EXAMTOPICS

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Question #101   *Topic 1*

A company is running applications on AWS in a multi-account environment. The company's sales team and marketing team use separate AWS accounts in AWS Organizations.

The sales team stores petabytes of data in an Amazon S3 bucket. The marketing team uses Amazon QuickSight for data visualizations. The marketing team needs access to data that the sates team stores in the S3 bucket. The company has encrypted the S3 bucket with an AWS Key Management Service (AWS KMS) key. The marketing team has already created the IAM service role for QuickSight to provide QuickSight access in the marketing AWS account. The company needs a solution that will provide secure access to the data in the S3 bucket across AWS accounts.

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

A. Create a new S3 bucket in the marketing account. Create an S3 replication rule in the sales account to copy the objects to the new S3 bucket in the marketing account. Update the QuickSight permissions in the marketing account to grant access to the new S3 bucket.

B. Create an SCP to grant access to the S3 bucket to the marketing account. Use AWS Resource Access Manager (AWS RAM) to share the KMS key from the sates account with the marketing account. Update the QuickSight permissions in the marketing account to grant access to the S3 bucket.

C. Update the S3 bucket policy in the marketing account to grant access to the QuickSight role. Create a KMS grant for the encryption key that is used in the S3 bucket. Grant decrypt access to the QuickSight role. Update the QuickSight permissions in the marketing account to grant access to the S3 bucket.

D. Create an IAM role in the sales account and grant access to the S3 bucket. From the marketing account, assume the IAM role in the sales account to access the S3 bucket. Update the QuickSight rote, to create a trust relationship with the new IAM role in the sales account.

Correct Answer: *D*

Community vote distribution

D (62%)   C (27%)   9%

Question #102   *Topic 1*

A company is planning to migrate its business-critical applications from an on-premises data center to AWS. The company has an on-premises installation of a Microsoft SQL Server Always On cluster. The company wants to migrate to an AWS managed database service. A solutions architect must design a heterogeneous database migration on AWS.

Which solution will meet these requirements?

A. Migrate the SQL Server databases to Amazon RDS for MySQL by using backup and restore utilities.

B. Use an AWS Snowball Edge Storage Optimized device to transfer data to Amazon S3. Set up Amazon RDS for MySQL. Use S3 integration with SQL Server features, such as BULK INSERT.

C. Use the AWS Schema Conversion Tool to translate the database schema to Amazon RDS for MySQL. Then use AWS Database Migration Service (AWS DMS) to migrate the data from on-premises databases to Amazon RDS. Most Voted

D. Use AWS DataSync to migrate data over the network between on-premises storage and Amazon S3. Set up Amazon RDS for MySQL. Use S3 integration with SQL Server features, such as BULK INSERT.

Correct Answer: *C*

Community vote distribution

C (100%)

Question #103   *Topic 1*

A publishing company's design team updates the icons and other static assets that an ecommerce web application uses. The company serves the icons and assets from an Amazon S3 bucket that is hosted in the company's production account. The company also uses a development account that members of the design team can access.

After the design team tests the static assets in the development account, the design team needs to load the assets into the S3 bucket in the production account. A solutions architect must provide the design team with access to the production account without exposing other parts of the web application to the risk of unwanted changes.

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

A. In the production account, create a new IAM policy that allows read and write access to the S3 bucket. Most Voted

B. In the development account, create a new IAM policy that allows read and write access to the S3 bucket.

C. In the production account, create a role Attach the new policy to the role. Define the development account as a trusted entity. Most Voted

D. In the development account, create a role. Attach the new policy to the role Define the production account as a trusted entity.

E. In the development account, create a group that contains all the IAM users of the design team Attach a different IAM policy to the group to allow the sts:AssumeRole action on the role In the production account. Most Voted

F. In the development account, create a group that contains all the IAM users of the design team Attach a different IAM policy to the group to allow the sts:AssumeRole action on the role in the development account.

Correct Answer: *ACE*

Community vote distribution

ACE (95%)   5%

Question #104   *Topic 1*

A company developed a pilot application by using AWS Elastic Beanstalk and Java. To save costs during development, the company's development team deployed the application into a single-instance environment. Recent tests indicate that the application consumes more CPU than expected. CPU utilization is regularly greater than 85%, which causes some performance bottlenecks.

A solutions architect must mitigate the performance issues before the company launches the application to production.

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

    A. Create a new Elastic Beanstalk application. Select a load-balanced environment type. Select all Availability Zones. Add a scale-out rule that will run if the maximum CPU utilization is over 85% for 5 minutes.

    B. Create a second Elastic Beanstalk environment. Apply the traffic-splitting deployment policy. Specify a percentage of incoming traffic to direct to the new environment in the average CPU utilization is over 85% for 5 minutes.

    C. Modify the existing environment's capacity configuration to use a load-balanced environment type. Select all Availability Zones. Add a scale-out rule that will run if the average CPU utilization is over 85% for 5 minutes. Most Voted

    D. Select the Rebuild environment action with the load balancing option. Select an Availability Zones. Add a scale-out rule that will run if the sum CPU utilization is over 85% for 5 minutes.

    Correct Answer: *C*

    Community vote distribution
                          C (96%)   4%

Question #105   *Topic 1*

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

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

    A. Pre-warming Elastic Load Balancers, using a bigger instance type, changing all Amazon EBS volumes to GP2 volumes.

    B. Performing a one-time migration of the database cluster to Amazon RDS, and creating several additional read replicas to handle the load during end of month. Most Voted

    C. Using Amazon CloudWatch with AWS Lambda to change the type, size, or IOPS of Amazon EBS volumes in the cluster based on a specific CloudWatch metric.

    D. Replacing all existing Amazon EBS volumes with new PIOPS volumes that have the maximum available storage size and I/O per second by taking snapshots before the end of the month and reverting back afterwards.

    Correct Answer: *B*

    Community vote distribution
                          B (93%)   7%

Question #106   *Topic 1*

A company runs a Java application that has complex dependencies on VMs that are in the company's data center. The application is stable. but the company wants to modernize the technology stack. The company wants to migrate the application to AWS and minimize the administrative overhead to maintain the servers.

Which solution will meet these requirements with the LEAST code changes?

A. Migrate the application to Amazon Elastic Container Service (Amazon ECS) on AWS Fargate by using AWS App2Container. Store container images in Amazon Elastic Container Registry (Amazon ECR). Grant the ECS task execution role permission 10 access the ECR image repository. Configure Amazon ECS to use an Application Load Balancer (ALB). Use the ALB to interact with the application. Most Voted

B. Migrate the application code to a container that runs in AWS Lambda. Build an Amazon API Gateway REST API with Lambda integration. Use API Gateway to interact with the application.

C. Migrate the application to Amazon Elastic Kubernetes Service (Amazon EKS) on EKS managed node groups by using AWS App2Container. Store container images in Amazon Elastic Container Registry (Amazon ECR). Give the EKS nodes permission to access the ECR image repository. Use Amazon API Gateway to interact with the application.

D. Migrate the application code to a container that runs in AWS Lambda. Configure Lambda to use an Application Load Balancer (ALB). Use the ALB to interact with the application.

Correct Answer: *A*

Community vote distribution

A (93%)   7%

Question #107   *Topic 1*

A company has an asynchronous HTTP application that is hosted as an AWS Lambda function. A public Amazon API Gateway endpoint invokes the Lambda function. The Lambda function and the API Gateway endpoint reside in the us-east-1 Region. A solutions architect needs to redesign the application to support failover to another AWS Region.

Which solution will meet these requirements?

A. Create an API Gateway endpoint in the us-west-2 Region to direct traffic to the Lambda function in us-east-1. Configure Amazon Route 53 to use a failover routing policy to route traffic for the two API Gateway endpoints.

B. Create an Amazon Simple Queue Service (Amazon SQS) queue. Configure API Gateway to direct traffic to the SQS queue instead of to the Lambda function. Configure the Lambda function to pull messages from the queue for processing.

C. Deploy the Lambda function to the us-west-2 Region. Create an API Gateway endpoint in us-west-2 10 direct traffic to the Lambda function in us-west-2. Configure AWS Global Accelerator and an Application Load Balancer to manage traffic across the two API Gateway endpoints.

D. Deploy the Lambda function and an API Gateway endpoint to the us-west-2 Region. Configure Amazon Route 53 to use a failover routing policy to route traffic for the two API Gateway endpoints. Most Voted

Correct Answer: *D*

Community vote distribution

D (94%)   6%

Question #108   *Topic 1*

A retail company has structured its AWS accounts to be part of an organization in AWS Organizations. The company has set up consolidated billing and has mapped its departments to the following OUs: Finance, Sales, Human Resources (HR), Marketing, and Operations. Each OU has multiple AWS accounts, one for each environment within a department. These environments are development, test, pre-production, and production.

The HR department is releasing a new system that will launch in 3 months. In preparation, the HR department has purchased several Reserved Instances (RIs) in its production AWS account. The HR department will install the new application on this account. The HR department wants to make sure that other departments cannot share the RI discounts.

Which solution will meet these requirements?

   A. In the AWS Billing and Cost Management console for the HR department's production account turn off RI sharing.

   B. Remove the HR department's production AWS account from the organization. Add the account 10 the consolidating billing configuration only.

   C. In the AWS Billing and Cost Management console. use the organization's management account 10 turn off RI Sharing for the HR departments production AWS account. [Most Voted]

   D. Create an SCP in the organization to restrict access to the RIs. Apply the SCP to the OUs of the other departments.

Correct Answer: *C*

Community vote distribution

C (79%)   12%   9%

Question #109   *Topic 1*

A large company is running a popular web application. The application runs on several Amazon EC2 Linux instances in an Auto Scaling group in a private subnet. An Application Load Balancer is targeting the instances in the Auto Scaling group in the private subnet. AWS Systems Manager Session Manager is configured, and AWS Systems Manager Agent is running on all the EC2 instances.

The company recently released a new version of the application. Some EC2 instances are now being marked as unhealthy and are being terminated. As a result, the application is running at reduced capacity. A solutions architect tries to determine the root cause by analyzing Amazon CloudWatch logs that are collected from the application, but the logs are inconclusive.

How should the solutions architect gain access to an EC2 instance to troubleshoot the issue?

   A. Suspend the Auto Scaling group's HealthCheck scaling process. Use Session Manager to log in to an instance that is marked as unhealthy.

   B. Enable EC2 instance termination protection. Use Session Manager to log in to an instance that is marked as unhealthy.

   C. Set the termination policy to OldestInstance on the Auto Scaling group. Use Session Manager to log in to an instance that is marked an unhealthy.

   D. Suspend the Auto Scaling group's Terminate process. Use Session Manager to log in to an instance that is marked as unhealthy. [Most Voted]

Correct Answer: *D*

Community vote distribution

D (93%)   7%

Question #110
Topic 1

A company wants to deploy an AWS WAF solution to manage AWS WAF rules across multiple AWS accounts. The accounts are managed under different OUs in AWS Organizations.

Administrators must be able to add or remove accounts or OUs from managed AWS WAF rule sets as needed. Administrators also must have the ability to automatically update and remediate noncompliant AWS WAF rules in all accounts.

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

A. Use AWS Firewall Manager to manage AWS WAF rules across accounts in the organization. Use an AWS Systems Manager Parameter Store parameter to store account numbers and OUs to manage. Update the parameter as needed to add or remove accounts or OUs. Use an Amazon EventBridge rule to identify any changes to the parameter and to invoke an AWS Lambda function to update the security policy in the Firewall Manager administrative account. Most Voted

B. Deploy an organization-wide AWS Config rule that requires all resources in the selected OUs to associate the AWS WAF rules. Deploy automated remediation actions by using AWS Lambda to fix noncompliant resources. Deploy AWS WAF rules by using an AWS CloudFormation stack set to target the same OUs where the AWS Config rule is applied.

C. Create AWS WAF rules in the management account of the organization. Use AWS Lambda environment variables to store account numbers and OUs to manage. Update environment variables as needed to add or remove accounts or OUs. Create cross-account IAM roles in member accounts. Assume the roles by using AWS Security Token Service (AWS STS) in the Lambda function to create and update AWS WAF rules in the member accounts.

D. Use AWS Control Tower to manage AWS WAF rules across accounts in the organization. Use AWS Key Management Service (AWS KMS) to store account numbers and OUs to manage. Update AWS KMS as needed to add or remove accounts or OUs. Create IAM users in member accounts. Allow AWS Control Tower in the management account to use the access key and secret access key to create and update AWS WAF rules in the member accounts.

Correct Answer: *A*

Community vote distribution

A (98%)

Question #111   Topic 1

A solutions architect is auditing the security setup or an AWS Lambda function for a company. The Lambda function retrieves, the latest changes from an Amazon Aurora database. The Lambda function and the database run in the same VPC. Lambda environment variables are providing the database credentials to the Lambda function.

The Lambda function aggregates data and makes the data available in an Amazon S3 bucket that is configured for server-side encryption with AWS KMS managed encryption keys (SSE-KMS). The data must not travel across the Internet. If any database credentials become compromised, the company needs a solution that minimizes the impact of the compromise.

What should the solutions architect recommend to meet these requirements?

A. Enable IAM database authentication on the Aurora DB cluster. Change the IAM role for the Lambda function to allow the function to access the database by using IAM database authentication. Deploy a gateway VPC endpoint for Amazon S3 in the VPC. Most Voted

B. Enable IAM database authentication on the Aurora DB cluster. Change the IAM role for the Lambda function to allow the function to access the database by using IAM database authentication. Enforce HTTPS on the connection to Amazon S3 during data transfers.

C. Save the database credentials in AWS Systems Manager Parameter Store. Set up password rotation on the credentials in Parameter Store. Change the IAM role for the Lambda function to allow the function to access Parameter Store. Modify the Lambda function to retrieve the credentials from Parameter Store. Deploy a gateway VPC endpoint for Amazon S3 in the VPC.

D. Save the database credentials in AWS Secrets Manager. Set up password rotation on the credentials in Secrets Manager. Change the IAM role for the Lambda function to allow the function to access Secrets Manager. Modify the Lambda function to retrieve the credentials from Secrets Manager. Enforce HTTPS on the connection to Amazon S3 during data transfers.

Correct Answer: *A*

Community vote distribution

A (82%)   D (18%)

Question #112   *Topic 1*

A large mobile gaming company has successfully migrated all of its on-premises infrastructure to the AWS Cloud. A solutions architect is reviewing the environment to ensure that it was built according to the design and that it is running in alignment with the Well-Architected Framework.

While reviewing previous monthly costs in Cost Explorer, the solutions architect notices that the creation and subsequent termination of several large instance types account for a high proportion of the costs. The solutions architect finds out that the company's developers are launching new Amazon EC2 instances as part of their testing and that the developers are not using the appropriate instance types.

The solutions architect must implement a control mechanism to limit the instance types that only the developers can launch.

Which solution will meet these requirements?

A. Create a desired-instance-type managed rule in AWS Config. Configure the rule with the instance types that are allowed. Attach the rule to an event to run each time a new EC2 instance is launched.

B. In the EC2 console, create a launch template that specifies the instance types that are allowed. Assign the launch template to the developers' IAM accounts.

C. Create a new IAM policy. Specify the instance types that are allowed. Attach the policy to an IAM group that contains the IAM accounts for the developers [Most Voted]

D. Use EC2 Image Builder to create an image pipeline for the developers and assist them in the creation of a golden image.

Correct Answer: *C*

Community vote distribution

C (100%)

Question #113   *Topic 1*

A company is developing and hosting several projects in the AWS Cloud. The projects are developed across multiple AWS accounts under the same organization in AWS Organizations. The company requires the cost for cloud infrastructure to be allocated to the owning project. The team responsible for all of the AWS accounts has discovered that several Amazon EC2 instances are lacking the Project tag used for cost allocation.

Which actions should a solutions architect lake to resolve the problem and prevent it from happening in the future? (Choose three.)

A. Create an AWS Config rule in each account to find resources with missing tags. [Most Voted]

B. Create an SCP in the organization with a deny action for ec2:RunInstances if the Project tag is missing. [Most Voted]

C. Use Amazon Inspector in the organization to find resources with missing tags.

D. Create an IAM policy in each account with a deny action for ec2:RunInstances if the Project tag is missing.

E. Create an AWS Config aggregator for the organization to collect a list of EC2 instances with the missing Project tag. [Most Voted]

F. Use AWS Security Hub to aggregate a list of EC2 instances with the missing Project tag.

Correct Answer: *ABE*

Community vote distribution

ABE (81%)   Other

Question #114   *Topic 1*

A company has an on-premises monitoring solution using a PostgreSQL database for persistence of events. The database is unable to scale due to heavy ingestion and it frequently runs out of storage.

The company wants to create a hybrid solution and has already set up a VPN connection between its network and AWS. The solution should include the following attributes:

• Managed AWS services to minimize operational complexity.
• A buffer that automatically scales to match the throughput of data and requires no ongoing administration.
• A visualization tool to create dashboards to observe events in near-real time.
• Support for semi-structured JSON data and dynamic schemas.

Which combination of components will enable the company to create a monitoring solution that will satisfy these requirements? (Choose two.)

A. Use Amazon Kinesis Data Firehose to buffer events. Create an AWS Lambda function to process and transform events. Most Voted

B. Create an Amazon Kinesis data stream to buffer events. Create an AWS Lambda function to process and transform events.

C. Configure an Amazon Aurora PostgreSQL DB cluster to receive events. Use Amazon QuickSight to read from the database and create near-real-time visualizations and dashboards.

D. Configure Amazon Elasticsearch Service (Amazon ES) to receive events. Use the Kibana endpoint deployed with Amazon ES to create near-real-time visualizations and dashboards. Most Voted

E. Configure an Amazon Neptune DB instance to receive events. Use Amazon QuickSight to read from the database and create near-real-time visualizations and dashboards.

Correct Answer: *AD*

Community vote distribution

AD (93%)   5%

Question #115   *Topic 1*

A team collects and routes behavioral data for an entire company. The company runs a Multi-AZ VPC environment with public subnets, private subnets, and in internet gateway. Each public subnet also contains a NAT gateway. Most of the company's applications read from and write to Amazon Kinesis Data Streams. Most of the workloads run in private subnets.

A solutions architect must review the infrastructure. The solution architect needs to reduce costs and maintain the function of the applications. The solutions architect uses Cost Explorer and notices that the cost in the EC2-Other category is consistently high. A further review shows that NatGateway-Bytes charges are increasing the cost in the EC2-Other category.

What should the solutions architect do to meet these requirements?

A. Enable VPC Flow Logs. Use Amazon Athena to analyze the logs for traffic that can be removed. Ensure that security groups are blocking traffic that is responsible for high costs.

B. Add an interface VPC endpoint for Kinesis Data Streams to the VPC. Ensure that applications have the correct IAM permissions to use the interface VPC endpoint.

C. Enable VPC Flow Logs and Amazon Detective. Review Detective findings for traffic that is not related to Kinesis Data Streams. Configure security groups to block that traffic.

D. Add an interface VPC endpoint for Kinesis Data Streams to the VPC. Ensure that the VPC endpoint policy allows traffic from the applications. Most Voted

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Correct Answer: *D*

Community vote distribution

D (91%)   9%

Question #116   *Topic 1*

A retail company has an on-premises data center in Europe. The company also has a multi-Region AWS presence that includes the eu-west-1 and us-east-1 Regions. The company wants to be able to route network traffic from its on-premises infrastructure into VPCs in either of those Regions. The company also needs to support traffic that is routed directly between VPCs in those Regions. No single points of failure can exist on the network.

The company already has created two 1 Gbps AWS Direct Connect connections from its on-premises data center. Each connection goes into a separate Direct Connect location in Europe for high availability. These two locations are named DX-A and DX-B, respectively. Each Region has a single AWS Transit Gateway that is configured to route all inter-VPC traffic within that Region.

Which solution will meet these requirements?

   A. Create a private VIF from the DX-A connection into a Direct Connect gateway. Create a private VIF from the DX-B connection into the same Direct Connect gateway for high availability. Associate both the eu-west-1 and us-east-1 transit gateways with the Direct Connect gateway. Peer the transit gateways with each other to support cross-Region routing.

   B. Create a transit VIF from the DX-A connection into a Direct Connect gateway. Associate the eu-west-1 transit gateway with this Direct Connect gateway. Create a transit VIF from the DX-8 connection into a separate Direct Connect gateway. Associate the us-east-1 transit gateway with this separate Direct Connect gateway. Peer the Direct Connect gateways with each other to support high availability and cross-Region routing.

   C. Create a transit VIF from the DX-A connection into a Direct Connect gateway. Create a transit VIF from the DX-B connection into the same Direct Connect gateway for high availability. Associate both the eu-west-1 and us-east-1 transit gateways with this Direct Connect gateway. Configure the Direct Connect gateway to route traffic between the transit gateways.

   D. Create a transit VIF from the DX-A connection into a Direct Connect gateway. Create a transit VIF from the DX-B connection into the same Direct Connect gateway for high availability. Associate both the eu-west-1 and us-east-1 transit gateways with this Direct Connect gateway. Peer the transit gateways with each other to support cross-Region routing. `Most Voted`

Correct Answer: *D*

Community vote distribution

                         D (91%)   7%

Question #117   *Topic 1*

A company is running an application in the AWS Cloud. The company's security team must approve the creation of all new IAM users. When a new IAM user is created, all access for the user must be removed automatically. The security team must then receive a notification to approve the user. The company has a multi-Region AWS CloudTrail trail in the AWS account.

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

   A. Create an Amazon EventBridge (Amazon CloudWatch Events) rule. Define a pattern with the detail-type value set to AWS API Call via CloudTrail and an eventName of CreateUser. `Most Voted`

   B. Configure CloudTrail to send a notification for the CreateUser event to an Amazon Simple Notification Service (Amazon SNS) topic.

   C. Invoke a container that runs in Amazon Elastic Container Service (Amazon ECS) with AWS Fargate technology to remove access.

   D. Invoke an AWS Step Functions state machine to remove access. `Most Voted`

   E. Use Amazon Simple Notification Service (Amazon SNS) to notify the security team. `Most Voted`

   F. Use Amazon Pinpoint to notify the security team.

Correct Answer: *ADE*

Community vote distribution

                         ADE (75%)   9%   Other

Question #118
Topic 1

A company wants to migrate to AWS. The company wants to use a multi-account structure with centrally managed access to all accounts and applications. The company also wants to keep the traffic on a private network. Multi-factor authentication (MFA) is required at login, and specific roles are assigned to user groups.

The company must create separate accounts for development. staging, production, and shared network. The production account and the shared network account must have connectivity to all accounts. The development account and the staging account must have access only to each other.

Which combination of steps should a solutions architect take 10 meet these requirements? (Choose three.)

A. Deploy a landing zone environment by using AWS Control Tower. Enroll accounts and invite existing accounts into the resulting organization in AWS Organizations. Most Voted

B. Enable AWS Security Hub in all accounts to manage cross-account access. Collect findings through AWS CloudTrail to force MFA login.

C. Create transit gateways and transit gateway VPC attachments in each account. Configure appropriate route tables. Most Voted

D. Set up and enable AWS IAM Identity Center (AWS Single Sign-On). Create appropriate permission sets with required MFA for existing accounts. Most Voted

E. Enable AWS Control Tower in all accounts to manage routing between accounts. Collect findings through AWS CloudTrail to force MFA login.

F. Create IAM users and groups. Configure MFA for all users. Set up Amazon Cognoto user pools and Identity pools to manage access to accounts and between accounts.

Correct Answer: *ACD*

Community vote distribution

ACD (100%)

Question #119   *Topic 1*

A company runs its application in the eu-west-1 Region and has one account for each of its environments: development, testing, and production. All the environments are running 24 hours a day, 7 days a week by using stateful Amazon EC2 instances and Amazon RDS for MySQL databases. The databases are between 500 GB and 800 GB in size.

The development team and testing team work on business days during business hours, but the production environment operates 24 hours a day, 7 days a week. The company wants to reduce costs. All resources are tagged with an environment tag with either development, testing, or production as the key.

What should a solutions architect do to reduce costs with the LEAST operational effort?

A. Create an Amazon EventBridge rule that runs once every day. Configure the rule to invoke one AWS Lambda function that starts or slops instances based on me tag, day, and time.

B. Create an Amazon EventBridge rule that runs every business day in the evening. Configure the rule to invoke an AWS Lambda function that stops instances based on the tag. Create a second EventBridge rule that runs every business day in the morning. Configure the second rule lo invoke another Lambda function that starts instances based on the tag. Most Voted

C. Create an Amazon EventBridge rule that runs every business day in the evening, Configure the rule to invoke an AWS Lambda function that terminates, instances based on the lag. Create a second EventBridge rule that runs every business day in the morning. Configure the second rule lo invoke another Lambda function that restores the instances from their last backup based on the tag.

D. Create an Amazon EventBridge rule that runs every hour. Configure the rule to invoke one AWS Lambda function that terminates or restores instances from their last backup based on the tag. day, and time.

Correct Answer: *B*

Community vote distribution

B (100%)

Question #120   *Topic 1*

A company is building a software-as-a-service (SaaS) solution on AWS. The company has deployed an Amazon API Gateway REST API with AWS Lambda integration in multiple AWS Regions and in the same production account.

The company offers tiered pricing that gives customers the ability to pay for the capacity to make a certain number of API calls per second. The premium tier offers up to 3,000 calls per second, and customers are identified by a unique API key. Several premium tier customers in various Regions report that they receive error responses of 429 Too Many Requests from multiple API methods during peak usage hours. Logs indicate that the Lambda function is never invoked.

What could be the cause of the error messages for these customers?

A. The Lambda function reached its concurrency limit.

B. The Lambda function its Region limit for concurrency.

C. The company reached its API Gateway account limit for calls per second. Most Voted

D. The company reached its API Gateway default per-method limit for calls per second.

Correct Answer: *C*

Community vote distribution

C (96%)   4%

Question #121	Topic 1

A financial company is planning to migrate its web application from on premises to AWS. The company uses a third-party security tool to monitor the inbound traffic to the application. The company has used the security tool for the last 15 years, and the tool has no cloud solutions available from its vendor. The company's security team is concerned about how to integrate the security tool with AWS technology.

The company plans to deploy the application migration to AWS on Amazon EC2 instances. The EC2 instances will run in an Auto Scaling group in a dedicated VPC. The company needs to use the security tool to inspect all packets that come in and out of the VPC. This inspection must occur in real time and must not affect the application's performance. A solutions architect must design a target architecture on AWS that is highly available within an AWS Region.

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

A. Deploy the security tool on EC2 instances m a new Auto Scaling group in the existing VPC `Most Voted`

B. Deploy the web application behind a Network Load Balancer

C. Deploy an Application Load Balancer in front of the security tool instances

D. Provision a Gateway Load Balancer for each Availability Zone to redirect the traffic to the security tool `Most Voted`

E. Provision a transit gateway to facilitate communication between VPCs.

Correct Answer: *AD*

Community vote distribution

AD (53%)	DE (45%)

Question #122	Topic 1

A company has purchased appliances from different vendors. The appliances all have IoT sensors. The sensors send status information in the vendors' proprietary formats to a legacy application that parses the information into JSON. The parsing is simple, but each vendor has a unique format. Once daily, the application parses all the JSON records and stores the records in a relational database for analysis.

The company needs to design a new data analysis solution that can deliver faster and optimize costs.

Which solution will meet these requirements?

A. Connect the IoT sensors to AWS IoT Core. Set a rule to invoke an AWS Lambda function to parse the information and save a .csv file to Amazon. S3 Use AWS Glue to catalog the files. Use Amazon Athena and Amazon QuickSight for analysis. `Most Voted`

B. Migrate the application server to AWS Fargate, which will receive the information from IoT sensors and parse the information into a relational format. Save the parsed information to Amazon Redshlft for analysis.

C. Create an AWS Transfer for SFTP server. Update the IoT sensor code to send the information as a .csv file through SFTP to the server. Use AWS Glue to catalog the files. Use Amazon Athena for analysis.

D. Use AWS Snowball Edge to collect data from the IoT sensors directly to perform local analysis. Periodically collect the data into Amazon Redshift to perform global analysis.

Correct Answer: *A*

Community vote distribution

A (82%)	B (18%)

Question #123   *Topic 1*

A company is migrating some of its applications to AWS. The company wants to migrate and modernize the applications quickly after it finalizes networking and security strategies. The company has set up an AWS Direct Connect connection in a central network account.

The company expects to have hundreds of AWS accounts and VPCs in the near future. The corporate network must be able to access the resources on AWS seamlessly and also must be able to communicate with all the VPCs. The company also wants to route its cloud resources to the internet through its on-premises data center.

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

   A. Create a Direct Connect gateway in the central account. In each of the accounts, create an association proposal by using the Direct Connect gateway and the account ID for every virtual private gateway.

   B. Create a Direct Connect gateway and a transit gateway in the central network account. Attach the transit gateway to the Direct Connect gateway by using a transit VIF. `Most Voted`

   C. Provision an internet gateway. Attach the internet gateway to subnets. Allow internet traffic through the gateway.

   D. Share the transit gateway with other accounts. Attach VPCs to the transit gateway. `Most Voted`

   E. Provision VPC peering as necessary.

   F. Provision only private subnets. Open the necessary route on the transit gateway and customer gateway to allow outbound internet traffic from AWS to flow through NAT services that run in the data center. `Most Voted`

   Correct Answer: *BDF*

   Community vote distribution
                                           BDF (100%)

Question #124   *Topic 1*

A company has hundreds of AWS accounts. The company recently implemented a centralized internal process for purchasing new Reserved Instances and modifying existing Reserved Instances. This process requires all business units that want to purchase or modify Reserved Instances to submit requests to a dedicated team for procurement. Previously, business units directly purchased or modified Reserved Instances in their own respective AWS accounts autonomously.

A solutions architect needs to enforce the new process in the most secure way possible.

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

   A. Ensure that all AWS accounts are part of an organization in AWS Organizations with all features enabled. `Most Voted`

   B. Use AWS Config to report on the attachment of an IAM policy that denies access to the ec2:PurchaseReservedInstancesOffering action and the ec2:ModifyReservedInstances action.

   C. In each AWS account, create an IAM policy that denies the ec2:PurchaseReservedInstancesOffering action and the ec2:ModifyReservedInstances action.

   D. Create an SCP that denies the ec2:PurchaseReservedInstancesOffering action and the ec2:ModifyReservedInstances action. Attach the SCP to each OU of the organization. `Most Voted`

   E. Ensure that all AWS accounts are part of an organization in AWS Organizations that uses the consolidated billing feature.

   Correct Answer: *AD*

   Community vote distribution
                                           AD (100%)

Question #125   *Topic 1*

A company is running a critical application that uses an Amazon RDS for MySQL database to store data. The RDS DB instance is deployed in Multi-AZ mode.

A recent RDS database failover test caused a 40-second outage to the application. A solutions architect needs to design a solution to reduce the outage time to less than 20 seconds.

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

> A. Use Amazon ElastiCache for Memcached in front of the database

> B. Use Amazon ElastiCache for Redis in front of the database

> C. Use RDS Proxy in front of the database. [Most Voted]

> D. Migrate the database to Amazon Aurora MySQL. [Most Voted]

> E. Create an Amazon Aurora Replica. [Most Voted]

> F. Create an RDS for MySQL read replica

Correct Answer: *CDE*

Community vote distribution

CDE (90%)   10%

Question #126   *Topic 1*

An AWS partner company is building a service in AWS Organizations using its organization named org1. This service requires the partner company to have access to AWS resources in a customer account, which is in a separate organization named org2. The company must establish least privilege security access using an API or command line tool to the customer account.

What is the MOST secure way to allow org1 to access resources in org2?

> A. The customer should provide the partner company with their AWS account access keys to log in and perform the required tasks.

> B. The customer should create an IAM user and assign the required permissions to the IAM user. The customer should then provide the credentials to the partner company to log in and perform the required tasks.

> C. The customer should create an IAM role and assign the required permissions to the IAM role. The partner company should then use the IAM role's Amazon Resource Name (ARN) when requesting access to perform the required tasks.

> D. The customer should create an IAM role and assign the required permissions to the IAM role. The partner company should then use the IAM role's Amazon Resource Name (ARN), including the external ID in the IAM role's trust policy, when requesting access to perform the required tasks. [Most Voted]

Correct Answer: *D*

Community vote distribution

D (100%)

Question #127   *Topic 1*

A delivery company needs to migrate its third-party route planning application to AWS. The third party supplies a supported Docker image from a public registry. The image can run in as many containers as required to generate the route map.

The company has divided the delivery area into sections with supply hubs so that delivery drivers travel the shortest distance possible from the hubs to the customers. To reduce the time necessary to generate route maps, each section uses its own set of Docker containers with a custom configuration that processes orders only in the section's area.

The company needs the ability to allocate resources cost-effectively based on the number of running containers.

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

   A. Create an Amazon Elastic Kubernetes Service (Amazon EKS) cluster on Amazon EC2. Use the Amazon EKS CLI to launch the planning application in pods by using the --tags option to assign a custom tag to the pod.

   B. Create an Amazon Elastic Kubernetes Service (Amazon EKS) cluster on AWS Fargate. Use the Amazon EKS CLI to launch the planning application. Use the AWS CLI tag-resource API call to assign a custom tag to the pod.

   C. Create an Amazon Elastic Container Service (Amazon ECS) cluster on Amazon EC2. Use the AWS CLI with run-tasks set to true to launch the planning application by using the --tags option to assign a custom tag to the task.

   D. Create an Amazon Elastic Container Service (Amazon ECS) cluster on AWS Fargate. Use the AWS CLI run-task command and set enableECSManagedTags to true to launch the planning application. Use the --tags option to assign a custom tag to the task. Most Voted

Correct Answer: *D*

Community vote distribution

                        D (82%)   B (18%)

Question #128   *Topic 1*

A software company hosts an application on AWS with resources in multiple AWS accounts and Regions. The application runs on a group of Amazon EC2 instances in an application VPC located in the us-east-1 Region with an IPv4 CIDR block of 10.10.0.0/16. In a different AWS account, a shared services VPC is located in the us-east-2 Region with an IPv4 CIDR block of 10.10.10.0/24. When a cloud engineer uses AWS CloudFormation to attempt to peer the application VPC with the shared services VPC, an error message indicates a peering failure.

Which factors could cause this error? (Choose two.)

   A. The IPv4 CIDR ranges of the two VPCs overlap Most Voted

   B. The VPCs are not in the same Region

   C. One or both accounts do not have access to an Internet gateway

   D. One of the VPCs was not shared through AWS Resource Access Manager

   E. The IAM role in the peer accepter account does not have the correct permissions Most Voted

Correct Answer: *AE*

Community vote distribution

                        AE (85%)   Other

Question #129   Topic 1

An external audit of a company's serverless application reveals IAM policies that grant too many permissions. These policies are attached to the company's AWS Lambda execution roles. Hundreds of the company's Lambda functions have broad access permissions such as full access to Amazon S3 buckets and Amazon DynamoDB tables. The company wants each function to have only the minimum permissions that the function needs to complete its task.

A solutions architect must determine which permissions each Lambda function needs.

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

A. Set up Amazon CodeGuru to profile the Lambda functions and search for AWS API calls. Create an inventory of the required API calls and resources for each Lambda function. Create new IAM access policies for each Lambda function. Review the new policies to ensure that they meet the company's business requirements.

B. Turn on AWS CloudTrail logging for the AWS account. Use AWS Identity and Access Management Access Analyzer to generate IAM access policies based on the activity recorded in the CloudTrail log. Review the generated policies to ensure that they meet the company's business requirements. [Most Voted]

C. Turn on AWS CloudTrail logging for the AWS account. Create a script to parse the CloudTrail log, search for AWS API calls by Lambda execution role, and create a summary report. Review the report. Create IAM access policies that provide more restrictive permissions for each Lambda function.

D. Turn on AWS CloudTrail logging for the AWS account. Export the CloudTrail logs to Amazon S3. Use Amazon EMR to process the CloudTrail logs in Amazon S3 and produce a report of API calls and resources used by each execution role. Create a new IAM access policy for each role. Export the generated roles to an S3 bucket. Review the generated policies to ensure that they meet the company's business requirements.

Correct Answer: *B*

Community vote distribution

                                        B (100%)

Question #130   Topic 1

A solutions architect must analyze a company's Amazon EC2 instances and Amazon Elastic Block Store (Amazon EBS) volumes to determine whether the company is using resources efficiently. The company is running several large, high-memory EC2 instances to host database clusters that are deployed in active/passive configurations. The utilization of these EC2 instances varies by the applications that use the databases, and the company has not identified a pattern.

The solutions architect must analyze the environment and take action based on the findings.

Which solution meets these requirements MOST cost-effectively?

A. Create a dashboard by using AWS Systems Manager OpsCenter. Configure visualizations for Amazon CloudWatch metrics that are associated with the EC2 instances and their EBS volumes. Review the dashboard periodically, and identify usage patterns. Rightsize the EC2 instances based on the peaks in the metrics.

B. Turn on Amazon CloudWatch detailed monitoring for the EC2 instances and their EBS volumes. Create and review a dashboard that is based on the metrics. Identify usage patterns. Rightsize the EC2 instances based on the peaks in the metrics.

C. Install the Amazon CloudWatch agent on each of the EC2 instances. Turn on AWS Compute Optimizer, and let it run for at least 12 hours. Review the recommendations from Compute Optimizer, and rightsize the EC2 instances as directed. Most Voted

D. Sign up for the AWS Enterprise Support plan. Turn on AWS Trusted Advisor. Wait 12 hours. Review the recommendations from Trusted Advisor, and rightsize the EC2 instances as directed.

Correct Answer: *C*

Community vote distribution
C (97%)

Question #131   Topic 1

A company uses AWS Organizations for a multi-account setup in the AWS Cloud. The company uses AWS Control Tower for governance and uses AWS Transit Gateway for VPC connectivity across accounts.

In an AWS application account, the company's application team has deployed a web application that uses AWS Lambda and Amazon RDS. The company's database administrators have a separate DBA account and use the account to centrally manage all the databases across the organization. The database administrators use an Amazon EC2 instance that is deployed in the DBA account to access an RDS database that is deployed m the application account.

The application team has stored the database credentials as secrets in AWS Secrets Manager in the application account. The application team is manually sharing the secrets with the database administrators. The secrets are encrypted by the default AWS managed key for Secrets Manager in the application account. A solutions architect needs to implement a solution that gives the database administrators access to the database and eliminates the need to manually share the secrets.

Which solution will meet these requirements?

A. Use AWS Resource Access Manager (AWS RAM) to share the secrets from the application account with the DBA account. In the DBA account, create an IAM role that is named DBA-Admin. Grant the role the required permissions to access the shared secrets. Attach the DBA-Admin role to the EC2 instance for access to the cross-account secrets.

B. In the application account, create an IAM role that is named DBA-Secret. Grant the role the required permissions to access the secrets. In the DBA account, create an IAM role that is named DBA-Admin. Grant the DBA-Admin role the required permissions to assume the DBA-Secret role in the application account. Attach the DBA-Admin role to the EC2 instance for access to the cross-account secrets Most Voted

C. In the DBA account create an IAM role that is named DBA-Admin. Grant the role the required permissions to access the secrets and the default AWS managed key in the application account. In the application account, attach resource-based policies to the key to allow access from the DBA account. Attach the DBA-Admin role to the EC2 instance for access to the cross-account secrets.

D. In the DBA account, create an IAM role that is named DBA-Admin. Grant the role the required permissions to access the secrets in the application account. Attach an SCP to the application account to allow access to the secrets from the DBA account. Attach the DBA-Admin role to the EC2 instance for access to the cross-account secrets.

Correct Answer: *B*

Community vote distribution

                              B (83%)   Other

Question #132   *Topic 1*

A company manages multiple AWS accounts by using AWS Organizations. Under the root OU, the company has two OUs: Research and DataOps.

Because of regulatory requirements, all resources that the company deploys in the organization must reside in the ap-northeast-1 Region. Additionally, EC2 instances that the company deploys in the DataOps OU must use a predefined list of instance types.

A solutions architect must implement a solution that applies these restrictions. The solution must maximize operational efficiency and must minimize ongoing maintenance.

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

    A. Create an IAM role in one account under the DataOps OU. Use the ec2:InstanceType condition key in an inline policy on the role to restrict access to specific instance type.

    B. Create an IAM user in all accounts under the root OU. Use the aws:RequestedRegion condition key in an inline policy on each user to restrict access to all AWS Regions except ap-northeast-1.

    C. Create an SCP. Use the aws:RequestedRegion condition key to restrict access to all AWS Regions except ap-northeast-1. Apply the SCP to the root OU. [Most Voted]

    D. Create an SCP. Use the ec2:Region condition key to restrict access to all AWS Regions except ap-northeast-1. Apply the SCP to the root OU, the DataOps OU, and the Research OU.

    E. Create an SCP. Use the ec2:InstanceType condition key to restrict access to specific instance types. Apply the SCP to the DataOps OU. [Most Voted]

    Correct Answer: *CE*

    Community vote distribution
                                         CE (100%)

Question #133   *Topic 1*

A company runs a serverless application in a single AWS Region. The application accesses external URLs and extracts metadata from those sites. The company uses an Amazon Simple Notification Service (Amazon SNS) topic to publish URLs to an Amazon Simple Queue Service (Amazon SQS) queue. An AWS Lambda function uses the queue as an event source and processes the URLs from the queue. Results are saved to an Amazon S3 bucket.

The company wants to process each URL in other Regions to compare possible differences in site localization. URLs must be published from the existing Region. Results must be written to the existing S3 bucket in the current Region.

Which combination of changes will produce multi-Region deployment that meets these requirements? (Choose two.)

    A. Deploy the SQS queue with the Lambda function to other Regions. [Most Voted]

    B. Subscribe the SNS topic in each Region to the SQS queue.

    C. Subscribe the SQS queue in each Region to the SNS topic. [Most Voted]

    D. Configure the SQS queue to publish URLs to SNS topics in each Region.

    E. Deploy the SNS topic and the Lambda function to other Regions.

    Correct Answer: *AC*

    Community vote distribution
                                         AC (100%)

Question #134   *Topic 1*

A company runs a proprietary stateless ETL application on an Amazon EC2 Linux instances. The application is a Linux binary, and the source code cannot be modified. The application is single-threaded, uses 2 GB of RAM, and is highly CPU intensive. The application is scheduled to run every 4 hours and runs for up to 20 minutes. A solutions architect wants to revise the architecture for the solution.

Which strategy should the solutions architect use?

   A. Use AWS Lambda to run the application. Use Amazon CloudWatch Logs to invoke the Lambda function every 4 hours.

   B. Use AWS Batch to run the application. Use an AWS Step Functions state machine to invoke the AWS Batch job every 4 hours.

   C. Use AWS Fargate to run the application. Use Amazon EventBridge (Amazon CloudWatch Events) to invoke the Fargate task every 4 hours.
   Most Voted

   D. Use Amazon EC2 Spot Instances to run the application. Use AWS CodeDeploy to deploy and run the application every 4 hours.

Correct Answer: *C*

Community vote distribution

                          C (89%)   11%

Question #135   *Topic 1*

A company is creating a sequel for a popular online game. A large number of users from all over the world will play the game within the first week after launch. Currently, the game consists of the following components deployed in a single AWS Region:

• Amazon S3 bucket that stores game assets
• Amazon DynamoDB table that stores player scores

A solutions architect needs to design a multi-Region solution that will reduce latency, improve reliability, and require the least effort to implement.

What should the solutions architect do to meet these requirements?

   A. Create an Amazon CloudFront distribution to serve assets from the S3 bucket. Configure S3 Cross-Region Replication. Create a new DynamoDB table in a new Region. Use the new table as a replica target for DynamoDB global tables.

   B. Create an Amazon CloudFront distribution to serve assets from the S3 bucket. Configure S3 Same-Region Replication. Create a new DynamoDB table in a new Region. Configure asynchronous replication between the DynamoDB tables by using AWS Database Migration Service (AWS DMS) with change data capture (CDC).

   C. Create another S3 bucket in a new Region, and configure S3 Cross-Region Replication between the buckets. Create an Amazon CloudFront distribution and configure origin failover with two origins accessing the S3 buckets in each Region. Configure DynamoDB global tables by enabling Amazon DynamoDB Streams, and add a replica table in a new Region. Most Voted

   D. Create another S3 bucket in the sine Region, and configure S3 Same-Region Replication between the buckets. Create an Amazon CloudFront distribution and configure origin failover with two origins accessing the S3 buckets. Create a new DynamoDB table in a new Region. Use the new table as a replica target for DynamoDB global tables.

Correct Answer: *C*

Community vote distribution

                          C (90%)   10%

Question #136   *Topic 1*

A company has an on-premises website application that provides real estate information for potential renters and buyers. The website uses a Java backend and a NoSQL MongoDB database to store subscriber data.

The company needs to migrate the entire application to AWS with a similar structure. The application must be deployed for high availability, and the company cannot make changes to the application.

Which solution will meet these requirements?

A. Use an Amazon Aurora DB cluster as the database for the subscriber data. Deploy Amazon EC2 instances in an Auto Scaling group across multiple Availability Zones for the Java backend application.

B. Use MongoDB on Amazon EC2 instances as the database for the subscriber data. Deploy EC2 instances in an Auto Scaling group in a single Availability Zone for the Java backend application.

C. Configure Amazon DocumentDB (with MongoDB compatibility) with appropriately sized instances in multiple Availability Zones as the database for the subscriber data. Deploy Amazon EC2 instances in an Auto Scaling group across multiple Availability Zones for the Java backend application. Most Voted

D. Configure Amazon DocumentDB (with MongoDB compatibility) in on-demand capacity mode in multiple Availability Zones as the database for the subscriber data. Deploy Amazon EC2 instances in an Auto Scaling group across multiple Availability Zones for the Java backend application.

Correct Answer: *C*

Community vote distribution

C (86%)   14%

Question #137
Topic 1

A digital marketing company has multiple AWS accounts that belong to various teams. The creative team uses an Amazon S3 bucket in its AWS account to securely store images and media files that are used as content for the company's marketing campaigns. The creative team wants to share the S3 bucket with the strategy team so that the strategy team can view the objects.

A solutions architect has created an IAM role that is named strategy_reviewer in the Strategy account. The solutions architect also has set up a custom AWS Key Management Service (AWS KMS) key in the Creative account and has associated the key with the S3 bucket. However, when users from the Strategy account assume the IAM role and try to access objects in the S3 bucket, they receive an Access Denied error.

The solutions architect must ensure that users in the Strategy account can access the S3 bucket. The solution must provide these users with only the minimum permissions that they need.

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

A. Create a bucket policy that includes read permissions for the S3 bucket. Set the principal of the bucket policy to the account ID of the Strategy account. Most Voted

B. Update the strategy_reviewer IAM role to grant full permissions for the S3 bucket and to grant decrypt permissions for the custom KMS key.

C. Update the custom KMS key policy in the Creative account to grant decrypt permissions to the strategy_reviewer IAM role. Most Voted

D. Create a bucket policy that includes read permissions for the S3 bucket. Set the principal of the bucket policy to an anonymous user.

E. Update the custom KMS key policy in the Creative account to grant encrypt permissions to the strategy_reviewer IAM role.

F. Update the strategy_reviewer IAM role to grant read permissions for the S3 bucket and to grant decrypt permissions for the custom KMS key. Most Voted

Correct Answer: *ACF*

Community vote distribution

ACF (100%)

Question #138   *Topic 1*

A life sciences company is using a combination of open source tools to manage data analysis workflows and Docker containers running on servers in its on-premises data center to process genomics data. Sequencing data is generated and stored on a local storage area network (SAN), and then the data is processed. The research and development teams are running into capacity issues and have decided to re-architect their genomics analysis platform on AWS to scale based on workload demands and reduce the turnaround time from weeks to days.

The company has a high-speed AWS Direct Connect connection. Sequencers will generate around 200 GB of data for each genome, and individual jobs can take several hours to process the data with ideal compute capacity. The end result will be stored in Amazon S3. The company is expecting 10-15 job requests each day.

Which solution meets these requirements?

A. Use regularly scheduled AWS Snowball Edge devices to transfer the sequencing data into AWS. When AWS receives the Snowball Edge device and the data is loaded into Amazon S3, use S3 events to trigger an AWS Lambda function to process the data.

B. Use AWS Data Pipeline to transfer the sequencing data to Amazon S3. Use S3 events to trigger an Amazon EC2 Auto Scaling group to launch custom-AMI EC2 instances running the Docker containers to process the data.

C. Use AWS DataSync to transfer the sequencing data to Amazon S3. Use S3 events to trigger an AWS Lambda function that starts an AWS Step Functions workflow. Store the Docker images in Amazon Elastic Container Registry (Amazon ECR) and trigger AWS Batch to run the container and process the sequencing data. `Most Voted`

D. Use an AWS Storage Gateway file gateway to transfer the sequencing data to Amazon S3. Use S3 events to trigger an AWS Batch job that executes on Amazon EC2 instances running the Docker containers to process the data.

Correct Answer: *C*

Community vote distribution

C (78%)   D (23%)

Question #139
Topic 1

A company runs a content management application on a single Windows Amazon EC2 instance in a development environment. The application reads and writes static content to a 2 TB Amazon Elastic Block Store (Amazon EBS) volume that is attached to the instance as the root device. The company plans to deploy this application in production as a highly available and fault-tolerant solution that runs on at least three EC2 instances across multiple Availability Zones.

A solutions architect must design a solution that joins all the instances that run the application to an Active Directory domain. The solution also must implement Windows ACLs to control access to file contents. The application always must maintain exactly the same content on all running instances at any given point in time.

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

A. Create an Amazon Elastic File System (Amazon EFS) file share. Create an Auto Scaling group that extends across three Availability Zones and maintains a minimum size of three instances. Implement a user data script to install the application, join the instance to the AD domain, and mount the EFS file share.

B. Create a new AMI from the current EC2 Instance that is running. Create an Amazon FSx for Lustre file system. Create an Auto Scaling group that extends across three Availability Zones and maintains a minimum size of three instances. Implement a user data script to join the instance to the AD domain and mount the FSx for Lustre file system.

C. Create an Amazon FSx for Windows File Server file system. Create an Auto Scaling group that extends across three Availability Zones and maintains a minimum size of three instances. Implement a user data script to install the application and mount the FSx for Windows File Server file system. Perform a seamless domain join to join the instance to the AD domain. Most Voted

D. Create a new AMI from the current EC2 instance that is running. Create an Amazon Elastic File System (Amazon EFS) file system. Create an Auto Scaling group that extends across three Availability Zones and maintains a minimum size of three Instances. Perform a seamless domain join to join the instance to the AD domain.

Correct Answer: *C*

Community vote distribution

C (95%)   5%

Question #140
Topic 1

A software as a service (SaaS) based company provides a case management solution to customers A3 part of the solution. The company uses a standalone Simple Mail Transfer Protocol (SMTP) server to send email messages from an application. The application also stores an email template for acknowledgement email messages that populate customer data before the application sends the email message to the customer.

The company plans to migrate this messaging functionality to the AWS Cloud and needs to minimize operational overhead.

Which solution will meet these requirements MOST cost-effectively?

A. Set up an SMTP server on Amazon EC2 instances by using an AMI from the AWS Marketplace. Store the email template in an Amazon S3 bucket. Create an AWS Lambda function to retrieve the template from the S3 bucket and to merge the customer data from the application with the template. Use an SDK in the Lambda function to send the email message.

B. Set up Amazon Simple Email Service (Amazon SES) to send email messages. Store the email template in an Amazon S3 bucket. Create an AWS Lambda function to retrieve the template from the S3 bucket and to merge the customer data from the application with the template. Use an SDK in the Lambda function to send the email message.

C. Set up an SMTP server on Amazon EC2 instances by using an AMI from the AWS Marketplace. Store the email template in Amazon Simple Email Service (Amazon SES) with parameters for the customer data. Create an AWS Lambda function to call the SES template and to pass customer data to replace the parameters. Use the AWS Marketplace SMTP server to send the email message.

D. Set up Amazon Simple Email Service (Amazon SES) to send email messages. Store the email template on Amazon SES with parameters for the customer data. Create an AWS Lambda function to call the SendTemplatedEmail API operation and to pass customer data to replace the parameters and the email destination. [Most Voted]

Correct Answer: *D*

Community vote distribution

D (97%)

Question #141
Topic 1

A company is processing videos in the AWS Cloud by Using Amazon EC2 instances in an Auto Scaling group. It takes 30 minutes to process a video Several EC2 instances scale in and out depending on the number of videos in an Amazon Simple Queue Service (Amazon SQS) queue.

The company has configured the SQS queue with a redrive policy that specifies a target dead-letter queue and a maxReceiveCount of 1. The company has set the visibility timeout for the SQS queue to 1 hour. The company has set up an Amazon CloudWatch alarm to notify the development team when there are messages in the dead-letter queue.

Several times during the day. the development team receives notification that messages are in the dead-letter queue and that videos have not been processed property. An investigation finds no errors m the application logs.

How can the company solve this problem?

A. Turn on termination protection tor the EC2 Instances

B. Update the visibility timeout for the SQS queue to 3 hours

C. Configure scale-in protection for the instances during processing [Most Voted]

D. Update the redrive policy and set maxReceiveCount to 0.

Correct Answer: *C*

Community vote distribution

C (71%)   D (26%)

Question #142   *Topic 1*

A company has developed APIs that use Amazon API Gateway with Regional endpoints. The APIs call AWS Lambda functions that use API Gateway authentication mechanisms. After a design review, a solutions architect identifies a set of APIs that do not require public access.

The solutions architect must design a solution to make the set of APIs accessible only from a VPC. All APIs need to be called with an authenticated user

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

    A. Create an internal Application Load Balancer (ALB). Create a target group. Select the Lambda function to call. Use the ALB DNS name to call the API from the VPC.

    B. Remove the DNS entry that is associated with the API in API Gateway. Create a hosted zone in Amazon Route 53. Create a CNAME record in the hosted zone. Update the API in API Gateway with the CNAME record. Use the CNAME record to call the API from the VPC.

    C. Update the API endpoint from Regional to private in API Gateway. Create an interface VPC endpoint in the VPCCreate a resource policy, and attach it to the API. Use the VPC endpoint to call the API from the VPC. Most Voted

    D. Deploy the Lambda functions inside the VPC Provision an EC2 instance, and install an Apache server. From the Apache server, call the Lambda functions. Use the internal CNAME record of the EC2 instance to call the API from the VPC.

Correct Answer: *C*

Community vote distribution

C (100%)

Question #143   *Topic 1*

A weather service provides high-resolution weather maps from a web application hosted on AWS in the eu-west-1 Region. The weather maps are updated frequently and stored in Amazon S3 along with static HTML content. The web application is fronted by Amazon CloudFront.

The company recently expanded to serve users in the us-east-1 Region, and these new users report that viewing their respective weather maps is slow from time to time.

Which combination of steps will resolve the us-east-1 performance issues? (Choose two.)

    A. Configure the AWS Global Accelerator endpoint for the S3 bucket in eu-west-1. Configure endpoint groups for TCP ports 80 and 443 in us-east-1.

    B. Create a new S3 bucket in us-east-1. Configure S3 cross-Region replication to synchronize from the S3 bucket in eu-west-1. Most Voted

    C. Use Lambda@Edge to modify requests from North America to use the S3 Transfer Acceleration endpoint in us-east-1.

    D. Use Lambda@Edge to modify requests from North America to use the S3 bucket in us-east-1. Most Voted

    E. Configure the AWS Global Accelerator endpoint for us-east-1 as an origin on the CloudFront distribution. Use Lambda@Edge to modify requests from North America to use the new origin.

Correct Answer: *BD*

Community vote distribution

BD (96%)   2%

Question #144
Topic 1

A solutions architect is investigating an issue in which a company cannot establish new sessions in Amazon Workspaces. An initial analysis indicates that the issue involves user profiles. The Amazon Workspaces environment is configured to use Amazon FSx for Windows File Server as the profile share storage. The FSx for Windows File Server file system is configured with 10 TB of storage.

The solutions architect discovers that the file system has reached Its maximum capacity. The solutions architect must ensure that users can regain access. The solution also must prevent the problem from occurring again.

Which solution will meet these requirements?

A. Remove old user profiles to create space. Migrate the user profiles to an Amazon FSx for Lustre file system.

B. Increase capacity by using the update-file-system command. Implement an Amazon CloudWatch metric that monitors free space. Use Amazon EventBridge to invoke an AWS Lambda function to increase capacity as required. Most Voted

C. Monitor the file system by using the FreeStorageCapacity metric in Amazon CloudWatch. Use AWS Step Functions to increase the capacity as required.

D. Remove old user profiles to create space. Create an additional FSx for Windows File Server file system. Update the user profile redirection for 50% of the users to use the new file system.

Correct Answer: *B*

Community vote distribution

B (88%)
9%

Question #145
Topic 1

An international delivery company hosts a delivery management system on AWS. Drivers use the system to upload confirmation of delivery. Confirmation includes the recipient's signature or a photo of the package with the recipient. The driver's handheld device uploads signatures and photos through FTP to a single Amazon EC2 instance. Each handheld device saves a file in a directory based on the signed-in user, and the file name matches the delivery number. The EC2 instance then adds metadata to the file after querying a central database to pull delivery information. The file is then placed in Amazon S3 for archiving.

As the company expands, drivers report that the system is rejecting connections. The FTP server is having problems because of dropped connections and memory issues in response to these problems, a system engineer schedules a cron task to reboot the EC2 instance every 30 minutes. The billing team reports that files are not always in the archive and that the central system is not always updated.

A solutions architect needs to design a solution that maximizes scalability to ensure that the archive always receives the files and that systems are always updated. The handheld devices cannot be modified, so the company cannot deploy a new application.

Which solution will meet these requirements?

A. Create an AMI of the existing EC2 instance. Create an Auto Scaling group of EC2 instances behind an Application Load Balancer. Configure the Auto Scaling group to have a minimum of three instances.

B. Use AWS Transfer Family to create an FTP server that places the files in Amazon Elastic File System (Amazon EFS). Mount the EFS volume to the existing EC2 instance. Point the EC2 instance to the new path for file processing.

C. Use AWS Transfer Family to create an FTP server that places the files in Amazon S3. Use an S3 event notification through Amazon Simple Notification Service (Amazon SNS) to invoke an AWS Lambda function. Configure the Lambda function to add the metadata and update the delivery system. Most Voted

D. Update the handheld devices to place the files directly in Amazon S3. Use an S3 event notification through Amazon Simple Queue Service (Amazon SQS) to invoke an AWS Lambda function. Configure the Lambda function to add the metadata and update the delivery system.

Correct Answer: *C*

Community vote distribution

C (75%)   B (25%)

Question #146
Topic 1

A company is running an application in the AWS Cloud. The application runs on containers m an Amazon Elastic Container Service (Amazon ECS) cluster. The ECS tasks use the Fargate launch type. The application's data is relational and is stored in Amazon Aurora MySQL. To meet regulatory requirements, the application must be able to recover to a separate AWS Region in the event of an application failure. In case of a failure, no data can be lost.

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

A. Provision an Aurora Replica in a different Region. Most Voted

B. Set up AWS DataSync for continuous replication of the data to a different Region.

C. Set up AWS Database Migration Service (AWS DMS) to perform a continuous replication of the data to a different Region.

D. Use Amazon Data Lifecycle Manager (Amazon DLM) to schedule a snapshot every 5 minutes.

Correct Answer: *A*

Community vote distribution

A (100%)

Question #147	Topic 1

A financial services company receives a regular data feed from its credit card servicing partner. Approximately 5,000 records are sent every 15 minutes in plaintext, delivered over HTTPS directly into an Amazon S3 bucket with server-side encryption. This feed contains sensitive credit card primary account number (PAN) data. The company needs to automatically mask the PAN before sending the data to another S3 bucket for additional internal processing. The company also needs to remove and merge specific fields, and then transform the record into JSON format. Additionally, extra feeds are likely to be added in the future, so any design needs to be easily expandable.

Which solutions will meet these requirements?

A. Invoke an AWS Lambda function on file delivery that extracts each record and writes it to an Amazon SQS queue. Invoke another Lambda function when new messages arrive in the SQS queue to process the records, writing the results to a temporary location in Amazon S3. Invoke a final Lambda function once the SQS queue is empty to transform the records into JSON format and send the results to another S3 bucket for internal processing.

B. Invoke an AWS Lambda function on file delivery that extracts each record and writes it to an Amazon SQS queue. Configure an AWS Fargate container application to automatically scale to a single instance when the SQS queue contains messages. Have the application process each record, and transform the record into JSON format. When the queue is empty, send the results to another S3 bucket for internal processing and scale down the AWS Fargate instance.

C. Create an AWS Glue crawler and custom classifier based on the data feed formats and build a table definition to match. Invoke an AWS Lambda function on file delivery to start an AWS Glue ETL job to transform the entire record according to the processing and transformation requirements. Define the output format as JSON. Once complete, have the ETL job send the results to another S3 bucket for internal processing. Most Voted

D. Create an AWS Glue crawler and custom classifier based upon the data feed formats and build a table definition to match. Perform an Amazon Athena query on file delivery to start an Amazon EMR ETL job to transform the entire record according to the processing and transformation requirements. Define the output format as JSON. Once complete, send the results to another S3 bucket for internal processing and scale down the EMR cluster.

Correct Answer: *C*

Community vote distribution

C (100%)

Question #148   *Topic 1*

A company wants to use AWS to create a business continuity solution in case the company's main on-premises application fails. The application runs on physical servers that also run other applications. The on-premises application that the company is planning to migrate uses a MySQL database as a data store. All the company's on-premises applications use operating systems that are compatible with Amazon EC2.

Which solution will achieve the company's goal with the LEAST operational overhead?

    A. Install the AWS Replication Agent on the source servers, including the MySQL servers. Set up replication for all servers. Launch test instances for regular drills. Cut over to the test instances to fail over the workload in the case of a failure event.

    B. Install the AWS Replication Agent on the source servers, including the MySQL servers. Initialize AWS Elastic Disaster Recovery in the target AWS Region. Define the launch settings. Frequently perform failover and fallback from the most recent point in time. `Most Voted`

    C. Create AWS Database Migration Service (AWS DMS) replication servers and a target Amazon Aurora MySQL DB cluster to host the database. Create a DMS replication task to copy the existing data to the target DB cluster. Create a local AWS Schema Conversion Tool (AWS SCT) change data capture (CDC) task to keep the data synchronized. Install the rest of the software on EC2 instances by starting with a compatible base AMI.

    D. Deploy an AWS Storage Gateway Volume Gateway on premises. Mount volumes on all on-premises servers. Install the application and the MySQL database on the new volumes. Take regular snapshots. Install all the software on EC2 Instances by starting with a compatible base AMI. Launch a Volume Gateway on an EC2 instance. Restore the volumes from the latest snapshot. Mount the new volumes on the EC2 instances in the case of a failure event.

Correct Answer: *B*

Community vote distribution

                    B (82%)   C (18%)

Question #149   *Topic 1*

A company is subject to regulatory audits of its financial information. External auditors who use a single AWS account need access to the company's AWS account. A solutions architect must provide the auditors with secure, read-only access to the company's AWS account. The solution must comply with AWS security best practices.

Which solution will meet these requirements?

    A. In the company's AWS account, create resource policies for all resources in the account to grant access to the auditors' AWS account. Assign a unique external ID to the resource policy.

    B. In the company's AWS account, create an IAM role that trusts the auditors' AWS account. Create an IAM policy that has the required permissions. Attach the policy to the role. Assign a unique external ID to the role's trust policy. `Most Voted`

    C. In the company's AWS account, create an IAM user. Attach the required IAM policies to the IAM user. Create API access keys for the IAM user. Share the access keys with the auditors.

    D. In the company's AWS account, create an IAM group that has the required permissions. Create an IAM user in the company's account for each auditor. Add the IAM users to the IAM group.

Correct Answer: *B*

Community vote distribution

                    B (100%)

Question #150   *Topic 1*

A company has a latency-sensitive trading platform that uses Amazon DynamoDB as a storage backend. The company configured the DynamoDB table to use on-demand capacity mode. A solutions architect needs to design a solution to improve the performance of the trading platform. The new solution must ensure high availability for the trading platform.

Which solution will meet these requirements with the LEAST latency?

A. Create a two-node DynamoDB Accelerator (DAX) cluster. Configure an application to read and write data by using DAX.

B. Create a three-node DynamoDB Accelerator (DAX) cluster. Configure an application to read data by using DAX and to write data directly to the DynamoDB table. **Most Voted**

C. Create a three-node DynamoDB Accelerator (DAX) cluster. Configure an application to read data directly from the DynamoDB table and to write data by using DAX.

D. Create a single-node DynamoDB Accelerator (DAX) cluster. Configure an application to read data by using DAX and to write data directly to the DynamoDB table.

Correct Answer: *B*

Community vote distribution

B (92%)   8%

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