584. A company is deploying an application that processes large quantities of data in parallel. The company plans to use Amazon EC2 instances for the workload. The network architecture must be configurable to prevent groups of nodes from sharing the same underlying hardware.

Which networking solution meets these requirements?

- A. Run the EC2 instances in a spread placement group.
- B. Group the EC2 instances in separate accounts.
- C. Configure the EC2 instances with dedicated tenancy.
- D. Configure the EC2 instances with shared tenancy.

ANS : **A**

585. A solutions architect is designing a disaster recovery (DR) strategy to provide Amazon EC2 capacity in a failover AWS Region. Business requirements state that the DR strategy must meet capacity in the failover Region.

Which solution will meet these requirements?

- A. Purchase On-Demand Instances in the failover Region.
- B. Purchase an EC2 Savings Plan in the failover Region.
- C. Purchase regional Reserved Instances in the failover Region.
- D. Purchase a Capacity Reservation in the failover Region.

ANS : **D**

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

What should the solutions architect do next in the new management account?

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

ANS : **B**

587. A company is designing a solution to capture customer activity in different web applications to process analytics and make predictions. Customer activity in the web applications is unpredictable and can increase suddenly. The company requires a solution that integrates with other web applications. The solution must include an authorization step for security purposes.

Which solution will meet these requirements?

- A. Configure a Gateway Load Balancer (GWLB) in front of an Amazon Elastic Container Service (Amazon ECS) container instance that stores the information that the company receives in an Amazon Elastic File System (Amazon EFS) file system. Authorization is resolved at the GWLB.
- B. Configure an Amazon API Gateway endpoint in front of an Amazon Kinesis data stream that stores the information that the company receives in an Amazon S3 bucket. Use an AWS Lambda function to resolve authorization.
- C. Configure an Amazon API Gateway endpoint in front of an Amazon Kinesis Data Firehose that stores the information that the company receives in an Amazon S3 bucket. Use an API Gateway Lambda authorizer to resolve authorization.
- D. Configure a Gateway Load Balancer (GWLB) in front of an Amazon Elastic Container Service (Amazon ECS) container instance that stores the information that the company receives on an Amazon Elastic File System (Amazon EFS) file system. Use an AWS Lambda function to resolve authorization.

ANS : **C**

588. An ecommerce company wants a disaster recovery solution for its Amazon RDS DB instances that run Microsoft SQL Server Enterprise Edition. The company's current recovery point objective (RPO) and recovery time objective (RTO) are 24 hours.

Which solution will meet these requirements MOST cost-effectively?

- A. Create a cross-Region read replica and promote the read replica to the primary instance.
- B. Use AWS Database Migration Service (AWS DMS) to create RDS cross-Region replication.
- C. Use cross-Region replication every 24 hours to copy native backups to an Amazon S3 bucket.
- D. Copy automatic snapshots to another Region every 24 hours.

ANS : **D**

589. A company runs a web application on Amazon EC2 instances in an Auto Scaling group behind an Application Load Balancer that has sticky sessions enabled. The web server currently hosts the user session state. The company wants to ensure high availability and avoid user session state loss in the event of a web server outage.

Which solution will meet these requirements?

- A. Use an Amazon ElastiCache for Memcached instance to store the session data. Update the application to use ElastiCache for Memcached to store the session state.
- B. Use Amazon ElastiCache for Redis to store the session state. Update the application to use ElastiCache for Redis to store the session state.
- C. Use an AWS Storage Gateway cached volume to store session data. Update the application to use AWS Storage Gateway cached volume to store the session state.
- D. Use Amazon RDS to store the session state. Update the application to use Amazon RDS to store the session state.

ANS : **B**

590. A company migrated a MySQL database from the company's on-premises data center to an Amazon RDS for MySQL DB instance. The company sized the RDS DB instance to meet the company's average daily workload. Once a month, the database performs slowly when the company runs queries for a report. The company wants to

have the ability to run reports and maintain the performance of the daily workloads.

Which solution will meet these requirements?

- A. Create a read replica of the database. Direct the queries to the read replica.
- B. Create a backup of the database. Restore the backup to another DB instance. Direct the queries to the new database.
- C. Export the data to Amazon S3. Use Amazon Athena to query the S3 bucket.
- D. Resize the DB instance to accommodate the additional workload.

ANS : **A**

591. A company runs a container application by using Amazon Elastic Kubernetes Service (Amazon EKS). The application includes microservices that manage customers and place orders. The company needs to route incoming requests to the appropriate microservices.

Which solution will meet this requirement MOST cost-effectively?

- A. Use the AWS Load Balancer Controller to provision a Network Load Balancer.
- B. Use the AWS Load Balancer Controller to provision an Application Load Balancer.
- C. Use an AWS Lambda function to connect the requests to Amazon EKS.
- D. Use Amazon API Gateway to connect the requests to Amazon EKS.

ANS : **B**

592. A company uses AWS and sells access to copyrighted images. The company's global customer base needs to be able to access these images quickly. The company must deny access to users from specific countries. The company wants to minimize costs as much as possible.

Which solution will meet these requirements?

- A. Use Amazon S3 to store the images. Turn on multi-factor authentication (MFA) and public bucket access. Provide customers with a link to the S3 bucket.
- B. Use Amazon S3 to store the images. Create an IAM user for each customer. Add the users to a group that has permission to access the S3 bucket.

- C. Use Amazon EC2 instances that are behind Application Load Balancers (ALBs) to store the images. Deploy the instances only in the countries the company services. Provide customers with links to the ALBs for their specific country's instances.
- D. Use Amazon S3 to store the images. Use Amazon CloudFront to distribute the images with geographic restrictions. Provide a signed URL for each customer to access the data in CloudFront.

Answer : **D**

593. A solutions architect is designing a highly available Amazon ElastiCache for Redis based solution. The solutions architect needs to ensure that failures do not result in performance degradation or loss of data locally and within an AWS Region. The solution needs to provide high availability at the node level and at the Region level.

Which solution will meet these requirements?

- A. Use Multi-AZ Redis replication groups with shards that contain multiple nodes.
- B. Use Redis shards that contain multiple nodes with Redis append only files (AOF) turned on.
- C. Use a Multi-AZ Redis cluster with more than one read replica in the replication group.
- D. Use Redis shards that contain multiple nodes with Auto Scaling turned on.

Answer : **A**

594. A company plans to migrate to AWS and use Amazon EC2 On-Demand Instances for its application. During the migration testing phase, a technical team observes that the application takes a long time to launch and load memory to become fully productive.

Which solution will reduce the launch time of the application during the next testing phase?

- A. Launch two or more EC2 On-Demand Instances. Turn on auto scaling features and make the EC2 On-Demand Instances available during the next testing phase.
- B. Launch EC2 Spot Instances to support the application and to scale the application so it is available during the next testing phase.
- C. Launch the EC2 On-Demand Instances with hibernation turned on. Configure EC2 Auto Scaling warm pools during the next testing phase

- D. Launch EC2 On-Demand Instances with Capacity Reservations. Start additional EC2 instances during the next testing phase.

Answer : **C**

595. A company's applications run on Amazon EC2 instances in Auto Scaling groups. The company notices that its applications experience sudden traffic increases on random days of the week. The company wants to maintain application performance during sudden traffic increases.

Which solution will meet these requirements MOST cost-effectively?

- A. Use manual scaling to change the size of the Auto Scaling group.
- B. Use predictive scaling to change the size of the Auto Scaling group.
- C. Use dynamic scaling to change the size of the Auto Scaling group
- D. Use schedule scaling to change the size of the Auto Scaling group.

Answer : **C**

596. An ecommerce application uses a PostgreSQL database that runs on an Amazon EC2 instance. During a monthly sales event, database usage increases and causes database connection issues for the application. The traffic is unpredictable for subsequent monthly sales events, which impacts the sales forecast. The company needs to maintain performance when there is an unpredictable increase in traffic.

Which solution resolves this issue in the MOST cost-effective way?

- A. Migrate the PostgreSQL database to Amazon Aurora Serverless v2.
- B. Enable auto scaling for the PostgreSQL database on the EC2 instance to accommodate increased usage.
- C. Migrate the PostgreSQL database to Amazon RDS for PostgreSQL with a larger instance type.
- D. Migrate the PostgreSQL database to Amazon Redshift to accommodate increased usage.

Answer : **A**

597. A company hosts an internal serverless application on AWS by using Amazon API Gateway and AWS Lambda. The company's employees report issues with high latency when they begin using the application each day. The company wants to reduce latency.

Which solution will meet these requirements?

- A. Increase the API Gateway throttling limit.
- B. Set up a scheduled scaling to increase Lambda provisioned concurrency before employees begin to use the application each day
- C. Create an Amazon CloudWatch alarm to initiate a Lambda function as a target for the alarm at the beginning of each day.
- D. Increase the Lambda function memory.

Answer : **B**

598. A research company uses on-premises devices to generate data for analysis. The company wants to use the AWS Cloud to analyze the data. The devices generate .csv files and support writing the data to an SMB file share. Company analysts must be able to use SQL commands to query the data. The analysts will run queries periodically throughout the day.

Which combination of steps will meet these requirements MOST cost-effectively? (Choose three.)

- A. Deploy an AWS Storage Gateway on premises in Amazon S3 File Gateway mode.
- B. Deploy an AWS Storage Gateway on premises in Amazon FSx File Gateway made.
- C. Set up an AWS Glue crawler to create a table based on the data that is in Amazon S3.
- D. Set up an Amazon EMR cluster with EMR File System (EMRFS) to query the data that is in Amazon S3. Provide access to analysts.
- E. Set up an Amazon Redshift cluster to query the data that is in Amazon S3. Provide access to analysts.
- F. Setup Amazon Athena to query the data that is in Amazon S3. Provide access to analysts.

Answer : **A, C, F**

599. A company wants to use Amazon Elastic Container Service (Amazon ECS) clusters and Amazon RDS DB instances to build and run a payment processing application. The company will run the application in its on-premises data center for compliance purposes.

A solutions architect wants to use AWS Outposts as part of the solution. The solutions architect is working with the company's operational team to build the application.

Which activities are the responsibility of the company's operational team? (Choose three.)

- A. Providing resilient power and network connectivity to the Outposts racks
- B. Managing the virtualization hypervisor, storage systems, and the AWS services that run on Outposts
- C. Physical security and access controls of the data center environment
- D. Availability of the Outposts infrastructure including the power supplies, servers, and networking equipment within the Outposts racks
- E. Physical maintenance of Outposts components
- F. Providing extra capacity for Amazon ECS clusters to mitigate server failures and maintenance events

Answer : **A, C, D**

600. 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 center. 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**

601. A company runs its critical database on an Amazon RDS for PostgreSQL DB instance. The company wants to migrate to Amazon Aurora PostgreSQL with minimal downtime and data loss.

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

- A. Create a DB snapshot of the RDS for PostgreSQL DB instance to populate a new Aurora PostgreSQL DB cluster.
- B. Create an Aurora read replica of the RDS for PostgreSQL DB instance. Promote the Aurora read replicate to a new Aurora PostgreSQL DB cluster.
- C. Use data import from Amazon S3 to migrate the database to an Aurora PostgreSQL DB cluster.
- D. Use the pg_dump utility to back up the RDS for PostgreSQL database. Restore the backup to a new Aurora PostgreSQL DB cluster.

Answer : **B**

602. 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**

603. A company recently migrated to the AWS Cloud. The company wants a serverless solution for large-scale parallel on-demand processing of a semistructured dataset. The data consists of logs, media files, sales transactions, and IoT sensor data that is stored in Amazon S3. The company wants the solution to process thousands of items in the dataset in parallel.

Which solution will meet these requirements with the MOST operational efficiency?

- A. Use the AWS Step Functions Map state in Inline mode to process the data in parallel.
- B. Use the AWS Step Functions Map state in Distributed mode to process the data in parallel
- C. Use AWS Glue to process the data in parallel.
- D. Use several AWS Lambda functions to process the data in parallel.

Answer : **B**

604. A company will migrate 10 PB of data to Amazon S3 in 6 weeks. The current data center has a 500 Mbps uplink to the internet. Other on-premises applications share the uplink. The company can use 80% of the internet bandwidth for this one-time migration task.

Which solution will meet these requirements?

- A. Configure AWS DataSync to migrate the data to Amazon S3 and to automatically verify the data.
- B. Use rsync to transfer the data directly to Amazon S3.
- C. Use the AWS CLI and multiple copy processes to send the data directly to Amazon S3.
- D. Order multiple AWS Snowball devices. Copy the data to the devices. Send the devices to AWS to copy the data to Amazon S3.

Answer : **D**

605. A company has several on-premises Internet Small Computer Systems Interface (ISCSI) network storage servers. The company wants to reduce the number of these servers by moving to the AWS Cloud. A solutions architect must provide low-latency access to frequently used data and reduce the dependency on on-premises servers with a minimal number of infrastructure changes.

Which solution will meet these requirements?

- A. Deploy an Amazon S3 File Gateway.
- B. Deploy Amazon Elastic Block Store (Amazon EBS) storage with backups to Amazon S3.
- C. Deploy an AWS Storage Gateway volume gateway that is configured with stored volumes.
- D. Deploy an AWS Storage Gateway volume gateway that is configured with cached volumes.

Answer : **D**

606. A solutions architect is designing an application that will allow business users to upload objects to Amazon S3. The solution needs to maximize object durability. Objects also must be readily available at any time and for any length of time. Users will access objects frequently within the first 30 days after the objects are uploaded, but users are

much less likely to access objects that are older than 30 days.

Which solution meets these requirements MOST cost-effectively?

- A. Store all the objects in S3 Standard with an S3 Lifecycle rule to transition the objects to S3 Glacier after 30 days.
- B. Store all the objects in S3 Standard with an S3 Lifecycle rule to transition the objects to S3 Standard-Infrequent Access (S3 Standard-IA) after 30 days
- C. Store all the objects in S3 Standard with an S3 Lifecycle rule to transition the objects to S3 One Zone-Infrequent Access (S3 One Zone-IA) after 30 days.
- D. Store all the objects in S3 Intelligent-Tiering with an S3 Lifecycle rule to transition the objects to S3 Standard-Infrequent Access (S3 Standard-IA) after 30 days.

Answer : **B**

607. A company has migrated a two-tier application from its on-premises data center to the AWS Cloud. The data tier is a Multi-AZ deployment of Amazon RDS for Oracle with 12 TB of General Purpose SSD Amazon Elastic Block Store (Amazon EBS) storage. The application is designed to process and store documents in the database as binary large objects (blobs) with an average document size of 6 MB.

The database size has grown over time, reducing the performance and increasing the cost of storage. The company must improve the database performance and needs a solution that is highly available and resilient.

Which solution will meet these requirements MOST cost-effectively?

- A. Reduce the RDS DB instance size. Increase the storage capacity to 24 TiB. Change the storage type to Magnetic.
- B. Increase the RDS DB instance size. Increase the storage capacity to 24 TiChange the storage type to Provisioned IOPS.
- C. Create an Amazon S3 bucket. Update the application to store documents in the S3 bucket. Store the object metadata in the existing database
- D. Create an Amazon DynamoDB table. Update the application to use DynamoDB. Use AWS Database Migration Service (AWS DMS) to migrate data from the Oracle database to DynamoDB.

Answer : **C**

608. A company has an application that serves clients that are deployed in more than 20.000 retail storefront locations around the world. The application consists of backend web services that are exposed over HTTPS on port 443. The application is hosted on Amazon EC2 instances behind an Application Load Balancer (ALB). The retail locations communicate with the web application over the public internet. The company allows each retail location to register the IP address that the retail location has been allocated by its local ISP.

The company's security team recommends to increase the security of the application endpoint by restricting access to only the IP addresses registered by the retail locations.

What should a solutions architect do to meet these requirements?

- A. Associate an AWS WAF web ACL with the ALB. Use IP rule sets on the ALB to filter traffic. Update the IP addresses in the rule to include the registered IP addresses.
- B. Deploy AWS Firewall Manager to manage the ALConfigure firewall rules to restrict traffic to the ALModify the firewall rules to include the registered IP addresses.
- C. Store the IP addresses in an Amazon DynamoDB table. Configure an AWS Lambda authorization function on the ALB to validate that incoming requests are from the registered IP addresses.
- D. Configure the network ACL on the subnet that contains the public interface of the ALB. Update the ingress rules on the network ACL with entries for each of the registered IP addresses.

Answer : **A**

609. A company is building a data analysis platform on AWS by using AWS Lake Formation. The platform will ingest data from different sources such as Amazon S3 and Amazon RDS. The company needs a secure solution to prevent access to portions of the data that contain sensitive information.

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

- A. Create an IAM role that includes permissions to access Lake Formation tables.
- B. Create data filters to implement row-level security and cell-level security.
- C. Create an AWS Lambda function that removes sensitive information before Lake Formation ingests the data.

- D. Create an AWS Lambda function that periodically queries and removes sensitive information from Lake Formation tables.

Answer : **B**

610. A company deploys Amazon EC2 instances that run in a VPC. The EC2 instances load source data into Amazon S3 buckets so that the data can be processed in the future. According to compliance laws, the data must not be transmitted over the public internet. Servers in the company's on-premises data center will consume the output from an application that runs on the EC2 instances.

Which solution will meet these requirements?

- A. Deploy an interface VPC endpoint for Amazon EC2. Create an AWS Site-to-Site VPN connection between the company and the VPC.
- B. Deploy a gateway VPC endpoint for Amazon S3. Set up an AWS Direct Connect connection between the on-premises network and the VPC
- C. Set up an AWS Transit Gateway connection from the VPC to the S3 buckets. Create an AWS Site-to-Site VPN connection between the company and the VPC.
- D. Set up proxy EC2 instances that have routes to NAT gateways. Configure the proxy EC2 instances to fetch S3 data and feed the application instances.

Answer : **B**

611. A company has an application with a REST-based interface that allows data to be received in near-real time from a third-party vendor. Once received, the application processes and stores the data for further analysis. The application is running on Amazon EC2 instances.

The third-party vendor has received many 503 Service Unavailable Errors when sending data to the application. When the data volume spikes, the compute capacity reaches its maximum limit and the application is unable to process all requests.

Which design should a solutions architect recommend to provide a more scalable solution?

- A. Use Amazon Kinesis Data Streams to ingest the data. Process the data using AWS Lambda functions
- B. Use Amazon API Gateway on top of the existing application. Create a usage plan with a quota limit for the third-party vendor.
- C. Use Amazon Simple Notification Service (Amazon SNS) to ingest the data. Put the EC2 instances in an Auto Scaling group behind an Application Load Balancer.
- D. Repackage the application as a container. Deploy the application using Amazon Elastic Container Service (Amazon ECS) using the EC2 launch type with an Auto Scaling group.

Answer : **A**

612. A company has an application that runs on Amazon EC2 instances in a private subnet. The application needs to process sensitive information from an Amazon S3 bucket. The application must not use the internet to connect to the S3 bucket.

Which solution will meet these requirements?

- A. Configure an internet gateway. Update the S3 bucket policy to allow access from the internet gateway. Update the application to use the new internet gateway.
- B. Configure a VPN connection. Update the S3 bucket policy to allow access from the VPN connection. Update the application to use the new VPN connection.
- C. Configure a NAT gateway. Update the S3 bucket policy to allow access from the NAT gateway. Update the application to use the new NAT gateway.
- D. Configure a VPC endpoint. Update the S3 bucket policy to allow access from the VPC endpoint. Update the application to use the new VPC endpoint.

Answer : **D**

613. A company uses Amazon Elastic Kubernetes Service (Amazon EKS) to run a container application. The EKS cluster stores sensitive information in the Kubernetes secrets object. The company wants to ensure that the information is encrypted.

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

- A. Use the container application to encrypt the information by using AWS Key Management Service (AWS KMS).
- B. Enable secrets encryption in the EKS cluster by using AWS Key Management Service (AWS KMS).
- C. Implement an AWS Lambda function to encrypt the information by using AWS Key Management Service (AWS KMS).
- D. Use AWS Systems Manager Parameter Store to encrypt the information by using AWS Key Management Service (AWS KMS).

Answer : **B**

614. A company is designing a new multi-tier web application that consists of the following components:

• Web and application servers that run on Amazon EC2 instances as part of Auto Scaling groups
• An Amazon RDS DB instance for data storage

A solutions architect needs to limit access to the application servers so that only the web servers can access them.

Which solution will meet these requirements?

- A. Deploy AWS PrivateLink in front of the application servers. Configure the network ACL to allow only the web servers to access the application servers.
- B. Deploy a VPC endpoint in front of the application servers. Configure the security group to allow only the web servers to access the application servers.
- C. Deploy a Network Load Balancer with a target group that contains the application servers' Auto Scaling group. Configure the network ACL to allow only the web servers to access the application servers.
- D. Deploy an Application Load Balancer with a target group that contains the application servers' Auto Scaling group. Configure the security group to allow only the web servers to access the application servers.

Answer : **D**

615. A company runs a critical, customer-facing application on Amazon Elastic Kubernetes Service (Amazon EKS). The application has a microservices architecture. The company needs to implement a solution that collects, aggregates, and summarizes metrics and logs from the application in a centralized location.

Which solution meets these requirements?

- A. Run the Amazon CloudWatch agent in the existing EKS cluster. View the metrics and logs in the CloudWatch console.
- B. Run AWS App Mesh in the existing EKS cluster. View the metrics and logs in the App Mesh console.
- C. Configure AWS CloudTrail to capture data events. Query CloudTrail by using Amazon OpenSearch Service.
- D. Configure Amazon CloudWatch Container Insights in the existing EKS cluster. View the metrics and logs in the CloudWatch console.

Answer : **D**

616. A company has deployed its newest product on AWS. The product runs in an Auto Scaling group behind a Network Load Balancer. The company stores the product's objects in an Amazon S3 bucket.

The company recently experienced malicious attacks against its systems. The company needs a solution that continuously monitors for malicious activity in the AWS account, workloads, and access patterns to the S3 bucket. The solution must also report suspicious activity and display the information on a dashboard.

Which solution will meet these requirements?

- A. Configure Amazon Macie to monitor and report findings to AWS Config.
- B. Configure Amazon Inspector to monitor and report findings to AWS CloudTrail.
- C. Configure Amazon GuardDuty to monitor and report findings to AWS Security Hub.
- D. Configure AWS Config to monitor and report findings to Amazon EventBridge.

Answer : **C**

617. A company wants to migrate an on-premises data center to AWS. The data center hosts a storage server that stores data in an NFS-based file system. The storage server holds 200 GB of data. The company needs to migrate the data without interruption to existing services. Multiple resources in AWS must be able to access the data by using the NFS protocol.

Which combination of steps will meet these requirements MOST cost-effectively? (Choose two.)

- A. Create an Amazon FSx for Lustre file system.
- B. Create an Amazon Elastic File System (Amazon EFS) file system.
- C. Create an Amazon S3 bucket to receive the data.
- D. Manually use an operating system copy command to push the data into the AWS destination.
- E. Install an AWS DataSync agent in the on-premises data center. Use a DataSync task between the on-premises location and AWS.

Answer : **B, E**

618. A company wants to use Amazon FSx for Windows File Server for its Amazon EC2 instances that have an SMB file share mounted as a volume in the us-east-1 Region. The company has a recovery point objective (RPO) of 5 minutes for planned system maintenance or unplanned service disruptions. The company needs to replicate the file system to the us-west-2 Region. The replicated data must not be deleted by any user for 5 years.

Which solution will meet these requirements?

- A. Create an FSx for Windows File Server file system in us-east-1 that has a Single-AZ 2 deployment type. Use AWS Backup to create a daily backup plan that includes a backup rule that copies the backup to us-west-2. Configure AWS Backup Vault Lock in compliance mode for a target vault in us-west-2. Configure a minimum duration of 5 years.
- B. Create an FSx for Windows File Server file system in us-east-1 that has a Multi-AZ deployment type. Use AWS Backup to create a daily backup plan that includes a backup rule that copies the backup to us-west-2. Configure AWS Backup Vault Lock in governance mode for a target vault in us-west-2. Configure a minimum duration of 5 years.
- C. Create an FSx for Windows File Server file system in us-east-1 that has a Multi-AZ deployment type. Use AWS Backup to create a daily backup plan that includes a

backup rule that copies the backup to us-west-2. Configure AWS Backup Vault Lock in compliance mode for a target vault in us-west-2. Configure a minimum duration of 5 years.

- D. Create an FSx for Windows File Server file system in us-east-1 that has a Single-AZ 2 deployment type. Use AWS Backup to create a daily backup plan that includes a backup rule that copies the backup to us-west-2. Configure AWS Backup Vault Lock in governance mode for a target vault in us-west-2. Configure a minimum duration of 5 years.

Answer : **C**

619. 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) that 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 management account.

Answer : **C**

620. A company is planning to deploy a business-critical application in the AWS Cloud. The application requires durable storage with consistent, low-latency performance.

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

- A. Instance store volume
- B. Amazon ElastiCache for Memcached cluster
- C. Provisioned IOPS SSD Amazon Elastic Block Store (Amazon EBS) volume
- D. Throughput Optimized HDD Amazon Elastic Block Store (Amazon EBS) volume

Answer : **C**

621. An online photo-sharing company stores its photos in an Amazon S3 bucket that exists in the us-west-1 Region. The company needs to store a copy of all new photos in the us-east-1 Region.

Which solution will meet this requirement with the LEAST operational effort?

- A. Create a second S3 bucket in us-east-1. Use S3 Cross-Region Replication to copy photos from the existing S3 bucket to the second S3 bucket
- B. Create a cross-origin resource sharing (CORS) configuration of the existing S3 bucket. Specify us-east-1 in the CORS rule's AllowedOrigin element.
- C. Create a second S3 bucket in us-east-1 across multiple Availability Zones. Create an S3 Lifecycle rule to save photos into the second S3 bucket.
- D. Create a second S3 bucket in us-east-1. Configure S3 event notifications on object creation and update events to invoke an AWS Lambda function to copy photos from the existing S3 bucket to the second S3 bucket.

Answer : **A**

622. A company is creating a new web application for its subscribers. The application will consist of a static single page and a persistent database layer. The application will have millions of users for 4 hours in the morning, but the application will have only a few thousand users during the rest of the day. The company's data architects have requested the ability to rapidly evolve their schema.

Which solutions will meet these requirements and provide the MOST scalability? (Choose two.)

- A. Deploy Amazon DynamoDB as the database solution. Provision on-demand capacity.

- B. Deploy Amazon Aurora as the database solution. Choose the serverless DB engine mode.
- C. Deploy Amazon DynamoDB as the database solution. Ensure that DynamoDB auto scaling is enabled.
- D. Deploy the static content into an Amazon S3 bucket. Provision an Amazon CloudFront distribution with the S3 bucket as the origin.
- E. Deploy the web servers for static content across a fleet of Amazon EC2 instances in Auto Scaling groups. Configure the instances to periodically refresh the content from an Amazon Elastic File System (Amazon EFS) volume.

Answer : **C, D**

623. A company uses Amazon API Gateway to manage its REST APIs that third-party service providers access. The company must protect the REST APIs from SQL injection and cross-site scripting attacks.

What is the MOST operationally efficient solution that meets these requirements?

- A. Configure AWS Shield.
- B. Configure AWS WAF.
- C. Set up API Gateway with an Amazon CloudFront distribution. Configure AWS Shield in CloudFront.
- D. Set up API Gateway with an Amazon CloudFront distribution. Configure AWS WAF in CloudFront.

Answer : **B**

624. A company wants to provide users with access to 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 roles 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**

625. A company is hosting a website behind multiple Application Load Balancers. The company has different distribution rights for its content around the world. A solutions architect needs to ensure that users are served the correct content without violating distribution rights.

Which configuration should the solutions architect choose to meet these requirements?

- A. Configure Amazon CloudFront with AWS WAF.
- B. Configure Application Load Balancers with AWS WAF
- C. Configure Amazon Route 53 with a geolocation policy
- D. Configure Amazon Route 53 with a geoproximity routing policy

Answer : **C**

626. A company stores its data on premises. The amount of data is growing beyond the company's available capacity.

The company wants to migrate its data from the on-premises location to an Amazon S3 bucket. The company needs a solution that will automatically validate the integrity of the data after the transfer.

Which solution will meet these requirements?

- A. Order an AWS Snowball Edge device. Configure the Snowball Edge device to perform the online data transfer to an S3 bucket
- B. Deploy an AWS DataSync agent on premises. Configure the DataSync agent to perform the online data transfer to an S3 bucket.

- C. Create an Amazon S3 File Gateway on premises Configure the S3 File Gateway to perform the online data transfer to an S3 bucket
- D. Configure an accelerator in Amazon S3 Transfer Acceleration on premises. Configure the accelerator to perform the online data transfer to an S3 bucket.

Answer : **B**

627. A company wants to migrate two DNS servers to AWS. The servers host a total of approximately 200 zones and receive 1 million requests each day on average. The company wants to maximize availability while minimizing the operational overhead that is related to the management of the two servers.

What should a solutions architect recommend to meet these requirements?

- A. Create 200 new hosted zones in the Amazon Route 53 console Import zone files.
- B. Launch a single large Amazon EC2 instance Import zone tiles. Configure Amazon CloudWatch alarms and notifications to alert the company about any downtime.
- C. Migrate the servers to AWS by using AWS Server Migration Service (AWS SMS). Configure Amazon CloudWatch alarms and notifications to alert the company about any downtime.
- D. Launch an Amazon EC2 instance in an Auto Scaling group across two Availability Zones. Import zone files. Set the desired capacity to 1 and the maximum capacity to 3 for the Auto Scaling group. Configure scaling alarms to scale based on CPU utilization.

Answer : **A**

628. A global company runs its applications in multiple AWS accounts in AWS Organizations. The company's applications use multipart uploads to upload data to multiple Amazon S3 buckets across AWS Regions. The company wants to report on incomplete multipart uploads for cost compliance purposes.

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

- A. Configure AWS Config with a rule to report the incomplete multipart upload object count.
- B. Create a service control policy (SCP) to report the incomplete multipart upload object count.
- C. Configure S3 Storage Lens to report the incomplete multipart upload object count.

- D. Create an S3 Multi-Region Access Point to report the incomplete multipart upload object count.

Answer : **C**

629. A company runs a production database on Amazon RDS for MySQL. The company wants to upgrade the database version for security compliance reasons. Because the database contains critical data, the company wants a quick solution to upgrade and test functionality without losing any data.

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

- A. Create an RDS manual snapshot. Upgrade to the new version of Amazon RDS for MySQL.
- B. Use native backup and restore. Restore the data to the upgraded new version of Amazon RDS for MySQL.
- C. Use AWS Database Migration Service (AWS DMS) to replicate the data to the upgraded new version of Amazon RDS for MySQL.
- D. Use Amazon RDS Blue/Green Deployments to deploy and test production changes.

Answer : **D**

630. A solutions architect is creating a data processing job that runs once daily and can take up to 2 hours to complete. If the job is interrupted, it has to restart from the beginning.

How should the solutions architect address this issue in the MOST cost-effective manner?

- A. Create a script that runs locally on an Amazon EC2 Reserved Instance that is triggered by a cron job.
- B. Create an AWS Lambda function triggered by an Amazon EventBridge scheduled event.
- C. Use an Amazon Elastic Container Service (Amazon ECS) Fargate task triggered by an Amazon EventBridge scheduled event.
- D. Use an Amazon Elastic Container Service (Amazon ECS) task running on Amazon EC2 triggered by an Amazon EventBridge scheduled event.

Answer : **C**

631. A social media company wants to store its database of user profiles, relationships, and interactions in the AWS Cloud. The company needs an application to monitor any changes in the database. The application needs to analyze the relationships between the data entities and to provide recommendations to users.

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

- A. Use Amazon Neptune to store the information. Use Amazon Kinesis Data Streams to process changes in the database.
- B. Use Amazon Neptune to store the information. Use Neptune Streams to process changes in the database.
- C. Use Amazon Quantum Ledger Database (Amazon QLDB) to store the information. Use Amazon Kinesis Data Streams to process changes in the database.
- D. Use Amazon Quantum Ledger Database (Amazon QLDB) to store the information. Use Neptune Streams to process changes in the database.

Answer : **B**

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

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

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

Answer : **C**

633. A company manages an application that stores data on an Amazon RDS for PostgreSQL Multi-AZ DB instance. Increases in traffic are causing performance problems. The company determines that database queries are the primary reason for the slow performance.

What should a solutions architect do to improve the application's performance?

- A. Serve read traffic from the Multi-AZ standby replica.
- B. Configure the DB instance to use Transfer Acceleration.
- C. Create a read replica from the source DB instance. Serve read traffic from the read replica.
- D. Use Amazon Kinesis Data Firehose between the application and Amazon RDS to increase the concurrency of database requests.

Answer : **C**

634. A company collects 10 GB of telemetry data daily from various machines. The company stores the data in an Amazon S3 bucket in a source data account.

The company has hired several consulting agencies to use this data for analysis. Each agency needs read access to the data for its analysts. The company must share the data from the 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 for 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 : **C**

635. A company uses Amazon FSx for NetApp ONTAP in its primary AWS Region for CIFS and NFS file shares. Applications that run on Amazon EC2 instances access the file shares. The company needs a storage disaster recovery (DR) solution in a secondary Region. The data that is replicated in the secondary Region needs to be accessed by using the same protocols as the primary Region.

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

- A. Create an AWS Lambda function to copy the data to an Amazon S3 bucket. Replicate the S3 bucket to the secondary Region.
- B. Create a backup of the FSx for ONTAP volumes by using AWS Backup. Copy the volumes to the secondary Region. Create a new FSx for ONTAP instance from the backup.
- C. Create an FSx for ONTAP instance in the secondary Region. Use NetApp SnapMirror to replicate data from the primary Region to the secondary Region
- D. Create an Amazon Elastic File System (Amazon EFS) volume. Migrate the current data to the volume. Replicate the volume to the secondary Region.

Answer : **C**

636. A development team 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 SQS). 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 : **C**

637. A solutions architect is designing a new service behind Amazon API Gateway. The request patterns for the service will be unpredictable and can change suddenly from 0 requests to over 500 per second. The total size of the data that needs to be persisted in a backend database is currently less than 1 GB with unpredictable future growth. Data can be queried using simple key-value requests.

Which combination ofAWS services would meet these requirements? (Choose two.)

- A. AWS Fargate
- B. AWS Lambda
- C. Amazon DynamoDB
- D. Amazon EC2 Auto Scaling
- E. MySQL-compatible Amazon Aurora

Answer : **B, C**

638. A company collects and shares research data with the company's employees all over the world. The company wants to collect and store the data in an Amazon S3 bucket and process the data in the AWS Cloud. The company will share the data with the company's employees. The company needs a secure solution in the AWS Cloud that minimizes operational overhead.

Which solution will meet these requirements?

- A. Use an AWS Lambda function to create an S3 presigned URL. Instruct employees to use the URL.
- B. Create an IAM user for each employee. Create an IAM policy for each employee to allow S3 access. Instruct employees to use the AWS Management Console.
- C. Create an S3 File Gateway. Create a share for uploading and a share for downloading. Allow employees to mount shares on their local computers to use S3 File Gateway.
- D. Configure AWS Transfer Family SFTP endpoints. Select the custom identity provider options. Use AWS Secrets Manager to manage the user credentials Instruct employees to use Transfer Family.

Answer : **A**

639. A company is building a new furniture inventory application. The company has deployed the application on a fleet ofAmazon 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 : **A**

640. A company has an application workflow that uses an AWS Lambda function to download and decrypt files from Amazon S3. These files are encrypted using AWS Key Management Service (AWS KMS) keys. A solutions architect needs to design a solution that will ensure the required permissions are set correctly.

Which combination of actions accomplish this? (Choose two.)

- A. Attach the kms:decrypt permission to the Lambda function’s resource policy
- B. Grant the decrypt permission for the Lambda IAM role in the KMS key's policy
- C. Grant the decrypt permission for the Lambda resource policy in the KMS key's policy.
- D. Create a new IAM policy with the kms:decrypt permission and attach the policy to the Lambda function.
- E. Create a new IAM role with the kms:decrypt permission and attach the execution role to the Lambda function

Answer : **B, E**

641. 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 tor analysis.

Answer : **B**

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

What should a solutions architect do to meet these requirements?

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

Answer : **A**

643. A company runs several websites on AWS for its different brands. Each website generates tens of gigabytes of web traffic logs each day. A solutions architect needs to design a scalable solution to give the company's developers the ability to analyze traffic patterns across all the company's websites. This analysis by the developers will occur on demand once a week over the course of several months. The solution must support queries with standard SQL.

Which solution will meet these requirements MOST cost-effectively?

- A. Store the logs in Amazon S3. Use Amazon Athena tor analysis.
- B. Store the logs in Amazon RDS. Use a database client for analysis.
- C. Store the logs in Amazon OpenSearch Service. Use OpenSearch Service for analysis.
- D. Store the logs in an Amazon EMR cluster Use a supported open-source framework for SQL-based analysis.

Answer : **A**

644. An international company has a subdomain for each country that the company operates in. The subdomains are formatted as example.com, country1.example.com, and country2.example.com. The company's workloads are behind an Application Load Balancer. The company wants to encrypt the website data that is in transit.

Which combination of steps will meet these requirements? (Choose two.)

- A. Use the AWS Certificate Manager (ACM) console to request a public certificate for the apex top domain example com and a wildcard certificate for *.example.com.
- B. Use the AWS Certificate Manager (ACM) console to request a private certificate for the apex top domain example.com and a wildcard certificate for *.example.com.
- C. Use the AWS Certificate Manager (ACM) console to request a public and private certificate for the apex top domain example.com.
- D. Validate domain ownership by email address. Switch to DNS validation by adding the required DNS records to the DNS provider.
- E. Validate domain ownership for the domain by adding the required DNS records to the DNS provider.

Answer : **A, E**

645. A company is required to use cryptographic keys in its on-premises key manager. The key manager is outside of the AWS Cloud because of regulatory and compliance requirements. The company wants to manage encryption and decryption by using cryptographic keys that are retained outside of the AWS Cloud and that support a variety of external key managers from different vendors.

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

- A. Use AWS CloudHSM key store backed by a CloudHSM cluster.
- B. Use an AWS Key Management Service (AWS KMS) external key store backed by an external key manager.
- C. Use the default AWS Key Management Service (AWS KMS) managed key store.
- D. Use a custom key store backed by an AWS CloudHSM cluster.

Answer : **B**

646. 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 : **C**

647. A gaming company is building an application with Voice over IP capabilities. The application will serve traffic to users across the world. The application needs to be highly available with an automated failover across AWS Regions. The company wants to minimize the latency of users without relying on IP address caching on user devices.

What should a solutions architect do to meet these requirements?

- A. Use AWS Global Accelerator with health checks.
- B. Use Amazon Route 53 with a geolocation routing policy.
- C. Create an Amazon CloudFront distribution that includes multiple origins.
- D. Create an Application Load Balancer that uses path-based routing.

Answer : **A**

648. A weather forecasting company needs to process hundreds of gigabytes of data with sub-millisecond 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**

649. An ecommerce company runs a PostgreSQL database on premises. The database stores data by using high IOPS Amazon Elastic Block Store (Amazon EBS) block storage. The daily peak I/O transactions per second do not exceed 15,000 IOPS. The

company wants to migrate the database to Amazon RDS for PostgreSQL and provision disk IOPS performance independent of disk storage capacity.

Which solution will meet these requirements MOST cost-effectively?

- A. Configure the General Purpose SSD (gp2) EBS volume storage type and provision 15,000 IOPS.
- B. Configure the Provisioned IOPS SSD (io1) EBS volume storage type and provision 15,000 IOPS.
- C. Configure the General Purpose SSD (gp3) EBS volume storage type and provision 15,000 IOPS.
- D. Configure the EBS magnetic volume type to achieve maximum IOPS.

Answer : **C**

650. A company wants to migrate its on-premises Microsoft SQL Server Enterprise edition database to AWS. The company's online application uses the database to process transactions. The data analysis team uses the same production database to run reports for analytical processing. The company wants to reduce operational overhead by moving to managed services wherever possible.

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

- A. Migrate to Amazon RDS for Microsoft SOL Server. Use read replicas for reporting purposes
- B. Migrate to Microsoft SQL Server on Amazon EC2. Use Always On read replicas for reporting purposes
- C. Migrate to Amazon DynamoDB. Use DynamoDB on-demand replicas for reporting purposes
- D. Migrate to Amazon Aurora MySQL. Use Aurora read replicas for reporting purposes

Answer : **A**

651. A company stores a large volume of image files in an Amazon S3 bucket. The images need to be readily available for the first 180 days. The images are infrequently accessed for the next 180 days. After 360 days, the images need to be archived but must be available instantly upon request. After 5 years, only auditors can access the

images. The auditors must be able to retrieve the images within 12 hours. The images cannot be lost during this process.

A developer will use S3 Standard storage for the first 180 days. The developer needs to configure an S3 Lifecycle rule.

Which solution will meet these requirements MOST cost-effectively?

- A. Transition the objects to S3 One Zone-Infrequent Access (S3 One Zone-IA) after 180 days. S3 Glacier Instant Retrieval after 360 days, and S3 Glacier Deep Archive after 5 years.
- B. Transition the objects to S3 One Zone-Infrequent Access (S3 One Zone-IA) after 180 days. S3 Glacier Flexible Retrieval after 360 days, and S3 Glacier Deep Archive after 5 years.
- C. Transition the objects to S3 Standard-Infrequent Access (S3 Standard-IA) after 180 days, S3 Glacier Instant Retrieval after 360 days, and S3 Glacier Deep Archive after 5 years.
- D. Transition the objects to S3 Standard-Infrequent Access (S3 Standard-IA) after 180 days, S3 Glacier Flexible Retrieval after 360 days, and S3 Glacier Deep Archive after 5 years.

Answer : **C**

652. A company has a large data workload that runs for 6 hours each day. The company cannot lose any data while the process is running. A solutions architect is designing an Amazon EMR cluster configuration to support this critical data workload.

Which solution will meet these requirements MOST cost-effectively?

- A. Configure a long-running cluster that runs the primary node and core nodes on On-Demand Instances and the task nodes on Spot Instances.
- B. Configure a transient cluster that runs the primary node and core nodes on On-Demand Instances and the task nodes on Spot Instances.
- C. Configure a transient cluster that runs the primary node on an On-Demand Instance and the core nodes and task nodes on Spot Instances.
- D. Configure a long-running cluster that runs the primary node on an On-Demand Instance, the core nodes on Spot Instances, and the task nodes on Spot Instances.

Answer : **B**

653. A company maintains an Amazon RDS database that maps users to cost centers. The company has accounts in an organization in AWS Organizations. The company needs a solution that will tag all resources that are created in a specific AWS account in the organization. The solution must tag each resource with the cost center ID of the user who created the resource.

Which solution will meet these requirements?

- A. Move the specific AWS account to a new organizational unit (OU) in Organizations from the management account. Create a service control policy (SCP) that requires all existing resources to have the correct cost center tag before the resources are created. Apply the SCP to the new OU.
- B. Create an AWS Lambda function to tag the resources after the Lambda function looks up the appropriate cost center from the RDS database. Configure an Amazon EventBridge rule that reacts to AWS CloudTrail events to invoke the Lambda function.
- C. Create an AWS CloudFormation stack to deploy an AWS Lambda function. Configure the Lambda function to look up the appropriate cost center from the RDS database and to tag resources. Create an Amazon EventBridge scheduled rule to invoke the CloudFormation stack.
- D. Create an AWS Lambda function to tag the resources with a default value. Configure an Amazon EventBridge rule that reacts to AWS CloudTrail events to invoke the Lambda function when a resource is missing the cost center tag.

Answer : **B**

654. A company recently migrated its web application to the AWS Cloud. The company uses an Amazon EC2 instance to run multiple processes to host the application. The processes include an Apache web server that serves static content. The Apache web server makes requests to a PHP application that uses a local Redis server for user sessions.

The company wants to redesign the architecture to be highly available and to use AWS managed solutions.

Which solution will meet these requirements?

- A. Use AWS Elastic Beanstalk to host the static content and the PHP application. Configure Elastic Beanstalk to deploy its EC2 instance into a public subnet. Assign a public IP address.

- B. Use AWS Lambda to host the static content and the PHP application. Use an Amazon API Gateway REST API to proxy requests to the Lambda function. Set the API Gateway CORS configuration to respond to the domain name. Configure Amazon ElastiCache for Redis to handle session information.
- C. Keep the backend code on the EC2 instance. Create an Amazon ElastiCache for Redis cluster that has Multi-AZ enabled. Configure the ElastiCache for Redis cluster in cluster mode. Copy the frontend resources to Amazon S3. Configure the backend code to reference the EC2 instance.
- D. Configure an Amazon CloudFront distribution with an Amazon S3 endpoint to an S3 bucket that is configured to host the static content. Configure an Application Load Balancer that targets an Amazon Elastic Container Service (Amazon ECS) service that runs AWS Fargate tasks for the PHP application. Configure the PHP application to use an Amazon ElastiCache for Redis cluster that runs in multiple Availability Zones.

Answer : **D**

655. A company runs a web application on Amazon EC2 instances in an Auto Scaling group that has a target group. The company designed the application to work with session affinity (sticky sessions) for a better user experience.

The application must be available publicly over the internet as an endpoint. A WAF must be applied to the endpoint for additional security. Session affinity (sticky sessions) must be configured on the endpoint.

Which combination of steps will meet these requirements? (Choose two.)

- A. Create a public Network Load Balancer. Specify the application target group.
- B. Create a Gateway Load Balancer. Specify the application target group.
- C. Create a public Application Load Balancer. Specify the application target group.
- D. Create a second target group. Add Elastic IP addresses to the EC2 instances.
- E. Create a web ACL in AWS WAF. Associate the web ACL with the endpoint

Answer : **C, E**

656. A company runs a website that stores images of historical events. Website users need the ability to search and view images based on the year that the event in the image occurred. On average, users request each image only once or twice a year. The company wants a highly available solution to store and deliver the images to users.

Which solution will meet these requirements MOST cost-effectively?

- A. Store images in Amazon Elastic Block Store (Amazon EBS). Use a web server that runs on Amazon EC2.
- B. Store images in Amazon Elastic File System (Amazon EFS). Use a web server that runs on Amazon EC2.
- C. Store images in Amazon S3 Standard. Use S3 Standard to directly deliver images by using a static website.
- D. Store images in Amazon S3 Standard-Infrequent Access (S3 Standard-IA). Use S3 Standard-IA to directly deliver images by using a static website.

Answer : **D**

657. A company has multiple AWS accounts in an organization in AWS Organizations that different business units use. The company has multiple offices around the world. The company needs to update security group rules to allow new office CIDR ranges or to remove old CIDR ranges across the organization. The company wants to centralize the management of security group rules to minimize the administrative overhead that updating CIDR ranges requires.

Which solution will meet these requirements MOST cost-effectively?

- A. Create VPC security groups in the organization's management account. Update the security groups when a CIDR range update is necessary.
- B. Create a VPC customer managed prefix list that contains the list of CIDRs. Use AWS Resource Access Manager (AWS RAM) to share the prefix list across the organization. Use the prefix list in the security groups across the organization.
- C. Create an AWS managed prefix list. Use an AWS Security Hub policy to enforce the security group update across the organization. Use an AWS Lambda function to update the prefix list automatically when the CIDR ranges change.
- D. Create security groups in a central administrative AWS account. Create an AWS Firewall Manager common security group policy for the whole organization. Select the previously created security groups as primary groups in the policy.

Answer : **B**

658. A company uses an on-premises network-attached storage (NAS) system to provide file shares to its high performance computing (HPC) workloads. The company wants to migrate its latency-sensitive HPC workloads and its storage to the AWS Cloud. The company must be able to provide NFS and SMB multi-protocol access from the file system.

Which solution will meet these requirements with the LEAST latency? (Choose two.)

- A. Deploy compute optimized EC2 instances into a cluster placement group.
- B. Deploy compute optimized EC2 instances into a partition placement group.
- C. Attach the EC2 instances to an Amazon FSx for Lustre file system.
- D. Attach the EC2 instances to an Amazon FSx for OpenZFS file system.
- E. Attach the EC2 instances to an Amazon FSx for NetApp ONTAP file system.

Answer : **A, E**

659. A company is relocating its data center and wants to securely transfer 50 TB of data to AWS within 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 Connect
- C. AWS Snowball Edge Storage Optimized
- D. AWS Storage Gateway

Answer : **C**

660. A company hosts an application on Amazon EC2 On-Demand Instances in an Auto Scaling group. Application peak hours occur at the same time each day. Application users report slow application performance at the start of peak hours. The application performs normally 2-3 hours after peak hours begin. The company wants to ensure that the application works properly at the start of peak hours.

Which solution will meet these requirements?

- A. Configure an Application Load Balancer to distribute traffic properly to the instances.
- B. Configure a dynamic scaling policy for the Auto Scaling group to launch new instances based on memory utilization.
- C. Configure a dynamic scaling policy for the Auto Scaling group to launch new instances based on CPU utilization.
- D. Configure a scheduled scaling policy for the Auto Scaling group to launch new instances before peak hours.

Answer : **D**

661. A company runs applications on AWS that connect to the company's Amazon RDS database. The applications scale on weekends and at peak times of the year. The company wants to scale the database more effectively for its applications that connect to the database.

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

- A. Use Amazon DynamoDB with connection pooling with a target group configuration for the database. Change the applications to use the DynamoDB endpoint.
- B. Use Amazon RDS Proxy with a target group for the database. Change the applications to use the RDS Proxy endpoint.
- C. Use a custom proxy that runs on Amazon EC2 as an intermediary to the database. Change the applications to use the custom proxy endpoint.
- D. Use an AWS Lambda function to provide connection pooling with a target group configuration for the database. Change the applications to use the Lambda function.

Answer : **B**

662. A company uses AWS Cost Explorer to monitor its AWS costs. The company notices that Amazon Elastic Block Store (Amazon EBS) storage and snapshot costs increase every month. However, the company does not purchase additional EBS storage every month. The company wants to optimize monthly costs for its current storage usage.

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

- A. Use logs in Amazon CloudWatch Logs to monitor the storage utilization of Amazon EBS. Use Amazon EBS Elastic Volumes to reduce the size of the EBS volumes.
- B. Use a custom script to monitor space usage. Use Amazon EBS Elastic Volumes to reduce the size of the EBS volumes.
- C. Delete all expired and unused snapshots to reduce snapshot costs.
- D. Delete all nonessential snapshots. Use Amazon Data Lifecycle Manager to create and manage the snapshots according to the company's snapshot policy requirements.

Answer : **D**

663. A company is developing a new application on AWS. The application consists of an Amazon Elastic Container Service (Amazon ECS) cluster, an Amazon S3 bucket that contains assets for the application, and an Amazon RDS for MySQL database that contains the dataset for the application. The dataset contains sensitive information. The company wants to ensure that only the ECS cluster can access the data in the RDS for MySQL database and the data in the S3 bucket.

Which solution will meet these requirements?

- A. Create a new AWS Key Management Service (AWS KMS) customer managed key to encrypt both the S3 bucket and the RDS for MySQL database. Ensure that the KMS key policy includes encrypt and decrypt permissions for the ECS task execution role.
- B. Create an AWS Key Management Service (AWS KMS) AWS managed key to encrypt both the S3 bucket and the RDS for MySQL database. Ensure that the S3 bucket policy specifies the ECS task execution role as a user.
- C. Create an S3 bucket policy that restricts bucket access to the ECS task execution role. Create a VPC endpoint for Amazon RDS for MySQL. Update the RDS for MySQL security group to allow access from only the subnets that the ECS cluster will generate tasks in.
- D. Create a VPC endpoint for Amazon RDS for MySQL. Update the RDS for MySQL security group to allow access from only the subnets that the ECS cluster will generate tasks in. Create a VPC endpoint for Amazon S3. Update the S3 bucket policy to allow access from only the S3 VPC endpoint.

Answer : **A**

664. A company has a web application that runs on premises. The application experiences latency issues during peak hours. The latency issues occur twice each month. At the start of a latency issue, the application's CPU utilization immediately increases to 10 times its normal amount.

The company wants to migrate the application to AWS to improve latency. The company also wants to scale the application automatically when application demand increases. The company will use AWS Elastic Beanstalk for application deployment.

Which solution will meet these requirements?

- A. Configure an Elastic Beanstalk environment to use burstable performance instances in unlimited mode. Configure the environment to scale based on requests.
- B. Configure an Elastic Beanstalk environment to use compute optimized instances. Configure the environment to scale based on requests.
- C. Configure an Elastic Beanstalk environment to use compute optimized instances. Configure the environment to scale on a schedule.
- D. Configure an Elastic Beanstalk environment to use burstable performance instances in unlimited mode. Configure the environment to scale on predictive metrics.

Answer : **D**

665. A company has customers located across the world. The company wants to use automation to secure its systems and network infrastructure. The company's security team must be able to track and audit all incremental changes to the infrastructure.

Which solution will meet these requirements?

- A. Use AWS Organizations to set up the infrastructure. Use AWS Config to track changes.
- B. Use AWS CloudFormation to set up the infrastructure. Use AWS Config to track changes.
- C. Use AWS Organizations to set up the infrastructure. Use AWS Service Catalog to track changes.
- D. Use AWS CloudFormation to set up the infrastructure. Use AWS Service Catalog to track changes.

Answer : **B**

666. A startup company is hosting a website for its customers on an Amazon EC2 instance. The website consists of a stateless Python application and a MySQL database. The website serves only a small amount of traffic. The company is concerned about the reliability of the instance and needs to migrate to a highly available architecture. The company cannot modify the application code.

Which combination of actions should a solutions architect take to achieve high availability for the website? (Choose two.)

- A. Provision an internet gateway in each Availability Zone in use.
- B. Migrate the database to an Amazon RDS for MySQL Multi-AZ DB instance.
- C. Migrate the database to Amazon DynamoDB, and enable DynamoDB auto scaling.
- D. Use AWS DataSync to synchronize the database data across multiple EC2 instances.
- E. Create an Application Load Balancer to distribute traffic to an Auto Scaling group of EC2 instances that are distributed across two Availability Zones.

Answer : **B, E**

667. A company is moving its data and applications to AWS during a multiyear migration project. The company wants to securely access data on Amazon S3 from the company's AWS Region and from the company's on-premises location. The data must not traverse the internet. The company has established an AWS Direct Connect connection between its Region and its on-premises location.

Which solution will meet these requirements?.

- A. Create gateway endpoints for Amazon S3. Use the gateway endpoints to securely access the data from the Region and the on-premises location
- B. Create a gateway in AWS Transit Gateway to access Amazon S3 securely from the Region and the on-premises location.
- C. Create interface endpoints for Amazon S3. Use the interface endpoints to securely access the data from the Region and the on-premises location.
- D. Use an AWS Key Management Service (AWS KMS) key to access the data securely from the Region and the on-premises location.

Answer : **C**

668. A company created a new organization in AWS Organizations. The organization has multiple accounts for the company's development teams. The development team members use AWS IAM Identity Center (AWS Single Sign-On) to access the accounts. For each of the company's applications, the development teams must use a predefined application name to tag resources that are created.

A solutions architect needs to design a solution that gives the development team the ability to create resources only if the application name tag has an approved value.

Which solution will meet these requirements?

- A. Create an IAM group that has a conditional Allow policy that requires the application name tag to be specified for resources to be created.
- B. Create a cross-account role that has a Deny policy for any resource that has the application name tag.
- C. Create a resource group in AWS Resource Groups to validate that the tags are applied to all resources in all accounts.
- D. Create a tag policy in Organizations that has a list of allowed application names

Answer : **D**

669. A company runs its databases on Amazon RDS for PostgreSQL. The company wants a secure solution to manage the master user password by rotating the password every 30 days.

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

- A. Use Amazon EventBridge to schedule a custom AWS Lambda function to rotate the password every 30 days.
- B. Use the modify-db-instance command in the AWS CLI to change the password.
- C. Integrate AWS Secrets Manager with Amazon RDS for PostgreSQL to automate password rotation
- D. Integrate AWS Systems Manager Parameter Store with Amazon RDS for PostgreSQL to automate password rotation.

Answer : **C**

670. A company performs tests on an application that uses an Amazon DynamoDB table. The tests run for 4 hours once a week. The company knows how many read and write operations the application performs to the table each second during the tests. The company does not currently use DynamoDB for any other use case. A solutions architect needs to optimize the costs for the table.

Which solution will meet these requirements?

- A. Choose on-demand mode. Update the read and write capacity units appropriately.
- B. Choose provisioned mode. Update the read and write capacity units appropriately.
- C. Purchase DynamoDB reserved capacity for a 1-year term.
- D. Purchase DynamoDB reserved capacity for a 3-year term.

Answer : **B**

671. A company runs its applications on Amazon EC2 instances. The company performs periodic financial assessments of its AWS costs. The company recently identified unusual spending.

The company needs a solution to prevent unusual spending. The solution must monitor costs and notify responsible stakeholders in the event of unusual spending.

Which solution will meet these requirements?

- A. Use an AWS Budgets template to create a zero spend budget.
- B. Create an AWS Cost Anomaly Detection monitor in the AWS Billing and Cost Management console.
- C. Create AWS Pricing Calculator estimates for the current running workload pricing details.
- D. Use Amazon CloudWatch to monitor costs and to identify unusual spending.

Answer : **B**

672. A marketing company receives a large amount of new clickstream data in Amazon S3 from a marketing campaign. The company needs to analyze the clickstream data in Amazon S3 quickly. Then the company needs to determine whether to process the data further in the data pipeline.

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

- A. Create external tables in a Spark catalog. Configure jobs in AWS Glue to query the data.

- B. Configure an AWS Glue crawler to crawl the data. Configure Amazon Athena to query the data.
- C. Create external tables in a Hive metastore. Configure Spark jobs in Amazon EMR to query the data.
- D. Configure an AWS Glue crawler to crawl the data. Configure Amazon Kinesis Data Analytics to use SQL to query the data.

Answer : **B**

673. A company runs an SMB file server in its data center. The file server stores large files that the company frequently accesses for up to 7 days after the file creation date. After 7 days, the company needs to be able to access the files with a maximum retrieval time of 24 hours.

Which solution will meet these requirements?

- A. Use AWS DataSync to copy data that is older than 7 days from the SMB file server to AWS.
- B. Create an Amazon S3 File Gateway to increase the company's storage space. Create an S3 Lifecycle policy to transition the data to S3 Glacier Deep Archive after 7 days.
- C. Create an Amazon FSx File Gateway to increase the company's storage space. Create an Amazon S3 Lifecycle policy to transition the data after 7 days.
- D. Configure access to Amazon S3 for each user. Create an S3 Lifecycle policy to transition the data to S3 Glacier Flexible Retrieval after 7 days.

Answer : **B**

674. A company runs 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 when traffic increases. The database experiences a heavy read load during periods of high traffic.

Which actions should a solutions architect take to resolve these performance issues? (Choose two.)

- A. Turn on 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. Convert the DB instance to a Multi-AZ DB instance deployment. 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 : **B, D**

675. A company uses Amazon EC2 instances and Amazon Elastic Block Store (Amazon EBS) volumes to run an application. The company creates one snapshot of each EBS volume every day to meet compliance requirements. The company wants to implement an architecture that prevents the accidental deletion of EBS volume snapshots. The solution must not change the administrative rights of the storage administrator user.

Which solution will meet these requirements with the LEAST administrative effort?

- A. Create an IAM role that has permission to delete snapshots. Attach the role to a new EC2 instance. Use the AWS CLI from the new EC2 instance to delete snapshots.
- B. Create an IAM policy that denies snapshot deletion. Attach the policy to the storage administrator user.
- C. Add tags to the snapshots. Create retention rules in Recycle Bin for EBS snapshots that have the tags.
- D. Lock the EBS snapshots to prevent deletion.

Answer : **D**

676. A company's application uses Network Load Balancers, Auto Scaling groups, Amazon EC2 instances, and databases that are deployed in an Amazon VPC. The company wants to capture information about traffic to and from the network interfaces in near real time in its Amazon VPC. The company wants to send the information to Amazon OpenSearch Service for analysis.

Which solution will meet these requirements?

- A. Create a log group in Amazon CloudWatch Logs. Configure VPC Flow Logs to send the log data to the log group. Use Amazon Kinesis Data Streams to stream the logs from the log group to OpenSearch Service.
- B. Create a log group in Amazon CloudWatch Logs. Configure VPC Flow Logs to send the log data to the log group. Use Amazon Kinesis Data Firehose to stream the logs from the log group to OpenSearch Service.
- C. Create a trail in AWS CloudTrail. Configure VPC Flow Logs to send the log data to the trail. Use Amazon Kinesis Data Streams to stream the logs from the trail to OpenSearch Service.
- D. Create a trail in AWS CloudTrail. Configure VPC Flow Logs to send the log data to the trail. Use Amazon Kinesis Data Firehose to stream the logs from the trail to OpenSearch Service.

Answer : **B**

677. A company is developing an application that will run on a production Amazon Elastic Kubernetes Service (Amazon EKS) cluster. The EKS cluster has managed node groups that are provisioned with On-Demand Instances.

The company needs a dedicated EKS cluster for development work. The company will use the development cluster infrequently to test the resiliency of the application. The EKS cluster must manage all the nodes.

Which solution will meet these requirements MOST cost-effectively?

- A. Create a managed node group that contains only Spot Instances.
- B. Create two managed node groups. Provision one node group with On-Demand Instances. Provision the second node group with Spot Instances.
- C. Create an Auto Scaling group that has a launch configuration that uses Spot Instances. Configure the user data to add the nodes to the EKS cluster.
- D. Create a managed node group that contains only On-Demand Instances.

Answer : **A**

678. A company stores sensitive data in Amazon S3. A solutions architect needs to create an encryption solution. The company needs to fully control the ability of users to create, rotate, and disable encryption keys with minimal effort for any data that must be encrypted.

Which solution will meet these requirements?

- A. Use default server-side encryption with Amazon S3 managed encryption keys (SSE-S3) to store the sensitive data.
- B. Create a customer managed key by using AWS Key Management Service (AWS KMS). Use the new key to encrypt the S3 objects by using server-side encryption with AWS KMS keys (SSE-KMS).
- C. Create an AWS managed key by using AWS Key Management Service (AWS KMS). Use the new key to encrypt the S3 objects by using server-side encryption with AWS KMS keys (SSE-KMS).
- D. Download S3 objects to an Amazon EC2 instance. Encrypt the objects by using customer managed keys. Upload the encrypted objects back into Amazon S3.

Answer : **B**

679. A company wants to back up its on-premises virtual machines (VMs) to AWS. The company's backup solution exports on-premises backups to an Amazon S3 bucket as objects. The S3 backups must be retained for 30 days and must be automatically deleted after 30 days.

Which combination of steps will meet these requirements? (Choose three.)

- A. Create an S3 bucket that has S3 Object Lock enabled.
- B. Create an S3 bucket that has object versioning enabled.
- C. Configure a default retention period of 30 days for the objects.
- D. Configure an S3 Lifecycle policy to protect the objects for 30 days.
- E. Configure an S3 Lifecycle policy to expire the objects after 30 days.
- F. Configure the backup solution to tag the objects with a 30-day retention period

Answer : **A, C, E**

680. A solutions architect needs to copy files from an Amazon S3 bucket to an Amazon Elastic File System (Amazon EFS) file system and another S3 bucket. The files must be copied continuously. New files are added to the original S3 bucket consistently. The copied files should be overwritten only if the source file changes.

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

- A. Create an AWS DataSync location for both the destination S3 bucket and the EFS file system. Create a task for the destination S3 bucket and the EFS file system. Set the transfer mode to transfer only data that has changed.
- B. Create an AWS Lambda function. Mount the file system to the function. Set up an S3 event notification to invoke the function when files are created and changed in Amazon S3. Configure the function to copy files to the file system and the destination S3 bucket.
- C. Create an AWS DataSync location for both the destination S3 bucket and the EFS file system. Create a task for the destination S3 bucket and the EFS file system. Set the transfer mode to transfer all data.
- D. Launch an Amazon EC2 instance in the same VPC as the file system. Mount the file system. Create a script to routinely synchronize all objects that changed in the origin S3 bucket to the destination S3 bucket and the mounted file system.

Answer : **A**

681. A company uses Amazon EC2 instances and stores data on Amazon Elastic Block Store (Amazon EBS) volumes. The company must ensure that all data is encrypted at rest by using AWS Key Management Service (AWS KMS). The company must be able to control rotation of the encryption keys.

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

- A. Create a customer managed key. Use the key to encrypt the EBS volumes.
- B. Use an AWS managed key to encrypt the EBS volumes. Use the key to configure automatic key rotation.
- C. Create an external KMS key with imported key material. Use the key to encrypt the EBS volumes.
- D. Use an AWS owned key to encrypt the EBS volumes.

Answer : **A**

682. A company needs a solution to enforce data encryption at rest on Amazon EC2 instances. The solution must automatically identify noncompliant resources and enforce compliance policies on findings.

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

- A. Use an IAM policy that allows users to create only encrypted Amazon Elastic Block Store (Amazon EBS) volumes. Use AWS Config and AWS Systems Manager to automate the detection and remediation of unencrypted EBS volumes.
- B. Use AWS Key Management Service (AWS KMS) to manage access to encrypted Amazon Elastic Block Store (Amazon EBS) volumes. Use AWS Lambda and Amazon EventBridge to automate the detection and remediation of unencrypted EBS volumes.
- C. Use Amazon Macie to detect unencrypted Amazon Elastic Block Store (Amazon EBS) volumes. Use AWS Systems Manager Automation rules to automatically encrypt existing and new EBS volumes.
- D. Use Amazon inspector to detect unencrypted Amazon Elastic Block Store (Amazon EBS) volumes. Use AWS Systems Manager Automation rules to automatically encrypt existing and new EBS volumes.

Answer : **B**

683. A company is migrating its multi-tier on-premises application to AWS. The application consists of a single-node MySQL database and a multi-node web tier. The company must minimize changes to the application during the migration. The company wants to improve application resiliency after the migration.

Which combination of steps will meet these requirements? (Choose two.)

- A. Migrate the web tier to Amazon EC2 instances in an Auto Scaling group behind an Application Load Balancer.
- B. Migrate the database to Amazon EC2 instances in an Auto Scaling group behind a Network Load Balancer.
- C. Migrate the database to an Amazon RDS Multi-AZ deployment.
- D. Migrate the web tier to an AWS Lambda function.
- E. Migrate the database to an Amazon DynamoDB table.

Answer : **A, C**

684. A company wants to migrate its web applications from on premises to AWS. The company is located close to the eu-central-1 Region. Because of regulations, the

company cannot launch some of its applications in eu-central-1. The company wants to achieve single-digit millisecond latency.

Which solution will meet these requirements?

- A. Deploy the applications in eu-central-1. Extend the company's VPC from eu-central-1 to an edge location in Amazon CloudFront.
- B. Deploy the applications in AWS Local Zones by extending the company's VPC from eu-central-1 to the chosen Local Zone
- C. Deploy the applications in eu-central-1. Extend the company's VPC from eu-central-1 to the regional edge caches in Amazon CloudFront.
- D. Deploy the applications in AWS Wavelength Zones by extending the company's VPC from eu-central-1 to the chosen Wavelength Zone.

Answer : **B**

685. A company's ecommerce website has unpredictable traffic and uses AWS Lambda functions to directly access a private Amazon RDS for PostgreSQL DB instance. The company wants to maintain predictable database performance and ensure that the Lambda invocations do not overload the database with too many connections.

What should a solutions architect do to meet these requirements?

- A. Point the client driver at an RDS custom endpoint. Deploy the Lambda functions inside a VPC.
- B. Point the client driver at an RDS proxy endpoint. Deploy the Lambda functions inside a VPC
- C. Point the client driver at an RDS custom endpoint. Deploy the Lambda functions outside a VPC.
- D. Point the client driver at an RDS proxy endpoint. Deploy the Lambda functions outside a VPC.

Answer : **B**

686. A company is creating an application. The company stores data from tests of the application in multiple on-premises locations.

The company needs to connect the on-premises locations to VPCs in an AWS Region in the AWS Cloud. The number of accounts and VPCs will increase during the next year. The network architecture must simplify the administration of new connections and must provide the ability to scale.

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

- A. Create a peering connection between the VPCs. Create a VPN connection between the VPCs and the on-premises locations.
- B. Launch an Amazon EC2 instance. On the instance, include VPN software that uses a VPN connection to connect all VPCs and on-premises locations.
- C. Create a transit gateway. Create VPC attachments for the VPC connections. Create VPN attachments for the on-premises connections.
- D. Create an AWS Direct Connect connection between the on-premises locations and a central VPC. Connect the central VPC to other VPCs by using peering connections.

Answer : **C**

687. A company that uses AWS needs a solution to predict the resources needed for manufacturing processes each month. The solution must use historical values that are currently stored in an Amazon S3 bucket. The company has no machine learning (ML) experience and wants to use a managed service for the training and predictions.

Which combination of steps will meet these requirements? (Choose two.)

- A. Deploy an Amazon SageMaker model. Create a SageMaker endpoint for inference.
- B. Use Amazon SageMaker to train a model by using the historical data in the S3 bucket.
- C. Configure an AWS Lambda function with a function URL that uses Amazon SageMaker endpoints to create predictions based on the inputs.
- D. Configure an AWS Lambda function with a function URL that uses an Amazon Forecast predictor to create a prediction based on the inputs.
- E. Train an Amazon Forsecast predictor by using the historical data in the S3 bucket.

Answer : **D, E**

688. A company manages AWS accounts in AWS Organizations. AWS IAM Identity Center (AWS Single Sign-On) and AWS Control Tower are configured for the accounts. The company wants to manage multiple user permissions across all the accounts.

The permissions will be used by multiple IAM users and must be split between the developer and administrator teams. Each team requires different permissions. The company wants a solution that includes new users that are hired on both teams.

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

- A. Create individual users in IAM Identity Center for each account. Create separate developer and administrator groups in IAM Identity Center. Assign the users to the appropriate groups. Create a custom IAM policy for each group to set fine-grained permissions.
- B. Create individual users in IAM Identity Center for each account. Create separate developer and administrator groups in IAM Identity Center. Assign the users to the appropriate groups. Attach AWS managed IAM policies to each user as needed for fine-grained permissions.
- C. Create individual users in IAM Identity Center. Create new developer and administrator groups in IAM Identity Center. Create new permission sets that include the appropriate IAM policies for each group. Assign the new groups to the appropriate accounts. Assign the new permission sets to the new groups. When new users are hired, add them to the appropriate group.
- D. Create individual users in IAM Identity Center. Create new permission sets that include the appropriate IAM policies for each user. Assign the users to the appropriate accounts. Grant additional IAM permissions to the users from within specific accounts. When new users are hired, add them to IAM Identity Center and assign them to the accounts.

Answer : **C**

689. A company wants to standardize its Amazon Elastic Block Store (Amazon EBS) volume encryption strategy. The company also wants to minimize the cost and configuration effort required to operate the volume encryption check.

Which solution will meet these requirements?

- A. Write API calls to describe the EBS volumes and to confirm the EBS volumes are encrypted. Use Amazon EventBridge to schedule an AWS Lambda function to run the API calls.
- B. Write API calls to describe the EBS volumes and to confirm the EBS volumes are encrypted. Run the API calls on an AWS Fargate task.

- C. Create an AWS Identity and Access Management (IAM) policy that requires the use of tags on EBS volumes. Use AWS Cost Explorer to display resources that are not properly tagged. Encrypt the untagged resources manually.
- D. Create an AWS Config rule for Amazon EBS to evaluate if a volume is encrypted and to flag the volume if it is not encrypted.

Answer : **D**

690. A company regularly uploads GB-sized files to Amazon S3. After the company uploads the files, the company uses a fleet of Amazon EC2 Spot Instances to transcode the file format. The company needs to scale throughput when the company uploads data from the on-premises data center to Amazon S3 and when the company downloads data from Amazon S3 to the EC2 instances.

Which solutions will meet these requirements? (Choose two.)

- A. Use the S3 bucket access point instead of accessing the S3 bucket directly.
- B. Upload the files into multiple S3 buckets.
- C. Use S3 multipart uploads.
- D. Fetch multiple byte-ranges of an object in parallel.
- E. Add a random prefix to each object when uploading the files.

Answer : **C, D**

691. 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? (Choose 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, E**

692. A company is deploying an application in three AWS Regions using an Application Load Balancer. Amazon Route 53 will be used to distribute traffic between these Regions.

Which Route 53 configuration should a solutions architect use to provide the MOST high-performing experience?

- A. Create an A record with a latency policy.
- B. Create an A record with a geolocation policy.
- C. Create a CNAME record with a failover policy.
- D. Create a CNAME record with a geoproximity policy.

Answer : **A**

693. 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 : **D**

694. A company is building a shopping application on AWS. The application offers a catalog that changes once each month and needs to scale with traffic volume. The company wants the lowest possible latency from the application. Data from each user's shopping cart needs to be highly available. User session data must be available even if the user is disconnected and reconnects.

What should a solutions architect do to ensure that the shopping cart data is preserved at all times?

- A. Configure an Application Load Balancer to enable the sticky sessions feature (session affinity) for access to the catalog in Amazon Aurora.
- B. Configure Amazon ElastiCache for Redis to cache catalog data from Amazon DynamoDB and shopping cart data from the user's session
- C. Configure Amazon OpenSearch Service to cache catalog data from Amazon DynamoDB and shopping cart data from the user's session.
- D. Configure an Amazon EC2 instance with Amazon Elastic Block Store (Amazon EBS) storage for the catalog and shopping cart. Configure automated snapshots.

Answer : **B**

695. A company is building a microservices-based application that will be deployed on Amazon Elastic Kubernetes Service (Amazon EKS). The microservices will interact with each other. The company wants to ensure that the application is observable to identify performance issues in the future.

Which solution will meet these requirements?

- A. Configure the application to use Amazon ElastiCache to reduce the number of requests that are sent to the microservices.
- B. Configure Amazon CloudWatch Container Insights to collect metrics from the EKS clusters. Configure AWS X-Ray to trace the requests between the microservices.
- C. Configure AWS CloudTrail to review the API calls. Build an Amazon QuickSight dashboard to observe the microservice interactions.
- D. Use AWS Trusted Advisor to understand the performance of the application.

Answer : **B**

696. A company needs to provide customers with secure access to its data. The company processes customer data and stores the results in an Amazon S3 bucket.

All the data is subject to strong regulations and security requirements. The data must be encrypted at rest. Each customer must be able to access only their data from their AWS account. Company employees must not be able to access the data.

Which solution will meet these requirements?

- A. Provision an AWS Certificate Manager (ACM) certificate for each customer. Encrypt the data client-side. In the private certificate policy, deny access to the certificate for all principals except an IAM role that the customer provides.
- B. Provision a separate AWS Key Management Service (AWS KMS) key for each customer. Encrypt the data server-side. In the S3 bucket policy, deny decryption of data for all principals except an IAM role that the customer provides.
- C. Provision a separate AWS Key Management Service (AWS KMS) key for each customer. Encrypt the data server-side. In each KMS key policy, deny decryption of data for all principals except an IAM role that the customer provides.
- D. Provision an AWS Certificate Manager (ACM) certificate for each customer. Encrypt the data client-side. In the public certificate policy, deny access to the certificate for all principals except an IAM role that the customer provides.

Answer : **C**

697. 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 ALEnsure 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 : **B**

698. A company is deploying a new application to Amazon Elastic Kubernetes Service (Amazon EKS) with an AWS Fargate cluster. The application needs a storage solution for data persistence. The solution must be highly available and fault tolerant. The solution also must be shared between multiple application containers.

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

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

Answer : **B**

699. A company has an application that uses Docker containers in its local data center. The application runs on a container host that stores persistent data in a volume on the host. The container instances use the stored persistent data.

The company wants to move the application to a fully managed service because the company does not want to manage any servers or storage infrastructure.

Which solution will meet these requirements?

- A. Use Amazon Elastic Kubernetes Service (Amazon EKS) with self-managed nodes. Create an Amazon Elastic Block Store (Amazon EBS) volume attached to an Amazon EC2 instance. Use the EBS volume as a persistent volume mounted in the containers.
- B. Use Amazon Elastic Container Service (Amazon ECS) with an AWS Fargate launch type. Create an Amazon Elastic File System (Amazon EFS) volume. Add the EFS volume as a persistent storage volume mounted in the containers
- C. Use Amazon Elastic Container Service (Amazon ECS) with an AWS Fargate launch type. Create an Amazon S3 bucket. Map the S3 bucket as a persistent storage volume mounted in the containers.
- D. Use Amazon Elastic Container Service (Amazon ECS) with an Amazon EC2 launch type. Create an Amazon Elastic File System (Amazon EFS) volume. Add the EFS volume as a persistent storage volume mounted in the containers.

Answer : **B**

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

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

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

Answer : **A, C**

701. A city has deployed a web application running on Amazon EC2 instances behind an Application Load Balancer (ALB). The application's users have reported sporadic performance, which appears to be related to DDoS attacks originating from random IP addresses. The city needs a solution that requires minimal configuration changes and provides an audit trail for the DDoS sources.

Which solution meets these requirements?

- A. Enable an AWS WAF web ACL on the ALB, and configure rules to block traffic from unknown sources.
- B. Subscribe to Amazon Inspector. Engage the AWS DDoS Response Team (DRT) to integrate mitigating controls into the service.
- C. Subscribe to AWS Shield Advanced. Engage the AWS DDoS Response Team (DRT) to integrate mitigating controls into the service.
- D. Create an Amazon CloudFront distribution for the application, and set the ALB as the origin. Enable an AWS WAF web ACL on the distribution, and configure rules to block traffic from unknown sources

Answer : **C**

702. A company copies 200 TB of data from a recent ocean survey onto AWS Snowball Edge Storage Optimized devices. The company has a high performance computing (HPC) cluster that is hosted on AWS to look for oil and gas deposits. A solutions architect must provide the cluster with consistent sub-millisecond latency and high-throughput access to the data on the Snowball Edge Storage Optimized devices. The company is sending the devices back to AWS.

Which solution will meet these requirements?

- A. Create an Amazon S3 bucket. Import the data into the S3 bucket. Configure an AWS Storage Gateway file gateway to use the S3 bucket. Access the file gateway from the HPC cluster instances.
- B. Create an Amazon S3 bucket. Import the data into the S3 bucket. Configure an Amazon FSx for Lustre file system, and integrate it with the S3 bucket. Access the FSx for Lustre file system from the HPC cluster instances.

- C. Create an Amazon S3 bucket and an Amazon Elastic File System (Amazon EFS) file system. Import the data into the S3 bucket. Copy the data from the S3 bucket to the EFS file system. Access the EFS file system from the HPC cluster instances.
- D. Create an Amazon FSx for Lustre file system. Import the data directly into the FSx for Lustre file system. Access the FSx for Lustre file system from the HPC cluster instances.

Answer : **D**

703. 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 meets these requirements and is MOST cost-effective?

- A. Set up AWS Glue to copy the data from the on-premises servers to Amazon S3.
- B. Set up an AWS DataSync agent on the on-premises servers, and sync the data to Amazon S3.
- C. Set up an SFTP sync using AWS Transfer for SFTP to sync data from on premises to 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**

704. An online video game company must maintain ultra-low latency for its game servers. The game servers run on Amazon EC2 instances. The company needs a solution that can handle millions of UDP internet traffic requests each second.

Which solution will meet these requirements MOST cost-effectively?

- A. Configure an Application Load Balancer with the required protocol and ports for the internet traffic. Specify the EC2 instances as the targets.
- B. Configure a Gateway Load Balancer for the internet traffic. Specify the EC2 instances as the targets.
- C. Configure a Network Load Balancer with the required protocol and ports for the internet traffic. Specify the EC2 instances as the targets.
- D. Launch an identical set of game servers on EC2 instances in separate AWS Regions. Route internet traffic to both sets of EC2 instances.

Answer : **C**

705. A company runs a three-tier application in a VPC. The database tier uses an Amazon RDS for MySQL DB instance.

The company plans to migrate the RDS for MySQL DB instance to an Amazon Aurora PostgreSQL DB cluster. The company needs a solution that replicates the data changes that happen during the migration to the new database.

Which combination of steps will meet these requirements? (Choose two.)

- A. Use AWS Database Migration Service (AWS DMS) Schema Conversion to transform the database objects.
- B. Use AWS Database Migration Service (AWS DMS) Schema Conversion to create an Aurora PostgreSQL read replica on the RDS for MySQL DB instance.
- C. Configure an Aurora MySQL read replica for the RDS for MySQL DB instance.
- D. Define an AWS Database Migration Service (AWS DMS) task with change data capture (CDC) to migrate the data.
- E. Promote the Aurora PostgreSQL read replica to a standalone Aurora PostgreSQL DB cluster when the replica lag is zero.

Answer : **B, E**

706. A company hosts a database that runs on an Amazon RDS instance that is deployed to multiple Availability Zones. The company periodically runs a script against the database to report new entries that are added to the database. The script that runs against the database negatively affects the performance of a critical application. The company needs to improve application performance with minimal costs.

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

- A. Add functionality to the script to identify the instance that has the fewest active connections. Configure the script to read from that instance to report the total new entries.
- B. Create a read replica of the database. Configure the script to query only the read replica to report the total new entries
- C. Instruct the development team to manually export the new entries for the day in the database at the end of each day.

- D. Use Amazon ElastiCache to cache the common queries that the script runs against the database.

Answer : **B**

707. A company is using an Application Load Balancer (ALB) to present its application to the internet. The company finds abnormal traffic access patterns across the application. A solutions architect needs to improve visibility into the infrastructure to help the company understand these abnormalities better.

What is the MOST operationally efficient solution that meets these requirements?

- A. Create a table in Amazon Athena for AWS CloudTrail logs. Create a query for the relevant information.
- B. Enable ALB access logging to Amazon S3. Create a table in Amazon Athena, and query the logs.
- C. Enable ALB access logging to Amazon S3. Open each file in a text editor, and search each line for the relevant information.
- D. Use Amazon EMR on a dedicated Amazon EC2 instance to directly query the ALB to acquire traffic access log information.

Answer : **B**

708. A company wants to use NAT gateways in its AWS environment. The company's Amazon EC2 instances in private subnets must be able to connect to the public internet through the NAT gateways.

Which solution will meet these requirements?

- A. Create public NAT gateways in the same private subnets as the EC2 instances.
- B. Create private NAT gateways in the same private subnets as the EC2 instances.
- C. Create public NAT gateways in public subnets in the same VPCs as the EC2 instances.
- D. Create private NAT gateways in public subnets in the same VPCs as the EC2 instances.

Answer : **C**

709. A company has an organization in AWS Organizations. The company runs Amazon EC2 instances across four AWS accounts in the root organizational unit (OU). There are three nonproduction accounts and one production account. The company wants to prohibit users from launching EC2 instances of a certain size in the nonproduction accounts. The company has created a service control policy (SCP) to deny access to launch instances that use the prohibited types.

Which solutions to deploy the SCP will meet these requirements? (Choose two.)

- A. Attach the SCP to the root OU for the organization.
- B. Attach the SCP to the three nonproduction Organizations member accounts.
- C. Attach the SCP to the Organizations management account.
- D. Create an OU for the production account. Attach the SCP to the OU. Move the production member account into the new OU.
- E. Create an OU for the required accounts. Attach the SCP to the OU. Move the nonproduction member accounts into the new OU.

Answer : **B, E**

710. 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**

711. An ecommerce company runs its application on AWS. The application uses an Amazon Aurora PostgreSQL cluster in Multi-AZ mode for the underlying database. During a recent promotional campaign, the application experienced heavy read load and write load. Users experienced timeout issues when they attempted to access the application.

A solutions architect needs to make the application architecture more scalable and highly available.

Which solution will meet these requirements with the LEAST downtime?

- A. Create an Amazon EventBridge rule that has the Aurora cluster as a source. Create an AWS Lambda function to log the state change events of the Aurora cluster. Add the Lambda function as a target for the EventBridge rule. Add additional reader nodes to fail over to.
- B. Modify the Aurora cluster and activate the zero-downtime restart (ZDR) feature. Use Database Activity Streams on the cluster to track the cluster status.
- C. Add additional reader instances to the Aurora cluster. Create an Amazon RDS Proxy target group for the Aurora cluster.
- D. Create an Amazon ElastiCache for Redis cache. Replicate data from the Aurora cluster to Redis by using AWS Database Migration Service (AWS DMS) with a write-around approach.

Answer : **C**

712. A company is designing a web application on AWS. The application will use a VPN connection between the company’s existing data centers and the company's VPCs.

The company uses Amazon Route 53 as its DNS service. The application must use private DNS records to communicate with the on-premises services from a VPC.

Which solution will meet these requirements in the MOST secure manner?

- A. Create a Route 53 Resolver outbound endpoint. Create a resolver rule. Associate the resolver rule with the VPC.
- B. Create a Route 53 Resolver inbound endpoint. Create a resolver rule. Associate the resolver rule with the VPC.
- C. Create a Route 53 private hosted zone. Associate the private hosted zone with the VPC.

- D. Create a Route 53 public hosted zone. Create a record for each service to allow service communication

Answer : **A**

713. 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 for 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 OpenSearch Service.

Answer : **B**

714. A company runs a highly available web application on Amazon EC2 instances behind an Application Load Balancer. The company uses Amazon CloudWatch metrics.

As the traffic to the web application increases, some EC2 instances become overloaded with many outstanding requests. The CloudWatch metrics show that the number of requests processed and the time to receive the responses from some EC2 instances are both higher compared to other EC2 instances. The company does not want new requests to be forwarded to the EC2 instances that are already overloaded.

Which solution will meet these requirements?

- A. Use the round robin routing algorithm based on the RequestCountPerTarget and ActiveConnectionCount CloudWatch metrics.
- B. Use the least outstanding requests algorithm based on the RequestCountPerTarget and ActiveConnectionCount CloudWatch metrics.
- C. Use the round robin routing algorithm based on the RequestCount and TargetResponseTime CloudWatch metrics.
- D. Use the least outstanding requests algorithm based on the RequestCount and TargetResponseTime CloudWatch metrics.

Answer : **D**

715. A company uses Amazon EC2, AWS Fargate, and AWS Lambda to run multiple workloads in the company's AWS account. The company wants to fully make use of its Compute Savings Plans. The company wants to receive notification when coverage of the Compute Savings Plans drops.

Which solution will meet these requirements with the MOST operational efficiency?

- A. Create a daily budget for the Savings Plans by using AWS Budgets. Configure the budget with a coverage threshold to send notifications to the appropriate email message recipients.
- B. Create a Lambda function that runs a coverage report against the Savings Plans. Use Amazon Simple Email Service (Amazon SES) to email the report to the appropriate email message recipients.
- C. Create an AWS Budgets report for the Savings Plans budget. Set the frequency to daily.
- D. Create a Savings Plans alert subscription. Enable all notification options. Enter an email address to receive notifications.

Answer : **A**

716. A company runs a real-time data ingestion solution on AWS. The solution consists of the most recent version of Amazon Managed Streaming for Apache Kafka (Amazon MSK). The solution is deployed in a VPC in private subnets across three Availability Zones.

A solutions architect needs to redesign the data ingestion solution to be publicly available over the internet. The data in transit must also be encrypted.

Which solution will meet these requirements with the MOST operational efficiency?

- A. Configure public subnets in the existing VPC. Deploy an MSK cluster in the public subnets. Update the MSK cluster security settings to enable mutual TLS authentication.
- B. Create a new VPC that has public subnets. Deploy an MSK cluster in the public subnets. Update the MSK cluster security settings to enable mutual TLS authentication.
- C. Deploy an Application Load Balancer (ALB) that uses private subnets. Configure an ALB security group inbound rule to allow inbound traffic from the VPC CIDR block for HTTPS protocol.
- D. Deploy a Network Load Balancer (NLB) that uses private subnets. Configure an NLB listener for HTTPS communication over the internet.

Answer : **A**

717. A company wants to migrate an on-premises legacy application to AWS. The application ingests customer order files from an on-premises enterprise resource planning (ERP) system. The application then uploads the files to an SFTP server. The application uses a scheduled job that checks for order files every hour.

The company already has an AWS account that has connectivity to the on-premises network. The new application on AWS must support integration with the existing ERP system. The new application must be secure and resilient and must use the SFTP protocol to process orders from the ERP system immediately.

Which solution will meet these requirements?

- A. Create an AWS Transfer Family SFTP internet-facing server in two Availability Zones. Use Amazon S3 storage. Create an AWS Lambda function to process order files. Use S3 Event Notifications to send s3:ObjectCreated:* events to the Lambda function.
- B. Create an AWS Transfer Family SFTP internet-facing server in one Availability Zone. Use Amazon Elastic File System (Amazon EFS) storage. Create an AWS Lambda function to process order files. Use a Transfer Family managed workflow to invoke the Lambda function.
- C. Create an AWS Transfer Family SFTP internal server in two Availability Zones. Use Amazon Elastic File System (Amazon EFS) storage. Create an AWS Step Functions state machine to process order files. Use Amazon EventBridge Scheduler to invoke the state machine to periodically check Amazon EFS for order files.

- D. Create an AWS Transfer Family SFTP internal server in two Availability Zones. Use Amazon S3 storage. Create an AWS Lambda function to process order files. Use a Transfer Family managed workflow to invoke the Lambda function.

Answer : **D**

718. A company's applications use Apache Hadoop and Apache Spark to process data on premises. The existing infrastructure is not scalable and is complex to manage.

A solutions architect must design a scalable solution that reduces operational complexity. The solution must keep the data processing on premises.

Which solution will meet these requirements?

- A. Use AWS Site-to-Site VPN to access the on-premises Hadoop Distributed File System (HDFS) data and application. Use an Amazon EMR cluster to process the data.
- B. Use AWS DataSync to connect to the on-premises Hadoop Distributed File System (HDFS) cluster. Create an Amazon EMR cluster to process the data.
- C. Migrate the Apache Hadoop application and the Apache Spark application to Amazon EMR clusters on AWS Outposts. Use the EMR clusters to process the data.
- D. Use an AWS Snowball device to migrate the data to an Amazon S3 bucket. Create an Amazon EMR cluster to process the data.

Answer : **C**

719. A company is migrating a large amount of data from on-premises storage to AWS. Windows, Mac, and Linux based Amazon EC2 instances in the same AWS Region will access the data by using SMB and NFS storage protocols. The company will access a portion of the data routinely. The company will access the remaining data infrequently.

The company needs to design a solution to host the data.

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

- A. Create an Amazon Elastic File System (Amazon EFS) volume that uses EFS Intelligent-Tiering. Use AWS DataSync to migrate the data to the EFS volume.

- B. Create an Amazon FSx for ONTAP instance. Create an FSx for ONTAP file system with a root volume that uses the auto tiering policy. Migrate the data to the FSx for ONTAP volume.
- C. Create an Amazon S3 bucket that uses S3 Intelligent-Tiering. Migrate the data to the S3 bucket by using an AWS Storage Gateway Amazon S3 File Gateway.
- D. Create an Amazon FSx for OpenZFS file system. Migrate the data to the new volume.

Answer : **B**

720. A manufacturing company runs its report generation application on AWS. The application generates each report in about 20 minutes. The application is built as a monolith that runs on a single Amazon EC2 instance. The application requires frequent updates to its tightly coupled modules. The application becomes complex to maintain as the company adds new features.

Each time the company patches a software module, the application experiences downtime. Report generation must restart from the beginning after any interruptions. The company wants to redesign the application so that the application can be flexible, scalable, and gradually improved. The company wants to minimize application downtime.

Which solution will meet these requirements?

- A. Run the application on AWS Lambda as a single function with maximum provisioned concurrency.
- B. Run the application on Amazon EC2 Spot Instances as microservices with a Spot Fleet default allocation strategy.
- C. Run the application on Amazon Elastic Container Service (Amazon ECS) as microservices with service auto scaling.
- D. Run the application on AWS Elastic Beanstalk as a single application environment with an all-at-once deployment strategy.

Answer : **C**

721. A company wants to rearchitect a large-scale web application to a serverless microservices architecture. The application uses Amazon EC2 instances and is written in Python.

The company selected one component of the web application to test as a microservice. The component supports hundreds of requests each second. The company wants to create and test the microservice on an AWS solution that supports Python. The solution must also scale automatically and require minimal infrastructure and minimal operational support.

Which solution will meet these requirements?

- A. Use a Spot Fleet with auto scaling of EC2 instances that run the most recent Amazon Linux operating system.
- B. Use an AWS Elastic Beanstalk web server environment that has high availability configured.
- C. Use Amazon Elastic Kubernetes Service (Amazon EKS). Launch Auto Scaling groups of self-managed EC2 instances.
- D. Use an AWS Lambda function that runs custom developed code.

Answer : **D**

722. A company has an AWS Direct Connect connection from its on-premises location to an AWS account. The AWS account has 30 different VPCs in the same AWS Region. The VPCs use private virtual interfaces (VIFs). Each VPC has a CIDR block that does not overlap with other networks under the company's control.

The company wants to centrally manage the networking architecture while still allowing each VPC to communicate with all other VPCs and on-premises networks.

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

- A. Create a transit gateway, and associate the Direct Connect connection with a new transit VIF. Turn on the transit gateway's route propagation feature.
- B. Create a Direct Connect gateway. Recreate the private VIFs to use the new gateway. Associate each VPC by creating new virtual private gateways.
- C. Create a transit VPConnect the Direct Connect connection to the transit VPCreate a peering connection between all other VPCs in the Region. Update the route tables.

- D. Create AWS Site-to-Site VPN connections from on premises to each VPC. Ensure that both VPN tunnels are UP for each connection. Turn on the route propagation feature.

Answer : **A**

723. A company has applications that run on Amazon EC2 instances. The EC2 instances connect to Amazon RDS databases by using an IAM role that has associated policies. The company wants to use AWS Systems Manager to patch the EC2 instances without disrupting the running applications.

Which solution will meet these requirements?

- A. Create a new IAM role. Attach the AmazonSSMManagedInstanceCore policy to the new IAM role. Attach the new IAM role to the EC2 instances and the existing IAM role.
- B. Create an IAM user. Attach the AmazonSSMManagedInstanceCore policy to the IAM user. Configure Systems Manager to use the IAM user to manage the EC2 instances.
- C. Enable Default Host Configuration Management in Systems Manager to manage the EC2 instances
- D. Remove the existing policies from the existing IAM role. Add the AmazonSSMManagedInstanceCore policy to the existing IAM role.

Answer : **C**

724. A company runs container applications by using Amazon Elastic Kubernetes Service (Amazon EKS) and the Kubernetes Horizontal Pod Autoscaler. The workload is not consistent throughout the day. A solutions architect notices that the number of nodes does not automatically scale out when the existing nodes have reached maximum capacity in the cluster, which causes performance issues.

Which solution will resolve this issue with the LEAST administrative overhead?

- A. Scale out the nodes by tracking the memory usage.
- B. Use the Kubernetes Cluster Autoscaler to manage the number of nodes in the cluster
- C. Use an AWS Lambda function to resize the EKS cluster automatically.
- D. Use an Amazon EC2 Auto Scaling group to distribute the workload.

Answer : **B**

725. 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**

726. 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 OpenSearch Service with OpenSearch Dashboards.
- 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**

727. A company stores critical data in Amazon DynamoDB tables in the company's AWS account. An IT administrator accidentally deleted a DynamoDB table. The deletion caused a significant loss of data and disrupted the company's operations. The company wants to prevent this type of disruption in the future.

Which solution will meet this requirement with the LEAST operational overhead?

- A. Configure a trail in AWS CloudTrail. Create an Amazon EventBridge rule for delete actions. Create an AWS Lambda function to automatically restore deleted DynamoDB tables.
- B. Create a backup and restore plan for the DynamoDB tables. Recover the DynamoDB tables manually.
- C. Configure deletion protection on the DynamoDB tables.
- D. Enable point-in-time recovery on the DynamoDB tables.

Answer : **C**

728. 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 retrieval. Enable provisioned retrieval capacity for the workload.
- B. Deploy AWS Storage Gateway using cached volumes. Use Storage Gateway to store data in Amazon S3 while retaining copies of frequently accessed data subsets locally.
- C. Deploy AWS Storage Gateway using stored volumes to store data locally. Use Storage Gateway to asynchronously back up point-in-time snapshots of the data to Amazon S3.
- D. Deploy AWS Direct Connect to connect with the on-premises data center. Configure AWS Storage Gateway to store data locally. Use Storage Gateway to asynchronously back up point-in-time snapshots of the data to Amazon S3.

Answer : **C**

729. A company runs a three-tier web application in a VPC across multiple Availability Zones. Amazon EC2 instances run in an Auto Scaling group for 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 cooldown period based on the EC2 instance startup time.

Answer : **B**

730. A package delivery company has an application that uses Amazon EC2 instances and an Amazon Aurora MySQL DB cluster. As the application becomes more popular, EC2 instance usage increases only slightly. DB cluster usage increases at a much faster rate.

The company adds a read replica, which reduces the DB cluster usage for a short period of time. However, the load continues to increase. The operations that cause the increase in DB cluster usage are all repeated read statements that are related to delivery details. The company needs to alleviate the effect of repeated reads on the DB cluster.

Which solution will meet these requirements MOST cost-effectively?

- A. Implement an Amazon ElastiCache for Redis cluster between the application and the DB cluster
- B. Add an additional read replica to the DB cluster.
- C. Configure Aurora Auto Scaling for the Aurora read replicas.

- D. Modify the DB cluster to have multiple writer instances.

Answer : **A**

731. A company has an application that uses an Amazon DynamoDB table for 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).
- C. Request strongly consistent reads for the table
- D. Request eventually consistent reads for the table.

Answer : **C**

732. A company has deployed its application on Amazon EC2 instances with an Amazon RDS database. The company used the principle of least privilege to configure the database access credentials. The company's security team wants to protect the application and the database from SQL injection and other web-based attacks.

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

- A. Use security groups and network ACLs to secure the database and application servers.
- B. Use AWS WAF to protect the application. Use RDS parameter groups to configure the security settings.
- C. Use AWS Network Firewall to protect the application and the database.
- D. Use different database accounts in the application code for different functions. Avoid granting excessive privileges to the database users.

Answer : **B**

733. An ecommerce company runs applications in AWS accounts that are part of an organization in AWS Organizations. The applications run on Amazon Aurora PostgreSQL databases across all the accounts. The company needs to prevent malicious activity and must identify abnormal failed and incomplete login attempts to the databases.

Which solution will meet these requirements in the MOST operationally efficient way?

- A. Attach service control policies (SCPs) to the root of the organization to identity the failed login attempts.
- B. Enable the Amazon RDS Protection feature in Amazon GuardDuty for the member accounts of the organization
- C. Publish the Aurora general logs to a log group in Amazon CloudWatch Logs. Export the log data to a central Amazon S3 bucket.
- D. Publish all the Aurora PostgreSQL database events in AWS CloudTrail to a central Amazon S3 bucket.

Answer : **B**

734. A company has an AWS Direct Connect connection from its corporate data center to its VPC in the us-east-1 Region. The company recently acquired a corporation that has several VPCs and a Direct Connect connection between its on-premises data center and the eu-west-2 Region. The CIDR blocks for the VPCs of the company and the corporation do not overlap. The company requires connectivity between two Regions and the data centers. The company needs a solution that is scalable while reducing operational overhead.

What should a solutions architect do to meet these requirements?

- A. Set up inter-Region VPC peering between the VPC in us-east-1 and the VPCs in eu-west-2.
- B. Create private virtual interfaces from the Direct Connect connection in us-east-1 to the VPCs in eu-west-2.
- C. Establish VPN appliances in a fully meshed VPN network hosted by Amazon EC2. Use AWS VPN CloudHub to send and receive data between the data centers and each VPC.
- D. Connect the existing Direct Connect connection to a Direct Connect gateway. Route traffic from the virtual private gateways of the VPCs in each Region to the Direct Connect gateway.

Answer : **D**

735. 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 Redshift.
- 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**

736. 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 : **B**

737. A company has an application that delivers on-demand training videos to students around the world. The application also allows authorized content developers to upload videos. The data is stored in an Amazon S3 bucket in the us-east-2 Region.

The company has created an S3 bucket in the eu-west-2 Region and an S3 bucket in the ap-southeast-1 Region. The company wants to replicate the data to the new S3 buckets. The company needs to minimize latency for developers who upload videos and students who stream videos near eu-west-2 and ap-southeast-1.

Which combination of steps will meet these requirements with the FEWEST changes to the application? (Choose two.)

- A. Configure one-way replication from the us-east-2 S3 bucket to the eu-west-2 S3 bucket. Configure one-way replication from the us-east-2 S3 bucket to the ap-southeast-1 S3 bucket.
- B. Configure one-way replication from the us-east-2 S3 bucket to the eu-west-2 S3 bucket. Configure one-way replication from the eu-west-2 S3 bucket to the ap-southeast-1 S3 bucket.
- C. Configure two-way (bidirectional) replication among the S3 buckets that are in all three Regions.
- D. Create an S3 Multi-Region Access Point. Modify the application to use the Amazon Resource Name (ARN) of the Multi-Region Access Point for video streaming. Do not modify the application for video uploads.
- E. Create an S3 Multi-Region Access Point. Modify the application to use the Amazon Resource Name (ARN) of the Multi-Region Access Point for video streaming and uploads.

Answer : **C, E**

738. A company has a new mobile app. Anywhere in the world, users can see local news on topics they choose. Users also can post photos and videos from inside the app.

Users access content often in the first minutes after the content is posted. New content quickly replaces older content, and then the older content disappears. The local nature

of the news means that users consume 90% of the content within the AWS Region where it is uploaded.

Which solution will optimize the user experience by providing the LOWEST latency for content uploads?

- A. Upload and store content in Amazon S3. Use Amazon CloudFront for the uploads.
- B. Upload and store content in Amazon S3. Use S3 Transfer Acceleration for the uploads.
- C. Upload content to Amazon EC2 instances in the Region that is closest to the user. Copy the data to Amazon S3.
- D. Upload and store content in Amazon S3 in the Region that is closest to the user. Use multiple distributions of Amazon CloudFront.

Answer : **B**

739. A company is building a new application that uses serverless architecture. The architecture will consist of an Amazon API Gateway REST API and AWS Lambda functions to manage incoming requests.

The company wants to add a service that can send messages received from the API Gateway REST API to multiple target Lambda functions for processing. The service must offer message filtering that gives the target Lambda functions the ability to receive only the messages the functions need.

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

- A. Send the requests from the API Gateway REST API to an Amazon Simple Notification Service (Amazon SNS) topic. Subscribe Amazon Simple Queue Service (Amazon SQS) queues to the SNS topic. Configure the target Lambda functions to poll the different SQS queues.
- B. Send the requests from the API Gateway REST API to Amazon EventBridge. Configure EventBridge to invoke the target Lambda functions.
- C. Send the requests from the API Gateway REST API to Amazon Managed Streaming for Apache Kafka (Amazon MSK). Configure Amazon MSK to publish the messages to the target Lambda functions.
- D. Send the requests from the API Gateway REST API to multiple Amazon Simple Queue Service (Amazon SQS) queues. Configure the target Lambda functions to poll the different SQS queues.

Answer : **A**

740. A company migrated millions of archival files to Amazon S3. A solutions architect needs to implement a solution that will encrypt all the archival data by using a customer-provided key. The solution must encrypt existing unencrypted objects and future objects.

Which solution will meet these requirements?

- A. Create a list of unencrypted objects by filtering an Amazon S3 Inventory report. Configure an S3 Batch Operations job to encrypt the objects from the list with a server-side encryption with a customer-provided key (SSE-C). Configure the S3 default encryption feature to use a server-side encryption with a customer-provided key (SSE-C).
- B. Use S3 Storage Lens metrics to identify unencrypted S3 buckets. Configure the S3 default encryption feature to use a server-side encryption with AWS KMS keys (SSE-KMS).
- C. Create a list of unencrypted objects by filtering the AWS usage report for Amazon S3. Configure an AWS Batch job to encrypt the objects from the list with a server-side encryption with AWS KMS keys (SSE-KMS). Configure the S3 default encryption feature to use a server-side encryption with AWS KMS keys (SSE-KMS).
- D. Create a list of unencrypted objects by filtering the AWS usage report for Amazon S3. Configure the S3 default encryption feature to use a server-side encryption with a customer-provided key (SSE-C).

Answer : **A**

741. The DNS provider that hosts a company's domain name records is experiencing outages that cause service disruption for a website running on AWS. The company needs to migrate to a more resilient managed DNS service and wants the service to run on AWS.

What should a solutions architect do to rapidly migrate the DNS hosting service?

- A. Create an Amazon Route 53 public hosted zone for the domain name. Import the zone file containing the domain records hosted by the previous provider.
- B. Create an Amazon Route 53 private hosted zone for the domain name. Import the zone file containing the domain records hosted by the previous provider.
- C. Create a Simple AD directory in AWS. Enable zone transfer between the DNS provider and AWS Directory Service for Microsoft Active Directory for the domain records.
- D. Create an Amazon Route 53 Resolver inbound endpoint in the VPC. Specify the IP addresses that the provider's DNS will forward DNS queries to. Configure the provider's

DNS to forward DNS queries for the domain to the IP addresses that are specified in the inbound endpoint.

Answer : **A**

742. A company is building an application on AWS that connects to an Amazon RDS database. The company wants to manage the application configuration and to securely store and retrieve credentials for the database and other services.

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

- A. Use AWS AppConfig to store and manage the application configuration. Use AWS Secrets Manager to store and retrieve the credentials.
- B. Use AWS Lambda to store and manage the application configuration. Use AWS Systems Manager Parameter Store to store and retrieve the credentials.
- C. Use an encrypted application configuration file. Store the file in Amazon S3 for the application configuration. Create another S3 file to store and retrieve the credentials.
- D. Use AWS AppConfig to store and manage the application configuration. Use Amazon RDS to store and retrieve the credentials.

Answer : **A**

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

What should a solutions architect do to satisfy the security requirements?

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

Answer : **D**

744. A company is designing a new web service that will run on Amazon EC2 instances behind an Elastic Load Balancing (ELB) load balancer. However, many of the web service clients can only reach IP addresses authorized 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**

745. 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 IAM users for daily administrative tasks. Disable the root user.
- B. Create IAM 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**

746. A company is deploying an application that processes streaming data in near-real 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 combination of network solutions will meet these requirements? (Choose two.)

- A. Enable and configure enhanced networking on each EC2 instance.
- B. Group the EC2 instances in separate accounts.
- C. Run the EC2 instances in a cluster placement group.
- D. Attach multiple elastic network interfaces to each EC2 instance.
- E. Use Amazon Elastic Block Store (Amazon EBS) optimized instance types.

Answer : **A, C**

747. A financial services company wants to shut down two data centers and migrate more than 100 TB of data to AWS. The data has an intricate directory structure with millions of small files stored in deep hierarchies of subfolders. Most of the data is unstructured, and the company's file storage consists of SMB-based storage types from multiple vendors. The company does not want to change its applications to access the data after migration.

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

- A. Use AWS Direct Connect to migrate the data to Amazon S3.
- B. Use AWS DataSync to migrate the data to Amazon FSx for Lustre.
- C. Use AWS DataSync to migrate the data to Amazon FSx for Windows File Server.
- D. Use AWS Direct Connect to migrate the data on-premises file storage to an AWS Storage Gateway volume gateway.

Answer : **C**

748. A company uses an organization in AWS Organizations to manage AWS accounts that contain applications. The company sets up a dedicated monitoring member account in the organization. The company wants to query and visualize observability data across the accounts by using Amazon CloudWatch.

Which solution will meet these requirements?

- A. Enable CloudWatch cross-account observability for the monitoring account. Deploy an AWS CloudFormation template provided by the monitoring account in each AWS account to share the data with the monitoring account.
- B. Set up service control policies (SCPs) to provide access to CloudWatch in the monitoring account under the Organizations root organizational unit (OU).
- C. Configure a new IAM user in the monitoring account. In each AWS account, configure an IAM policy to have access to query and visualize the CloudWatch data in the account. Attach the new IAM policy to the new IAM user.
- D. Create a new IAM user in the monitoring account. Create cross-account IAM policies in each AWS account. Attach the IAM policies to the new IAM user.

Answer : **A**

749. 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**

750. A company sets up an organization in AWS Organizations that contains 10 AWS accounts. A solutions architect must design a solution to provide access to the accounts for several thousand employees. The company has an existing identity provider (IdP). The company wants to use the existing IdP for authentication to AWS.

Which solution will meet these requirements?

- A. Create IAM users for the employees in the required AWS accounts. Connect IAM users to the existing IdP. Configure federated authentication for the IAM users.
- B. Set up AWS account root users with user email addresses and passwords that are synchronized from the existing IdP.
- C. Configure AWS IAM Identity Center (AWS Single Sign-On). Connect IAM Identity Center to the existing IdP. Provision users and groups from the existing IdP.
- D. Use AWS Resource Access Manager (AWS RAM) to share access to the AWS accounts with the users in the existing IdP.

Answer : **C**

751. A solutions architect is designing an AWS Identity and Access Management (IAM) authorization model for a company's AWS account. The company has designated five specific employees to have full access to AWS services and resources in the AWS account.

The solutions architect has created an IAM user for each of the five designated employees and has created an IAM user group.

Which solution will meet these requirements?

- A. Attach the AdministratorAccess resource-based policy to the IAM user group. Place each of the five designated employee IAM users in the IAM user group.
- B. Attach the SystemAdministrator identity-based policy to the IAM user group. Place each of the five designated employee IAM users in the IAM user group.
- C. Attach the AdministratorAccess identity-based policy to the IAM user group. Place each of the five designated employee IAM users in the IAM user group.
- D. Attach the SystemAdministrator resource-based policy to the IAM user group. Place each of the five designated employee IAM users in the IAM user group.

Answer : **C**

752. A company has a multi-tier payment processing application that is based on virtual machines (VMs). The communication between the tiers occurs asynchronously through a third-party middleware solution that guarantees exactly-once delivery.

The company needs a solution that requires the least amount of infrastructure

management. The solution must guarantee exactly-once delivery for application messaging.

Which combination of actions will meet these requirements? (Choose two.)

- A. Use AWS Lambda for the compute layers in the architecture
- B. Use Amazon EC2 instances for the compute layers in the architecture.
- C. Use Amazon Simple Notification Service (Amazon SNS) as the messaging component between the compute layers.
- D. Use Amazon Simple Queue Service (Amazon SQS) FIFO queues as the messaging component between the compute layers.
- E. Use containers that are based on Amazon Elastic Kubernetes Service (Amazon EKS) for the compute layers in the architecture.

Answer : **A, D**

753. A company has a nightly batch processing routine that analyzes report files that an on-premises file system receives daily through SFTP. The company wants to move the solution to the AWS Cloud. The solution must be highly available and resilient. The solution also must minimize operational effort.

Which solution meets these requirements?

- A. Deploy AWS Transfer for SFTP and an Amazon Elastic File System (Amazon EFS) file system for storage. Use an Amazon EC2 instance in an Auto Scaling group with a scheduled scaling policy to run the batch operation.
- B. Deploy an Amazon EC2 instance that runs Linux and an SFTP service. Use an Amazon Elastic Block Store (Amazon EBS) volume for storage. Use an Auto Scaling group with the minimum number of instances and desired number of instances set to 1.
- C. Deploy an Amazon EC2 instance that runs Linux and an SFTP service. Use an Amazon Elastic File System (Amazon EFS) file system for storage. Use an Auto Scaling group with the minimum number of instances and desired number of instances set to 1.
- D. Deploy AWS Transfer for SFTP and an Amazon S3 bucket for storage. Modify the application to pull the batch files from Amazon S3 to an Amazon EC2 instance for processing. Use an EC2 instance in an Auto Scaling group with a scheduled scaling policy to run the batch operation.

Answer : **D**

754. A company has users all around the world accessing its HTTP-based application deployed on Amazon EC2 instances in multiple AWS Regions. The company wants to improve the availability and performance of the application. The company also wants to protect the application against common web exploits that may affect availability, compromise security, or consume excessive resources. Static IP addresses are required.

What should a solutions architect recommend to accomplish this?

- A. Put the EC2 instances behind Network Load Balancers (NLBs) in each Region. Deploy AWS WAF on the NLBs. Create an accelerator using AWS Global Accelerator and register the NLBs as endpoints.
- B. Put the EC2 instances behind Application Load Balancers (ALBs) in each Region. Deploy AWS WAF on the ALBs. Create an accelerator using AWS Global Accelerator and register the ALBs as endpoints.
- C. Put the EC2 instances behind Network Load Balancers (NLBs) in each Region. Deploy AWS WAF on the NLBs. Create an Amazon CloudFront distribution with an origin that uses Amazon Route 53 latency-based routing to route requests to the NLBs.
- D. Put the EC2 instances behind Application Load Balancers (ALBs) in each Region. Create an Amazon CloudFront distribution with an origin that uses Amazon Route 53 latency-based routing to route requests to the ALBs. Deploy AWS WAF on the CloudFront distribution.

Answer : **B**

755. A company's data platform uses an Amazon Aurora MySQL database. The database has multiple read replicas and multiple DB instances across different Availability Zones. Users have recently reported errors from the database that indicate that there are too many connections. The company wants to reduce the failover time by 20% when a read replica is promoted to primary writer.

Which solution will meet this requirement?

- A. Switch from Aurora to Amazon RDS with Multi-AZ cluster deployment.
- B. Use Amazon RDS Proxy in front of the Aurora database.
- C. Switch to Amazon DynamoDB with DynamoDB Accelerator (DAX) for read connections.
- D. Switch to Amazon Redshift with relocation capability.

Answer : **B**

756. A company stores text files in Amazon S3. The text files include customer chat messages, date and time information, and customer personally identifiable information (PII).

The company needs a solution to provide samples of the conversations to an external service provider for quality control. The external service provider needs to randomly pick sample conversations up to the most recent conversation. The company must not share the customer PII with the external service provider. The solution must scale when the number of customer conversations increases.

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

- A. Create an Object Lambda Access Point. Create an AWS Lambda function that redacts the PII when the function reads the file. Instruct the external service provider to access the Object Lambda Access Point.
- B. Create a batch process on an Amazon EC2 instance that regularly reads all new files, redacts the PII from the files, and writes the redacted files to a different S3 bucket. Instruct the external service provider to access the bucket that does not contain the PII.
- C. Create a web application on an Amazon EC2 instance that presents a list of the files, redacts the PII from the files, and allows the external service provider to download new versions of the files that have the PII redacted.
- D. Create an Amazon DynamoDB table. Create an AWS Lambda function that reads only the data in the files that does not contain PII. Configure the Lambda function to store the non-PII data in the DynamoDB table when a new file is written to Amazon S3. Grant the external service provider access to the DynamoDB table.

Answer : **A**

757. A company is running a legacy system on an Amazon EC2 instance. The application code cannot be modified, and the system cannot run on more than one instance. A solutions architect must design a resilient solution that can improve the recovery time for the system.

What should the solutions architect recommend to meet these requirements?

- A. Enable termination protection for the EC2 instance.
- B. Configure the EC2 instance for Multi-AZ deployment.
- C. Create an Amazon CloudWatch alarm to recover the EC2 instance in case of failure.
- D. Launch the EC2 instance with two Amazon Elastic Block Store (Amazon EBS) volumes that use RAID configurations for storage redundancy.

Answer : **C**

758. A company wants to deploy its containerized application workloads to a VPC across three Availability Zones. The company needs a solution that is highly available across Availability Zones. The solution must require minimal changes to the application.

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

- A. Use Amazon Elastic Container Service (Amazon ECS). Configure Amazon ECS Service Auto Scaling to use target tracking scaling. Set the minimum capacity to 3. Set the task placement strategy type to spread with an Availability Zone attribute.
- B. Use Amazon Elastic Kubernetes Service (Amazon EKS) self-managed nodes. Configure Application Auto Scaling to use target tracking scaling. Set the minimum capacity to 3.
- C. Use Amazon EC2 Reserved Instances. Launch three EC2 instances in a spread placement group. Configure an Auto Scaling group to use target tracking scaling. Set the minimum capacity to 3.
- D. Use an AWS Lambda function. Configure the Lambda function to connect to a VPC. Configure Application Auto Scaling to use Lambda as a scalable target. Set the minimum capacity to 3.

Answer : **A**

759. A media company stores movies in Amazon S3. Each movie is stored in a single video file that ranges from 1 GB to 10 GB in size.

The company must be able to provide the streaming content of a movie within 5 minutes of a user purchase. There is higher demand for movies that are less than 20 years old than for movies that are more than 20 years old. The company wants to minimize hosting service costs based on demand.

Which solution will meet these requirements?

- A. Store all media content in Amazon S3. Use S3 Lifecycle policies to move media data into the Infrequent Access tier when the demand for a movie decreases.
- B. Store newer movie video files in S3 Standard. Store older movie video files in S3 Standard-infrequent Access (S3 Standard-IA). When a user orders an older movie, retrieve the video file by using standard retrieval.

- C. Store newer movie video files in S3 Intelligent-Tiering. Store older movie video files in S3 Glacier Flexible Retrieval. When a user orders an older movie, retrieve the video file by using expedited retrieval.
- D. Store newer movie video files in S3 Standard. Store older movie video files in S3 Glacier Flexible Retrieval. When a user orders an older movie, retrieve the video file by using bulk retrieval.

Answer : **B**

760. A solutions architect needs to design the architecture for an application that a vendor provides as a Docker container image. The container needs 50 GB of storage available for temporary files. The infrastructure must be serverless.

Which solution meets these requirements with the LEAST operational overhead?

- A. Create an AWS Lambda function that uses the Docker container image with an Amazon S3 mounted volume that has more than 50 GB of space.
- B. Create an AWS Lambda function that uses the Docker container image with an Amazon Elastic Block Store (Amazon EBS) volume that has more than 50 GB of space.
- C. Create an Amazon Elastic Container Service (Amazon ECS) cluster that uses the AWS Fargate launch type. Create a task definition for the container image with an Amazon Elastic File System (Amazon EFS) volume. Create a service with that task definition.
- D. Create an Amazon Elastic Container Service (Amazon ECS) cluster that uses the Amazon EC2 launch type with an Amazon Elastic Block Store (Amazon EBS) volume that has more than 50 GB of space. Create a task definition for the container image. Create a service with that task definition.

Answer : **C**

761. A company needs to use its on-premises LDAP directory service to authenticate its users to the AWS Management Console. The directory service is not compatible with Security Assertion Markup Language (SAML).

Which solution meets these requirements?

- A. Enable AWS IAM Identity Center (AWS Single Sign-On) between AWS and the on-premises LDAP.

- B. Create an IAM policy that uses AWS credentials, and integrate the policy into LDAP.
- C. Set up a process that rotates the IAM credentials whenever LDAP credentials are updated.
- D. Develop an on-premises custom identity broker application or process that uses AWS Security Token Service (AWS STS) to get short-lived credentials.

Answer : **D**

762. A company stores multiple Amazon Machine Images (AMIs) in an AWS account to launch its Amazon EC2 instances. The AMIs contain critical data and configurations that are necessary for the company's operations. The company wants to implement a solution that will recover accidentally deleted AMIs quickly and efficiently.

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

- A. Create Amazon Elastic Block Store (Amazon EBS) snapshots of the AMIs. Store the snapshots in a separate AWS account.
- B. Copy all AMIs to another AWS account periodically.
- C. Create a retention rule in Recycle Bin.
- D. Upload the AMIs to an Amazon S3 bucket that has Cross-Region Replication.

Answer : **C**

763. 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**

764. A company wants to migrate its three-tier application from on premises to AWS. The web tier and the application tier are running on third-party virtual machines (VMs). The database tier is running on MySQL.

The company needs to migrate the application by making the fewest possible changes to the architecture. The company also needs a database solution that can restore data to a specific point in time.

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

- A. Migrate the web tier and the application tier to Amazon EC2 instances in private subnets. Migrate the database tier to Amazon RDS for MySQL in private subnets.
- B. Migrate the web tier to Amazon EC2 instances in public subnets. Migrate the application tier to EC2 instances in private subnets. Migrate the database tier to Amazon Aurora MySQL in private subnets.
- C. Migrate the web tier to Amazon EC2 instances in public subnets. Migrate the application tier to EC2 instances in private subnets. Migrate the database tier to Amazon RDS for MySQL in private subnets.
- D. Migrate the web tier and the application tier to Amazon EC2 instances in public subnets. Migrate the database tier to Amazon Aurora MySQL in public subnets.

Answer : **B**

765. A development team is collaborating with another company to create an integrated product. The other company needs to access an Amazon Simple Queue Service (Amazon SQS) 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 SQS queue?

- A. Create an instance profile that provides the other company access to the SQS queue.
- B. Create an IAM policy that provides the other company access to the SQS queue.
- C. Create an SQS access policy that provides the other company access to the SQS queue.
- D. Create an Amazon Simple Notification Service (Amazon SNS) access policy that provides the other company access to the SQS queue.

Answer : **C**

766. A company’s developers want a secure way to gain SSH access on the company's Amazon EC2 instances that run the latest version of Amazon Linux. The developers work remotely and in the corporate office.

The company wants to use AWS services as a part of the solution. The EC2 instances are hosted in a VPC private subnet and access the internet through a NAT gateway that is deployed in a public subnet.

What should a solutions architect do to meet these requirements MOST cost-effectively?

- A. Create a bastion host in the same subnet as the EC2 instances. Grant the ec2:CreateVpnConnection IAM permission to the developers. Install EC2 Instance Connect so that the developers can connect to the EC2 instances.
- B. Create an AWS Site-to-Site VPN connection between the corporate network and the VPC. Instruct the developers to use the Site-to-Site VPN connection to access the EC2 instances when the developers are on the corporate network. Instruct the developers to set up another VPN connection for access when they work remotely.
- C. Create a bastion host in the public subnet of the VPConfigure the security groups and SSH keys of the bastion host to only allow connections and SSH authentication from the developers’ corporate and remote networks. Instruct the developers to connect through the bastion host by using SSH to reach the EC2 instances.
- D. Attach the AmazonSSMManagedInstanceCore IAM policy to an IAM role that is associated with the EC2 instances. Instruct the developers to use AWS Systems Manager Session Manager to access the EC2 instances.

Answer : **D**

767. 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**

768. A company has a business-critical application that runs on Amazon EC2 instances. The application stores data in an Amazon DynamoDB table. The company must be able to revert the table to any point within the last 24 hours.

Which solution meets these requirements with the LEAST operational overhead?

- A. Configure point-in-time recovery for the table.
- B. Use AWS Backup for the table.
- C. Use an AWS Lambda function to make an on-demand backup of the table every hour.
- D. Turn on streams on the table to capture a log of all changes to the table in the last 24 hours. Store a copy of the stream in an Amazon S3 bucket.

Answer : **A**

769. 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 varies 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**

770. A company's application is deployed on Amazon EC2 instances and uses AWS Lambda functions for an event-driven architecture. The company uses nonproduction development environments in a different AWS account to test new features before the company deploys the features to production.

The production instances show constant usage because of customers in different time zones. The company uses nonproduction instances only during business hours on weekdays. The company does not use the nonproduction instances on the weekends. The company wants to optimize the costs to run its application on AWS.

Which solution will meet these requirements MOST cost-effectively?

- A. Use On-Demand Instances for the production instances. Use Dedicated Hosts for the nonproduction instances on weekends only.
- B. Use Reserved Instances for the production instances and the nonproduction instances. Shut down the nonproduction instances when not in use.
- C. Use Compute Savings Plans for the production instances. Use On-Demand Instances for the nonproduction instances. Shut down the nonproduction instances when not in use.
- D. Use Dedicated Hosts for the production instances. Use EC2 Instance Savings Plans for the nonproduction instances.

Answer : **C**

771. A company stores data in an on-premises Oracle relational database. The company needs to make the data available in Amazon Aurora PostgreSQL for analysis. The company uses an AWS Site-to-Site VPN connection to connect its on-premises network to AWS.

The company must capture the changes that occur to the source database during the migration to Aurora PostgreSQL.

Which solution will meet these requirements?

- A. Use the AWS Schema Conversion Tool (AWS SCT) to convert the Oracle schema to Aurora PostgreSQL schema. Use the AWS Database Migration Service (AWS DMS) full-load migration task to migrate the data.
- B. Use AWS DataSync to migrate the data to an Amazon S3 bucket. Import the S3 data to Aurora PostgreSQL by using the Aurora PostgreSQL aws_s3 extension.
- C. Use the AWS Schema Conversion Tool (AWS SCT) to convert the Oracle schema to Aurora PostgreSQL schema. Use AWS Database Migration Service (AWS DMS) to migrate the existing data and replicate the ongoing changes.
- D. Use an AWS Snowball device to migrate the data to an Amazon S3 bucket. Import the S3 data to Aurora PostgreSQL by using the Aurora PostgreSQL aws_s3 extension.

Answer : **C**

772. A company built an application with Docker containers and needs to run the application in the AWS Cloud. The company wants to use a managed service to host the application.

The solution must scale in and out appropriately according to demand on the individual container services. The solution also must not result in additional operational overhead or infrastructure to manage.

Which solutions will meet these requirements? (Choose two.)

- A. Use Amazon Elastic Container Service (Amazon ECS) with AWS Fargate.
- B. Use Amazon Elastic Kubernetes Service (Amazon EKS) with AWS Fargate.
- C. Provision an Amazon API Gateway API. Connect the API to AWS Lambda to run the containers.
- D. Use Amazon Elastic Container Service (Amazon ECS) with Amazon EC2 worker nodes.
- E. Use Amazon Elastic Kubernetes Service (Amazon EKS) with Amazon EC2 worker nodes.

Answer : **A, B**

773. An ecommerce company is running a seasonal online sale. The company hosts its website on Amazon EC2 instances spanning multiple Availability Zones. The company wants its website to manage sudden traffic increases during the sale.

Which solution will meet these requirements MOST cost-effectively?

- A. Create an Auto Scaling group that is large enough to handle peak traffic load. Stop half of the Amazon EC2 instances. Configure the Auto Scaling group to use the stopped instances to scale out when traffic increases.
- B. Create an Auto Scaling group for the website. Set the minimum size of the Auto Scaling group so that it can handle high traffic volumes without the need to scale out.
- C. Use Amazon CloudFront and Amazon ElastiCache to cache dynamic content with an Auto Scaling group set as the origin. Configure the Auto Scaling group with the instances necessary to populate CloudFront and ElastiCache. Scale in after the cache is fully populated.
- D. Configure an Auto Scaling group to scale out as traffic increases. Create a launch template to start new instances from a preconfigured Amazon Machine Image (AMI).

Answer : **D**

774. A solutions architect must provide an automated solution for a company's compliance policy that states security groups cannot include a rule that allows SSH from 0.0.0.0/0. The company needs to be notified if there is any breach in the policy. A solution is needed as soon as possible.

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

- A. Write an AWS Lambda script that monitors security groups for SSH being open to 0.0.0.0/0 addresses and creates a notification every time it finds one.
- B. Enable the restricted-ssh AWS Config managed rule and generate an Amazon Simple Notification Service (Amazon SNS) notification when a noncompliant rule is created.
- C. Create an IAM role with permissions to globally open security groups and network ACLs. Create an Amazon Simple Notification Service (Amazon SNS) topic to generate a notification every time the role is assumed by a user.
- D. Configure a service control policy (SCP) that prevents non-administrative users from creating or editing security groups. Create a notification in the ticketing system when a user requests a rule that needs administrator permissions.

Answer : **B**

775. Use Amazon Elastic Kubernetes Service (Amazon EKS) with Amazon EC2 worker nodes.

A company has deployed an application in an AWS account. The application consists of microservices that run on AWS Lambda and Amazon Elastic Kubernetes Service (Amazon EKS). A separate team supports each microservice. The company has multiple AWS accounts and wants to give each team its own account for its microservices.

A solutions architect needs to design a solution that will provide service-to-service communication over HTTPS (port 443). The solution also must provide a service registry for service discovery.

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

- A. Create an inspection VPC. Deploy an AWS Network Firewall firewall to the inspection VPC. Attach the inspection VPC to a new transit gateway. Route VPC-to-VPC traffic to the inspection VPC. Apply firewall rules to allow only HTTPS communication.
- B. Create a VPC Lattice service network. Associate the microservices with the service network. Define HTTPS listeners for each service. Register microservice compute resources as targets. Identify VPCs that need to communicate with the services. Associate those VPCs with the service network.
- C. Create a Network Load Balancer (NLB) with an HTTPS listener and target groups for each microservice. Create an AWS PrivateLink endpoint service for each microservice. Create an interface VPC endpoint in each VPC that needs to consume that microservice.
- D. Create peering connections between VPCs that contain microservices. Create a prefix list for each service that requires a connection to a client. Create route tables to route traffic to the appropriate VPC. Create security groups to allow only HTTPS communication.

Answer : **B**

776. A company has a mobile game that reads most of its metadata from an Amazon RDS DB instance. As the game increased in popularity, developers noticed slowdowns related to the game's metadata load times. Performance metrics indicate that simply scaling the database will not help. A solutions architect must explore all options that include capabilities for snapshots, replication, and sub-millisecond response times.

What should the solutions architect recommend to solve these issues?

- A. Migrate the database to Amazon Aurora with Aurora Replicas.
- B. Migrate the database to Amazon DynamoDB with global tables.
- C. Add an Amazon ElastiCache for Redis layer in front of the database.
- D. Add an Amazon ElastiCache for Memcached layer in front of the database.

Answer : **C**

777. A company uses AWS Organizations for its multi-account AWS setup. The security organizational unit (OU) of the company needs to share approved Amazon Machine Images (AMIs) with the development OU. The AMIs are created by using AWS Key Management Service (AWS KMS) encrypted snapshots.

Which solution will meet these requirements? (Choose two.)

- A. Add the development team's OU Amazon Resource Name (ARN) to the launch permission list for the AMIs.
- B. Add the Organizations root Amazon Resource Name (ARN) to the launch permission list for the AMIs.
- C. Update the key policy to allow the development team's OU to use the AWS KMS keys that are used to decrypt the snapshots.
- D. Add the development team’s account Amazon Resource Name (ARN) to the launch permission list for the AMIs.
- E. Recreate the AWS KMS key. Add a key policy to allow the Organizations root Amazon Resource Name (ARN) to use the AWS KMS key.

Answer : **A, C**

778. A data analytics company has 80 offices that are distributed globally. Each office hosts 1 PB of data and has between 1 and 2 Gbps of internet bandwidth.

The company needs to perform a one-time migration of a large amount of data from its offices to Amazon S3. The company must complete the migration within 4 weeks.

Which solution will meet these requirements MOST cost-effectively?

- A. Establish a new 10 Gbps AWS Direct Connect connection to each office. Transfer the data to Amazon S3.
- B. Use multiple AWS Snowball Edge storage-optimized devices to store and transfer the data to Amazon S3.
- C. Use an AWS Snowmobile to store and transfer the data to Amazon S3.

- D. Set up an AWS Storage Gateway Volume Gateway to transfer the data to Amazon S3.

Answer : **B**

779. A company has an Amazon Elastic File System (Amazon EFS) file system that contains a reference dataset. The company has applications on Amazon EC2 instances that need to read the dataset. However, the applications must not be able to change the dataset. The company wants to use IAM access control to prevent the applications from being able to modify or delete the dataset.

Which solution will meet these requirements?

- A. Mount the EFS file system in read-only mode from within the EC2 instances.
- B. Create a resource policy for the EFS file system that denies the elasticfilesystem:ClientWrite action to the IAM roles that are attached to the EC2 instances.
- C. Create an identity policy for the EFS file system that denies the elasticfilesystem:ClientWrite action on the EFS file system.
- D. Create an EFS access point for each application. Use Portable Operating System Interface (POSIX) file permissions to allow read-only access to files in the root directory.

Answer : **C**

780. 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 IAM access to the company's AWS account. The company needs to grant the vendor access to the company's AWS account.

Which solution will meet these requirements MOST securely?

- A. Create an IAM role in the company's account to delegate access to the vendor's IAM role. Attach the appropriate IAM 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 for the permissions that the vendor requires.
- C. Create an IAM group in the company's account. Add the automated tool's IAM user from the vendor account to the group. Attach the appropriate IAM policies to the group for the permissions that the vendor requires.

- D. Create an IAM user in the company’s account that has a permission boundary that allows the vendor’s account. Attach the appropriate IAM policies to the user for the permissions that the vendor requires.

Answer : **A**

781. A company wants to run its experimental workloads in the AWS Cloud. The company has a budget for cloud spending. The company's CFO is concerned about cloud spending accountability for each department. The CFO wants to receive notification when the spending threshold reaches 60% of the budget.

Which solution will meet these requirements?

- A. Use cost allocation tags on AWS resources to label owners. Create usage budgets in AWS Budgets. Add an alert threshold to receive notification when spending exceeds 60% of the budget
- B. Use AWS Cost Explorer forecasts to determine resource owners. Use AWS Cost Anomaly Detection to create alert threshold notifications when spending exceeds 60% of the budget.
- C. Use cost allocation tags on AWS resources to label owners. Use AWS Support API on AWS Trusted Advisor to create alert threshold notifications when spending exceeds 60% of the budget.
- D. Use AWS Cost Explorer forecasts to determine resource owners. Create usage budgets in AWS Budgets. Add an alert threshold to receive notification when spending exceeds 60% of the budget.

Answer : **A**

782. A company wants to deploy an internal web application on AWS. The web application must be accessible only from the company's office. The company needs to download security patches for the web application from the internet.

The company has created a VPC and has configured an AWS Site-to-Site VPN connection to the company's office. A solutions architect must design a secure architecture for the web application.

Which solution will meet these requirements?

- A. Deploy the web application on Amazon EC2 instances in public subnets behind a public Application Load Balancer (ALB). Attach an internet gateway to the VPC. Set the inbound source of the ALB's security group to 0.0.0.0/0.
- B. Deploy the web application on Amazon EC2 instances in private subnets behind an internal Application Load Balancer (ALB). Deploy NAT gateways in public subnets. Attach an internet gateway to the VPC. Set the inbound source of the ALB's security group to the company's office network CIDR block
- C. Deploy the web application on Amazon EC2 instances in public subnets behind an internal Application Load Balancer (ALB). Deploy NAT gateways in private subnets. Attach an internet gateway to the VPSet the outbound destination of the ALB’s security group to the company's office network CIDR block.
- D. Deploy the web application on Amazon EC2 instances in private subnets behind a public Application Load Balancer (ALB). Attach an internet gateway to the VPC. Set the outbound destination of the ALB’s security group to 0.0.0.0/0.

Answer : **B**

783. A company maintains its accounting records in a custom application that runs on Amazon EC2 instances. The company needs to migrate the data to an AWS managed service for development and maintenance of the application data. The solution must require minimal operational support and provide immutable, cryptographically verifiable logs of data changes.

Which solution will meet these requirements MOST cost-effectively?

- A. Copy the records from the application into an Amazon Redshift cluster.
- B. Copy the records from the application into an Amazon Neptune cluster.
- C. Copy the records from the application into an Amazon Timestream database.
- D. Copy the records from the application into an Amazon Quantum Ledger Database (Amazon QLDB) ledger

Answer : **D**

784. A company's marketing data is uploaded from multiple sources to an Amazon S3 bucket. A series of data preparation jobs aggregate the data for reporting. The data preparation jobs need to run at regular intervals in parallel. A few jobs need to run in a

specific order later.

The company wants to remove the operational overhead of job error handling, retry logic, and state management.

Which solution will meet these requirements?

- A. Use an AWS Lambda function to process the data as soon as the data is uploaded to the S3 bucket. Invoke other Lambda functions at regularly scheduled intervals.
- B. Use Amazon Athena to process the data. Use Amazon EventBridge Scheduler to invoke Athena on a regular internal.
- C. Use AWS Glue DataBrew to process the data. Use an AWS Step Functions state machine to run the DataBrew data preparation jobs
- D. Use AWS Data Pipeline to process the data. Schedule Data Pipeline to process the data once at midnight.

Answer : **C**

785. A solutions architect is designing a payment processing application that runs on AWS Lambda in private subnets across multiple Availability Zones. The application uses multiple Lambda functions and processes millions of transactions each day.

The architecture must ensure that the application does not process duplicate payments.

Which solution will meet these requirements?

- A. Use Lambda to retrieve all due payments. Publish the due payments to an Amazon S3 bucket. Configure the S3 bucket with an event notification to invoke another Lambda function to process the due payments.
- B. Use Lambda to retrieve all due payments. Publish the due payments to an Amazon Simple Queue Service (Amazon SQS) queue. Configure another Lambda function to poll the SQS queue and to process the due payments.
- C. Use Lambda to retrieve all due payments. Publish the due payments to an Amazon Simple Queue Service (Amazon SQS) FIFO queue. Configure another Lambda function to poll the FIFO queue and to process the due payments
- D. Use Lambda to retrieve all due payments. Store the due payments in an Amazon DynamoDB table. Configure streams on the DynamoDB table to invoke another Lambda function to process the due payments.

Answer : **C**

786. A company runs multiple workloads in its on-premises data center. The company's data center cannot scale fast enough to meet the company's expanding business needs. The company wants to collect usage and configuration data about the on-premises servers and workloads to plan a migration to AWS.

Which solution will meet these requirements?

- A. Set the home AWS Region in AWS Migration Hub. Use AWS Systems Manager to collect data about the on-premises servers.
- B. Set the home AWS Region in AWS Migration Hub. Use AWS Application Discovery Service to collect data about the on-premises servers
- C. Use the AWS Schema Conversion Tool (AWS SCT) to create the relevant templates. Use AWS Trusted Advisor to collect data about the on-premises servers.
- D. Use the AWS Schema Conversion Tool (AWS SCT) to create the relevant templates. Use AWS Database Migration Service (AWS DMS) to collect data about the on-premises servers.

Answer : **B**

787. A company has an organization in AWS Organizations that has all features enabled. The company requires that all API calls and logins in any existing or new AWS account must be audited. The company needs a managed solution to prevent additional work and to minimize costs. The company also needs to know when any AWS account is not compliant with the AWS Foundational Security Best Practices (FSBP) standard.

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

- A. Deploy an AWS Control Tower environment in the Organizations management account. Enable AWS Security Hub and AWS Control Tower Account Factory in the environment
- B. Deploy an AWS Control Tower environment in a dedicated Organizations member account. Enable AWS Security Hub and AWS Control Tower Account Factory in the environment.
- C. Use AWS Managed Services (AMS) Accelerate to build a multi-account landing zone (MALZ). Submit an RFC to self-service provision Amazon GuardDuty in the MALZ.
- D. Use AWS Managed Services (AMS) Accelerate to build a multi-account landing zone (MALZ). Submit an RFC to self-service provision AWS Security Hub in the MALZ.

Answer : **A**

788. A company has stored 10 TB of log files in Apache Parquet format in an Amazon S3 bucket. The company occasionally needs to use SQL to analyze the log files.

Which solution will meet these requirements MOST cost-effectively?

- A. Create an Amazon Aurora MySQL database. Migrate the data from the S3 bucket into Aurora by using AWS Database Migration Service (AWS DMS). Issue SQL statements to the Aurora database.
- B. Create an Amazon Redshift cluster. Use Redshift Spectrum to run SQL statements directly on the data in the S3 bucket.
- C. Create an AWS Glue crawler to store and retrieve table metadata from the S3 bucket. Use Amazon Athena to run SQL statements directly on the data in the S3 bucket
- D. Create an Amazon EMR cluster. Use Apache Spark SQL to run SQL statements directly on the data in the S3 bucket.

Answer : **C**

789. A company needs a solution to prevent AWS CloudFormation stacks from deploying AWS Identity and Access Management (IAM) resources that include an inline policy or "*" in the statement. The solution must also prohibit deployment of Amazon EC2 instances with public IP addresses. The company has AWS Control Tower enabled in its organization in AWS Organizations.

Which solution will meet these requirements?

- A. Use AWS Control Tower proactive controls to block deployment of EC2 instances with public IP addresses and inline policies with elevated access or "*".
- B. Use AWS Control Tower detective controls to block deployment of EC2 instances with public IP addresses and inline policies with elevated access or "*".
- C. Use AWS Config to create rules for EC2 and IAM compliance. Configure the rules to run an AWS Systems Manager Session Manager automation to delete a resource when it is not compliant.
- D. Use a service control policy (SCP) to block actions for the EC2 instances and IAM resources if the actions lead to noncompliance.

Answer : **A**

790. A company's web application that is hosted in the AWS Cloud recently increased in popularity. The web application currently exists on a single Amazon EC2 instance in a single public subnet. The web application has not been able to meet the demand of the increased web traffic.

The company needs a solution that will provide high availability and scalability to meet the increased user demand without rewriting the web application.

Which combination of steps will meet these requirements? (Choose two.)

- A. Replace the EC2 instance with a larger compute optimized instance.
- B. Configure Amazon EC2 Auto Scaling with multiple Availability Zones in private subnets
- C. Configure a NAT gateway in a public subnet to handle web requests.
- D. Replace the EC2 instance with a larger memory optimized instance.
- E. Configure an Application Load Balancer in a public subnet to distribute web traffic

Answer : **B, E**

791. A company has AWS Lambda functions that use environment variables. The company does not want its developers to see environment variables in plaintext.

Which solution will meet these requirements?

- A. Deploy code to Amazon EC2 instances instead of using Lambda functions.
- B. Configure SSL encryption on the Lambda functions to use AWS CloudHSM to store and encrypt the environment variables.
- C. Create a certificate in AWS Certificate Manager (ACM). Configure the Lambda functions to use the certificate to encrypt the environment variables.
- D. Create an AWS Key Management Service (AWS KMS) key. Enable encryption helpers on the Lambda functions to use the KMS key to store and encrypt the environment variables

Answer : **D**

792. An analytics company uses Amazon VPC to run its multi-tier services. The company wants to use RESTful APIs to offer a web analytics service to millions of users. Users must be verified by using an authentication service to access the APIs.

Which solution will meet these requirements with the MOST operational efficiency?

- A. Configure an Amazon Cognito user pool for user authentication. Implement Amazon API Gateway REST APIs with a Cognito authorizer.
- B. Configure an Amazon Cognito identity pool for user authentication. Implement Amazon API Gateway HTTP APIs with a Cognito authorizer.
- C. Configure an AWS Lambda function to handle user authentication. Implement Amazon API Gateway REST APIs with a Lambda authorizer.
- D. Configure an IAM user to handle user authentication. Implement Amazon API Gateway HTTP APIs with an IAM authorizer.

Answer : **A**

793. A company has a mobile app for customers. The app's data is sensitive and must be encrypted at rest. The company uses AWS Key Management Service (AWS KMS).

The company needs a solution that prevents the accidental deletion of KMS keys. The solution must use Amazon Simple Notification Service (Amazon SNS) to send an email notification to administrators when a user attempts to delete a KMS key.

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

- A. Create an Amazon EventBridge rule that reacts when a user tries to delete a KMS key. Configure an AWS Config rule that cancels any deletion of a KMS key. Add the AWS Config rule as a target of the EventBridge rule. Create an SNS topic that notifies the administrators.
- B. Create an AWS Lambda function that has custom logic to prevent KMS key deletion. Create an Amazon CloudWatch alarm that is activated when a user tries to delete a KMS key. Create an Amazon EventBridge rule that invokes the Lambda function when the DeleteKey operation is performed. Create an SNS topic. Configure the EventBridge rule to publish an SNS message that notifies the administrators.
- C. Create an Amazon EventBridge rule that reacts when the KMS DeleteKey operation is performed. Configure the rule to initiate an AWS Systems Manager Automation runbook. Configure the runbook to cancel the deletion of the KMS key. Create an SNS topic. Configure the EventBridge rule to publish an SNS message that notifies the administrators.
- D. Create an AWS CloudTrail trail. Configure the trail to deliver logs to a new Amazon CloudWatch log group. Create a CloudWatch alarm based on the metric filter for the

CloudWatch log group. Configure the alarm to use Amazon SNS to notify the administrators when the KMS DeleteKey operation is performed.

Answer : **C**

794. A company wants to analyze and generate reports to track the usage of its mobile app. The app is popular and has a global user base. The company uses a custom report building program to analyze application usage.

The program generates multiple reports during the last week of each month. The program takes less than 10 minutes to produce each report. The company rarely uses the program to generate reports outside of the last week of each month The company wants to generate reports in the least amount of time when the reports are requested.

Which solution will meet these requirements MOST cost-effectively?

- A. Run the program by using Amazon EC2 On-Demand Instances. Create an Amazon EventBridge rule to start the EC2 instances when reports are requested. Run the EC2 instances continuously during the last week of each month.
- B. Run the program in AWS Lambda. Create an Amazon EventBridge rule to run a Lambda function when reports are requested
- C. Run the program in Amazon Elastic Container Service (Amazon ECS). Schedule Amazon ECS to run the program when reports are requested.
- D. Run the program by using Amazon EC2 Spot Instances. Create an Amazon EventBndge rule to start the EC2 instances when reports are requested. Run the EC2 instances continuously during the last week of each month.

Answer : **B**

795. A company is designing a tightly coupled high performance computing (HPC) environment in the AWS Cloud. The company needs to include features that will optimize the HPC environment for networking and storage.

Which combination of solutions will meet these requirements? (Choose two.)

- A. Create an accelerator in AWS Global Accelerator. Configure custom routing for the accelerator.

- B. Create an Amazon FSx for Lustre file system. Configure the file system with scratch storage
- C. Create an Amazon CloudFront distribution. Configure the viewer protocol policy to be HTTP and HTTPS.
- D. Launch Amazon EC2 instances. Attach an Elastic Fabric Adapter (EFA) to the instances
- E. Create an AWS Elastic Beanstalk deployment to manage the environment.

Answer : **B, D**

796. A company needs a solution to prevent photos with unwanted content from being uploaded to the company's web application. The solution must not involve training a machine learning (ML) model.

Which solution will meet these requirements?

- A. Create and deploy a model by using Amazon SageMaker Autopilot. Create a real-time endpoint that the web application invokes when new photos are uploaded.
- B. Create an AWS Lambda function that uses Amazon Rekognition to detect unwanted content. Create a Lambda function URL that the web application invokes when new photos are uploaded.
- C. Create an Amazon CloudFront function that uses Amazon Comprehend to detect unwanted content. Associate the function with the web application.
- D. Create an AWS Lambda function that uses Amazon Rekognition Video to detect unwanted content. Create a Lambda function URL that the web application invokes when new photos are uploaded.

Answer : **B**

797. A company uses AWS to run its ecommerce platform. The platform is critical to the company's operations and has a high volume of traffic and transactions. The company configures a multi-factor authentication (MFA) device to secure its AWS account root user credentials. The company wants to ensure that it will not lose access to the root user account if the MFA device is lost.

Which solution will meet these requirements?

- A. Set up a backup administrator account that the company can use to log in if the company loses the MFA device.
- B. Add multiple MFA devices for the root user account to handle the disaster scenario

- C. Create a new administrator account when the company cannot access the root account.
- D. Attach the administrator policy to another IAM user when the company cannot access the root account.

Answer : **B**

798. A social media company is creating a rewards program website for its users. The company gives users points when users create and upload videos to the website. Users redeem their points for gifts or discounts from the company's affiliated partners. A unique ID identifies users. The partners refer to this ID to verify user eligibility for rewards.

The partners want to receive notification of user IDs through an HTTP endpoint when the company gives users points. Hundreds of vendors are interested in becoming affiliated partners every day. The company wants to design an architecture that gives the website the ability to add partners rapidly in a scalable way.

Which solution will meet these requirements with the LEAST implementation effort?

- A. Create an Amazon Timestream database to keep a list of affiliated partners. Implement an AWS Lambda function to read the list. Configure the Lambda function to send user IDs to each partner when the company gives users points.
- B. Create an Amazon Simple Notification Service (Amazon SNS) topic. Choose an endpoint protocol. Subscribe the partners to the topic. Publish user IDs to the topic when the company gives users points.
- C. Create an AWS Step Functions state machine. Create a task for every affiliated partner. Invoke the state machine with user IDs as input when the company gives users points.
- D. Create a data stream in Amazon Kinesis Data Streams. Implement producer and consumer applications. Store a list of affiliated partners in the data stream. Send user IDs when the company gives users points.

Answer : **B**

799. A company needs to extract the names of ingredients from recipe records that are stored as text files in an Amazon S3 bucket. A web application will use the ingredient names to query an Amazon DynamoDB table and determine a nutrition score.

The application can handle non-food records and errors. The company does not have any employees who have machine learning knowledge to develop this solution.

Which solution will meet these requirements MOST cost-effectively?

- A. Use S3 Event Notifications to invoke an AWS Lambda function when PutObject requests occur. Program the Lambda function to analyze the object and extract the ingredient names by using Amazon Comprehend. Store the Amazon Comprehend output in the DynamoDB table.
- B. Use an Amazon EventBridge rule to invoke an AWS Lambda function when PutObject requests occur. Program the Lambda function to analyze the object by using Amazon Forecast to extract the ingredient names. Store the Forecast output in the DynamoDB table.
- C. Use S3 Event Notifications to invoke an AWS Lambda function when PutObject requests occur. Use Amazon Polly to create audio recordings of the recipe records. Save the audio files in the S3 bucket. Use Amazon Simple Notification Service (Amazon SNS) to send a URL as a message to employees. Instruct the employees to listen to the audio files and calculate the nutrition score. Store the ingredient names in the DynamoDB table.
- D. Use an Amazon EventBridge rule to invoke an AWS Lambda function when a PutObject request occurs. Program the Lambda function to analyze the object and extract the ingredient names by using Amazon SageMaker. Store the inference output from the SageMaker endpoint in the DynamoDB table.

Answer: A

800. A company needs to create an AWS Lambda function that will run in a VPC in the company's primary AWS account. The Lambda function needs to access files that the company stores in an Amazon Elastic File System (Amazon EFS) file system. The EFS file system is located in a secondary AWS account. As the company adds files to the file system, the solution must scale to meet the demand.

Which solution will meet these requirements MOST cost-effectively?

- A. Create a new EFS file system in the primary account. Use AWS DataSync to copy the contents of the original EFS file system to the new EFS file system.
- B. Create a VPC peering connection between the VPCs that are in the primary account and the secondary account.
- C. Create a second Lambda function in the secondary account that has a mount that is configured for the file system. Use the primary account's Lambda function to invoke the secondary account's Lambda function.
- D. Move the contents of the file system to a Lambda layer. Configure the Lambda layer's permissions to allow the company's secondary account to use the Lambda layer.

Answer: B

801. A financial company needs to handle highly sensitive data. The company will store the data in an Amazon S3 bucket. The company needs to ensure that the data is encrypted in transit and at rest. The company must manage the encryption keys outside the AWS Cloud.

Which solution will meet these requirements?

- A. Encrypt the data in the S3 bucket with server-side encryption (SSE) that uses an AWS Key Management Service (AWS KMS) customer managed key.
- B. Encrypt the data in the S3 bucket with server-side encryption (SSE) that uses an AWS Key Management Service (AWS KMS) AWS managed key.
- C. Encrypt the data in the S3 bucket with the default server-side encryption (SSE).
- D. Encrypt the data at the company's data center before storing the data in the S3 bucket.

Answer: A

802. A company wants to run its payment application on AWS. The application receives payment notifications from mobile devices. Payment notifications require a basic validation before they are sent for further processing.

The backend processing application is long running and requires compute and memory to be adjusted. The company does not want to manage the infrastructure.

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

- A. Create an Amazon Simple Queue Service (Amazon SQS) queue. Integrate the queue with an Amazon EventBridge rule to receive payment notifications from mobile devices. Configure the rule to validate payment notifications and send the notifications to the backend application. Deploy the backend application on Amazon Elastic Kubernetes Service (Amazon EKS) Anywhere. Create a standalone cluster.
- B. Create an Amazon API Gateway API. Integrate the API with an AWS Step Functions state machine to receive payment notifications from mobile devices. Invoke the state machine to validate payment notifications and send the notifications to the backend application. Deploy the backend application on Amazon Elastic Kubernetes Service (Amazon EKS). Configure an EKS cluster with self-managed nodes.
- C. Create an Amazon Simple Queue Service (Amazon SQS) queue. Integrate the queue with an Amazon EventBridge rule to receive payment notifications from mobile devices. Configure the rule to validate payment notifications and send the notifications to the backend application. Deploy the backend application on Amazon EC2 Spot Instances. Configure a Spot Fleet with a default allocation strategy.
- D. Create an Amazon API Gateway API. Integrate the API with AWS Lambda to receive payment notifications from mobile devices. Invoke a Lambda function to validate payment notifications and send the notifications to the backend application. Deploy the backend application on Amazon Elastic Container Service (Amazon ECS). Configure Amazon ECS with an AWS Fargate launch type.

Answer: D

803. A solutions architect is designing a user authentication solution for a company. The solution must invoke two-factor authentication for users that log in from inconsistent geographical locations, IP addresses, or devices. The solution must also be able to scale up to accommodate millions of users.

Which solution will meet these requirements?

- A. Configure Amazon Cognito user pools for user authentication. Enable the risk-based adaptive authentication feature with multifactor authentication (MFA).
- B. Configure Amazon Cognito identity pools for user authentication. Enable multi-factor authentication (MFA).
- C. Configure AWS Identity and Access Management (IAM) users for user authentication. Attach an IAM policy that allows the AllowManageOwnUserMFA action.

- D. Configure AWS IAM Identity Center (AWS Single Sign-On) authentication for user authentication. Configure the permission sets to require multi-factor authentication (MFA).

Answer: A

804. A company has an Amazon S3 data lake. The company needs a solution that transforms the data from the data lake and loads the data into a data warehouse every day. The data warehouse must have massively parallel processing (MPP) capabilities.

Data analysts then need to create and train machine learning (ML) models by using SQL commands on the data. The solution must use serverless AWS services wherever possible.

Which solution will meet these requirements?

- A. Run a daily Amazon EMR job to transform the data and load the data into Amazon Redshift. Use Amazon Redshift ML to create and train the ML models.
- B. Run a daily Amazon EMR job to transform the data and load the data into Amazon Aurora Serverless. Use Amazon Aurora ML to create and train the ML models.
- C. Run a daily AWS Glue job to transform the data and load the data into Amazon Redshift Serverless. Use Amazon Redshift ML to create and train the ML models.
- D. Run a daily AWS Glue job to transform the data and load the data into Amazon Athena tables. Use Amazon Athena ML to create and train the ML models.

Answer: C

805. A company runs containers in a Kubernetes environment in the company's local data center. The company wants to use Amazon Elastic Kubernetes Service (Amazon EKS) and other AWS managed services. Data must remain locally in the company's data center and cannot be stored in any remote site or cloud to maintain compliance.

Which solution will meet these requirements?

- A. Deploy AWS Local Zones in the company's data center.
- B. Use an AWS Snowmobile in the company's data center.
- C. Install an AWS Outposts rack in the company's data center.
- D. Install an AWS Snowball Edge Storage Optimized node in the data center.

Answer: C

806. A social media company has workloads that collect and process data. The workloads store the data in on-premises NFS storage. The data store cannot scale fast enough to meet the company's expanding business needs. The company wants to migrate the current data store to AWS.

Which solution will meet these requirements MOST cost-effectively?

- A. Set up an AWS Storage Gateway Volume Gateway. Use an Amazon S3 Lifecycle policy to transition the data to the appropriate storage class.
- B. Set up an AWS Storage Gateway Amazon S3 File Gateway. Use an Amazon S3 Lifecycle policy to transition the data to the appropriate storage class.
- C. Use the Amazon Elastic File System (Amazon EFS) Standard-Infrequent Access (Standard-IA) storage class. Activate the infrequent access lifecycle policy.
- D. Use the Amazon Elastic File System (Amazon EFS) One Zone-Infrequent Access (One Zone-IA) storage class. Activate the infrequent access lifecycle policy.

Answer: B

807. A company uses high concurrency AWS Lambda functions to process a constantly increasing number of messages in a message queue during marketing events. The Lambda functions use CPU intensive code to process the messages. The company wants to reduce the compute costs and to maintain service latency for its customers.

Which solution will meet these requirements?

- A. Configure reserved concurrency for the Lambda functions. Decrease the memory allocated to the Lambda functions.
- B. Configure reserved concurrency for the Lambda functions. Increase the memory according to AWS Compute Optimizer recommendations.
- C. Configure provisioned concurrency for the Lambda functions. Decrease the memory allocated to the Lambda functions.
- D. Configure provisioned concurrency for the Lambda functions. Increase the memory according to AWS Compute Optimizer recommendations.

Answer: D

808. A company runs its workloads on Amazon Elastic Container Service (Amazon ECS). The container images that the ECS task definition uses need to be scanned for Common Vulnerabilities and Exposures (CVEs). New container images that are created also need to be scanned.

Which solution will meet these requirements with the FEWEST changes to the workloads?

- A. Use Amazon Elastic Container Registry (Amazon ECR) as a private image repository to store the container images. Specify scan on push filters for the ECR basic scan.
- B. Store the container images in an Amazon S3 bucket. Use Amazon Macie to scan the images. Use an S3 Event Notification to initiate a Macie scan for every event with an s3:ObjectCreated:Put event type.
- C. Deploy the workloads to Amazon Elastic Kubernetes Service (Amazon EKS). Use Amazon Elastic Container Registry (Amazon ECR) as a private image repository. Specify scan on push filters for the ECR enhanced scan.
- D. Store the container images in an Amazon S3 bucket that has versioning enabled. Configure an S3 Event Notification for s3:ObjectCreated:* events to invoke an AWS Lambda function. Configure the Lambda function to initiate an Amazon Inspector scan.

Answer: A

809. A company uses an AWS Batch job to run its end-of-day sales process. The company needs a serverless solution that will invoke a third-party reporting application when the AWS Batch job is successful. The reporting application has an HTTP API interface that uses username and password authentication.

Which solution will meet these requirements?

- A. Configure an Amazon EventBridge rule to match incoming AWS Batch job SUCCEEDED events. Configure the third-party API as an EventBridge API destination with a username and password. Set the API destination as the EventBridge rule target.
- B. Configure Amazon EventBridge Scheduler to match incoming AWS Batch job SUCCEEDED events. Configure an AWS Lambda function to invoke the third-party API by using a username and password. Set the Lambda function as the EventBridge rule target.
- C. Configure an AWS Batch job to publish job SUCCEEDED events to an Amazon API Gateway REST API. Configure an HTTP proxy integration on the API Gateway REST API to invoke the third-party API by using a username and password.

- D. Configure an AWS Batch job to publish job SUCCEEDED events to an Amazon API Gateway REST API. Configure a proxy integration on the API Gateway REST API to an AWS Lambda function. Configure the Lambda function to invoke the third-party API by using a username and password.

Answer: D

810. A company collects and processes data from a vendor. The vendor stores its data in an Amazon RDS for MySQL database in the vendor's own AWS account. The company's VPC does not have an internet gateway, an AWS Direct Connect connection, or an AWS Site-to-Site VPN connection. The company needs to access the data that is in the vendor database.

Which solution will meet this requirement?

- A. Instruct the vendor to sign up for the AWS Hosted Connection Direct Connect Program. Use VPC peering to connect the company's VPC and the vendor's VPC.
- B. Configure a client VPN connection between the company's VPC and the vendor's VPC. Use VPC peering to connect the company's VPC and the vendor's VPC.
- C. Instruct the vendor to create a Network Load Balancer (NLB). Place the NLB in front of the Amazon RDS for MySQL database. Use AWS PrivateLink to integrate the company's VPC and the vendor's VPC.
- D. Use AWS Transit Gateway to integrate the company's VPC and the vendor's VPC. Use VPC peering to connect the company's VPC and the vendor's VPC.

Answer: C

811. A company wants to set up Amazon Managed Grafana as its visualization tool. The company wants to visualize data from its Amazon RDS database as one data source. The company needs a secure solution that will not expose the data over the internet.

Which solution will meet these requirements?

- A. Create an Amazon Managed Grafana workspace without a VPC. Create a public endpoint for the RDS database. Configure the public endpoint as a data source in Amazon Managed Grafana.
- B. Create an Amazon Managed Grafana workspace in a VPC. Create a private endpoint for the RDS database. Configure the private endpoint as a data source in Amazon Managed Grafana.
- C. Create an Amazon Managed Grafana workspace without a VPCreate an AWS PrivateLink endpoint to establish a connection between Amazon Managed Grafana and Amazon RDS. Set up Amazon RDS as a data source in Amazon Managed Grafana.
- D. Create an Amazon Managed Grafana workspace in a VPC. Create a public endpoint for the RDS database. Configure the public endpoint as a data source in Amazon Managed Grafana.

Answer: C

812. A company hosts a data lake on Amazon S3. The data lake ingests data in Apache Parquet format from various data sources. The company uses multiple transformation steps to prepare the ingested data. The steps include filtering of anomalies, normalizing of data to standard date and time values, and generation of aggregates for analyses.

The company must store the transformed data in S3 buckets that data analysts access. The company needs a prebuilt solution for data transformation that does not require code. The solution must provide data lineage and data profiling. The company needs to share the data transformation steps with employees throughout the company.

Which solution will meet these requirements?

- A. Configure an AWS Glue Studio visual canvas to transform the data. Share the transformation steps with employees by using AWS Glue jobs.
- B. Configure Amazon EMR Serverless to transform the data. Share the transformation steps with employees by using EMR Serverless jobs.
- C. Configure AWS Glue DataBrew to transform the data. Share the transformation steps with employees by using DataBrew recipes.
- D. Create Amazon Athena tables for the data. Write Athena SQL queries to transform the data. Share the Athena SQL queries with employees.

Answer: C

813. A solutions architect runs a web application on multiple Amazon EC2 instances that are in individual target groups behind an Application Load Balancer (ALB). Users can reach the application through a public website.

The solutions architect wants to allow engineers to use a development version of the website to access one specific development EC2 instance to test new features for the application. The solutions architect wants to use an Amazon Route 53 hosted zone to give the engineers access to the development instance. The solution must automatically route to the development instance even if the development instance is replaced.

Which solution will meet these requirements?

- A. Create an A Record for the development website that has the value set to the ALB. Create a listener rule on the ALB that forwards requests for the development website to the target group that contains the development instance.
- B. Recreate the development instance with a public IP address. Create an A Record for the development website that has the value set to the public IP address of the development instance.
- C. Create an A Record for the development website that has the value set to the ALB. Create a listener rule on the ALB to redirect requests for the development website to the public IP address of the development instance.
- D. Place all the instances in the same target group. Create an A Record for the development website. Set the value to the ALB. Create a listener rule on the ALB that forwards requests for the development website to the target group.

Answer: A

814. A company runs a container application on a Kubernetes cluster in the company's data center. The application uses Advanced Message Queuing Protocol (AMQP) to communicate with a message queue. The data center cannot scale fast enough to meet the company’s expanding business needs. The company wants to migrate the workloads to AWS.

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

- A. Migrate the container application to Amazon Elastic Container Service (Amazon ECS). Use Amazon Simple Queue Service (Amazon SQS) to retrieve the messages.

- B. Migrate the container application to Amazon Elastic Kubernetes Service (Amazon EKS). Use Amazon MQ to retrieve the messages.
- C. Use highly available Amazon EC2 instances to run the application. Use Amazon MQ to retrieve the messages.
- D. Use AWS Lambda functions to run the application. Use Amazon Simple Queue Service (Amazon SQS) to retrieve the messages.

Answer: B

815. An online gaming company hosts its platform on Amazon EC2 instances behind Network Load Balancers (NLBs) across multiple AWS Regions. The NLBs can route requests to targets over the internet. The company wants to improve the customer playing experience by reducing end-to-end load time for its global customer base.

Which solution will meet these requirements?

- A. Create Application Load Balancers (ALBs) in each Region to replace the existing NLBs. Register the existing EC2 instances as targets for the ALBs in each Region.
- B. Configure Amazon Route 53 to route equally weighted traffic to the NLBs in each Region.
- C. Create additional NLBs and EC2 instances in other Regions where the company has large customer bases.
- D. Create a standard accelerator in AWS Global Accelerator. Configure the existing NLBs as target endpoints.

Answer: D

816. A company has an on-premises application that uses SFTP to collect financial data from multiple vendors. The company is migrating to the AWS Cloud. The company has created an application that uses Amazon S3 APIs to upload files from vendors.

Some vendors run their systems on legacy applications that do not support S3 APIs. The vendors want to continue to use SFTP-based applications to upload data. The company wants to use managed services for the needs of the vendors that use legacy

applications.

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

- A. Create an AWS Database Migration Service (AWS DMS) instance to replicate data from the storage of the vendors that use legacy applications to Amazon S3. Provide the vendors with the credentials to access the AWS DMS instance.
- B. Create an AWS Transfer Family endpoint for vendors that use legacy applications.
- C. Configure an Amazon EC2 instance to run an SFTP server. Instruct the vendors that use legacy applications to use the SFTP server to upload data.
- D. Configure an Amazon S3 File Gateway for vendors that use legacy applications to upload files to an SMB file share.

Answer: B

817. A marketing team wants to build a campaign for an upcoming multi-sport event. The team has news reports from the past five years in PDF format. The team needs a solution to extract insights about the content and the sentiment of the news reports. The solution must use Amazon Textract to process the news reports.

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

- A. Provide the extracted insights to Amazon Athena for analysis. Store the extracted insights and analysis in an Amazon S3 bucket.
- B. Store the extracted insights in an Amazon DynamoDB table. Use Amazon SageMaker to build a sentiment model.
- C. Provide the extracted insights to Amazon Comprehend for analysis. Save the analysis to an Amazon S3 bucket.
- D. Store the extracted insights in an Amazon S3 bucket. Use Amazon QuickSight to visualize and analyze the data.

Answer: C

818. A company's application runs on Amazon EC2 instances that are in multiple Availability Zones. The application needs to ingest real-time data from third-party

applications.

The company needs a data ingestion solution that places the ingested raw data in an Amazon S3 bucket.

Which solution will meet these requirements?

- A. Create Amazon Kinesis data streams for data ingestion. Create Amazon Kinesis Data Firehose delivery streams to consume the Kinesis data streams. Specify the S3 bucket as the destination of the delivery streams.
- B. Create database migration tasks in AWS Database Migration Service (AWS DMS). Specify replication instances of the EC2 instances as the source endpoints. Specify the S3 bucket as the target endpoint. Set the migration type to migrate existing data and replicate ongoing changes.
- C. Create and configure AWS DataSync agents on the EC2 instances. Configure DataSync tasks to transfer data from the EC2 instances to the S3 bucket.
- D. Create an AWS Direct Connect connection to the application for data ingestion. Create Amazon Kinesis Data Firehose delivery streams to consume direct PUT operations from the application. Specify the S3 bucket as the destination of the delivery streams.

Answer: A

819. A company's application is receiving data from multiple data sources. The size of the data varies and is expected to increase over time. The current maximum size is 700 KB. The data volume and data size continue to grow as more data sources are added.

The company decides to use Amazon DynamoDB as the primary database for the application. A solutions architect needs to identify a solution that handles the large data sizes.

Which solution will meet these requirements in the MOST operationally efficient way?

- A. Create an AWS Lambda function to filter the data that exceeds DynamoDB item size limits. Store the larger data in an Amazon DocumentDB (with MongoDB compatibility) database.
- B. Store the large data as objects in an Amazon S3 bucket. In a DynamoDB table, create an item that has an attribute that points to the S3 URL of the data.

- C. Split all incoming large data into a collection of items that have the same partition key. Write the data to a DynamoDB table in a single operation by using the BatchWriteItem API operation.
- D. Create an AWS Lambda function that uses gzip compression to compress the large objects as they are written to a DynamoDB table.

Answer: B

820. A company is migrating a legacy application from an on-premises data center to AWS. The application relies on hundreds of cron jobs that run between 1 and 20 minutes on different recurring schedules throughout the day.

The company wants a solution to schedule and run the cron jobs on AWS with minimal refactoring. The solution must support running the cron jobs in response to an event in the future.

Which solution will meet these requirements?

- A. Create a container image for the cron jobs. Use Amazon EventBridge Scheduler to create a recurring schedule. Run the cron job tasks as AWS Lambda functions.
- B. Create a container image for the cron jobs. Use AWS Batch on Amazon Elastic Container Service (Amazon ECS) with a scheduling policy to run the cron jobs.
- C. Create a container image for the cron jobs. Use Amazon EventBridge Scheduler to create a recurring schedule. Run the cron job tasks on AWS Fargate.
- D. Create a container image for the cron jobs. Create a workflow in AWS Step Functions that uses a Wait state to run the cron jobs at a specified time. Use the RunTask action to run the cron job tasks on AWS Fargate.

Answer: C