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
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 3
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 credentiai
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 basts

Answer: A

NEW QUESTION 4
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 documentation1, 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 5
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 verify1?

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 serversInbound and outbound network ACL configuration on the database subnetInbound 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 6
A company uses a third-party identity provider and SAML-based SSO for its AWS accounts. After the third-party identity provider renewed an expired signing certificate, users saw the following message when trying to log in:
Error: Response Signature Invalid (Service: AWSSecurityTokenService; Status Code: 400; Error Code: InvalidIdentityToken)
A security engineer needs to provide a solution that corrects the error and min-imizes operational overhead.
Which solution meets these requirements?

A. Upload the third-party signing certificate's new private key to the AWS identity provider entity defined in AWS Identity and Access Management (IAM) by using the AWS Management Console.
B. Sign the identity provider's metadata file with the new public ke
C. Upload the signature to the AWS identity provider entity defined in AWS Identity and Access Management (IAM) by using the AWS CU.
D. Download the updated SAML metadata file from the identity service provid-e
E. Update the file in the AWS identity provider entity defined in AWS Identity and Access Management (IAM) by using the AWS CLI.
F. Configure the AWS identity provider entity defined in AWS Identity and Ac-cess Management (IAM) to synchronously fetch the new public key by using the AWS Management Console.

Answer: C

Explanation:
This answer is correct because downloading the updated SAML metadata file from the identity service provider ensures that AWS has the latest information about the identity provider, including the new public key. Updating the file in the AWS identity provider entity defined in IAM by using the AWS CLI allows AWS to verify the signature of the SAML assertions sent by the identity provider. This solution also minimizes operational overhead because it can be automated with a script or a cron job.

NEW QUESTION 7
A company uses an Amazon S3 bucket to store reports Management has mandated that all new objects stored in this bucket must be encrypted at rest using server-side encryption with a client-specified IAM Key Management Service (IAM KMS) CMK owned by the same account as the S3 bucket. The IAM account number is 111122223333, and the bucket name Is report bucket. The company's security specialist must write the S3 bucket policy to ensure the mandate can be Implemented
Which statement should the security specialist include in the policy?

A.
```
{
    "Effect": "Deny",
    "Principal": "*",
    "Action": "s3:PutObject",
    "Resource": "arn:aws:s3:::reportbucket/*",
    "Condition": {
        "StringEquals": {
            "s3:x-amz-server-side-encryption": "AES256"
        }
    }
}
```

B.
```
{
    "Effect": "Deny",
    "Principal": "*",
    "Action": "s3:PutObject",
    "Resource": "arn:aws:s3:::reportbucket/*",
    "Condition": {
        "StringNotLike": {
            "s3:x-amz-server-side-encryption-aws-kms-key-id": "arn:aws:kms:*:111122223333:key/*"
        }
    }
}
```

C.
```
{
    "Effect": "Deny",
    "Principal": "*",
    "Action": "s3:PutObject",
    "Resource": "arn:aws:s3:::reportbucket/*",
    "Condition": {
        "StringNotLike": {
            "s3:x-amz-server-side-encryption": "aws:kms"
        }
    }
}
```

D.

```
{
    "Effect": "Deny",
    "Principal": "*",
    "Action": "s3:PutObject",
    "Resource": "arn:aws:s3:::reportbucket/*",
    "Condition": {
        "StringNotLikeIfExists": {
            "s3:x-amz-server-side-encryption-aws-kms-key-id": "arn:aws:kms:*:111122223333:key/*"
        }
    }
}
```

E. Option A
F. Option B
G. Option C
H. Option D

Answer: D

NEW QUESTION 8
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 9
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 10
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 10
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 m 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 13
A company is building an application on AWS that will store sensitive information. The company has a support team with access to the IT infrastructure, including databases. The company's security engineer must introduce measures to protect the sensitive data against any data breach while minimizing management overhead. The credentials must be regularly rotated.
What should the security engineer recommend?

A. Enable Amazon RDS encryption to encrypt the database and snapshot
B. Enable Amazon Elastic Block Store (Amazon EBS) encryption on Amazon EC2 instance
C. Include the database credential in the EC2 user data fiel
D. Use an AWS Lambda function to rotate database credential
E. Set up TLS for the connection to the database.
F. Install a database on an Amazon EC2 instanc
G. Enable third-party disk encryption to encrypt Amazon Elastic Block Store (Amazon EBS) volum
H. Store the database credentials in AWS CloudHSM with automatic rotatio
I. Set up TLS for the connection to the database.
J. Enable Amazon RDS encryption to encrypt the database and snapshot
K. Enable Amazon Elastic Block Store (Amazon EBS) encryption on Amazon EC2 instance
L. Store the database credentials in AWS Secrets Manager with automatic rotatio
M. Set up TLS for the connection to the RDS hosted database.
N. Set up an AWS CloudHSM cluster with AWS Key Management Service (AWS KMS) to store KMS key
O. Set up Amazon RDS encryption using AWS KSM to encrypt the databas
P. Store the database credentials in AWS Systems Manager Parameter Store with automatic rotatio
Q. Set up TLS for the connection to the RDS hosted database.

Answer: C

NEW QUESTION 17
A company has a legacy application that runs on a single Amazon EC2 instance. A security audit shows that the application has been using an IAM access key within its code to access an Amazon S3 bucket that is named DOC-EXAMPLE-BUCKET1 in the same AWS account. This access key pair has the s3:GetObject permission to all objects in only this S3 bucket. The company takes the application offline because the application is not compliant with the company’s security policies for accessing other AWS resources from Amazon EC2.
A security engineer validates that AWS CloudTrail is turned on in all AWS Regions. CloudTrail is sending logs to an S3 bucket that is named DOC-EXAMPLE-

BUCKET2. This S3 bucket is in the same AWS account as DOC-EXAMPLE-BUCKET1. However, CloudTrail has not been configured to send logs to Amazon CloudWatch Logs.
The company wants to know if any objects in DOC-EXAMPLE-BUCKET1 were accessed with the IAM access key in the past 60 days. If any objects were accessed, the company wants to know if any of the objects that are text files (.txt extension) contained personally identifiable information (PII).
Which combination of steps should the security engineer take to gather this information? (Choose two.)

A. Configure Amazon Macie to identify any objects in DOC-EXAMPLE-BUCKET1 that contain PII and that were available to the access key.
B. Use Amazon CloudWatch Logs Insights to identify any objects in DOC-EXAMPLE-BUCKET1 that contain PII and that were available to the access key.
C. Use Amazon OpenSearch Service (Amazon Elasticsearch Service) to query the CloudTrail logs in DOC-EXAMPLE-BUCKET2 for API calls that used the access key to access an object that contained PII.
D. Use Amazon Athena to query the CloudTrail logs in DOC-EXAMPLE-BUCKET2 for any API calls that used the access key to access an object that contained PII.
E. Use AWS Identity and Access Management Access Analyzer to identify any API calls that used the access key to access objects that contained PII in DOC-EXAMPLE-BUCKET1.

Answer: AD

NEW QUESTION 22
A company is attempting to conduct forensic analysis on an Amazon EC2 instance, but the company is unable to connect to the instance by using AWS Systems Manager Session Manager. The company has installed AWS Systems Manager Agent (SSM Agent) on the EC2 instance.
The EC2 instance is in a subnet in a VPC that does not have an internet gateway attached. The company has associated a security group with the EC2 instance. The security group does not have inbound or outbound rules. The subnet's network ACL allows all inbound and outbound traffic.
Which combination of actions will allow the company to conduct forensic analysis on the EC2 instance without compromising forensic data? (Select THREE.)

A. Update the EC2 instance security group to add a rule that allows outbound traffic on port 443 for 0.0.0.0/0.
B. Update the EC2 instance security group to add a rule that allows inbound traffic on port 443 to the VPC's CIDR range.
C. Create an EC2 key pai
D. Associate the key pair with the EC2 instance.
E. Create a VPC interface endpoint for Systems Manager in the VPC where the EC2 instance is located.
F. Attach a security group to the VPC interface endpoin
G. Allow inbound traffic on port 443 to the VPC's CIDR range.
H. Create a VPC interface endpoint for the EC2 instance in the VPC where the EC2 instance is located.

Answer: BCF

NEW QUESTION 25
A company wants to monitor the deletion of AWS Key Management Service (AWS KMS) customer managed keys. A security engineer needs to create an alarm that will notify the company before a KMS key is deleted. The security engineer has configured the integration of AWS CloudTrail with Amazon CloudWatch.
What should the security engineer do next to meet these requirements?

A. Specify the deletion time of the key material during KMS key creatio
B. Create a custom AWS Config rule to assess the key's scheduleddeletio
C. Configure the rule to trigger upon a configuration chang
D. Send a message to an Amazon Simple Notification Service (Amazon SNS) topic if the key is scheduled for deletion.
E. Create an Amazon EventBridge rule to detect KMS API calls of DeleteAlia
F. Create an AWS Lambda function to send an Amazon Simple Notification Service (Amazon SNS) message to the compan
G. Add the Lambda function as the target of the EventBridge rule.
H. Create an Amazon EventBridge rule to detect KMS API calls of DisableKey and ScheduleKeyDeletion.Create an AWS Lambda function to send an Amazon Simple Notification Service (Amazon SNS) message to the compan
I. Add the Lambda function as the target of the EventBridge rule.
J. Create an Amazon Simple Notification Service (Amazon SNS) policy to detect KMS API calls of RevokeGrant and ScheduleKeyDeletion.Create an AWS Lambda function to generate the alarm and send the notification to the compan
K. Add the Lambda function as the target of the SNS policy.

Answer: C

Explanation:
The AWS documentation states that you can create an Amazon EventBridge rule to detect KMS API calls of DisableKey and ScheduleKeyDeletion. You can then create an AWS Lambda function to send an Amazon Simple Notification Service (Amazon SNS) message to the company. You can add the Lambda function as the target of the EventBridge rule. This method will meet the requirements.
References: : AWS KMS Developer Guide

NEW QUESTION 29
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 n 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 m 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 m 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 m 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 31
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 in-stances. 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 grou
B. Configure the load balancers to send logs to the log grou
C. Use the CloudWatch Logs console to search the log
D. Create CloudWatch Logs filters on the logs for the required met-rics.
E. Create an Amazon S3 bucke
F. Configure the load balancers to send logs to the S3 bucke
G. Use Amazon Athena to search the logs that are in the S3 bucke
H. Create Amazon CloudWatch filters on the S3 log files for the re-quired metrics.
I. Create an Amazon S3 bucke
J. Configure the load balancers to send logs to the S3 bucke
K. Use Amazon Athena to search the logs that are in the S3 bucke
L. Create Athena queries for the required metric
M. Publish the metrics to Amazon CloudWatch.
N. Create an Amazon CloudWatch Logs log grou
O. Configure the load balancers to send logs to the log grou
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 web1
- 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 applications2
- 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 issues3
- 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 35
A company created an IAM account for its developers to use for testing and learning purposes Because MM account will be shared among multiple teams of developers, the company wants to restrict the ability to stop and terminate Amazon EC2 instances so that a team can perform these actions only on the instances it owns.
Developers were Instructed to tag al their instances with a Team tag key and use the team name in the tag value One of the first teams to use this account is Business Intelligence A security engineer needs to develop a highly scalable solution for providing developers with access to the appropriate resources within the account The security engineer has already created individual IAM roles for each team.
Which additional configuration steps should the security engineer take to complete the task?

A. For each team, create an AM policy similar to the one that fellows Populate the ec2: ResourceTag/Team condition key with a proper team name Attach resulting policies to the corresponding IAM roles.

```
{
    "Version": "2012-10-17",
    "Statement": [
        {
            "Effect": "Allow",
            "NotAction": [
                "ec2:StopInstances",
                "ec2:TerminateInstances"
            ]
            "Resource": "*"
        },
        {
            "Effect": "Allow",
            "Action": [
                "ec2:StopInstances",
                "ec2:TerminateInstances"
            ],
            "Resource": "*",
            "Condition": {
                "StringEquals": {
                    "ec2:ResourceTag/Team": "BusinessIntelligence"
                }
            }
        }
    ]
}
```

B. For each team create an IAM policy similar to the one that follows Populate the IAM TagKeys/Team condition key with a proper team nam
C. Attach the resuming policies to the corresponding IAM roles.

```
{
    "Version": "2012-10-17",
    "Statement": [
        {
            "Effect": "Allow",
            "NotAction": [
                "ec2:StopInstances",
                "ec2:TerminateInstances"
            ],
            "Resource": "*"
        },
        {
            "Effect": "Allow",
            "Action": [
                "ec2:StopInstances",
                "ec2:TerminateInstances"
            ],
            "Resource": "*",
            "Condition": {
                "ForAnyValue:StringEquals": {
                    "aws:TagKeys/Team": "BusinessIntelligence"
                }
            }
        }
    ]
}
```

D. Tag each IAM role with a Team lag ke
E. and use the team name in the tag valu
F. Create an IAM policy similar to the one that follows, and attach 4 to all the IAM roles used by developers.

```
{
    "Version": "2012-10-17",
    "Statement": [
        {
            "Effect": "Allow",
            "NotAction": [
                "ec2:StopInstances",
                "ec2:TerminateInstances"
            ],
            "Resource": "*"
        },
        {
            "Effect": "Allow",
            "Action": [
                "ec2:StopInstances",
                "ec2:TerminateInstances"
            ],
            "Resource": "*",
            "Condition": {
                "StringEquals": {
                    "ec2:ResourceTag/Team": "${aws:PrincipalTag/Team}"
                }
            }
        }
    ]
}
```

G. Tag each IAM role with the Team key, and use the team name in the tag valu
H. Create an IAM policy similar to the one that follows, and it to all the IAM roles used by developers.

```
{
    "Version": "2012-10-17",
    "Statement": [
        {
            "Effect": "Allow",
            "NotAction": [
                "ec2:StopInstances",
                "ec2:TerminateInstances"
            ],
            "Resource": "*"
        },
        {
            "Effect": "Allow",
            "Action": [
                "ec2:StopInstances",
                "ec2:TerminateInstances"
            ],
            "Resource": "*",
            "Condition": {
                "ForAnyValue:StringEquals": {
                    "aws:TagKeys/Team": "${aws:PrincipalTag/Team}"
                }
            }
        }
    ]
}
```

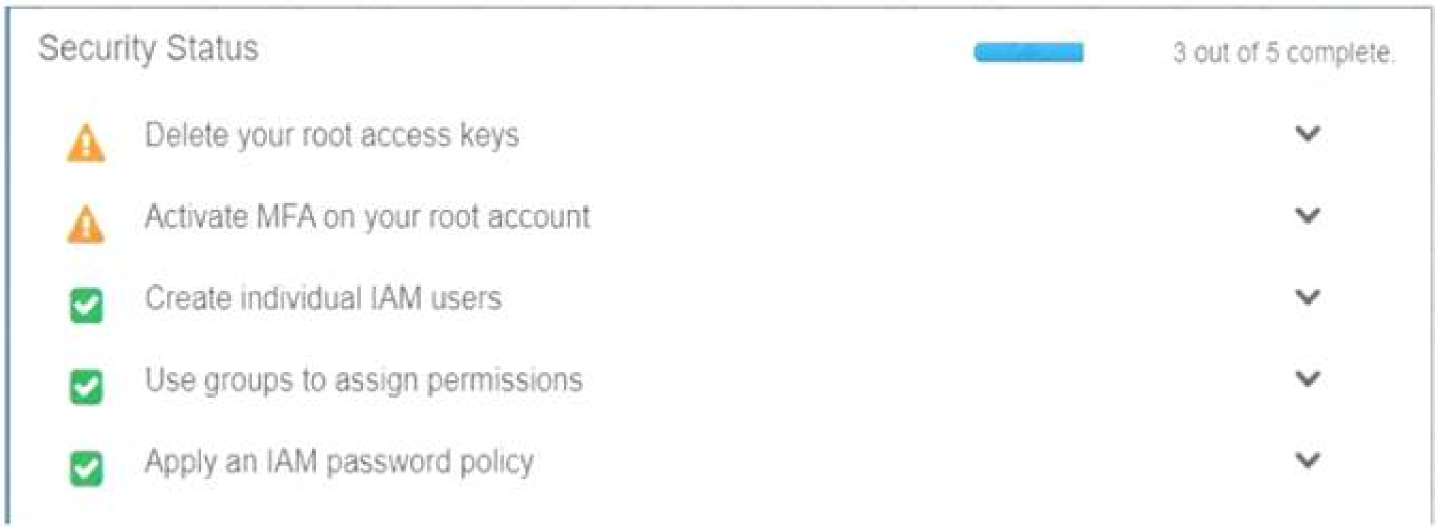
Answer: A

NEW QUESTION 40
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 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.htmll
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 41
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 en-sure 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 mod
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 proces
E. Place objects in the S3 buckets.
F. Create new S3 buckets with S3 Object Lock enabled in governance mod
G. Place objects in the S3 buckets.
H. Create new S3 buckets with S3 Object Lock enabled in governance mod
I. Add a legal hold to the S3 bucket
J. Place objects in the S3 buckets.

Answer: A

NEW QUESTION 42
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 Hu

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 Hu
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 strea
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 strea
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 schem
J. Use AWS Glue Data Catalog to query the data and create views to flatten nested attribute
K. Build Amazon QuickSight dashboards by using Amazon Athena.
L. Partition the Amazon S3 dat
M. Use AWS Glue to crawl the S3 bucket and build the schem
N. Use Amazon Athena to query the data and create views to flatten nested attribute
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 46
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 S5H 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://docsIAM.amazon.com/quickstart/latest/linux-bastion/architecture.htl
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 50
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 documentation1, 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 Guide2.
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 bucket3. 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 operations4.
- 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 bucket5.
- 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 events6. 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 51
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 accoun
F. Use GuardDuty to manage AWS CloudTrail logs, VPC flow logs, and DNS logs.
G. Enable Amazon Inspector from a centralized accoun
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 56
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

NEW QUESTION 61
A security engineer is troubleshooting an AWS Lambda function that is named MyLambdaFunction. The function is encountering an error when the function attempts to read the objects in an Amazon S3 bucket that is named DOC-EXAMPLE-BUCKET. The S3 bucket has the following bucket policy:

```
{
    "Effect": "Allow",
    "Principal": {
        "Service": "lambda.amazonaws.com"
    },
    "Action": "s3:GetObject",
    "Resource": "arn:aws:s3:::DOC-EXAMPLE-BUCKET",
    "Condition": {
        "ArnLike": {
            "aws:SourceArn": "arn:aws:lambda:::function:MyLambdaFunction"
        }
    }
}
```

Which change should the security engineer make to the policy to ensure that the Lambda function can read the bucket objects?

A. Remove the Condition elemen
B. Change the Principal element to the following:{“AWS”: “arn "aws" ::: lambda ::: function:MyLambdaFunction”}
C. Change the Action element to the following: " s3:GetObject*"" s3:GetBucket*"
D. Change the Resource element to "arn:aws:s3:::DOC-EXAMPLE-BUCKET/*".
E. Change the Resource element to "arn:aws:lambda:::function:MyLambdaFunction". Change the Principal element to the following:{“Service”: “s3.amazonaws.com”}

Answer: C

Explanation:
The correct answer is C. Change the Resource element to “arn:aws:s3:::DOC-EXAMPLE-BUCKET/*”.
The reason is that the Resource element in the bucket policy specifies which objects in the bucket are affected by the policy. In this case, the policy only applies to the bucket itself, not the objects inside it. Therefore, the Lambda function cannot access the objects with the s3:GetObject permission. To fix this, the Resource element should include a wildcard (*) to match all objects in the bucket. This way, the policy grants the Lambda function permission to read any object in the bucket.
The other options are incorrect for the following reasons:
- A. Removing the Condition element would not help, because it only restricts access based on the source IP address of the request. The Principal element should not be changed to the Lambda function ARN, because it specifies who is allowed or denied access by the policy. The policy should allow access to any principal ("*") and rely on IAM roles or policies to control access to the Lambda function.
- B. Changing the Action element to include s3:GetBucket* would not help, because it would grant additional permissions that are not needed by the Lambda function, such as s3:GetBucketAcl or s3:GetBucketPolicy. The s3:GetObject* permission is sufficient for reading objects in the bucket.
- D. Changing the Resource element to the Lambda function ARN would not make sense, because it would mean that the policy applies to the Lambda function itself, not the bucket or its objects. The Principal element should not be changed to s3.amazonaws.com, because it would grant access to any AWS service that uses S3, not just Lambda.

NEW QUESTION 66
A company deployed Amazon GuardDuty In the us-east-1 Region. The company wants all DNS logs that relate to the company's Amazon EC2 instances to be

inspected. What should a security engineer do to ensure that the EC2 instances are logged?

A. Use IPv6 addresses that are configured for hostnames.
B. Configure external DNS resolvers as internal resolvers that are visible only to IAM.
C. Use IAM DNS resolvers for all EC2 instances.
D. Configure a third-party DNS resolver with logging for all EC2 instances.

Answer: C

Explanation:
To ensure that the EC2 instances are logged, the security engineer should do the following:
> Use AWS DNS resolvers for all EC2 instances. This allows the security engineer to use
Amazon-provided DNS servers that resolve public DNS hostnames to private IP addresses within their VPC, and that log DNS queries in Amazon CloudWatch Logs.

NEW QUESTION 69
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 is 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 71
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 accoun
B. In a dedicated logging accoun
C. aggregate all GuardDuty logs from each production accoun
D. Remediate incidents by configuring GuardDuty to directly invoke an AWS Lambda functio
E. Configure the Lambda function to also publish notifications to the SNS topic.
F. Activate AWS security Hub in each production accoun
G. In a dedicated logging accoun
H. aggregate all security Hub findings from each production accoun
I. Remediate incidents by ustng AWS Config and AWS Systems Manage
J. Configure Systems Manager to also pub11Sh notifications to the SNS topic.
K. Activate Amazon GuardDuty in each production accoun
L. In a dedicated logging accoun
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 accoun
P. In a dedicated logging accoun
Q. aggregate all Security Hub findings from each production accoun
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 75
A company uses an external identity provider to allow federation into different IAM accounts. A security engineer for the company needs to identify the federated user that terminated a production Amazon EC2 instance a week ago.
What is the FASTEST way for the security engineer to identify the federated user?

A. Review the IAM CloudTrail event history logs in an Amazon S3 bucket and look for the Terminatelnstances event to identify the federated user from the role session name.
B. Filter the IAM CloudTrail event history for the Terminatelnstances event and identify the assumed IAM rol
C. Review the AssumeRoleWithSAML event call in CloudTrail to identify the corresponding username.
D. Search the IAM CloudTrail logs for the Terminatelnstances event and note the event tim
E. Review the IAM Access Advisor tab for all federated role
F. The last accessed time should match the time when the instance was terminated.
G. Use Amazon Athena to run a SQL query on the IAM CloudTrail logs stored in an Amazon S3 bucket and filter on the Terminatelnstances even
H. Identify the corresponding role and run another query to filter the AssumeRoleWithWebldentity event for the user name.

Answer: B

Explanation:
The fastest way to identify the federated user who terminated a production Amazon EC2 instance is to filter the IAM CloudTrail event history for the TerminateInstances event and identify the assumed IAM role. Then, review the AssumeRoleWithSAML event call in CloudTrail to identify the corresponding username. This method does not require any additional tools or queries, and it directly links the IAM role with the federated user.
Option A is incorrect because the role session name may not be the same as the federated user name, and it may not be unique or descriptive enough to identify the user.
Option C is incorrect because the IAM Access Advisor tab only shows when a role was last accessed, not by whom or for what purpose. It also does not show the specific time of access, only the date.
Option D is incorrect because using Amazon Athena to run SQL queries on the IAM CloudTrail logs is not the fastest way to identify the federated user, as it requires creating a table schema and running multiple queries. It also assumes that the federation is done using web identity providers, not SAML providers, as indicated by the AssumeRoleWithWebIdentity event.
References:
- AWS Identity and Access Management
- Logging AWS STS API Calls with AWS CloudTrail
- [Using Amazon Athena to Query S3 Data for CloudTrail Analysis]

NEW QUESTION 76
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 toot 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 81
A Systems Engineer is troubleshooting the connectivity of a test environment that includes a virtual security appliance deployed inline. In addition to using the virtual security appliance, the Development team wants to use security groups and network ACLs to accomplish various security requirements in the environment.
What configuration is necessary to allow the virtual security appliance to route the traffic?

A. Disable network ACLs.
B. Configure the security appliance's elastic network interface for promiscuous mode.
C. Disable the Network Source/Destination check on the security appliance's elastic network interface
D. Place the security appliance in the public subnet with the internet gateway

Answer: C

Explanation:
https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/using-eni.html#eni-basics Source/destination checking "You must disable source/destination checks if the instance runs services such as network address translation, routing, or firewalls."
The correct answer is C. Disable the Network Source/Destination check on the security appliance's elastic network interface.
This answer is correct because disabling the Network Source/Destination check allows the virtual security appliance to route traffic that is not addressed to or from itself. By default, this check is enabled on all EC2 instances, and it prevents them from forwarding traffic that does not match their own IP or MAC addresses. However, for a virtual security appliance that acts as a router or a firewall, this check needs to be disabled, otherwise it will drop the traffic that it is supposed to route12.
The other options are incorrect because:
- A. Disabling network ACLs is not a solution, because network ACLs are optional layers of security for the subnets in a VPC. They can be used to allow or deny traffic based on IP addresses and ports, but they do not affect the routing behavior of the virtual security appliance3.
- B. Configuring the security appliance's elastic network interface for promiscuous mode is not a solution, because promiscuous mode is a mode for a network interface that causes it to pass all traffic it receives to the CPU, rather than passing only the frames that it is programmed to receive. Promiscuous mode is normally used for packet sniffing or monitoring, but it does not enable the network interface to route traffic4.
- D. Placing the security appliance in the public subnet with the internet gateway is not a solution, because it does not address the routing issue of the virtual security appliance. The security appliance can be placed in either a public or a private subnet, depending on the network design and security requirements, but it still needs to have the Network Source/Destination check disabled to route traffic properly5.

References:
1: Enabling or disabling source/destination checks - Amazon Elastic Compute Cloud 2: Virtual security appliance - Wikipedia 3: Network ACLs - Amazon Virtual Private Cloud 4: Promiscuous mode - Wikipedia 5: NAT instances - Amazon Virtual Private Cloud

NEW QUESTION 82
A company needs to follow security best practices to deploy resources from an AWS CloudFormation template. The CloudFormation template must be able to configure sensitive database credentials.
The company already uses AWS Key Management Service (AWS KMS) and AWS Secrets Manager. Which solution will meet the requirements?

A. Use a dynamic reference in the CloudFormation template to reference the database credentials in Secrets Manager.
B. Use a parameter in the CloudFormation template to reference the database credential
C. Encrypt the CloudFormation template by using AWS KMS.
D. Use a SecureString parameter in the CloudFormation template to reference the database credentials in Secrets Manager.
E. Use a SecureString parameter in the CloudFormation template to reference an encrypted value in AWS KMS

Answer: A

Explanation:
- Option A: This option meets the requirements of following security best practices and configuring sensitive database credentials in the CloudFormation template. A dynamic reference is a way to specify external values that are stored and managed in other services, such as Secrets Manager, in the stack templates1. When using a dynamic reference, CloudFormation retrieves the value of the specified reference when necessary during stack and change set operations1. Dynamic references can be used for certain resources that support them, such as AWS::RDS::DBInstance1. By using a dynamic reference to reference the database credentials in Secrets Manager, the company can leverage the existing integration between these services and avoid hardcoding the secret information in the template. Secrets Manager is a service that helps you protect secrets needed to access your applications, services, and IT resources2. Secrets Manager enables you to rotate, manage, and retrieve database credentials, API keys, and other secrets throughout their lifecycle2.

NEW QUESTION 87
A company is using Amazon Elastic Container Service (Amazon ECS) to deploy an application that deals with sensitive data During a recent security audit, the company identified a security issue in which Amazon RDS credentials were stored with the application code In the company's source code repository
A security engineer needs to develop a solution to ensure that database credentials are stored securely and rotated periodically. The credentials should be accessible to the application only The engineer also needs to prevent database administrators from sharing database credentials as plaintext with other teammates. The solution must also minimize administrate overhead
Which solution meets these requirements?

A. Use the IAM Systems Manager Parameter Store to generate database credential
B. Use an IAM profile for ECS tasks to restrict access to database credentials to specific containers only.
C. Use IAM Secrets Manager to store database credential
D. Use an IAM inline policy for ECS tasks to restrict access to database credentials to specific containers only.
E. Use the IAM Systems Manager Parameter Store to store database credential
F. Use IAM roles for ECS tasks to restrict access to database credentials lo specific containers only
G. Use IAM Secrets Manager to store database credential
H. Use IAM roles for ECS tasks to restrict access to database credentials to specific containers only.

Answer: D

Explanation:
To ensure that database credentials are stored securely and rotated periodically, the security engineer should do the following:
- Use AWS Secrets Manager to store database credentials. This allows the security engineer to encrypt and manage secrets centrally, and to configure automatic rotation schedules for them.
- Use IAM roles for ECS tasks to restrict access to database credentials to specific containers only. This allows the security engineer to grant fine-grained

permissions to ECS tasks based on their roles, and to avoid sharing credentials as plaintext with other teammates.

NEW QUESTION 92
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 94
A company has thousands of AWS Lambda functions. While reviewing the Lambda functions, a security engineer discovers that sensitive information is being stored in environment variables and is viewable as plaintext in the Lambda console. The values of the sensitive information are only a few characters long.
What is the MOST cost-effective way to address this security issue?

A. Set up IAM policies from the Lambda console to hide access to the environment variables.
B. Use AWS Step Functions to store the environment variable
C. Access the environment variables at runtim
D. Use IAM permissions to restrict access to the environment variables to only the Lambda functions that require access.
E. Store the environment variables in AWS Secrets Manager, and access them at runtim
F. Use IAM permissions to restrict access to the secrets to only the Lambda functions that require access.
G. Store the environment variables in AWS Systems Manager Parameter Store as secure string parameters, and access them at runtim
H. Use IAM permissions to restrict access to the parameters to only the Lambda functions that require access.

Answer: D

Explanation:
Storing sensitive information in environment variables is not a secure practice, as anyone who has access to the Lambda console or the Lambda function code can view them as plaintext. To address this security issue, the security engineer needs to use a service that can store and encrypt the environment variables, and access them at runtime using IAM permissions. The most cost-effective way to do this is to use AWS Systems Manager Parameter Store, which is a service that provides secure, hierarchical storage for configuration data management and secrets management. Parameter Store allows you to store values as standard parameters (plaintext) or secure string parameters (encrypted). Secure string parameters use a AWS Key Management Service (AWS KMS) customer master key (CMK) to encrypt the parameter value. To access the parameter value at runtime, the Lambda function needs to have IAM permissions to decrypt the parameter using the KMS CMK.
The other options are incorrect because:

- Option A is incorrect because setting up IAM policies from the Lambda console to hide access to the environment variables will not prevent someone who has access to the Lambda function code from viewing them as plaintext. IAM policies can only control who can perform actions on AWS resources, not what they can see in the code or the console.
- Option B is incorrect because using AWS Step Functions to store the environment variables is not a secure or cost-effective solution. AWS Step Functions is a service that lets you coordinate multiple AWS services into serverless workflows. Step Functions does not provide any encryption or secrets management capabilities, and it will incur additional charges for each state transition in the workflow. Moreover, storing environment variables in Step Functions will make them visible in the execution history of the workflow, which can be accessed by anyone who has permission to view the Step Functions console or API.
- Option C is incorrect because storing the environment variables in AWS Secrets Manager and accessing them at runtime is not a cost-effective solution. AWS Secrets Manager is a service that helps you protect secrets needed to access your applications, services, and IT resources. Secrets Manager enables you to rotate, manage, and retrieve secrets throughout their lifecycle. While Secrets Manager can securely store and encrypt environment variables using KMS CMKs, it will incur higher charges than Parameter Store for storing and retrieving secrets. Unless the security engineer needs the advanced features of Secrets Manager, such as automatic rotation of secrets or integration with other AWS services, Parameter Store is a cheaper and simpler option.

NEW QUESTION 97
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 102
An IAM user receives an Access Denied message when the user attempts to access objects in an Amazon S3 bucket. The user and the S3 bucket are in the same AWS account. The S3 bucket is configured to use server-side encryption with AWS KMS keys (SSE-KMS) to encrypt all of its objects at rest by using a customer managed key from the same AWS account. The S3 bucket has no bucket policy defined. The IAM user has been granted permissions through an IAM policy that allows the kms:Decrypt permission to the customer managed key. The IAM policy also allows the s3:List* and s3:Get* permissions for the S3 bucket and its objects.
Which of the following is a possible reason that the IAM user cannot access the objects in the S3 bucket?

A. The IAM policy needs to allow the kms:DescribeKey permission.
B. The S3 bucket has been changed to use the AWS managed key to encrypt objects at rest.
C. An S3 bucket policy needs to be added to allow the IAM user to access the objects.
D. The KMS key policy has been edited to remove the ability for the AWS account to have full access to the key.

Answer: D

Explanation:
The possible reason that the IAM user cannot access the objects in the S3 bucket is D. The KMS key policy has been edited to remove the ability for the AWS account to have full access to the key.
This answer is correct because the KMS key policy is the primary way to control access to the KMS key, and it must explicitly allow the AWS account to have full access to the key. If the KMS key policy has been edited to remove this permission, then the IAM policy that grants kms:Decrypt permission to the IAM user has no effect, and the IAM user cannot decrypt the objects in the S3 bucket12.
The other options are incorrect because:
- A. The IAM policy does not need to allow the kms:DescribeKey permission, because this permission is not required for decrypting objects in S3 using SSE-KMS. The kms:DescribeKey permission allows getting information about a KMS key, such as its creation date, description, and key state3.
- B. The S3 bucket has not been changed to use the AWS managed key to encrypt objects at rest, because this would not cause an Access Denied message for the IAM user. The AWS managed key is a default KMS key that is created and managed by AWS for each AWS account and Region. The IAM user does not need any permissions on this key to use it for SSE-KMS4.
- C. An S3 bucket policy does not need to be added to allow the IAM user to access the objects, because the IAM user already has s3:List* and s3:Get* permissions for the S3 bucket and its objects through an IAM policy. An S3 bucket policy is an optional way to grant cross-account access or public access to an S3 bucket5.

References:
1: Key policies in AWS KMS 2: Using server-side encryption with AWS KMS keys (SSE-KMS) 3: AWS KMS API Permissions Reference 4: Using server-side encryption with Amazon S3 managed keys (SSE-S3) 5: Bucket policy examples

NEW QUESTION 103
A security engineer is working with a company to design an ecommerce application. The application will run on Amazon EC2 instances that run in an Auto Scaling group behind an Application Load Balancer (ALB). The application will use an Amazon RDS DB instance for its database.
The only required connectivity from the internet is for HTTP and HTTPS traffic to the application. The application must communicate with an external payment provider that allows traffic only from a preconfigured allow list of IP addresses. The company must ensure that communications with the external payment provider are not interrupted as the environment scales.
Which combination of actions should the security engineer recommend to meet these requirements? (Select THREE.)

A. Deploy a NAT gateway in each private subnet for every Availability Zone that is in use.
B. Place the DB instance in a public subnet.
C. Place the DB instance in a private subnet.
D. Configure the Auto Scaling group to place the EC2 instances in a public subnet.
E. Configure the Auto Scaling group to place the EC2 instances in a private subnet.
F. Deploy the ALB in a private subnet.

Answer: ACE

NEW QUESTION 105
A company uses Amazon EC2 Linux instances in the AWS Cloud. A member of the company's security team recently received a report about common vulnerability identifiers on the instances.
A security engineer needs to verify patching and perform remediation if the instances do not have the correct patches installed. The security engineer must determine which EC2 instances are at risk and must implement a solution to automatically update those instances with the applicable patches.
What should the security engineer do to meet these requirements?

A. Use AWS Systems Manager Patch Manager to view vulnerability identifiers for missing patches on the instance
B. Use Patch Manager also to automate the patching process.
C. Use AWS Shield Advanced to view vulnerability identifiers for missing patches on the instance
D. Use AWS Systems Manager Patch Manager to automate the patching process.
E. Use Amazon GuardDuty to view vulnerability identifiers for missing patches on the instance
F. Use Amazon Inspector to automate the patching process.
G. Use Amazon Inspector to view vulnerability identifiers for missing patches on the instance
H. Use Amazon Inspector also to automate the patching process.

Answer: A

Explanation:
https://aws.amazon.com/about-aws/whats-new/2020/10/now-use-aws-systems-manager-to-view-vulnerability-id

NEW QUESTION 106
A company has implemented IAM WAF and Amazon CloudFront for an application. The application runs on Amazon EC2 instances that are part of an Auto

Scaling group. The Auto Scaling group is behind an Application Load Balancer (ALB).
The IAM WAF web ACL uses an IAM Managed Rules rule group and is associated with the CloudFront distribution. CloudFront receives the request from IAM WAF and then uses the ALB as the distribution's origin.
During a security review, a security engineer discovers that the infrastructure is susceptible to a large, layer 7 DDoS attack.
How can the security engineer improve the security at the edge of the solution to defend against this type of attack?

A. Configure the CloudFront distribution to use the Lambda@Edge featur
B. Create an IAM Lambda function that imposes a rate limit on CloudFront viewer request
C. Block the request if the rate limit is exceeded.
D. Configure the IAM WAF web ACL so that the web ACL has more capacity units to process all IAM WAF rules faster.
E. Configure IAM WAF with a rate-based rule that imposes a rate limit that automatically blocks requests when the rate limit is exceeded.
F. Configure the CloudFront distribution to use IAM WAF as its origin instead of the ALB.

Answer: C

Explanation:
To improve the security at the edge of the solution to defend against a large, layer 7 DDoS attack, the security engineer should do the following:
> Configure AWS WAF with a rate-based rule that imposes a rate limit that automatically blocks requests when the rate limit is exceeded. This allows the security engineer to use a rule that tracks the number of requests from a single IP address and blocks subsequent requests if they exceed a specified threshold within a specified time period.

NEW QUESTION 107
A security administrator is setting up a new AWS account. The security administrator wants to secure the data that a company stores in an Amazon S3 bucket. The security administrator also wants to reduce the chance of unintended data exposure and the potential for misconfiguration of objects that are in the S3 bucket.
Which solution will meet these requirements with the LEAST operational overhead?

A. Configure the S3 Block Public Access feature for the AWS account.
B. Configure the S3 Block Public Access feature for all objects that are in the bucket.
C. Deactivate ACLs for objects that are in the bucket.
D. Use AWS PrivateLink for Amazon S3 to access the bucket.

Answer: D

NEW QUESTION 110
A company has deployed Amazon GuardDuty and now wants to implement automation for potential threats. The company has decided to start with RDP brute force attacks that come from Amazon EC2 instances in the company's AWS environment. A security engineer needs to implement a solution that blocks the detected communication from a suspicious instance until investigation and potential remediation can occur.
Which solution will meet these requirements?

A. Configure GuardDuty to send the event to an Amazon Kinesis data strea
B. Process the event with an Amazon Kinesis Data Analytics for Apache Flink application that sends a notification to the company through Amazon Simple Notification Service (Amazon SNS). Add rules to the network ACL to block traffic to and from the suspicious instance.
C. Configure GuardDuty to send the event to Amazon EventBridge (Amazon CloudWatch Events). Deploy an AWS WAF web AC
D. Process the event with an AWS Lambda function that sends a notification to the company through Amazon Simple Notification Service (Amazon SNS) and adds a web ACL rule to block traffic to and from the suspicious instance.
E. Enable AWS Security Hub to ingest GuardDuty findings and send the event to Amazon EventBridge (Amazon CloudWatch Events). Deploy AWS Network Firewal
F. Process the event with an AWS Lambda function that adds a rule to a Network Firewall firewall policy to block traffic to and from the suspicious instance.
G. Enable AWS Security Hub to ingest GuardDuty finding
H. Configure an Amazon Kinesis data stream as an event destination for Security Hu
I. Process the event with an AWS Lambda function that replaces the security group of the suspicious instance with a security group that does not allow any connections.

Answer: C

Explanation:
https://aws.amazon.com/blogs/security/automatically-block-suspicious-traffic-with-aws-network-firewall-and-a

NEW QUESTION 115
An organization must establish the ability to delete an IAM KMS Customer Master Key (CMK) within a
24- hour timeframe to keep it from being used for encrypt or decrypt operations Which of tne following actions will address this requirement?

A. Manually rotate a key within KMS to create a new CMK immediately
B. Use the KMS import key functionality to execute a delete key operation
C. Use the schedule key deletion function within KMS to specify the minimum wait period for deletion
D. Change the KMS CMK alias to immediately prevent any services from using the CMK.

Answer: C

Explanation:
the schedule key deletion function within KMS allows you to specify a waiting period before deleting a customer master key (CMK)4. The minimum waiting period is 7 days and the maximum is 30 days5. This function prevents the CMK from being used for encryption or decryption operations during the waiting period4. The other options are either invalid or ineffective for deleting a CMK within a 24-hour timeframe.

NEW QUESTION 119
A company uses a third-party application to store encrypted data in Amazon S3. The company uses another third-party application trial decrypts the data from Amazon S3 to ensure separation of duties Between the applications A Security Engineer warns to separate the permissions using IAM roles attached to Amazon EC2 instances. The company prefers to use native IAM services.

Which encryption method will meet these requirements?

A. Use encrypted Amazon EBS volumes with Amazon default keys (IAM EBS)
B. Use server-side encryption with customer-provided keys (SSE-C)
C. Use server-side encryption with IAM KMS managed keys (SSE-KMS)
D. Use server-side encryption with Amazon S3 managed keys (SSE-S3)

Answer: C

NEW QUESTION 122
An ecommerce company is developing new architecture for an application release. The company needs to implement TLS for incoming traffic to the application. Traffic for the application will originate from the internet TLS does not have to be implemented in an end-to-end configuration because the company is concerned about impacts on performance. The incoming traffic types will be HTTP and HTTPS The application uses ports 80 and 443.
What should a security engineer do to meet these requirements?

A. Create a public Application Load Balance
B. Create two listeners one listener on port 80 and one listener on port 443. Create one target grou
C. Create a rule to forward traffic from port 80 to the listener on port 443 Provision a public TLS certificate in AWS Certificate Manager (ACM). Attach the certificate to the listener on port 443.
D. Create a public Application Load Balance
E. Create two listeners one listener on port 80 and one listener on port 443. Create one target grou
F. Create a rule to forward traffic from port 80 to the listener on port 443 Provision a public TLS certificate in AWS Certificate Manager (ACM). Attach the certificate to the listener on port 80.
G. Create a public Network Load Balance
H. Create two listeners one listener on port 80 and one listener on port 443. Create one target grou
I. Create a rule to forward traffic from port 80 to the listener on port 443. Set the protocol for the listener on port 443 to TLS.
J. Create a public Network Load Balance
K. Create a listener on port 443. Create one target grou
L. Create a rule to forward traffic from port 443 to the target grou
M. Set the protocol for the listener on port 443 to TLS.

Answer: A

Explanation:
An Application Load Balancer (ALB) is a type of load balancer that operates at the application layer (layer 7) of the OSI model. It can distribute incoming traffic based on the content of the request, such as the host
header, path, or query parameters. An ALB can also terminate TLS connections and decrypt requests from clients before sending them to the targets.
To implement TLS for incoming traffic to the application, the following steps are required:

- Create a public ALB in a public subnet and register the EC2 instances as targets in a target group.
- Create two listeners for the ALB, one on port 80 for HTTP traffic and one on port 443 for HTTPS traffic.
- Create a rule for the listener on port 80 to redirect HTTP requests to HTTPS using the same host, path, and query parameters.
- Provision a public TLS certificate in AWS Certificate Manager (ACM) for the domain name of the application. ACM is a service that lets you easily provision, manage, and deploy public and private SSL/TLS certificates for use with AWS services and your internal connected resources.
- Attach the certificate to the listener on port 443 and configure the security policy to negotiate secure connections between clients and the ALB.
- Configure the security groups for the ALB and the EC2 instances to allow inbound traffic on ports 80 and 443 from the internet and outbound traffic on any port to the EC2 instances.

This solution will meet the requirements of implementing TLS for incoming traffic without impacting performance or requiring end-to-end encryption. The ALB will handle the TLS termination and decryption, while forwarding unencrypted requests to the EC2 instances.
Verified References:

- https://docs.aws.amazon.com/elasticloadbalancing/latest/application/introduction.html
- https://docs.aws.amazon.com/elasticloadbalancing/latest/application/create-https-listener.html
- https://docs.aws.amazon.com/acm/latest/userguide/acm-overview.html

NEW QUESTION 126
A security team is using Amazon EC2 Image Builder to build a hardened AMI with forensic capabilities. An AWS Key Management Service (AWS KMS) key will encrypt the forensic AMI EC2 Image Builder successfully installs the required patches and packages in the security team's AWS account. The security team uses a federated IAM role m the same AWS account to sign in to the AWS Management Console and attempts to launch the forensic AMI. The EC2 instance launches and immediately terminates.
What should the security learn do lo launch the EC2 instance successfully

A. Update the policy that is associated with the federated IAM role to allow the ec2. Describelmages action for the forensic AMI.
B. Update the policy that is associated with the federated IAM role to allow the ec2 Start Instances action m the security team's AWS account.
C. Update the policy that is associated with the KMS key that is used to encrypt the forensic AM
D. Configure the policy to allow the km
E. Encrypt and kms Decrypt actions for the federated IAM role.
F. Update the policy that is associated with the federated IAM role to allow the km
G. DescribeKey action for the KMS key that is used to encrypt the forensic AMI.

Answer: C

Explanation:
https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/troubleshooting-launch.html#troubleshooting-launch-i

NEW QUESTION 129
A company is developing a highly resilient application to be hosted on multiple Amazon EC2 instances . The application will store highly sensitive user data in Amazon RDS tables
The application must

• Include migration to a different IAM Region in the application disaster recovery plan.
• Provide a full audit trail of encryption key administration events
• Allow only company administrators to administer keys.
• Protect data at rest using application layer encryption
A Security Engineer is evaluating options for encryption key management
Why should the Security Engineer choose IAM CloudHSM over IAM KMS for encryption key management in this situation?

A. The key administration event logging generated by CloudHSM is significantly more extensive than IAM KMS.
B. CloudHSM ensures that only company support staff can administer encryption keys, whereas IAM KMS allows IAM staff to administer keys
C. The ciphertext produced by CloudHSM provides more robust protection against brute force decryption attacks than the ciphertext produced by IAM KMS
D. CloudHSM provides the ability to copy keys to a different Region, whereas IAM KMS does not

Answer: B

Explanation:
CloudHSM allows full control of your keys such including Symmetric (AES), Asymmetric (RSA), Sha-256, SHA 512, Hash Based, Digital Signatures (RSA). On the other hand, AWS Key Management Service is a
multi-tenant key storage that is owned and managed by AWS1.
References: 1: What are the differences between AWS Cloud HSM and KMS?

NEW QUESTION 134
Developers in an organization have moved from a standard application deployment to containers. The Security Engineer is tasked with ensuring that the containers are secure. Which strategies will reduce the attack surface and enhance the security of the containers? (Select TWO.)

A. Use the containers to automate security deployments.
B. Limit resource consumption (CPU, memory), networking connections, ports, and unnecessary container libraries.
C. Segregate containers by host, function, and data classification.
D. Use Docker Notary framework to sign task definitions.
E. Enable container breakout at the host kernel.

Answer: AC

Explanation:
these are the strategies that can reduce the attack surface and enhance the security of the containers. Containers are a method of packaging and running applications in isolated environments. Using containers to automate security deployments can help ensure that security patches and updates are applied consistently and quickly across the container fleet. Segregating containers by host, function, and data classification can help limit the impact of a compromise and enforce the principle of least privilege. The other options are either irrelevant or risky for securing containers.

NEW QUESTION 138
Your development team is using access keys to develop an application that has access to S3 and DynamoDB. A new security policy has outlined that the credentials should not be older than 2 months, and should be rotated. How can you achieve this?
Please select:

A. Use the application to rotate the keys in every 2 months via the SDK
B. Use a script to query the creation date of the key
C. If older than 2 months, create new access key and update all applications to use it inactivate the old key and delete it.
D. Delete the user associated with the keys after every 2 month
E. Then recreate the user again.
F. Delete the IAM Role associated with the keys after every 2 month
G. Then recreate the IAM Role again.

Answer: B

Explanation:
One can use the CLI command list-access-keys to get the access keys. This command also returns the "CreateDate" of the keys. If the CreateDate is older than 2 months, then the keys can be deleted.
The Returns list-access-keys CLI command returns information about the access key IDs associated with the specified IAM user. If there are none, the action returns an empty list
Option A is incorrect because you might as use a script for such maintenance activities Option C is incorrect because you would not rotate the users themselves
Option D is incorrect because you don't use IAM roles for such a purpose For more information on the CLI command, please refer to the below Link:
http://docs.IAM.amazon.com/cli/latest/reference/iam/list-access-keys.htmll
The correct answer is: Use a script to query the creation date of the keys. If older than 2 months, create new access key and update all applications to use it inactivate the old key and delete it.
Submit your Feedback/Queries to our Experts

NEW QUESTION 139
A website currently runs on Amazon EC2, wan mostly statics content on the site. Recently the site was subjected to a DDoS attack a security engineer was (asked was redesigning the edge security to help
Mitigate this risk in the future.
What are some ways the engineer could achieve this (Select THREE)?

A. Use IAM X-Ray to inspect the trafc going to the EC2 instances.
B. Move the static content to Amazon S3, and front this with an Amazon Cloud Front distribution.
C. Change the security group conguration to block the source of the attack trafc
D. Use IAM WAF security rules to inspect the inbound trafc.
E. Use Amazon Inspector assessment templates to inspect the inbound traffic.
F. Use Amazon Route 53 to distribute trafc.

Answer: BDF

Explanation:
To redesign the edge security to help mitigate the DDoS attack risk in the future, the engineer could do the following:
- Move the static content to Amazon S3, and front this with an Amazon CloudFront distribution. This allows the engineer to use a global content delivery network that can cache static content at edge locations and reduce the load on the origin servers.
- Use AWS WAF security rules to inspect the inbound traffic. This allows the engineer to use web application firewall rules that can filter malicious requests based on IP addresses, headers, body, or URI strings, and block them before they reach the web servers.
- Use Amazon Route 53 to distribute traffic. This allows the engineer to use a scalable and highly available DNS service that can route traffic based on different policies, such as latency, geolocation, or health checks.

NEW QUESTION 140
A company receives a notification from the AWS Abuse team about an AWS account The notification indicates that a resource in the account is compromised The company determines that the compromised resource is an Amazon EC2 instance that hosts a web application The compromised EC2 instance is part of an EC2 Auto Scaling group
The EC2 instance accesses Amazon S3 and Amazon DynamoDB resources by using an 1AM access key and secret key The 1AM access key and secret key are stored inside the AMI that is specified in the Auto Scaling group's launch configuration The company is concerned that the credentials that are stored in the AMI might also have been exposed
The company must implement a solution that remediates the security concerns without causing downtime for the application The solution must comply with security best practices Which solution will meet these requirements'?

A. Rotate the potentially compromised access key that the EC2 instance uses Create a new AM I without the potentially compromised credentials Perform an EC2 Auto Scaling instance refresh
B. Delete or deactivate the potentially compromised access key Create an EC2 Auto Scaling linked 1AM role that includes a custom policy that matches the potentiallycompromised access key permission Associate the new 1AM role with the Auto Scaling group Perform an EC2 Auto Scaling instance refresh.
C. Delete or deactivate the potentially compromised access key Create a new AMI without the potentially compromised credentials Create an 1AM role that includes the correct permissions Create a launch template for the Auto Scaling group to reference the new AMI and 1AM role Perform an EC2 Auto Scaling instance refresh
D. Rotate the potentially compromised access key Create a new AMI without the potentially compromised access key Use a user data script to supply the new access key as environmental variables in the Auto Scaling group's launch configuration Perform an EC2 Auto Scaling instance refresh

Answer: C

Explanation:
The AWS documentation states that you can create a new AMI without the potentially compromised credentials and create an 1AM role that includes the correct permissions. You can then create a launch template for the Auto Scaling group to reference the new AMI and 1AM role. This method is the most secure way to remediate the security concerns without causing downtime for the application.
References: : AWS Security Best Practices

NEW QUESTION 143
A security engineer is configuring a new website that is named example.com. The security engineer wants to secure communications with the website by requiring users to connect to example.com through HTTPS.
Which of the following is a valid option for storing SSL/TLS certificates?

A. Custom SSL certificate that is stored in AWS Key Management Service (AWS KMS)
B. Default SSL certificate that is stored in Amazon CloudFront.
C. Custom SSL certificate that is stored in AWS Certificate Manager (ACM)
D. Default SSL certificate that is stored in Amazon S3

Answer: C

NEW QUESTION 147
A company's Security Auditor discovers that users are able to assume roles without using multi-factor authentication (MFA). An example of a current policy being applied to these users is as follows:

```
{
    "Version": "2012-10-17",
    "Statement": [
    {
        "Effect": "Deny",
        "Principal": {
        "AWS": "arn:aws:iam::555555555555:root"
    },
        "Action": "sts:AssumeRole",
        "Condition": {
        "Bool": { "aws:MultiFactorAuthPresent": false}
            }
        }
    ]
}
```

The Security Auditor finds that the users who are able to assume roles without MFA are alt coming from the IAM CLI. These users are using long-term IAM credentials. Which changes should a Security Engineer implement to resolve this security issue? (Select TWO.)
A)

```
"Effect": "Deny",
"Condition": { "Bool": { "aws:MultiFactorAuthPresent": false} }
```

B)

```
"Effect": "Allow",
"Condition": { "Bool": { "aws:MultiFactorAuthPresent": true} }
```

C)

```
"Effect": "Allow","Condition": { "BoolIfExists": { "aws:MultiFactorAuthPresent": true} }
```

D)

```
"Effect": "Deny","Condition": { "BoolIfExists": { "aws:MultiFactorAuthPresent": false} }
```

E)

```
"Effect": "Deny","Condition": { "BoolIfNotExist": { "aws:MultiFactorAuthPresent": true} }
```

A. Option A
B. Option B
C. Option C
D. Option D
E. Option E

Answer: AD

NEW QUESTION 152
A security engineer is trying to use Amazon EC2 Image Builder to create an image of an EC2 instance. The security engineer has configured the pipeline to send logs to an Amazon S3 bucket. When the security engineer runs the pipeline, the build fails with the following error: "AccessDenied: Access Denied status code: 403".
The security engineer must resolve the error by implementing a solution that complies with best practices for least privilege access.
Which combination of steps will meet these requirements? (Choose two.)

A. Ensure that the following policies are attached to the IAM role that the security engineer is using: EC2InstanceProfileForImageBuilder, EC2InstanceProfileForImageBuilderECRContainerBuilds, and AmazonSSMManagedInstanceCore.
B. Ensure that the following policies are attached to the instance profile for the EC2 instance: EC2InstanceProfileForImageBuilder, EC2InstanceProfileForImageBuilderECRContainerBuilds, and AmazonSSMManagedInstanceCore.
C. Ensure that the AWSImageBuilderFullAccess policy is attached to the instance profile for the EC2 instance.
D. Ensure that the security engineer's IAM role has the s3:PutObject permission for the S3 bucket.
E. Ensure that the instance profile for the EC2 instance has the s3:PutObject permission for the S3 bucket.

Answer: BE

Explanation:
The most likely cause of the error is that the instance profile for the EC2 instance does not have the s3:PutObject permission for the S3 bucket. This permission is needed to upload logs to the bucket. Therefore, the security engineer should ensure that the instance profile has this permission.
One possible solution is to attach the AWSImageBuilderFullAccess policy to the instance profile for the EC2 instance. This policy grants full access to Image Builder resources and related AWS services, including the s3:PutObject permission for any bucket with "imagebuilder" in its name. However, this policy may grant more permissions than necessary, which violates the principle of least privilege.
Another possible solution is to create a custom policy that only grants the s3:PutObject permission for the specific S3 bucket that is used for logging. This policy can be attached to the instance profile along with the other policies that are required for Image Builder functionality: EC2InstanceProfileForImageBuilder, EC2InstanceProfileForImageBuilderECRContainerBuilds, and AmazonSSMManagedInstanceCore. This solution follows the principle of least privilege more closely than the previous one.
- Ensure that the following policies are attached to the instance profile for the EC2 instance: EC2InstanceProfileForImageBuilder, EC2InstanceProfileForImageBuilderECRContainerBuilds, and AmazonSSMManagedInstanceCore.
- Ensure that the instance profile for the EC2 instance has the s3:PutObject permission for the S3 bucket.

This can be done by either attaching the AWSImageBuilderFullAccess policy or creating a custom policy with this permission.
1: Using managed policies for EC2 Image Builder - EC2 Image Builder 2: PutObject - Amazon Simple Storage Service 3: AWSImageBuilderFullAccess - AWS Managed Policy

NEW QUESTION 155
A company is using AWS to run a long-running analysis process on data that is stored in Amazon S3 buckets. The process runs on a fleet of Amazon EC2 instances that are in an Auto Scaling group. The EC2 instances are deployed in a private subnet Of a VPC that does not have internet access. The EC2 instances and the S3 buckets are in the same AWS account
The EC2 instances access the S3 buckets through an S3 gateway endpoint that has the default access policy. Each EC2 instance is associated With an instance profile role that has a policy that explicitly allows the s3:GetObject action and the s3:PutObject action for only the required S3 buckets.
The company learns that one or more of the EC2 instances are compromised and are exfiltrating data to an S3 bucket that is outside the companys organization in AWS Organizations. A security engtneer must implement a solution to stop this exfiltration of data and to keep the EC2 processing job functional.
Which solution will meet these requirements?

A. Update the policy on the S3 gateway endpoint to allow the S3 actions CY11y if the values of the aws:ResourceOrgID and aws:PrincipalOrgID condition keys match the companys values.
B. Update the policy on the instance profile role to allow the S3 actions only if the value of the aws:ResourceOrgID condition key matches the company's value.
C. Add a network ACL rule to the subnet of the EC2 instances to block outgoing connections on port 443.
D. Apply an SCP on the AWS account to allow the $3 actions only if the values of the aws:ResourceOrgID and aws:PrincipalOrgID condition keys match the company's values.

Answer: D

Explanation:
The correct answer is D.
To stop the data exfiltration from the compromised EC2 instances, the security engineer needs to implement a solution that can deny access to any S3 bucket that is outside the company's organization. The solution should also allow the EC2 instances to access the required S3 buckets within the company's organization for the analysis process.
Option A is incorrect because updating the policy on the S3 gateway endpoint will not affect the access to S3 buckets that are outside the company's organization. The S3 gateway endpoint only applies to S3 buckets that are in the same AWS Region as the VPC. The compromised EC2 instances can still access S3 buckets

in other Regions or other AWS accounts through the internet gateway or NAT device.
Option B is incorrect because updating the policy on the instance profile role will not prevent the compromised EC2 instances from using other credentials or methods to access S3 buckets outside the company's organization. The instance profile role only applies to requests that are made using the credentials of that role. The compromised EC2 instances can still use other IAM users, roles, or access keys to access S3 buckets outside the company's organization.
Option C is incorrect because adding a network ACL rule to block outgoing connections on port 443 will also block legitimate connections to S3 buckets within the company's organization. The network ACL rule will prevent the EC2 instances from accessing any S3 bucket through HTTPS, regardless of whether it is inside or outside the company's organization.
Option D is correct because applying an SCP on the AWS account will effectively deny access to any S3 bucket that is outside the company's organization. The SCP will apply to all IAM users, roles, and resources in the AWS account, regardless of how they access S3. The SCP will use the aws:ResourceOrgID and aws:PrincipalOrgID condition keys to check whether the S3 bucket and the principal belong to the same organization as the AWS account. If they do not match, the SCP will deny the S3 actions.
References:

- Using service control policies
- AWS Organizations service control policy examples

NEW QUESTION 157

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