Which actions should the solutions architect take to speed up the migration? (Select TWO.)

A. Disable Multi-AZ on the target DB instance.

B. Create a new DMS instance that has a larger instance size.

C. Turn off logging on the target DB instance until the initial load is complete.

D. Restart the DMS task on a new DMS instance with transfer acceleration enabled.

E. Change the storage type on the target DB instance to Amazon Elastic Block Store (Amazon EBS) General Purpose SSD (gp2).

Answer: A D

71. - (Exam Topic 1)

A company is developing a serverless web application that gives users the ability to interact with real-time analytics from online games. The data from the games must be streamed in real time. The company needs a durable, low-latency database option for user data. The company does not know how many users will use the application Any design considerations must provide response times of single-digit milliseconds as the application scales.

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

A. Amazon CloudFront

B. Amazon DynamoDB

C. Amazon Kinesis

D. Amazon RDS

E. AWS Global Accelerator

Answer: A B

72. - (Exam Topic 1)
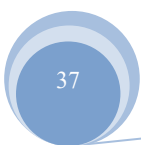
A solutions architect must design a highly available infrastructure for a website. The website is powered by Windows web servers that run on Amazon EC2 instances. The solutions architect must implement a solution that can mitigate a large-scale DDoS attack that originates from thousands of IP addresses. Downtime is not acceptable for the website.

Which actions should the solutions architect take to protect the website from such an attack? (Select TWO.)

A. Use AWS Shield Advanced to stop the DDoS attack.

B. Configure Amazon GuardDuty to automatically block the attackers.

C. Configure the website to use Amazon CloudFront for both static and dynamic content.

D. Use an AWS Lambda function to automatically add attacker IP addresses to VPC network ACLs.

E. Use EC2 Spot Instances in an Auto Scaling group with a target tracking scaling policy that is set to 80% CPU utilization

Answer: A B

73. - (Exam Topic 1)

A solutions architect must create a highly available bastion host architecture. The solution needs to be resilient within a single AWS Region and should require only minimal effort to maintain.

What should the solutions architect do to meet these requirements?

A. Create a Network Load Balancer backed by an Auto Scaling group with a UDP listener.

B. Create a Network Load Balancer backed by a Spot Fleet with instances in a partition placement group.

C. Create a Network Load Balancer backed by the existing servers in different Availability Zones as the target.

D. Create a Network Load Balancer backed by an Auto Scaling group with instances in multiple Availability Zones as the target

Answer: D

74. - (Exam Topic 1)

A company operates a two-tier application for image processing. The application uses two Availability Zones, each with one public subnet and one private subnet. An Application Load Balancer (ALB) for the web tier uses the public subnets. Amazon EC2 instances for the application tier use the private subnets.

Users report that the application is running more slowly than expected. A security audit of the web server

log files shows that the application is receiving millions of illegitimate requests from a small number of IP addresses. A solutions architect needs to resolve the immediate performance problem while the company investigates a more permanent solution.

What should the solutions architect recommend to meet this requirement?

A. Modify the inbound security group for the web tier. Add a deny rule for the IP addresses that are consuming resources.

B. Modify the network ACL for the web tier subnets. Add an inbound deny rule for the IP addresses that are consuming resources.

C. Modify the inbound security group for the application tier. Add a deny rule for the IP addresses that are consuming resources.

D. Modify the network ACL for the application tier subnets. Add an inbound deny rule for the IP addresses that are consuming resources.

Answer: B

75. - (Exam Topic 1)

A company has two VPCs that are located in the us-west-2 Region within the same AWS account. The company needs to allow network traffic between these VPCs. Approximately 500 GB of data transfer will occur between the VPCs each month.

What is the MOST cost-effective solution to connect these VPCs'?'

A. Implement AWS Transit Gateway to connect the VPCs Update the route tables of each VPC to use the transit gateway for inter-VPC communication

B. Implement an AWS Site-to-Stte VPN tunnel between the VPCs. Update the route tables of each VPC to use the VPN tunnel for inter-VPC communication

C. Set up a VPC peering connection between the VPCs. Update the route tables of each VPC to use the VPC peering connection for inter-VPC communication.

D. Set up a 1 GB AWS Direct Connect connection between the VPCs. Update the route tables of each VPC to use the Direct Connect connection for inter-VPC communication.

Answer: C

76. - (Exam Topic 1)

A company has a custom application running on an Amazon EC2 instance that

• Reads a large amount of data from Amazon S3

• Performs a multi-stage analysis.

Writes the results to Amazon DynamoDB

The application writes a significant number of large, temporary files during the multi-stage analysis. The process performance depends on the temporary storage performance. What would be the fastest storage option for holding the temporary files?

A. Multiple Amazon S3 buckets with Transfer Acceleration for storage

B. Multiple Amazon EBS drives with Provisioned IOPS and EBS optimization

C. Multiple Amazon EFS volumes using the Network File System version 4 1 (NFSv4 1) protocol

D. Multiple instance store volumes with software RAID 0.

**Answer:** A

77. - (Exam Topic 1)

A company currently has 250 TB of backup files stored in Amazon S3 in a vendor's proprietary format. Using a Linux-based software application provided by the vendor, the company wants to retrieve files from Amazon S3, transform the files to an industry-standard format, and re-upload them to Amazon S3. The company wants to minimize the data transfer charges associated with this conversion

What should a solutions architect do to accomplish this?

A. Install the conversion software as an Amazon S3 batch operation so the data is transformed without leaving Amazon S3

B. Install the conversion software onto an on-premises virtual machine. Perform the transformation and re-upload the files to Amazon S3 from the virtual machine.

C. Use AWS Snowball Edge devices to export the data and install the conversion software onto the devices. Perform the data transformation and re-upload the files to Amazon S3 from the Snowball Edge devices

D. Launch an Amazon EC2 instance in the same Region as Amazon S3 and install the conversion software onto the instance. Perform the transformation and re-upload the files to Amazon S3 from the EC2 instance.

Answer: D

78. - (Exam Topic 1)
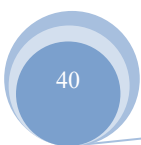
A company's website hosted on Amazon EC2 instances processes classified data stored in Amazon S3.
Due to security concerns, the company requires a private and secure connection between its EC2
resources and Amazon S3.

Which solution meets these requirements?

A. Set up S3 bucket policies to allow access from a VPC endpoint

B. Set up an IAM policy to grant read-write access to the S3 bucket,

C. Set up a NAT gateway to access resources outside the private subnet

D. Set up an access key ID and a secret access key to access the S3 bucket

Answer: A

79. - (Exam Topic 1)

A company's legacy application is currently relying on a single-instance Amazon RDS MySQL database
without encryption. Due to new compliance requirements all existing and new data in this database must be
encrypted.

How should this be accomplished?

A. Create an Amazon S3 bucket with server-side encryption enabled Move all the data to Amazon S3
Delete the RDS instance

B. Enable RDS Multi-AZ mode with encryption at rest enabled. Perform a failover to the standby instance to
delete the original instance

C. Take a snapshot of the RDS instance. Create an encrypted copy of the snapshot. Restore the RDS
instance from the encrypted snapshot.

D. Create an RDS read replica with encryption at rest enabled Promote the read replica to master and
switch the application over to the new master Delete the old RDS instance

Answer: C

80. - (Exam Topic 1)

A solution architect at a company is designing the architecture for a two-tiered web application. The web
application is composed of an internet facing application load balancer that forwards traffic to an auto
scaling group of amazon EC2 instances. The EC2 instances must be able to access a database that runs
on Amazon RDS.
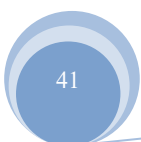
The company has requested a defence-in-depth approach to the network layout. The company does not want to rely solely on security groups or network ACLs. Only the minimum resources that are necessary should be routable from the internet.

Which network design should the solutions architect recommend to meet these requirements?

A. Place the ALB, EC2 instances and RDS database in private subnets.

B. Place the ALB in public subnets. Place the EC2 instances and RDS database in private subnets

C. Place the ALB and EC2 instances in public subnets. Place the RDS database in private subnets

D. Place the ALB outside the VPC. Place the EC2 instances and RDS database in private subnets.

Answer: B

81. - (Exam Topic 1)

A website runs a web application that receives a burst of traffic each day at noon. The users upload new pictures and context daily, but have complaining of timeout. The architect uses Amazon EC2 Auto Scaling groups, and the custom application consistently takes 1 minutes to initiate upon boot up before responding to user requests.

How should a solutions architect redesign the architect to better respond to changing traffic?

A. Configure a Network Load Balancer with a slow start configuration.

B. Configure AWS ElastiCache for Redis to offload direct requests to the servers.

C. Configure an Auto Scaling step scaling policy with an instance warmup condition.

D. Configure Amazon CloudFront to use an Application Load Balancer as the origin.

Answer: C

Explanation:

https://docs.aws.amazon.com/autoscaling/ec2/userguide/as-scaling-simple-step.html#as-step-scaling-war mup "If you are creating a step policy, you can specify the number of seconds that it takes for a newly launched instance to warm up. Until its specified warm-up time has expired, an instance is not counted toward the aggregated metrics of the Auto Scaling group. Using the example in the Step Adjustments section, suppose that the metric gets to 60, and then it gets to 62 while the new instance is still warming up. The current capacity is still 10 instances, so 1 instance is added (10 percent of 10 instances). However, the desired capacity of the group is already 11 instances, so the scaling policy does not increase the desired capacity further. If the metric gets to 70 while the new instance is still warming up, we should add 3

instances (30 percent of 10 instances). However, the desired capacity of the group is already 11, so we add only 2 instances, for a new desired capacity of 13 instances"

82. - (Exam Topic 1)

A company has an ecommerce application that stores data in an on-premises SQL database. The company has decided to migrate this database to AWS. However, as part of the migration, the company wants to find a way to attain sub-millisecond responses to common read requests

A solutions architect knows that the increase in speed is paramount and that a small percentage of stale data returned in the database reads is acceptable.

What should the solutions architect recommend'?

A. Build Amazon RDS read replicas.

B. Build the database as a larger instance type.

C. Build a database cache using Amazon ElastiCache

D. Build a database cache using Amazon Elasticsearch Service (Amazon ES).

Answer: A

83. - (Exam Topic 1)

A solutions architect must design a database solution for a high-traffic ecommerce web application. The database stores customer profiles and shopping cart information. The database must support a peak load of several million requests each second and deliver responses in milliseconds The operational overhead for managing and scaling the database must be minimized

Which database solution should the solutions architect recommend?

A. Amazon Aurora

B. Amazon DynamoDB

C. Amazon RDS

D. Amazon Redshift

Answer: B

84. - (Exam Topic 1)

A company is running a multi-tier web application on premises. The web application is containerized and

runs on a number of Linux hosts connected to a PostgreSQL database that contains user records The

operational overhead of maintaining the infrastructure and capacity planning is limiting the company's

growth A solutions architect must improve the application's infrastructure.

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

A. Migrate the PostgreSQL database to Amazon Aurora

B. Migrate the web application to be hosted on Amazon EC2 instances.

C. Set up an Amazon CloudFront distribution for the web application content.

D. Set up Amazon ElastiCache between the web application and the PostgreSQL database.

E. Migrate the web application to be hosted on AWS Fargate with Amazon Elastic Container Service

(Amazon ECS).

Answer: C D

85. - (Exam Topic 1)

A social media company allows users to upload images to its website. The website runs on Amazon EC2

instances. During upload requests, the website resizes the images to a standard size and stores the

resized images in Amazon S3. Users are experiencing slow upload requests to the website.

The company needs to reduce coupling within the application and improve website performance A

solutions architect must design the most operationally efficient process for image uploads

Which combination of actions should the solutions architect take to meet these requirements'? (Select

TWO.)

A. Configure the application to upload images to S3 Glacier.

B. Configure the web server to upload the original images to Amazon S3.

C. Configure the application to upload images directly from each user's browser to Amazon S3 through the

use of a presigned URL.

D. Configure S3 Event Notifications to invoke an AWS Lambda function when an image is uploaded. Use

the function to resize the image

E. Create an Amazon EventBridge (Amazon CloudWatch Events) rule that invokes an AWS Lambda

function on a schedule to resize uploaded images.

Answer: D E

86. - (Exam Topic 1)

An ecommerce company hosts its analytics application in the AWS Cloud. The application generates about 300 MB of data each month. The data is stored in JSON format The company is evaluating a disaster recovery solution to back up the data. The data must be accessible in milliseconds if it is needed, and the data must be kept for 30 days.

Which solution meets these requirements MOST cost-effectively?

A. Amazon Elasticsearch Service (Amazon ES)

B. Amazon S3 Glacier

C. Amazon S3 Standard

D. Amazon RDS for PostgreSQL

Answer: A

87. - (Exam Topic 1)

A company has a customer relationship management (CRM) application that stores data in an Amazon RDS DB instance that runs Microsoft SQL Server. The company's IT staff has administrative access to the database. The database contains sensitive data. The company wants to ensure that the data is not accessible to the IT staff and that only authorized personnel can view the data.

What should a solutions architect do to secure the data?

A. Use client-side encryption with an Amazon RDS managed key.

B. Use client-side encryption with an AWS Key Management Service (AWS KMS) customer managed key.

C. Use Amazon RDS encryption with an AWS Key Management Service (AWS KMS) default encryption key.

D. Use Amazon RDS encryption with an AWS Key Management Service (AWS KMS) customer managed key.

Answer: D

88. - (Exam Topic 1)

A company uses a payment processing system that requires messages for a particular payment ID to be received in the same order that they were sent Otherwise, the payments might be processed incorrectly.

Which actions should a solutions architect take to meet this requirement? (Select TWO.)
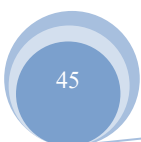
A. Write the messages to an Amazon DynamoDB table with the payment ID as the partition key

B. Write the messages to an Amazon Kinesis data stream with the payment ID as the partition key.

C. Write the messages to an Amazon ElastiCache for Memcached cluster with the payment ID as the key

D. Write the messages to an Amazon Simple Queue Service (Amazon SQS) queue Set the message attribute to use the payment ID

E. Write the messages to an Amazon Simple Queue Service (Amazon SQS) FIFO queue. Set the message group to use the payment ID.

Answer: A E

89. - (Exam Topic 1)

A solutions architect must design a solution that uses Amazon CloudFront with an Amazon S3 origin to store a static website. The company's security policy requires that all website traffic be inspected by AWS WAF.

How should the solutions architect comply with these requirements?

A. Configure an S3 bucket policy to accept requests coming from the AWS WAF Amazon Resource Name (ARN) only.

B. Configure Amazon CloudFront to forward all incoming requests to AWS WAF before requesting content from the S3 origin.

C. Configure a security group that allows Amazon CloudFront IP addresses to access Amazon S3 only. Associate AWS WAF to CloudFront.

D. Configure Amazon CloudFront and Amazon S3 to use an origin access identity (OAI) to restrict access to the S3 bucket Enable AWS WAF on the distribution

Answer: D

90. - (Exam Topic 1)

A solutions architect is designing the architecture for a new web application. The application will run on AWS Fargate containers with an Application Load Balancer (ALB) and an Amazon Aurora PostgreSQL database. The web application will perform primarily read queries against the database.

What should the solutions architect do to ensure that the website can scale with increasing traffic? (Select TWO.)
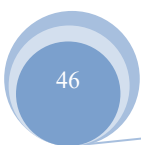
A. Enable auto scaling on the ALB to scale the load balancer horizontally.

B. Configure Aurora Auto Scaling to adjust the number of Aurora Replicas in the Aurora cluster dynamically.

C. Enable cross-zone load balancing on the ALB to distribute the load evenly across containers in all Availability Zones.

D. Configure an Amazon Elastic Container Service (Amazon ECS) cluster in each Availability Zone to distribute the load across multiple Availability Zones.

E. Configure Amazon Elastic Container Service (Amazon ECS) Service Auto Scaling with a target tracking scaling policy that is based on CPU utilization.

Answer: A B

91. - (Exam Topic 1)

A company hosts its multi-tier, public web application in the AWS Cloud. The web application runs on Amazon EC2 instances and its database runs on Amazon RDS The company is anticipating a large increase in sales during an upcoming holiday weekend A solutions architect needs to build a solution to analyze the performance of the web application with a granularity of no more than 2 minutes.

What should the solutions architect do to meet this requirement?

A. Send Amazon CloudWatch logs to Amazon Redshift Use Amazon QuickSight to perform further analysis

B. Enable detailed monitoring on all EC2 instances. Use Amazon CloudWatch metrics to perform further analysis.

C. Create an AWS Lambda function to fetch EC2 logs from Amazon CloudWatch Logs. Use Amazon CloudWatch metrics to perform further analysis

D. Send EC2 logs to Amazon S3. Use Amazon Redshift to fetch logs from the S3 bucket to process raw data for further analysis with Amazon QuickSight

Answer: B

92. - (Exam Topic 1)

A social media company is building a feature tor its website. The feature will give users the ability to upload photos. The company expects significant increases in demand during large events and must ensure that the website can handle the upload traffic from users.
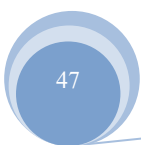
Which solution meets these requirements with the MOST scalability?

A. Upload files from the user's browser to the application servers Transfer the files to an Amazon S3 bucket.

B. Provision an AWS Storage Gateway file gateway. Upload files directly from the user's browser to the file gateway.

C. Generate Amazon S3 presigned URLs in the application. Upload files directly from the user's browser into an S3 bucket

D. Provision an Amazon Elastic File System (Amazon EFS) file system. Upload files directly from the user's browser to the file system.

Answer: C

93. - (Exam Topic 1)

A company wants to run a hybrid workload for data processing. The data needs to be accessed by on-premises applications for local data processing using an NFS protocol and must also be accessible from the AWS Cloud for further analytics and batch processing

Which solution will meet these requirements?

A. Use an AWS Storage Gateway file gateway to provide file storage to AWS: then perform analytics on this data in the AWS Cloud

B. Use an AWS Storage Gateway tape gateway to copy the backup of the local data to AWS. then perform analytics on this data in the AWS Cloud.

C. Use an AWS Storage Gateway volume gateway in a stored volume configuration to regularly take snapshots of the local data, then copy the data to AWS.

D. Use an AWS Storage Gateway volume gateway in a cached volume configuration to back up all the local storage in the AWS Cloud, then perform analytics on this data in the cloud.

Answer: A

94. - (Exam Topic 1)

A company operates a website on Amazon EC2 Linux instances Some of the instances are failing. Troubleshooting points to insufficient swap space on the failed instances. The operations team lead needs a solution to monitor this.
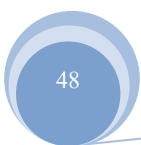
What should a solutions architect recommend?

A. Configure an Amazon CloudWatch SwapUsage metric dimension Monitor the SwapUsage dimension in the EC2 metrics in CloudWatch.

B. Use EC2 metadata to collect information, then publish it to Amazon CloudWatch custom metrics Monitor SwapUsage metrics in CloudWatch

C. Install an Amazon CloudWatch agent on the instances. Run an appropriate script on a set schedule. Monitor SwapUtilization metrics in CloudWatch

D. Enable detailed monitoring in the EC2 console Create an Amazon CloudWatch SwapUtilization custom metric Monitor SwapUtilization metrics in CloudWatch

Answer: A

95. - (Exam Topic 1)

A company has been running a web application with an Oracle relational database in an on-premises data center for the past 15 years. The company must migrate the database to AWS. The company needs to reduce operational overhead without having to modify the application's code.

Which solution meets these requirements?

A. Use AWS Database Migration Service (AWS DMS) to migrate the database servers to Amazon RDS.

B. servers.

C. Use AWS Database Migration Service (AWS DMS) to migrate the database servers to Amazon DynamoDB.

D. Use an AWS Snowball Edge Storage Optimized device to migrate the data from Oracle to Amazon Aurora.

Answer: A

96. - (Exam Topic 1)

A solutions architect is designing the architecture for a company website that is composed of static content. The company's target customers are located in the United States and Europe.

Which architecture should the solutions architect recommend to MINIMIZE cost?

A. Store the website files on Amazon S3 in the us-east-2 Region. Use an Amazon CloudFront distribution with the price class configured to limit the edge locations in use.
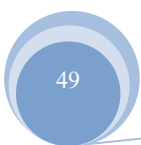
B. Store the website files on Amazon S3 in the us-east-2 Region. Use an Amazon CloudFront distribution with the price class configured to maximize the use of edge locations.

C. Store the website files on Amazon S3 in the us-east-2 Region and the eu-west-1 Region. Use an Amazon CloudFront geolocation routing policy to route requests to the closest Region to the user.

D. Store the website files on Amazon S3 in the us-east-2 Region and the eu-west-1 Region. Use an Amazon CloudFront distribution with an Amazon Route 53 latency routing policy to route requests to the closest Region to the user.

Answer: D

97. - (Exam Topic 1)

A company is designing an internet-facing web application. The application runs on Amazon EC2 for Linux-based instances that store sensitive user data in Amazon RDS MySQL Multi-AZ DB instances The EC2 instances are in public subnets, and the RDS DB instances are in private subnets. The security team has mandated that the DB instances be secured against web-based attacks.

What should a solutions architect recommend?

A. Ensure the EC2 instances are part of an Auto Scaling group and are behind an Application Load Balancer Configure the EC2 instance iptables rules to drop suspicious web traffic. Create a security group for the DB instances. Configure the RDS security group to only allow port 3306 inbound from the individual EC2 instances.

B. Ensure the EC2 instances are part of an Auto Scaling group and are behind an Application Load Balancer. Move DB instances to the same subnets that EC2 instances are located in. Create a security group for the DB instances Configure the RDS security group to only allow port 3306 inbound from the individual EC2 instances.

C. Ensure the EC2 instances are part of an Auto Scaling group and are behind an Application Load Balancer. Use AWS WAF to monitor inbound web traffic for threats Create a security group for the web application servers and a security group for the DB instances. Configure the RDS security group to only allow port 3306 inbound from the web application server security group

D. Ensure the EC2 instances are part of an Auto Scaling group and are behind an Application Load Balancer. Use AWS WAF to monitor inbound web traffic for threats Configure the Auto Scaling group to automatically create new DB instances under heavy traffic. Create a security group for the RDS DB

instances. Configure the RDS security group to only allow port 3306 inbound.

Answer: C

98. - (Exam Topic 1)

A company is implementing new data retention policies for all databases that run on Amazon RDS DB

instances. The company must retain daily backups for a minimum period of 2 years. The backups must be

consistent and restorable.

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

A. Create a backup vault in AWS Backup to retain RDS backups. Create a new backup plan with a daily

schedule and an expiration period of 2 years after creation. Assign the RDS DB instances to the backup

plan.

Configure a backup window for the RDS DB Instances for daily snapshots. Assign a snapshot retention

policy of 2 years to each RDS DB instance. Use Amazon Data Lifecycle Manager (Amazon DLM) B. to

schedule snapshot deletions.

B. Configure database transaction logs to be automatically backed up to Amazon CloudWatch Logs with an

expiration period of 2 years

C. Configure an AWS Database Migration Service (AWS DMS) replication task. Deploy a replication

instance, and configure a change data capture (CDC) task to stream database changes to Amazon S3 as

the target Configure S3 Lifecycle policies to delete the snapshots after 2 years.

Answer: A

99. - (Exam Topic 1)

A company's near-real-time streaming application is running on AWS. As the data is ingested, a job runs on

the data and takes 30 minutes to complete. The workload frequently experiences high latency due to large

amounts of incoming data A solutions architect needs to design a scalable and serverless solution to

enhance performance.

Which combination of steps should the solutions architect take? (Select TWO.)

A. Use Amazon Kinesis Data Firehose to ingest the data

B. Use AWS Lambda with AWS Step Functions to process the data.

C. Use AWS Database Migration Service (AWS DMS) to ingest the data.

D. Use Amazon EC2 instances in an Auto Scaling group to process the data

E. Use AWS Fargate with Amazon Elastic Container Service (Amazon ECS) to process the data.

Answer: A E

100. - (Exam Topic 1)

A company must migrate 20 TB of data from a data centre to the AWS Cloud within 30 days. The

company's network bandwidth is limited to 15 Mbps and cannot exceed 70% utilization.

What should a solutions architect do to meet these requirements?

A. Use AWS Snowball.

B. Use AWS DataSync

C. Use a secure VPN connection.

D. Use Amazon S3 Transfer Acceleration

Answer: A

101. - (Exam Topic 1)

A healthcare computer stores highly sensitive records. Compliance requires that multiple copies be stored

in different locations. Each record must be stored for 7 years. The company has a service level agreement

(SLA) to provide records to government agencies immediately for the first 30 days and thin within 4 hours of

a request thereafter.

What should a solutions architect recommend?

A. Use Amazon S3 with cross-Region Region replication enabled. After 30 days. Transition the data to

Amazon S3 Glacier using lifecycle policy.

B. Use Amazon S3 with cross-origin resource sharing (CCRS) enabled. After 30 days. Transition on the

data to Amazon S3 Glacier using a lifecycle policy.

C. Use Amazon S3 with cross-origin replication enabled. After 30 days, transition the data to Amazon S3

Glacier Deep Archive a lifecycle policy.

D. Use Amazon S3 with cross-origin resource sharing (CCRS) enabled. After 30 days, transition on the

data to Amazon S3 Glacier Deep Archive using a lifecycle policy.

Answer: A
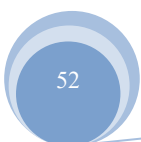
102. - (Exam Topic 1)

A company has three VPCs named Development, Testing and Production in the us-east-1 Region. The three VPCs need to be connected to an on-premises data center and are designed to be separate to maintain security and prevent any resource sharing A solutions architect needs to find a scalable and secure solution

What should the solutions architect recommend?

A. Create an AWS Direct Connect connection and a VPN connection for each VPC to connect back to the data center.

B. Create VPC peers from all the VPCs to the Production VPC Use an AWS Direct Connect connection from the Production VPC back to the data center

C. Connect VPN connections from all the VPCs to a VPN in the Production VPC. Use a VPN connection from the Production VPC back to the data center

D. Create a new VPC called Network Within the Network VPC create an AWS Transit Gateway with an AWS Direct Connect connection back to the data center Attach all the other VPCs to the Network VPC.

Answer: D

103. - (Exam Topic 1)

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: B

104. - (Exam Topic 1)

A medical records company is hosting an application on Amazon EC2 instances. The application processes
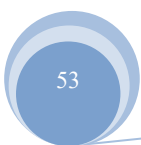
customer data files that are stored on Amazon S3. The EC2 instances are hosted in public subnets. The

EC2 instances access Amazon S3 over the internet, but they do not require any other network access.

A new requirement mandates that the network traffic for file transfers take a private route and not be sent

over the internet.

Which change to the network architecture should a solutions architect recommend to meet this

requirement"?

A. Create a NAT gateway. Configure the route table for the public subnets to send traffic to Amazon S3

through the NAT gateway.

B. Configure the security group for the EC2 instances to restrict outbound traffic so that only traffic to the S3

prefix list is permitted.

C. Move the EC2 instances to private subnets. Create a VPC endpoint for Amazon S3, and link the

endpoint to the route table for the private subnets

D. Remove the internet gateway from the VPC. Set up an AWS Direct Connect connection, and route traffic

to Amazon S3 over the Direct Connect connection.

Answer: C

105. - (Exam Topic 1)

A company's packaged application dynamically creates and returns single-use text files in response to user

requests. The company is using Amazon CloudFront for distribution^ but wants to further reduce data

transfer costs The company cannot modify the application's source code

What should a solutions architect do to reduce costs?

A. Use Lambda@Edge to compress the files as they are sent to users.

B. Enable Amazon S3 Transfer Acceleration to reduce the response times

C. Enable caching on the CloudFront distribution to store generated files at the edge.

D. Use Amazon S3 multipart uploads to move the files to Amazon S3 before returning them to users

Answer: C

106. - (Exam Topic 1)

A company is creating an architecture for a mobile app that requires minimal latency for its users. The

company's architecture consists of Amazon EC2 instances behind an Application Load Balancer running in

an Auto Seating group The EC2 instances connect to Amazon RDS Application beta testing showed there

was a slowdown when reading the data However, the metrics indicate that the EC2 instances do not cross

any CPU utilization thresholds

How can this issue be addressed?

A. Reduce the threshold for CPU utilization in the Auto Scaling group

B. Replace the Application Load Balancer with a Network Load Balancer.

C. Add read replicas for the RDS instances and direct read traffic to the replica

D. Add Multi-AZ support to the RDS instances and direct read traffic to the new EC2 instance

Answer: C

107. - (Exam Topic 1)

The application's traffic is often low. but it occasionally grows significantly. During these sudden increases

in traffic, DynamoDB returns throttling errors. The result is that error pages are displayed to end users.

What should a solutions architect do to reduce these errors?

A. Change the DynamoDB table to use on-demand capacity mode.

B. Create a DynamoDB read replica to scale the read traffic horizontally.

C. Purchase DynamoDB reserved capacity of 1,000 RCUs and 500 WCUs.

D. Configure the application to use strongly consistent reads for DynamoDB queries.

Answer: D

108. - (Exam Topic 1)

A company has 150 TB of archived image data stored on-premises that needs to be moved to the AWS

Cloud within the next month. The company's current network connection allows up to 100 Mbps uploads for

this purpose during the night only.

What is the MOST cost-effective mechanism to move this data and meet the migration deadline?

A. Use AWS Snowmobile to ship the data to AWS.

B. Order multiple AWS Snowball devices to ship the data to AWS.

C. Enable Amazon S3 Transfer Acceleration and securely upload the data.

D. Create an Amazon S3 VPC endpoint and establish a VPN to upload the data

Answer: B

109. - (Exam Topic 1)

A company has an application that uses Amazon Elastic File System (Amazon EFS) to store data. The files are 1 GB in size or larger and are accessed often only for the first few days after creation The application data is shared across a cluster of Linux servers The company wants to reduce storage costs for the application.

What should a solutions architect do to meet these requirements?

A. Implement Amazon FSx and mount the network drive on each server

B. Move the files from Amazon EFS and store them locally on each Amazon EC2 instance

C. Configure a lifecycle policy to move the files to the EFS Infrequent Access (IA) storage class after 7 days.

D. Move the files to Amazon S3 with S3 Lifecycle policies enabled. Rewrite the application to support mounting the S3 bucket

Answer: C

110. - (Exam Topic 1)

A company is running an ASP.NET MVC application on a single Amazon EC2 instance. A recent increase in application traffic is causing slow response times for users during lunch hours. The company needs to resolve this concern with the least amount of configuration.

What should a solutions architect recommend to meet these requirements?

A. Move the application to AWS Elastic Beanstalk. Configure load-based auto scaling and time-based scaling to handle scaling during lunch hours

B. Move the application to Amazon Elastic Container Service (Amazon ECS) Create an AWS Lambda function to handle scaling during lunch hours.

C. Move the application to Amazon Elastic Container Service (Amazon ECS). Configure scheduled scaling for AWS Application Auto Scaling during lunch hours.

D. Move the application to AWS Elastic Beanstalk. Configure load-based auto scaling, and create an AWS Lambda function to handle scaling during lunch hours.

Answer: A
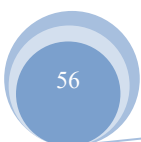
111. - (Exam Topic 1)

A company allows its developers to attach existing IAM policies to existing IAM roles to enable faster

experimentation and agility. However, the security operations team is concerned that the developers could

attach the existing administrator policy, which would allow the developers to circumvent any other security

policies.

How should a solution architect address this issue?

A. Create an Amazon SNS topic to send an alert every time a developer create a new policy.

B. Use service control policies to disable IAM across all account in the organizational unit.

C. Prevent the developers from attaching any policies and duties to the security option team.

D. Set an IAM permission boundary on the developer IAM role that explicitly dries of attaching the

administrator policy

Answer: D

112. - (Exam Topic 1)

A company has two applications: a sender application that sends messages with payloads to be processed

and a processing application intended to receive the messages with payloads The company wants to

implement an AWS service to handle messages between the two applications The sender application can

send about 1,000 messages each hour The messages may take up to 2 days to be processed If the

messages fail to process, they must be retained so that they do not impact the processing of any remaining

messages.

Which solution meets these requirements and is the MOST operationally efficient?

A. Set up an Amazon EC2 instance running a Redis database Configure both applications to use the

instance Store process, and delete the messages., respectively

B. Use an Amazon Kinesis data stream to receive the messages from the sender application. Integrate the

processing application with the Kinesis Client Library (KCL).

C. Integrate the sender and processor applications with an Amazon Simple Queue Service (Amazon SQS)

queue Configure a dead-letter queue to collect the messages that failed to process

D. Subscribe the processing application to an Amazon Simple Notification Service (Amazon SNS) topic to

receive notifications to process, integrate the sender application to write to the SNS topic.

Answer: C

113. - (Exam Topic 1)

A company is building a mobile app on AWS. The company wants to expand its reach to millions of users

The company needs to build a platform so that authorized users can watch the company's content on their

mobile devices

What should a solutions architect recommend to meet these requirements?

A. Publish content to a public Amazon S3 bucket. Use AWS Key Management Service (AWS KMS) keys to

stream content.

B. Set up IPsec VPN between the mobile app and the AWS environment to stream content

C. Use Amazon CloudFront Provide signed URLs to stream content.

D. Set up AWS Client VPN between the mobile app and the AWS environment to stream content.

Answer: C

114. - (Exam Topic 1)

What should a solutions architect do to ensure that all objects uploaded to an Amazon S3 bucket are

encrypted?

A. Update the bucket policy to deny if the PutObject does not have an s3 x-amz-acl header set

B. Update the bucket policy to deny if the PutObject does not have an s3:x-amz-aci header set to private.

C. Update the bucket policy to deny if the PutObject does not have an aws SecureTransport header set to

true

D. Update the bucket policy to deny if the PutObject does not have an x-amz-server-side-encryption header

set.

Answer: D

115. - (Exam Topic 1)

A company has an application that collects data from loT sensors on automobiles. The data is streamed

and stored in Amazon S3 through Amazon Kinesis Date Firehose The data produces trillions of S3 objects

each year. Each morning, the company uses the data from the previous 30 days to retrain a suite of

machine learning (ML) models.

Four times each year, the company uses the data from the previous 12 months to perform analysis and

train other ML models The data must be available with minimal delay for up to 1 year. After 1 year, the data

must be retained for archival purposes.

Which storage solution meets these requirements MOST cost-effectively?

A. Use the S3 Intelligent-Tiering storage class. Create an S3 Lifecycle policy to transition objects to S3

Glacier Deep Archive after 1 year

B. Use the S3 Intelligent-Tiering storage class. Configure S3 Intelligent-Tiering to automatically move

objects to S3 Glacier Deep Archive after 1 year.

C. Use the S3 Standard-Infrequent Access (S3 Standard-IA) storage class. Create an S3 Lifecycle policy to

transition objects to S3 Glacier Deep Archive after 1 year.

D. Use the S3 Standard storage class. Create an S3 Lifecycle policy to transition objects to S3

Standard-Infrequent Access (S3 Standard-IA) after 30 days, and then to S3 Glacier Deep Archive after 1

year.

Answer: C

116. - (Exam Topic 1)

A company needs to implement a relational database with a multi-Region disaster recovery Recovery Point

Objective (RPO) of 1 second and an Recovery Time Objective (RTO) of 1 minute

Which AWS solution can achieve this?

A. Amazon Aurora Global Database

B. Amazon DynamoDB global tables

C. Amazon RDS for MySQL with Multi-AZ enabled

D. Amazon RDS for MySQL with a cross-Region snapshot copy

Answer: A

117. - (Exam Topic 1)

A company recently implemented hybrid cloud connectivity using AWS Direct Connect and is migrating

data to Amazon S3. The company is looking for a fully managed solution that will automate and accelerate

the replication of data between the on-premises storage systems and AWS storage services.

Which solution should a solutions architect recommend to keep the data private?

A. Deploy an AWS DataSync agent for the on-premises environment Configure a sync job to replicate the

data and connect it with an AWS service endpoint

B. Deploy an AWS DataSync agent for the on-premises environment. Schedule a batch job to replicate

point-in-time snapshots to AWS.

C. Deploy an AWS Storage Gateway volume gateway for the on-premises environment. Configure it to

store data locally, and asynchronously back up point-in-time snapshots to AWS.

D. Deploy an AWS Storage Gateway file gateway for the on-premises environment Configure it to store

data locally, and asynchronously back up point-m-time snapshots to AWS.

Answer: A

118. - (Exam Topic 1)

A company needs a storage solution for an application that runs on a high performance computing (HPC)

cluster. The cluster is hosted on AWS Fargate for Amazon Elastic Container Service (Amazon ECS) The

company needs a mountable file system that provides concurrent access to files while delivering hundreds

of GBps of throughput at sub-millisecond latencies

Which solution meets these requirements?

A. Create an Amazon FSx for Lustre file share for the application data Create an IAM role that allows

Fargate to access the FSx for Lustre file share

B. Create an Amazon Elastic File System (Amazon EFS) file share for the application data. Create an IAM

role that allows Fargate to access the EFS file share.

C. Create an Amazon S3 bucket for the application data. Create an S3 bucket policy that allows Fargate to

access the S3 bucket

D. Create an Amazon Elastic Block Store (Amazon EBS) Provisioned IOPS SSD (io2) volume for the

application data Create an IAM role that allows Fargate to access the volume.

Answer: A

119. - (Exam Topic 1)

A company has applications that are deployed in multiple AWS Regions. The applications use an

architecture that is based on Amazon EC2, Amazon Elastic Block Store (Amazon EBS), Amazon Elastic

File System (Amazon EFS). and Amazon DynamoDB

The company lacks a mechanism for centralized data backup. A solutions architect must centralize data
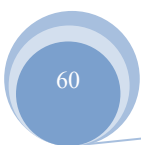
backup with the least possible operational effort.

What should the solutions architect do to meet these requirements?

A. Tag all resources by project Use AWS Systems Manager to set up snapshots by project and set

DynamoDB incremental backups.

B. Tag all resources by project. Create backup plans in AWS Backup to back up the data by tag name

according to each project's needs.

C. Tag all resources by project Create an AWS Lambda function to run on schedule and take snapshots of

each EC2 instance. EBS volume, and EFS file system by project Configure the function to invoke

DynamoDB on-demand backup.

D. Use AWS CloudFormation to create a template for every new project so that all resources can be

recreated at any time. Set the template to take daily snapshots of each EC2 instance r EBS volume and

EFS file system Set the template to use DynamoDB on-demand backup for daily backups

Answer: B

Topic 2, Exam Pool B

1. - (Exam Topic 2)

A company's website is used to sell products to the public The site runs on Amazon EC2 instances in an

Auto Scaling group behind an Application Load Balancer (ALB) There is also an Amazon CloudFront

distribution and AWS WAF Is being used to protect against SQL injection attacks The ALB is the origin for

the CloudFront distribution A recent review of security logs revealed an external malicious IP that needs to

be blocked from accessing the website

What should a solutions architect do to protect the application?

A. Modify the network ACL on the CloudFront distribution to add a deny rule for the malicious IP address

B. Modify the configuration of AWS WAF to add an IP match condition to block the malicious IP address

C. Modify the network ACL for the EC2 instances in the target groups behind the ALB to deny the malicious

IP address

D. Modify the security groups for the EC2 instances in the target groups behind the ALB to deny the

malicious IP address

Answer: B
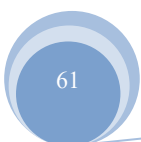
2. - (Exam Topic 2)

A company has three AWS accounts Management Development and Production. These accounts use AWS services only in the us-east-1 Region All accounts have a VPC with VPC Flow Logs configured to publish data to an Amazon S3 bucket in each separate account For compliance reasons the company needs an ongoing method to aggregate all the VPC flow logs across all accounts into one destination S3 bucket in the Management account.

What should a solutions architect do to meet these requirements with the LEAST operational overhead?

A. Add S3 Same-Region Replication rules in each S3 bucket that stores VPC flow logs to replicate objects to the destination S3 bucket Configure the destination S3 bucket to allow objects to be received from the S3 buckets in other accounts

B. Set up an 1AM user in the Management account Grant permissions to the 1AM user to access the S3 buckets that contain the VPC flow logs Run the aws s3 sync command in the AWS CLI to copy the objects to the destination S3 bucket

C. Use an S3 inventory report to specify which objects in the S3 buckets to copy Perform an S3 batch operation to copy the objects into the destination S3 bucket in the Management account with a single request.

D. Create an AWS Lambda function in the Management account Grant S3 GET permissions on the source S3 buckets Grant S3 PUT permissions on the destination S3 bucket Configure the function to invoke when objects are loaded in the source S3 buckets

Answer: A

3. - (Exam Topic 2)

A company is hosting 60 TB of production-level data in an Amazon S3 bucket A solutions architect needs to bring that data on premises for quarterly audit requirements This export of data must be encrypted while in transit The company has low network bandwidth in place between AWS and its on-premises data center.

What should the solutions architect do to meet these requirements?

A. Deploy AWS Migration Hub with 90-day replication windows for data transfer

B. Deploy an AWS Storage Gateway volume gateway on AWS Enable a 90-day replication window to transfer the data

C. Deploy Amazon Elastic File System (Amazon EFS). with lifecycle policies enabled, on AWS Use it to

transfer the data

D. Deploy an AWS Snowball device in the on-premises data center after completing an export Job request

In the AWS Snowball console

Answer: D

4. - (Exam Topic 2)

A solution architect has created a new AWS account and must secure AWS account root user access

Which combination of actions mil accomplish this? (Select TWO)

A. Ensure the root user uses a strong password

B. Enable multi-factor authentication to the root user

C. Store root user access keys m an encrypted Amazon S3 bucket

D. Add the root user to a group containing administrative permissions

E. Apply the required permissions to the root user with an inline policy document

Answer: A B

5. - (Exam Topic 2)

A company wants to migrate its MySQL database from on premises to AWS. The company recently

experienced a database outage that significantly impacted the business To ensure this does not happen

again the company wants a reliable database solution on AWS that minimizes data loss and stores every

transaction on at least two nodes

Which solution meets these requirements?

A. Create an Amazon RDS DB instance with synchronous replication to three nodes in three Availability

Zones.

B. Create an Amazon RDS MySQL DB instance with Multi-AZ functionality enabled to synchronously

replicate the data.

C. Create an Amazon RDS MySQL DB instance and then create a read replica in a separate AWS Region

that synchronously replicates the data.

D. Create an Amazon EC2 instance with a MySQL engine installed that triggers an AWS Lambda function

to synchronously replicate the data to an Amazon RDS MySQL DB instance

Answer: B
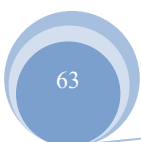
6. - (Exam Topic 2)

A company has an application that uses an Amazon OynamoDB table lew storage. A solutions architect discovers that many requests to the table are not returning the latest data. The company's users have not reported any other issues with database performance Latency is in an acceptable range.

Which design change should the solutions architect recommend?

A. Add read replicas to the table.

B Use a global secondary index (GSI).

B. Request strongly consistent reads for the table

C. Request eventually consistent reads for the table.

Answer: C

7. - (Exam Topic 2)

A company has a website hosted on AWS The website is behind an Application Load Balancer (ALB) that is configured to handle HTTP and HTTPS separately. The company wants to forward all requests to the website so that the requests will use HTTPS.

What should a solutions architect do to meet this requirement?

A. Update the ALB's network ACL to accept only HTTPS traffic

B. Create a rule that replaces the HTTP in the URL with HTTPS.

C. Create a listener rule on the ALB to redirect HTTP traffic to HTTPS.

D. Replace the ALB with a Network Load Balancer configured to use Server Name Indication (SNI).

Answer: C

8. - (Exam Topic 2)

A company hosts an online shopping application that stores all orders in an Amazon RDS for PostgreSQL Single-AZ DB instance Management wants to eliminate single points of failure and has asked a solutions architect to recommend an approach to minimize database downtime without requiring any changes to the application code

Which solution meets these requirements?

A. Convert the existing database instance to a Multi-AZ deployment by modifying the database instance
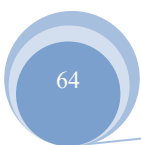
and specifying the Multi-AZ option

B. Create a new RDS Multi-AZ deployment Take a snapshot of the current RDS instance and restore the

new Multi-AZ deployment with the snapshot

C. Create a read-only replica of the PostgreSQL database m another Availability Zone Use Amazon Route

53 weighted record sets to distribute requests across the databases

D. Place the RDS for PostgreSQL database in an Amazon EC2 Auto Scaling group with a minimum group

size of two Use Amazon Route 53 weighted record sets to distribute requests across instances

Answer: A

9. - (Exam Topic 2)

A company wants to provide users with access lo AWS resources. The company has 1.500 users and

manages their access to on-premises resources through Active Directory user groups on the corporate

network However, the company does not want users to have to maintain another identity to access the

resources A solutions architect must manage user access to the AWS resources while preserving access to

the on-premises resources

What should the solutions architect do to meet these requirements?

A. Create an IAM user for each user in the company Attach the appropriate policies to each user

B. Use Amazon Cognito with an Active Directory user pool Create rotes with the appropriate policies

attached

C. Define cross-account roles with the appropriate policies attached Map the roles to the Active Directory

groups

D. Configure Security Assertion Markup Language (SAML) 2 0-based federation Create roles with the

appropriate policies attached Map the roles to the Active Directory groups

Answer: D

10. - (Exam Topic 2)

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 tor the load balancer allowing port 443 from 0 0 0

0/0 Company policy requires that each resource has the teas! access required to still be able to perform its
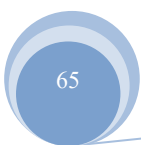
tasks

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 00 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 (or 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 Create a security group for the MySQL servers and allow port 3306 from the web servers security group

D. Create a network ACL 'or the web servers and allow port 443 from the load balancer Create a network ACL for the MySQL servers and allow port 3306 from the web servers security group

Answer: C

11. - (Exam Topic 2)

A company is developing a mobile game that streams score updates to a backend processor and then posts results on a leaderboard A solutions architect needs to design a solution that can handle large traffic spikes process the mobile game updates in order of receipt and store the processed updates in a highly available database The company also wants to minimize the management overhead required to maintain the solution

What should the solutions architect do to meet these requirements?

A. Push score updates to Amazon Kinesis Data Streams Process the updates in Kinesis Data Streams with AWS Lambda Store the processed updates in Amazon DynamoDB

B. Push score updates to Amazon Kinesis Data Streams Process the updates with a fleet of Amazon EC2 instances set up for Auto Scaling Store the processed updates in Amazon Redshifi

C. Push score updates to an Amazon Simple Notification Service (Amazon SNS) topic Subscnbe an AWS Lambda function to the SNS topic to process the updates Store the processed updates in a SQL database running on Amazon EC2

D. Push score updates to an Amazon Simple Queue Service (Amazon SQS) queue Use a fleet of Amazon EC2 instances with Auto Scaling to process the updates in the SQS queue Store the processed updates in an Amazon RDS Multi-AZ DB instance

Answer: A

Explanation:

https://docs.aws.amazon.com/streams/latest/dev/introduction.html

You can use Amazon Kinesis Data Streams to collect and process large streams of data records in real time. You can use Kinesis Data Streams for rapid and continuous data intake and aggregation. The type of data used can include IT infrastructure log data, application logs, social media, market data feeds, and web clickstream data. Because the response time for the data intake and processing is in real time, the processing is typically lightweight.

12. - (Exam Topic 2)

A company needs the ability to analyze the log files of its proprietary application The logs are stored in JSON format in an Amazon S3 bucket Queries will be simple and will run on-demand A solutions architect needs to perform the analysis with minimal changes to the existing architecture

What should the solutions architect do to meet these requirements with the LEAST amount of operational overhead?

A. Use Amazon Redshift to load all the content into one place and run the SQL queries as needed

B. Use Amazon CloudWatch Logs to store the logs Run SQL queries as needed from the Amazon CloudWatch console

C. Use Amazon Athena directly with Amazon S3 to run the queries as needed

D. Use AWS Glue to catalog the logs Use a transient Apache Spark cluster on Amazon EMR to run the SQL queries as needed
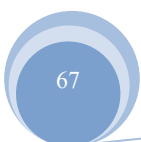
Answer: B

13. - (Exam Topic 2)

A company uses on-premises servers to host Its application. The company is running out of storage capacity. The applications use both block storage and NFS storage. The company needs a high-performing solution that supports local caching without re-architecting its existing applications

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

A. Mount Amazon S3 as a file system to the on-premises servers

B. Deploy an AWS Storage Gateway Me gateway to replace NFS storage

C. Deploy AWS Snowball Edge to provision NFS mounts to on-premises servers

D. Deploy an AWS Storage Gateway volume gateway to replace the block storage

E. Deploy Amazon Elastic File System (Amazon EFS) volumes and mount them to on-premises servers

Answer: B D

14. - (Exam Topic 2)

A company's application is running on Amazon EC2 instances within an Auto Scaling group behind an

Elastic Load Balancer Based on the application's history the company anticipates a spike in traffic during a

holiday each year A solutions architect must design a strategy to ensure that the Auto Scaling group

proactively increases capacity to minimize any performance impact on application users.

Which solution will meet these requirements'?

A. Create an Amazon CloudWatch alarm to scale up the EC2 instances when CPU utilization exceeds 90%

B. Create a recurring scheduled action to scale up the Auto Scaling group before the expected period of

peak demand

C. Increase the minimum and maximum number of EC2 instances in the Auto Scaling group during the

peak demand period

D. Configure an Amazon Simple Notification Service (Amazon SNS) notification to send alerts when there

are autoscaling EC2_INSTANCE_LAUNCH events

Answer: B

15. - (Exam Topic 2)

Organizers for a global event want to put daily reports online as static HTML pages. The pages are

expected to generate millions of views from users around the work. The files are stored in an Amazon S3

Ducket A solutions architect has been asked to design an efficient and effective solution

Which action should the solutions architect take to accomplish this?

A. Generate presigned URLs for the files

B. Use cross-Region replication to all Regions

C. Use the geoproximity feature of Amazon Route 53

D. Use Amazon CloudFront with the S3 bucket as its origin

Answer: D
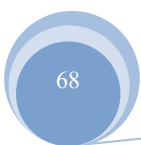
16. - (Exam Topic 2)

A company recently launched its website to servo content to its global user base. The company wants to store and accelerate the delivery of static content to its users by leveraging Amazon CloudFront with an Amazon EC2 instance attached as its origin

How should a solutions architect optimize high availability tor the application?

A. Use lambda@Edge for CloudFront

B. Use Amazon S3 Transfer Acceleration for CloudFront

C. Configure another EC2 instance m a different Availability Zone as part of the origin group

D. Configure another EC2 instance as part of the origin server cluster in the same Availability Zone

Answer: A

17. - (Exam Topic 2)

A company has applications hosted on Amazon EC2 instances with IPv6 addresses. The applications must initiate communications with other external applications using the internet However the company's security policy states that any external service cannot initiate a connection to the EC2 instances

What should a solutions architect recommend to resolve this issue?

A. Create a NAT gateway and make it the destination of the subnet's route table

B. Create an internet gateway and make it the destination of the subnet's route table

C. Create a virtual private gateway and make it the destination of the subnet's route table

D. Create an egress-only internet gateway and make it the destination of the subnet's route table

Answer: D

18. - (Exam Topic 2)

A company runs a website on Amazon EC2 instances behind an ELB Application Load Balancer Amazon Route 53 Is used for the DNS The company wants to set up a backup website with a message including a phone number and email address that users can reach if the primary website is down.

How should the company deploy this solution?

A. Use Amazon S3 website hosting for the backup website and a Route 53 failover routing policy

B. Use Amazon S3 website hosting for the backup website and a Route 53 latency routing policy

C. Deploy the application in another AWS Region and use ELB health checks for failover routing.

D. Deploy the application in another AWS Region and use server-side redirection on the primary website

Answer: A

19. - (Exam Topic 2)

A company runs a three-tier web application in a VPC across multiple Availability Zones Amazon EC2

instances run in an Auto Scaling group tor the application tier

The company needs to make an automated scaling plan that will analyze each resource's daily and weekly

historical workload trends The configuration must scale resources appropriately according to both the

forecast and live changes in utilization

Which scaling strategy should a solutions architect recommend to meet these requirements?

A. Implement dynamic scaling with step scaling based on average CPU utilization from the EC2 instances

B. Enable predictive scaling to forecast and scale Configure dynamic scaling with target tracking

C. Create an automated scheduled scaling action based on the traffic patterns of the web application

D. Set up a simple scaling policy Increase the cool down period based on the EC2 instance start up time

Answer: B

20. - (Exam Topic 2)

A company is launching a new application deployed on an Amazon Elastic Container Service (Amazon

ECS) cluster and is using the Fargate launch type tor ECS tasks The company is monitoring CPU and

memory usage because it is expecting high traffic to the application upon its launch However the company

wants to reduce costs when utilization decreases

What should a solutions architect recommend?

A. Use Amazon EC2 Auto Scaling to scale at certain periods based on previous traffic patterns

B. Use an AWS Lambda function to scale Amazon ECS based on metric breaches that trigger an Amazon

CloudWatch alarm

C. Use Amazon EC2 Auto Scaling with simple scaling policies to scale when ECS metric breaches trigger

an Amazon CloudWatch alarm

D. Use AWS Application Auto Scaling with target tracking policies to scale when ECS metric breaches

trigger an Amazon CloudWatch alarm

Answer: C
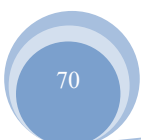
21. - (Exam Topic 2)

A company wants to enforce strict security guidelines on accessing AWS Cloud resources as the company migrates production workloads from its data centers. Company management wants all users to receive permissions according to their job roles and functions.

Which solution meets these requirements with the LEAST operational overhead?

A. Create an AWS Single Sign-On deployment. Connect to the on-premises Active Directory to centrally manage users and permissions across the company

B. Create an IAM role for each job function. Require each employee to call the stsiAssumeRole action in the AWS Management Console to perform their job role.

C. Create individual IAM user accounts for each employee Create an 1AM policy for each job function, and attach the policy to all IAM users based on their job role.

D. Create individual IAM user accounts for each employee. Create 1AM policies for each job function. Create IAM groups, and attach associated policies to each group. Assign the IAM users to a group based on their Job role.

Answer: D

22. - (Exam Topic 2)

A media streaming company collects real-time data and stores it in a disk-optimized database system. The company is not getting the expected throughput and wants an m-memory database storage solution that performs faster and provides high availability using data replication.
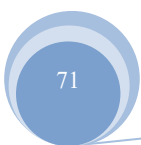
Which database should a solutions architect recommend?

A. Amazon RDS for MySQL

B. Amazon RDS for PostgreSQL

C. Amazon ElastiCache for Redis

D. Amazon ElastiCache for Memcached

Answer: C

23. - (Exam Topic 2)

A company has data stored in an on-premises data center that is used by several on-premises applications

The company wants to maintain its existing application environment and be able to use AWS services for data analytics and future visualizations

Which storage service should a solutions architect recommend?

A. Amazon Redshift

B. AWS Storage Gateway for files

C. Amazon Elastic Block Store (Amazon EBS)

D. Amazon Elastic File System (Amazon EFS)

Answer: B

24. - (Exam Topic 2)

A company wants to build an online marketplace application on AWS as a set of loosely coupled microservices For this application, when a customer submits a new order two microservices should handle the event simultaneously The Email microservice will send a confirmation email and the OrderProcessing microservice will start the order delivery process If a customer cancels an order, the OrderCancellation and Email microservices should handle the event simultaneously.

A solutions architect wants to use Amazon Simple Queue Service (Amazon SQS) and Amazon Simple Notification Service (Amazon SNS) to design the messaging between the microservices.

How should the solutions architect design the solution?

A. Create a single SQS queue and publish order events to it The Email, OrderProcessing and OrderCancellation microservices can then consume messages off the queue

B. Create three SNS topics for each microservice Publish order events to the three topics Subscribe each of the Email OrderProcessmg, and OrderCancellation microservices to its own topic

C. Create an SNS topic and publish order events to it Create three SQS queues for the Email OrderProcessing and OrderCancellation microservices Subscribe all SQS queues to the SNS topic with message filtering

D. Create two SQS queues and publish order events to both queues simultaneously One queue is for the Email and OrderProcessmg microservices The second queue is for the Email and Order Cancellation microservices

Answer: C

25. - (Exam Topic 2)

A company wants to perform an online migration of active datasets from an on-premises NFS server to an

Amazon S3 bucket that is named DOC-EXAMPLE-BUCKET Data integrity verification is required during the

transfer and at the end of the transfer. The data also must he encrypted

A solutions architect is using an AWS solution to migrate the data. Which solution meets these

requirements?

A. AWS Storage Gateway file gateway

B. S3 Transfer Acceleration

C. AWS DataSync

D. AWS Snowhall Edge Storage Optimized

Answer: C

26. - (Exam Topic 2)

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

27. - (Exam Topic 2)

A company has hired an external vendor to perform work in the company's AWS account The vendor uses

an automated tool that is hosted in an AWS account that the vendor owns The vendor does not have 1AM

access to the company's AWS account

How should a solutions architect grant this access to the vendor?

A. Create an IAM rote in the company's account to delegate access to the vendor's 1AM role Attach the

appropriate 1AM policies to the role for the permissions that the vendor requires
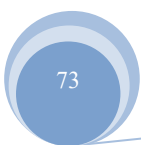
B. Create an IAM user in the company's account with a password that meets the password complexity requirements Attach the appropriate IAM policies to the user (or the permissions that the vendor requires

C. Create an IAM group in the company's account Add the tool's IAM user from the vendor account lo the group Attach the appropriate IAM policies to the group for the permissions that the vendor requires

D. Create a new identity provider by choosing "AWS account" as the provider type in the 1AM console Supply the vendor's AWS account ID and user name Attach the appropriate 1AM policies to the new provider for the permissions that the vendor requires

Answer: B

28. - (Exam Topic 2)

A company has a web application with sporadic usage patterns There is heavy usage at the beginning of each month moderate usage at the start of each week and unpredictable usage during the week The application consists of a web server and a MySQL database server running inside the data center The company would like to move the application to the AWS Cloud and needs to select a cost-effective database platform that will not require database modifications

Which solution will meet these requirements?

A. Amazon DynamoDB

B. Amazon RDS for MySQL

C. MySQL-compatible Amazon Aurora Serverless

D. MySQL deployed on Amazon EC2 in an Auto Scaling group

Answer: B

29. - (Exam Topic 2)

A company is deploying an application that processes large quantities of data in batches as needed. The company plans to use Amazon EC2 instances for the workload. The network architecture must support a highly scalable solution and prevent groups of nodes from sharing the same underlying hardware.

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

A. Create Capacity Reservations for the EC2 instances to run in a placement group

B. Run the EC2 instances in a spread placement group.

C. Run the EC2 instances in a cluster placement group.

D. Place the EC2 instances in an EC2 Auto Scaling group.

E. Run the EC2 instances in a partition placement group.

Answer: B C

30. - (Exam Topic 2)

A company has a service that reads and writes large amounts of data from an Amazon S3 bucket in the

same AWS Region The service is deployed on Amazon EC2 instances within the private subnet of a VPC.

The service communicates with Amazon S3 over a NAT gateway in the public subnet However, the

company wants a solution that will reduce the data output costs.

Which solution will meet these requirements MOST cost-effectively?

A. Provision a dedicated EC2 NAT instance in the public subnet. Configure the route table for the private

subnet to use the elastic network interface of this instance as the destination for all S3 traffic

B. Provision a dedicated EC2 NAT instance in the private subnet. Configure the route table for the public

subnet to use the elastic network interface of this instance as the destination for all S3 traffic.

C. Provision a VPC gateway endpoint. Configure the route table for the private subnet to use the gateway

endpoint as the route for all S3 traffic.

D. Provision a second NAT gateway. Configure the route table foe the private subnet to use this NAT

gateway as the destination for all S3 traffic.

Answer: C

31. - (Exam Topic 2)

A disaster relief company is designing a new solution to analyze real-time csv data. The data is collected by

a network of thousands of research stations met are distributed across the world. The data volume is

consistent and constant, and the size of each data We is 512 KB. The company needs to stream the data

and analyze the data in real time.

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

A. Provision an appropriately sized Amazon Simple Queue Service (Amazon SOS) queue. Use the AWS

SDK at the research stations to write the data into the SOS queue

B. Provision an appropriately sized Amazon Kinesis Data Firehose delivery stream. Use the AWS SDK at

the research stations to write the data into the delivery stream and then into an Amazon S3 bucket.
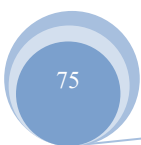
C. Provision an appropriately sized Amazon Kinesis Data Analytics application. Use the AWS CLI to configure Kinesis Data Analytics with SOL queries

D. Provision an AWS Lambda function to process the data. Set up the BatchSize property on the Lambda event source.

E. Provision an AWS Lambda function to process the data. Set up an Amazon EventBridge (Amazon CloudWatch Events) cron expression rule to invoke the Lambda function

Answer: A D

32. - (Exam Topic 2)

A solutions architect needs to design a nighty available application consisting of web. application and database tiers HTTPS content delivery should be as close to the edge as possible with the least delivery time

Which solution meets these requirements and is MOST secure?

A. Configure a public Application Load Balancer (ALB) with multiple redundant Amazon EC2 instances in public subnets Configure Amazon CloudFront to deliver HTTPS content using the public ALB as the origin

B. Configure a public Application Load Balancer with multiple redundant Amazon EC2 instances in private subnets Configure Amazon CloudFront to deliver HTTPS content using the EC2 instances as the origin

C. Configure a public Application Load Balancer (ALB) with multiple redundant Amazon EC2 instances in private subnets Configure Amazon CloudFront to deliver HTTPS content using the public ALB as the origin

D. Configure a public Application Load Balancer with multiple redundant Amazon EC2 instances in public subnets Configure Amazon CloudFront to deliver HTTPS content using the EC2 instances as the origin

Answer: B

33. - (Exam Topic 2)

A company stores use' data in AWS The data is used continuously with peak usage during business hours Access patterns vary with some data not being used for months at a time A solutions architect must choose a cost-effective solution that maintains the highest level of durability while maintaining high availability.

Which storage solution meets these requirements?

A. Amazon S3 Standard
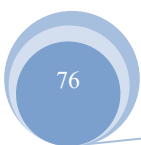
B. Amazon S3 Intelligent-Tiering

C. Amazon S3 Glacier Deep Archive

D. Amazon S3 One Zone-infrequent Access (S3 One Zone-IA)

Answer: B

34. - (Exam Topic 2)

A company recently launched Linux-based application instances on Amazon EC2 in a private subnet and

launched a Linux-based bastion host on an Amazon EC2 instance in a public subnet of a VPC A solutions

architect needs to connect from the on-premises network, through the company's internet connection to the

bastion host and to the application servers The solutions architect must make sure that the security groups

of all the EC2 instances will allow that access

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

A. Replace the current security group of the bastion host with one that only allows inbound access from the

application instances

B. Replace the current security group of the bastion host with one that only allows inbound access from the

internal IP range for the company

C. Replace the current security group of the bastion host with one that only allows inbound access from the

external IP range for the company

D. Replace the current security group of the application instances with one that allows inbound SSH access

from only the private IP address of the bastion host

E. Replace the current security group of the application instances with one that allows inbound SSH access

from only the public IP address of the bastion host

Answer: B E

35. - (Exam Topic 2)

A company has designed an application where users provide small sets of textual data by calling a public

API The application runs on AWS and includes a public Amazon API Gateway API that forwards requests

to an AWS Lambda function for processing The Lambda function then writes the data to an Amazon Aurora

Serverless database for consumption

The company is concerned that it could lose some user data it a Lambda function fails to process the

request property or reaches a concurrency limit.

What should a solutions architect recommend to resolve this concern?

A. Split the existing Lambda function into two Lambda functions Configure one function to receive API Gateway requests and put relevant items into Amazon Simple Queue Service (Amazon SQS) Configure the other function to read items from Amazon SQS and save the data into Aurora

B. Configure the Lambda function to receive API Gateway requests and write relevant items to Amazon ElastiCache Configure ElastiCache to save the data into Aurora

C. Increase the memory for the Lambda function Configure Aurora to use the Multi-AZ feature

D. Split the existing Lambda function into two Lambda functions Configure one function to receive API Gateway requests and put relevant items into Amazon Simple Notification Service (Amazon SNS) Configure the other function to read items from Amazon SNS and save the data into Aurora

Answer: A

36. - (Exam Topic 2)

A company hosts a training site on a fleet of Amazon EC2 instances. The company anticipates that its new course which consists of dozens of training videos on the site, will be extremely popular when it is released in 1 week

What should a solutions architect do to minimize the anticipated server load?

A. Store the videos in Amazon ElastiCache for Redis Update the web servers to serve the videos using the ElastiCache API

B. Store the videos m Amazon Elastic File System (Amazon EFS) Create a user data script for the web servers to mount the EPS volume

C. Store the videos m an Amazon S3 bucket Create an Amazon CloudFront distribution with an origin access identity (OAI) of that S3 bucket Restrict Amazon S3 access to the OAI

D. Store the videos in an Amazon S3 bucket Create an AWS Storage Gateway file gateway to access the S3 bucket Create a user data script for the web servers to mount the file gateway.

Answer: C

37. - (Exam Topic 2)

A company has deployed a business-critical application in the AWS Good The application uses Amazon
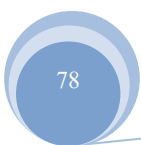
EC2 instances that run in the us-east-1 Region The application uses Amazon S3 for storage of all critical data

To meet compliance requirements the company must create a disaster recovery (DR) plan that provides the capability of a full failover to another AWS Region

What should a solutions architect recommend for this DR plan?

A. Deploy the application to multiple Availability Zones in us-east-1 Create a resource group in AWS Resource Groups Turn on automatic failover for the application to use a predefined recovery Region

B. Perform a virtual machine (VM) export by using AWS Import/Export on the existing EC2 instances Copy the exported instances to the destination Region in the event of a disaster provision new EC2 instances from the exported EC2 instances

C. Create snapshots of all Amazon Elastic Block Store (Amazon EBS) volumes that are attached to the EC2 instances in us-east-t Copy the snapshots to the destination Region In the event of a disaster provision new EC2 instances from the EBS snapshots

D. Use S3 Cross-Region Replication for the data that is stored in Amazon S3 Create an AWS CloudFormation template for the application with an S3 bucket parameter In the event of a disaster deploy the template to the destination Region and specify the local S3 bucket as the parameter

Answer: D

38. - (Exam Topic 2)

A solutions architect wants all new users to have specific complexity requirements and mandatory rotation periods tor 1AM user passwords What should the solutions architect do to accomplish this?

A. Set an overall password policy for the entire AWS account

B. Set a password policy for each IAM user in the AWS account

C. Use third-party vendor software to set password requirements

D. Attach an Amazon CloudWatch rule to the Create_newuser event to set the password with the appropriate requirements

Answer: A

39. - (Exam Topic 2)

A company previously migrated its data warehouse solution to AWS The company also has an AWS Direct
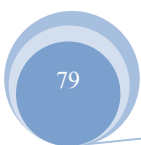
Conned connection Corporate office users query the data warehouse using a visualization tool The average size of a query returned by the data warehouse is 50 MB and each webpage sent by the visualization tool is approximately 500 KB Result sets returned by the data warehouse are not cached

Which solution provides the LOWEST data transfer egress cost for the company?

A. Host the visualization tool on premises and query the data warehouse directly over the internet

B. Host the visualization tool m the same AWS Region as the data warehouse Access it over the internet

C. Host the visualization tool on premises and query me data warehouse directly over a Direct Conned connection at a location in the same AWS Region

D. Host the visualization tool in the same AWS Region as the data warehouse and access it over a Direct Conned connection at a location in the same Region

Answer: D

40. - (Exam Topic 2)

A company provides machine learning solutions .The company's users need to download large data sets from the company's Amazon S3 bucket. These downloads often take a long lime, especially when the users are running many simulations on a subset of those datasets. Users download the datasets to Amazon EC2 instances in the same AWS Region as the S3 bucket. Multiple users typically use the same datasets at the same time.

Which solution will reduce the lime that is required to access the datasets?

A. Configure the S3 bucket lo use the S3 Standard storage class with S3 Transfer Acceleration activated.

B. Configure the S3 bucket to use the S3 Intelligent-Tiering storage class with S3 Transfer Acceleration activated.

C. Create an Amazon Elastic File System (Amazon EFS) network Tile system. Migrate the datasets by using AWS DataSync.

D. Move the datasets onto a General Purpose SSD (gp3) Amazon Elastic Block Store (Amazon EBS) volume. Attach the volume to all the EC2 instances.

E. C

Answer: E

41. - (Exam Topic 2)

A company hosts its static website content from an Amazon S3 bucket in the us-east-1 Region Content is made available through an Amazon CloudFront origin pointing to that bucket Cross-Region replication is set up to create a second copy of the bucket in the ap-southeast-1 Region Management wants a solution that provides greater availability for the website

Which combination of actions should a solutions architect take to increase availability'? (Select TWO.

A. Add both buckets to the CloudFront origin

B. Configure failover routing in Amazon Route 53

C. Create a record in Amazon Route 53 pointing to the replica bucket

D. Create an additional CloudFront origin pointing to the ap-southeast-1 bucket

E. Set up a CloudFront origin group with the us-east-1 bucket as the primary and the ap-southeast-1 bucket as the secondary

Answer: B E

42. - (Exam Topic 2)

A solutions architect is creating an application that will handle batch processing of large amounts of data The input data will be held in Amazon S3 and the output data will be stored in a different S3 bucket For processing, the application will transfer the data over the network between multiple Amazon EC2 instances What should the solutions architect do to reduce the overall data transfer costs?

A. Place ail the EC2 instances in an Auto Scaling group

B. Place all the EC2 instances in the same AWS Region

C. Place ail the EC2 instances in the same Availability Zone

D. Place all the EC2 Instances in private subnets in multiple Availability Zones

Answer: C

43. - (Exam Topic 2)

A recently created startup built a three-tier web application. The front end nas static content The application layer is based on mtcroservtces User data is stored as JSON documents that need to be accessed with low latency. The company expects regular traffic to be tow during the first year with peaks in traffic when it publicizes new features every month. The startup team needs to minimize operational overhead costs What should a solutions architect recommend to accomplish this?

A. Use Amazon S3 static website hosting to store and serve the front end Use AWS Elastic Beanstalk tor the application layer Use Amazon DynamoDB to store user data

B. Use Amazon S3 static website hosting to store and serve the front end Use Amazon Elastic Kubernetes Service (Amazon EKSJ for the application layer Use Amazon DynamoDB lo store user data

C. Use Amazon S3 static website hosting to store and serve the front end Use Amazon API Gateway and AWS Lambda function for the application layer Use Amazon DynamoDB to store user data

D. Use Amazon S3 static website hosting to store and serve the front end Use Amazon API Gateway and AWS Lambda function for the application layer Use Amazon RDS with read replicas to store user data

Answer: C

44. - (Exam Topic 2)

A solutions architect needs to ensure that API calls to Amazon DynamoDB from Amazon EC2 instances in a VPC do not traverse the internet What should the solutions architect do to accomplish this? (Select TWO.)

A. Create a route table entry for the endpoint.

B. Create a gateway endpoint for DynamoDB

C. Create a new DynamoDB table that uses the endpoint

D. Create an ENI for the endpoint in each of the subnets of the VPC

E. Create a security group entry in the default security group to provide access

Answer: A B

45. - (Exam Topic 2)

A company has a website running on Amazon EC2 Instances across two Availability Zones The company is expecting spikes in traffic on specific holidays and wants to provide a consistent user experience.

How can a solutions architect meet this requirement?

A. Use step scaling

B. Use simple scaling

C. Use lifecycle hooks

D. Use scheduled scaling

Answer: D

46. - (Exam Topic 2)

A solutions architect is designing a high performance computing (HPC) workload on Amazon EC2 The EC2

instances need to communicate to each other frequently and require network performance with low latency

and high throughput

Which EC2 configuration meets these requirements?

A. Launch the EC2 instances in a cluster placement group in one Availability Zone

B. Launch the EC2 instances in a spread placement group in one Availability Zone

C. Launch the EC2 instances in an Auto Scaling group m two Regions and peer the VPCs

D. Launch the EC2 instances in an Auto Scaling group spanning multiple Availability Zones

Answer: A

47. - (Exam Topic 2)

A company has a production web application in which users upload documents through a web interlace or a

mobile app. According to a new regulatory requirement, new documents cannot be modified or deleted after

they are stored.

What should a solutions architect do to meet this requirement?

A. Store the uploaded documents in an Amazon S3 bucket with S3 Versioning and S3 Object Lock enabled

B. Store the uploaded documents in an Amazon S3 bucket. Configure an S3 Lifecycle policy to archive the

documents periodically.

C. Store the uploaded documents in an Amazon S3 bucket with S3 Versioning enabled Configure an ACL

to restrict all access to read-only.

D. Store the uploaded documents on an Amazon Elastic File System (Amazon EFS) volume. Access the

data by mounting the volume in read-only mode.

Answer: A

48. - (Exam Topic 2)

A company has a three-tier environment on AWS that ingests sensor data from its users' devices The traffic

flows through a Network Load Balancer (NIB) then to Amazon EC2 instances for the web tier and finally to

EC2 instances for the application tier that makes database calls
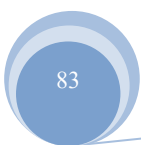
What should a solutions architect do to improve the security of data in transit to the web tier?

A. Configure a TLS listener and add the server certificate on the NLB

B. Configure AWS Shield Advanced and enable AWS WAF on the NLB

C. Change the load balancer to an Application Load Balancer and attach AWS WAF to it

D. Encrypt the Amazon Elastic Block Store (Amazon EBS) volume on the EC2 instances using AWS Key Management Service (AWS KMS)

Answer: A

49. - (Exam Topic 2)

Application developers have noticed that a production application is very slow when business reporting users run large production reports against the Amazon RDS instance backing the application The CPU and memory utilization metrics for the RDS instance do not exceed 60% while the reporting queries are running The business reporting users must be able to generate reports without affecting the application's performance.

Which action will accomplish this?

A. Increase the size of the RDS instance

B. Create a read replica and connect the application to it

C. Enable multiple Availability Zones on the RDS instance

D. Create a read replica and connect the business reports to it

Answer: D

50. - (Exam Topic 2)

A company is running a three-tier web application to process credit card payments The front-end user interface consists of static webpages The application tier can have long-runmng processes The database tier uses MySQL

The application is currently running on a single general purpose large Amazon EC2 instance A solutions architect needs to decouple the services to make the web application highly available

Which solution would provide the HIGHEST availability

A. Move static assets to Amazon CloudFront Leave the application in EC2 in an Auto Scaling group Move the database to Amazon RDS to deploy Multi-AZ
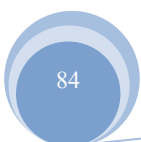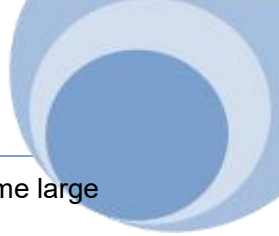
B. Move static assets and the application into a medium EC2 instance Leave the database on me large

instance Place both instances in an Auto Scaling group

C. Move static assets to Amazon S3 Move the application to AWS Lambda with the concurrency limit set

Move the database to Amazon DynamoDB with on-demand enabled

D. Move static assets to Amazon S3 Move the application to Amazon Elastic Container Service (Amazon

ECS) containers with Auto Scaling enabled Move the database to Amazon RDS to deploy Multi-AZ

Answer: D

51. - (Exam Topic 2)

A company has a Windows-based application that must be migrated to AWS. The application requires the

use of a shared Windows Me system attached to multiple Amazon EC2 Windows instances that are

deployed across multiple Availability Zones

What should a solutions architect do to meet this requirement?

A. Configure AWS Storage Gateway in volume gateway mode Mount the volume to each Windows instance

B. Configure Amazon FSx for Windows File Server Mount the Amazon FSx file system to each Windows

instance

C. Configure a file system by using Amazon Elastic File System (Amazon EFS) Mount the EPS file system

to each Windows instance

D. Configure an Amazon Elastic Block Store (Amazon EBS) volume with the required size Attach each EC2

instance to the volume Mount the file system within the volume to each Windows instance

Answer: B

52. - (Exam Topic 2)

A solutions architect is deploying a distributed database on multiple Amazon EC2 instances. The database

stores all data on multiple instances so it can withstand the loss of an instance. The database requires

block storage with latency and throughput to support several million transactions per second per server.

Which storage solution should the solutions architect use?

A. Amazon EBS

B. Amazon EC2 instance store

C. Amazon EFS

D. Amazon S3

Answer: B

53. - (Exam Topic 2)

A company maintains about 300 TB in Amazon S3 Standard storage month after month The S3 objects are each typically around 50 GB in size and are frequently replaced with multipart uploads by their global application The number and size of S3 objects remain constant but the company's S3 storage costs are increasing each month

How should a solutions architect reduce costs in this situation?

A. Switch from multipart uploads to Amazon S3 Transfer Acceleration

B. Enable an S3 Lifecycle policy that deletes incomplete multipart uploads

C. Configure S3 inventory to prevent objects from being archived too quickly

D. Configure Amazon CloudFront to reduce the number of objects stored in Amazon S3

Answer: B

54. - (Exam Topic 2)

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 wail time

D. Use the ChangeMessageVisibility APi call to increase the visibility timeout

Answer: D

55. - (Exam Topic 2)

A company build an application that gives users the ability to check in to places they visit, rank the places, and add reviews about their experiences. The application is successful and is experiencing a rapid increase
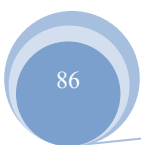
in the number of users every month.

The company uses a single Amazon RDS for MySQL DB instance for its database. The company fears that the database might not be able to handle the load for the upcoming month because the DB instance has activated alarms that are related to resource exhaustion.

A solutions architect must design a solution that prevents service interruptions at the database layer. The solutions architect also must minimize any changes to code.

Which solution meets these requirements?

A. Create RDS read replicas. Redirect read-only traffic to the read replica endpoints

B. Create an Amazon EMR cluster. Migrate the data to a Hadoop Distributed File System (HDFS) with a replication factor of 3.

C. Create an Amazon ElastiCache cluster. Redirect all read-only traffic to the cluster. Set up the cluster to be deployed in three Availability Zones

D. Turn on the Multi-AZ feature for the DB instance. Redirect read-only traffic to the standby replica endpoint.

Answer: A

56. - (Exam Topic 2)

A company is building a new furniture inventory application The company has deployed the application on a fleet of Amazon EC2 instances across multiple Availability Zones The EC2 instances run behind an Application Load Balancer (ALB) in their VPC

A solutions architect has observed that incoming traffic seems to favor one EC2 instance resulting in latency for some requests

What should the solutions architect do to resolve this issue?

A. Disable session affinity (sticky sessions) on the ALB

B. Replace the ALB with a Network Load Balancer

C. increase the number of EC2 instances in each Availability Zone

D. Adjust the frequency of the health checks on the ALB's target group

Answer: B

57. - (Exam Topic 2)
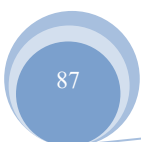
A company needs to retain its AWS CloudTrail logs (or 3 years. The company is enforcing CloudTrail across a set of AWS accounts by using AWS Organizations from the parent account. The CloudTrail target S3 bucket is configured with S3 Versioning enabled An S3 Lifecycle policy is in place to delete current objects after 3 years.

After the fourth year of use of the S3 bucket, the S3 bucket metrics show that the number of objects has continued to rise. However, the number of new CloudTrail logs that are delivered to the S3 bucket has remained consistent.

Which solution will delete objects that are older than 3 years in the MOST cost-effective manner?

A. Configure the organization's centralized CloudTrail trail to expire objects after 3 years.

B. Configure the S3 Lifecycle policy to delete previous versions as well as current versions.

C. Create an AWS Lambda function to enumerate and delete objects from Amazon S3 that are older than 3 years.

D. Configure the parent account as the owner of all objects that are delivered to the S3 bucket.

Answer: B

58. - (Exam Topic 2)

A user wants to list the 1AM role that Is attached to their Amazon EC2 Instance. The user has login access to the EC2 instance but does not have 1AM permissions What should a solutions architect do to retrieve this information?

A)

```
Run the following EC2 command
curl http://169.254.169.254/latest/meta-data/iam/info
```
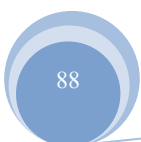
B)

```
Run the following EC2 command
curl http://169.254.169.254/latest/user-data/iam/info
```

C)

```
Run the following EC2 command
http://169.254.169.254/latest/dynamic/instance-identity/
```

D)

```
Run the following AWS CLI command
aws iam get-instance-profile --instance-profile-name ExampleInstanceProfile
```

A. Option A

B. Option B

C. Option C

D. Option D

Answer: A

59. - (Exam Topic 2)

A company has recently updated its internal security standards The company must now ensure all Amazon

S3 buckets and Amazon Elastic Block Store (Amazon EBS) volumes are encrypted with keys created and

periodically rotated by internal security specialists The company is looking for a native, software-based

AWS service to accomplish this goal

What should a solutions architect recommend as a solution?

A. Use AWS Secrets Manager with customer master keys (CMKs) to store master key material and apply a

routine to create a new CMK periodically and replace it m AWS Secrets Manager

B. Use AWS Key Management Service (AWS KMS) with customer master keys (CMKs) to store master key

material and apply a routine to re-create a new key periodically and replace it in AWS KMS.

C. Use an AWS CloudHSM cluster with customer master keys (CMKs) to store master key material and

apply a routine to re-create a new key periodically and replace it in the CloudHSM cluster nodes

D. Use AWS Systems Manager Parameter Store with customer master keys (CMKs) to store master key

material and apply a routine to re-create a new key periodically and replace it in the Parameter Store

Answer: B

60. - (Exam Topic 2)

A company is building a web application that serves a content management system The content

management system runs on Amazon EC2 instances behind an Application Load Balancer (ALB) The EC2

instances run in an Auto Scaling group across multiple Availability Zones Users are constantly adding and

updating files blogs and other website assets in the content management system

A solutions architect must implement a solution in which all the EC2 instances share up-to-date website

content with the least possible lag time

Which solution meets these requirements"

A. Update the EC2 user data in the Auto Scaling group lifecycle policy to copy the website assets from the EC2 instance that was launched most recently Configure the ALB to make changes to the website assets only m the newest EC2 instance

B. Copy the website assets to an Amazon Elastic File System (Amazon EFS) file system Configure each EC2 instance to mount the EPS file system locally Configure the website hosting application to reference the website assets that are stored in the EFS file system

C. Copy the website assets to an Amazon S3 bucket Ensure that each EC2 instance downloads the website assets from the S3 bucket to the attacneo Amazon Elastic Block Store (Amazon EBS) volume Run the S3 sync command once each hour to keep files up to date

D. Restore an Amazon Elastic Block Store (Amazon EBS) snapshot with the website assets Attach the EBS snapshot as a secondary EBS volume when a new EC2 instance is launched Configure the website hosting application to reference the website assets that are stored in the secondary EBS volume

Answer: A

61. - (Exam Topic 2)

A security learn needs to enforce the rotation of all 1AM users' access keys every 90 days If an access key Is found to be older, the key must be made inactive and removed A solutions architect must create a solution that will check for and remediate any keys older than 90 days

Which solution meets these requirements with the LEAST operational effort?

A. Create an AWS Config rule to check for the key age Configure the AWS Config rule to run an AWS Batch job to remove the key

B. Create an Amazon EventBridge (Amazon CloudWatch Events) rule to check for the key age Configure the rule to run an AWS Batch job to remove the key

C. Create an AWS Config rule to check for the key age Define an Amazon EventBridge (Amazon CloudWatch Events) rule to schedule an AWS Lambda function to remove the key

D. Create an Amazon EventBridge (Amazon CloudWatch Events) rule to check for the key age Define an EventBridge (CloudWatch Events) rule to run an AWS Batch job to remove the key

Answer: C

62. - (Exam Topic 2)
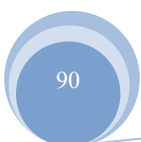
A company runs an application using Amazon ECS. The application creates resized versions of an original

Image and then makes Amazon S3 API calls to store the resized images in Amazon S3

How can a solutions architect ensure that the application has permission to access Amazon S3?

A. Update the S3 role in AWS 1AM to allow read/write access from Amazon ECS and then relaunch the

container.

B. Create an 1AM role with S3 permissions and then specify that role as the taskRoleArn in the task

definition.

C. Create a security group that allows access from Amazon ECS to Amazon S3 and update the launch

configuration used by the ECS cluster.

D. Create an 1AM user with S3 permissions, and then relaunch the Amazon EC2 instances for the ECS

cluster while logged in as this account.

Answer: B

63. - (Exam Topic 2)

A weather forecasting company needs to process hundreds of gigabytes of data with sub-mill (second

latency. The company has a high performance computing (HPC) environment in its data center and wants

to expand its forecasting capabilities

A solutions architect must identify a highly available cloud storage solution that can handle large amounts

of sustained throughput Files that are stored in the solution should be accessible to thousands of compute

instances that will simultaneously access and process the entire dataset What should the solutions

architect do to meet these requirements?

A. Use Amazon FSx for Lustre scratch file systems.

B. Use Amazon FSx for Lustre persistent file systems

C. Use Amazon Elastic File System (Amazon EFS) with Bursting Throughput mode

D. Use Amazon Elastic File System (Amazon EFS) with Provisioned Throughput mode

Answer: B

64. - (Exam Topic 2)

A company runs an AWS Lambda function in private subnets in a VPC The subnets have a default route to

the internet through an Amazon EC2 NAT instance The Lambda function processes input data and saves

its output as an object to Amazon S3

intermittently the Lambda function times out while trying to upload the object because of saturated traffic on

the NAT instance's network The company wants to access Amazon S3 without traversing the internet

Which solution will meet these requirements'

A. Replace the fcC2 NAT instance with an AWS managed NAT gateway

B. Increase the size of the EC2 NAT instance in the VPC to a network optimized instance type

C. Provision a gateway endpoint for Amazon S3 in the VPC Update the route tables of the subnets

accordingly

D. Provision a transit gateway Place transit gateway attachments in the private subnets where the Lambda

function is running

Answer: C

65. - (Exam Topic 2)

An application uses an Amazon RDS MySQL DB instance The RDS database is becoming low on disk

space A solutions architect wants to increase the disk space without downtime Which solution meets these

requirements with the LEAST amount of effort?

A. Enable storage autoscaling in RDS

B. Increase the RDS database instance size

C. Change the RDS database instance storage type to Provisioned IOPS

D. Back up the RDS database increase the storage capacity restore the database and stop the previous

instance

Answer: A

66. - (Exam Topic 2)

A solutions architect is optimizing a website for an upcoming musical event Videos of the performances will

be streamed in real time and then will be available on demand The event is

expected to attract a global online audience

Which service will improve the performance of both the real-time and on-demand streaming?

A. Amazon CloudFront

B. AWS Global Accelerator

C. Amazon Route 53

D. Amazon S3 Transfer Acceleration

Answer: A

67. - (Exam Topic 2)

A company hosts more than 300 global websites and applications. The company requires a platform to analyze more than 30 TB of clickstream data each day.

What should a solutions architect do to transmit and process the clickstream data?

A. Design an AWS Data Pipeline to archive the data to an Amazon S3 bucket and run an Amazon EMR duster with the data to generate analytics

B. Create an Auto Scaling group of Amazon EC2 instances to process the data and send it to an Amazon S3 data lake for Amazon Redshift to use tor analysis

C. Cache the data to Amazon CloudFron: Store the data in an Amazon S3 bucket When an object is added to the S3 bucket, run an AWS Lambda function to process the data tor analysis.

D. Collect the data from Amazon Kinesis Data Streams. Use Amazon Kinesis Data Firehose to transmit the data to an Amazon S3 data lake Load the data in Amazon Redshift for analysis

Answer: D

68. - (Exam Topic 2)

A company runs a web-based portal that provides users with global breaking news local alerts, and weather updates The portal delivers each user a personalized view by using a mixture of static and dynamic content Content is served over HTTPS through an API server running on an Amazon EC2 instance behind an Application Load Balancer (ALB) The company wants the portal to provide this content to its users across the world as quickly as possible

How should a solutions architect design the application to ensure the LEAST amount of latency for all users?

A. Deploy the application stack in a single AWS Region Use Amazon CloudFront to serve all static and dynamic content by specifying the ALB as an origin

B. Deploy the application stack in two AWS Regions Use an Amazon Route 53 latency routing policy to serve all content from the ALB in the closest Region

C. Deploy the application stack in a single AWS Region Use Amazon CloudFront to serve the static content

Serve the dynamic content directly from the ALB

D. Deploy the application stack in two AWS Regions Use an Amazon Route 53 geolocation routing policy to

serve all content from the ALB in the closest Region

Answer: A

69. - (Exam Topic 2)

A solutions architect must migrate a Windows Internet Information Services (IIS) web application to AWS

The application currently relies on a file share hosted in the user's on-premises network-attached storage

(NAS) The solutions architect has proposed migrating the MS web servers to Amazon EC2 instances in

multiple Availability Zones that are connected to the storage solution, and configuring an Elastic Load

Balancer attached to the instances

Which replacement to the on-premises file share is MOST resilient and durable?

A. Migrate the file share to Amazon RDS

B. Migrate the file share to AWS Storage Gateway

C. Migrate the file share to Amazon FSx for Windows File Server

D. Migrate the file share to Amazon Elastic File System (Amazon EFS)

Answer: C

70. - (Exam Topic 2)

An application runs on Amazon EC2 instances in private subnets. The application needs to access an

Amazon DynamoDB table. What is me MOST secure way to access the table while ensuring that the traffic

does not leave the AWS network?

A. Use a VPC endpoint for DynamoDB

B. Use a NAT gateway in a public subnet

C. Use a NAT instance in a private subnet

D. Use the internet gateway attached to the VPC

Answer: A

71. - (Exam Topic 2)
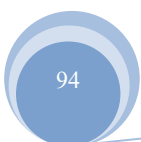
A solutions architect is designing the cloud architecture for a company that needs to host hundreds of machine learning models for its users Dunng startup, the models need to load up to 10 GB of data from Amazon S3 into memory, out they do not need disk access Most of the models are used sporadically but the users expect all of them to be highly available and accessible with low latency.

Which solution meets the requirements and is MOST cost-effective1?

A. Deploy models as AWS Lambda functions behind an Amazon API Gateway for each model

B. Deploy models as Amazon Elastic Container Service (Amazon ECS) services behind an Application Load Balancer for each model

C. Deploy models as AWS Lambda functions behind a single Amazon API Gateway with path-based routing where one path corresponds to each model

D. Deploy models as Amazon Elastic Container Service (Amazon ECS) services behind a single Application Load Balancer with path-based routing where one path corresponds to each model

Answer: D

72. - (Exam Topic 2)

A company is planning to migrate a legacy application to AWS. The application currently uses NFS to communicate to an on-premises storage solution to store application data. The application cannot be modified to use any other communication protocols other than NFS for this purpose

Which storage solution should a solutions architect recommend for use after the migration?

A. AWS DataSync

B. Amazon Elastic Block Store (Amazon EBS>

C. Amazon Elastic File System (Amazon EFS)

D. Amazon EMR File System (Amazon EMRFS)

Answer: C

73. - (Exam Topic 2)

A company has a large Microsoft SharePoint deployment running on-premises that requires Microsoft Windows shared file storage The company wants to migrate this workload to the AWS Cloud and is considering various storage options The storage solution must be highly available and integrated with Active Directory for access control

Which solution will satisfy these requirements?

A. Configure Amazon EFS storage and set the Active Directory domain for authentication

B. Create an SMB Me share on an AWS Storage Gateway tile gateway in two Availability Zones

C. Create an Amazon S3 bucket and configure Microsoft Windows Server to mount it as a volume

D. Create an Amazon FSx for Windows File Server file system on AWS and set the Active Directory domain for authentication

Answer: D

74. - (Exam Topic 2)

An airline that is based in the United States provides services for routes in North America and Europe. The airline is developing a new read-intensive application that customers can use to find flights on either continent.

The application requires strong read consistency and needs scalable database capacity to accommodate changes in user demand. The airline needs the database service to synchronize with the least possible latency between the two continents and to provide a simple failover mechanism to a second AWS Region.

Which solution will meet these requirements?

A. Deploy Microsoft SQL Server on Amazon EC2 instances in a Region in North America. Use SOL Server binary log replication on an EC2 instance in a Region in Europe.

B. Create an Amazon DynamoDB global table Add a Region from North America and a Region from Europe to the table. Query data with strongly consistent reads.

C. Use an Amazon Aurora MySQL global database. Deploy the read-write node in a Region in North America, and deploy read-only endpoints in Regions in North America and Europe. Query data with global read consistency.

D. Create a subscriber application that uses Amazon Kinesis Data Steams for an Amazon Redshift cluster in a Region in North America. Create a second subscriber application for the Amazon Redshift cluster in a Region in Europe. Process all database modifications through Kinesis Data Streams.

Answer: C

75. - (Exam Topic 2)

A company is running a multi-tier web application on AWS. The application runs its database on Amazon
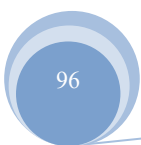
Aurora MySQL. The application and database tiers are in the us-easily Region.

A database administrator who monitors the Aurora DB cluster finds that an intermittent increase in read traffic is creating high CPU utilization on the read replica. The result is increased read latency for the application. The memory and disk utilization of the DB instance are stable throughout the event of increased latency.

What should a solutions architect do to improve the read scalability?

A. Reboot the DB cluster

B. Create a cross-Region read replica

C. Configure Aurora Auto Scaling for the read replica

D. Increase the provisioned read IOPS for the DB instance

Answer: B

76. - (Exam Topic 2)

A company has an automobile sales website that stores its listings m a database on Amazon RDS When an automobile is sold the listing needs to be removed from the website and the data must be sent to multiple target systems.

Which design should a solutions architect recommend?

A. Create an AWS Lambda function triggered when the database on Amazon RDS is updated to send the information to an Amazon Simple Queue Service (Amazon SQS> queue for the targets to consume

B. Create an AWS Lambda function triggered when the database on Amazon RDS is updated to send the information to an Amazon Simple Queue Service (Amazon SQS) FIFO queue for the targets to consume

C. Subscribe to an RDS event notification and send an Amazon Simple Queue Service (Amazon SQS) queue fanned out to multiple Amazon Simple Notification Service (Amazon SNS) topics Use AWS Lambda functions to update the targets

D. Subscribe to an RDS event notification and send an Amazon Simple Notification Service (Amazon SNS) topic fanned out to multiple Amazon Simple Queue Service (Amazon SQS) queues Use AWS Lambda functions to update the targets

Answer: D

77. - (Exam Topic 2)
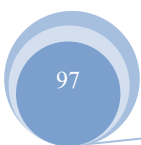
A company has an on-premises application that collects data and stores it to an on-premises NFS server

The company recently set up a 10 Gbps AWS Direct Connect connection The

company is running out of storage capacity on premises. The company needs to migrate the application

data from on premises to the AWS Cloud while maintaining low-latency access to the data from the

on-premises application

What should a solutions architect do to meet these requirements?

A. Deploy AWS Storage Gateway for the application data and use the file gateway to store the data in

Amazon S3 Connect the on-premises application servers to the file gateway using NFS

B. Attach an Amazon Elastic File System (Amazon EFS) file system to the NFS server and copy the

application data to the EFS file system. Then connect the on-premises application to Amazon EFS

C. Configure AWS Storage Gateway as a volume gateway Make the application data available to the

on-premises application from the NFS server and with Amazon Elastic Block Store {Amazon EBS)

snapshots

D. Create an AWS DataSync agent with the NFS server as the source location and an Amazon Elastic File

System (Amazon EFS) file system as the destination for application data transfer Connect the

on-premises application to the EFS file system

Answer: D

78. - (Exam Topic 2)

A company has established a new AWS account. The account is newly provisioned and no changes have

been made to the default settings The company is concerned about the security of the AWS account root

user

What should be done to secure the root user?

A. Create 1AM users for daily administrative tasks Disable the root user

B. Create 1AM users for daily administrative tasks Enable multi-factor authentication on the root user

C. Generate an access key for the root user Use the access key for daily administration tasks instead of the

AWS Management Console

D. Provide the root user credentials to the most senior solutions architect Have the solutions architect use

the root user for daily administration tasks

Answer: B
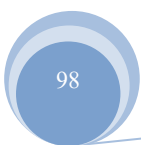
79. - (Exam Topic 2)

A solutions architect plans to convert a company's monolithic web application into a multi-tier application

The company wants to avoid managing its own Infrastructure The minimum requirements for the web

application are high availability, scalability, and regional low latency during peak hours The solution should

also store and retrieve data with millisecond latency using the application's API.

Which solution meets these requirements?

A. Use AWS Fargate to host the web application with backend Amazon RDS Multi-AZ DB instances

B. Use Amazon API Gateway with an edge-optimized API endpoint. AWS Lambda for compute, and

Amazon DynamoDB as the data store

C. Use an Amazon Route 53 routing policy with geolocation that points to an Amazon S3 bucket with static

website hosting and Amazon DynamoDB as the data store

D. Use an Amazon CloudFront distribution that points to an Elastic Load Balancer with an Amazon EC2

Auto Scaling group, along with Amazon RDS Multi-AZ DB instances

Answer: C

80. - (Exam Topic 2)

A company recently announced the deployment of its retail website to a global audience. The website runs

on multiple Amazon EC2 instances behind an Elastic Load Balancer. The instances run in an Auto Scaling

group across multiple Availability Zones.

The company wants to provide its customers with different versions of content based on the devices that

the customers use to access the website.

Which combination of actions should a solutions architect take to meet these requirements7 (Select TWO.)

A. Configure Amazon CloudFront to cache multiple versions of the content.

B. Configure a host header in a Network Load Balancer to forward traffic to different instances.

C. Configure a Lambda@Edge function to send specific objects to users based on the User-Agent header.

D. Configure AWS Global Accelerator. Forward requests to a Network Load Balancer (NLB). Configure the

NLB to set up host-based routing to different EC2 instances.

E. Configure AWS Global Accelerator. Forward requests to a Network Load Balancer (NLB). Configure the

NLB to set up path-based routing to different EC2 instances.

Answer: B D

81. - (Exam Topic 2)

A company is migrating Us applications to AWS Currently applications that run on premises generate hundreds of terabytes of data that is stored on a shared file system The company Is running an analytics application in the cloud that runs hourly to generate Insights from this data

The company needs a solution to handle the ongoing data transfer between the on-premises shared file system and Amazon S3 The solution also must be able to handle occasional interruptions m internet connectivity

Which solution should the company use for the data transfer to meet these requirements?

A. AWS DataSync

B. AWS Migration Hub

C. AWS Snowball Edge Storage Optimized

D. AWS Transfer for SFTP

Answer: A

82. - (Exam Topic 2)

A solutions architect is designing a multi-Region disaster recovery solution (or an application that will provide public API access The application will use Amazon EC2 instances with a userdata script to load application code and an Amazon RDS for MySQL database The Recovery Time Objective (RTO) is 3 hours and the Recovery Point Objective (RPO) is 24 hours

Which architecture would meet these requirements at the LOWEST cost/?

A. Use an Application Load Balancer for Region failover Deploy new EC2 instances with the userdata script Deploy separate RDS instances in each Region

B. Use Amazon Route 53 for Region failover Deploy new EC2 instances with the userdata script Create a read replica of the RDS instance in a backup Region

C. Use Amazon API Gateway tor the public APIs and Region failover Deploy new EC2 instances with the userdata script Create a MySQL read replica of the RDS instance in a backup Region

D. Use Amazon Route 53 for Region failover Deploy new EC2 instances with the userdata script for APIs, and create a snapshot of the RDS instance daily for a backup Replicate the snapshot to a backup Region

Answer: C

83. - (Exam Topic 2)

An ecommerce company is running a multi-tier application on AWS. The front-end and backend tiers run on Amazon EC2, and the database runs on Amazon RDS for MYSQL. The backend tier communities with the RDS instance. There are frequent calls to return identical database from the database that are causing performance slowdowns.

Which action should be taken to improve the performance of the backend?

A. Implement Amazon SNS to store the database calls.

B. Implement Amazon ElasticCache to cache the large database.

C. Implement an RDS for MySQL read replica to cache database calls.

D. Implement Amazon Kinesis Data Firehose to stream the calls to the database.

Answer: B

84. - (Exam Topic 2)

A company is developing a real-time multiplayer game that uses UDP for communications between the client and servers In an Auto Scaling group Spikes in demand are anticipated during the day, so the game server platform must adapt accordingly Developers want to store gamer scores and other non-relational data in a database solution that will scale without intervention

Which solution should a solutions architect recommend?

A. Use Amazon Route 53 for traffic distribution and Amazon Aurora Serverless for data storage

B. Use a Network Load Balancer for traffic distribution and Amazon DynamoDB on-demand for data storage

C. Use a Network Load Balancer for traffic distribution and Amazon Aurora Global Database for data storage

D. Use an Application Load Balancer for traffic distribution and Amazon DynamoDB global tables for data storage

Answer: B

85. - (Exam Topic 2)
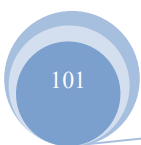
A company has a Microsoft NET application that runs on an on-premises Windows Server. The application stores data by using an Oracle Database Standard Edition server. The company is planning a migration to AWS and wants to minimize development changes while moving the application. The AWS application environment should be highly available.

Which combination of actions should the company take to meet these requirements? (Select TWO.)

A. Refactor the application as serverless with AWS Lambda functions running NET Core.

B. Rehost the application in AWS Elastic Beanstalk with the .NET platform in a Multi-AZ deployment.

C. Replatform the application to run on Amazon EC2 with the Amazon Linus Amazon Machine Image (AMI).

D. Use AWS Database Migration Service (AWS DMS) to migrate from the Oracle database to Amazon DynamoDB in a Multi-AZ deployment.

E. Use AWS Database Migration Service (AWS DMS) to migrate from the Oracle database to Oracle on Amazon RDS in a Multi-AZ deployment.

Answer: A D

86. - (Exam Topic 2)

A media company is evaluating the possibility ot moving rts systems to the AWS Cloud The company needs at least 10 TB of storage with the maximum possible I/O performance for video processing. 300 TB of very durable storage for storing media content, and 900 TB of storage to meet requirements for archival media that is not in use anymore

Which set of services should a solutions architect recommend to meet these requirements?

A. Amazon EBS for maximum performance, Amazon S3 for durable data storage, and Amazon S3 Glacier for archival storage

B. Amazon EBS for maximum performance, Amazon EFS for durable data storage and Amazon S3 Glacier for archival storage

C. Amazon EC2 instance store for maximum performance. Amazon EFS for durable data storage and Amazon S3 for archival storage

D. Amazon EC2 Instance store for maximum performance. Amazon S3 for durable data storage, and Amazon S3 Glacier for archival storage

Answer: A

87. - (Exam Topic 2)

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 D8 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

88. - (Exam Topic 2)

A company wants to host a web application on AWS that will communicate to a database within a VPC. The application should be highly available.

What should a solutions architect recommend?

A. Create two Amazon EC2 instances to host the web servers behind a load balancer and then deploy the database on a large instance

B. Deploy a load balancer in multiple Availability Zones with an Auto Scaling group for the web servers and then deploy Amazon RDS in multiple Availability Zones

C. Deploy a load balancer in the public subnet with an Auto Scaling group for the web servers, and then deploy the database on an Amazon EC2 instance in the private subnet

D. Deploy two web servers with an Auto Scaling group, configure a domain that points to the two web servers, and then deploy a database architecture in multiple Availability Zones

Answer: B

89. - (Exam Topic 2)

A company has multiple AWS accounts for various departments. One of the departments wants to share an Amazon S3 bucket with all other departments. Which solution will require the LEAST amount of effort?

A. Enable cross-account S3 replication for the bucket
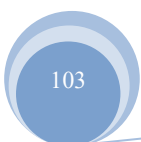
B. Create a pre-signed URL for the bucket and share it with other departments

C. Set the S3 bucket policy to allow cross-account access to other departments

D. Create 1AM users for each of the departments and configure a read-only 1AM policy

Answer: C

90. - (Exam Topic 2)

A company is building a media sharing application and decides to use Amazon S3 for storage When a

media file is uploaded, the company starts a multi-step process to create thumbnails identity objects in the

images transcode videos into standard formats and resolutions and extract and store the metadata to an

Amazon DynamoDB table The metadata is used for searching and navigation

The amount of traffic is variable The solution must be able to scale to handle spikes in load without

unnecessary expenses

What should a solutions architect recommend to support this workload"

A. Build the processing into the website or mobile app used to upload the content to Amazon S3 Save the

required data to the DynamoDB table when the objects are uploaded

B. Trigger AWS Step Functions when an object is stored in the S3 bucket Have the Step Functions perform

the steps needed to process the object and then write the metadata to the DynamoDB table

C. Trigger an AWS Lambda function when an object is stored in the S3 bucket Have the Lambda function

start AWS Batch to perform the steps to process the object Place the object data m the DynamoDB table

when complete

D. Trigger an AWS Lambda function to store an initial entry in the DynamoDB table when an object is

uploaded to Amazon S3 Use a program running on an Amazon EC2 instance in an Auto Scaling group to

poll the index for unprocessed items, and use the program to perform the processing

Answer: B

91. - (Exam Topic 2)

A company has a web application hosted over 10 Amazon EC2 instances with traffic directed by Amazon

Route 53 The company occasionally experiences a timeout error when attempting to browse the application

The networking team finds that some DNS queries return IP addresses of unhealthy instances resulting in

the timeout error

What should a solutions architect implement to overcome these timeout errors?

A. Create a Route 53 simple routing policy record for each EC2 instance Associate a health check with each record

B. Create a Route 53 failover routing policy record for each EC2 instance Associate a hearth check with each record

C. Create an Amazon CloudFront distribution with EC2 instances as its origin Associate a health check with the EC2 instances

D. Create an Application Load Balancer (ALB) with a health check in front of the EC2 instances Route to the ALB from Route 53

Answer: B

92. - (Exam Topic 2)

A company has developed a new content-sharing application that runs on Amazon Elastic Container Service (Amazon ECS). The application runs on Amazon Linux Docker tasks that use the Amazon EC2 launch type. The application requires a storage solution that has the following characteristics:

• Accessibility (or multiple ECS tasks through bind mounts

• Resiliency across Availability Zones

• Burslable throughput of up to 3 Gbps

• Ability to be scaled up over time

Which storage solution meets these requirements?

A. Launch an Amazon FSx for Windows File Server Multi-AZ instance. Configure the ECS task definitions to mount the Amazon FSx instance volume at launch.

B. Launch an Amazon Elastic File System (Amazon EFS) instance. Configure the ECS task definitions to mount the EFS Instance volume at launch.

C. Create a Provisioned IOPS SSD (io2) Amazon Elastic Block Store (Amazon EBS) volume with Multi-Attach set to enabled. Attach the EBS volume to the ECS EC2 instance Configure ECS task definitions to mount the EBS instance volume at launch.

D. Launch an EC2 instance with several Provisioned IOPS SSD (k>2) Amazon Elastic Block Store (Amazon EBS) volumes attached m a RAID 0 configuration. Configure the EC2 instance as an NFS storage server. Configure ECS task definitions to mount the volumes at launch.

Answer: B

93. - (Exam Topic 2)

A startup company is using me AWS Cloud to develop a traffic control monitoring system for a large city

The system must be highly available and must provide near-real-time results for residents and city officials even during peak events

Gigabytes of data will come in daily from loT devices that run at intersections and freeway ramps across the city The system must process the data sequentially to provide the correct timeline However results need to show only what has happened in the last 24 hours.

Which solution will meet these requirements MOST cost-effectively?

A. Deploy Amazon Kinesis Data Firehose to accept incoming data from the loT devices and write the data to Amazon S3 Build a web dashboard to display the data from the last 24 hours

B. Deploy an Amazon API Gateway API endpoint and an AWS Lambda function to process incoming data from the loT devices and store the data in Amazon DynamoDB Build a web dashboard to display the data from the last 24 hours

C. Deploy an Amazon API Gateway API endpoint and an Amazon Simple Notification Service (Amazon SNS) tope to process incoming data from the loT devices Write the data to Amazon Redshift Build a web dashboard to display the data from the last 24 hours

D. Deploy an Amazon Simple Queue Service (Amazon SOS) FIFO queue and an AWS Lambda function to process incoming data from the loT devices and store the data in an Amazon RDS DB instance Build a web dashboard to display the data from the last 24 hours

Answer: D

94. - (Exam Topic 2)

A solution architect is creating a new Amazon CloudFront distribution for an application Some of Ine information submitted by users is sensitive. The application uses HTTPS but needs another layer" of security The sensitive information should be protected throughout the entire application stack end access to the information should be restricted to certain applications

Which action should the solutions architect take?

A. Configure a CloudFront signed URL
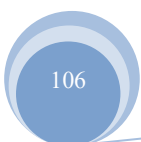
B. Configure a CloudFront signed cookie.

C. Configure a CloudFront field-level encryption profile

D. Configure CloudFront and set the Origin Protocol Policy setting to HTTPS Only for the Viewer Protocol

Policy

Answer: C

95. - (Exam Topic 2)

A company has an on-premises data center that is running out of storage capacity. The company wants to

migrate its storage infrastructure to AWS while minimizing bandwidth costs. The solution must allow for

immediate retrieval of data at no additional cost.

How can these requirements be met?

A. Deploy Amazon S3 Glacier Vault and enable expedited Enable provisioned retrieved capacity for the

workload.

B. Deploy AWS Storage Gateway using cached volumes. Use Storage GATEWAY store data in Amazon

retaining copies of frequently accessed data subnets locally.

C. Deploy AWS Storage gateway using stored volume to store data locally Use Storage gateway

asynchronously back up point-in-time snapshots of the data Amazon S3.

D. Deploy AWS Direct Connects to connect with on-premises data center. Configure AWS Storage

gateway to store data locally use storage gateway to asynchronously back up point-in-time snapshot of

data Amazon S3.

Answer: C

96. - (Exam Topic 2)

A company has enabled AWS CloudTrail logs to deliver log files to an Amazon S3 bucket for each of its

developer accounts. The company has created a central AWS account for streamlining management and

audit reviews An internal auditor needs to access the CloudTrail logs yet access needs to be restricted for

all developer account users The solution must be secure and optimized

How should a solutions architect meet these requirements'?

A. Configure an AWS Lambda function m each developer account to copy the log files to the central

account Create an 1AM role in the central account for the auditor Attach an 1AM policy providing read-only

permissions to the bucket

B. Configure CloudTrail from each developer account to deliver the log files to an S3 bucket m the central account Create an 1AM user in the central account for the auditor Attach an 1AM policy providing full permissions to the bucket

C. Configure CloudTrail from each developer account to deliver the log files to an S3 bucket in the central account Create an 1AM role in the central account for the auditor Attach an I AM policy providing read-only permissions to the bucket

D. Configure an AWS Lambda function in the central account to copy the log files from the S3 bucket m each developer account Create an 1AM user m the central account for the auditor Attach an 1AM policy providing full permissions to the bucket

Answer: C

97. - (Exam Topic 2)

A company has an application that ingests incoming messages Dozens of other applications and microservices then quickly consume these messages The number of messages vanes drastically and sometimes increases suddenly to 100 000 each second. The company wants to decouple the solution and increase scalability.

Which solution meets these requirements?

A. Persist the messages to Amazon Kinesis Data Analytics Configure the consumer applications to read and process the messages

B. Deploy the ingestion application on Amazon EC2 instances m an Auto Scaling group to scale the number of EC2 instances based on CPU metrics

C. Write the messages to Amazon Kinesis Data Streams with a single shard Use an AWS Lambda function to preprocess messages and store them in Amazon DynamoDB Configure the consumer applications to read from DynamoDB to process the messages

D. Publish the messages to an Amazon Simple Notification Service (Amazon SNS) topic with multiple Amazon Simple Queue Service (Amazon SQS) subscriptions Configure the consumer applications to process the messages from the queues

Answer: D

98. - (Exam Topic 2)

A company has an Amazon S3 bucket that contains mission-critical data. The company wants to ensure this data is protected from accidental deletion. The data should still be accessible, and a user should be able to delete the data internationally.

Which combination of steps should a solutions architect take to accomplish this? (Select 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: A B

99. - (Exam Topic 2)

A developer is creating an AWS Lambda function to perform dynamic updates to a database when an item is added to an Amazon Simple Queue Service (Amazon SOS) queue A solutions architect must recommend a solution that tracks any usage of database credentials in AWS CloudTrail. The solution also must provide auditing capabilities.

Which solution will meet these requirements?

A. Store the encrypted credentials in a Lambda environment variable

B. Create an Amazon DynamoDB table to store the credentials Encrypt the table

C. Store the credentials as a secure string in AWS Systems Manager Parameter Store

D. Use an AWS Key Management Service (AWS KMS) key store to store the credentials

Answer: D
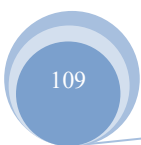

100. - (Exam Topic 2)

A company plans to store sensitive user data on Amazon S3 internal security compliance requirement mandate encryption of data before secured it to Amazon S3.

What should a solutions architect recommend to safely these requirements?

A. Server-side encryption with customer-provided encryption keys.

B. Client-side encryption with Amazon S3 managed encryption keys.

C. Service-side encryption with keys stored in AWS Management Service (AWS KMS)

D. Server-side encryption with a master stored in AWS Management Service (AWS KMS)

Answer: D

101. - (Exam Topic 2)

A company wants lo share data that is collected from sell-driving cars with the automobile community. The data will be made available (rom within an Amazon S3 bucket. The company wants to minimize its cost of making this data available to other AWS accounts.

What should a solutions architect do to accomplish this goal?

A. Create an S3 VPC endpoint for the bucket.

B. Configure the S3 bucket to be a Requester Pays bucket.

C. Create an Amazon CloudFront distribution in front of the S3 bucket.

D. Require that the fries be accessible only with the use of the BitTorrent protocol.

Answer: A

102. - (Exam Topic 2)

A company sells datasets to customers who do research in artificial intelligence and machine learning (AI/ML) The datasets are large, formatted files that are stored in an Amazon S3 bucket in the us-east-1 Region The company hosts a web application that the customers use to purchase access to a given dataset The web application is deployed on multiple Amazon EC2 instances behind an Application Load Balancer After a purchase is made customers receive an S3 signed URL that allows access to the files.

The customers are distributed across North America and Europe The company wants to reduce the cost that is associated with data transfers and wants to maintain or improve performance.

What should a solutions architect do to meet these requirements?

A. Configure S3 Transfer Acceleration on the existing S3 bucket Direct customer requests to the S3 Transfer Acceleration endpoint Continue to use S3 signed URLs for access control

B. Deploy an Amazon CloudFront distribution with the existing S3 bucket as the origin Direct customer requests to the CloudFront URL Switch to CloudFront signed URLs for access control

C. Set up a second S3 bucket in the eu-central-1 Region with S3 Cross-Region Replication between the buckets Direct customer requests to the closest Region Continue to use S3 signed URLs for access control

D. Modify the web application to enable streaming of the datasets to end users Configure the web

application to read the data from the existing S3 bucket Implement access control directly in the application

Answer: A

103. - (Exam Topic 2)

A company receives structured and semi-structured data from various sources once every day A solutions

architect needs to design a solution that leverages big data processing frameworks The data should be

accessible using SQL queries and business intelligence tools

What should the solutions architect recommend to build the MOST high-performing solution**

A. Use AWS Glue to process data and Amazon S3 to store data

B. Use Amazon EMR to process data and Amazon Redshift lo store data

C. Use Amazon EC2 to process data and Amazon Elastic Block Store (Amazon EBS) to store data

D. Use Amazon Kinesis Data Analytics to process data and Amazon Elastic File System (Amazon EFS) to

store data

Answer: A

104. - (Exam Topic 2)

A company has thousands of edge devices that collectively generate 1 TB of status averts each day Each

alert s approximately 2 KB in size. A solutions architect needs to implement a solution to ingest and store

the alerts for future analysis

The company wants a highly available solution However the company needs to minimize costs and does

not want to manage additional infrastructure Additionally, the company wants to keep 14 days of data

available for immediate analysis and archive any data older than 14 days

What is the MOST operationally efficient solution that meets these requirements^

A. Create an Amazon Kinesis Data Firehose delivery stream to ingest the alerts Configure the Kinesis Data

Firehose stream to deliver the alerts to an Amazon S3 bucket Set up an S3 Lifecycle configuration to

transition data to Amazon S3 Glacier after 14 days

B. Launch Amazon EC2 instances across two Availability Zones and place them behind an Elastic Load

Balancer to ingest the alerts Create a script on the EC2 instances that will store tne alerts m an Amazon S3

bucket Set up an S3 Lifecycle configuration to transition data to Amazon S3 Glacier after 14 days

C. Create an Amazon Kinesis Data Firehose delivery stream to ingest the alerts Configure the Kinesis Data Firehose stream to deliver the alerts to an Amazon Elasticsearch Service (Amazon ES) duster Set up the Amazon ES cluster to take manual snapshots every day and delete data from the duster that is older than 14 days

D. Create an Amazon Simple Queue Service (Amazon SQS i standard queue to ingest the alerts and set the message retention period to 14 days Configure consumers to poll the SQS queue check the age of the message and analyze the message data as needed If the message is 14 days old the consumer should copy the message to an Amazon S3 bucket and delete the message from the SQS queue

Answer: A

105. - (Exam Topic 2)

A company has an image processing workload running on Amazon Elastic Container Service {Amazon ECS) in two private subnets Each private subnet uses a NAT instance for Internet access All images are stored in Amazon S3 buckets The company is concerned about the data transfer costs between Amazon ECS and Amazon S3

What should a solutions architect do to reduce costs?

A. Configure a NAT gateway to replace the NAT instances

B. Configure a gateway endpoint for traffic destined to Amazon S3

C. Configure an interface endpoint for traffic destined to Amazon S3

D. Configure Amazon CloudFront for the S3 bucket storing the images

Answer: C

106. - (Exam Topic 2)

A company uses an Amazon S3 bucket to store static images for its website. The company configured permissions to allow access to Amazon S3 objects by privileged users only. What should a solutions architect do to protect against data loss? (Select TWO.)

A. Enable versioning on the S3 bucket

B. Enable access togging on the S3 bucket.

C. Enable server-side encryption on the S3 bucket.

D. Configure an S3 lifecycle rule to transition objects to Amazon S3 Glacier.

E. Use MFA Delete to require multi-factor authentication to delete an object.

Answer: A E

107. - (Exam Topic 2)

A solutions architect is designing the architecture for a software demonstration environment The

environment will run on Amazon EC2 instances in an Auto Scaling group behind an Application Load

Balancer (ALB) The system will experience significant increases in traffic during working hours but Is not

required to operate on weekends.

Which combination of actions should the solutions architect take to ensure that the system can scale to

meet demand? (Select TWO)

A. Use AWS Auto Scaling to adjust the ALB capacity based on request rate

B. Use AWS Auto Scaling to scale the capacity of the VPC internet gateway

C. Launch the EC2 instances in multiple AWS Regions to distribute the load across Regions

D. Use a target tracking scaling policy to scale the Auto Scaling group based on instance CPU utilization

E. Use scheduled scaling to change the Auto Scaling group minimum, maximum, and desired capacity to

zero for weekends Revert to the default values at the start of the week

Answer: D E

108. - (Exam Topic 2)

A company runs a photo processing application mat needs to frequently upload and download pictures from

Amazon S3 buckets that are located in the same AWS Region A solutions architect has noticed an

increased cost in data transfer lees and needs to implement a solution to reduce these costs

How can the solutions architect meet this requirement?

A. Deploy Amazon API Gateway into a public subnet and adjust the route table to route S3 calls through it

B. Deploy a NAT gateway into a public subnet and attach an endpoint policy that allows access to the S3

buckets

C. Deploy the application into a public subnet and allow it to route through an internet gateway to access

the S3 buckets

D. Deploy an S3 VPC gateway endpoint into the VPC and attach an endpoint policy that allows access to

the S3 buckets

Answer: C

109. - (Exam Topic 2)

A developer has a script lo generate daily reports that users previously ran manually The script consistently completes in under 10 minutes The developer needs to automate this process in a cost-effective manner.

Which combination of services should the developer use? (Select TWO.)

A. AWS Lambda

B. AWS CloudTrail

C. Cron on an Amazon EC2 instance

D. Amazon EC2 On-Demand Instance with user data

E. Amazon EventBridge {Amazon CloudWatch Events)

Answer: C E

110. - (Exam Topic 2)

A company runs en application on a large fleet of Amazon EC2 instances. The application reads and write entries into an Amazon DynamoDB table The size of the OynamoDB table continuously grows but the application needs only data from the last 30 days The company needs a solution that minimizes cost and development effort

Which solution meets these requirements'?

A. Use an AWS CloudFormation template to deploy the complete solution Redeploy the Cloud Formation stack every 30 days, and delete the original stack

B. Use an EC2 instance that runs a monitoring application from AWS Marketplace Configure the monitoring application to use Amazon DynamoOB Streams to store the timestamp when a new item is created in the table Use a script that runs on the EC2 instance to delete items that have a timestamp that is older than 30 days

C. Configure Amazon DynamoDB Streams to invoke an AWS Lambda function when a new item is created in the table Configure the Lambda function to delete items m the table that are older than 30 days

D. Extend the application to add an attribute that has a value of the current timestamp plus 30 days to each new item that is created in the table Configure DynamoDB to use the attribute as the TTL attribute

Answer: D
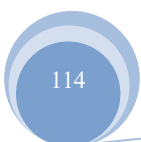
111. - (Exam Topic 2)

A company receives inconsistent service from its data center provider because the company is

headquartered in an area affected by natural disasters The company is not ready to fully migrate to the

AWS Cloud but it wants a failure environment on AWS in case the on-premises data center fails

The company runs web servers that connect to external vendors The data available on AWS and on

premises must be uniform.

Which solution should a solutions architect recommend that has the LEAST amount of downtime"

A. Configure an Amazon Route 53 failover record Run application servers on Amazon EC2 instances

behind an Application Load Balancer in an Auto Scaling group Set up AWS Storage Gateway with stored

volumes to back up data to Amazon S3.

B. Configure an Amazon Route 53 failover record Execute an AWS CloudFormation template from a script

to create Amazon EC2 instances behind an Application Load Balancer Set up AWS Storage Gateway with

stored volumes to back up data to Amazon S3

C. Configure an Amazon Route 53 failover record Set up an AWS Direct Connect connection between a

VPC and the data center Run application servers on Amazon EC2 in an Auto Scaling group Run an AWS

Lambda function to execute an AWS CloudFormation template to create an Application Load Balancer

D. Configure an Amazon Route 53 failover record Run an AWS Lambda function to execute an AWS

CloudFormation template to launch two Amazon EC2 instances Set up AWS Storage Gateway with stored

volumes to back up data to Amazon S3 Set up an AWS Direct Connect connection between a VPC and the

data center

Answer: A

112. - (Exam Topic 2)

A recent analysis of a company's IT expenses highlights the need to reduce backup costs The company s

chief information officer wants to simplify the on-premises backup infrastructure and reduce costs by

eliminating the use ol physical backup tapes The company must preserve the existing investment in the

on-premises backup applications and workflows

What should a solutions architect recommend"

A. Set up AWS Storage Gateway to conned with the backup applications using the NFS interface

B. Set up an Amazon EFS file system that connects wtth the backup applications using the NFS interface

C. Set up an Amazon EFS file system that connects with the backup applications using the iSCSI interface

D. Set up AWS Storage Gateway to connect with the backup applications using the iSCSi-virtual tape library (VTL) interface

Answer: D

113. - (Exam Topic 2)

A company is designing a shared storage solution for a gaming application that is hosted in the AWS Cloud The company needs the ability to use SMB clients to access data solution must be fully managed.

Which AWS solution meets these requirements'?

A. Create an AWS DataSync task that shares the data as a mountable file system Mount the file system to the application server

B. Create an Amazon EC2 Windows instance Install and configure a Windows file share role on the instance Connect the application server to the file share

C. Create an Amazon FSx for Windows File Server file system Attach the file system to the origin server Connect the application server to the Me system

D. Create an Amazon S3 bucket Assign an 1AM role to the application to grant access to the S3 bucket Mount the S3 bucket to the application server

Answer: C

114. - (Exam Topic 2)

A company has an Amazon S3 bucket that contains confidential information in its production AWS account The company has turned on AWS CloudTrail for the account. The account sends a copy of its logs to Amazon CloudWatch Logs. The company has configured the S3 bucket to log read and write data events.

A company auditor discovers that some objects in the S3 bucket have been deleted A solutions architect must provide the auditor with information about who deleted the objects

What should the solutions architect do to provide this information?

A. Create a CloudWatch Logs fitter to extract the S3 write API calls against the S3 bucket

B. Query the CloudTrail togs with Amazon Athena to identify the S3 write API calls against the S3 bucket

C. Use AWS Trusted Advisor to perform security checks for S3 writ© API calls that deleted the content

D. Use AWS Config to track configuration changes on the S3 bucket Use these details to track the S3 write

API calls that deleted the content

Answer: B

115. - (Exam Topic 2)

A monolithic application was recently migrated to AWS and is now running on a single Amazon EC2

instance Due to application limitations it is not possible to use automatic scaling to scale out the application.

The chief technology officer (CTO) wants an automated solution to restore the EC2 instance in the unlikely

event the underlying hardware fails

What would allow foe automatic recovery of the EC2 instance as quickly as possible?

A. Configure an Amazon CloudWatch alarm that triggers the recovery of the EC2 instance if it becomes

impaired

B. Configure an Amazon CloudWatch alarm to trigger an SNS message that alerts the CTO when the EC2

instance is impaired

C. Configure AWS CloudTrail to monitor the health of the EC2 instance, and if it becomes impaired trigger

instance recovery

D. Configure an Amazon EventBridge event to trigger an AWS Lambda function once an hour that checks

the health of the EC2 instance and triggers instance recovery if the EC2 instance is unhealthy

Answer: A

116. - (Exam Topic 2)

A company that operates a web application on premises is preparing to launch a newer version of the

application on AWS The company needs to route requests to either the AWS-hosted or the

on-premises-hosted application based on the URL query string The on-premises application Is not available

from the Internet, and a VPN connection Is established between Amazon VPC and the company's data

center. The company wants to use an Application Load Balancer (ALB) for this launch

Which solution meets these requirements"

A. Use two ALBs: one for on premises and one for the AWS resource Add hosts to each target group of

each ALB Route with Amazon Route 53 based on the URL query string

B. Use Mo ALBs; one for on premises and one for the AWS resource Add hosts to the target group of each

ALB Create a software router on an EC2 instance based on the URL query string

C. Use one ALB with two target groups one for the AWS resource and one for on premises Add hosts to each target group of the ALB Configure listener rules based on the URL query string

D. Use one ALB with two AWS Auto Scaling groups one for the AWS resource and one for on premises Add hosts to each Auto Scaling group Route with Amazon Route 53 based on the URL query string

Answer: C

117. - (Exam Topic 2)

A company is running an online transaction processing (OLTP) workload on AWS This workload uses an unencrypted Amazon RDS DB instance in a Multi-AZ deployment Dairy database snapshots are taken from this instance

What should a solutions architect do to ensure the database and snapshots are always encrypted moving forward?

A. Encrypt a copy of the latest DB snapshot. Replace existing DB instance by restoring the encrypted snapshot

B. Create a new encrypted Amazon Elastic Block Store (Amazon EBS) volume and copy the snapshots to it Enable encryption on the DB instance

C. Copy the snapshots and enable encryption using AWS Key Management Service (AWS KMS) Restore encrypted snapshot to an existing DB instance

D. Copy the snapshots to an Amazon S3 bucket that is encrypted using server-side encryption with AWS Key Management Service (AWS KMS) managed keys (SSE-KMS)

Answer: C

118. - (Exam Topic 2)

A company is developing a mobile game that streams score updates to a backend processor and then posts results on a leaderboard A solutions architect needs to design a solution that can handle large traffic spikes process the mobile game updates in order of receipt and store the processed updates in a highly available database The company also wants to minimize the management overhead required to maintain the solution

What should the solutions architect do to meet these requirements?

A. Push score updates to Amazon Kinesis Data Streams Process the updates in Kinesis Data Streams with

AWS Lambda Store the processed updates in Amazon DynamoDB

B. Push score updates to Amazon Kinesis Data Streams Process the updates with a fleet of Amazon EC2

instances set up for Auto Scaling Store the processed updates in Amazon Redshifi

C. Push score updates to an Amazon Simple Notification Service (Amazon SNS) topic Subscribe an AWS

Lambda function to the SNS topic to process the updates Store the processed updates in a SQL database

running on Amazon EC2

D. Push score updates to an Amazon Simple Queue Service (Amazon SQS) queue Use a fleet of Amazon

EC2 instances with Auto Scaling to process the updates in the SQS queue Store the processed updates in

an Amazon RDS Multi-AZ DB instance

Answer: A

119. - (Exam Topic 2)

A solutions architect is designing the cloud architecture for a new application being deployed on AWS. The

process should run in parallel while adding and removing application nodes as needed based on the

number of fobs to be processed. The processor application is stateless. The solutions architect must

ensure that the application is loosely copied and the job items are durably stored

Which design should the solutions architect use?

A. Create an Amazon SNS topic to send the jobs that need to be processed Create an Amazon Machine

Image (AMI) that consists of the processor application Create a launch configuration that uses the AMI

Create an Auto Scaling group using the launch configuration Set the scaling policy for the Auto Scaling

group to add and remove nodes based on CPU usage

B. Create an Amazon SQS queue to hold the jobs that need to be processed Create an Amazon Machine

image (AMI) that consists of the processor application Create a launch configuration that uses the AM'

Create an Auto Scaling group using the launch configuration Set the scaling policy for the Auto Scaling

group to add and remove nodes based on network usage

C. Create an Amazon SQS queue to hold the jobs that needs to be processed Create an Amazon Machine

image (AMI) that consists of the processor application Create a launch template that uses the AMI Create

an Auto Scaling group using the launch template Set the scaling policy for the Auto Scaling group to add

and remove nodes based on the number of items in the SQS queue

D. Create an Amazon SNS topic to send the jobs that need to be processed Create an Amazon Machine Image (AMI) that consists of the processor application Create a launch template that uses the AMI Create an Auto Scaling group using the launch template Set the scaling policy for the Auto Scaling group to add and remove nodes based on the number of messages published to the SNS topic

Answer: C

120. - (Exam Topic 2)

A company is performing an AWS Well-Architected Framework review of an existing workload deployed on AWS The review Identified a public-facing website running on the same Amazon EC2 instance as a Microsoft Active Directory domain controller that was installed recently to support other AWS services A solutions architect needs to recommend a new design that would improve the security of the architecture and minimize the administrative demand on IT staff

What should the solutions architect recommend?

A. Use AWS Directory Service to create a managed Active Directory Uninstall Active Directory on the current EC2 instance

B. Create another EC2 instance in the same subnet and reinstall Active Directory on it Uninstall Active Directory on the current EC2 instance

C. Use AWS Directory Service to create an Active Directory connector Proxy Active Directory requests to the Active Directory domain controller running on the current EC2 instance

D. Enable AWS Single Sign-On (AWS SSO) with Security Assertion Markup Language (SAML) 2 0 federation with the current Active Directory controller Modify the EC2 instance's security group to deny public access to Active Directory

Answer: A

121. - (Exam Topic 2)

A company wants lo build an immutable infrastructure for its software applications The company wants to test the software applications before sending traffic to them The company seeks an efficient solution that limits the effects of application bugs

Which combination of steps should a solutions architect recommend? {Select TWO)

A. Use AWS Cloud Formation to update the production infrastructure and roll back the stack if the update

fails

B. Apply Amazon Route 53 weighted routing to test the staging environment and gradually increase the traffic as the tests pass

C. Apply Amazon Route 53 failover routing to test the staging environment and fail over to the production environment if the tests pass

D. Use AWS Cloud Formation with a parameter set to the staging value in a separate environment other than the production environment

E. Use AWS Cloud Formation to deploy the staging environment with a snapshot deletion policy and reuse the resources in the production environment if the tests pass

Answer: A B

122. - (Exam Topic 2)

A company is hosting a three-tier ecommerce application in the AWS Cloud. The company hosts the website on Amazon S3 and integrates the website with an API that handles sales requests. The company hosts the API on three Amazon EC2 instances behind an Application Load Balancer (ALB). The API consists of static and dynamic front-end content along with backend workers that process sales requests asynchronously.

The company is expecting a significant and sudden increase in the number of sales requests during events for the launch of new products

What should a solutions architect recommend to ensure that all the requests are processed successfully?

A. Add an Amazon CloudFront distribution for the dynamic content. Increase the number of EC2 instances to handle the increase in traffic.

B. Add an Amazon CloudFront distribution for the static content. Place the EC2 instances in an Auto Scaling group to launch new instances based on network traffic.

C. Add an Amazon CloudFront distribution for the dynamic content. Add an Amazon ElastiCache instance in front of the ALB to reduce traffic for the API to handle.

D. Add an Amazon CloudFront distribution for the static content. Add an Amazon Simple Queue Service (Amazon SOS) queue to receive requests from the website for later processing by the EC2 instances.

Answer: D

123. - (Exam Topic 2)

A solutions architect is designing the storage architecture tor a new web application used for storing and

viewing engineering drawings All application components will be deployed on the AWS infrastructure.

The application design must support caching to minimize the amount of time that users wait for the

engineering drawings to load The application must be able to store petabytes of data.

Which combination of storage and caching should the solutions architect use?

A. Amazon S3 with Amazon CloudFront

B. Amazon S3 Glacier with Amazon ElastiCache

C. Amazon Elastic Block Store (Amazon BBS) volumes with Amazon CloudFront

D. AWS Storage Gateway with Amazon ElastiCache

Answer: A

124. - (Exam Topic 2)

A company is migrating a NoSQL database cluster to Amazon EC2. The database automatically replicates

data to maintain at least three copies of the data I/O throughput of the servers is the highest priority.

Which instance type should a solutions architect recommend for the migration?

A. Storage optimized instances with instance store

B. Burstable general purpose instances with an Amazon Elastic Block Store (Amazon EBS) volume

C. Memory optimized instances with Amazon Elastic Block Store {Amazon EBS) optimization enabled

D. Compute optimized instances with Amazon Elastic Block Store (Amazon EBS) optimization enabled

Answer: A

125. - (Exam Topic 2)

An ecommerce company has noticed performance degradation of its Amazon RDS based web application

The performance degradation is attributed to an increase in the number of read-only SQL queries triggered

by business analysts A solutions architect needs to solve the problem with minimal changes to the existing

web application

What should the solutions architect recommend"

A. Export the data to Amazon DynamoDB and have the business analysts run their queries

B. Load the data into Amazon ElastiCache and have the business analysts run their queries

C. Create a read replica of the primary database and have the business analysts run their queries

D. Copy the data into an Amazon Redshift cluster and have the business analysts run their queries

Answer: C

126. - (Exam Topic 2)

A company is planning to store sensitive documents in an Amazon S3 bucket. The documents must be

encrypted al rest. The company wants to manage the underlying keys that are used lor encryption However,

the company does not want to manage the encryption and decryption process.

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

A. Use server-side encryption with customer-provided encryption keys (SSE-C).

B. Use client-side encryption with AWS managed keys.

C. Use server-side encryption with S3 managed encryption keys (SSE-S3).

D. Use server-side encryption with AWS KMS managed encryption keys (SSE-KMS) with a key policy

document that is 40 KB in size

E. Use server-side encryption with AWS KMS managed encryption keys (SSE-KMS) that the company

uploads to AWS KMS.

Answer: C E

127. - (Exam Topic 2)

A company hosts its website on AWS To address the highly variable demand the company has

implemented Amazon EC2 Auto Scaling Management is concerned that the company Is over-prows toning

its infrastructure, especially at the front end of the three-tier application. A solutions architect needs to

ensure costs are optimized without impacting performance.

What should the solutions architect do to accomplish this?

A. Use Auto Scaling with Reserved Instances

B. Use Auto Scaling with a scheduled scaling policy

C. Use Auto Scaling with the suspend-resume feature.

D. Use Auto Scaling with a target tracking scaling policy

Answer: D
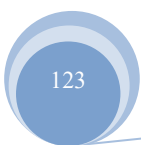
128. - (Exam Topic 2)

A company serves content to its subscribers across the world using an application running on AWS The application has several Amazon EC2 instances in a private subnet behind an Application Load Balancer (ALB) Due to a recent change in copyright restrictions, the chief information officer (CiO) wants to block access for certain countries.

Which action will meet these requirements?

A. Modify the ALB security group to deny incoming traffic from blocked countries

B. Modify the security group for EC2 instances to deny incoming traffic from blocked countries

C. Use Amazon CloudFront to serve the application and deny access to blocked countries

D. Use ALB listener rules to return access dented responses to incoming traffic from blocked countries

Answer: C

129. - (Exam Topic 2)

A company is deploying an application that processes streaming data in near-teal time. The company plans to use Amazon EC2 instances for the workload The network architecture must be configurable to provide the lowest possible latency between nodes.

Which networking solution meets these requirements?

A. Place the EC2 instances in multiple VPCs and configure VPC peering

B. Attach an Elastic Fabric Adapter (EFA) to each EC2 instance

C. Run the EC2 instances m a spread placement group

D. Use Amazon Elastic Block Store (Amazon EBS) optimized instance types

Answer: C

130. - (Exam Topic 2)

A company is using AWS to design a web application that will process insurance quotes Users will request quotes from the application Quotes must be separated by quote type, must be responded to within 24 hours, and must not get lost The solution must maximize operational efficiency and must minimize maintenance.

Which solution meets these requirements?

A. Create multiple Amazon Kinesis data streams based on the quote type Configure the web application to send messages to the proper data stream Configure each backend group of application servers to use the

Kinesis Client Library (KCL) to pool messages from its own data stream

B. Create an AWS Lambda function and an Amazon Simple Notification Service (Amazon SNS) topic for each quote type Subscribe the Lambda function to its associated SNS topic Configure the application to publish requests tot quotes to the appropriate SNS topic

C. Create a single Amazon Simple Notification Service (Amazon SNS) topic Subscribe Amazon Simple Queue Service (Amazon SQS) queues to the SNS topic Configure SNS message filtering to publish messages to the proper SQS queue based on the quote type Configure each backend application server to use its own SQS queue

D. Create multiple Amazon Kinesis Data Firehose delivery streams based on the quote type to deliver data streams to an Amazon Elasucsearch Service (Amazon ES) cluster Configure the application to send messages to the proper delivery stream Configure each backend group of application servers to search for the messages from Amazon ES and process them accordingly

Answer: C

Topic 3, Exam Pool C

1. - (Exam Topic 3)

A company needs to save the results from a medical trial to an Amazon S3 repository. The repository must allow a few scientists to add new dies and must restrict all other users to read-only access No users can have the ability to modify or delete any files in the repository. The company must heap every lie in the repository for a minimum of 1 year after its creation date.

Which solution will meet these requirements?

A. Use S3 Object Lock In governance mode with a legal hold of 1 year

B. Use S3 Object Lock in compliance mode with a retention period of 365 days.

C. Use an IAM role to restrict all users from deleting or changing objects in the S3 bucket Use an S3 bucket policy to only allow the IAM role

D. Configure the S3 bucket to invoke an AWS Lambda function every tune an object is added Configure the function to track the hash of the saved object to that modified objects can be marked accordingly

Answer: B

2. - (Exam Topic 3)

A company wants to improve the availability and performance of its hybrid application. The application consists of a stateful TCP-based workload hosted on Amazon EC2 instances in different AWS Regions and a stateless UDP-based workload hosted on premises.

Which combination of actions should a solutions architect take to improve availability and performance? (Select TWO.)

A. Create an accelerator using AWS Global Accelerator. Add the load balancers as endpoints.

B. Create an Amazon CloudFront distribution with an origin that uses Amazon Route 53 latency-based routing to route requests to the load balancers.

C. Configure two Application Load Balancers in each Region. The first will route to the EC2 endpoints, and the second will route to the on-premises endpoints.

D. Configure a Network Load Balancer in each Region to address the EC2 endpoints. Configure a Network Load Balancer in each Region that routes to the on-premises endpoints.

E. Configure a Network Load Balancer in each Region to address the EC2 endpoints. Configure an Application Load Balancer in each Region that routes to the on-premises endpoints.

Answer: A B

3. - (Exam Topic 3)

A solution architect is designing an application for a two-step order across. The first step is synhronous and must return to the user with little latency. The second step takes longer so it will be implemented in a separate component. Orders must be processed exacity once and in the order in which they are received. How should the solutions architect integrate these components?

A. Use Amazon SQS FIFO queues

B. Use an AWS Lambda function along with Amazon SQS standard queues.

C. Create an SNS topic and subscribe an Amazon SQS FIFO queue to that topic.

D. Create an SNS topic subscribe an Amazon SQS Standard queue to that topic.

Answer: C

4. - (Exam Topic 3)

A company wants to host a scalable web application on AWS The application will be accessed by users from different geographic regions of the world. Application users will be able to download and upload
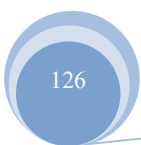
unique data up to gigabytes in size. The development team wants a cost-effective solution to minimize

upload and download latency and maximize performance

What should a solutions architect do to accomplish this?

A. Use Amazon S3 with Transfer Acceleration to host the application.

B. Use Amazon S3 with CacheControl headers to host the application.

C. Use Amazon EC2 with Auto Scaling and Amazon CloudFront to host the application

D. Use Amazon EC2 with Auto Scaling and Amazon ElastiCache to host the application

Answer: C

5. - (Exam Topic 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 1AM user Grant the user read permission to objects in the S3 bucket Assign the user to

CloudFront

C. 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)

D. Create an origin access identity (OAI). Assign the OAI to the CloudFront distribution Configure the S3

bucket permissions so that only the OAI has read permission

Answer: C

6. - (Exam Topic 3)

A company wants to use an AWS Region as a disaster recovery location for its on-premises infrastructure.

The company has 10 TB of existing data and the on-premises data center has a 1Gbps internet connection

A solution architect must find a solution so the company can have its existing data on AWS in 72 hours

without transmitting it using an unencrypted channel.

Which solution should the solutions architect select

A. Send the initial 10 TB of data to AWS using FTP.

B. Send the initial 10 TB of data lo AWS using AWS Snowball.

C. Establish a VPN connection between Amazon VPC and the company's data center

D. Establish an AWS Direct Connect connection between Amazon VPC and the company's data canter

Answer: B

7. - (Exam Topic 3)

A solution architect has configured the following IAM policy.

```
{
    "Version": "2012-10-17",
    "Statement": [
        {
            "Effect": "Allow",
            "Action": [
                "lambda:*"
            ],
            "Resource": "*"
        },
        {
            "Effect": "Deny",
            "Action": [
                "lambda:CreateFunction",
                "lambda:DeleteFunction"
            ],
            "Resource": "*",
            "Condition": {
                "IpAddress": {
                    "aws:SourceIp": "220.100.16.0/20"
                }
            }
        }
    ]
}
```

Which action will be allowed by the policy? Which action will be allowed by the policy?

A. An AWS Lambda function can be deleted from any network.

B. An AWS Lambda function can be created from any network.

C. An AWS Lambda function can be deleted from the 100.220.0.0/20 network.

D. An AWS Lambda function can be deleted from the 220.100.16.0/20 network

Answer: D

8. - (Exam Topic 3)

A company is seeing access requests by some suspicious IP addresses The security team discovers the

requests are from different IP addresses under the same CIDR range

What should a solutions architect recommend to the team?

A. Add a rule in the inbound table of the secuty group to deny the traffic from that CIDR range

B. Add a rule in the outbound table of the security group to deny the traffic from that CIDR range

C. Add a deny rule in the inbound table of the network ACL with a lower rule number than other rules

D. Add a deny rule in the outbound table of the network ACL with a lower rule number than other rules

Answer: C

9. - (Exam Topic 3)

A company wants to use high performance computing (HPC) infrastructure on AWS for financial risk modelling. The company's HPC workloads run on Linux. Each HPC workflow runs on hundreds of Amazon EC2 Spot Instances, is short-lived, and generates thousands of output files that are ultimately stored in persistent storage for analytics and long-term future use.

The company seeks a cloud storage solution that permits the copying of on-premises data to long-term persistent storage to make data available for processing by all EC2 instances. The solution should also be a high performance file system that is integrated with persistent storage to read and write datasets and output files

Which combination of AWS services meets these requirements?

A. Amazon FSx for Lustre integrated with Amazon S3

B. Amazon FSx for Windows File Server integrated with Amazon S3

C. Amazon S3 Glacier integrated with Amazon Elastic Block Store (Amazon EBS)

D. Amazon S3 bucket with a VPC endpoint integrated with an Amazon Elastic Block Store (Amazon EBS) General Purpose SSD(gp2) volume

Answer: A

10. - (Exam Topic 3)

A company manages and runs a critical data management application in containers that are hosted on Amazon Elastic Container Service (Amazon ECS). The application has endpoints that are exposed through Application Load Balancers (ALBs). The application uses an Amazon Elastic File System (Amazon EFS) file system mount for persistent data storage. The company has configured Amazon ECS to use a minimal IAM instance role.

Which combination of actions should a solutions architect take to improve the overall security posture of the

application? (Select TWO.)

A. Decompose the Amazon ECS IAM instance role. Use only ECS task roles.

B. Enable EFS encryption in transit to protect data that is being written to Amazon EFS.

C. Use AWS Config to define patch management policies on the container instances.

D. Use Amazon Macie integration with Amazon EFS to monitor and protect sensitive information in the file

system.

E. Use Amazon GuardDuty to authenticate data access between the ALBs and the container instances.

Answer: C D

11. - (Exam Topic 3)

An application hosted on AWS is experiencing performance problems, and the application vendor wants to

perform an analysis of the log file to troubleshoot further. The log file is stored on Amazon S3 and is 10GB

in size. The application owner will make the log file available to the vendor for a limited time.

Whit it the MOST secure way to do this?

A. Enable public read on the S3 object and provide the link to the vendor

B. Upload the lie to Amazon WorkDocs and share the public link with the vendor.

C. Generate a presigned URL and have the vendor download the log Me before it expiree

D. Create an LAM user for the vendor to provide access to the S3 bucket and tie application. Enforce

multifactor authentication

Answer: C

12. - (Exam Topic 3)

A company is hosting a web application from an Amazon S3 bucket. The application uses Amazon Cognito

as an identity provider lo authenticate users and return a JSON Web Token (JWT) that provides access to

protected resources that am restored in another S3 bucket.

Upon deployment of the application, users report errors and are unable to access the protected content. A

solutions architect must resolve this issue by providing proper permissions so that users can access the

protected content.

Which solution meets these requirements?

A. Update the Amazon Cognito identity pool to assume the proper IAM role for access to the protected
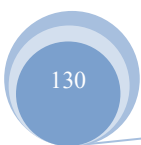
consent.

B. Update the S3 ACL to allow the application to access the protected content

C. Redeploy the application to Amazon 33 to prevent eventually consistent reads m the S3 bucket from affecting the ability of users to access the protected content.

D. Update the Amazon Cognito pool to use custom attribute mappings within tie Identity pool and grant users the proper permissions to access the protected content

Answer: B

13. - (Exam Topic 3)

A company is building a document storage application on AWS. The application runs on Amazon EC2 instances in multiple Availability Zones. The company requires the document store to be highly available The documents need to be returned immediately when requested. The lead engineer has configured the application to use Amazon Elastic Block Store (Amazon EBS) to store the documents, but is willing to consider other options to meet the availability requirement.
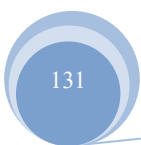
What should a solutions architect recommend?

A. Snapshot the EBS volumes regularly and build new volumes using those snapshots in additional Availability Zones.

B. Use Amazon EBS for the EC2 instance root volumes. Configure the application to build the document store on Amazon S3.

C. Use Amazon EBS for the EC2 instance root volumes. Configure the application to build the document store on Amazon S3 Glacier.

D. Use at least three Provisioned IOPS EBS volumes for EC2 instances Mount the volumes to the EC2 instances in a RAID 5 configuration.

Answer: B

14. - (Exam Topic 3)

A company is running a database on Amazon Aurora The database is idle every evening An application that performs extensive reads on the database experiences performance issues during morning hours when user traffic spikes. During these peak penods. the application receives timeout errors when reading from the database The company does not have a dedicated operations team and needs an automated

solution to address the performance issues

Which actions should a solutions architect take to automatically adjust to the increased read load on the

database? (Select TWO)

A. Migrate the database to Aurora Serverless

B. Increase the instance size of the Aurora database

C. Configure Aurora Auto Scaling with Aurora Replicas.

D. Migrate the database to an Aurora multi-master cluster

E. Migrate the database to an Amazon RDS for MySQL Multi-AZ deployment

Answer: A C


15. - (Exam Topic 3)

A company is upgrading its critical web-based application. The application is hosted on Amazon EC2

instances that are part of an Auto Scaling group behind an Application Load Balancer (ALB). The company

wants to test the new configurations with a specific amount of traffic before the company begins to route all

traffic to the upgraded application.

How should a solutions architect design the architecture to meet these requirements?

A. Create a new launch template. Associate the new launch template with the Auto Scaling group. Attach

the Auto Scaling group to the ALB. Distribute traffic by using redirect rules.

B. Create a new launch template. Create an additional Auto Scaling group. Associate the new launch

template with the additional Auto Scaling group. Attach the additional Auto Scaling group to the ALB.

Distribute traffic by using weighted target groups.

C. Create a new launch template. Create an additional Auto Scaling group. Associate the new launch

template with the additional Auto Scaling group. Create an additional ALB. Attach the additional Auto

Scaling group to the additional ALB. Use an Amazon Route 53 failover routing policy to route traffic.

D. Create a new launch template. Create an additional Auto Scaling group. Associate the new launch

template with the additional Auto Scaling group. Create an additional ALB. Attach the additional Auto

Scaling group to the additional ALB. Use an Amazon Route 53 weighted routing policy to route traffic.

Answer: A

16. - (Exam Topic 3)
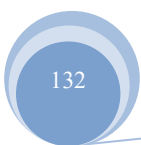
A solutions architect Is designing a new API using Amazon API Gateway that will receive requests from users. The volume of requests is highly variable: several hours can pass without receiving a single request. The data processing will take place asynchronously, but should be completed within a few seconds after a request la made.

Which compute service should the solutions architect have the API invoke to deliver the requirements at the lowest cost?

A. An AWS Glue job

B. An AWS Lambda function

C. A containerized service hosted in Amazon Elastic Kubemetes Service {Amazon EKS)

D. A containerized service hosted in Amazon ECS with Amazon EC2

Answer: C

17. - (Exam Topic 3)

A database is on an Amazon RDS MySQL 5.6 Multi-AZ 06 instance that experiences highly dynamic reads. Application developers notice a significant slowdown when testing read performance from a secondary AWS Region. The developers want a solution that provider less than 1 second of read replication latency

What should the solutions architect recommend?

A. Install MySQL on Amazon EC2 in the secondary Region

B. Migrate the database to Amazon Aurora with cross-Region replicas.

C. Create another RDS for MySQL read replica m the secondary Region

D. Implement Amazon ElastiCache to improve database query performance

Answer: B

18. - (Exam Topic 3)

An ecommerce company uses an Amazon Aurora DB cluster to store customer transactions. The company also maintains a separate Amazon DynamoDB table that contains item sales information The company wants the DB cluster to invoke a recently deployed AWS Lambda function to update the DynamoDB table every time a row is inserted into the database

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

A. Modify the Lambda function to allow outbound communication to the DB cluster

B. Modify the DB cluster to allow outbound communication to the Lambda function.

C. Modify the DB cluster to allow outbound communication to the DynamoDB table

D. Ensure that the DB cluster has an IAM role that allows the DB cluster to invoke Lambda functions.

E. Ensure that the Lambda function has an 1AM role that allows Lambda to invoke functions on the DB cluster

Answer: C E

19. - (Exam Topic 3)

A development learn is creating an event-based application that uses AWS Lambda functions. Events will be generated when files are added to an Amazon S3 bucket. The development team currently has Amazon Simple Notification Service {Amazon SNS) configured as the event target from Amazon S3.

What should a solutions architect do to process the events from Amazon S3 in a scalable way?

A. Create an SNS subscription that processes the event in Amazon Elastic Container Service (Amazon ECS) before the event runs in Lambda.

B. Create an SNS subscription that processes the event in Amazon Elastic Kubernetes Service (Amazon EKS) before the event runs in Lambda.

C. Create an SNS subscription that sends the event to Amazon Simple Queue Service (Amazon SOS). Configure the SOS queue to trigger a Lambda function.

D. Create an SNS subscription that sends the event to AWS Server Migration Service (AWS SMS). Configure the Lambda function to poll from the SMS event.

Answer: D

20. - (Exam Topic 3)

A company hosts its application in the AWS Cloud. The application runs on Amazon EC2 instances behind an Elastic Load Balancer in an Auto Scaling group and with an Amazon DynamoDB table. The company wants to ensure the application can be made available in another AWS Region with minimal downtime.

What should a solutions architect do to meet these requirements with the LEAST amount of downtime?

A. Create an Auto Scaling group and a load balancer in the disaster recovery Region. Configure the DynamoDB table as a global table. Configure DNS failover to point to the new disaster recovery Region's load balancer.
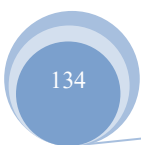
B. Create an AWS CloudFormation template to create EC2 instances, load balancers, and DynamoDB tables to be launched when needed. Configure DNS failover to point to the new disaster recovery Region's load balancer.

C. Create an AWS CloudFormation template to create EC2 instances and a load balancer to be launched when needed. Configure the DynamoDB table as a global table. Configure DNS failover to point to the new disaster recovery Region's load balancer.

D. Create an Auto Scaling group and load balancer in the disaster recovery Region. Configure the DynamoDB table as a global table. Create an Amazon CloudWatch alarm to trigger an AWS Lambda function that updates Amazon Route 53 pointing to the disaster recovery load balancer.

Answer: A

21. - (Exam Topic 3)

A development team stores its Amazon RDS MySQL DB instance user name and password credentials in a configuration file The configuration file is stored as plaintext on the root device volume of the team's Amazon EC2 instance When the team's application needs to reach the database it reads the file and loads the credentials into the code The team has modified the permissions of the configuration file so that only the application can read its content A solutions architect must design a more secure solution

What should the solutions architect do to meet this requirement1?

A. Store the configuration file in Amazon S3 Grant the application access to read the configuration file

B. Create an 1AM role with permission to access the database Attach this 1AM role to the EC2 instance

C. Enable SSL connections on the database instance Alter the database user to require SSL when logging in.

D. Move the configuration file to an EC2 instance store, and create an Amazon Machine Image (AMI) of the instance. Launch new instances from this AMI

Answer: D

22. - (Exam Topic 3)

A customer is running an application on Amazon EC2 instances hosted in a private subnet of a VPC. The EC2 instances are configured in an Auto Scaling group behind an Elastic Load Balancer (ELB). The EC2 instances use a NAT gateway outbound internet access However, the EC2 instances are not able to
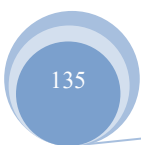
connect to the public internet to download software updates.

A. The ELB is not configured with a proper health check.

B. The route tables in the VPC are configured incorrectly.

C. The EC2 instances are not associated with an Elastic IP address.

D. The security group attached to the NAT gateway is configured incorrectly.

E. The outbound rules on the security group attachment to the EC2 instances are configured incorrectly.

Answer: B E

23. - (Exam Topic 3)

A company offers a food delivery service that is growing rapidly Because of the growth the company's order

processing system is experiencing scaling problems during peak traffic hours. The current architecture

includes the following;

• A group of Amazon EC2 instances that run in an Amazon EC2 Auto Scaling group to collect orders from

the application

• Another group of EC2 instances that run in an Amazon EC2 Auto Scaling group to fulfill orders

The order collection process occurs quickly, but the order fulfillment process can take longer Data must not

be lost because of a scaling event

A solutions architect must ensure that the order collection process and the order fulfillment process can

both scale properly during peak traffic hours The solution must optimize utilization of the company's AWS

resources

Which solution meets these requirements'?

A. Use Amazon CloudWatch metrics to monitor the CPU of each instance in the Auto Scaling groups.

Configure each Auto Scaling group's minimum capacity according to peak workload values

B. Use Amazon CloudWatch metrics to monitor the CPU of each instance in the Auto Scaling groups

Configure a CloudWatch alarm to invoke an Amazon Simple Notification Service (Amazon SNS) topic that

creates additional Auto Scaling groups on demand

C. Provision two Amazon Simple Queue Service (Amazon SQS) queues one for order collection and

another for order fulfillment Configure the EC2 instances to poll their respective queue Scale the Auto

Scaling groups based on notifications that the queues send

D. Provision two Amazon Simple Queue Service (Amazon SQS) queues one for order collection and
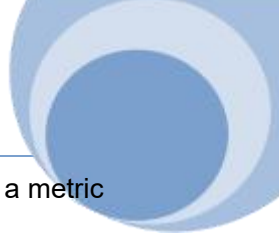
another for order fulfillment. Configure the EC2 instances to poll their respective queue. Create a metric based on a backlog per instance calculation Scale the Auto Scaling groups based on this metric.

Answer: D

24. - (Exam Topic 3)

A company is running a multi-tier ecommerce web application in the AWS Cloud. The web application is running on Amazon EC2 instances. The database tier is on a provisioned Amazon Aurora MySQL DB cluster with a writer and a reader in a Multi-AZ environment. The new requirement for the database tier is to serve the application to achieve continuous write availability through an instance failover.

What should a solutions architect do to meet this new requirement?

A. Add a new AWS Region to the DB cluster for multiple writes.

B. Add a new reader in the same Availability Zone as the writer.

C. Migrate the database tier to an Aurora multi-master cluster.

D. Migrate the database tier to an Aurora DB cluster with parallel query enabled.

Answer: C

25. - (Exam Topic 3)

A company uses Amazon S3 to store its confidential audit documents. The S3 bucket uses bucket policies to restrict access to audit team IAM user credentials according to the principle of least privilege Company managers are wonted about accidental deletion of documents in the S3 bucket and want a more secure solution

What should a solutions architect do to secure the audit documents?

A. Enable the versioning and MFA Delete features on the S3 bucket.

B. Enable multi-factor authentication (UFA) on the 1AM user credentials for each audit team 1AM user account.

C. Add an S3 Lifecycle policy to the audit team's IAM user accounts to deny the s3 DekaeObject action during audit dates

D. Use AWS Key Management Service (AWS KMS) to encrypt the S3 bucket and restrict audit learn IAM user accounts from accessing the KMS key.

Answer: A
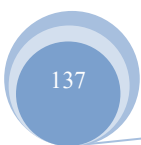
26. - (Exam Topic 3)

A company is planning to run a group of Amazon EC2 instances that connect to an Amazon Aurora database. The company has built an AWS CloudFormation template to deploy the EC2 instances and the Aurora DB cluster. The company wants to allow the instances to authenticate to the database in a secure way. The company does not want to maintain static database credentials.

Which solution meets these requirements with the LEAST operational effort?

A. Create a database user with a user name and password. Add parameters for the database user name and password to the CloudFormation template. Pass the parameters to the EC2 instances when the instances are launched.

B. Create a database user with a user name and password. Store the user name and password in AWS Systems Manager Parameter Store. Configure the EC2 instances to retrieve the database credentials from Parameter Store.

C. Configure the DB cluster to use IAM database authentication. Create a database user to use with IAM authentication. Associate a role with the EC2 instances to allow applications on the instances to access the database.

D. Configure the DB cluster to use IAM database authentication with an IAM user. Create a database user that has a name that matches the IAM user. Associate the 1AM user with the EC2 instances to allow applications on the instances to access the database.

Answer: B

27. - (Exam Topic 3)

A company has an application that scans millions of connected devices for security threats and pushes the scan logs to an Amazon S3 bucket. A total of 70 GB of data is generated each week, and the company needs to store 3 years of data for historical reporting. The company must process aggregate, and enrich the data from Amazon S3 by performing complex analytical queries and joins in the least amount of time The aggregated dataset is visualized on an Amazon QuickSight dashboard.

What should a solutions architect recommend to meet these requirements?

A. Create and run an ETL job in AWS Glue to process the data from Amazon S3 and load it into Amazon Redshift Perform the aggregation queries on Amazon Redshift
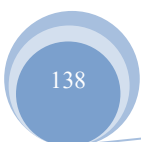
B. Use AWS Lambda functions based on S3 PutObject event triggers to copy the incremental changes to

Amazon DynamoDB Perform the aggregation queries on DynamoDB.

C. Use AWS Lambda functions based on S3 PutObject event triggers to copy the incremental changes to

Amazon Aurora MySQL Perform the aggregation queries on Aurora MySQL.

D. Use AWS Glue to catalog the data in Amazon S3. Perform the aggregation queries on the cataloged

tables by using Amazon Athena Query the data directly from Amazon S3

Answer: A

28. - (Exam Topic 3)

A company requires that all version of object in its Amazon S3 bucket be retained. Current object versions

will be frequently accessed during the first 30 days, after which they will be rarely accessed and must be

retrievable within 5 minutes. Previous object versions need to be kept forever, will be rarely accessed, and

can be retrieved within 1 week. All store solutions must be highly available and highly durable

What should a solutions architect recommend to meet these requirements in the MOST costs-effective

manner?

A. Create an S3 lifecycle policy tor the bucket that moves current object versions horn S3 Standard storage

lo S3 Glacier after 30 days and moves previous object versions to S3 Glacier after 1 day

B. Create an S3 lifecycle policy for the bucket that moves current object versions from S3 Standard storage

to S3 Glacier after 30 days and moves previous object versions to S3 Glacier Deep Archive after 1 day.

C. Create an S3 lifecycle policy for the bucket that moves current object versions from S3 Standard storage

to S3 standard-infrequent Access (S3 Standard-IA) after 30 days and moves previous object versions to S3

Glacier Deep Archive after 1 day.

D. Create an S3 lifecycle policy for the bucket that moves current object versions from S3 Standard storage

to S3 One Zone-Infrequent Access (S3 One Zone-IA) after 30 days and moves previous object versions to

S3 Glacier Deep Archive after 1 day

Answer: B

29. - (Exam Topic 3)

A company provides an API to its users trial automates inquires for tax computations based on item prices.

The company experiences a larger number of inquiries during the holiday season only that cause slower

response times. A solutions architect needs to design a solution that is scalable and elastic.

What should the solution architect do lo accompli this?

A. Provide an API hosted on an Amazon EC2 Instance. The EC2 instance performs the required

computations when the API request is made.

B. Design a REST API using Amazon API Gateway mat accepts the item names API Gateway passes item

names to AWS Lambda for tax computations

C. Create an Application Load Balancer mat has two Amazon EC2 instances behind it. The EC2 instances

will compute the tax on the received Hem names.

D. Design a REST API using Amazon API Gateway that connects with an API hosted on an Amazon EC2

instance. API Gateway accepts and passes the item names to the EC2 instance for tax computations

Answer: B

30. - (Exam Topic 3)

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 me 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 nuances.

C. Store the data in an Amazon Elastic File System (Amazon EFS) tile system Mount the file system on the

application instances.

D. Store the data in an Amazon Elastic Block Store (Amazon EBS) Provisioned K)PS volume shared

between the application instances.

Answer: C

31. - (Exam Topic 3)

A solutions architect is designing a solution to access a catalog of images and provide users with the ability

to submit requests to customize images Image customization parameters wilt be in every request that is

sent to an Amazon API Gateway API. The solution will generate tie customized images on demand. Users will receive a link that they can use to view or download their customized images. The solution must be highly available for viewing and customizing images

What should the solutions architect do to meet these requirements MOST cost effectively?

A. Use Amazon EC2 instances to manipulate the original images into the requested customizations Store the original and manipulated images in Amazon S3. Configure an Elastic Load Balancer in front. of the EC2 Instances.

B. Use AWS Lambda to manipulate the original images into the requested customization. Store the original and manipulated images in Amazon S3. Configure an Amazon CloudFront distribution with the S3 bucket as the origin.

C. Use AWS Lambda to manipulate the original images into the requested customizations Store the original images in Amazon S3 Store the manipulated images in Amazon DynamoDB. Provision an Application Load Balancer and Amazon EC2 instances to serve the content.

D. Use Amazon EC2 instances to manipulate the original Images Into the requested customizations. Store the original images in Amazon S3. Store the manipulated Images m Amazon DynamoDB Configure an Amazon CloudFront distribution with the S3 bucket as the origin

Answer: B

32. - (Exam Topic 3)

A company has several Amazon EC2 instances set up m a private subnet for security reasons. These instances host applications that read and write large amounts of data to end from Amazon S3 regularly. Currently subnet routing directs all the traffic destined for the internet through a NAT gateway. The company wants to optimize the overall coat without impacting the ability of the application to communication Amazon S3 or the outside internet.

What should a solutions architect do to optimize costs?

A. Create an additional NAT gateway. Update the route table to route to the NAT gateway Update the network ACL lo allow S3 traffic

B. Create an internet gateway Update the route table to route traffic to the internet gateway Update the network ACL to allow S3 traffic

C. Create a VPC endpoint for Amazon S3 Attach an endpoint policy to the endpoint Update the route table

lo direct traffic to the VPC endpoint.

D. Create an AWS Lambda function outside of the VPC to handle S3 requests Attach an IAM policy to the

EC2 instances, allowing them to invoke the Lambda function.

Answer: C

33. - (Exam Topic 3)

A company used an AWS Direct Connect connection to copy 1 PB of data from a colocation facility to an

Amazon S3 bucket in the us-east-1 Region. The company now wants to copy the data to another S3 bucket

in the us-weet-2 Region.

Which solution will meet this requirement?

A. Use an AWS Snowball Edge Storage Optimized device to copy the data from the colocation facility to

ua-weet-2

B. Use the S3 console to copy the data horn the source S3 bucket to the target S3 bucket.

C. Use S3 Transfer Acceleration and the S3 copy-object command to copy the data from the source S3

bucket to the target S3 bucket

D. Add an S3 Cross-Region Replication configuration to copy the data from the source S3 bucket to the

target S3 bucket.

Answer: D

34. - (Exam Topic 3)

A company wants to migrate its accounting system from an on-premises data center to the AWS Cloud m a

single AWS Region. Data security and an immutable audit log are the top priorities. The company must

monitor all AWS activities for compliance auditing. The company that enabled AWS CloudTrail but wants to

make sure it meets meat requirements

Which actions should a solutions architect take lo protect and secure CloudTrail? (Select TWO.)

A. Enable CloudTrail log file validation.

B. Enable the CloudTrail Proceeding Library.

C. Enable logging of Insights events in CloudTrail.

D. Enable custom logging from the on-premises resources

E. Create an AWS Config rule to monitor whether CloudTrail is configured to use server-side encryption

with AWS KMS managed encryption keys (SSE-KMS)

Answer: A E

35. - (Exam Topic 3)

A company runs a stateless web application in production on a group of Amazon EC2 On-Demand Instances behind an Application Load Balancer. The application experiences heavy usage during an 8-hour period each business day. Application usage is moderate and steady overnight Application usage is low during weekends.

The company wants to minimize its EC2 costs without affecting the availability of the application. Which solution will meet these requirements?

A. Use Spot Instances for the entire workload.

B. Use Reserved instances for the baseline level of usage Use Spot Instances for any additional capacity that the application needs.

C. Use On-Demand Instances for the baseline level of usage. Use Spot Instances for any additional capacity that the application needs

D. Use Dedicated Instances for the baseline level of usage. Use On-Demand Instances for any additional capacity that the application needs

Answer: B

36. - (Exam Topic 3)

A company hosts a popular website in the AWS Cloud, A solutions architect needs to provide reports about user click behaviour in near-real time as users navigate the website.

Which solution will meet this requirement

A. Store the clickstream data in Amazon DynamoDB. Deploy an application that runs on AWS Elastic Beanstalk to process and analyze the data.

B. Push the clickstream data from each session to an Amazon Kinesis data stream Analyze the dab by using Amazon Kinesis Data Analytics.

C. Store the clickstream data in an Amazon S3 bucket. Order the data by timestamp Process the data with an AWS Lambda function that is subscribed to object creation events on the S3 bucket.

D. Forward the clickstream data to Amazon Simple Queue Service (Amazon SOS) Store the data In an

Amazon ROS for MySQL DB instance. Deploy Amazon FC2 Instances to process and analyze the data

Answer: B

37. - (Exam Topic 3)

A company recently expanded globally and wants to make its application accessible to users in those geographic locations. The application is deployed on Amazon EC2 instances behind an Application Load Balancer in an Auto Scaling group. The company needs the ability to shift traffic from resources in one region to another.

What should a solutions architect recommend?

A. Configure an Amazon Route 53 latency routing policy.

B. Configure an Amazon Route 53 geolocation routing policy.

C. Configure an Amazon Route 53 geoproximity routing policy.

D. Configure an Amazon Route 53 multivalue answer routing policy.

Answer: C

Explanation:

Geoproximity routing policy – Use when you want to route traffic based on the location of your resources and, optionally," shift traffic from resources in one location to resources in another". Using "Bias" you can expand or shrink size of the geographic region and shift traffic from one geographic region to another. To optionally change the size of the geographic region from which Route 53 routes traffic to a resource, specify the applicable value for the bias: To expand the size of the geographic region from which Route 53 routes traffic to a resource, specify a positive integer from 1 to 99 for the bias. Route 53 shrinks the size of adjacent regions. To shrink the size of the geographic region from which Route 53 routes traffic to a resource, specify a negative bias of -1 to -99. Route 53 expands the size of adjacent regions.

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

38. - (Exam Topic 3)

A business application is hosted on Amazon EC2 and uses Amazon S3 for encrypted object storage. The chief information security officer has directed that no application traffic between the two services should traverse the public internet.

Which capability should the solutions architect use to meet the compliance requirements?

A. AW3 Key Management Service (AWS KMS)

B. VPC endpoint

C. Private subnet

D. Virtual private gateway

Answer: B

39. - (Exam Topic 3)

A company is hosting multiple websites for several lines of business under its registered parent domain

Users accessing these websites will be routed to appropriate backend Amazon EC2 instances based on

the subdomain The websites host static webpages images, and server-side scripts like PHP and

JavaScript.

Some of the websites experience peak access during the first two hours of business with constant usage

throughout the rest of the day A solutions architect needs to design a solution that will automatically adjust

capacity to these traffic patterns while keeping costs low.

Which combination of AWS services or features will meet these requirements? (Select TWO)

A. AWS Batch

B. Network Load Balancer

C. Application Load Balancer

D. Amazon EC2 Auto Scaling

E. Amazon S3 website hosting

Answer: D E

40. - (Exam Topic 3)

A company wants to automate the security assessment of its Amazon EC2 instances The company needs

to validate and demonstrate that it is meeting security and compliance standards throughout the

development process.

What should a solutions architect do to meet these requirements?

A. Use Amazon Macie to automatically discover, classify and protect the EC2 instances

B. Use Amazon GuardDuty on the EC2 instances to publish Amazon Simple Notification Service (Amazon

SNS) notifications

C. Use Amazon Inspector with Amazon CloudWatch to publish Amazon Simple Notification Service

(Amazon SNS) notifications

D. Use Amazon EventBridge (Amazon CloudWatch Events) to detect and react to changes in the status of

AWS Trusted Advisor checks

Answer: C

41. - (Exam Topic 3)

A company wants to move a multi-tiered application from on premises to the AWS Cloud to improve the

application's performance. The application consists of application tiers that communicate with each other by

way of

Which solution moots these and is the MOST operationally efficient?

A. Use Amazon API Gateway and direct transactions to the AWS Lambda functions as the application layer

Use Amazon Simple Queue Service (Amazon SOS) as the communication layer between application

services.

B. Use Amazon CloudWatch metrics to analyze the application performance history to determine the

servers' peak utilization during the performance failures Increase the size or the application servers

Amazon EC2 instance to meet the peak requirements

C. Use Amazon Simple Notification Service (Amazon SNS) to handle the messaging between application

servers running on Amazon EC2 m an Auto Scaling group Use Amazon CloudWatch to monitor the SNS

queue length and scale up and down as required.

D. Use Amazon Simple Queue Service (Amazon SOS) to handle the messaging between application

servers running on Amazon EC2 In an Auto Seeing group Use Amazon CloudWatch to monitor the SOS

queue length and scale up when communication failures are detected.

Answer: D

42. - (Exam Topic 3)

A company hosts multiple production applications. One of the applications consists of resources from

Amazon EC2. AWS Lambda. Amazon RDS. Amazon Simple Notification Service (Amazon SNS), and

Amazon Simple Queue Service (Amazon SOS) across multiple AWS Regions. All company resources are

tagged with a tag name of "application" and a value that corresponds to each application. A solutions

architect must provide the quickest solution for identifying all of the tagged components.

Which solution meets these requirements?

A. Use AWS CloudTrail to generate a list of resources with the application tag.

B. Use the AWS CLI to query each service across all Regions to report the tagged components.

C. Run a query in Amazon CloudWatch Logs Insights to report on the components with the application tag.

D. Run a query with the AWS Resource Groups Tag Editor to report on the resources globally with the

application tag.

Answer: D

43. - (Exam Topic 3)

A company is managing health records on-peruses. The company must keep these records Indefinitely,

disable any modifications to the records once they are stored, and granularly audit access at all levels. The

chief technology officer (CTO) is concerned because there are already millions of record not being used by

any application, and the current infrastructure is running out of space. The CTO has requested solutions

architect design a solution to move easting data and support future records.

Which services can the solutions architect recommend to meet these requirements?

A. Use AWS DataSync to move existing data to AWS Use Amazon S3 to store existing and new data

Enable Amazon S3 object lock and enable AWS CloudTrail with data events

B. Use AWS Storage Gateway to move existing data to AWS Use Amazon S3 to store existing and new

data Enable Amazon S3 object lock and enable AWS CloudTrail with management events

C. Use AWS DataSync to move exiting data to AWS Use Amazon S3 to store existing and new data.

Enable Amazon S3 object lock and enable AWS CloudTrail with management events.

D. Use AWS Storage Gateway to move existing data to AWS Use Amazon Elastic Block Stores (Amazon

EBS) to store existing and new data. Enable Amazon S3 object lock and enable Amazon S3 server access

logging

Answer: A

44. - (Exam Topic 3)

A solution architect has created two IAM policies. Policy1 and Policy2 . Both policies are attached to an IAM

group.
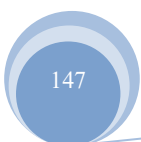
Policy1
```
{
  "Version": "2012-10-17",  "Statement": [
    {
      "Effect": "Allow",
      "Action": [
        "iam:Get*",
        "iam:List*",
        "kms:List*",
        "ec2:*",
        "ds:*",
        "logs:Get*",
        "logs:Describe*"
      ],
      "Resource": "*"
    }
  ]
}
```

Policy2
```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Deny",
      "Action": "ds:Delete*",
      "Resource": "*"
    }
  ]
}
```

A cloud engineer is added as an IAM user to the IAM group. Which action will the cloud engineer be able to perform?

A. Deleting IAM users

B. Deleting directories

C. Deleting Amazon EC2 instances

D. Deleting logs from Amazon CloudWatch Logs

Answer: C

45. - (Exam Topic 3)

A company has no existing file share services. A new project requires access to file storage that is mountable as a drive for on-premises desktops. The file server must authenticate users to an Active Directory domain before they are able to access the storage.

Which service will allow Active Directory users to mount storage as a drive on their desktops?

A. Amazon S3 Glacier

B. AWS DataSync

C. AWS Snowball Edge

D. AWS Storage Gateway

Answer: D

46. - (Exam Topic 3)

A company runs a public three-Tier web application in a VPC The application runs on Amazon EC2 instances across multiple Availability Zones. The EC2 instances that run in private subnets need to communicate with a license server over the internet The company needs a managed solution that minimizes operational maintenance

Which solution meets these requirements"

A. Provision a NAT instance in a public subnet Modify each private subnets route table with a default route that points to the NAT instance

B. Provision a NAT instance in a private subnet Modify each private subnet's route table with a default route that points to the NAT instance

C. Provision a NAT gateway in a public subnet Modify each private subnet's route table with a default route that points to the NAT gateway

D. Provision a NAT gateway in a private subnet Modify each private subnet's route table with a default route that points to the NAT gateway .

Answer: C

47. - (Exam Topic 3)

A company runs an internal browser-based application The application runs on Amazon EC2 instances behind an Application Load Balancer. The instances run in an Amazon EC2 Auto Scaling group across multiple Availability Zones. The Auto Scaling group scales up to 20 instances during work hours but scales down to 2 instances overnight Staff are complaining that the application is very slow when the day begins although it runs well by mid-morning.

How should the scaling be changed to address the staff complaints and keep costs to a minimum'?

A. Implement a scheduled action that sets the desired capacity to 20 shortly before the office opens

B. Implement a step scaling action triggered at a lower CPU threshold, and decrease the cooldown period.

C. Implement a target tracking action triggered at a lower CPU threshold, and decrease the cooldown

period.

D. Implement a scheduled action that sets the minimum and maximum capacity to 20 shortly before the

office opens

Answer: A

48. - (Exam Topic 3)

A company hosts an application used to upload files to an Amazon S3 bucket Once uploaded, the files are

processed to extract metadata which takes less than 5 seconds The volume and frequency of the uploads

vanes from a few files each hour to hundreds of concurrent uploads The company has asked a solutions

architect to design a cost-effective architecture that will meet these requirements.

What should the solutions architect recommend?

A. Configure AWS CloudTrail trails to log S3 API calls Use AWS AppSync to process the files

B. Configure an object-created event notification within the S3 bucket to invoke an AWS Lambda function to

process the files

C. Configure Amazon Kinesis Data Streams to process and send data to Amazon S3 Invoke an AWS

Lambda function to process the files

D. Configure an Amazon Simple Notification Service (Amazon SNS) topic to process the files uploaded to

Amazon S3. Invoke an AWS Lambda function to process the files

Answer: B

49. - (Exam Topic 3)

A company wants to use a custom distributed application that calculates various profit and loss scenarios

To achieve this goal, the company needs to provide a network connection between its Amazon EC2

instances. The connection must minimize latency and must maximize throughput
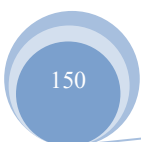
Which solution will meet these requirements?

A. Provision the application to use EC2 Dedicated Hosts of the same instance type.

B. Configure a placement group for EC2 instances that have the same instance type

C. Use multiple AWS elastic network interfaces and link aggregation

D. Configure AWS PrivateLink for the EC2 instances

Answer: A

50. - (Exam Topic 3)

A company has a mutt-tier application deployed on several Amazon EC2 instances m an Auto Scaling group. An Amazon RDS for Oracle instance is the application's data layer that uses Oracle-specific PL/'SQL functions. Traffic to the application has been steadily Increasing. This is causing the EC2 instances to become overloaded and the RDS instance to run out of storage. The Auto Scaling group does not have any scaling metrics and defines the minimum healthy instance count only. The company predicts that traffic will continue to increase at a steady but unpredictable rate before levelling off.

What should a solutions architect do to ensure the system can automatically scale for the increased traffic? (Select TWO.)

A. Configure storage Auto Scaling on the RDS for Oracle Instance.

B. Migrate the database to Amazon Aurora to use Auto Scaling storage.

C. Configure an alarm on the RDS for Oracle Instance for low free storage space

D. Configure the Auto Scaling group to use the average CPU as the scaling metric

E. Configure the Auto Scaling group to use the average free memory as the seeing metric

Answer: A C

51. - (Exam Topic 3)

A ride-sharing company stores historical service usage data as structured csv data files in Amazon S3 A data analyst needs to perform SQL queries on this data A solutions architect must recommend a solution that optimizes cost-effectiveness for the queries

Which solution meets these requirements?

A. Create an Amazon EMR cluster Load the data Perform the queries

B. Create an Amazon Redshift cluster import the data Perform the queries

C. Create an Amazon Aurora PostgreSQL DB cluster Import the data Perform the queries

D. Create an Amazon Athena database Associate the data in Amazon S3 Perform the queries

Answer: D

52. - (Exam Topic 3)

A company hosts its product information webpages on AWS The existing solution uses multiple Amazon EC2 instances behind an Application Load Balancer in an Auto Scaling group. The website also uses a custom DNS name and communicates with HTTPS only using a dedicated SSL certificate The company is planning a new product launch and wants to be sure that users from around the world have the best possible experience on the new website

What should a solutions architect do to meet these requirements?

A. Redesign the application to use Amazon CloudFront

B. Redesign the application to use AWS Elastic Beanstalk

C. Redesign the application to use a Network Load Balancer.

D. Redesign the application to use Amazon S3 static website hosting

Answer: A

53. - (Exam Topic 3)

A company runs an application on an Amazon EC2 instances backed by Amazon Elastic Block Store (Amazon EBS). The instances needs to be available for 12 hours daily. The company wants to save costs by making the instance outside the window required for the application. However, the contents of the memory must be preserved whenever the instance is unavailable.

What should a solutions architect do lo meet this requirement?

A. Stop the instance outside the application's availability window Start up the instance again when required

B. Hibernate the instance outside the application's availability window Start up the instance again when required

C. Use Auto Scaling to scale down the instance outside the application's availability window Scale up the instance when required.

D. Terminate the instance outside the application's availability window Launch the instance by using a preconfigured Amazon Machine Image (AMI) when required

Answer: A

54. - (Exam Topic 3)

A company plant to host a survey website on AWS The company anticipates an unpredictable amount of traffic This traffic results m asynchronous updates to the database. The company wants to ensure mat

writes to the database hosted on AWS do not gel dropped

How should the company write its application to hand to these database requests?

A. Configure the application to publish to an Amazon Simple Notification Service (Amazon SNS) topic Subscribe the database to the SNS topic.

B. Configure the application to subscribe to an Amazon Simple Notification Service (Amazon SNS) topic. Publish the database updates to the SNS topic

C. Use Amazon Simple Queue Service (Amazon SOS) FIFO queues to queue the database connection until the database has resources to wrist the data.

D. Use Amazon Simple Queue Service (Amazon SOS) FIFO queues tor capturing the writes and draining the queue as each write is made to the database.

Answer: D

55. - (Exam Topic 3)

A meteorological startup company has a custom web application to sell weather data to its users online. The company uses Amazon DynamoDB to store is data and wants to bu4d a new service that sends an alert to the managers of four Internal teams every time a new weather event is recorded. The company does not want true new service to affect the performance of the current application

What should a solutions architect do to meet these requirement with the LEAST amount of operational overhead?

A. Use DynamoDB transactions to write new event data to the table Configure the transactions to notify internal teams.

B. Have the current application publish a message to four Amazon Simple Notification Service (Amazon SNS) topics. Have each team subscribe to one topic.

C. Enable Amazon DynamoDB Streams on the table. Use triggers to write to a mingle Amazon Simple Notification Service (Amazon SNS) topic to which the teams can subscribe.

D. Add a custom attribute to each record to flag new items. Write a cron job that scans the table every minute for items that are new and notifies an Amazon Simple Queue Service (Amazon SOS) queue to which the teams can subscribe.

Answer: C

56. - (Exam Topic 3)

A company has a corporate network on premises and has three VPCs in the AWS Cloud. The company has one VPC each for development, test, and, production. The company wants its system administrators to security gain remote command-line access from the corporate network to Amazon EC2 instances in the VPCs.

Which solution meets these requirements MOST cost-effectively?

A. Set up a VPN connection between the corporate network and each of the three VPCs by using AWS VPN Use Remote Desktop Protocol (RDP) or SSH over the VPN connection to access the EC2 instances remotely.

B. Configure the EC2 instances to use an instance profile that trusts AWS Systems Manager Use Systems Manager Session Manager to gain console access to the EC2 instances

C. Create a new VPC Purchase and install a virtual router from AWS Marketplace Establish a VPN connection from the corporate network to this router. Establish another VPN connection from the 'outer to the other three VPCs Use Remote Desktop Protocol (RDP) or SSH over the VPN connection to access the EC2 instances remotely.

D. Create a new VPC Establish a VPN connection to the new VPC. Configure peering connections between the new VPC and the existing VPCs In the new VPC create an EC2 bastion host to serve as a jump box lo EC2 instances in the other VPCs Use Remote Desktop Protocol (RDP) or SSH over the VPN connection to the bastion host

Answer: A

57. - (Exam Topic 3)

A company is rebelling its data canter and wants to securely transfer 50 TB of data lo AWS *ilhm 2 weeks.

The existing data center has a Site-to-Site VPN connection to AWS that is 90 % utilized

Which AWS service should a solutions architect use to meet these requirements?

A. AWS DataSync with a VPC endpoint

B. AWS Direct Conned

C. AWS Snowball Edge Storage Optimized

D. AWS Storage Gateway

Answer: C

58. - (Exam Topic 3)

A company has deployed a database in Amazon RDS for MySQL. Due to increased transactions, the database support team is reporting slow reads against the DB instance and recommends adding a read replica.

Which combination of actions should a solutions architect take before implementing this change? {Select TWO.)

A. Enable binlog replication on the RDS primary node.

B. Choose a failover priority for the source DB instance.

C. Allow long-running transactions to complete on the source DB instance.

D. Create a global table and specify the AWS Regions where the table will be available.

E. Enable automatic backups on the source instance by setting the backup retention period to a value other than 0.

Answer: B C

59. - (Exam Topic 3)

A news company that has reporters ail over the world is hosting its broadcast system on AWS The reporters send live broadcasts to the broadcast system The reporters use software on their phones to send live streams through the Real Time Messaging Protocol (RTMP).

A solutions architect must design a solution that gives the reporters the ability to send the highest quality streams. The solution must provide accelerated TCP connections back to the broadcast system.
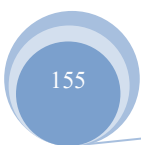
What should the solutions a use to meet these requirements?

A. Amazon CloudFront

B. AWS Global Accelerator

C. AWS Client VPN

D. Amazon EC2 Instances and AWS Elastic IP addresses

Answer: B

60. - (Exam Topic 3)

A company has several web servers that need to frequently access a common Amazon RDS MySQL

Multi-AZ DB instance The company wants a secure method for the web servers to connect to the database while meeting a security requirement to rotate user credentials frequently

Which solution meets these requirements?

A. Store the database user credentials in AWS Secrets Manager Grant the necessary 1AM permissions to allow the web servers to access AWS Secrets Manager

B. Store the database user credentials in AWS Systems Manager OpsCenter Grant the necessary IAM permissions to allow the web servers to access OpsCenter

C. Store the database user credentials in a secure Amazon S3 bucket Grant the necessary 1AM permissions to allow the web servers to retrieve credentials and access the database.

D. Store the database user credentials in files encrypted with AWS Key Management Service (AWS KMS) on the web server file system. The web server should be able to decrypt the files and access the database

Answer: A

61. - (Exam Topic 3)

An entertainment company is using Amazon DynamoDB to store media metadata. The application Is read intensive and experience delays The company does not have staff to handle additional operational overhead and needs to Improve the performance efficiency of DynamoDB without reconfiguring the application

What should a solutions architect recommend to meet this requirement?

A. Use Amazon ElastiCache for Redis

B. Use Amazon DynamoDB Accelerator (DAX).

C. Replicate data by using DynamoDB global tables

D. Use Amazon ElasoCache for Merncached with Auto Discovery enabled

Answer: B

62. - (Exam Topic 3)

A company develops web applications. As part of its development process, the company constantly launches and deletes Application Load Balancers (ALBs) in multiple AWS Regions.

The company wants to create an allow list on its firewall device. The allow list will contain the IP addresses of an the load balancers. A solutions architect needs a one-line, highly available solution that will

accomplish that goal and will help reduce the number of IP addresses that the firewall needs to allow.

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

A. Create an AWS Lambda function to keep track of the IP addressee tor al the ALBs in different Regions.
Keep refreshing this list.

B. Set up a Network Load Balancer (NLB) with Elastic IP addresses Register the private IP addresses of all
the ALBs as targets for the NLB

C. Launch AWS Global Accelerator Create endpoints for each of the Regions that are m use. Register all
the ALBs in the Regions to the corresponding endpoints.

D. Set up an Amazon EC2 Instance Assign an Elastic IP address to the EC2 instance. Configure the EC2
instance as a proxy to forward traffic to all the ALBs

Answer: C

63. - (Exam Topic 3)

A company has a custom application with embedded credentials that retrieves information from an Amazon
RDS MySQL DB instance. Management says the application must be made more secure with the least
amount of programming effort.

What should a solutions architect do to meet these requirements?

A. Use AWS Key Management Service (AWS KMS) customer master keys (CMKs) to create keys.
Configure the application to load the database credentials from AWS KMS. Enable automatic key rotation.

B. Create credentials on the RDS for MySQL database for the application user and store the credentials in
AWS Secrets Manager. Configure the application to load the database credentials from Secrets Manager.
Create an AWS Lambda function that rotates the credentials in Secret Manager.

C. Create credentials on the RDS for MySQL database for the application user and store the credentials in
AWS Secrets Manager. Configure the application to load the database credentials from Secrets Manager.
Set up a credentials rotation schedule for the application user in the RDS for MySQL database using
Secrets Manager.

D. Create credentials on the RDS for MySQL database for the application user and store the credentials in
AWS Systems Manager Parameter Store. Configure the application to load the database credentials from
Parameter Store. Set up a credentials rotation schedule for the application user in the RDS for MySQL
database using Parameter Store.

Answer: C

64. - (Exam Topic 3)

A company has a highly dynamic batch processing job that uses many Amazon EC2 instances to complete it The job is stateless in nature, can be started and stopped at any given time with no negative impact, and typically takes upwards of 60 minutes total to complete The company has asked a solutions architect to design a scalable and cost-effective solution that meets the requirements of the job.

What should the solutions architect recommend?

A. Implement EC2 Spot Instances

B. Purchase EC2 Reserved Instances

C. Implement EC2 On-Demand Instances

D. Implement the processing on AWS Lambda

Answer: A

65. - (Exam Topic 3)

A company is running a photo hosting service in the us-east-1 Region. The service enables users across multiple countries to upload and view photos. Some photos are heavily viewed tor months, and others are viewed for less than a week. The application allows uploads of up to 20 MB for each photo. The service uses the photo metadata to determine which photos to display to each user.

Which solution provides the appropriate user access MOST cost-effectively?

A. Store the photos in Amazon DynamoDB. Turn on DynamoDB Accelerator (DAX) to cache frequently viewed items.

B. Store the photos In the Amazon S3 Intelligent-Tiering storage class. Store the photo metadata and its S3 location in DynamoDB.

C. Store the photos in the Amazon S3 Standard storage class. Set up an S3 Lifecycle policy to move photos older than 30 days to the S3 Standard-Infrequent Access (S3 Standard-IA) storage class. Use the object tags to keep track of metadata.

D. Store the photos in the Amazon S3 Glacier storage class. Set up an S3 Lifecycle policy to move photos older than 30 days to the S3 Glacier Deep Archive storage class. Store the photo metadata and its S3 location in Amazon Elasticsearch Service (Amazon ES).

Answer: A

66. - (Exam Topic 3)

A company needs to build a reporting solution on AWS. The solution must support SQL queries that data

analysts run on the data. The data analysts will run lower than 10 total queries each day. The company

generates 3 GB of new data daily in an on-premises relational database. This data needs to be transferred

to AWS to perform reporting tasks.

What should a solutions architect recommend to meet these requirements at the LOWEST cost?

A. Use AWS Database Migration Service (AWS DMS) to replicate the data from the on-premises database

into Amazon S3. Use Amazon Athena to query the data.

B. Use an Amazon Kinesis Data Firehose delivery stream to deliver the data into an Amazon Elasticsearch

Service (Amazon ES) cluster Run the queries in Amazon ES.

C. Export a daily copy of the data from the on-premises database. Use an AWS Storage Gateway file

gateway to store and copy the export into Amazon S3. Use an Amazon EMR cluster to query the data.

D. Use AWS Database Migration Service (AWS DMS) to replicate the data from the on-premises database

and load it into an Amazon Redshift cluster. Use the Amazon Redshift cluster to query the data.

Answer: A

67. - (Exam Topic 3)

A company is hosting its website by using Amazon EC2 instances behind an Elastic Load balancer across

multiple Availability Zones. The instances run in an EC2 Scaling group. The website uses Amazon Elastic

Block Store (Amazon EBS) volume to store product manuals for users to download. The company updates

the product content often, so new instances launched by the Auto Scaling group often have data. It can

take to 30 minutes for the new instances to receive all the updates. The updates also require the EBS

volumes to be resized during business hours.

The company wants to ensure that the product manuals are always up to data on all instances and that the

architecture adjusts quickly to increased user demand. A solutions architect needs to meet these

requirements without causing the company lo update Its application code or adjust its website

What should the solutions architect do to accomplish this goal?

A. Store the product manuals in an EBS volume Mount that volume to the EC2 instances
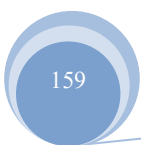
B. Store the product manuals in an Amazon S3 bucket Redirect the downloads to this bucket

C. Store the product manuals in an Amazon Elastic File System (Amazon EFS) volume. Mount that volume

to the EC2 instances

D. Store the product manuals in an Amazon S3 Standard-Infrequent Access (S3 Standard-IA) bucket.

Redirect the downloads to this bucket

Answer: C

68. - (Exam Topic 3)

A company is planning to migrate a business-critical dataset to Amazon S3 The current solution design

uses a single S3 bucket in the us-east-1 Region with versioning enabled to store the dataset. The

company's disaster recovery policy states that all data must be in multiple AWS Regions.

How should a solutions architect design the S3 solution?

A. Create an additional S3 bucket in another Region and configure cross-Region replication.

B. Create an additional S3 bucket in another Region and configure cross-origin resource sharing (CORS)

C. Create an additional S3 bucket with versioning in another Region and configure cross-Region replication

D. Create an additional S3 bucket with versioning in another Region and configure cross-origin resource

sharing (CORS)

Answer: C

69. - (Exam Topic 3)

A company is preparing to deploy a data lake on AWS A solutions architect must define the encryption

strategy for data at rest in Amazon S3. The company's security policy states

• Keys must be rotated every 90 days

• Strict separation of duties between key users and key administrators must be implemented

• Auditing key usage must be possible

What should the solutions architect recommend?

A. Server-side encryption with AWS KMS managed keys (SSE-KMS) with customer managed customer

master keys (CMKs)

B. Server-side encryption with AWS KMS managed keys (SSE-KMS) with AWS managed customer

master keys (CMKs)

C. Server-side encryption with Amazon S3 managed keys (SSE-S3) with customer managed customer master keys (CMKs)

D. Server-side encryption with Amazon S3 managed keys (SSE-S3) with AWS managed customer master keys (CMKs)

Answer: B

70. - (Exam Topic 3)

A solutions architect needs to host a high performance computing (HPC) workload in the AWS Cloud. The workload will run on hundreds of Amazon EC2 instances and will require parallel access to a shared file system to enable distributed processing of large datasets. Datasets will be accessed across multiple instances simultaneously. The workload requires access latency within 1 ms. After processing has completed, engineers will need access to the dataset for manual postprocessing.

Which solution will meet these requirements?

A. Use Amazon Elastic File System (Amazon EFS) as a shared file system. Access the dataset from Amazon EFS.

B. Mount an Amazon S3 bucket to serve as the shared file system. Perform postprocessing directly from the S3 bucket.

C. Use Amazon FSx for Lustre as a shared file system. Link the file system to an Amazon S3 bucket for postprocessing.

D. Configure AWS Resource Access Manager to share an Amazon S3 bucket so that it can be mounted to all instances for processing and postprocessing.

Answer: A

71. - (Exam Topic 3)

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
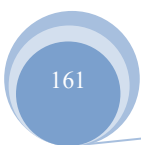
primary Direct Connect connection fails.

B. Provision a VPN tunnel connection to a Region for private connectivity. Provision a second VPN tunnel for private connectivity and as a backup if the primary VPN connection fails

C. 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.

D. 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

72. - (Exam Topic 3)

A law firm needs to share information with the public. The information includes hundreds of files that must be publicly readable. Modifications or deletions of the files by anyone before a designated future date are prohibited.

Which solution will meet these requirements in the MOST secure way?

A. Upload all tiles to an Amazon S3 bucket that is configured for static website hosting. Grant read-only IAM permissions to any AWS principals that access the S3 bucket until the designated date.

B. Create a new Amazon S3 bucket with S3 Versioning enabled. Use S3 Object Lock with a retention period in accordance with the designated dale. Configure the S3 bucket for static website hosting Set an S3 bucket policy to allow read-only access to the objects.

C. Create a new Amazon S3 bucket with S3 Versioning enabled Configure an event trigger to run an AWS Lambda function in case of object modification or deletion Configure the Lambda function to replace the objects with the original versions from a private S3 bucket

D. Upload all files to an Amazon S3 bucket that is configured for static website hosing. Select the folder that contains the files. Use S3 Object Lock with a retention period m accordance with the designated date Grant read-only IAM permissions to any AWS principals that access the S3 bucket

Answer: B

73. - (Exam Topic 3)

A company is planning to move a dynamic web application to AWS. Application assets are stored in a Linux file server. The total volume of data is 140 TB, and the company has 100 Mbps of internet bandwidth

available. The company does not want to make any changes to the application during migration. File

permissions must be preserved.

How should a solutions architect migrate and store the data to meet these requirements?

A. Transfer the data by using the file interface for AWS Snowball. Use Amazon Elastic File System

(Amazon EFS) as the migration destination and for storage.

B. Transfer the data by using the Amazon S3 interface for AWS Snowball. Use Amazon FSx for Lustre as

the migration destination and for storage.

C. Transfer the data by using the AWS CLI s3 cp command. Use Amazon EC2 with Amazon Elastic Block

Store (Amazon EBS) as the migration destination and for storage.

D. Transfer the data by using AWS DataSync. Use AWS Storage Gateway File Gateway as the migration

destination and for storage.

Answer: A

74. - (Exam Topic 3)

A three-tier web application processes orders from customers. The web tier consists of Amazon EC2

instances behind an Application Load Balancer, a middle tier of three EC2 instances decoupled from the

web tier using Amazon SQS. and an Amazon DynamoDB backend At peak times customers who submit

orders using the site have to wait much longer than normal to receive confirmations due to lengthy

processing times A solutions architect needs to reduce these processing times

Which action will be MOST effective in accomplishing this?

A. Replace the SQS queue with Amazon Kinesis Data Firehose

B. Use Amazon ElastiCache for Redis in front of the DynamoDB backend tier

C. Add an Amazon CloudFront distribution to cache the responses for the web tier.

D. Use Amazon EC2 Auto Scaling to scale out the middle tier instances based on the SQS queue depth

Answer: C

75. - (Exam Topic 3)

A company runs an online ticketing application with backend services that run on Amazon EC2 instances.

The EC2 instances belong to an Auto Scaling group and run behind an Application Load Balancer. The

application experiences periods of high user traffic when a popular event is posted online. The company

wants a solution that will be able to handle increases in user traffic without affecting the user experience.

What should a solutions architect do to meet these requirements?

A. Configure a scheduled scaling policy for peak hours with a recurrence schedule set to every day.

B. Configure a target tracking scaling policy that uses the average aggregate CPU utilization target metric.

C. Configure a step scaling policy that is based on an Amazon CloudWatch alarm that monitors CPU utilization.

D. Configure an Application Load Balancer health check that increases the Auto Scaling group capacity whenever the application returns HTTP 503 error codes.

Answer: B

76. - (Exam Topic 3)

A trucking company is deploying an application that will track the GPS coordinates of all the company's trucks The company needs a solution that will generate real-time statistics based on metadata lookups with high read throughput and microsecond latency The database must be fault tolerant and must minimize operational overhead and development effort.

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

A. Use Amazon DynamoDB as the database.

B. Use Amazon Aurora MySQL as the database.

C. Use Amazon RDS for MySQL as the database.

D. Use Amazon ElastiCache as the caching layer.

E. Use Amazon DynamoDB Accelerator (DAX) as the caching layer.

Answer: A E

77. - (Exam Topic 3)

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

78. - (Exam Topic 3)

A company runs a fleet of web servers using an Amazon RDS for PostgreSQL DB instance After a routine

compliance check, the company sets a standard that requires a recovery pant objective (RPO) of less than

1 second for all its production databases.

Which solution meets these requirement?

A. Enable a Multi-AZ deployment for the DB Instance

B. Enable auto scaling for the OB instance m one Availability Zone.

C. Configure the 06 instance in one Availability Zone and create multiple read replicas in a separate

Availability Zone

D. Configure the 06 instance m one Availability Zone, and configure AWS Database Migration Service

(AWS DMS) change data capture (CDC) lacks

Answer: A

79. - (Exam Topic 3)

Some of the company's customers are retrieving records frequently, leading to an increase in costs for the

company. The company wants to limit retrieved requests in the future. The company also wants to ensure

that if one customer reaches its retrieval limit other customers will not affected.

Which solution will meet these requirements?

A. Set up server-side throttling limits for API Gateway.

B. Limit DynamoDB read throughput on the table lo an amount that results m the maximum cost that the

company is willing to incur.

C. Set up a usage plan for API Gateway Implement throttling limits tor each customer. and distribute API

keys to each customer

D. Set up AWS Budgets. Monitor the usage of API Gateway and DynamoDB Configure an alarm to provide

an alert when the cost exceeds a certain threshold each month
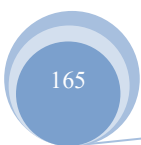
Answer: D

80. - (Exam Topic 3)

A company recently migrated a legacy application from an on-premises data center to AWS The application

is running on an Amazon EC2 instance The EC2 instance is deployed in a private subnet in a VPC without

inbound internet access The application support team requires SSH access to the operating system to

perform periodic maintenance

Which solution provides secure access with the LEAST operational effort?

A. Configure AWS Client VPN to access the VPC Update the EC2 instance security group inbound rules to

allow access from Client VPN

B. Configure AWS Site-to-Site VPN to access the VPC Update the EC2 instance security group inbound

rules to allow access from Site-to-Site VPN

C. Attach the AmazonSSMManagedInstanceCore 1AM policy to the EC2 instance role Use AWS Systems

Manager Session Manager to enable SSH connection.

D. Deploy a bastion host in a public subnet Allow SSH access to the bastion host from the internet Update

the EC2 instance security group inbound rules to allow access from the bastion host

Answer: D

81. - (Exam Topic 3)

A company is using a VPC peering strategy to connect its VPCs in a single Region to allow for

cross-communication. A recent increase in account creations and VPCs has made it difficult to maintain the

VPC peering strategy, and the company expects to grow to hundreds of VPCs. There are also new

requests to create site-to-site VPNs some of the VPCs. A solution architect has been tasked with creating a

centrally managed networking setup for multiple account, VPCs and VPNs.

Which networking solution these requirements?

A. Configure shared VPCs and VPNs and share to each other.

B. Configure a hub-and-spoke VPC and route all traffic through VPC peering.

C. Configure an AWS Direct Connect connection between al VPCs and VPNs.

D. Configure a transit gateway with Transit Gateway and connect all VPCs and VPNs.

Answer: D
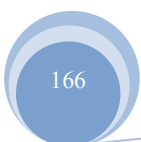
82. - (Exam Topic 3)

A solutions architect It designing a VPC with public and private subnets. The VPC and subnets use IPv4

CIDR blocks. There is one public subnet and one private subnet in each of three Availability Zones (AZs)

for high availability An internet gateways used to provide internet access for the public subnets. The private

subnets require access to the internet to allow Amazon BC2 Instances to download software updates.

What should the solutions architect do to enable internet access for the private subnets?

A. Create three NAT gateways, one for each public subnet in each AZ Create a private route table for each

AZ that forwards non-VPC traffic to tie NAT gateway m its AZ.

B. Create three NAT instances, one for each private subnet in each AZ Create a private route table for each

AZ that forwards non-VPC traffic to the NAT instance in its AZ.

C. Create a second internet gateway on one of the private subnets. Update the route table for the private

subnets that forward non-VPC trade to the private Internet gateway.

D. Create an egress-only internet gateway on one of the pubic subnets. Update the route table for the

private subnets that forward non-VPC traffic to the egress-only internet gateway.

Answer: A

83. - (Exam Topic 3)

A company runs an application in the AWS Cloud and uses Amazon DynamoDB as the database. The

company deploys Amazon EC2 instances to a private network to process data horn the database. The

company uses two NAT instances to provide connectivity lo DynamoDB

The company wants to retire the NAT instances. A solutions architect must implement a solution that

provides connectivity to DynamoDB and that does not require ongoing management

What Is the MOST cost-effective solution that meets these requirements?

A. Create a gateway VPC endpoint to provide connectivity to DynamoDB.

B. Configure a managed NAT gateway to provide connectivity to DynamoDB.

C. Establish an AWS Direct Connect connection behaviour to private network and DynamoDB.

D. Deploy an AWS PrivateLink endpoint service between the private network and DynamoDB.

Answer: A

84. - (Exam Topic 3)

A company has a hybrid application hosted on multiple on-premises servers with static IP addresses There is already a VPN that provides connectivity between the VPC and the on-premises network. The company wants to distribute TCP traffic across the on-premises servers for internet users

What should a solutions architect recommend to provide a highly available and scalable solution?

A. Launch an internet-facing Network Load Balancer (NLB) and register on-premises IP addresses with the NLB

B. Launch an internet-facing Application Load Balancer (ALB) and register on-premises IP addresses with the ALB

C. Launch an Amazon EC2 instance attach an Elastic IP address, and distribute traffic to the on-premises servers

D. Launch an Amazon EC2 instance with public IP addresses in an Auto Scaling group and distribute traffic to the on-premises servers

Answer: B

85. - (Exam Topic 3)

A company is experiencing sudden increases in demand. The company needs to provision large Amazon EC2 instances from an Amazon Machine image (AMI) The instances will run m an Auto Scaling group. The company needs a solution that provides minimum initialization latency to meet the demand. Which solution meets these requirements?

A. Use the aws ec2 register-image command to create an AMI from a snapshot Use AWS Step Functions to replace the AMI in the Auto Scaling group

B. Enable Amazon Elastic Block Store (Amazon EBS) fast snapshot restore on a snapshot Provision an AMI by using the snapshot Replace the AMI m the Auto Scaling group with the new AMI

C. Enable AMI creation and define lifecycle rules in Amazon Data Lifecycle Manager (Amazon DLM) Create an AWS Lambda function that modifies the AMI in the Auto Scaling group

D. Use Amazon EventBridge (Amazon CloudWatch Events) to invoke AWS Backup lifecycle policies that provision AMIs Configure Auto Scaling group capacity limits as an event source in EventBridge (CloudWatch Events)

Answer: C
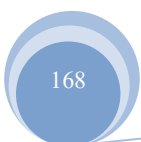
86. - (Exam Topic 3)

An online learning company is migrating to the AWS Cloud. The company maintains its student records in a

PostgreSQL database. The company needs a solution in which its data is available and online across

multiple AWS Regions at all times.

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

A. Migrate the PostgreSQL database to a PostgreSQL cluster on Amazon EC2 instances

B. Migrate the PostgreSQL database to an Amazon RDS for PostgreSQL DB instance with the Multi-AZ

feature turned on

C. Migrate the PostgreSQL database to an Amazon RDS for PostgreSQL DB instance Create a read

replica in another Region

D. Migrate the PostgreSQL database to an Amazon RDS for PostgreSQL DB instance Set up DB

snapshots to be copied to another Region.

Answer: D

87. - (Exam Topic 3)

A company observes an increase in Amazon EC2 costs in its most recent bill The billing team notices

unwanted vertical scaling of instance types for a couple of EC2 instances A solutions architect needs to

create a graph comparing the last 2 months of EC2 costs and perform an in-depth analysis to identify the

root cause of the vertical scaling

How should the solutions architect generate the information with the LEAST operational overhead?

A. Use AWS Budgets to create a budget report and compare EC2 costs based on instance types

B. Use Cost Explorer's granular filtering feature to perform an in-depth analysis of EC2 costs based on

instance types

C. Use graphs from the AWS Billing and Cost Management dashboard to compare EC2 costs based on

instance types for the last 2 months

D. Use AWS Cost and Usage Reports to create a report and send it to an Amazon S3 bucket Use Amazon

QuickSight with Amazon S3 as a source to generate an interactive graph based on instance types.

Answer: C

88. - (Exam Topic 3)

A manufacturing company wants to implement predictive maintenance on its machinery equipment The company will install thousands of loT sensors that will send data to AWS in real time. A solutions architect is tasked with implementing a solution that will receive events in an ordered manner for each machinery asset and ensure that data is saved for further processing at a later time

Which solution would be MOST efficient^

A. Use Amazon Kinesis Data Streams for real-time events with a partition for each equipment asset. Use Amazon Kinesis Data Firehose to save data to Amazon S3

B. Use Amazon Kinesis Data Streams for real-time events with a shard for each equipment asset Use Amazon Kinesis Data Firehose to save data to Amazon EBS

C. Use an Amazon SQS FIFO queue for real-time events with one queue for each equipment asset Trigger an AWS Lambda function for the SQS queue to save data to Amazon EFS.

D. Use an Amazon SQS standard queue for real-time events with one queue for each equipment asset. Trigger an AWS Lambda function from the SQS queue to save data to Amazon S3
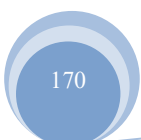
Answer: A

89. - (Exam Topic 3)

A company recently migrated a message processing system to AWS. The system receives messages into an ActiveMQ queue running on an Amazon EC2 instance. Messages are processed by a consumer application running on Amazon EC2. The consumer application processes the messages and writes results to a MySQL database funning on Amazon EC2. The company wants this application to be highly available with tow operational complexity

Which architecture otters the HGHEST availability?

A. Add a second ActiveMQ server to another Availably Zone Add an additional consumer EC2 instance in another Availability Zone. Replicate the MySQL database to another Availability Zone.

B. Use Amazon MO with active/standby brokers configured across two Availability Zones Add an additional consumer EC2 instance in another Availability Zone. Replicate the MySQL database to another Availability Zone.

C. Use Amazon MO with active/standby blotters configured across two Availability Zones. Add an additional consumer EC2 instance in another Availability Zone. Use Amazon ROS tor MySQL with Multi-AZ enabled.

D. Use Amazon MQ with active/standby brokers configured across two Availability Zones Add an Auto

Scaling group for the consumer EC2 instances across two Availability Zones. Use Amazon RDS (or MySQL

with Multi-AZ enabled.

Answer: D

90. - (Exam Topic 3)

A development team is collaborating with another company to create an integrate product. The other

company needs to access an Amazon Simple Queue Service (Amazon SOS) queue that is contained in the

development team's account. The other company wants to poll the queue without giving up its own account

permissions to do so.

How should a solutions architect provide access to the 303 queue7

A. Create an Instance profile that provides the other company access to the SOS queue

B. Create an IAM policy that provides the other company access to the SOS queue.

C. Create an SOS access policy that provides the other company access to the SOS queue

D. Create an Amazon Simple Notification Service (Amazon SNS) aeons policy that provides the other

company access to the SOS queue

Answer: C

91. - (Exam Topic 3)

A company wants its public web application to run on Amazon EC2 instances in an Auto Scaling group

behind an Application Load Balancer (ALB). The application must use a publicly trusted SSL certificate.

Which solution will meet these requirements MOST cost-effectively?

A. Provision a public SSL/TLS certificate through AWS Certificate Manager (ACM). Configure the new

certificate on the HTTPS listener for the ALB.

B. Use AWS Certificate Manager Private Certificate Authonty to issue an SSL/TLS certificate. Configure the

new certificate on the HTTPS listener for the ALB.

C. Create a self-signed certificate on one of the EC2 instances in the Auto Scaling group. Export the

certificate, and configure it on the HTTPS listener for the ALB.

D. Deploy an EC2-hosted certificate authority (CA). Import a trusted root certificate. Issue a new SSL/TLS

certificate. Configure the new certificate on the HTTPS listener for the ALB.

Answer: A

92. - (Exam Topic 3)

A solutions architect is designing a shared storage solution for a web application that is deployed across multiple Availability Zones. The web application runs on Amazon EC2 instances that are in an Auto Scaling group. The company plans to make frequent changes to the content. The solution must have strong consistency in returning the new content as soon as the changes occur.

Which solutions meet these requirements? (Select TWO.)

A. Use AWS Storage Gateway Volume Gateway Internet Small Computer Systems Interface (ISCSI) block storage that is mounted to the individual EC2 instances.

B. Create an Amazon Elastic File System (Amazon EFS) file system. Mount the EFS file system on the individual EC2 instances.

C. Create a shared Amazon Elastic Block Store (Amazon EBS) volume. Mount the EBS volume on the individual EC2 instances.

D. Use AWS DataSync to perform continuous synchronization of data between EC2 hosts in the Auto Scaling group.

E. Create an Amazon S3 bucket to store the web content. Set the metadata for the Cache-Control header to no-cache. Use Amazon CloudFront to deliver the content.

Answer: B C

93. - (Exam Topic 3)

At part of budget planning. management wants a report of AWS billed dams listed by user. The data will be used to create department budgets. A solution architect needs to determine the most efficient way to obtain this report Information

Which solution meets these requirement?

A. Run a query with Amazon Athena to generate the report.

B. Create a report in Cost Explorer and download the report

C. Access the bill details from me tuning dashboard and download Via bill.

D. Modify a cost budget in AWS Budgets to alert with Amazon Simple Email Service (Amazon SES).

Answer: B
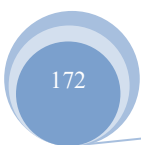
94. - (Exam Topic 3)

A company has a web application that includes an embedded NoSQL database The application runs on

Amazon EC2 instances behind an Application Load Balancer (ALB). The instances run in an Amazon EC2

Auto Scaling group in a single Availability Zone.

A recent increase in traffic requires the application to be highly available and for the database to be

eventually consistent

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

A. Replace the ALB with a Network Load Balancer Maintain the embedded NoSQL database with its

replication service on the EC2 instances

B. Replace the ALB with a Network Load Balancer Migrate the embedded NoSQL database to Amazon

DynamoDB by using AWS Database Migration Service (AWS DMS).

C. Modify the Auto Scaling group to use EC2 instances across three Availability Zones Maintain the

embedded NoSQL database with its replication service on the EC2 instances.

D. Modify the Auto Scaling group to use EC2 instances across three Availability Zones. Migrate the

embedded NoSQL database to Amazon DynamoDB by using AWS Database Migration Service (AWS

DMS)

Answer: B

95. - (Exam Topic 3)

A company is using a fleet of Amazon EC2 instances to ingest data from on-premises data sources. The

data is in JSON format and Ingestion rates can be as high as 1 MB/s. When an EC2 instance is rebooted,

the data in-flight is lost. The company's data science team wants to query Ingested data In near-real time.

Which solution provides near-real -time data querying that is scalable with minimal data loss?

A. Publish data to Amazon Kinesis Data Streams Use Kinesis data Analytics to query the data.

B. Publish data to Amazon Kinesis Data Firehose with Amazon Redshift as the destination Use Amazon

Redshift to query the data

C. Store ingested data m an EC2 Instance store Publish data to Amazon Kinesis Data Firehose with

Amazon S3 as the destination. Use Amazon Athena to query the data.

D. Store ingested data m an Amazon Elastic Block Store (Amazon EBS) volume Publish data to Amazon

ElastiCache tor Red Subscribe to the Redis channel to query the data

Answer: A

96. - (Exam Topic 3)

A company has an AWS Lambda function that needs read access to an Amazon S3 bucket that is located in the same AWS account. Which solution will meet these requirement in the MOST secure manner?

A. Apply an S3 bucket pokey that grants road access to the S3 bucket

B. Apply an IAM role to the Lambda function Apply an 1AM policy to the role to grant read access to the S3 bucket

C. Embed an access key and a secret key In the Lambda function's coda to grant the required 1AM permissions for read access to the S3 bucket

D. Apply an IAM role to the Lambda function. Apply an IAM policy to the role to grant read access to all S3 buckets In the account

Answer: B

97. - (Exam Topic 3)

A company is running a media store across multiple Amazon EC2 instances distnbuted across multiple Availability Zones in a single VPC. The company wants a high-performing solution to share data between all the EC2 instances, and prefers to keep the data within the VPC only

What should a solutions architect recommend?

A. Create an Amazon S3 bucket and call the service APIs from each instance's application.

B. Create an Amazon S3 bucket and configure all instances to access it as a mounted volume

C. Configure an Amazon Elastic Block Store (Amazon EBS) volume and mount it across ail instances.

D. Configure an Amazon Elastic File System (Amazon EPS) file system and mount it across all instances

Answer: C

98. - (Exam Topic 3)

A company is migrating a Linux-based web server group to AWS. The web servers must access files in a shared file store for some content. The company must not make any changes to the application.

What should a solutions architect do to meet these requirements?
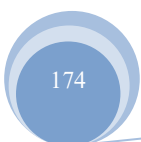
A. Create an Amazon S3 Standard bucket with access to the web servers.

B. Configure an Amazon CloudFront distribution with an Amazon S3 bucket as the origin.

C. Create an Amazon Elastic File System (Amazon EFS) file system. Mount the EFS file system on all web servers.

D. Configure a General Purpose SSD (gp3) Amazon Elastic Block Store (Amazon EBS) volume. Mount the EBS volume to all web servers.

Answer: C

99. - (Exam Topic 3)

A company hosts its web application on AWS using seven Amazon EC2 instances. The company requires that the IP addresses of all healthy EC2 instances be returned in response to DNS queries.

Which policy should be used to meet this requirement?

A. Simple routing policy

B. Latency routing policy

C. Multivalue routing policy

D. Geolocation routing policy

Answer: C

100. - (Exam Topic 3)

A solutions architect observes that a nightly batch processing job is automatically scaled up for 1 hour before the desired Amazon EC2 capacity is reached The peak capacity is the same every night and the batch jobs always start at 1 AM The solutions architect needs to find a cost-effective solution that will allow for the desired EC2 capacity to be reached quickly and allow the Auto Scaling group to scale down after the batch jobs are complete

What should the solutions architect do to meet these requirements^

A. Increase the minimum capacity for the Auto Scaling group

B. Increase the maximum capacity for the Auto Scaling group

C. Configure scheduled scaling to scale up to the desired compute level

D. Change the scaling policy to add more EC2 instances during each scaling operation.

Answer: C

101. - (Exam Topic 3)

A company has a web server running on an Amazon EC2 instance in public subnet with an Elastic IP address. The default security group is assigned to the EC2 instances. The default network ACL has been modified to block all traffic. A solution architect needs to make the web server accessible from everywhere on port 443.

Which combination of steps will accomplish this task? (Select TWO)

A. Create a security group with a rule to allow TCP port 443 from source 0 0 0.04)

B. Create a security group with a rule to allow TCP port 443 to destination 0 0.0.0/0.

C. Update the network ACL to allow TCP port 443 from source 0.0.0.0/0.

D. Update the network ACL to allow inboundoutbound TCP port 443 from source 0.0.0.0/0 and to destination 0.0.0.0/0.

E. Update the network ACL to allow inbound TCP port 443 from source 0.0.0.010 and outbound TCP port 32766-65535 to destination 0.0.0.0/0

Answer: A E


102. - (Exam Topic 3)

A company runs a shopping application lhat uses Amazon DynamoDB to store customer information. In case of data corruption, a solutions architect needs to design a solution that meets a recovery point objective (RPO) of 15 minutes and a recovery time objective (RTO> of 1 hour.

What should the solutions architect recommend to meet these requirements?

A. Configure DynamoDB global tables. For RPO recovery, point the application to a different AWS Region.

B. Configure DynamoDB point-in-time recovery. For RPO recovery, restore to the desired point in time.

C. Export the DynamoDB data to Amazon S3 Glacier on a daily basis. For RPO recovery, import the data from S3 Glacier to DynamoDB.

D. Schedule Amazon Elastic Block Store (Amazon EBS) snapshots for the DynamoDB table every 15 minutes. For RPO recovery, restore the DynamoDB table by using the EBS snapshot.

Answer: D

103. - (Exam Topic 3)
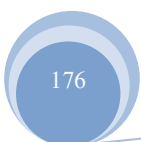
A company is running a mission-critical application on Amazon EC2 instances henna an Application Load Balancer The instances run in an Auto Scaling group in a single AWS Region The application is using a database in Ama2on Aurora as the data tier. A recent audit revealed that the current deployment of Aurora is not highly available.

What should a solutions architect do to improve the availability of the database

A. Configure an Aurora Replica

B. Configure storage replication.

C. Configure storage auto scaling.

D. Configure cross-Region replication

Answer: B

104. - (Exam Topic 3)

A company is running a two-tier ecommerce website using AWS services The current architecture uses a public-facing Elastic Load Balancer that sends traffic to Amazon EC2 instances in a prrvate subnet. The static content is hosted on EC2 instances and the dynamic content is retneved from a MySQL database The application is running in the United States The company recently started selling to users in Europe and Australia. A solutions architect needs to design a solution so their international users have an improved browsing experience

Which solution is MOST cost-effective?

A. Host the entire website on Amazon S3.

B. Use Amazon CloudFront and Amazon S3 to host static images

C. Increase the number of public load balancers and EC2 instances

D. Deploy the two-tier website in AWS Regions in Europe and Australia.

Answer: D

105. - (Exam Topic 3)

A solutions architect is planning the deployment of a new static website The solution must minimize costs and provide at least 99% availability

Which solution meets these requirements?

A. Deploy the application to an Amazon S3 bucket in one AWS Region that has versioning disabled

B. Deploy the application to Amazon EC2 instances that run in two AWS Regions and two Availability

Zones

C. Deploy the application to an Amazon S3 bucket that has versioning and cross-Region replication

enabled

D. Deploy the application to an Amazon EC2 instance that runs in one AWS Region and one Availability

Zone.

Answer: A

106. - (Exam Topic 3)

A company is running an application on AWS to process weather sensor data that is stored in an Amazon

S3 bucket. Three batch jobs run hourly to process the data in the S3 bucket for different purposes. The

company wants to reduce the overall processing time by running. The three applications in parallel using an

event-based approach.

What should a solutions architect do to meet these requirements?

A. Enable S3 Event Notifications for new objects to an Amazon Simple Queue Service (Amazon SOS)

FIFO queue Subscribe al applications to the queue for processing.

B. Enable S3 Event Notifications for new objects to an Amazon Simple Queue Service (Amazon SOS)

standard queue Create an additional SOS queue for all applications, and subscribe all applications to the

meal queue for processing.

C. Enable S3 Event Notifications for new objects to separate Amazon Simple Queue Service (Amazon SOS)

FIFO queues Create an additional SOS queue (or each application and subscribe each queue to the initial

topic for processing

D. Enable S3 Event Notifications tor new objects to an Amazon Simple Notification Service (Amazon SNS)

topic. Create an Amazon Simple Queue Service (Amazon SOS) queue for each application, and subscribe

each queue to the topic for processing

Answer: D

107. - (Exam Topic 3)

The financial application at a company stores monthly reports in an Amazon S3 bucket. The vice president

of finance has mandated that ail access to these reports be logged and that any modifications to the tog

files be detected

Which actions can a solutions architect take to meet these requirements?

A. Use S3 server access togging on the bucket that houses the reports with the read and write data events and log file validation options enabled

B. Use S3 server access logging on the bucket that houses the reports with the read and write management events and log file validation options enabled

C. Use AWS CloudTrail to create a new trail Configure the trail to log read and write data events on the S3 bucket that houses the reports Log these events to a new bucket and enable log file validation

D. Use AWS CloudTrail to create a new trail Configure the trail to log read and write management events on the S3 bucket that houses the reports Log these events to a new bucket, and enable log file validation.

Answer: C

Explanation:

https://docs.aws.amazon.com/awscloudtrail/latest/userguide/logging-data-events-with-cloudtrail.html

108. - (Exam Topic 3)

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 data. Other applications can consume the data stored in Amazon S3

C. 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.

D. Store the batched transactions data in Amazon S3 as files. 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

109. - (Exam Topic 3)

A pharmaceutical company is developing a new drug. The volume of data that the company generates has

grown exponentially over the past few months. The company's researchers regularly require a subset of the

entire dataset to be immediately available with minimal lag. However, the entire dataset does not need to

be accessed on a daily basis. All the data currently resides in on-premises storage arrays, and the

company wants to reduce ongoing capital expenses.

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

A. Run AWS DataSync as a scheduled cron job to migrate the data to an Amazon S3 bucket on an ongoing

basis.

B. Deploy an AWS Storage Gateway file gateway with an Amazon S3 bucket as the target storage. Migrate

the data to the Storage Gateway appliance.

C. Deploy an AWS Storage Gateway volume gateway with cached volumes with an Amazon S3 bucket as

the target storage. Migrate the data to the Storage Gateway appliance.

D. Configure an AWS Site-to-Site VPN connection from the on-premises environment to AWS. Migrate data

to an Amazon Elastic File System (Amazon EFS) file system.

Answer: C

110. - (Exam Topic 3)

A company runs an internet-facing web application on AWS. The company uses Amazon Route 53 for DNS

management and has a public hosted zone lo route traffic from the internet to the application. The company

wants to tog DNS response codes to help system administrators perform any root cause analysis in the

future.

Which solution will meet these requirements?

A. Use Route 53 to configure query togging

B. Use AWS CloudTrail lo record ail Route 53 queries

C. Use Amazon CloudWatch to record and process Route 53 metrics

D. Use AWS Trusted Advisor to perform on-demand root cause analysis

Answer: A

111. - (Exam Topic 3)

A company wants to use AWS Systems Manager to manage a fleet ol Amazon EC2 instances. According to the company's security requirements, no EC2 instances can have internet access. A solutions architect needs to design network connectivity from the EC2 instances to Systems Manager while fulfilling this security obligation.

Which solution will meet these requirements?

A. Deploy the EC2 instances into a private subnet with no route to the internet.

B. Configure an interface VPC endpoint for Systems Manager. Update routes to use the endpoint.

C. Deploy a NAT gateway into a public subnet. Configure private subnets with a default route to the NAT gateway.

D. Deploy an internet gateway. Configure a network ACL to deny traffic to all destinations except Systems Manager.

Answer: C

112. - (Exam Topic 3)

A solutions architect is implementing a document review application using an Amazon S3 bucket for storage. The solution must prevent accidental deletion of the documents and ensure that all versions of the documents are available Users must be able to download, modify, and upload documents.

Which combination of actions should be taken to meet these requirements? (Select TWO.)

A. Enable a read-only bucket ACL

B. Enable versioning on the bucket.

C. Attach an IAM policy to the bucket

D. Enable MFA Delete on the bucket.

E. Encrypt the bucket using AWS KMS.

Answer: B D

113. - (Exam Topic 3)

An application allows users at a company's headquarters to access product data. The product data is stored in an Amazon RDS MySQL DB instance The operations team has isolated an application performance slowdown and wants to separate read traffic from write traffic A solutions architect needs to optimize the application's performance quickly

What should the solutions architect recommend?

A. Change the existing database to a Multi-AZ deployment Serve the read requests from the primary Availability Zone

B. Change the existing database to a Multi-AZ deployment. Serve the read requests from the secondary Availability Zone

C. Create read replicas for the database Configure the read replicas with half of the compute and storage resources as the source database

D. Create read replicas for the database Configure the read replicas with the same compute and storage resources as the source database

Answer: D

114. - (Exam Topic 3)

A company is running several business applications in three separate VPCs within the us-east-1 Region. The applications must be able to communicate between VPCs. The applications also must be able to consistently send hundreds of gigabytes of data each day to a latency-sensitive application that runs in a single on-premises data center.

A solutions architect needs to design a network connectivity solution that maximizes cost-effectiveness.

Which solution meets these requirements?

A. Configure three AWS Site-to-Site VPN connections from the data center to AWS. Establish connectivity by configuring one VPN connection for each VPC.

B. Launch a third-party virtual network appliance in each VPC. Establish an IPsec VPN tunnel between the data center and each virtual appliance.

C. Set up three AWS Direct Connect connections from the data center to a Direct Connect gateway In us-easl-1. Establish connectivity by configuring each VPC to use one of the Direct Connect connections.

D. Set up one AWS Direct Connect connection from the data center lo AWS Create a transit gateway, and attach each VPC to the transit gateway. Establish connectivity between the Direct Connect connection and

the transit gateway.

Answer: C

115. - (Exam Topic 3)

A company has NFS servers in an on-premises data center that need to periodically back up small amounts of data to Amazon S3.

Which solution marts these requirement and is MOST cost-effective?

A. Set up AWS Glue lo copy the data from the on-premises servers to Amazon S3.

B. Set up an AWS DataSync agent on Vie on-premises servers, and sync the data lo Amazon S3

C. Set up an SFTP sync using AWS Transfer for SFTP lo sync data from on premises lo Amazon S3

D. Set up an AWS Direct Connect connection between the on-premises data center and a VPC, and copy the data to Amazon S3

Answer: B

116. - (Exam Topic 3)

A company has multiple AWS accounts with applications deployed in the us-west-2 Region Application logs are stored within Amazon S3 buckets in each account The company wants to build a centralized log analysis solution that uses a single S3 bucket Logs must not leave us-west-2. and the company wants to incur minimal operational overhead.

Which solution meets these requirements and is MOST cost-effective?

A. Create an S3 Lifecycle policy that copies the objects from one of the application S3 buckets to the centralized S3 bucket

B. Use S3 Same-Region Replication to replicate logs from the S3 buckets to another S3 bucket in us-west-2 Use this S3 bucket for log analysis.

C. Write a script that uses the PutObject API operation every day to copy the entire contents of the buckets to another S3 bucket in us-west-2 Use this S3 bucket for log analysis.

D. Write AWS Lambda functions in these accounts that are triggered every time logs are delivered to the S3 buckets (s3:ObjectCreated " event) Copy the logs to another S3 bucket in us-west-2 Use this S3 bucket for log analysis

Answer: A
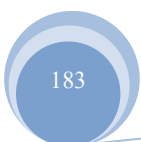
117. - (Exam Topic 3)

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 tor auditing purposes. Keys must be rotated every year.

Which solution meets these requirements and «the MOST operationally efferent?

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 automate rotation

Answer: D

118. - (Exam Topic 3)

A company is concerned that two NAT instances in use will no longer be able to support the traffic needed for the company's application A solutions architect wants to implement a solution that is highly available fault tolerant and automatically scalable

What should the solutions architect recommend?

A. Remove the two NAT instances and replace them with two NAT gateways in the same Availability Zone

B. Use Auto Scaling groups with Network Load Balancers for the NAT instances in different Availability Zones

C. Remove the two NAT instances and replace them with two NAT gateways in different Availability Zones

D. Replace the two NAT instances with Spot Instances in different Availability Zones and deploy a Network Load Balancer

Answer: C

119. - (Exam Topic 3)

A company is using a VPC that is provisioned with a 10.10.1.0/24 CIDR block Because of continued growth IP address space in this block might be depleted soon. A solutions architect must add more IP address capacity to the VPC
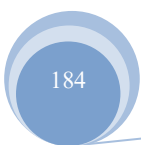
Which solution will meet these requirements with the LEAST operational overhead?

A. Create a new VPC Associate a larger CIDR block

B. Add a secondary CIDR block of 10 10 2 0/24 to the VPC

C. Resize the existing VPC CIDR block from 10 10 1.0/24 to 10 10.1.0

D. Establish VPC peering with a new VPC that has a CIDR block of 10.10 1.0/16

Answer: B

120. - (Exam Topic 3)

A company is planning to build a new web application on AWS The company expects predictable traffic most of the year and very high traffic on occasion. The web application needs to be highly available and fault tolerant with minimal latency.

What should a solutions architect recommend to meet these requirements?

A. Use an Amazon Route 53 routing policy to distribute requests to two AWS Regions each with one Amazon EC2 instance

B. Use Amazon EC2 instances in an Auto Scaling group with an Application Load Balancer across multiple Availability Zones

C. Use Amazon EC2 instances in a cluster placement group with an Application Load Balancer across multiple Availability Zones

D. Use Amazon EC2 instances in a cluster placement group and include the cluster placement group within a new Auto Scaling group

Answer: B

121. - (Exam Topic 3)

A company runs a static website through its on-premises data center. The company has multiple servers that handle all of its traffic, but on busy days, services are interrupted and the website becomes unavailable. The company wants to expand its presence globally and plans to triple its website traffic.

What should a solutions architect recommend to meet these requirements?

A. Migrate the website content to Amazon S3 and host the website on Amazon CloudFront.

B. Migrate the website content to Amazon EC2 instances with public Elastic IP addresses in multiple AWS Regions.

C. Migrate the website content to Amazon EC2 instances and vertically scale as the load increases.

D. Use Amazon Route 53 to distribute the loads across multiple Amazon CloudFront distributions for each

AWS Region that exists globally.

Answer: A

122. - (Exam Topic 3)

A company uses an application to present metrics from sporting events to the public. The application must

scale quickly during live events and must store these metrics for log-term reporting purposes. The

company's architecture includes the following:

* Amazon EC2 instances that run in an Auto Scaling group in private subnets

* A network Load Balancer That runs in public subnets

* A MongoDB database cluster that runs across multiple EC2 instances

A solutions architect mutt implement a solution that minimizes operational overhead The solution alto must

be able to Kale automatically. What should the solutions architect set up to meet these requirements?

A. An Amazon DynamoDB database

B. An Amazon ROS for MySQL D6 instance

C. EC2 instances that run MySQL

D. Amazon Redshift

Answer: A

123. - (Exam Topic 3)

A company has primary and secondary data canters that are 500 miles (804.7 km) apart and

Interconnected with high-speed fiber.optic cable. The company needs a highly available and secure

network connection between its data centers and a VPC on AWS for a mission-critical workload A solutions

architect must choose a connection solution that provides maximum resiliency. Which solution meets these

requirements?

A. Two AWS Direct Connect connections from the primary data center terminating at two Direct Connect

locations on two separate devices

B. A single AWS Direct Connect connection from each of the primary and secondary data centers

terminating at one Direct Connect location on the same device

C. Two AWS Direct Connect connections from each of the primary and secondary data centers terminating

at two Direct Connect locations on two separate devices

D. A single AWS Direct Connect connection from each of the primary and secondary data centers

terminating at one Direct Conned location on two separate devices

Answer: C

124. - (Exam Topic 3)

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 Lightsail Configure the web server in the Lightsail instance

Upload website content by using an SFTP client

B. Create an AWS Auto Scaling group for Amazon EC2 instances Use an Application Load Balancer

Upload website content by using an SFTP client

C. Create a private Amazon S3 bucket Use an S3 bucket policy to allow access from a CloudFront origin

access identity (OAI) Upload website content by using the AWS CLI

D. Create a public Amazon S3 bucket Configure AWS Transfer for SFTP Configure the S3 bucket for

website hosting Upload website content by using the SFTP client

Answer: C

125. - (Exam Topic 3)

A company recently deployed a new auditing system to centralize information about operating system

versions patching and installed software for Amazon EC2 instances. A solutions architect must ensure all

instances provisioned through EC2 Auto Scaling groups successfully send reports to the auditing system

as soon as they are launched and terminated

Which solution achieves these goals MOST efficiently?

A. Use a scheduled AWS Lambda function and run a script remotely on all EC2 instances to send data to the audit system.

B. Use EC2 Auto Scaling lifecycle hooks to run a custom script to send data to the audit system when instances are launched and terminated

C. Use an EC2 Auto Scaling launch configuration to run a custom script through user data to send data to the audit system when instances are launched and terminated

D. Run a custom script on the instance operating system to send data to the audit system Configure the script to be invoked by the EC2 Auto Scaling group when the instance starts and is terminated

Answer: B

126. - (Exam Topic 3)

A company's web application is running on Amazon EC2 instances behind an application Load Balancer. The company changed its policy., which now requires the application to be accessed from one specific country only.

Which configuration will meet this requirement?

A. Configure the security group for the EC2 Instances

B. Configure the security group on the Application Load Balancer

C. Configure AWS WAF on the Application Load Balancer in a VPC

D. Configure the network ACL for the subnet that contains the EC2 instances

Answer: C

127. - (Exam Topic 3)

A solutions architect needs to design a system to store client case files. The tiles are core company assets and are important. The number of tiles will grow over time. The files must be simultaneously accessible from multiple application servers that run on Amazon EC2 instances. The solution must have built-in redundancy. Which solution meets these requirements?

A. Amazon Elastic File System (Amazon EFS)

B. Amazon Elastic Block Store (Amazon EBS)

C. Amazon S3 Glacier Deep Archive

D. AWS Backup

Answer: A

128. - (Exam Topic 3)

A company wants to monitor its AWS costs for financial review. The cloud operations team is designing an architecture in the AWS Organizations management account to query AWS Cost and Usage Reports for all member accounts. The team must run this query once a month and provide a detailed analysis of the bill. Which solution is the MOST scalable and cost-effective way to meet these requirements?

A. Enable Cost and Usage Reports in the management account. Deliver reports to Amazon Kinesis. Use Amazon EMR for analysis.

B. Enable Cost and Usage Reports in the management account. Deliver the reports to Amazon S3. Use Amazon Athena for analysis.

C. Enable Cost and Usage Reports for member accounts. Deliver the reports to Amazon S3. Use Amazon Redshift for analysis.

D. Enable Cost and Usage Reports for member accounts. Deliver the reports to Amazon Kinesis. Use Amazon QuickSight for analysis.

Answer: B

129. - (Exam Topic 3)

A company runs its Infrastructure on AWS and has a registered base of 700.000 users for res document management application The company intends to create a product that converts large pdf files to jpg Imago files. The .pdf files average 5 MB in size. The company needs to store the original files and the converted files. A solutions architect must design a scalable solution to accommodate demand that will grow rapidly over lime.

Which solution meets these requirements MOST cost-effectively?

A. Save the pdf files to Amazon S3 Configure an S3 PUT event to invoke an AWS Lambda function to convert the files to jpg format and store them back in Amazon S3

B. Save the pdf files to Amazon DynamoDB. Use the DynamoDB Streams feature to invoke an AWS Lambda function to convert the files to jpg format and store them hack in DynamoDB

C. Upload the pdf files to an AWS Elastic Beanstalk application that includes Amazon EC2 instances. Amazon Elastic Block Store (Amazon EBS) storage and an Auto Scaling group. Use a program In the EC2

instances to convert the files to jpg format Save the .pdf files and the .jpg files In the EBS store.

D. Upload the .pdf files to an AWS Elastic Beanstalk application that includes Amazon EC2 instances, Amazon Elastic File System (Amazon EPS) storage, and an Auto Scaling group. Use a program in the EC2 instances to convert the file to jpg format Save the pdf files and the jpg files in the EBS store.

Answer: D

130. - (Exam Topic 3)

A company is planning to use Amazon S3 to store images uploaded by its users. The images must be encrypted at rest in Amazon S3. The company does not want to spend time managing and rotating the keys, but it does want to control who can access those keys.

What should a solutions architect use to accomplish this?

A. Server-Side Encryption with keys stored in an S3 bucket

B. Server-Side Encryption with Customer-Provided Keys (SSE-C)

C. Server-Side Encryption with Amazon S3-Managed Keys (SSE-S3)

D. Server-Side Encryption with AWS KMS-Managed Keys (SSE-KMS)

Answer: D

131. - (Exam Topic 3)

A company's security policy requires that all AWS API activity in its AWS accounts be recorded for periodic auditing. The company needs to ensure that AWS CloudTrail is enabled on all of its current and future AWS accounts using AWS Organizations

Which solution is MOST secure?

A. At the organization's root, define and attach a service control policy (SCP) that permits enabling CloudTrail only

B. Create 1AM groups in the organization's management account as needed Define and attach an 1AM policy to the groups that prevents users from disabling CloudTrail

C. Organize accounts into organizational units (OUs) At the organization's root define and attach a service control policy (SCP) that prevents users from disabling CloudTrail

D. Add all existing accounts under the organization's root Define and attach a service control policy (SCP) to every account that prevents users from disabling CloudTrail

Answer: D

132. - (Exam Topic 3)

A company is using Amazon Route 53 latency-based routing to route requests to its UDP-based application for users around the world. The application is hosted on redundant servers in the company's on-premises data centers in the United States. Asia, and Europe. The company's compliance requirements state that the application must be hosted on premises The company wants to improve the performance and availability of the application

What should a solutions architect do to meet these requirements?

A. A Configure three Network Load Balancers (NLBs) in the three AWS Regions to address the on-premises endpoints Create an accelerator by using AWS Global Accelerator, and register the NLBs as its endpoints. Provide access to the application by using a CNAME that points to the accelerator DNS

B. Configure three Application Load Balancers (ALBs) in the three AWS Regions to address the on-premises endpoints. Create an accelerator by using AWS Global Accelerator and register the ALBs as its endpoints Provide access to the application by using a CNAME that points to the accelerator DNS

C. Configure three Network Load Balancers (NLBs) in the three AWS Regions to address the on-premises endpoints In Route 53. create a latency-based record that points to the three NLBs. and use it as an origin for an Amazon CloudFront distribution Provide access to the application by using a CNAME that points to the CloudFront DNS

D. Configure three Application Load Balancers (ALBs) in the three AWS Regions to address the on-premises endpoints In Route 53 create a latency-based record that points to the three ALBs and use it as an origin for an Amazon CloudFront distribution- Provide access to the application by using a CNAME that points to the CloudFront DNS

Answer: A

133. - (Exam Topic 3)

A company has an on-premises MySQL database used by the global tales team with infrequent access patterns. The sales team requires the database to have minimal downtime. A database administrate wants to migrate this database to AWS without selecting a particular instance type in anticipation of more users In the future.
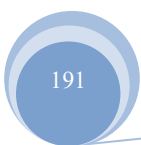
Which service should a solutions architect recommend?

A. Amazon Aurora MySQL

B. Amazon Aurora Serverless tor MySQL

C. Amazon Redshift Spectrum

D. Amazon RDS for MySQL

Answer: B

134. - (Exam Topic 3)

A company operates an ecommerce website on Amazon EC2 instances behind an Application Load Balancer (ALB) in an Auto Scaling group The site is experiencing performance issues related to a high request rate from illegitimate external systems with changing IP addresses The security team is worried about potential DDoS attacks against the website The company must block the illegitimate incoming requests in a way that has a minimal impact on legitimate users.

What should a solutions architect recommend1?

A. Deploy Amazon Inspector and associate it with the ALB.

B. Deploy AWS WAR associate it with the ALB and configure a rate-limiting rule.

C. Deploy rules to the network ACLs associated with the ALB to block the incoming traffic

D. Deploy Amazon GuardDuty and enable rate-limiting protection when configunng GuardDuty.
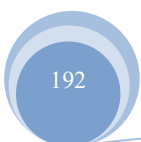
Answer: B

135. - (Exam Topic 3)

A company is running a multi-tier recommence web application in the AWS Cloud. The application runs on Amazon EC2 instances with an Amazon RDS for MySQL Multi-AZ OB instance. Amazon ROS is configured with the latest generation DB instance with 2.000 GB of storage In a General Purpose SSD (gp3) Amazon Elastic Block Store (Amazon EBSI volume. The database performance affects the application during periods high demand.

A database administrator analyzes the logs in Amazon CloudWatch Logs and discovers that the application performance always degrades when the number of read and write IOPS is higher than 20.000.

What should a solutions architect do to improve the application performance?

A. Replace the volume with a magnetic volume.

B. Increase the number of IOPS on the gp3 volume.

C. Replace the volume with a Provisioned IOPS SSD (Io2) volume.

D. Replace the 2.000 GB gp3 volume with two 1.000 GB gp3 volumes

Answer: C

136. - (Exam Topic 3)

A solutions architect is creating an application. The application will run on Amazon EC2 instances in private

subnets across multiple Availability Zones in a VPC. The EC2 instances will frequently access large files

that contain confidential information. These files are stored in Amazon S3 buckets for processing. The

solutions architect must optimize the network architecture to minimize data transfer costs.

What should the solutions architect do to meet these requirements?

A. Create a gateway endpoint for Amazon S3 in the VPC. In the route tables for the private subnets, add an

entry for the gateway endpoint.

B. Create a single NAT gateway in a public subnet. In the route tables for the private subnets, add a default

route that points to the NAT gateway.

C. Create an AWS PrivateLink interface endpoint for Amazon S3 in the VPC. In the route tables for the

private subnets, add an entry for the interface endpoint.

D. Create one NAT gateway for each Availability Zone in public subnets. In each of the route tables for the

private subnets, add a default route that points to the NAT gateway in the same Availability Zone.

Answer: A

137. - (Exam Topic 3)

A company has hired a solutions architect to design a reliable architecture for its application. The

application consists of one Amazon RDS DB instance and two manually provisioned Amazon EC2

instances that run web servers. The EC2 instances are located in a single Availability Zone.

What should the solutions architect do to maximize reliability of the application Infrastructure?

A. Delete one EC2 instance and enable termination protection on the other EC2 instance. Update the DB

instance to De multi-AZ, and enable deletion protection.

B. Update the DB instance to be Multi-AZ. and enable deletion protection. Place the EC2 instances behind

an Application Load Balancer, and run them in an EC2 Auto Scaling group across multiple Availability

Zones

C. Create an additional DB instance along with an Amazon API Gateway and an AWS Lambda function. Configure the application to invoke the Lambda function through API Gateway Have the Lambda function write the data to the two DB instances.

D. Place the EC2 instances in an EC2 Auto Scaling group that has multiple subnets located in multiple Availability Zones. Use Spot Instances instead of On-Demand Instances. Set up Amazon CloudWatch alarms to monitor the health of the instances. Update the DB instance to be Multi-AZ, and enable deletion protection.

Answer: B

138. - (Exam Topic 3)

A company uses a combination of Amazon EC2 instances and AWS Fargate tasks to process daily transactions. The company faces unpredictable and sudden increases in transaction volume. The company needs a solution that will process the transactions immediately.

Which solution meets these requirement MOST cost-effectively?

A. Purchase a Compute Savings Plan

B. Purchase an EC2 Instance Savings Plan.

C. Purchase Reserved Instances tor existing EC2 workloads.

D. Use Spot Instances for existing EC2 workloads.

E. Use Far gale Spot capacity for the tasks.

Answer: B

139. - (Exam Topic 3)

A company collects 10 GB of telemetry data dairy from various machines. The company stores the data in an Amazon S3 bucket in a source data account.

The company has hired several consuming agencies to use this data for analysis. Each agency needs read access to the data for its analysis. The company must share the data from tie source data account by choosing a solution that maximizes security and operational efficiency. Which solution will meet these requirements?

A. Configure S3 global tables to replicate data tor each agency
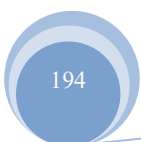
B. Make the S3 bucket public for a limited time Inform only the agencies

C. Configure cross-account access for the S3 bucket to the accounts that the agencies own.

D. Set up an IAM user for each analyst In the source data account Grant each user access to the S3 bucket

Answer: A

140. - (Exam Topic 3)

A company runs an application In a branch office within a small data closet with no vitalized compute

resources. The application data is stored on an NFS volume Compliance standards require a daily offsite

backup of the NFS volume.

Which solution meets these requirements?

A. Install an AWS Storage Gateway fie gateway on premises to replicate the data to Amazon S3

B. Install an AWS Storage Gateway fie gateway hardware appliance on premises to replicate the data to

Amazon S3.

C. Install an AWS Storage Gateway volume gateway with stored volumes on premises to replicate the data

to Amazon S3

D. Install an AWS Storage Gateway volume gateway with cached volumes on premises to replicate the

data to Amazon S3.

Answer: B

141. - (Exam Topic 3)

A company runs demonstration environments for its customers on Amazon EC2 instances. Each

environment is isolated in its own VPC. The company's operations team needs to be notified when RDP or

SSH access to an environment has been established.

What should a solutions architect recommend to meet these requirements?

A. Configure Amazon CloudWatch Application Insights to create AWS Systems Manager OpsItems when

RDP or SSH access is detected.

B. Configure the EC2 instances with an 1AM instance profile that has an 1AM role with the Amazon

SSMManagedInstanceCore policy attached.

C. Publish VPC flow logs to Amazon CloudWatch Logs. Create required metric filters. Create an Amazon

CloudWatch metric alarm with a notification action for when the alarm is in the ALARM state.

D. Configure an Amazon EventBridge (Amazon CloudWatch Events) rule to listen for events of type EC2 Instance State-change Notification. Configure an Amazon Simple Notification Service (Amazon SNS) topic as a target. Subscribe the operations team to the topic.

Answer: D

142. - (Exam Topic 3)

A solutions architect creates a VPC that includes two public subnets and two private subnets A corporate security mandate requires the solutions architect to launch all Amazon EC2 instances in a private subnet However when the solutions architect launches an EC2 instance that runs a web server on ports 80 and 443 in a private subnet, no external internet traffic can connect to the server

What should the solutions architect do to resolve this issue?

A. Attach the EC2 instance to an Auto Scaling group in a private subnet Ensure that the DNS record for the website resolves to the Auto Scaling group identifier

B. Provision an internet-facing Application Load Balancer (ALB) in a public subnet Add the EC2 instance to the target group that is associated with the ALB Ensure that the DNS record for the website resolves to the ALB

C. Launch a NAT gateway in a private subnet Update the route table for the private subnets to add a default route to the NAT gateway Attach a public Elastic IP address to the NAT gateway

D. Ensure that the security group that is attached to the EC2 instance allows HTTP traffic on port 80 and HTTPS traffic on port 443 Ensure that the DNS record for the website resolves to the public IP address of the EC2 instance

Answer: A

143. - (Exam Topic 3)

A company is migrating to the AWS Cloud. A file server is the first workload to migrate Users must be able to access the file share using the Server Message Block (SMB) protocol.

Which AWS managed service meets these requirements?

A. Amazon EBS

B. Amazon EC2

C. Amazon FSx

D. Amazon S3

Answer: C

144. - (Exam Topic 3)

A company uses Application Load Balancers (ALBs) in different AWS Regions The ALBs receive

inconsistent traffic that can spike and drop throughout the year The company's networking team needs to

allow the IP addresses of the ALBs in the on-premises firewall to enable connectivity

Which solution is the MOST scalable with minimal configuration changes?

A. Write an AWS Lambda script to get the IP addresses of the ALBs in different Regions. Update the

on-premises firewall's rule to allow the IP addresses of the ALBs

B. Migrate all ALBs in different Regions to the Network Load Balancers (NLBs) Update the on-premises

firewall's rule to allow the Elastic IP addresses of all the NLBs

C. Launch AWS Global Accelerator Register the ALBs in different Regions to the accelerator Update the

on-premises firewall's rule to allow static IP addresses associated with the accelerator

D. Launch a Network Load Balancer (NLB) in one Region Register the private IP addresses of the ALBs in

different Regions with the NLB. Update the on-premises firewall's rule to allow the Elastic IP address

attached to the NLB.

Answer: C

145. - (Exam Topic 3)

A company is running a publicly accessible serverless application that uses Amazon API Gateway and

AWS Lambda. The application's traffic recently spiked due to fraudulent requests from botnets.

Which steps should a solutions architect take to block requests from unauthorized users? (Select TWO.)

A. Create a usage plan with an API key that it shared with genuine users only.

B. Integrate logic within the Lambda function to ignore the requests lion- fraudulent IP addresses

C. Implement an AWS WAF rule to target malicious requests and trigger actions to filler them out

D. Convert the existing public API to a private API Update the DNS records to redirect users to the new API

endpoint

E. Create an IAM role tor each user attempting to access the API A user will assume the role when making

the API call
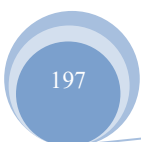
Answer: C D

146. - (Exam Topic 3)

A company has an application that generates a large number of lies, each approximately 5 MB in size. The files are stored in Amazon S3. Company policy requires the files to be stored for 4 years before they can be deleted Immediate accessibility is always required as the files contain critical business data that is not easy to reproduce. The files are frequently accessed in the first 30 days of the object creation but are rarely accessed after the first 30 days

Which storage solution is MOST cost-effective?

A. Create an S3 bucket lifecycle policy to move Mm from S3 Standard to S3 Glacier 30 days from object creation Delete the Tiles 4 years after object creation

B. Create an S3 bucket lifecycle policy to move tiles from S3 Standard to S3 One Zone-infrequent Access (S3 One Zone-IA] 30 days from object creation. Delete the fees 4 years after object creation

C. Create an S3 bucket lifecycle policy to move files from S3 Standard-infrequent Access (S3 Standard -IA) 30 from object creation. Delete the ties 4 years after object creation

D. Create an S3 bucket Lifecycle policy to move files from S3 Standard to S3 Standard-Infrequent Access (S3 Standard-IA) 30 days from object creation Move the files to S3 Glacier 4 years after object carton.

Answer: C

147. - (Exam Topic 3)

A company has a financial application that produces reports. The reports average 50 KB in size and are stored in Amazon S3. The reports are frequently accessed during the first week after production and must be stored for several years The reports must be retrievable within 6 hours

Which solution meets these requirements MOST cost-effectively1?

A. Use S3 Standard Use an S3 Lifecycle rule to transition the reports to S3 Glacier after 7 days.

B. Use S3 Standard Use an S3 Lifecycle rule to transition the reports to S3 Standard-Infrequent Access (S3 Standard-IA) after 7 days

C. Use S3 Intelligent-Tiering Configure S3 Intelligent-Tiering to transition the reports to S3 Standard-Infrequent Access (S3 Standard-IA) and S3 Glacier

D. Use S3 Standard Use an S3 Lifecycle rule to transition the reports to S3 Glacier Deep Archive after 7

days

Answer: D

148. - (Exam Topic 3)

A solution architect is designing he architect 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 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 charges 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: C

149. - (Exam Topic 3)

A company has a popular gaming platform running on AWS. The application is sensitive to latency because latency can impact the user experience and Introduce unfair advantages to some prayers. The application la deployed In a very AWS Region. It runs on Amazon FC2 Instances Vial are part of Auto Scaling groups configured behind Application Load Balancers (ALBs) A solutions architect needs to implement a mechanism to monitor the hearth of the application and redirect traffic to healthy endpoints.

Which solution meets these requirements?

A. Configure an accelerator In AWS Global Accelerator Add a listens for the port that the application listens on. and attach it to a Regional endpoint m each Region Add the ALB as the endpoint

B. Create an Amazon CloudFron4t distribution and specify the ALB as the origin server Configure the cache behaviour to use origin cache headers Use AWS Lambda functions to optimize the traffic

C. Create an Amazon CloudFront distribution and specify Amazon S3 as the origin server. Configure tie
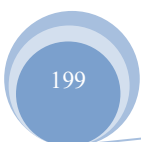
cache behaviour to use origin cache headers Use AWS Lambda functions to optimize the traffic

D. Configure an Amazon DynamoDB database to serve as the data store tor the application Create a DynamoDB Accelerator (DAX) cluster to act as the m-memory cache for DynamoDB hosting the application data

Answer: A

150. - (Exam Topic 3)

A company is hosting a web application on AWS using a single Amazon EC2 instance that stores user-uploaded 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 new documents to Amazon EPS

D. Configure the Application Load Balancer to send the request to both servers Return each document from the correct server.

Answer: C

151. - (Exam Topic 3)

A company designed a stateless two-tier application that uses Amazon EC2 in a single Availability Zone and an Amazon RDS Multi-AZ DB instance. New company management wants to ensure the application is highly available.

What should a solutions architect do to meet this requirement?

A. Configure the application to use Multi-AZ EC2 Auto Scaling and create an Application Load Balancer.

B. Configure the application to take snapshots of the EC2 instances and send them to a different AWS Regan

C. Configure the application to use Amazon Route 53 latency-based routing to feed requests to the application.

D. Configure Amazon Route S3 rules to handle incoming requests and create a Multi-AZ Application Load Balancer.

Answer: A

152. - (Exam Topic 3)

A company is investigating potential solutions to collect process, and store users' service usage data The company needs to create an analytics capability so that the company can use standard SQL queries to gather operational insights quickly. The solution must be highly available The solution also must ensure atomicity, consistency, isolation and durability (ACID) compliance in the data tier

Which solution meets these requirements"

A. Use an Amazon Timestream database.

B. Use an Amazon Neptune database in a Multi-AZ design

C. Use a fully managed Amazon RDS for MySQL database in a Multi-AZ design

D. Deploy PostgreSQL on an Amazon EC2 instance that uses Amazon Elastic Block Store (Amazon EBS) Throughput Optimized HDD (st1) storage

Answer: C

153. - (Exam Topic 3)

A company has an AWS account used for software engineering. The AWS account has access to the company's on-premises data center through a pair of AWS Direct Connect connections All non-VPC traffic routes to the virtual private gateway

A development team recently created an AWS Lambda function through the console The development team needs to allow the function to access a database that runs in a private subnet in the company's data center

Which solution will meet these requirements'?

A. Configure the Lambda function to run in the VPC with the appropriate security group

B. Set up a VPN connection from AWS to the data center Route the traffic from the Lambda function through the VPN

C. Update the route tables in the VPC to allow the Lambda function to access the on-premises data center

through Direct Connect

D. Create an Elastic IP address Configure the Lambda function to send traffic through the Elastic IP

address without an elastic network interface

Answer: C

154. - (Exam Topic 3)

A company uses Amazon Redshift for to data warehouse. The company wants to ensure high durability for

its data in case of any component failure. What should a solution architect recommend?

A. Enable concurrency scaling

B. Enable cross-Region snapshots

C. Increase the data retention period

D. Deploy Amazon Redshift in Multi-AZ

Answer: D

155. - (Exam Topic 3)

An application development team is designing a microservice that will convert large images to smaller

compressed images When a user uploads an image through the web interface the microservice should

store the image in an Amazon S3 bucket process and compress the image with an AWS Lambda function,

and store the image in its compressed form m a different S3 bucket

A solutions architect needs to design a solution that uses durable stateless components to process the

images automatically

Which combination of actions will meet these requirements^ (Select TWO)

A. Create an Amazon Simple Queue Service (Amazon SQS) queue Configure the S3 bucket to send a

notification to the SQS queue when an image is uploaded to the S3 bucket

B. Configure the Lambda function to use the Amazon Simple Queue Service (Amazon SQS) queue as the

invocation source When the SQS message is successfully processed, delete the message in the queue

C. Configure the Lambda function to monitor the S3 bucket for new uploads When an uploaded image is

detected write the file name to a text file in memory and use the text file to keep track of the images that

were processed
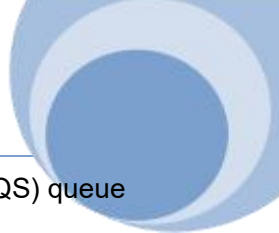
D. Launch an Amazon EC2 instance to monitor an Amazon Simple Queue Service (Amazon SQS) queue

When items are added to the queue log the file name in a text file on the EC2 instance and invoke the

Lambda function

E. Configure an Amazon EventBridge (Amazon CloudWatch Events) event to monitor the S3 bucket When

an image is uploaded send an alert to an Amazon Simple Notification Service (Amazon SNS) topic with the

application owner's email address for further processing

Answer: A B

156. - (Exam Topic 3)

A company stores can wordings on a monthly basis Users access lie recorded files randomly within 1year

of recording, but users rarely access the files after 1year. The company wants to optimize its solution by

allowing only files that ant newer than 1year old to be queried and retrieved as quickly as possible. A delay

in retrieving older fees is acceptable

Which solution meets these requirements MOST cost-effectively?

A. Store individual files in Amazon S3 Glacier Store search metadata in object tags that are created in S3

Glacier Query the S3 Glacier tags to retrieve the files from S3 Glacier.

B. Store individual files in Amazon S3. Use S3 Lifecycle polices to move the ties to S3 Glacier after 1year.

Query and retrieve the files that are in Amazon S3 by using Amazon Athena. Query and retrieve

the files that are in S3 Glacier by using S3 Glacier Select.

C. Store Individual files In Amazon S3 Store search metadata for each archive In Amazon S3 Use S3

Lifecycle policies to move the ties to S3 Glacier after 1 year Query and retrieve tie flies by searching for

metadata from Amazon S3.

D. Store individual files in Amazon S3 Use S3 Lifecycle policies to move the files to S3 Glacier after 1year.

Store search metadata in Amazon RDS Query the Sea from Amazon RDS Retrieve the files from

Amazon S3 or S3 Glacier

Answer: D

157. - (Exam Topic 3)

A marketing company is storing CSV files in an Amazon S3 bucket for statistical analysis An application on

an Amazon EC2 instance needs permission to efficiently process the CSV data stored in the S3 bucket.
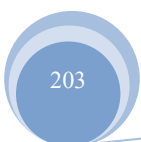
A. Attach a resource-based policy lo the S3 bucket

B. Create an IAM user for the application with specific permissions to the S3 bucket

C. Associate an IAM role with least privilege permissions lo the EC2 instance profile

D. Store AWS a credential directly on the EC2 instance for applications on the instance to use for API calls

Answer: C

158. - (Exam Topic 3)

A company has a web application for travel ticketing. The application is based on a database that runs in a

single data center in North America. The company wants to expand the application to serve a global user

base The company needs to deploy the application to multiple AWS Regions Average latency must be less

than 1 second on updates to the reservation database

The company wants to have separate deployments of its web platform across multiple Regions. However,

the company must maintain a single primary reservation database that is globally consistent

Which solution should a solutions architect recommend to meet these requirements"

A. Convert the application to use Amazon DynamoDB Use a global table for the center reservation table

Use the correct Regional endpoint in each Regional deployment

B. Migrate the database to an Amazon Aurora MySQL database Deploy Aurora Read Replicas in each

Region Use the correct Regional endpoint in each Regional deployment for access to the database

C. Migrate the database to an Amazon RDS for MySQL database Deploy MySQL read replicas in each

Region Use the correct Regional endpoint in each Regional deployment for access to the database

D. Migrate the application to an Amazon Aurora Serverless database Deploy instances of the database to

each Region. Use the correct Regional endpoint in each Regional deployment to access the database Use

AWS Lambda functions to process event streams in each Region to synchronize the databases

Answer: A

159. - (Exam Topic 3)

A company wants to build a scalable key management Infrastructure to support developers who need to

encrypt data in their applications.

What should a solutions architect do to reduce the operational burden?

A. Use multifactor authentication (MFA) to protect the encryption keys.
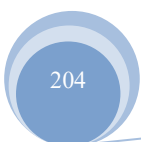
B. Use AWS Key Management Service (AWS KMS) to protect the encryption keys

C. Use AWS Certificate Manager (ACM) to create, store, and assign the encryption keys

D. Use an IAM policy to limit the scope of users who have access permissions to protect the encryption

keys

Answer: B