

# Amazon-Web-Services

## Exam Questions SCS-C02

AWS Certified Security - Specialty



**NEW QUESTION 1**

An AWS account that is used for development projects has a VPC that contains two subnets. The first subnet is named public-subnet-1 and has the CIDR block 192.168.1.0/24 assigned. The other subnet is named private-subnet-2 and has the CIDR block 192.168.2.0/24 assigned. Each subnet contains Amazon EC2 instances.

Each subnet is currently using the VPC's default network ACL. The security groups that the EC2 instances in these subnets use have rules that allow traffic between each instance where required. Currently, all network traffic flow is working as expected between the EC2 instances that are using these subnets.

A security engineer creates a new network ACL that is named subnet-2-NACL with default entries. The security engineer immediately configures private-subnet-2 to use the new network ACL and makes no other changes to the infrastructure. The security engineer starts to receive reports that the EC2 instances in public-subnet-1 and public-subnet-2 cannot communicate with each other.

Which combination of steps should the security engineer take to allow the EC2 instances that are running in these two subnets to communicate again? (Select TWO.)

- A. Add an outbound allow rule for 192.168.2.0/24 in the VPC's default network ACL.
- B. Add an inbound allow rule for 192.168.2.0/24 in the VPC's default network ACL.
- C. Add an outbound allow rule for 192.168.2.0/24 in subnet-2-NACL.
- D. Add an inbound allow rule for 192.168.1.0/24 in subnet-2-NACL.
- E. Add an outbound allow rule for 192.168.1.0/24 in subnet-2-NACL.

**Answer:** CE

**Explanation:**

The AWS documentation states that you can add an outbound allow rule for 192.168.2.0/24 in

subnet-2-NACL and add an outbound allow rule for 192.168.1.0/24 in subnet-2-NACL. This will allow the EC2 instances that are running in these two subnets to communicate again.

References: : Amazon VPC User Guide

**NEW QUESTION 2**

A security engineer needs to develop a process to investigate and respond to potential security events on a company's Amazon EC2 instances. All the EC2 instances are backed by Amazon Elastic Block Store (Amazon EBS). The company uses AWS Systems Manager to manage all the EC2 instances and has installed Systems Manager Agent (SSM Agent) on all the EC2 instances.

The process that the security engineer is developing must comply with AWS security best practices and must meet the following requirements:

- A compromised EC2 instance's volatile memory and non-volatile memory must be preserved for forensic purposes.
- A compromised EC2 instance's metadata must be updated with corresponding incident ticket information.
- A compromised EC2 instance must remain online during the investigation but must be isolated to prevent the spread of malware.
- Any investigative activity during the collection of volatile data must be captured as part of the process. Which combination of steps should the security engineer take to meet these requirements with the LEAST operational overhead? (Select THREE.)

- A. Gather any relevant metadata for the compromised EC2 instance
- B. Enable termination protection
- C. Isolate the instance by updating the instance's security groups to restrict access
- D. Detach the instance from any Auto Scaling groups that the instance is a member of
- E. Deregister the instance from any Elastic Load Balancing (ELB) resources.
- F. Gather any relevant metadata for the compromised EC2 instance
- G. Enable termination protection
- H. Move the instance to an isolation subnet that denies all source and destination traffic
- I. Associate the instance with the subnet to restrict access
- J. Detach the instance from any Auto Scaling groups that the instance is a member of
- K. Deregister the instance from any Elastic Load Balancing (ELB) resources.
- L. Use Systems Manager Run Command to invoke scripts that collect volatile data.
- M. Establish a Linux SSH or Windows Remote Desktop Protocol (RDP) session to the compromised EC2 instance to invoke scripts that collect volatile data.
- N. Create a snapshot of the compromised EC2 instance's EBS volume for follow-up investigation
- O. Tag the instance with any relevant metadata and incident ticket information.
- P. Create a Systems Manager State Manager association to generate an EBS volume snapshot of the compromised EC2 instance
- Q. Tag the instance with any relevant metadata and incident ticket information.

**Answer:** ACE

**NEW QUESTION 3**

A company is using Amazon Macie, AWS Firewall Manager, Amazon Inspector, and AWS Shield Advanced in its AWS account. The company wants to receive alerts if a DDoS attack occurs against the account.

Which solution will meet this requirement?

- A. Use Macie to detect an active DDoS event
- B. Create Amazon CloudWatch alarms that respond to Macie findings.
- C. Use Amazon Inspector to review resources and to invoke Amazon CloudWatch alarms for any resources that are vulnerable to DDoS attacks.
- D. Create an Amazon CloudWatch alarm that monitors Firewall Manager metrics for an active DDoS event.
- E. Create an Amazon CloudWatch alarm that monitors Shield Advanced metrics for an active DDoS event.

**Answer:** D

**Explanation:**

This answer is correct because AWS Shield Advanced is a service that provides comprehensive protection

against DDoS attacks of any size or duration. It also provides metrics and reports on the DDoS attack vectors, duration, and size. You can create an Amazon CloudWatch alarm that monitors Shield Advanced metrics such as DDoSAttackBitsPerSecond, DDoSAttackPacketsPerSecond, and DDoSAttackRequestsPerSecond to receive alerts if a DDoS attack occurs against your account.

For more information, see Monitoring AWS Shield Advanced with Amazon CloudWatch and AWS Shield Advanced metrics and alarms.

**NEW QUESTION 4**

A company stores sensitive documents in Amazon S3 by using server-side encryption with an IAM Key Management Service (IAM KMS) CMK. A new requirement mandates that the CMK that is used for these documents can be used only for S3 actions.

Which statement should the company add to the key policy to meet this requirement?

A)

```
{
  "Effect": "Deny",
  "Principal": "*",
  "Action": "kms:*",
  "Resource": "*",
  "Condition": {
    "StringNotEquals": {
      "kms:CallerAccount": "s3.amazonaws.com"
    }
  }
}
```

B)

```
{
  "Effect": "Deny",
  "Principal": "*",
  "Action": "s3:*",
  "Resource": "*",
  "Condition": {
    "StringNotEquals": {
      "kms:ViaService": "kms.*amazonaws.com"
    }
  }
}
```

A. Option A

B. Option B

**Answer:** A

**NEW QUESTION 5**

A company hosts an end user application on AWS. Currently the company deploys the application on Amazon EC2 instances behind an Elastic Load Balancer. The company wants to configure end-to-end encryption between the Elastic Load Balancer and the EC2 instances.

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

- A. Use Amazon issued AWS Certificate Manager (ACM) certificates on the EC2 instances and the Elastic Load Balancer to configure end-to-end encryption.
- B. Import a third-party SSL certificate to AWS Certificate Manager (ACM). Install the third-party certificate on the EC2 instances. Associate the ACM imported third-party certificate with the Elastic Load Balancer.
- C. Deploy AWS CloudHSM. Import a third-party certificate. Configure the EC2 instances and the Elastic Load Balancer to use the CloudHSM imported certificate.
- D. Import a third-party certificate bundle to AWS Certificate Manager (ACM). Install the third-party certificate on the EC2 instances. Associate the ACM imported third-party certificate with the Elastic Load Balancer.

**Answer:** A

**Explanation:**

To configure end-to-end encryption between the Elastic Load Balancer and the EC2 instances with the least operational effort, the most appropriate solution would be to use Amazon issued AWS Certificate Manager (ACM) certificates on the EC2 instances and the Elastic Load Balancer to configure end-to-end encryption.

AWS Certificate Manager - Amazon Web Services : Elastic Load Balancing - Amazon Web

Services : Amazon Elastic Compute Cloud - Amazon Web Services : AWS Certificate Manager - Amazon Web Services

**NEW QUESTION 6**

Your company has just set up a new central server in a VPC. There is a requirement for other teams who have their servers located in different VPC's in the same region to connect to the central server. Which of the below options is best suited to achieve this requirement.

Please select:

- A. Set up VPC peering between the central server VPC and each of the teams VPCs.
- B. Set up IAM DirectConnect between the central server VPC and each of the teams VPCs.
- C. Set up an IPSec Tunnel between the central server VPC and each of the teams VPCs.
- D. None of the above options will work.

**Answer:** A

**Explanation:**

A VPC peering connection is a networking connection between two VPCs that enables you to route traffic between them using private IPv4 addresses or IPv6 addresses. Instances in either VPC can communicate with each other as if they are within the same network. You can create a VPC peering connection between your own VPCs, or with a VPC in another IAM account within a single region.

Options B and C are invalid because you need to use VPC Peering. Option D is invalid because VPC Peering is available.

For more information on VPC Peering please see the below Link:

<http://docs.IAM.amazon.com/AmazonVPC/latest/UserGuide/vpc-peering.html>

The correct answer is: Set up VPC peering between the central server VPC and each of the teams VPCs. Submit your Feedback/Queries to our Experts

**NEW QUESTION 7**

A company developed an application by using AWS Lambda, Amazon S3, Amazon Simple Notification Service (Amazon SNS), and Amazon DynamoDB. An external application puts objects into the company's S3 bucket and tags the objects with date and time. A Lambda function periodically pulls data from the company's S3 bucket based on date and time tags and inserts specific values into a DynamoDB table for further processing. The data includes personally identifiable information (PII). The company must remove data that is older than 30 days from the S3 bucket and the DynamoDB table. Which solution will meet this requirement with the MOST operational efficiency?

- A. Update the Lambda function to add a TTL S3 flag to S3 object
- B. Create an S3 Lifecycle policy to expire objects that are older than 30 days by using the TTL S3 flag.
- C. Create an S3 Lifecycle policy to expire objects that are older than 30 day
- D. Update the Lambda function to add the TTL attribute in the DynamoDB tabl
- E. Enable TTL on the DynamoDB table to expire entires that are older than 30 days based on the TTL attribute.
- F. Create an S3 Lifecycle policy to expire objects that are older than 30 days and to add all prefixes to the S3 bucke
- G. Update the Lambda function to delete entries that are older than 30 days.
- H. Create an S3 Lifecycle policy to expire objects that are older than 30 days by using object tag
- I. Update the Lambda function to delete entries that are older than 30 days.

**Answer: B**

**NEW QUESTION 8**

A company has developed a new Amazon RDS database application. The company must secure the ROS database credentials for encryption in transit and encryption at rest. The company also must rotate the credentials automatically on a regular basis. Which solution meets these requirements?

- A. Use IAM Systems Manager Parameter Store to store the database credentiali
- B. Configure automatic rotation of the credentials.
- C. Use IAM Secrets Manager to store the database credential
- D. Configure automat\* rotation of the credentials
- E. Store the database credentials in an Amazon S3 bucket that is configured with server-side encryption with S3 managed encryption keys (SSE-S3) Rotate the credentials with IAM database authentication.
- F. Store the database credentials m Amazon S3 Glacier, and use S3 Glacier Vault Lock Configure an IAM Lambda function to rotate the credentials on a scheduled bast

**Answer: A**

**NEW QUESTION 9**

An AWS account administrator created an IAM group and applied the following managed policy to require that each individual user authenticate using multi-factor authentication:

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Action": "ec2:*",
      "Resource": "*"
    },
    {
      "Sid": "BlockAnyAccessUnlessSignedInWithMFA",
      "Effect": "Deny",
      "Action": "ec2:*",
      "Resource": "*",
      "Condition": {
        "BoolIfExists": {
          "aws:MultiFactorAuthPresent": false
        }
      }
    }
  ]
}
```

After implementing the policy, the administrator receives reports that users are unable to perform Amazon EC2 commands using the AWS CLI. What should the administrator do to resolve this problem while still enforcing multi-factor authentication?

- A. Change the value of aws:MultiFactorAuthPresent to true.
- B. Instruct users to run the aws sts get-session-token CLI command and pass the multi-factor authentication --serial-number and --token-code parameter
- C. Use these resulting values to make API/CLI calls.
- D. Implement federated API/CLI access using SAML 2.0, then configure the identity provider to enforce multi-factor authentication.
- E. Create a role and enforce multi-factor authentication in the role trust polic
- F. Instruct users to run the sts assume-role CLI command and pass --serial-number and --token-code parameter
- G. Store the resultingvalues in environment variable
- H. Add sts:AssumeRole to NotAction in the policy.

**Answer: B**

**Explanation:**

The correct answer is B. Instruct users to run the aws sts get-session-token CLI command and pass the multi-factor authentication --serial-number and --token-code parameters. Use these resulting values to make API/CLI calls.

According to the AWS documentation<sup>1</sup>, the aws sts get-session-token CLI command returns a set of temporary credentials for an AWS account or IAM user. The



credentials consist of an access key ID, a secret access key, and a security token. These credentials are valid for the specified duration only. The session duration for IAM users can be between 15 minutes and 36 hours, with a default of 12 hours.

You can use the `--serial-number` and `--token-code` parameters to provide the MFA device serial number and the MFA code from the device. The MFA device must be associated with the user who is making the

`get-session-token` call. If you do not provide these parameters when your IAM user or role has a policy that requires MFA, you will receive an Access Denied error. The temporary security credentials that are returned by the `get-session-token` command can then be used to make subsequent API or CLI calls that require MFA authentication. You can use environment variables or a profile in your AWS CLI configuration file to specify the temporary credentials.

Therefore, this solution will resolve the problem of users being unable to perform EC2 commands using the AWS CLI, while still enforcing MFA.

The other options are incorrect because:

- A. Changing the value of `aws:MultiFactorAuthPresent` to true will not work, because this is a condition key that is evaluated by AWS when a request is made. You cannot set this value manually in your policy or request. You must provide valid MFA information to AWS for this condition key to be true.
- C. Implementing federated API/CLI access using SAML 2.0 may work, but it requires more operational effort than using the `get-session-token` command. You would need to configure a SAML identity provider and trust relationship with AWS, and use a custom SAML client to request temporary credentials from AWS STS. This solution may also introduce additional security risks if the identity provider is compromised.
- D. Creating a role and enforcing MFA in the role trust policy may work, but it also requires more operational effort than using the `get-session-token` command. You would need to create a role for each user or group that needs to perform EC2 commands, and specify a trust policy that requires MFA. You would also need to grant the users permission to assume the role, and instruct them to use the `sts assume-role` command instead of the `get-session-token` command.

References:

1: `get-session-token` — AWS CLI Command Reference

#### NEW QUESTION 10

A Security Architect has been asked to review an existing security architecture and identify why the application servers cannot successfully initiate a connection to the database servers. The following summary describes the architecture:

- \* 1 An Application Load Balancer, an internet gateway, and a NAT gateway are configured in the public subnet
  - \* 2. Database, application, and web servers are configured on three different private subnets.
  - \* 3 The VPC has two route tables: one for the public subnet and one for all other subnets The route table for the public subnet has a 0 0 0 0/0 route to the internet gateway The route table for all other subnets has a 0 0.0.0/0 route to the NAT gateway. All private subnets can route to each other
  - \* 4 Each subnet has a network ACL implemented that limits all inbound and outbound connectivity to only the required ports and protocols
  - \* 5 There are 3 Security Groups (SGs) database application and web Each group limits all inbound and outbound connectivity to the minimum required
- Which of the following accurately reflects the access control mechanisms the Architect should verify?

- A. Outbound SG configuration on database servers Inbound SG configuration on application servers inbound and outbound network ACL configuration on the database subnet Inbound and outbound network ACL configuration on the application server subnet
- B. Inbound SG configuration on database servers Outbound SG configuration on application servers Inbound and outbound network ACL configuration on the database subnet Inbound and outbound network ACL configuration on the application server subnet
- C. Inbound and outbound SG configuration on database servers Inbound and outbound SG configuration on application servers Inbound network ACL configuration on the database subnet Outbound network ACL configuration on the application server subnet
- D. Inbound SG configuration on database servers Outbound SG configuration on application servers Inbound network ACL configuration on the database subnet Outbound network ACL configuration on the application server subnet.

**Answer:** A

#### Explanation:

this is the accurate reflection of the access control mechanisms that the Architect should verify. Access control mechanisms are methods that regulate who can access what resources and how. Security groups and network ACLs are two types of access control mechanisms that can be applied to EC2 instances and subnets. Security groups are stateful, meaning they remember and return traffic that was previously allowed. Network ACLs are stateless, meaning they do not remember or return traffic that was previously allowed. Security groups and network ACLs can have inbound and outbound rules that specify the source, destination, protocol, and port of the traffic. By verifying the outbound security group configuration on database servers, the inbound security group configuration on application servers, and the inbound and outbound network ACL configuration on both the database and application server subnets, the Architect can check if there are any misconfigurations or conflicts that prevent the application servers from initiating a connection to the database servers. The other options are either inaccurate or incomplete for verifying the access control mechanisms.

#### NEW QUESTION 10

A web application gives users the ability to log in verify their membership's validity and browse artifacts that are stored in an Amazon S3 bucket. When a user attempts to download an object, the application must verify the permission to access the object and allow the user to download the object from a custom domain name such as example.com.

What is the MOST secure way for a security engineer to implement this functionality?

- A. Configure read-only access to the object by using a bucket AC
- B. Remove the access after a set time has elapsed.
- C. Implement an IAM policy to give the user read access to the S3 bucket.
- D. Create an S3 presigned URL Provide the S3 presigned URL to the user through the application.
- E. Create an Amazon CloudFront signed UR
- F. Provide the CloudFront signed URL to the user through the application.

**Answer:** D

#### Explanation:

For this scenario you would need to set up static website hosting because a custom domain name is listed as a requirement. "Amazon S3 website endpoints do not support HTTPS or access points. If you want to use HTTPS, you can use Amazon CloudFront to serve a static website hosted on Amazon S3." This is not secure. <https://docs.aws.amazon.com/AmazonS3/latest/userguide/website-hosting-custom-domain-walkthrough.html> CloudFront signed URLs allow much more fine-grained control as well as HTTPS access with custom domain names:

<https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/private-content-signed-urls.html>

#### NEW QUESTION 11

A corporation is preparing to acquire several companies. A Security Engineer must design a solution to ensure that newly acquired IAM accounts follow the corporation's security best practices. The solution should monitor each Amazon S3 bucket for unrestricted public write access and use IAM managed services. What should the Security Engineer do to meet these requirements?

- A. Configure Amazon Macie to continuously check the configuration of all S3 buckets.
- B. Enable IAM Config to check the configuration of each S3 bucket.
- C. Set up IAM Systems Manager to monitor S3 bucket policies for public write access.
- D. Configure an Amazon EC2 instance to have an IAM role and a cron job that checks the status of all S3 buckets.

**Answer:** C

**Explanation:**

because this is a solution that can monitor each S3 bucket for unrestricted public write access and use IAM managed services. S3 is a service that provides object storage in the cloud. Systems Manager is a service that helps you automate and manage your AWS resources. You can use Systems Manager to monitor S3 bucket policies for public write access by using a State Manager association that runs a predefined document called AWS-FindS3BucketWithPublicWriteAccess. This document checks each S3 bucket in an account and reports any bucket that has public write access enabled. The other options are either not suitable or not feasible for meeting the requirements.

**NEW QUESTION 13**

A company has several workloads running on AWS. Employees are required to authenticate using on-premises ADFS and SSO to access the AWS Management Console. Developers migrated an existing legacy web application to an Amazon EC2 instance. Employees need to access this application from anywhere on the internet, but currently, there is no authentication system built into the application.

How should the Security Engineer implement employee-only access to this system without changing the application?

- A. Place the application behind an Application Load Balancer (ALB). Use Amazon Cognito as authentication for the AL
- B. Define a SAML-based Amazon Cognito user pool and connect it to ADFS.
- C. Implement AWS SSO in the master account and link it to ADFS as an identity provide
- D. Define the EC2 instance as a managed resource, then apply an IAM policy on the resource.
- E. Define an Amazon Cognito identity pool, then install the connector on the Active Directory serve
- F. Use the Amazon Cognito SDK on the application instance to authenticate the employees using their Active Directory user names and passwords.
- G. Create an AWS Lambda custom authorizer as the authenticator for a reverse proxy on Amazon EC2. Ensure the security group on Amazon EC2 only allows access from the Lambda function.

**Answer:** A

**Explanation:**

<https://docs.aws.amazon.com/elasticloadbalancing/latest/application/listener-authenticate-users.html>

**NEW QUESTION 18**

A company uses SAML federation to grant users access to AWS accounts. A company workload that is in an isolated AWS account runs on immutable infrastructure with no human access to Amazon EC2. The company requires a specialized user known as a break glass user to have access to the workload AWS account and instances in the case of SAML errors. A recent audit discovered that the company did not create the break glass user for the AWS account that contains the workload.

The company must create the break glass user. The company must log any activities of the break glass user and send the logs to a security team.

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

- A. Create a local individual break glass IAM user for the security tea
- B. Create a trail in AWS CloudTrail that has Amazon CloudWatch Logs turned o
- C. Use Amazon EventBridge to monitor local user activities.
- D. Create a break glass EC2 key pair for the AWS accoun
- E. Provide the key pair to the security tea
- F. Use AWS CloudTrail to monitor key pair activit
- G. Send notifications to the security team by using Amazon Simple Notification Service (Amazon SNS).
- H. Create a break glass IAM role for the accoun
- I. Allow security team members to perform the AssumeRoleWithSAML operatio
- J. Create an AWS Cloud Trail trail that has Amazon CloudWatch Logs turned o
- K. Use Amazon EventBridge to monitor security team activities.
- L. Create a local individual break glass IAM user on the operating system level of each workload instance. Configure unrestricted security groups on the instances to grant access to the break glass IAM users.
- M. Configure AWS Systems Manager Session Manager for Amazon EC2. Configure an AWS Cloud Trail filter based on Session Manage
- N. Send the results to an Amazon Simple Notification Service (Amazon SNS) topic.

**Answer:** AE

**Explanation:**

The combination of solutions that will meet the requirements are:

- A. Create a local individual break glass IAM user for the security team. Create a trail in AWS CloudTrail that has Amazon CloudWatch Logs turned on. Use Amazon EventBridge to monitor local user activities. This is a valid solution because it allows the security team to access the workload AWS account and instances using a local IAM user that does not depend on SAML federation. It also enables logging and monitoring of the break glass user activities using AWS CloudTrail, Amazon CloudWatch Logs, and Amazon EventBridge123.
- E. Configure AWS Systems Manager Session Manager for Amazon EC2. Configure an AWS CloudTrail filter based on Session Manager. Send the results to an Amazon Simple Notification Service (Amazon SNS) topic. This is a valid solution because it allows the security team to access the workload instances without opening any inbound ports or managing SSH keys or bastion hosts. It also enables logging and notification of the break glass user activities using AWS CloudTrail, Session Manager, and Amazon SNS456.

The other options are incorrect because:

- B. Creating a break glass EC2 key pair for the AWS account and providing it to the security team is not a valid solution, because it requires opening inbound ports on the instances and managing SSH keys, which increases the security risk and complexity7.
- C. Creating a break glass IAM role for the account and allowing security team members to perform the AssumeRoleWithSAML operation is not a valid solution, because it still depends on SAML federation, which might not work in case of SAML errors8.
- D. Creating a local individual break glass IAM user on the operating system level of each workload instance and configuring unrestricted security groups on the instances to grant access to the break glass IAM users is not a valid solution, because it requires opening inbound ports on the instances and managing multiple local users, which increases the security risk and complexity9.

References:

1: Creating an IAM User in Your AWS Account 2: Creating a Trail - AWS CloudTrail 3: Using Amazon EventBridge with AWS CloudTrail 4: Setting up Session Manager - AWS Systems Manager 5: Logging Session Manager sessions - AWS Systems Manager 6: Amazon Simple Notification Service 7: Connecting to your Linux instance using SSH - Amazon Elastic Compute Cloud 8: AssumeRoleWithSAML - AWS Security Token Service 9: IAM Users - AWS Identity and Access Management

#### NEW QUESTION 22

A company's Chief Security Officer has requested that a Security Analyst review and improve the security posture of each company IAM account. The Security Analyst decides to do this by improving IAM account root user security.

Which actions should the Security Analyst take to meet these requirements? (Select THREE.)

- A. Delete the access keys for the account root user in every account.
- B. Create an admin IAM user with administrative privileges and delete the account root user in every account.
- C. Implement a strong password to help protect account-level access to the IAM Management Console by the account root user.
- D. Enable multi-factor authentication (MFA) on every account root user in all accounts.
- E. Create a custom IAM policy to limit permissions to required actions for the account root user and attach the policy to the account root user.
- F. Attach an IAM role to the account root user to make use of the automated credential rotation in IAM STS.

**Answer:** ADE

#### Explanation:

because these are the actions that can improve IAM account root user security. IAM account root user is a user that has complete access to all AWS resources and services in an account. IAM account root user security is a set of best practices that help protect the account root user from unauthorized or accidental use. Deleting the access keys for the account root user in every account can help prevent programmatic access by the account root user, which reduces the risk of compromise or misuse. Enabling MFA on every account root user in all accounts can help add an extra layer of security for console access by requiring a verification code in addition to a password. Creating a custom IAM policy to limit permissions to required actions for the account root user and attaching the policy to the account root user can help enforce the principle of least privilege and restrict the account root user from performing unnecessary or dangerous actions. The other options are either invalid or ineffective for improving IAM account root user security.

#### NEW QUESTION 24

A security team is developing an application on an Amazon EC2 instance to get objects from an Amazon S3 bucket. All objects in the S3 bucket are encrypted with an AWS Key Management Service (AWS KMS) customer managed key. All network traffic for requests that are made within the VPC is restricted to the AWS infrastructure. This traffic does not traverse the public internet.

The security team is unable to get objects from the S3 bucket. Which factors could cause this issue? (Select THREE.)

- A. The IAM instance profile that is attached to the EC2 instance does not allow the s3:ListBucket action to the S3: bucket in the AWS accounts.
- B. The IAM instance profile that is attached to the EC2 instance does not allow the s3:ListParts action to the S3: bucket in the AWS accounts.
- C. The KMS key policy that encrypts the object in the S3 bucket does not allow the kms:ListKeys action to the EC2 instance profile ARN.
- D. The KMS key policy that encrypts the object in the S3 bucket does not allow the kms:Decrypt action to the EC2 instance profile ARN.
- E. The security group that is attached to the EC2 instance is missing an outbound rule to the S3 managed prefix list over port 443.
- F. The security group that is attached to the EC2 instance is missing an inbound rule from the S3 managed prefix list over port 443.

**Answer:** ADE

#### Explanation:

<https://docs.aws.amazon.com/vpc/latest/userguide/security-group-rules.html>

To get objects from an S3 bucket that are encrypted with a KMS customer managed key, the security team needs to have the following factors in place:

- The IAM instance profile that is attached to the EC2 instance must allow the s3:GetObject action to the S3 bucket or object in the AWS account. This permission is required to read the object from S3. Option A is incorrect because it specifies the s3:ListBucket action, which is only required to list the objects in the bucket, not to get them.
- The KMS key policy that encrypts the object in the S3 bucket must allow the kms:Decrypt action to the EC2 instance profile ARN. This permission is required to decrypt the object using the KMS key. Option D is correct.
- The security group that is attached to the EC2 instance must have an outbound rule to the S3 managed prefix list over port 443. This rule is required to allow HTTPS traffic from the EC2 instance to S3 within the AWS infrastructure. Option E is correct. Option B is incorrect because it specifies the s3:ListParts action, which is only required for multipart uploads, not for getting objects. Option C is incorrect because it specifies the kms:ListKeys action, which is not required for getting objects. Option F is incorrect because it specifies an inbound rule from the S3 managed prefix list, which is not required for getting objects. Verified References:
  - <https://docs.aws.amazon.com/kms/latest/developerguide/control-access.html>
  - <https://docs.aws.amazon.com/vpc/latest/userguide/vpc-endpoints-s3.html>

#### NEW QUESTION 27

An Incident Response team is investigating an IAM access key leak that resulted in Amazon EC2 instances being launched. The company did not discover the incident until many months later. The Director of Information Security wants to implement new controls that will alert when similar incidents happen in the future. Which controls should the company implement to achieve this? (Select TWO.)

- A. Enable VPC Flow Logs in all VPCs. Create a scheduled IAM Lambda function that downloads and parses the logs, and sends an Amazon SNS notification for violations.
- B. Use IAM CloudTrail to make a trail, and apply it to all Regions. Specify an Amazon S3 bucket to receive all the CloudTrail log files.
- C. Add the following bucket policy to the company's IAM CloudTrail bucket to prevent log tampering: {"Version": "2012-10-17", "Statement": [{"Effect": "Deny", "Action": "s3:PutObject", "Principal": "\*", "Resource": "arn:iam:s3:::cloudtrail/IAMLogs/111122223333/\*"}]} Create an Amazon S3 data event for an PutObject attempts, which sends notifications to an Amazon SNS topic.
- D. Create a Security Auditor role with permissions to access Amazon CloudWatch Logs in all Regions. Ship the logs to an Amazon S3 bucket and make a lifecycle policy to ship the logs to Amazon S3 Glacier.
- E. Verify that Amazon GuardDuty is enabled in all Regions, and create an Amazon CloudWatch Events rule for Amazon GuardDuty findings. Add an Amazon SNS topic as the rule's target.

**Answer:** AE



**NEW QUESTION 30**

A company is designing a multi-account structure for its development teams. The company is using AWS Organizations and AWS Single Sign-On (AWS SSO). The company must implement a solution so that the development teams can use only specific AWS Regions and so that each AWS account allows access to only specific AWS services.

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

- A. Use AWS SSO to set up service-linked roles with IAM policy statements that include the Condition, Resource, and NotAction elements to allow access to only the Regions and services that are needed.
- B. Deactivate AWS Security Token Service (AWS STS) in Regions that the developers are not allowed to use.
- C. Create SCPs that include the Condition, Resource, and NotAction elements to allow access to only the Regions and services that are needed.
- D. For each AWS account, create tailored identity-based policies for AWS SS
- E. Use statements that include the Condition, Resource, and NotAction elements to allow access to only the Regions and services that are needed.

**Answer:** C

**Explanation:**

[https://docs.aws.amazon.com/organizations/latest/userguide/orgs\\_manage\\_policies\\_scps\\_syntax.html#scp-eleme](https://docs.aws.amazon.com/organizations/latest/userguide/orgs_manage_policies_scps_syntax.html#scp-eleme)

**NEW QUESTION 32**

A company uses AWS Organizations to manage several AWS accounts. The company processes a large volume of sensitive data. The company uses a serverless approach to microservices. The company stores all the data in either Amazon S3 or Amazon DynamoDB. The company reads the data by using either AWS Lambda functions or container-based services that the company hosts on Amazon Elastic Kubernetes Service (Amazon EKS) on AWS Fargate.

The company must implement a solution to encrypt all the data at rest and enforce least privilege data access controls. The company creates an AWS Key Management Service (AWS KMS) customer managed key.

What should the company do next to meet these requirements?

- A. Create a key policy that allows the kms:Decrypt action only for Amazon S3 and DynamoDB
- B. Create an SCP that denies the creation of S3 buckets and DynamoDB tables that are not encrypted with the key.
- C. Create an IAM policy that denies the kms:Decrypt action for the key
- D. Create a Lambda function that runs on a schedule to attach the policy to any new role
- E. Create an AWS Config rule to send alerts for resources that are not encrypted with the key.
- F. Create a key policy that allows the kms:Decrypt action only for Amazon S3, DynamoDB, Lambda, and Amazon EKS
- G. Create an SCP that denies the creation of S3 buckets and DynamoDB tables that are not encrypted with the key.
- H. Create a key policy that allows the kms:Decrypt action only for Amazon S3, DynamoDB, Lambda, and Amazon EKS
- I. Create an AWS Config rule to send alerts for resources that are not encrypted with the key.

**Answer:** B

**NEW QUESTION 35**

A security engineer must troubleshoot an administrator's inability to make an existing Amazon S3 bucket public in an account that is part of an organization's IAM Organizations. The administrator switched the role from the master account to a member account and then attempted to make one S3 bucket public. This action was immediately denied.

Which actions should the security engineer take to troubleshoot the permissions issue? (Select TWO.)

- A. Review the cross-account role permissions and the S3 bucket policy. Verify that the Amazon S3 block public access option in the member account is deactivated.
- B. Review the role permissions in the master account and ensure it has sufficient privileges to perform S3 operations.
- C. Filter IAM CloudTrail logs for the master account to find the original deny event and update the cross-account role in the member account accordingly. Verify that the Amazon S3 block public access option in the master account is deactivated.
- D. Evaluate the SCPs covering the member account and the permissions boundary of the role in the member account for missing permissions and explicit denies.
- E. Ensure the S3 bucket policy explicitly allows the s3:PutBucketPublicAccess action for the role in the member account.

**Answer:** DE

**Explanation:**

- A is incorrect because reviewing the cross-account role permissions and the S3 bucket policy is not enough to troubleshoot the permissions issue. You also need to verify that the Amazon S3 block public access option in the member account is deactivated, as well as the permissions boundary and the SCPs of the role in the member account.
- D is correct because evaluating the SCPs and the permissions boundary of the role in the member account can help you identify any missing permissions or explicit denies that could prevent the administrator from making the S3 bucket public.
- E is correct because ensuring that the S3 bucket policy explicitly allows the s3:PutBucketPublicAccess action for the role in the member account can help you override any block public access settings that could prevent the administrator from making the S3 bucket public.

**NEW QUESTION 38**

A security engineer is using AWS Organizations and wants to optimize SCPs. The security engineer needs to ensure that the SCPs conform to best practices. Which approach should the security engineer take to meet this requirement?

- A. Use AWS IAM Access Analyzer to analyze the policies.
- B. View the findings from policy validation checks.
- C. Review AWS Trusted Advisor checks for all accounts in the organization.
- D. Set up AWS Audit Manager.
- E. Run an assessment for all AWS Regions for all accounts.
- F. Ensure that Amazon Inspector agents are installed on all Amazon EC2 instances in all accounts.

**Answer:** A

**NEW QUESTION 43**

A company used a lift-and-shift approach to migrate from its on-premises data centers to the AWS Cloud. The company migrated on-premises VMS to Amazon



EC2 instances. Now the company wants to replace some of components that are running on the EC2 instances with managed AWS services that provide similar functionality.

Initially, the company will transition from load balancer software that runs on EC2 instances to AWS Elastic Load Balancers. A security engineer must ensure that after this transition, all the load balancer logs are centralized and searchable for auditing. The security engineer must also ensure that metrics are generated to show which ciphers are in use.

Which solution will meet these requirements?

- A. Create an Amazon CloudWatch Logs log group
- B. Configure the load balancers to send logs to the log group
- C. Use the CloudWatch Logs console to search the log
- D. Create CloudWatch Logs filters on the logs for the required metrics.
- E. Create an Amazon S3 bucket
- F. Configure the load balancers to send logs to the S3 bucket
- G. Use Amazon Athena to search the logs that are in the S3 bucket
- H. Create Amazon CloudWatch filters on the S3 log files for the required metrics.
- I. Create an Amazon S3 bucket
- J. Configure the load balancers to send logs to the S3 bucket
- K. Use Amazon Athena to search the logs that are in the S3 bucket
- L. Create Athena queries for the required metric
- M. Publish the metrics to Amazon CloudWatch.
- N. Create an Amazon CloudWatch Logs log group
- O. Configure the load balancers to send logs to the log group
- P. Use the AWS Management Console to search the log
- Q. Create Amazon Athena queries for the required metric
- R. Publish the metrics to Amazon CloudWatch.

**Answer: C**

**Explanation:**

- > Amazon S3 is a service that provides scalable, durable, and secure object storage. You can use Amazon S3 to store and retrieve any amount of data from anywhere on the web<sup>1</sup>
- > AWS Elastic Load Balancing is a service that distributes incoming application or network traffic across multiple targets, such as EC2 instances, containers, or IP addresses. You can use Elastic Load Balancing to increase the availability and fault tolerance of your applications<sup>2</sup>
- > Elastic Load Balancing supports access logging, which captures detailed information about requests sent to your load balancer. Each log contains information such as the time the request was received, the client's IP address, latencies, request paths, and server responses. You can use access logs to analyze traffic patterns and troubleshoot issues<sup>3</sup>
- > You can configure your load balancer to store access logs in an Amazon S3 bucket that you specify. You can also specify the interval for publishing the logs, which can be 5 or 60 minutes. The logs are stored in a hierarchical folder structure by load balancer name, IP address, year, month, day, and time.
- > Amazon Athena is a service that allows you to analyze data in Amazon S3 using standard SQL. You can use Athena to run ad-hoc queries and get results in seconds. Athena is serverless, so there is no infrastructure to manage and you pay only for the queries that you run.
- > You can use Athena to search the access logs that are stored in your S3 bucket. You can create a table in Athena that maps to your S3 bucket and then run SQL queries on the table. You can also use the Athena console or API to view and download the query results.
- > You can also use Athena to create queries for the required metrics, such as the number of requests per cipher or protocol. You can then publish the metrics to Amazon CloudWatch, which is a service that monitors and manages your AWS resources and applications. You can use CloudWatch to collect and track metrics, create alarms, and automate actions based on the state of your resources.
- > By using this solution, you can meet the requirements of ensuring that all the load balancer logs are centralized and searchable for auditing and that metrics are generated to show which ciphers are in use.

**NEW QUESTION 48**

Your CTO is very worried about the security of your IAM account. How best can you prevent hackers from completely hijacking your account? Please select:

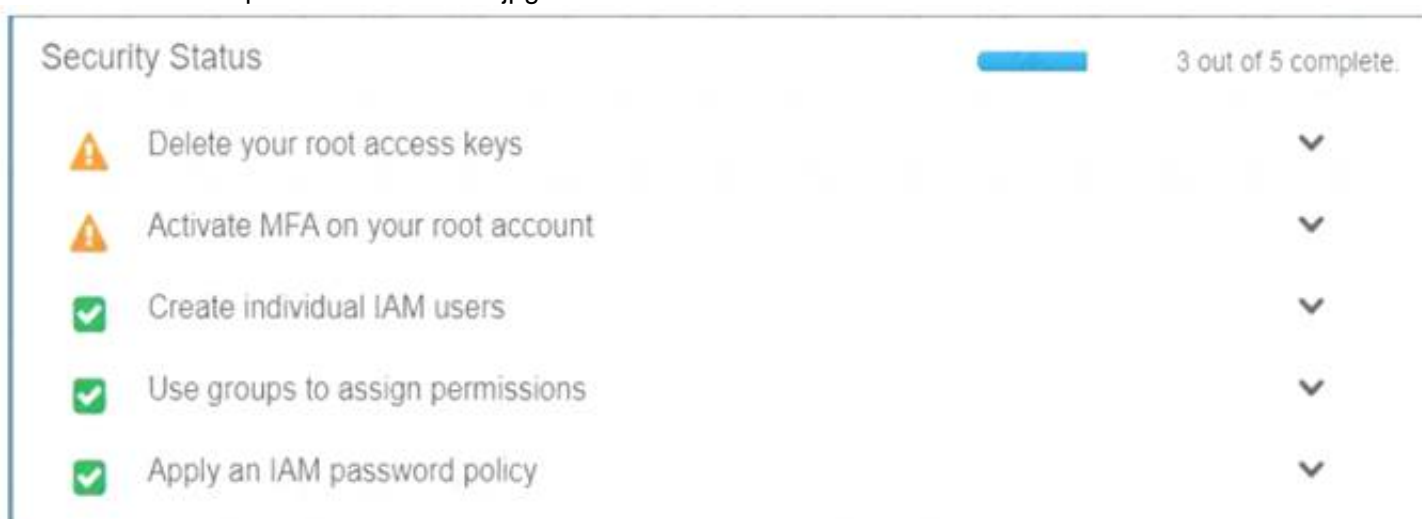
- A. Use short but complex password on the root account and any administrators.
- B. Use IAM Geo-Lock and disallow anyone from logging in except for in your city.
- C. Use MFA on all users and accounts, especially on the root account.
- D. Don't write down or remember the root account password after creating the IAM account.

**Answer: C**

**Explanation:**

Multi-factor authentication can add one more layer of security to your IAM account. Even when you go to your Security Credentials dashboard, one of the items is to enable MFA on your root account.

C:\Users\wk\Desktop\mudassar\Untitled.jpg



Option A is invalid because you need to have a good password policy Option B is invalid because there is no IAM Geo-Lock Option D is invalid because this is not a recommended practices For more information on MFA, please visit the below URL

[http://docs.IAM.amazon.com/IAM/latest/UserGuide/id\\_credentials\\_mfa.html](http://docs.IAM.amazon.com/IAM/latest/UserGuide/id_credentials_mfa.html)

The correct answer is: Use MFA on all users and accounts, especially on the root account. Submit your Feedback/Queries to our Experts

#### NEW QUESTION 53

A security engineer needs to implement a write-once-read-many (WORM) model for data that a company will store in Amazon S3 buckets. The company uses the S3 Standard storage class for all of its S3 buckets. The security engineer must ensure that objects cannot be overwritten or deleted by any user, including the AWS account root user.

Which solution will meet these requirements?

- A. Create new S3 buckets with S3 Object Lock enabled in compliance mode
- B. Place objects in the S3 buckets.
- C. Use S3 Glacier Vault Lock to attach a Vault Lock policy to new S3 bucket
- D. Wait 24 hours to complete the Vault Lock process
- E. Place objects in the S3 buckets.
- F. Create new S3 buckets with S3 Object Lock enabled in governance mode
- G. Place objects in the S3 buckets.
- H. Create new S3 buckets with S3 Object Lock enabled in governance mode
- I. Add a legal hold to the S3 bucket
- J. Place objects in the S3 buckets.

**Answer:** A

#### NEW QUESTION 54

An international company wants to combine AWS Security Hub findings across all the company's AWS Regions and from multiple accounts. In addition, the company

wants to create a centralized custom dashboard to correlate these findings with operational data for deeper analysis and insights. The company needs an analytics tool to search and visualize Security Hub findings. Which combination of steps will meet these requirements? (Select THREE.)

- A. Designate an AWS account as a delegated administrator for Security Hub
- B. Publish events to Amazon CloudWatch from the delegated administrator account, all member accounts, and required Regions that are enabled for Security Hub findings.
- C. Designate an AWS account in an organization in AWS Organizations as a delegated administrator for Security Hub
- D. Publish events to Amazon EventBridge from the delegated administrator account, all member accounts, and required Regions that are enabled for Security Hub findings.
- E. In each Region, create an Amazon EventBridge rule to deliver findings to an Amazon Kinesis data stream
- F. Configure the Kinesis data streams to output the logs to a single Amazon S3 bucket.
- G. In each Region, create an Amazon EventBridge rule to deliver findings to an Amazon Kinesis Data Firehose delivery stream
- H. Configure the Kinesis Data Firehose delivery streams to deliver the logs to a single Amazon S3 bucket.
- I. Use AWS Glue DataBrew to crawl the Amazon S3 bucket and build the schema
- J. Use AWS Glue Data Catalog to query the data and create views to flatten nested attributes
- K. Build Amazon QuickSight dashboards by using Amazon Athena.
- L. Partition the Amazon S3 data
- M. Use AWS Glue to crawl the S3 bucket and build the schema
- N. Use Amazon Athena to query the data and create views to flatten nested attributes
- O. Build Amazon QuickSight dashboards that use the Athena views.

**Answer:** BDF

#### Explanation:

The correct answer is B, D, and F. Designate an AWS account in an organization in AWS Organizations as a delegated administrator for Security Hub. Publish events to Amazon EventBridge from the delegated administrator account, all member accounts, and required Regions that are enabled for Security Hub findings. In each Region, create an Amazon EventBridge rule to deliver findings to an Amazon Kinesis Data Firehose delivery stream. Configure the Kinesis Data Firehose delivery streams to deliver the logs to a single Amazon S3 bucket. Partition the Amazon S3 data. Use AWS Glue to crawl the S3 bucket and build the schema. Use Amazon Athena to query the data and create views to flatten nested attributes. Build Amazon QuickSight dashboards that use the Athena views.

According to the AWS documentation, AWS Security Hub is a service that provides you with a comprehensive view of your security state across your AWS accounts, and helps you check your environment against security standards and best practices. You can use Security Hub to aggregate security findings from various sources, such as AWS services, partner products, or your own applications.

To use Security Hub with multiple AWS accounts and Regions, you need to enable AWS Organizations with all features enabled. This allows you to centrally manage your accounts and apply policies across your organization. You can also use Security Hub as a service principal for AWS Organizations, which lets you designate a delegated administrator account for Security Hub. The delegated administrator account can enable Security Hub automatically in all existing and future accounts in your organization, and can view and manage findings from all accounts.

According to the AWS documentation, Amazon EventBridge is a serverless event bus that makes it easy to connect applications using data from your own applications, integrated software as a service (SaaS) applications, and AWS services. You can use EventBridge to create rules that match events from various sources and route them to targets for processing.

To use EventBridge with Security Hub findings, you need to enable Security Hub as an event source in EventBridge. This will allow you to publish events from Security Hub to EventBridge in the same Region. You can then create EventBridge rules that match Security Hub findings based on criteria such as severity, type, or resource. You can also specify targets for your rules, such as Lambda functions, SNS topics, or Kinesis Data Firehose delivery streams.

According to the AWS documentation, Amazon Kinesis Data Firehose is a fully managed service that delivers real-time streaming data to destinations such as Amazon S3, Amazon Redshift, Amazon Elasticsearch Service (Amazon ES), and Splunk. You can use Kinesis Data Firehose to transform and enrich your data before delivering it to your destination.

To use Kinesis Data Firehose with Security Hub findings, you need to create a Kinesis Data Firehose delivery stream in each Region where you have enabled Security Hub. You can then configure the delivery stream to receive events from EventBridge as a source, and deliver the logs to a single S3 bucket as a destination. You can also enable data transformation or compression on the delivery stream if needed.

According to the AWS documentation, Amazon S3 is an object storage service that offers scalability, data availability, security, and performance. You can use S3 to store and retrieve any amount of data from anywhere on the web. You can also use S3 features such as lifecycle management, encryption, versioning, and replication to optimize your storage.

To use S3 with Security Hub findings, you need to create an S3 bucket that will store the logs from Kinesis Data Firehose delivery streams. You can then partition

the data in the bucket by using prefixes such as account ID or Region. This will improve the performance and cost-effectiveness of querying the data. According to the AWS documentation, AWS Glue is a fully managed extract, transform, and load (ETL) service that makes it easy to prepare and load your data for analytics. You can use Glue to crawl your data sources, identify data formats, and suggest schemas and transformations. You can also use Glue Data Catalog as a central metadata repository for your data assets.

To use Glue with Security Hub findings, you need to create a Glue crawler that will crawl the S3 bucket and build the schema for the data. The crawler will create tables in the Glue Data Catalog that you can query using standard SQL.

According to the AWS documentation, Amazon Athena is an interactive query service that makes it easy to analyze data in Amazon S3 using standard SQL. Athena is serverless, so there is no infrastructure to manage, and you pay only for the queries that you run. You can use Athena with Glue Data Catalog as a metadata store for your tables.

To use Athena with Security Hub findings, you need to create views in Athena that will flatten nested attributes in the data. For example, you can create views that extract fields such as account ID, Region, resource type, resource ID, finding type, finding title, and finding description from the JSON data. You can then query the views using SQL and join them with other tables if needed.

According to the AWS documentation, Amazon QuickSight is a fast, cloud-powered business intelligence service that makes it easy to deliver insights to everyone in your organization. You can use QuickSight to create and publish interactive dashboards that include machine learning insights. You can also use QuickSight to connect to various data sources, such as Athena, S3, or RDS.

To use QuickSight with Security Hub findings, you need to create QuickSight dashboards that use the Athena views as data sources. You can then visualize and analyze the findings using charts, graphs, maps, or tables. You can also apply filters, calculations, or aggregations to the data. You can then share the dashboards with your users or embed them in your applications.

#### NEW QUESTION 55

A security engineer is designing an IAM policy to protect AWS API operations. The policy must enforce multi-factor authentication (MFA) for IAM users to access certain services in the AWS production account. Each session must remain valid for only 2 hours. The current version of the IAM policy is as follows:

```
{
  "Version": "2012-10-17",
  "Statement": [{
    "Effect": "Allow",
    "Action": [
      "ec2:DescribeInstances",
      "ec2:StopInstances",
      "ec2:TerminateInstances"
    ],
    "Resource": ["*"]
  }]
}
```

Which combination of conditions must the security engineer add to the IAM policy to meet these requirements? (Select TWO.)

- A. "Bool" : { "aws : Multi FactorAuthPresent": "true" }
- B. "B001" : { "aws : MultiFactorAuthPresent": "false" }
- C. "NumericLessThan" : { "aws : Multi FactorAuthAge" : "7200" }
- D. "NumericGreaterThan" : { "aws : MultiFactorAuthAge" : "7200" }
- E. "NumericLessThan" : { "MaxSessionDuration" : "7200" }

**Answer:** AC

#### Explanation:

The correct combination of conditions to add to the IAM policy is A and C. These conditions will ensure that IAM users must use MFA to access certain services in the AWS production account, and that each session will expire after 2 hours.

- Option A: "Bool" : { "aws:MultiFactorAuthPresent" : "true" } is a valid condition that checks if the principal (the IAM user) has authenticated with MFA before making the request. This condition will enforce MFA for the IAM users to access the specified services. This condition key is supported by all AWS services that support IAM policies<sup>1</sup>.
- Option B: "Bool" : { "aws:MultiFactorAuthPresent" : "false" } is the opposite of option A. This condition will allow access only if the principal has not authenticated with MFA, which is not the desired requirement. This condition key is supported by all AWS services that support IAM policies<sup>1</sup>.
- Option C: "NumericLessThan" : { "aws:MultiFactorAuthAge" : "7200" } is a valid condition that checks if the time since the principal authenticated with MFA is less than 7200 seconds (2 hours). This condition will enforce the session duration limit for the IAM users. This condition key is supported by all AWS services that support IAM policies<sup>1</sup>.
- Option D: "NumericGreaterThan" : { "aws:MultiFactorAuthAge" : "7200" } is the opposite of option C. This condition will allow access only if the time since the principal authenticated with MFA is more than 7200 seconds (2 hours), which is not the desired requirement. This condition key is supported by all AWS services that support IAM policies<sup>1</sup>.
- Option E: "NumericLessThan" : { "MaxSessionDuration" : "7200" } is not a valid condition key.

MaxSessionDuration is a property of an IAM role, not a condition key. It specifies the maximum session duration (in seconds) for the role, which can be between 3600 and 43200 seconds (1 to 12 hours). This property can be set when creating or modifying a role, but it cannot be used as a condition in a policy<sup>2</sup>.

#### NEW QUESTION 56

Your company is planning on using bastion hosts for administering the servers in IAM. Which of the following is the best description of a bastion host from a security perspective?

Please select:

- A. A Bastion host should be on a private subnet and never a public subnet due to security concerns
- B. A Bastion host sits on the outside of an internal network and is used as a gateway into the private network and is considered the critical strong point of the network



- C. Bastion hosts allow users to log in using RDP or SSH and use that session to SSH into internal network to access private subnet resources.
- D. A Bastion host should maintain extremely tight security and monitoring as it is available to the public

**Answer:** C

**Explanation:**

A bastion host is a special purpose computer on a network specifically designed and configured to withstand attacks. The computer generally hosts a single application, for example a proxy server, and all other services are removed or limited to reduce the threat to the computer.

In IAM, A bastion host is kept on a public subnet. Users log on to the bastion host via SSH or RDP and then use that session to manage other hosts in the private subnets.

Options A and B are invalid because the bastion host needs to sit on the public network. Option D is invalid because bastion hosts are not used for monitoring. For more information on bastion hosts, just browse to the below URL:

<https://docs.IAM.amazon.com/quickstart/latest/linux-bastion/architecture.html>

The correct answer is: Bastion hosts allow users to log in using RDP or SSH and use that session to SSH into internal network to access private subnet resources. Submit your Feedback/Queries to our Experts

**NEW QUESTION 57**

A security team is working on a solution that will use Amazon EventBridge (Amazon CloudWatch Events) to monitor new Amazon S3 objects. The solution will monitor for public access and for changes to any S3 bucket policy or setting that result in public access. The security team configures EventBridge to watch for specific API calls that are logged from AWS CloudTrail. EventBridge has an action to send an email notification through Amazon Simple Notification Service (Amazon SNS) to the security team immediately with details of the API call.

Specifically, the security team wants EventBridge to watch for the s3:PutObjectAcl, s3:DeleteBucketPolicy, and s3:PutBucketPolicy API invocation logs from CloudTrail. While developing the solution in a single account, the security team discovers that the s3:PutObjectAcl API call does not invoke an EventBridge event. However, the s3:DeleteBucketPolicy API call and the s3:PutBucketPolicy API call do invoke an event.

The security team has enabled CloudTrail for AWS management events with a basic configuration in the AWS Region in which EventBridge is being tested.

Verification of the EventBridge event pattern indicates that the pattern is set up correctly. The security team must implement a solution so that the s3:PutObjectAcl API call will invoke an EventBridge event. The solution must not generate false notifications.

Which solution will meet these requirements?

- A. Modify the EventBridge event pattern by selecting Amazon S3. Select All Events as the event type.
- B. Modify the EventBridge event pattern by selecting Amazon S3. Select Bucket Level Operations as the event type.
- C. Enable CloudTrail Insights to identify unusual API activity.
- D. Enable CloudTrail to monitor data events for read and write operations to S3 buckets.

**Answer:** D

**Explanation:**

The correct answer is D. Enable CloudTrail to monitor data events for read and write operations to S3 buckets. According to the AWS documentation<sup>1</sup>, CloudTrail data events are the resource operations performed on or within a resource. These are also known as data plane operations. Data events are often high-volume activities. For example, Amazon S3 object-level API activity (such as GetObject, DeleteObject, and PutObject) is a data event.

By default, trails do not log data events. To record CloudTrail data events, you must explicitly add the supported resources or resource types for which you want to collect activity. For more information, see Logging data events in the Amazon S3 User Guide<sup>2</sup>.

In this case, the security team wants EventBridge to watch for the s3:PutObjectAcl API invocation logs from CloudTrail. This API uses the acl subresource to set the access control list (ACL) permissions for a new or existing object in an S3 bucket<sup>3</sup>. This is a data event that affects the S3 object resource type. Therefore, the security team must enable CloudTrail to monitor data events for read and write operations to S3 buckets in order to invoke an EventBridge event for this API call.

The other options are incorrect because:

- A. Modifying the EventBridge event pattern by selecting Amazon S3 and All Events as the event type will not capture the s3:PutObjectAcl API call, because this is a data event and not a management event. Management events provide information about management operations that are performed on resources in your AWS account. These are also known as control plane operations<sup>4</sup>.
- B. Modifying the EventBridge event pattern by selecting Amazon S3 and Bucket Level Operations as the event type will not capture the s3:PutObjectAcl API call, because this is a data event that affects the S3 object resource type and not the S3 bucket resource type. Bucket level operations are management events that affect the configuration or metadata of an S3 bucket<sup>5</sup>.
- C. Enabling CloudTrail Insights to identify unusual API activity will not help the security team monitor new S3 objects or changes to any S3 bucket policy or setting that result in public access. CloudTrail Insights helps AWS users identify and respond to unusual activity associated with API calls and API error rates by continuously analyzing CloudTrail management events<sup>6</sup>. It does not analyze data events or generate EventBridge events.

References:

1: CloudTrail log event reference - AWS CloudTrail 2: Logging data events - AWS CloudTrail 3: PutObjectAcl - Amazon Simple Storage Service 4: [Logging management events - AWS CloudTrail] 5: [Amazon S3 Event Types - Amazon Simple Storage Service] 6: Logging Insights events for trails - AWS CloudTrail

**NEW QUESTION 59**

A Network Load Balancer (NLB) target instance is not entering the InService state. A security engineer determines that health checks are failing.

Which factors could cause the health check failures? (Select THREE.)

- A. The target instance's security group does not allow traffic from the NLB.
- B. The target instance's security group is not attached to the NLB.
- C. The NLB's security group is not attached to the target instance.
- D. The target instance's subnet network ACL does not allow traffic from the NLB.
- E. The target instance's security group is not using IP addresses to allow traffic from the NLB.
- F. The target network ACL is not attached to the NLB.

**Answer:** ACD

**NEW QUESTION 63**

A company recently had a security audit in which the auditors identified multiple potential threats. These potential threats can cause usage pattern changes such as DNS access peak, abnormal instance traffic, abnormal network interface traffic, and unusual Amazon S3 API calls. The threats can come from different sources and can occur at any time. The company needs to implement a solution to continuously monitor its system and identify all these incoming threats in near-real time. Which solution will meet these requirements?

- A. Enable AWS CloudTrail logs, VPC flow logs, and DNS log

- B. Use Amazon CloudWatch Logs to manage these logs from a centralized account.
- C. Enable AWS CloudTrail logs, VPC flow logs, and DNS log
- D. Use Amazon Macie to monitor these logs from a centralized account.
- E. Enable Amazon GuardDuty from a centralized account
- F. Use GuardDuty to manage AWS CloudTrail logs, VPC flow logs, and DNS logs.
- G. Enable Amazon Inspector from a centralized account
- H. Use Amazon Inspector to manage AWS CloudTrail logs, VPC flow logs, and DNS logs.

**Answer:** C

**Explanation:**

Q: Which data sources does GuardDuty analyze? GuardDuty analyzes CloudTrail management event logs, CloudTrail S3 data event logs, VPC Flow Logs, DNS query logs, and Amazon EKS audit logs. GuardDuty can also scan EBS volume data for possible malware when GuardDuty Malware Protection is enabled and identifies suspicious behavior indicative of malicious software in EC2 instance or container workloads. The service is optimized to consume large data volumes for near real-time processing of security detections. GuardDuty gives you access to built-in detection techniques developed and optimized for the cloud, which are maintained and continuously improved upon by GuardDuty engineering.

**NEW QUESTION 65**

A company is implementing a new application in a new IAM account. A VPC and subnets have been created for the application. The application has been peered to an existing VPC in another account in the same IAM Region for database access. Amazon EC2 instances will regularly be created and terminated in the application VPC, but only some of them will need access to the databases in the peered VPC over TCP port 1521. A security engineer must ensure that only the EC2 instances that need access to the databases can access them through the network. How can the security engineer implement this solution?

- A. Create a new security group in the database VPC and create an inbound rule that allows all traffic from the IP address range of the application VPC
- B. Add a new network ACL rule on the database subnet
- C. Configure the rule to TCP port 1521 from the IP address range of the application VPC
- D. Attach the new security group to the database instances that the application instances need to access.
- E. Create a new security group in the application VPC with an inbound rule that allows the IP address range of the database VPC over TCP port 1521. Create a new security group in the database VPC with an inbound rule that allows the IP address range of the application VPC over port 1521. Attach the new security group to the database instances and the application instances that need database access.
- F. Create a new security group in the application VPC with no inbound rule
- G. Create a new security group in the database VPC with an inbound rule that allows TCP port 1521 from the new application security group in the application VPC
- H. Attach the application security group to the application instances that need database access, and attach the database security group to the database instances.
- I. Create a new security group in the application VPC with an inbound rule that allows the IP address range of the database VPC over TCP port 1521. Add a new network ACL rule on the database subnet
- J. Configure the rule to allow all traffic from the IP address range of the application VPC
- K. Attach the new security group to the application instances that need database access.

**Answer:** C

**NEW QUESTION 69**

To meet regulatory requirements, a Security Engineer needs to implement an IAM policy that restricts the use of AWS services to the us-east-1 Region. What policy should the Engineer implement?

A.

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Action": "*",
      "Resource": "*",
      "Condition": {
        "StringEquals": {
          "aws:RequestedRegion": "us-east-1"
        }
      }
    }
  ]
}
```

B. A computer code with black text Description automatically generated

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Action": "*",
      "Resource": "*",
      "Condition": {
        "StringEquals": {
          "ec2:Region": "us-east-1"
        }
      }
    }
  ]
}
```

C. A computer code with black text Description automatically generated

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Deny",
      "Action": "*",
      "Resource": "*",
      "Condition": {
        "StringNotEquals": {
          "aws:RequestedRegion": "us-east-1"
        }
      }
    }
  ]
}
```

D. A computer code with text Description automatically generated

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Deny",
      "NotAction": "*",
      "Resource": "*",
      "Condition": {
        "StringEquals": {
          "aws:RequestedRegion": "us-east-1"
        }
      }
    }
  ]
}
```

**Answer: C**

**Explanation:**

[https://docs.aws.amazon.com/IAM/latest/UserGuide/reference\\_policies\\_examples\\_aws\\_deny-requested-region.h](https://docs.aws.amazon.com/IAM/latest/UserGuide/reference_policies_examples_aws_deny-requested-region.h)

#### NEW QUESTION 74

A developer is building a serverless application hosted on AWS that uses Amazon Redshift as a data store. The application has separate modules for read/write and read-only functionality. The modules need their own database users for compliance reasons.

Which combination of steps should a security engineer implement to grant appropriate access? (Select TWO.)

- A. Configure cluster security groups for each application module to control access to database users that are required for read-only and read/write
- B. Configure a VPC endpoint for Amazon Redshift. Configure an endpoint policy that maps database users to each application module, and allow access to the tables that are required for read-only and read/write
- C. Configure an IAM policy for each module. Specify the ARN of an Amazon Redshift database user that allows the `GetClusterCredentials` API call
- D. Create local database users for each module
- E. Configure an IAM policy for each module. Specify the ARN of an IAM user that allows the `GetClusterCredentials` API call



**Answer:** A

**Explanation:**

To grant appropriate access to separate modules for read-write and read-only functionality in a serverless application hosted on AWS that uses Amazon Redshift as a data store, a security engineer should configure cluster security groups for each application module to control access to database users that are required for read-only and readwrite, and configure an IAM policy for each module specifying the ARN of an IAM user that allows the GetClusterCredentials API call.

References: : Amazon Redshift - Amazon Web Services : Amazon Redshift - Amazon Web Services : Identity and Access Management - AWS Management Console : AWS Identity and Access Management - AWS Management Console

**NEW QUESTION 76**

A company wants to remove all SSH keys permanently from a specific subset of its Amazon Linux 2 Amazon EC2 instances that are using the same 1AM instance profile. However, three individuals who have IAM user accounts will need to access these instances by using an SSH session to perform critical duties. How can a security engineer provide the access to meet these requirements'?

- A. Assign an 1AM policy to the instance profile to allow the EC2 instances to be managed by AWS Systems Manager. Provide the 1AM user accounts with permission to use Systems Manager. Remove the SSH keys from the EC2 instances. Use Systems Manager Inventory to select the EC2 instance and connect.
- B. Assign an 1AM policy to the 1AM user accounts to provide permission to use AWS Systems Manager Run Command. Remove the SSH keys from the EC2 instances. Use Run Command to open an SSH connection to the EC2 instance.
- C. Assign an 1AM policy to the instance profile to allow the EC2 instances to be managed by AWS Systems Manager. Provide the 1AM user accounts with permission to use Systems Manager. Remove the SSH keys from the EC2 instances. Use Systems Manager Session Manager to select the EC2 instance and connect.
- D. Assign an 1AM policy to the 1AM user accounts to provide permission to use the EC2 service in the AWS Management Console. Remove the SSH keys from the EC2 instances. Connect to the EC2 instance as the ec2-user through the AWS Management Console's EC2 SSH client method.

**Answer:** C

**Explanation:**

To provide access to the three individuals who have IAM user accounts to access the Amazon Linux 2 Amazon EC2 instances that are using the same IAM instance profile, the most appropriate solution would be to assign an IAM policy to the instance profile to allow the EC2 instances to be managed by AWS Systems Manager, provide the IAM user accounts with permission to use Systems Manager, remove the SSH keys from the EC2 instances, and use Systems Manager Session Manager to select the EC2 instance and connect.

References: : AWS Systems Manager Session Manager - AWS Systems Manager : AWS Systems Manager - AWS Management Console : AWS Identity and Access Management - AWS Management Console : Amazon Elastic Compute Cloud - Amazon Web Services : Amazon Linux 2 - Amazon Web Services : AWS Systems Manager - AWS Management Console : AWS Systems Manager - AWS Management Console : AWS Systems Manager - AWS Management Console

**NEW QUESTION 80**

Your CTO thinks your IAM account was hacked. What is the only way to know for certain if there was unauthorized access and what they did, assuming your hackers are very sophisticated IAM engineers and doing everything they can to cover their tracks? Please select:

- A. Use CloudTrail Log File Integrity Validation.
- B. Use IAM Config SNS Subscriptions and process events in real time.
- C. Use CloudTrail backed up to IAM S3 and Glacier.
- D. Use IAM Config Timeline forensics.

**Answer:** A

**Explanation:**

The IAM Documentation mentions the following:

To determine whether a log file was modified, deleted, or unchanged after CloudTrail delivered it, you can use CloudTrail log file integrity validation. This feature is built using industry standard algorithms: SHA-256 for hashing and SHA-256 with RSA for digital signing. This makes it computationally infeasible to modify, delete, or forge CloudTrail log files without detection. You can use the IAM CLI to validate the files in the location where CloudTrail delivered them.

Validated log files are invaluable in security and forensic investigations. For example, a validated log file enables you to assert positively that the log file itself has not changed, or that particular user credentials performed specific API activity. The CloudTrail log file integrity validation process also lets you know if a log file has been deleted or changed, or assert positively that no log files were delivered to your account during a given period of time.

Options B, C, and D are invalid because you need to check for log file integrity validation for CloudTrail logs. For more information on CloudTrail log file validation, please visit the below URL: <http://docs.IAM.amazon.com/IAMcloudtrail/latest/userguide/cloudtrail-log-file-validation-intro.html>

The correct answer is: Use CloudTrail Log File Integrity Validation. omit your Feedback/Queries to our Expert

**NEW QUESTION 84**

A company uses AWS Organizations and has production workloads across multiple AWS accounts. A security engineer needs to design a solution that will proactively monitor for suspicious behavior across all the accounts that contain production workloads.

The solution must automate remediation of incidents across the production accounts. The solution also must publish a notification to an Amazon Simple Notification Service (Amazon SNS) topic when a critical security finding is detected. In addition, the solution must send all security incident logs to a dedicated account.

Which solution will meet these requirements?

- A. Activate Amazon GuardDuty in each production account.
- B. In a dedicated logging account.
- C. aggregate all GuardDuty logs from each production account.
- D. Remediate incidents by configuring GuardDuty to directly invoke an AWS Lambda function.
- E. Configure the Lambda function to also publish notifications to the SNS topic.
- F. Activate AWS security Hub in each production account.
- G. In a dedicated logging account.
- H. aggregate all security Hub findings from each production account.
- I. Remediate incidents by using AWS Config and AWS Systems Manager.
- J. Configure Systems Manager to also publish notifications to the SNS topic.
- K. Activate Amazon GuardDuty in each production account.
- L. In a dedicated logging account.

- M. aggregate all GuardDuty logs from each production account Remediate incidents by using Amazon EventBridge to invoke a custom AWS Lambda function from the GuardDuty finding
- N. Configure the Lambda function to also publish notifications to the SNS topic.
- O. Activate AWS Security Hub in each production account
- P. In a dedicated logging account
- Q. aggregate all Security Hub findings from each production account
- R. Remediate incidents by using Amazon EventBridge to invoke a custom AWS Lambda function from the Security Hub finding
- S. Configure the Lambda function to also publish notifications to the SNS topic.

**Answer: D**

**Explanation:**

The correct answer is D.

To design a solution that will proactively monitor for suspicious behavior across all the accounts that contain production workloads, the security engineer needs to use a service that can aggregate and analyze security findings from multiple sources. AWS Security Hub is a service that provides a comprehensive view of your security posture across your AWS accounts and enables you to check your environment against security standards and best practices. Security Hub also integrates with other AWS services, such as Amazon GuardDuty, AWS Config, and AWS Systems Manager, to collect and correlate security findings.

To automate remediation of incidents across the production accounts, the security engineer needs to use a service that can trigger actions based on events.

Amazon EventBridge is a serverless event bus service that allows you to connect your applications with data from a variety of sources. EventBridge can use rules to match events and route them to targets for processing. You can use EventBridge to invoke a custom AWS Lambda function from the Security Hub findings.

Lambda is a serverless compute service that lets you run code without provisioning or managing servers.

To publish a notification to an Amazon SNS topic when a critical security finding is detected, the security engineer needs to use a service that can send messages to subscribers. Amazon SNS is a fully managed messaging service that enables you to decouple and scale microservices, distributed systems, and serverless applications. SNS can deliver messages to a variety of endpoints, such as email, SMS, or HTTP. You can configure the Lambda function to also publish notifications to the SNS topic.

To send all security incident logs to a dedicated account, the security engineer needs to use a service that can aggregate and store log data from multiple sources. AWS Security Hub allows you to aggregate security findings from multiple accounts into a single account using the delegated administrator feature. This feature enables you to designate an AWS account as the administrator for Security Hub in an organization. The administrator account can then view and manage Security Hub findings from all member accounts.

Therefore, option D is correct because it meets all the requirements of the solution. Option A is incorrect because GuardDuty does not provide a comprehensive view of your security posture across your AWS accounts. GuardDuty is primarily a threat detection service that monitors for malicious or unauthorized behavior. Option B is incorrect because Config and Systems Manager are not designed to automate remediation of incidents based on Security Hub findings. Config is a service that enables you to assess, audit, and evaluate the configurations of your AWS resources, while Systems Manager is a service that allows you to manage your infrastructure on AWS at scale. Option C is incorrect because GuardDuty does not provide a comprehensive view of your security posture across your AWS accounts.

References:

- AWS Security Hub
- Amazon EventBridge
- AWS Lambda
- Amazon SNS
- Aggregating Security Hub findings across accounts

**NEW QUESTION 87**

A startup company is using a single AWS account that has resources in a single AWS Region. A security engineer configures an AWS Cloud Trail trail in the same Region to deliver log files to an Amazon S3 bucket by using the AWS CLI.

Because of expansion, the company adds resources in multiple Regions. The security engineer notices that the logs from the new Regions are not reaching the S3 bucket.

What should the security engineer do to fix this issue with the LEAST amount of operational overhead?

- A. Create a new CloudTrail trail
- B. Select the new Regions where the company added resources.
- C. Change the S3 bucket to receive notifications to track all actions from all Regions.
- D. Create a new CloudTrail trail that applies to all Regions.
- E. Change the existing CloudTrail trail so that it applies to all Regions.

**Answer: D**

**Explanation:**

The correct answer is D. Change the existing CloudTrail trail so that it applies to all Regions.

According to the AWS documentation<sup>1</sup>, you can configure CloudTrail to deliver log files from multiple Regions to a single S3 bucket for a single account. To change an existing single-Region trail to log in all Regions, you must use the AWS CLI and add the `--is-multi-region-trail` option to the `update-trail` command<sup>2</sup>. This will ensure that you log global service events and capture all management event activity in your account.

Option A is incorrect because creating a new CloudTrail trail for each Region will incur additional costs and increase operational overhead. Option B is incorrect because changing the S3 bucket to receive notifications will not affect the delivery of log files from other Regions. Option C is incorrect because creating a new CloudTrail trail that applies to all Regions will result in duplicate log files for the original Region and also incur additional costs.

**NEW QUESTION 92**

A security engineer is defining the controls required to protect the IAM account root user credentials in an IAM Organizations hierarchy. The controls should also limit the impact in case these credentials have been compromised.

Which combination of controls should the security engineer propose? (Select THREE.)

A)

Apply the following SCP:

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Sid": "GRRESTRICTROOTUSER",
      "Effect": "Deny",
      "Action": "*",
      "Resource": [
        "*"
      ],
      "Condition": {
        "StringLike": {
          "aws:PrincipalArn": [
            "arn:aws:iam::*:root"
          ]
        }
      }
    }
  ]
}
```

B)

Apply the following SCP:

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Sid": "GRRESTRICTROOTUSER",
      "Effect": "Deny",
      "Principal" : "arn:aws:iam::*:root"
      "Action": "*",
      "Resource": [
        "*"
      ]
    }
  ]
}
```

C) Enable multi-factor authentication (MFA) for the root user.

D) Set a strong randomized password and store it in a secure location.

E) Create an access key ID and secret access key, and store them in a secure location.

F) Apply the following permissions boundary to the root user:

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Sid": "GRRESTRICTROOTUSER",
      "Effect": "Deny",
      "Action": "*",
      "Resource": [
        "*"
      ],
      "Condition": {
        "StringLike": {
          "aws:PrincipalArn": [
            "arn:aws:iam::*:root"
          ]
        }
      }
    }
  ]
}
```

A. Option A

B. Option B

C. Option C

D. Option D

E. Option E

F. Option F

**Answer: ACE**



**NEW QUESTION 93**

A Security Engineer is troubleshooting an issue with a company's custom logging application. The application logs are written to an Amazon S3 bucket with event notifications enabled to send events to an Amazon SNS topic. All logs are encrypted at rest using an IAM KMS CMK. The SNS topic is subscribed to an encrypted Amazon SQS queue. The logging application polls the queue for new messages that contain metadata about the S3 object. The application then reads the content of the object from the S3 bucket for indexing.

The Logging team reported that Amazon CloudWatch metrics for the number of messages sent or received is showing zero. No logs are being received.

What should the Security Engineer do to troubleshoot this issue?

A) Add the following statement to the IAM managed CMKs:

```
{
  "Sid": "Allow Amazon SNS to use this key",
  "Effect": "Allow",
  "Principal": {
    "Service": ["sns.amazonaws.com", "sqs.amazonaws.com", "s3.amazonaws.com"]
  },
  "Action": [
    "kms:Decrypt",
    "kms:GenerateDataKey*"
  ],
  "Resource": "*"
}
```

B)

Add the following statement to the CMK key policy:

```
{
  "Sid": "Allow Amazon SNS to use this key",
  "Effect": "Allow",
  "Principal": {
    "Service": "sns.amazonaws.com"
  },
  "Action": [
    "kms:Decrypt",
    "kms:GenerateDataKey*"
  ],
  "Resource": "*"
}
```

C)

Add the following statement to the CMK key policy:

```
{
  "Sid": "Allow Amazon SNS to use this key",
  "Effect": "Allow",
  "Principal": {
    "Service": "sqs.amazonaws.com"
  },
  "Action": [
    "kms:Decrypt",
    "kms:GenerateDataKey*"
  ],
  "Resource": "*"
}
```

D)

Add the following statement to the CMK key policy:

```
{
  "Sid": "Allow Amazon SNS to use this key",
  "Effect": "Allow",
  "Principal": {
    "Service": "s3.amazonaws.com"
  },
  "Action": [
    "kms:Decrypt",
    "kms:GenerateDataKey*"
  ],
  "Resource": "*"
}
```

A. Option A

B. Option B

C. Option C

D. Option D

**Answer: D**

**NEW QUESTION 97**

A Security Engineer is building a Java application that is running on Amazon EC2. The application communicates with an Amazon RDS instance and authenticates with a user name and password.

Which combination of steps can the Engineer take to protect the credentials and minimize downtime when the credentials are rotated? (Choose two.)

- A. Have a Database Administrator encrypt the credentials and store the ciphertext in Amazon S3. Grant permission to the instance role associated with the EC2 instance to read the object and decrypt the ciphertext.
- B. Configure a scheduled job that updates the credential in AWS Systems Manager Parameter Store and notifies the Engineer that the application needs to be restarted.
- C. Configure automatic rotation of credentials in AWS Secrets Manager.
- D. Store the credential in an encrypted string parameter in AWS Systems Manager Parameter Store.
- E. Grant permission to the instance role associated with the EC2 instance to access the parameter and the AWS KMS key that is used to encrypt it.
- F. Configure the Java application to catch a connection failure and make a call to AWS Secrets Manager to retrieve updated credentials when the password is rotated.
- G. Grant permission to the instance role associated with the EC2 instance to access Secrets Manager.

**Answer:** CE

**Explanation:**

AWS Secrets Manager is a service that helps you manage, retrieve, and rotate secrets such as database credentials, API keys, and other sensitive information. By configuring automatic rotation of credentials in AWS Secrets Manager, you can ensure that your secrets are changed regularly and securely, without requiring manual intervention or application downtime. You can also specify the rotation frequency and the rotation function that performs the logic of changing the credentials on the database and updating the secret in Secrets Manager<sup>1</sup>.

\* E. Configure the Java application to catch a connection failure and make a call to AWS Secrets Manager to retrieve updated credentials when the password is rotated. Grant permission to the instance role associated with the EC2 instance to access Secrets Manager.

By configuring the Java application to catch a connection failure and make a call to AWS Secrets Manager to retrieve updated credentials, you can avoid hard-coding the credentials in your application code or configuration files. This way, your application can dynamically obtain the latest credentials from Secrets Manager whenever the password is rotated, without needing to restart or redeploy the application. To enable this, you need to grant permission to the instance role associated with the EC2 instance to access Secrets Manager using IAM policies<sup>2</sup>. You can also use the AWS SDK for Java to integrate your application with Secrets Manager<sup>3</sup>.

**NEW QUESTION 100**

A company needs a security engineer to implement a scalable solution for multi-account authentication and authorization. The solution should not introduce additional user-managed architectural components. Native IAM features should be used as much as possible. The security engineer has set up IAM Organizations with all features activated and IAM SSO enabled.

Which additional steps should the security engineer take to complete the task?

- A. Use AD Connector to create users and groups for all employees that require access to IAM accounts. Assign AD Connector groups to IAM accounts and link to the IAM roles in accordance with the employees' job functions and access requirements. Instruct employees to access IAM accounts by using the IAM Directory Service user portal.
- B. Use an IAM SSO default directory to create users and groups for all employees that require access to IAM accounts.
- C. Assign groups to IAM accounts and link to permission sets in accordance with the employees' job functions and access requirements.
- D. Instruct employees to access IAM accounts by using the IAM SSO user portal.
- E. Use an IAM SSO default directory to create users and groups for all employees that require access to IAM accounts.
- F. Link IAM SSO groups to the IAM users present in all accounts to inherit existing permissions.
- G. Instruct employees to access IAM accounts by using the IAM SSO user portal.
- H. Use IAM Directory Service for Microsoft Active Directory to create users and groups for all employees that require access to IAM accounts. Enable IAM Management Console access in the created directory and specify IAM SSO as a source of information for integrated accounts and permission sets.
- I. Instruct employees to access IAM accounts by using the IAM Directory Service user portal.

**Answer:** B

**NEW QUESTION 104**

A company purchased a subscription to a third-party cloud security scanning solution that integrates with AWS Security Hub. A security engineer needs to implement a solution that will remediate the findings from the third-party scanning solution automatically. Which solution will meet this requirement?

- A. Set up an Amazon EventBridge rule that reacts to new Security Hub findings.
- B. Configure an AWS Lambda function as the target for the rule to remediate the findings.
- C. Set up a custom action in Security Hub.
- D. Configure the custom action to call AWS Systems Manager Automation runbooks to remediate the findings.
- E. Set up a custom action in Security Hub.
- F. Configure an AWS Lambda function as the target for the custom action to remediate the findings.
- G. Set up AWS Config rules to use AWS Systems Manager Automation runbooks to remediate the findings.

**Answer:** A

**NEW QUESTION 109**

A company is using AWS Organizations to manage multiple accounts. The company needs to allow an IAM user to use a role to access resources that are in another organization's AWS account.

Which combination of steps must the company perform to meet this requirement? (Select TWO.)

- A. Create an identity policy that allows the sts: AssumeRole action in the AWS account that contains the resource.
- B. Attach the identity policy to the IAM user.
- C. Ensure that the sts: AssumeRole action is allowed by the SCPs of the organization that owns the resources that the IAM user needs to access.
- D. Create a role in the AWS account that contains the resource.
- E. Create an entry in the role's trust policy that allows the IAM user to assume the role.
- F. Attach the trust policy to the role.
- G. Establish a trust relationship between the IAM user and the AWS account that contains the resources.
- H. Create a role in the IAM user's AWS account.
- I. Create an identity policy that allows the sts: AssumeRole action.
- J. Attach the identity policy to the role.

**Answer:** BC

**Explanation:**

To allow cross-account access to resources using IAM roles, the following steps are required:

- Create a role in the AWS account that contains the resources (the trusting account) and specify the AWS account that contains the IAM user (the trusted account) as a trusted entity in the role's trust policy. This allows users from the trusted account to assume the role and access resources in the trusting account.
- Ensure that the IAM user has permission to assume the role in their own AWS account. This can be done by creating an identity policy that allows the sts:AssumeRole action and attaching it to the IAM user or their group.
- Ensure that there are no service control policies (SCPs) in the organization that owns the resources that deny or restrict access to the sts:AssumeRole action or the role itself. SCPs are applied to all accounts in an organization and can override any permissions granted by IAM policies.

Verified References:

- <https://repost.aws/knowledge-center/cross-account-access-iam>
- [https://docs.aws.amazon.com/organizations/latest/userguide/orgs\\_manage\\_accounts\\_access.html](https://docs.aws.amazon.com/organizations/latest/userguide/orgs_manage_accounts_access.html)
- [https://docs.aws.amazon.com/IAM/latest/UserGuide/tutorial\\_cross-account-with-roles.html](https://docs.aws.amazon.com/IAM/latest/UserGuide/tutorial_cross-account-with-roles.html)

**NEW QUESTION 112**

A company accidentally deleted the private key for an Amazon Elastic Block Store (Amazon EBS)-backed Amazon EC2 instance. A security engineer needs to regain access to the instance.

Which combination of steps will meet this requirement? (Choose two.)

- A. Stop the instance
- B. Detach the root volum
- C. Generate a new key pair.
- D. Keep the instance runnin
- E. Detach the root volum
- F. Generate a new key pair.
- G. When the volume is detached from the original instance, attach the volume to another instance as a data volum
- H. Modify the authorized\_keys file with a new public ke
- I. Move the volume back to the original instanc
- J. Start the instance.
- K. When the volume is detached from the original instance, attach the volume to another instance as a data volum
- L. Modify the authorized\_keys file with a new private ke
- M. Move the volume back to the original instanc
- N. Start the instance.
- O. When the volume is detached from the original instance, attach the volume to another instance as a data volum
- P. Modify the authorized\_keys file with a new public ke
- Q. Move the volume back to the original instance that is running.

**Answer:** AC

**Explanation:**

If you lose the private key for an EBS-backed instance, you can regain access to your instance. You must stop the instance, detach its root volume and attach it to another instance as a data volume, modify the authorized\_keys file with a new public key, move the volume back to the original instance, and restart the instance.  
<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/TroubleshootingInstancesConnecting.html#replacing>

**NEW QUESTION 113**

The Security Engineer is managing a traditional three-tier web application that is running on Amazon EC2 instances. The application has become the target of increasing numbers of malicious attacks from the Internet.

What steps should the Security Engineer take to check for known vulnerabilities and limit the attack surface? (Choose two.)

- A. Use AWS Certificate Manager to encrypt all traffic between the client and application servers.
- B. Review the application security groups to ensure that only the necessary ports are open.
- C. Use Elastic Load Balancing to offload Secure Sockets Layer encryption.
- D. Use Amazon Inspector to periodically scan the backend instances.
- E. Use AWS Key Management Services to encrypt all the traffic between the client and application servers.

**Answer:** BD

**Explanation:**

The steps that the Security Engineer should take to check for known vulnerabilities and limit the attack surface are:

- B. Review the application security groups to ensure that only the necessary ports are open. This is a good practice to reduce the exposure of the EC2 instances to potential attacks from the Internet. Application security groups are a feature of Azure that allow you to group virtual machines and define network security policies based on those groups<sup>1</sup>.
- D. Use Amazon Inspector to periodically scan the backend instances. This is a service that helps you to identify vulnerabilities and exposures in your EC2 instances and applications. Amazon Inspector can perform automated security assessments based on predefined or custom rules packages<sup>2</sup>.

**NEW QUESTION 117**

A company's Security Team received an email notification from the Amazon EC2 Abuse team that one or more of the company's Amazon EC2 instances may have been compromised

Which combination of actions should the Security team take to respond to (be current modem? (Select TWO.)

- A. Open a support case with the IAM Security team and ask them to remove the malicious code from the affected instance
- B. Respond to the notification and list the actions that have been taken to address the incident
- C. Delete all IAM users and resources in the account
- D. Detach the internet gateway from the VPC remove aft rules that contain 0.0.0.0V0 from the security groups, and create a NACL rule to deny all traffic Inbound from the internet
- E. Delete the identified compromised instances and delete any associated resources that the Security team did not create.

**Answer:** DE



**Explanation:**

these are the recommended actions to take when you receive an abuse notice from AWS8. You should review the abuse notice to see what content or activity was reported and detach the internet gateway from the VPC to isolate the affected instances from the internet. You should also remove any rules that allow inbound traffic from 0.0.0.0/0 from the security groups and create a network access control list (NACL) rule to deny all traffic inbound from the internet. You should then delete the compromised instances and any associated resources that you did not create. The other options are either inappropriate or unnecessary for responding to the abuse notice.

**NEW QUESTION 121**

A company is using AWS Organizations to implement a multi-account strategy. The company does not have on-premises infrastructure. All workloads run on AWS. The company currently has eight member accounts. The company anticipates that it will have no more than 20 AWS accounts total at any time.

The company issues a new security policy that contains the following requirements:

- No AWS account should use a VPC within the AWS account for workloads.
- The company should use a centrally managed VPC that all AWS accounts can access to launch workloads in subnets.
- No AWS account should be able to modify another AWS account's application resources within the centrally managed VPC.
- The centrally managed VPC should reside in an existing AWS account that is named Account-A within an organization.

The company uses an AWS CloudFormation template to create a VPC that contains multiple subnets in Account-A. This template exports the subnet IDs through the CloudFormation Outputs section.

Which solution will complete the security setup to meet these requirements?

- A. Use a CloudFormation template in the member accounts to launch workload
- B. Configure the template to use the Fn::ImportValue function to obtain the subnet ID values.
- C. Use a transit gateway in the VPC within Account-
- D. Configure the member accounts to use the transit gateway to access the subnets in Account-A to launch workloads.
- E. Use AWS Resource Access Manager (AWS RAM) to share Account-A's VPC subnets with the remaining member account
- F. Configure the member accounts to use the shared subnets to launch workloads.
- G. Create a peering connection between Account-A and the remaining member account
- H. Configure the member accounts to use the subnets in Account-A through the VPC peering connection to launch workloads.

**Answer: C**

**Explanation:**

The correct answer is C. Use AWS Resource Access Manager (AWS RAM) to share Account-A's VPC subnets with the remaining member accounts. Configure the member accounts to use the shared subnets to launch workloads.

This answer is correct because AWS RAM is a service that helps you securely share your AWS resources across AWS accounts, within your organization or organizational units (OUs), and with IAM roles and users for supported resource types<sup>1</sup>. One of the supported resource types is VPC subnets<sup>2</sup>, which means you can share the subnets in Account-A's VPC with the other member accounts using AWS RAM. This way, you can meet the requirements of using a centrally managed VPC, avoiding duplicate VPCs in each account, and launching workloads in shared subnets. You can also control the access to the shared subnets by using IAM policies and resource-based policies<sup>3</sup>, which can prevent one account from modifying another account's resources.

The other options are incorrect because:

- A. Using a CloudFormation template in the member accounts to launch workloads and using the Fn::ImportValue function to obtain the subnet ID values is not a solution, because Fn::ImportValue can only import values that have been exported by another stack within the same region<sup>4</sup>. This means that you cannot use Fn::ImportValue to reference the subnet IDs that are exported by Account-A's CloudFormation template, unless all the member accounts are in the same region as Account-A. This option also does not avoid creating duplicate VPCs in each account, which is one of the requirements.
- B. Using a transit gateway in the VPC within Account-A and configuring the member accounts to use the transit gateway to access the subnets in Account-A to launch workloads is not a solution, because a transit gateway does not allow you to launch workloads in another account's subnets. A transit gateway is a network transit hub that enables you to route traffic between your VPCs and on-premises networks<sup>5</sup>, but it does not enable you to share subnets across accounts.
- D. Creating a peering connection between Account-A and the remaining member accounts and configuring the member accounts to use the subnets in Account-A through the VPC peering connection to launch workloads is not a solution, because a VPC peering connection does not allow you to launch workloads in another account's subnets. A VPC peering connection is a networking connection between two VPCs that enables you to route traffic between them privately<sup>6</sup>, but it does not enable you to share subnets across accounts.

References:

1: What is AWS Resource Access Manager? 2: Shareable AWS resources 3: Managing permissions for shared resources 4: Fn::ImportValue 5: What is a transit gateway? 6: What is VPC peering?

**NEW QUESTION 123**

There is a requirement for a company to transfer large amounts of data between IAM and an on-premise location. There is an additional requirement for low latency and high consistency traffic to IAM. Given these requirements how would you design a hybrid architecture? Choose the correct answer from the options below

Please select:

- A. Provision a Direct Connect connection to an IAM region using a Direct Connect partner.
- B. Create a VPN tunnel for private connectivity, which increases network consistency and reduces latency.
- C. Create an iPSec tunnel for private connectivity, which increases network consistency and reduces latency.
- D. Create a VPC peering connection between IAM and the Customer gateway.

**Answer: A**

**Explanation:**

IAM Direct Connect makes it easy to establish a dedicated network connection from your premises to IAM. Using IAM Direct Connect you can establish private connectivity between IAM and your datacenter, office, or colocation environment which in many cases can reduce your network costs, increase bandwidth throughput and provide a more consistent network experience than Internet-based connections.

Options B and C are invalid because these options will not reduce network latency Options D is invalid because this is only used to connect 2 VPC's

For more information on IAM direct connect, just browse to the below URL: <https://IAM.amazon.com/directconnect>

The correct answer is: Provision a Direct Connect connection to an IAM region using a Direct Connect partner. omit your Feedback/Queries to our Experts

**NEW QUESTION 128**

A security engineer is designing an IAM policy for a script that will use the AWS CLI. The script currently assumes an IAM role that is attached to three AWS managed IAM policies: AmazonEC2FullAccess, AmazonDynamoDBFullAccess, and Ama-zonVPCFullAccess.

The security engineer needs to construct a least privilege IAM policy that will replace the AWS managed IAM policies that are attached to this role.

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

- A. In AWS CloudTrail, create a trail for management event
- B. Run the script with the existing AWS managed IAM policies
- C. Use IAM Access Analyzer to generate a new IAM policy that is based on access activity in the trail
- D. Replace the existing AWS managed IAM policies with the generated IAM policy for the role.
- E. Remove the existing AWS managed IAM policies from the role
- F. Attach the IAM Access Analyzer Role Policy Generator to the role
- G. Run the script
- H. Return to IAM Access Analyzer and generate a least privilege IAM policy
- I. Attach the new IAM policy to the role.
- J. Create an account analyzer in IAM Access Analyzer
- K. Create an archive rule that has a filter that checks whether the PrincipalArn value matches the ARN of the role
- L. Run the script
- M. Remove the existing AWS managed IAM policies from the role.
- N. In AWS CloudTrail, create a trail for management event
- O. Remove the existing AWS managed IAM policies from the role
- P. Run the script
- Q. Find the authorization failure in the trail event that is associated with the script
- R. Create a new IAM policy that includes the action and resource that caused the authorization failure
- S. Repeat the process until the script succeeds
- T. Attach the new IAM policy to the role.

**Answer: A**

#### NEW QUESTION 129

A company is using IAM Organizations to develop a multi-account secure networking strategy. The company plans to use separate centrally managed accounts for shared services, auditing, and security inspection. The company plans to provide dozens of additional accounts to application owners for production and development environments.

Company security policy requires that all internet traffic be routed through a centrally managed security inspection layer in the security inspection account. A security engineer must recommend a solution that minimizes administrative overhead and complexity.

Which solution meets these requirements?

- A. Use IAM Control Tower
- B. Modify the default Account Factory networking template to automatically associate new accounts with a centrally managed VPC through a VPC peering connection and to create a default route to the VPC peer in the default route table
- C. Create an SCP that denies the CreateInternetGateway action
- D. Attach the SCP to all accounts except the security inspection account.
- E. Create a centrally managed VPC in the security inspection account
- F. Establish VPC peering connections between the security inspection account and other accounts
- G. Instruct account owners to create default routes in their account route tables that point to the VPC peer
- H. Create an SCP that denies the AttachInternetGateway action
- I. Attach the SCP to all accounts except the security inspection account.
- J. Use IAM Control Tower
- K. Modify the default Account Factory networking template to automatically associate new accounts with a centrally managed transit gateway and to create a default route to the transit gateway in the default route table
- L. Create an SCP that denies the AttachInternetGateway action
- M. Attach the SCP to all accounts except the security inspection account.
- N. Enable IAM Resource Access Manager (IAM RAM) for IAM Organization
- O. Create a shared transit gateway, and make it available by using an IAM RAM resource share
- P. Create an SCP that denies the CreateInternetGateway action
- Q. Attach the SCP to all accounts except the security inspection account
- R. Create routes in the route tables of all accounts that point to the shared transit gateway.

**Answer: C**

#### NEW QUESTION 132

A security engineer needs to configure an Amazon S3 bucket policy to restrict access to an S3 bucket that is named DOC-EXAMPLE-BUCKET. The policy must allow access to only DOC-EXAMPLE-BUCKET from only the following endpoint: vpce-1a2b3c4d. The policy must deny all access to DOC-EXAMPLE-BUCKET if the specified endpoint is not used.

Which bucket policy statement meets these requirements?

- A. A computer code with black text Description automatically generated

```
"Statement": [  
  {  
    "Sid": "Access-to-specific-VPCE-only",  
    "Principal": "*",  
    "Action": "s3:*",  
    "Effect": "Allow",  
    "Resource": ["arn:aws:s3::DOC-EXAMPLE-BUCKET",  
                 "arn:aws:s3::DOC-EXAMPLE-BUCKET/*"],  
    "Condition": {  
      "StringNotEquals": {  
        "aws:sourceVpce": "vpce-1a2b3c4d"  
      }  
    }  
  }  
]
```

B. A computer code with black text Description automatically generated

```
"Statement": [  
  {  
    "Sid": "Access-to-specific-VPCE-only",  
    "Principal": "*",  
    "Action": "s3:*",  
    "Effect": "Deny",  
    "Resource": ["arn:aws:s3::DOC-EXAMPLE-BUCKET",  
                 "arn:aws:s3::DOC-EXAMPLE-BUCKET/*"],  
    "Condition": {  
      "StringNotEquals": {  
        "aws:sourceVpce": "vpce-1a2b3c4d"  
      }  
    }  
  }  
]
```

C. A computer code with black text Description automatically generated

```
"Statement": [  
  {  
    "Sid": "Access-to-specific-VPCE-only",  
    "Principal": "*",  
    "Action": "s3:*",  
    "Effect": "Deny",  
    "Resource": ["arn:aws:s3::DOC-EXAMPLE-BUCKET",  
                 "arn:aws:s3::DOC-EXAMPLE-BUCKET/*"],  
    "Condition": {  
      "StringEquals": {  
        "aws:sourceVpce": "vpce-1a2b3c4d"  
      }  
    }  
  }  
]
```

D. A computer code with black text Description automatically generated

```
"Statement": [  
  {  
    "Sid": "Access-to-specific-VPCE-only",  
    "Principal": "*",  
    "Action": "s3:*",  
    "Effect": "Allow",  
    "Resource": ["arn:aws:s3::DOC-EXAMPLE-BUCKET",  
                 "arn:aws:s3::DOC-EXAMPLE-BUCKET/*"],  
    "Condition": {  
      "StringEquals": {  
        "aws:sourceVpce": "vpce-1a2b3c4d"  
      }  
    }  
  }  
]
```

**Answer: B**

**Explanation:**

<https://docs.aws.amazon.com/AmazonS3/latest/userguide/example-bucket-policies-vpc-endpoint.html>

#### NEW QUESTION 133

A company has enabled Amazon GuardDuty in all AWS Regions as part of its security monitoring strategy. In one of its VPCs, the company hosts an Amazon EC2 instance that works as an FTP server. A high number of clients from multiple locations contact the FTP server. GuardDuty identifies this activity as a brute force attack because of the high number of connections that happen every hour.

The company has flagged the finding as a false positive, but GuardDuty continues to raise the issue. A security engineer must improve the signal-to-noise ratio without compromising the company's visibility of potential anomalous behavior.

Which solution will meet these requirements?

- A. Disable the FTP rule in GuardDuty in the Region where the FTP server is deployed.
- B. Add the FTP server to a trusted IP list



- C. Deploy the list to GuardDuty to stop receiving the notifications.
- D. Create a suppression rule in GuardDuty to filter findings by automatically archiving new findings that match the specified criteria.
- E. Create an AWS Lambda function that has the appropriate permissions to delete the finding whenever a new occurrence is reported.

**Answer:** C

**Explanation:**

"When you create an Amazon GuardDuty filter, you choose specific filter criteria, name the filter and can enable the auto-archiving of findings that the filter matches. This allows you to further tune GuardDuty to your unique environment, without degrading the ability to identify threats. With auto-archive set, all findings are still generated by GuardDuty, so you have a complete and immutable history of all suspicious activity."

**NEW QUESTION 135**

A company uses Amazon API Gateway to present REST APIs to users. An API developer wants to analyze API access patterns without the need to parse the log files.

Which combination of steps will meet these requirements with the LEAST effort? (Select TWO.)

- A. Configure access logging for the required API stage.
- B. Configure an AWS CloudTrail trail destination for API Gateway event
- C. Configure filters on the userIdentity, userAgent, and sourceIPAddress fields.
- D. Configure an Amazon S3 destination for API Gateway log
- E. Run Amazon Athena queries to analyze API access information.
- F. Use Amazon CloudWatch Logs Insights to analyze API access information.
- G. Select the Enable Detailed CloudWatch Metrics option on the required API stage.

**Answer:** CD

**NEW QUESTION 138**

A company is building a data processing application that uses AWS Lambda functions. The application's Lambda functions need to communicate with an Amazon RDS DB instance that is deployed within a VPC in the same AWS account.

Which solution meets these requirements in the MOST secure way?

- A. Configure the DB instance to allow public access. Update the DB instance security group to allow access from the Lambda public address space for the AWS Region.
- B. Deploy the Lambda functions inside the VPC. Attach a network ACL to the Lambda subnet. Provide outbound rule access to the VPC CIDR range only. Update the DB instance security group to allow traffic from 0.0.0.0/0.
- C. Deploy the Lambda functions inside the VPC. Attach a security group to the Lambda functions. Provide outbound rule access to the VPC CIDR range only. Update the DB instance security group to allow traffic from the Lambda security group.
- D. Peer the Lambda default VPC with the VPC that hosts the DB instance to allow direct network access without the need for security groups.

**Answer:** C

**Explanation:**

The AWS documentation states that you can deploy the Lambda functions inside the VPC and attach a security group to the Lambda functions. You can then provide outbound rule access to the VPC CIDR range only and update the DB instance security group to allow traffic from the Lambda security group. This method is the most secure way to meet the requirements.

References: : AWS Lambda Developer Guide

**NEW QUESTION 140**

A company needs a forensic-logging solution for hundreds of applications running in Docker on Amazon EC2. The solution must perform real-time analytics on the logs. The solution must support the replay of messages and must persist the logs.

Which IAM services should be used to meet these requirements? (Select TWO.)

- A. Amazon Athena
- B. Amazon Kinesis
- C. Amazon SQS
- D. Amazon Elasticsearch
- E. Amazon EMR

**Answer:** BD

**Explanation:**

Amazon Kinesis and Amazon Elasticsearch are both suitable for forensic-logging solutions. Amazon Kinesis can collect, process, and analyze streaming data in real time. Amazon Elasticsearch can store, search, and analyze log data using the popular open-source tool Elasticsearch. The other options are not designed for forensic-logging purposes. Amazon Athena is a query service that can analyze data in S3, Amazon SQS is a message queue service that can decouple and scale microservices, and Amazon EMR is a big data platform that can run Apache Spark and Hadoop clusters.

**NEW QUESTION 145**

A company needs to store multiple years of financial records. The company wants to use Amazon S3 to store copies of these documents. The company must implement a solution to prevent the documents from being edited, replaced, or deleted for 7 years after the documents are stored in Amazon S3. The solution must also encrypt the documents at rest.

A security engineer creates a new S3 bucket to store the documents. What should the security engineer do next to meet these requirements?

- A. Configure S3 server-side encryption
- B. Create an S3 bucket policy that has an explicit deny rule for all users for s3:DeleteObject and s3:PutObject API call
- C. Configure S3 Object Lock to use governance mode with a retention period of 7 years.
- D. Configure S3 server-side encryption
- E. Configure S3 Versioning on the S3 bucket
- F. Configure S3 ObjectLock to use compliance mode with a retention period of 7 years.
- G. Configure S3 Versioning

- H. Configure S3 Intelligent-Tiering on the S3 bucket to move the documents to S3 Glacier Deep Archive storag
- I. Use S3 server-side encryption immediatel
- J. Expire the objects after 7 years.
- K. Set up S3 Event Notifications and use S3 server-side encryptio
- L. Configure S3 Event Notifications to target an AWS Lambda function that will review any S3 API call to the S3 bucket and deny the s3:DeleteObject and s3:PutObject API call
- M. Remove the S3 event notification after 7 years.

**Answer: B**

#### NEW QUESTION 150

A company is using AWS Organizations to manage multiple AWS accounts for its hu-man resources, finance, software development, and production departments. All the company's developers are part of the software development AWS account. The company discovers that developers have launched Amazon EC2 instances that were preconfigured with software that the company has not approved for use. The company wants to implement a solution to ensure that developers can launch EC2 instances with only approved software applications and only in the software de-velopment AWS account. Which solution will meet these requirements?

- A. In the software development account, create AMIS of preconfigured instanc-es that include only approved softwar
- B. Include the AMI IDs in the condi-tion section of an AWS CloudFormation template to launch the appropriate AMI based on the AWS Regio
- C. Provide the developers with theCloudFor-mation template to launch EC2 instances in the software development ac-count.
- D. Create an Amazon EventBridge rule that runs when any EC2 RunInstances API event occurs in the software development accoun
- E. Specify AWS Systems Man-ager Run Command as a target of the rul
- F. Configure Run Command to run a script that will install all approved software onto the instances that the developers launch.
- G. Use an AWS Service Catalog portfolio that contains EC2 products with ap-propriate AMIS that include only approved softwar
- H. Grant the developers permission to portfolio access only the Service Catalog to launch a prod-uct in the software development account.
- I. In the management account, create AMIS of preconfigured instances that in-clude only approved softwar
- J. Use AWS CloudFormation StackSets to launch the AMIS across any AWS account in the organizatio
- K. Grant the developers permission to launch the stack sets within the management account.

**Answer: C**

#### NEW QUESTION 155

A company has launched an Amazon EC2 instance with an Amazon Elastic Block Store (Amazon EBS) volume in the us-east-1 Region The volume is encrypted with an AWS Key Management Service (AWS KMS) customer managed key that the company's security team created The security team has created an 1AM key policy and has assigned the policy to the key The security team has also created an 1AM instance profile and has assigned the profile to the instance The EC2 instance will not start and transitions from the pending state to the shutting-down state to the terminated state Which combination of steps should a security engineer take to troubleshoot this issue? (Select TWO )

- A. Verify that the KMS key policy specifies a deny statement that prevents access to the key by using the aws SourceIP condition key Check that the range includes the EC2 instance IP address that is associated with the EBS volume
- B. Verify that the KMS key that is associated with the EBS volume is set to the Symmetric key type
- C. Verify that the KMS key that is associated with the EBS volume is in the Enabled state
- D. Verify that the EC2 role that is associated with the instance profile has the correct 1AM instance policy to launch an EC2 instance with the EBS volume
- E. Verify that the key that is associated with the EBS volume has not expired and needs to be rotated

**Answer: CD**

#### Explanation:

To troubleshoot the issue of an EC2 instance failing to start and transitioning to a terminated state when it has an EBS volume encrypted with an AWS KMS customer managed key, a security engineer should take the following steps:

- \* C. Verify that the KMS key that is associated with the EBS volume is in the Enabled state. If the key is not enabled, it will not function properly and could cause the EC2 instance to fail.
  - \* D. Verify that the EC2 role that is associated with the instance profile has the correct IAM instance policy to launch an EC2 instance with the EBS volume. If the instance does not have the necessary permissions, it may not be able to mount the volume and could cause the instance to fail.
- Therefore, options C and D are the correct answers.

#### NEW QUESTION 159

A development team is using an IAM Key Management Service (IAM KMS) CMK to try to encrypt and decrypt a secure string parameter from IAM Systems Manager Parameter Store. However, the development team receives an error message on each attempt. Which issues that are related to the CMK could be reasons for the error? (Select TWO.)

- A. The CMK that is used in the attempt does not exist.
- B. The CMK that is used in the attempt needs to be rotated.
- C. The CMK that is used in the attempt is using the CMK's key ID instead of the CMK ARN.
- D. The CMK that is used in the attempt is not enabled.
- E. The CMK that is used in the attempt is using an alias.

**Answer: AD**

#### NEW QUESTION 162

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