AWS-Certified-Security-Specialty Dumps

Amazon AWS Certified Security - Specialty

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NEW QUESTION 1
A company uses Amazon Elastic Container Service (Amazon ECS) containers that have the Fargate launch type. The containers run web and mobile applications that are written in Java and Node.js. To meet network segmentation requirements, each of the company's business units deploys applications in its own dedicated AWS account.
Each business unit stores container images in an Amazon Elastic Container Registry (Amazon ECR) private registry in its own account.
A security engineer must recommend a solution to scan ECS containers and ECR registries for vulnerabilities in operating systems and programming language libraries.
The company's audit team must be able to identify potential vulnerabilities that exist in any of the accounts where applications are deployed.
Which solution will meet these requirements?

A. In each account, update the ECR registry to use Amazon Inspector instead of the default scanning servic
B. Configure Amazon Inspector to forward vulnerability findings to AWS Security Hub in a central security accoun
C. Provide access for the audit team to use Security Hub to review the findings.
D. In each account, configure AWS Config to monitor the configuration of the ECS containers and the ECR registr
E. Configure AWS Config conformance packs for vulnerability scannin
F. Create an AWS Config aggregator in a central account to collect configuration and compliance details from all account
G. Provide the audit team with access to AWS Config in the account where the aggregator is configured.
H. In each account, configure AWS Audit Manager to scan the ECS containers and the ECR registry.Configure Audit Manager to forward vulnerability findings to AWS Security Hub in a central security accoun
I. Provide access for the audit team to use Security Hub to review the findings.
J. In each account, configure Amazon GuardDuty to scan the ECS containers and the ECR registry.Configure GuardDuty to forward vulnerability findings to AWS Security Hub in a central security accoun
K. Provide access for the audit team to use Security Hub to review the findings.

Answer: B

Explanation:
➤ Option B: This option meets the requirements of scanning ECS containers and ECR registries for vulnerabilities, and providing a centralized view of the findings for the audit team. AWS Config is a service that enables you to assess, audit, and evaluate the configurations of your AWS resources. AWS Config conformance packs are a collection of AWS Config rules and remediation actions that can be easily deployed as a single entity in an account and a Region or across an organization in AWS Organizations. Conformance packs can help you manage configuration compliance of your AWS resources at scale by using a common framework and packaging model. You can use prebuilt conformance packs for vulnerability scanning, such as CIS Operating System Security Configuration Benchmarks or Amazon Inspector Rules for Linux Instances1. You can also create custom conformance packs to scan for vulnerabilities in programming language libraries. AWS Config aggregator is a feature that enables you to aggregate configuration and compliance data from multiple accounts and Regions
into a single account and Region2. You can provide access for the audit team to use AWS Config in the account where the aggregator is configured, and view the aggregated data in the AWS Config console or API.

NEW QUESTION 2
An IT department currently has a Java web application deployed on Apache Tomcat running on Amazon EC2 instances. All traffic to the EC2 instances is sent through an internet-facing Application Load Balancer (ALB)
The Security team has noticed during the past two days thousands of unusual read requests coming from hundreds of IP addresses. This is causing the Tomcat server to run out of threads and reject new connections
Which the SIMPLEST change that would address this server issue?

A. Create an Amazon CloudFront distribution and configure the ALB as the origin
B. Block the malicious IPs with a network access list (NACL).
C. Create an IAM Web Application Firewall (WAF). and attach it to the ALB
D. Map the application domain name to use Route 53

Answer: A

Explanation:
this is the simplest change that can address the server issue. CloudFront is a service that provides a global network of edge locations that cache and deliver web content. Creating a CloudFront distribution and configuring the ALB as the origin can help reduce the load on the Tomcat server by serving cached content to the end users. CloudFront can also provide protection against distributed denial-of-service (DDoS) attacks by filtering malicious traffic at the edge locations. The other options are either ineffective or complex for solving the server issue.

NEW QUESTION 3
A company deployed IAM Organizations to help manage its increasing number of IAM accounts. A security engineer wants to ensure only principals in the Organization structure can access a specic Amazon S3 bucket. The solution must also minimize operational overhead
Which solution will meet these requirements?

A. 1 Put all users into an IAM group with an access policy granting access to the J bucket.
B. Have the account creation trigger an IAM Lambda function that manages the bucket policy, allowing access to accounts listed in the policy only.
C. Add an SCP to the Organizations master account, allowing all principals access to the bucket.
D. Specify the organization ID in the global key condition element of a bucket policy, allowing all principals access.

Answer: D

NEW QUESTION 4
A company wants to protect its website from man in-the-middle attacks by using Amazon CloudFront. Which solution will meet these requirements with the LEAST operational overhead?

A. Use the SimpleCORS managed response headers policy.
B. Use a Lambda@Edge function to add the Strict-Transport-Security response header.
C. Use the SecurityHeadersPolicy managed response headers policy.

D. Include the X-XSS-Protection header in a custom response headers policy.

Answer: C

Explanation:
https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/using-managed-response-headers-poli The SecurityHeadersPolicy is a managed policy provided by Amazon CloudFront that includes a set of recommended security headers to enhance the security of your website. These headers help protect against various types of attacks, including man-in-the-middle attacks. By applying the SecurityHeadersPolicy to your CloudFront distribution, the necessary security headers will be automatically added to the responses sent by CloudFront. This reduces operational overhead because you don't have to manually configure or manage the headers yourself.

NEW QUESTION 5
A company has two IAM accounts within IAM Organizations. In Account-1. Amazon EC2 Auto Scaling is launched using a service-linked role. In Account-2. Amazon EBS volumes are encrypted with an IAM KMS key A Security Engineer needs to ensure that the service-linked role can launch instances with these encrypted volumes
Which combination of steps should the Security Engineer take in both accounts? (Select TWO.)

A. Allow Account-1 to access the KMS key in Account-2 using a key policy
B. Attach an IAM policy to the service-linked role in Account-1 that allows these actions CreateGrant.DescnbeKey, Encrypt, GenerateDataKey, Decrypt, and ReEncrypt
C. Create a KMS grant for the service-linked role with these actions CreateGrant, DescnbeKey Encrypt GenerateDataKey Decrypt, and ReEncrypt
D. Attach an IAM policy to the role attached to the EC2 instances with KMS actions and then allow Account-1 in the KMS key policy.
E. Attach an IAM policy to the user who is launching EC2 instances and allow the user to access the KMS key policy of Account-2.

Answer: CD

Explanation:
because these are the steps that can ensure that the service-linked role can launch instances with encrypted volumes. A service-linked role is a type of IAM role that is linked to an AWS service and allows the service to perform actions on your behalf. A KMS grant is a mechanism that allows you to delegate permissions to use a customer master key (CMK) to a principal such as a service-linked role. A KMS grant specifies the actions that the principal can perform, such as encrypting and decrypting data. By creating a KMS grant for the service-linked role with the specified actions, you can allow the service-linked role to use the CMK in Account-2 to launch instances with encrypted volumes. By attaching an IAM policy to the role attached to the EC2 instances with KMS actions and then allowing Account-1 in the KMS key policy, you can also enable cross-account access to the CMK and allow the EC2 instances to use the encrypted volumes. The other options are either incorrect or unnecessary for meeting the requirement.

NEW QUESTION 6
A company deploys a set of standard IAM roles in AWS accounts. The IAM roles are based on job functions within the company. To balance operational efficiency and security, a security engineer implemented AWS Organizations SCPs to restrict access to critical security services in all company accounts.
All of the company's accounts and OUs within AWS Organizations have a default FullAWSAccess SCP that is attached. The security engineer needs to ensure that no one can disable Amazon GuardDuty and AWS Security Hub. The security engineer also must not override other permissions that are granted by IAM policies that are defined in the accounts.
Which SCP should the security engineer attach to the root of the organization to meet these requirements? A)

```
"Version": "2012-10-17",
"Statement"":[
    {
        "Effect": "Deny",
        "Action":[
            "guardduty:DeleteDetector",
            "guardduty:UpdateDetector",
            "securityhub:DisableSecurityHub"
        ],
        "Resource":[
        "*"
        ]
    }
  ]
}
```

B)

```
{
 "Version": "2012-10-17",
 "Statement"":[
    {
        "Effect": "Deny",
        "Action":"*",
        "Resource": "*"
    },
    {
        "Effect": "Allow",
        "NotAction": [
        "guardduty:DeleteDetector",
        "guardduty:UpdateDetector",
        "securityhub:DisableSecurityHub"
        ],
        "Resource":[
        "*"
        ]
    }
    ]
}
```

C)
```
{
 "Version": "2012-10-17",
 "Statement"":[
    {
        "Effect": "Allow",
        "Action":"*",
        "Resource": "*"
    },
    {
        "Effect": "Deny",
        "NotAction": [
        "guardduty:DeleteDetector",
        "guardduty:UpdateDetector",
        "securityhub:DisableSecurityHub"
        ],
        "Resource":[
        "*"
        ]
    }
    ]
}
```

D)
```
{
 "Version": "2012-10-17",
 "Statement"":[
    {
        "Effect": "Allow",
         "NotAction": [
        "guardduty:DeleteDetector",
        "guardduty:UpdateDetector",
        "securityhub:DisableSecurityHub"
        ],
        "Resource":[
        "*"
        ]
    }
    ]
}
```

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

Answer: A

NEW QUESTION 7
A Security Engineer is asked to update an AWS CloudTrail log file prefix for an existing trail. When attempting to save the change in the CloudTrail console, the Security Engineer receives the following error message: `There is a problem with the bucket policy.` What will enable the Security Engineer to save the change?

A. Create a new trail with the updated log file prefix, and then delete the original trai
B. Update the existing bucket policy in the Amazon S3 console with the new log file prefix, and then update the log file prefix in the CloudTrail console.

C. Update the existing bucket policy in the Amazon S3 console to allow the Security Engineer's Principal to perform PutBucketPolicy, and then update the log file prefix in the CloudTrail console.
D. Update the existing bucket policy in the Amazon S3 console with the new log file prefix, and then update the log file prefix in the CloudTrail console.
E. Update the existing bucket policy in the Amazon S3 console to allow the Security Engineer's Principal to perform GetBucketPolicy, and then update the log file prefix in the CloudTrail console.

Answer: C

Explanation:
The correct answer is C. Update the existing bucket policy in the Amazon S3 console with the new log file prefix, and then update the log file prefix in the CloudTrail console.
According to the AWS documentation1, a bucket policy is a resource-based policy that you can use to grant access permissions to your Amazon S3 bucket and the objects in it. Only the bucket owner can associate a policy with a bucket. The permissions attached to the bucket apply to all of the objects in the bucket that are owned by the bucket owner.
When you create a trail in CloudTrail, you can specify an existing S3 bucket or create a new one to store your log files. CloudTrail automatically creates a bucket policy for your S3 bucket that grants CloudTrail write-only access to deliver log files to your bucket. The bucket policy also grants read-only access to AWS services that you can use to view and analyze your log data, such as Amazon Athena, Amazon CloudWatch Logs, and Amazon QuickSight.
If you want to update the log file prefix for an existing trail, you must also update the existing bucket policy in the S3 console with the new log file prefix. The log file prefix is part of the resource ARN that identifies the objects in your bucket that CloudTrail can access. If you don't update the bucket policy with the new log file prefix, CloudTrail will not be able to deliver log files to your bucket, and you will receive an error message when you try to save the change in the CloudTrail console.
The other options are incorrect because:

≫ A. Creating a new trail with the updated log file prefix, and then deleting the original trail is not necessary and may cause data loss or inconsistency. You can simply update the existing trail and its associated bucket policy with the new log file prefix.

≫ B. Updating the existing bucket policy in the S3 console to allow the Security Engineer's Principal to perform PutBucketPolicy is not relevant to this issue. The PutBucketPolicy action allows you to create or replace a policy on a bucket, but it does not affect CloudTrail's ability to deliver log files to your bucket. You still need to update the existing bucket policy with the new log file prefix.

≫ D. Updating the existing bucket policy in the S3 console to allow the Security Engineer's Principal to perform GetBucketPolicy is not relevant to this issue. The GetBucketPolicy action allows you to retrieve a policy on a bucket, but it does not affect CloudTrail's ability to deliver log files to your bucket. You still need to update the existing bucket policy with the new log file prefix.
References:
1: Using bucket policies - Amazon Simple Storage Service

NEW QUESTION 8
A large corporation is creating a multi-account strategy and needs to determine how its employees should access the IAM infrastructure.
Which of the following solutions would provide the MOST scalable solution?

A. Create dedicated IAM users within each IAM account that employees can assume through federationbased upon group membership in their existing identity provider
B. Use a centralized account with IAM roles that employees can assume through federation with their existing identity provider Use cross-account roles to allow the federated users to assume their target role in the resource accounts.
C. Configure the IAM Security Token Service to use Kerberos tokens so that users can use their existing corporate user names and passwords to access IAM resources directly
D. Configure the IAM trust policies within each account's role to set up a trust back to the corporation's existing identity provider allowing users to assume the role based off their SAML token

Answer: B

Explanation:
the most scalable solution for accessing the IAM infrastructure in a multi-account strategy. A multi-account strategy is a way of organizing your AWS resources into multiple IAM accounts for security, billing, and management purposes. Federation is a process that allows users to access AWS resources using credentials from an external identity provider such as Active Directory or SAML. IAM roles are sets of permissions that grant access to AWS resources. Cross-account roles are IAM roles that allow users in one account to access resources in another account. By using a centralized account with IAM roles that employees can assume through federation with their existing identity provider, you can simplify and streamline the access management process. By using cross-account roles to allow the federated users to assume their target role in the resource accounts, you can enable granular and flexible access control across multiple accounts. The other options are either less scalable or less secure for accessing the IAM infrastructure in a multi-account strategy.

NEW QUESTION 9
A company has a set of EC2 Instances hosted in IAM. The EC2 Instances have EBS volumes which is used to store critical information. There is a business continuity requirement to ensure high availability for the EBS volumes. How can you achieve this?

A. Use lifecycle policies for the EBS volumes
B. Use EBS Snapshots
C. Use EBS volume replication
D. Use EBS volume encryption

Answer: B

Explanation:
Data stored in Amazon EBS volumes is redundantly stored in multiple physical locations as part of normal operation of those services and at no additional charge. However, Amazon EBS replication is stored within the same availability zone, not across multiple zones; therefore, it is highly recommended that you conduct regular snapshots to Amazon S3 for long-term data durability Option A is invalid because there is no lifecycle policy for EBS volumes Option C is invalid because there is no EBS volume replication Option D is invalid because EBS volume encryption will not ensure business continuity For information on security for Compute Resources, please visit the below URL: https://d1.awsstatic.com/whitepapers/Security/Security_Compute_Services_Whitepaper.pdf

NEW QUESTION 10
A company is using AWS Organizations to create OUs for its accounts. The company has more than 20 accounts that are all part of the OUs. A security engineer must implement a solution to ensure that no account can stop to file delivery to AWS CloudTrail.
Which solution will meet this requirement?

A. Use the --is-multi-region-trail option while running the create-trail command to ensure that logs are configured across all AWS Regions.
B. Create an SCP that includes a Deny rule tor the cloudtrai
C. StopLogging action Apply the SCP to all accounts in the OUs.
D. Create an SCP that includes an Allow rule for the cloudtrai
E. StopLogging action Apply the SCP to all accounts in the OUs.
F. Use AWS Systems Manager to ensure that CloudTrail is always turned on.

Answer: B

Explanation:
This SCP prevents users or roles in any affected account from disabling a CloudTrail log, either directly as a command or through the console.
https://asecure.cloud/a/scp_cloudtrail/

NEW QUESTION 10
A security engineer is creating an AWS Lambda function. The Lambda function needs to use a role that is named LambdaAuditRole to assume a role that is named AcmeAuditFactoryRole in a different AWS account.
When the code is processed, the following error message appears: "An error oc-curred (AccessDenied) when calling the AssumeRole operation."
Which combination of steps should the security engineer take to resolve this er-ror? (Select TWO.)

A. Ensure that LambdaAuditRole has the sts:AssumeRole permission for Ac-meAuditFactoryRole.
B. Ensure that LambdaAuditRole has the AWSLambdaBasicExecutionRole managed policy attached.
C. Ensure that the trust policy for AcmeAuditFactoryRole allows the sts:AssumeRole action from LambdaAuditRole.
D. Ensure that the trust policy for LambdaAuditRole allows the sts:AssumeRole action from the lambda.amazonaws.com service.
E. Ensure that the sts:AssumeRole API call is being issued to the us-east-I Region endpoint.

Answer: AC

NEW QUESTION 11
A company wants to monitor the deletion of customer managed CMKs A security engineer must create an alarm that will notify the company before a CMK is deleted The security engineer has configured the integration of IAM CloudTrail with Amazon CloudWatch
What should the security engineer do next to meet this requirement?

A. Use inbound rule 100 to allow traffic on TCP port 443 Use inbound rule 200 to deny traffic on TCP port 3306 Use outbound rule 100 to allow traffic on TCP port 443
B. Use inbound rule 100 to deny traffic on TCP port 3306. Use inbound rule 200 to allow traffic on TCP port range 1024-65535. Use outbound rule 100 to allow traffic on TCP port 443
C. Use inbound rule 100 to allow traffic on TCP port range 1024-65535 Use inbound rule 200 to deny traffic on TCP port 3306 Use outbound rule 100 to allow traffic on TCP port 443
D. Use inbound rule 100 to deny traffic on TCP port 3306 Use inbound rule 200 to allow traffic on TCP port 443 Use outbound rule 100 to allow traffic on TCP port 443

Answer: A

NEW QUESTION 14
A company is hosting a static website on Amazon S3 The company has configured an Amazon CloudFront distribution to serve the website contents The company has associated an IAM WAF web ACL with the CloudFront distribution. The web ACL ensures that requests originate from the United States to address compliance restrictions.
THE company is worried that the S3 URL might still be accessible directly and that requests can bypass the CloudFront distribution
Which combination of steps should the company take to remove direct access to the S3 URL? (Select TWO.)

A. Select "Restrict Bucket Access" in the origin settings of the CloudFront distribution
B. Create an origin access identity (OAI) for the S3 origin
C. Update the S3 bucket policy to allow s3 GetObject with a condition that the IAM Referer key matches the secret value Deny all other requests
D. Configure the S3 bucket poky so that only the origin access identity (OAI) has read permission for objects in the bucket
E. Add an origin custom header that has the name Referer to the CloudFront distribution Give the header asecret value.

Answer: AD

NEW QUESTION 16
An application team wants to use IAM Certificate Manager (ACM) to request public certificates to ensure that data is secured in transit. The domains that are being used are not currently hosted on Amazon Route 53
The application team wants to use an IAM managed distribution and caching solution to optimize requests to its systems and provide better points of presence to customers The distribution solution will use a primary domain name that is customized The distribution solution also will use several alternative domain names The certificates must renew automatically over an indefinite period of time
Which combination of steps should the application team take to deploy this architecture? (Select THREE.)

A. Request a certificate (torn ACM in the us-west-2 Region Add the domain names that the certificate will secure
B. Send an email message to the domain administrators to request vacation of the domains for ACM
C. Request validation of the domains for ACM through DNS Insert CNAME records into each domain's DNS zone
D. Create an Application Load Balancer for me caching solution Select the newly requested certificate from ACM to be used for secure connections
E. Create an Amazon CloudFront distribution for the caching solution Enter the main CNAME record as the Origin Name Enter the subdomain names or alternate names in the Alternate Domain Names Distribution Settings Select the newly requested certificate from ACM to be used for secure connections
F. Request a certificate from ACM in the us-east-1 Region Add the domain names that the certificate wil secure

Answer: CDF

NEW QUESTION 21
A company wants to establish separate IAM Key Management Service (IAM KMS) keys to use for different IAM services. The company's security engineer created

the following key policy lo allow the infrastructure deployment team to create encrypted Amazon Elastic Block Store (Amazon EBS) volumes by assuming the InfrastructureDeployment IAM role:

```
{
    "Version": "2012-10-17",
    "Id": "key-policy-ebs",
    "Statement": [
        {
            "Sid": "Enable IAM User Permissions",
            "Effect": "Allow",
            "Principal": {
                "AWS": "arn:aws:iam::123456789012:root"
            },
            "Action": "kms:*",
            "Resource": "*"
        },
        {
            "Sid": "Allow use of the key",
            "Effect": "Allow",
            "Principal": {
                "AWS": "arn:aws:iam::123456789012:role/aws-reserved/sso.amazonaws.com/InfrastructureDeployment"
            },
            "Action": [
                "kms:Encrypt",
                "kms:Decrypt",
                "kms:ReEncrypt*",
                "kms:GenerateDataKey*",
                "kms:DescribeKey",
                "kms:CreateGrant",
                "kms:ListGrants",
                "kms:RevokeGrant"
            ],
            "Resource": "*",
            "Condition": {
                "StringEquals": {
                    "kms:ViaService": "ec2.us-west-2.amazonaws.com"
                }
            }
        }
    ]
}
```

The security engineer recently discovered that IAM roles other than the InfrastructureDeployment role used this key (or other services. Which change to the policy should the security engineer make to resolve these issues?

A. In the statement block that contains the Sid "Allow use of the key", under the "Condition" block, change StringEquals to StringLike.
B. In the policy document, remove the statement Dlock that contains the Sid "Enable IAM User Permissions". Add key management policies to the KMS policy.
C. In the statement block that contains the Sid "Allow use of the Key", under the "Condition" block, change the Kms:ViaService value to ec2.us-east-1 .amazonIAM com.
D. In the policy document, add a new statement block that grants the kms:Disable' permission to the security engineer's IAM role.

Answer: C

Explanation:
To resolve the issues, the security engineer should make the following change to the policy:

❯ In the statement block that contains the Sid "Allow use of the key", under the "Condition" block, change the Kms:ViaService value to ec2.us-east-1.amazonaws.com. This allows the security engineer to restrict the use of the key to only EC2 service in the us-east-1 region, and prevent other services from using the key.

NEW QUESTION 24
An Application team has requested a new IAM KMS master key for use with Amazon S3, but the organizational security policy requires separate master keys for different IAM services to limit blast radius.
How can an IAM KMS customer master key (CMK) be constrained to work with only Amazon S3?

A. Configure the CMK key policy to allow only the Amazon S3 service to use the kms Encrypt action
B. Configure the CMK key policy to allow IAM KMS actions only when the kms ViaService condition matches the Amazon S3 service name.
C. Configure the IAM user's policy lo allow KMS to pass a rote lo Amazon S3
D. Configure the IAM user's policy to allow only Amazon S3 operations when they are combined with the CMK

Answer: B

Explanation:
the kms:ViaService condition key can be used to restrict a CMK to work with only a specific AWS
service6. By configuring the CMK key policy to allow KMS actions only when the kms:ViaService condition matches the Amazon S3 service name, you can ensure that only Amazon S3 can use the CMK7. The other options are either incorrect or insufficient for constraining a CMK to work with only Amazon S3.

NEW QUESTION 26
A company has an AWS Lambda function that creates image thumbnails from larger images. The Lambda function needs read and write access to an Amazon S3 bucket in the same AWS account.
Which solutions will provide the Lambda function this access? (Select TWO.)

A. Create an IAM user that has only programmatic acces
B. Create a new access key pai
C. Add environmental variables to the Lambda function with the ac-cess key ID and secret access ke

D. Modify the Lambda function to use the environmental variables at run time during communication with Amazon S3.
E. Generate an Amazon EC2 key pai
F. Store the private key in AWS Secrets Man-age
G. Modify the Lambda function to retrieve the private key from Secrets Manager and to use the private key during communication with Amazon S3.
H. Create an IAM role for the Lambda functio
I. Attach an IAM policy that al-lows access to the S3 bucket.
J. Create an IAM role for the Lambda functio
K. Attach a bucket policy to the S3 bucket to allow access.Specify the function's IAM role as the princi-pal.
L. Create a security grou
M. Attach the security group to the Lambda functio
N. Attach a bucket policy that allows access to the S3 bucket through the se-curity group ID.

Answer: CD

NEW QUESTION 31
An organization has a multi-petabyte workload that it is moving to Amazon S3, but the CISO is concerned about cryptographic wear-out and the blast radius if a key is compromised. How can the CISO be assured that IAM KMS and Amazon S3 are addressing the concerns? (Select TWO)

A. There is no API operation to retrieve an S3 object in its encrypted form.
B. Encryption of S3 objects is performed within the secure boundary of the KMS service.
C. S3 uses KMS to generate a unique data key for each individual object.
D. Using a single master key to encrypt all data includes having a single place to perform audits and usage validation.
E. The KMS encryption envelope digitally signs the master key during encryption to prevent cryptographic wear-out

Answer: CE

Explanation:
because these are the features that can address the CISO's concerns about cryptographic wear-out and blast radius. Cryptographic wear-out is a phenomenon that occurs when a key is used too frequently or for too long, which increases the risk of compromise or degradation. Blast radius is a measure of how much damage a compromised key can cause to the encrypted data. S3 uses KMS to generate a unique data key for each individual object, which reduces both cryptographic wear-out and blast radius. The KMS encryption envelope digitally signs the master key during encryption, which prevents cryptographic wear-out by ensuring that only authorized parties can use the master key. The other options are either incorrect or irrelevant for addressing the CISO's concerns.

NEW QUESTION 33
A security engineer receives an IAM abuse email message. According to the message, an Amazon EC2 instance that is running in the security engineer's IAM account is sending phishing email messages.
The EC2 instance is part of an application that is deployed in production. The application runs on many EC2 instances behind an Application Load Balancer. The instances run in an Amazon EC2 Auto Scaling group across multiple subnets and multiple Availability Zones.
The instances normally communicate only over the HTTP. HTTPS, and MySQL protocols. Upon investigation, the security engineer discovers that email messages are being sent over port 587. All other traffic is normal.
The security engineer must create a solution that contains the compromised EC2 instance, preserves forensic evidence for analysis, and minimizes application downtime. Which combination of steps must the security engineer take to meet these requirements? (Select THREE.)

A. Add an outbound rule to the security group that is attached to the compromised EC2 instance to deny traffic to 0.0.0.0/0 and port 587.
B. Add an outbound rule to the network ACL for the subnet that contains the compromised EC2 instance to deny traffic to 0.0.0.0/0 and port 587.
C. Gather volatile memory from the compromised EC2 instanc
D. Suspend the compromised EC2 instance from the Auto Scaling grou
E. Then take a snapshot of the compromised EC2 instanc
F. v
G. Take a snapshot of the compromised EC2 instanc
H. Suspend the compromised EC2 instance from the Auto Scaling grou
I. Then gather volatile memory from the compromised EC2 instance.
J. Move the compromised EC2 instance to an isolated subnet that has a network ACL that has no inbound rules or outbound rules.
K. Replace the existing security group that is attached to the compromised EC2 instance with a new security group that has no inbound rules or outbound rules.

Answer: ACE

NEW QUESTION 35
A company's Security Engineer is copying all application logs to centralized Amazon S3 buckets. Currently, each of the company's applications is in its own IAM account, and logs are pushed into S3 buckets associated with each account. The Engineer will deploy an IAM Lambda function into each account that copies the relevant log files to the centralized S3 bucket.
The Security Engineer is unable to access the log files in the centralized S3 bucket. The Engineer's IAM user policy from the centralized account looks like this:

```
{
    "Version": "2012-10-17",
    "Statement": [
        {
            "Action": "s3:Put*",
            "Resource":"arn:aws:s3:::centralizedbucket/*",
            "Effect": "Deny"
        },
        {
            "Action": ["s3:Get*","s3:List*"],
            "Resource": [
                "arn:aws:s3:::centralizedbucket/*",
                "arn:aws:s3:::centralizedbucket/"
            ],
            "Effect": "Allow"
        }
    ]
}
```

The centralized S3 bucket policy looks like this:

```
{
    "Version": "2012-10-17",    "Statement": [
        {
            "Effect": "Allow",
            "Principal": {
                "AWS": [
                    "arn:aws:iam::111122223333:role/LogCopier",
                    "arn:aws:iam::444455556666:role/LogCopier"
                ]
            },
            "Action": ["s3:PutObject","s3:PutObjectAcl"],
            "Resource": "arn:aws:s3:::centralizedbucket/*"
        }
    ]
}
```

Why is the Security Engineer unable to access the log files?

A. The S3 bucket policy does not explicitly allow the Security Engineer access to the objects in the bucket.
B. The object ACLs are not being updated to allow the users within the centralized account to access the objects
C. The Security Engineers IAM policy does not grant permissions to read objects in the S3 bucket
D. The s3:PutObject and s3:PutObjectAcl permissions should be applied at the S3 bucket level

Answer: C

NEW QUESTION 37
An ecommerce website was down for 1 hour following a DDoS attack Users were unable to connect to the website during the attack period. The ecommerce company's security team is worried about future potential attacks and wants to prepare for such events The company needs to minimize downtime in its response to similar attacks in the future.
Which steps would help achieve this9 (Select TWO)

A. Enable Amazon GuardDuty to automatically monitor for malicious activity and block unauthorized access.
B. Subscribe to IAM Shield Advanced and reach out to IAM Support in the event of an attack.
C. Use VPC Flow Logs to monitor network: traffic and an IAM Lambda function to automatically block an attacker's IP using security groups.
D. Set up an Amazon CloudWatch Events rule to monitor the IAM CloudTrail events in real time use IAM Config rules to audit the configuration, and use IAM Systems Manager for remediation.
E. Use IAM WAF to create rules to respond to such attacks

Answer: BE

Explanation:
To minimize downtime in response to DDoS attacks, the company should do the following:
> Subscribe to AWS Shield Advanced and reach out to AWS Support in the event of an attack. This provides access to 24x7 support from the AWS DDoS Response Team (DRT), as well as advanced detection and mitigation capabilities for network and application layer attacks.
> Use AWS WAF to create rules to respond to such attacks. This allows the company to filter web requests based on IP addresses, headers, body, or URI strings, and block malicious requests before they reach the web applications.

NEW QUESTION 42
A company has two AWS accounts. One account is for development workloads. The other account is for production workloads. For compliance reasons the production account contains all the AWS Key Management. Service (AWS KMS) keys that the company uses for encryption.
The company applies an IAM role to an AWS Lambda function in the development account to allow secure access to AWS resources. The Lambda function must access a specific KMS customer managed key that exists in the production account to encrypt the Lambda function's data.
Which combination of steps should a security engineer take to meet these requirements? (Select TWO.)

A. Configure the key policy for the customer managed key in the production account to allow access to the Lambda service.

B. Configure the key policy for the customer managed key in the production account to allow access to the IAM role of the Lambda function in the development account.
C. Configure a new IAM policy in the production account with permissions to use the customer managed ke
D. Apply the IAM policy to the IAM role that the Lambda function in the development account uses.
E. Configure a new key policy in the development account with permissions to use the customer managed ke
F. Apply the key policy to the IAM role that the Lambda function in the development account uses.
G. Configure the IAM role for the Lambda function in the development account by attaching an IAM policy that allows access to the customer managed key in the production account.

Answer: BE

Explanation:
To allow a Lambda function in one AWS account to access a KMS customer managed key in another AWS account, the following steps are required:

≫ Configure the key policy for the customer managed key in the production account to allow access to the IAM role of the Lambda function in the development account. A key policy is a resource-based policy that defines who can use or manage a KMS key. To grant cross-account access to a KMS key, you must specify the AWS account ID and the IAM role ARN of the external principal in the key policy statement. For more information, see Allowing users in other accounts to use a KMS key.

≫ Configure the IAM role for the Lambda function in the development account by attaching an IAM policy that allows access to the customer managed key in the production account. An IAM policy is an identity-based policy that defines what actions an IAM entity can perform on which resources. To allow an IAM role to use a KMS key in another account, you must specify the KMS key ARN and the kms:Encrypt action (or any other action that requires access to the KMS key) in the IAM policy statement. For more information, see Using IAM policies with AWS KMS.
This solution will meet the requirements of allowing secure access to a KMS customer managed key across AWS accounts.
The other options are incorrect because they either do not grant cross-account access to the KMS key (A, C), or do not use a valid policy type for KMS keys (D).
Verified References:

≫ https://docs.aws.amazon.com/kms/latest/developerguide/iam-policies.html

NEW QUESTION 45
Your company has a set of EC2 Instances defined in IAM. These Ec2 Instances have strict security groups attached to them. You need to ensure that changes to the Security groups are noted and acted on accordingly. How can you achieve this?
Please select:

A. Use Cloudwatch logs to monitor the activity on the Security Group
B. Use filters to search for the changes and use SNS for the notification.
C. Use Cloudwatch metrics to monitor the activity on the Security Group
D. Use filters to search for the changes and use SNS for the notification.
E. Use IAM inspector to monitor the activity on the Security Group
F. Use filters to search for the changes and use SNS f the notification.
G. Use Cloudwatch events to be triggered for any changes to the Security Group
H. Configure the Lambda function for email notification as well.

Answer: D

Explanation:
The below diagram from an IAM blog shows how security groups can be monitored
C:\Users\wk\Desktop\mudassar\Untitled.jpg

Option A is invalid because you need to use Cloudwatch Events to check for chan, Option B is invalid because you need to use Cloudwatch Events to check for chang
Option C is invalid because IAM inspector is not used to monitor the activity on Security Groups For more information on monitoring security groups, please visit the below URL:
Ihttpsy/IAM.amazon.com/blogs/security/how-to-automatically-revert-and-receive-notifications-about-changes-t 'pc-security-groups/
The correct answer is: Use Cloudwatch events to be triggered for any changes to the Security Groups. Configure the Lambda function for email notification as well.
Submit your Feedback/Queries to our Experts

NEW QUESTION 50
A security engineer configures Amazon S3 Cross-Region Replication (CRR) for all objects that are in an S3 bucket in the us-east-1. Region Some objects in this S3 bucket use server-side encryption with AWS KMS keys (SSE-KMS) for encryption at test. The security engineer creates a destination S3 bucket in the us-west-2 Region. The destination S3 bucket is in the same AWS account as the source S3 bucket.

The security engineer also creates a customer managed key in us-west-2 to encrypt objects at rest in the destination S3 bucket. The replication configuration is set to use the key in us-west-2 to encrypt objects in the destination S3 bucket. The security engineer has provided the S3 replication configuration with an IAM role to perform the replication in Amazon S3.

After a day, the security engineer notices that no encrypted objects from the source S3 bucket are replicated to the destination S3 bucket. However, all the unencrypted objects are replicated.

Which combination of steps should the security engineer take to remediate this issue? (Select THREE.)

A. Change the replication configuration to use the key in us-east-1 to encrypt the objects that are in the destination S3 bucket.
B. Grant the IAM role the km
C. Encrypt permission for the key in us-east-1 that encrypts source objects.
D. Grant the IAM role the s3 GetObjectVersionForReplication permission for objects that are in the source S3 bucket.
E. Grant the IAM role the km
F. Decrypt permission for the key in us-east-1 that encrypts source objects.
G. Change the key policy of the key in us-east-1 to grant the km
H. Decrypt permission to the security engineer's IAM account.
I. Grant the IAM role the kms Encrypt permission for the key in us-west-2 that encrypts objects that are in the destination S3 bucket.

Answer: BF

Explanation:
To enable S3 Cross-Region Replication (CRR) for objects that are encrypted with SSE-KMS, the following steps are required:

➤ Grant the IAM role the kms.Decrypt permission for the key in us-east-1 that encrypts source objects.
This will allow the IAM role to decrypt the source objects before replicating them to the destination bucket. The kms.Decrypt permission must be granted in the key policy of the source KMS key or in an IAM policy attached to the IAM role.

➤ Grant the IAM role the kms.Encrypt permission for the key in us-west-2 that encrypts objects that are in the destination S3 bucket. This will allow the IAM role to encrypt the replica objects with the destination KMS key before storing them in the destination bucket. The kms.Encrypt permission must be granted in the key policy of the destination KMS key or in an IAM policy attached to the IAM role.
This solution will remediate the issue of encrypted objects not being replicated to the destination bucket.
The other options are incorrect because they either do not grant the necessary permissions for CRR (A, C, D), or do not use a valid encryption method for CRR (E).
Verified References:

➤ https://docs.aws.amazon.com/AmazonS3/latest/userguide/replication-config-for-kms-objects.html

NEW QUESTION 54
While securing the connection between a company's VPC and its on-premises data center, a Security Engineer sent a ping command from an on-premises host (IP address 203.0.113.12) to an Amazon EC2 instance (IP address 172.31.16.139).
The ping command did not return a response. The flow log in the VPC showed the following:
2 123456789010 eni-1235b8ca 203.0.113.12 172.31.16.139 0 0 1 4 336 1432917027 1432917142 ACCEPT OK
2 123456789010 eni-1235b8ca 172.31.16.139 203.0.113.12 0 0 1 4 336 1432917094 1432917142 REJECT OK
What action should be performed to allow the ping to work?

A. In the security group of the EC2 instance, allow inbound ICMP traffic.
B. In the security group of the EC2 instance, allow outbound ICMP traffic.
C. In the VPC's NACL, allow inbound ICMP traffic.
D. In the VPC's NACL, allow outbound ICMP traffic.

Answer: D

NEW QUESTION 56
A company stores images for a website in an Amazon S3 bucket. The company is using Amazon CloudFront to serve the images to end users. The company recently discovered that the images are being accessed from countries where the company does not have a distribution license.
Which actions should the company take to secure the images to limit their distribution? (Select TWO.)

A. Update the S3 bucket policy to restrict access to a CloudFront origin access identity (OAI).
B. Update the website DNS record to use an Amazon Route 53 geolocation record deny list of countries where the company lacks a license.
C. Add a CloudFront geo restriction deny list of countries where the company lacks a license.
D. Update the S3 bucket policy with a deny list of countries where the company lacks a license.
E. Enable the Restrict Viewer Access option in CloudFront to create a deny list of countries where the company lacks a license.

Answer: AC

Explanation:
To secure the images to limit their distribution, the company should take the following actions:

➤ Update the S3 bucket policy to restrict access to a CloudFront origin access identity (OAI). This allows the company to use a special CloudFront user that can access objects in their S3 bucket, and prevent anyone else from accessing them directly.

➤ Add a CloudFront geo restriction deny list of countries where the company lacks a license. This allows the company to use a feature that controls access to their content based on the geographic location of their viewers, and block requests from countries where they do not have a distribution license.

NEW QUESTION 57
A company is using Amazon Elastic Container Service (Amazon ECS) to run its container-based application on AWS. The company needs to ensure that the container images contain no severe vulnerabilities. The company also must ensure that only specific IAM roles and specific AWS accounts can access the container images.
Which solution will meet these requirements with the LEAST management overhead?

A. Pull images from the public container registr
B. Publish the images to Amazon Elastic Container Registry (Amazon ECR) repositories with scan on push configured in a centralized AWS accoun
C. Use a CI/CD pipeline to deploy the images to different AWS account
D. Use identity-based policies to restrict access to which IAM principals can access the images.

E. Pull images from the public container registr
F. Publish the images to a private container registry that is hosted on Amazon EC2 instances in a centralized AWS accoun
G. Deploy host-based container scanning tools to EC2 instances that run Amazon EC
H. Restrict access to the container images by using basic authentication over HTTPS.
I. Pull images from the public container registr
J. Publish the images to Amazon Elastic Container Registry (Amazon ECR) repositories with scan on push configured in a centralized AWS accoun
K. Use a CI/CD pipeline to deploy the images to different AWS account
L. Use repository policies and identity-based policies to restrict access to which IAM principals and accounts can access the images.
M. Pull images from the public container registr
N. Publish the images to AWS CodeArtifact repositories in a centralized AWS accoun
O. Use a CI/CD pipeline to deploy the images to different AWS account
P. Use repository policies and identity-based policies to restrict access to which IAM principals and accounts can access the images.

Answer: C

Explanation:
The correct answer is C. Pull images from the public container registry. Publish the images to Amazon Elastic Container Registry (Amazon ECR) repositories with scan on push configured in a centralized AWS account.
Use a CI/CD pipeline to deploy the images to different AWS accounts. Use repository policies and identity-based policies to restrict access to which IAM principals and accounts can access the images.
This solution meets the requirements because:

> Amazon ECR is a fully managed container registry service that supports Docker and OCI images and artifacts1. It integrates with Amazon ECS and other AWS services to simplify the development and deployment of container-based applications.

> Amazon ECR provides image scanning on push, which uses the Common Vulnerabilities and Exposures (CVEs) database from the open-source Clair project to detect software vulnerabilities in container images2. The scan results are available in the AWS Management Console, AWS CLI, or AWS SDKs2.

> Amazon ECR supports cross-account access to repositories, which allows sharing images across multiple AWS accounts3. This can be achieved by using repository policies, which are resource-based policies that specify which IAM principals and accounts can access the repositories and what actions they can perform4. Additionally, identity-based policies can be used to control which IAM roles in each account can access the repositories5.
The other options are incorrect because:

> A. This option does not use repository policies to restrict cross-account access to the images, which is a requirement. Identity-based policies alone are not sufficient to control access to Amazon ECR repositories5.

> B. This option does not use Amazon ECR, which is a fully managed service that provides image scanning and cross-account access features. Hosting a private container registry on EC2 instances would require more management overhead and additional security measures.

> D. This option uses AWS CodeArtifact, which is a fully managed artifact repository service that supports Maven, npm, NuGet, PyPI, and generic package formats6. However, AWS CodeArtifact does not support Docker or OCI container images, which are required for Amazon ECS applications.

NEW QUESTION 62
A company has deployed servers on Amazon EC2 instances in a VPC. External vendors access these servers over the internet. Recently, the company deployed a new application on EC2 instances in a new CIDR range. The company needs to make the application available to the vendors.
A security engineer verified that the associated security groups and network ACLs are allowing the required ports in the inbound diction. However, the vendors cannot connect to the application.
Which solution will provide the vendors access to the application?

A. Modify the security group that is associated with the EC2 instances to have the same outbound rules as inbound rules.
B. Modify the network ACL that is associated with the CIDR range to allow outbound traffic to ephemeral ports.
C. Modify the inbound rules on the internet gateway to allow the required ports.
D. Modify the network ACL that is associated with the CIDR range to have the same outbound rules as inbound rules.

Answer: B

Explanation:
The correct answer is B. Modify the network ACL that is associated with the CIDR range to allow outbound traffic to ephemeral ports.
This answer is correct because network ACLs are stateless, which means that they do not automatically allow return traffic for inbound connections. Therefore, the network ACL that is associated with the CIDR range of the new application must have outbound rules that allow traffic to ephemeral ports, which are the temporary ports used by the vendors' machines to communicate with the application servers. Ephemeral ports are typically in the range of 1024-655351. If the network ACL does not have such rules, the vendors will not be able to connect to the application.
The other options are incorrect because:

> A. Modifying the security group that is associated with the EC2 instances to have the same outbound rules as inbound rules is not a solution, because security groups are stateful, which means that they automatically allow return traffic for inbound connections. Therefore, there is no need to add outbound rules to the security group for the vendors to access the application2.

> C. Modifying the inbound rules on the internet gateway to allow the required ports is not a solution, because internet gateways do not have inbound or outbound rules. Internet gateways are VPC components that enable communication between instances in a VPC and the internet. They do not filter traffic based on ports or protocols3.

> D. Modifying the network ACL that is associated with the CIDR range to have the same outbound rules as inbound rules is not a solution, because it does not address the issue of ephemeral ports. The outbound rules of the network ACL must match the ephemeral port range of the vendors' machines, not necessarily the inbound rules of the network ACL4.
References:
1: Ephemeral port - Wikipedia 2: Security groups for your VPC - Amazon Virtual Private Cloud 3: Internet gateways - Amazon Virtual Private Cloud 4: Network ACLs - Amazon Virtual Private Cloud

NEW QUESTION 63
A company wants to deploy a distributed web application on a fleet of EC2 instances. The fleet will be fronted by a Classic Load Balancer that will be configured to terminate the TLS connection The company wants to make sure that all past and current TLS traffic to the Classic Load Balancer stays secure even if the certificate private key is leaked.
To ensure the company meets these requirements, a Security Engineer can configure a Classic Load Balancer with:

A. An HTTPS listener that uses a certificate that is managed by Amazon Certification Manager.
B. An HTTPS listener that uses a custom security policy that allows only perfect forward secrecy cipher suites

C. An HTTPS listener that uses the latest IAM predefined ELBSecuntyPolicy-TLS-1 -2-2017-01 security policy
D. A TCP listener that uses a custom security policy that allows only perfect forward secrecy cipher suites.

Answer: B

Explanation:
this is a way to configure a Classic Load Balancer with perfect forward secrecy cipher suites. Perfect forward secrecy is a property of encryption protocols that ensures that past and current TLS traffic stays secure even if the certificate private key is leaked. Cipher suites are sets of algorithms that determine how encryption is performed. A custom security policy is a set of cipher suites and protocols that you can select for your load balancer to support. An HTTPS listener is a process that checks for connection requests using encrypted SSL/TLS protocol. By using an HTTPS listener that uses a custom security policy that allows only perfect forward secrecy cipher suites, you can ensure that your Classic Load Balancer meets the requirements. The other options are either invalid or insufficient for configuring a Classic Load Balancer with perfect forward secrecy cipher suites.

NEW QUESTION 67
A company has an AWS Key Management Service (AWS KMS) customer managed key with imported key material Company policy requires all encryption keys to be rotated every year
What should a security engineer do to meet this requirement for this customer managed key?

A. Enable automatic key rotation annually for the existing customer managed key
B. Use the AWS CLI to create an AWS Lambda function to rotate the existing customer managed key annually
C. Import new key material to the existing customer managed key Manually rotate the key
D. Create a new customer managed key Import new key material to the new key Point the key alias to the new key

Answer: A

Explanation:
To meet the requirement of rotating the AWS KMS customer managed key every year, the most appropriate solution would be to enable automatic key rotation annually for the existing customer managed key. This will ensure that AWS KMS generates new cryptographic material for the CMK every year. AWS KMS also saves the CMK's older cryptographic material in perpetuity so it can be used to decrypt data that it encrypted. AWS KMS does not delete any rotated key material until you delete the CMK.
References: : Key Rotation Enabled | Trend Micro : Rotating AWS KMS keys - AWS Key Management Service

NEW QUESTION 70
A company has two teams, and each team needs to access its respective Amazon S3 buckets. The company anticipates adding more teams that also will have their own S3 buckets. When the company adds these teams, team members will need the ability to be assigned to multiple teams. Team members also will need the ability to change teams. Additional S3 buckets can be created or deleted.
An IAM administrator must design a solution to accomplish these goals. The solution also must be scalable and must require the least possible operational overhead.
Which solution meets these requirements?

A. Add users to groups that represent the team
B. Create a policy for each team that allows the team to access its respective S3 buckets onl
C. Attach the policy to the corresponding group.
D. Create an IAM role for each tea
E. Create a policy for each team that allows the team to access its respective S3 buckets onl
F. Attach the policy to the corresponding role.
G. Create IAM roles that are labeled with an access tag value of a tea
H. Create one policy that allows dynamic access to S3 buckets with the same ta
I. Attach the policy to the IAM role
J. Tag the S3 buckets accordingly.
K. Implement a role-based access control (RBAC) authorization mode
L. Create the corresponding policies, and attach them to the IAM users.

Answer: A

NEW QUESTION 75
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 77
A security engineer needs to develop a process to investigate and respond to po-tential security events on a company's Amazon EC2 instances. All the EC2 in-stances are backed by Amazon Elastic Block Store (Amazon EBS). The company uses AWS Systems Manager to manage all the EC2 instances and has installed Systems Manager Agent (SSM Agent) on all the EC2 instances.
The process that the security engineer is developing must comply with AWS secu-rity best practices and must meet the following requirements:
• A compromised EC2 instance's volatile memory and non-volatile memory must be preserved for forensic purposes.
• A compromised EC2 instance's metadata must be updated with corresponding inci-dent ticket information.
• A compromised EC2 instance must remain online during the investigation but must be isolated to prevent the spread of malware.
• Any investigative activity during the collection of volatile data must be cap-tured as part of the process. Which combination of steps should the security engineer take to meet these re-quirements with the LEAST
operational overhead? (Select THREE.)

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

Answer: ACE

NEW QUESTION 82
A company is using Amazon Macie, AWS Firewall Manager, Amazon Inspector, and AWS Shield Advanced in its AWS account. The company wants to receive alerts if a DDoS attack occurs against the account.
Which solution will meet this requirement?

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

Answer: D

Explanation:
This answer is correct because AWS Shield Advanced is a service that provides comprehensive protection
against DDoS attacks of any size or duration. It also provides metrics and reports on the DDoS attack vectors, duration, and size. You can create an Amazon CloudWatch alarm that monitors Shield Advanced metrics such as DDoSAttackBitsPerSecond, DDoSAttackPacketsPerSecond, and DDoSAttackRequestsPerSecond to receive alerts if a DDoS attack occurs against your account.
For more information, see Monitoring AWS Shield Advanced with Amazon CloudWatch and AWS Shield Advanced metrics and alarms.

NEW QUESTION 87
A security engineer needs to create an Amazon S3 bucket policy to grant least privilege read access to IAM user accounts that are named User=1, User2. and User3. These IAM user accounts are members of the AuthorizedPeople IAM group. The security engineer drafts the following S3 bucket policy:

```
{
    "Version": "2012-10-17",
    "Id": "AuthorizedPeoplePolicy",
    "Statement": [
        {
            "Sid": "Actions-Authorized-People",
            "Effect": "Allow",
            "Action": [
                "s3:GetObject"
            ],
            "Resource": "arn:aws:s3:::authorized-people-bucket/*"
        }
    ]
}
```

When the security engineer tries to add the policy to the S3 bucket, the following error message appears: "Missing required field Principal." The security engineer is adding a Principal element to the policy. The addition must provide read access to only User1. User2, and User3. Which solution meets these requirements?
A)

```
"Principal": {
    "AWS": [
        "arn:aws:iam::1234567890:user/User1",
        "arn:aws:iam::1234567890:user/User2",
        "arn:aws:iam::1234567890:user/User3"
    ]
}
```

B)

```
"Principal": {
    "AWS": [
        "arn:aws:iam::1234567890:root"
    ]
}
```

C)

```
"Principal": {
    "AWS": [
        "*"
    ]
}
```

D)

```
"Principal": {
    "AWS": "arn:aws:iam::1234567890:group/AuthorizedPeople"
}
```

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

Answer: A

NEW QUESTION 89

A company has a relational database workload that runs on Amazon Aurora MySQL. According to new compliance standards the company must rotate all database credentials every 30 days. The company needs a solution that maximizes security and minimizes development effort.
Which solution will meet these requirements?

A. Store the database credentials in AWS Secrets Manage
B. Configure automatic credential rotation tor every 30 days.
C. Store the database credentials in AWS Systems Manager Parameter Stor
D. Create an AWS Lambda function to rotate the credentials every 30 days.
E. Store the database credentials in an environment file or in a configuration fil
F. Modify the credentials every 30 days.
G. Store the database credentials in an environment file or in a configuration fil
H. Create an AWS Lambda function to rotate the credentials every 30 days.

Answer: A

Explanation:

To rotate database credentials every 30 days, the most secure and efficient solution is to store the database credentials in AWS Secrets Manager and configure automatic credential rotation for every 30 days. Secrets Manager can handle the rotation of the credentials in both the secret and the database, and it can use AWS KMS to encrypt the credentials. Option B is incorrect because it requires creating a custom Lambda function to rotate the credentials, which is more effort than using Secrets Manager. Option C is incorrect because it stores the database credentials in an environment file or a configuration file, which is less secure than using Secrets Manager. Option D is incorrect because it combines the drawbacks of option B and option C. Verified References:

⟫ https://docs.aws.amazon.com/secretsmanager/latest/userguide/rotating-secrets.html

⟫ https://docs.aws.amazon.com/secretsmanager/latest/userguide/rotate-secrets_turn-on-for-other.html

NEW QUESTION 93

A company stores sensitive documents in Amazon S3 by using server-side encryption with an IAM Key Management Service (IAM KMS) CMK. A new requirement mandates that the CMK that is used for these documents can be used only for S3 actions.
Which statement should the company add to the key policy to meet this requirement?
A)

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

B)

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

A. Option A
B. Option B

Answer: A

NEW QUESTION 95
A company's security team is building a solution for logging and visualization. The solution will assist the company with the large variety and velocity of data that it receives from IAM across multiple accounts. The security team has enabled IAM CloudTrail and VPC Flow Logs in all of its accounts. In addition, the company has an organization in IAM Organizations and has an IAM Security Hub master account.
The security team wants to use Amazon Detective However the security team cannot enable Detective and is unsure why
What must the security team do to enable Detective?

A. Enable Amazon Macie so that Secunty H jb will allow Detective to process findings from Macie.
B. Disable IAM Key Management Service (IAM KMS) encryption on CtoudTrail logs in every member account of the organization
C. Enable Amazon GuardDuty on all member accounts Try to enable Detective in 48 hours
D. Ensure that the principal that launches Detective has the organizations ListAccounts permission

Answer: D

NEW QUESTION 98
A company developed an application by using AWS Lambda, Amazon S3, Amazon Simple Notification Service (Amazon SNS), and Amazon DynamoDB. An external application puts objects into the company's S3 bucket and tags the objects with date and time. A Lambda function periodically pulls data from the company's S3 bucket based on date and time tags and inserts specific values into a DynamoDB table for further processing.
The data includes personally identifiable information (PII). The company must remove data that is older than 30 days from the S3 bucket and the DynamoDB table.
Which solution will meet this requirement with the MOST operational efficiency?

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

Answer: B

NEW QUESTION 99
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 104
A company is hosting a web application on Amazon EC2 instances behind an Application Load Balancer (ALB). The application has become the target of a DoS attack. Application logging shows that requests are coming from small number of client IP addresses, but the addresses change regularly.
The company needs to block the malicious traffic with a solution that requires the least amount of ongoing effort.
Which solution meets these requirements?

A. Create an AWS WAF rate-based rule, and attach it to the ALB.
B. Update the security group that is attached to the ALB to block the attacking IP addresses.
C. Update the ALB subnet's network ACL to block the attacking client IP addresses.
D. Create a AWS WAF rate-based rule, and attach it to the security group of the EC2 instances.

Answer: A

NEW QUESTION 109
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 112
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 114
A security engineer wants to forward custom application-security logs from an Amazon EC2 instance to Amazon CloudWatch. The security engineer installs the CloudWatch agent on the EC2 instance and adds the path of the logs to the CloudWatch configuration file. However, CloudWatch does not receive the logs. The security engineer verifies that the awslogs service is running on the EC2 instance.
What should the security engineer do next to resolve the issue?

A. Add AWS CloudTrail to the trust policy of the EC2 instanc
B. Send the custom logs to CloudTrail instead of CloudWatch.
C. Add Amazon S3 to the trust policy of the EC2 instanc
D. Configure the application to write the custom logs to an S3 bucket that CloudWatch can use to ingest the logs.
E. Add Amazon Inspector to the trust policy of the EC2 instanc
F. Use Amazon Inspector instead of the CloudWatch agent to collect the custom logs.
G. Attach the CloudWatchAgentServerPolicy AWS managed policy to the EC2 instance role.

Answer: D

Explanation:
The correct answer is D. Attach the CloudWatchAgentServerPolicy AWS managed policy to the EC2 instance role.
According to the AWS documentation1, the CloudWatch agent is a software agent that you can install on your EC2 instances to collect system-level metrics and logs. To use the CloudWatch agent, you need to attach an IAM role or user to the EC2 instance that grants permissions for the agent to perform actions on your behalf. The CloudWatchAgentServerPolicy is an AWS managed policy that provides the necessary permissions for the agent to write metrics and logs to CloudWatch2. By attaching this policy to the EC2 instance role, the security engineer can resolve the issue of CloudWatch not receiving the custom application-

security logs.
The other options are incorrect for the following reasons:

> A. Adding AWS CloudTrail to the trust policy of the EC2 instance is not relevant, because CloudTrail is a service that records API activity in your AWS account, not custom application logs3. Sending the custom logs to CloudTrail instead of CloudWatch would not meet the requirement of forwarding them to CloudWatch.

> B. Adding Amazon S3 to the trust policy of the EC2 instance is not necessary, because S3 is a storage service that does not require any trust relationship with EC2 instances4. Configuring the application to write the custom logs to an S3 bucket that CloudWatch can use to ingest the logs would be an alternative solution, but it would be more complex and costly than using the CloudWatch agent directly.

> C. Adding Amazon Inspector to the trust policy of the EC2 instance is not helpful, because Inspector is a service that scans EC2 instances for software vulnerabilities and unintended network exposure, not custom application logs5. Using Amazon Inspector instead of the CloudWatch agent would not meet the requirement of forwarding them to CloudWatch.

References:
1: Collect metrics, logs, and traces with the CloudWatch agent - Amazon CloudWatch 2: CloudWatchAgentServerPolicy - AWS Managed Policy 3: What Is AWS CloudTrail? - AWS CloudTrail 4: Amazon S3 FAQs - Amazon Web Services 5: Automated Software Vulnerability Management - Amazon Inspector - AWS

NEW QUESTION 119

A company is using an AWS Key Management Service (AWS KMS) AWS owned key in its application to encrypt files in an AWS account The company's security team wants the ability to change to new key material for new files whenever a potential key breach occurs A security engineer must implement a solution that gives the security team the ability to change the key whenever the team wants to do so

Which solution will meet these requirements?

A. Create a new customer managed key Add a key rotation schedule to the key Invoke the key rotation schedule every time the security team requests a key change
B. Create a new AWS managed key Add a key rotation schedule to the key Invoke the key rotation schedule every time the security team requests a key change
C. Create a key alias Create a new customer managed key every time the security team requests a key change Associate the alias with the new key
D. Create a key alias Create a new AWS managed key every time the security team requests a key change Associate the alias with the new key

Answer: A

Explanation:
To meet the requirement of changing the key material for new files whenever a potential key breach occurs, the most appropriate solution would be to create a new customer managed key, add a key rotation schedule to the key, and invoke the key rotation schedule every time the security team requests a key change.
References: : Rotating AWS KMS keys - AWS Key Management Service

NEW QUESTION 121

A company plans to use AWS Key Management Service (AWS KMS) to implement an encryption strategy to protect data at rest. The company requires client-side encryption for company projects. The company is currently conducting multiple projects to test the company's use of AWS KMS. These tests have led to a sudden increase in the company's AWS resource consumption. The test projects include applications that issue multiple requests each second to KMS endpoints for encryption activities.
The company needs to develop a solution that does not throttle the company's ability to use AWS KMS. The solution must improve key usage for client-side encryption and must be cost optimized. Which solution will meet these requirements?

A. Use keyrings with the AWS Encryption SD
B. Use each keyring individually or combine keyrings into amulti-keyrin
C. Decrypt the data by using a keyring that has the primary key in the multi-keyring.
D. Use data key cachin
E. Use the local cache that the AWS Encryption SDK provides with a caching cryptographic materials manager.
F. Use KMS key rotatio
G. Use a local cache in the AWS Encryption SDK with a caching cryptographic materials manager.
H. Use keyrings with the AWS Encryption SD
I. Use each keyring individually or combine keyrings into a multi-keyrin
J. Use any of the wrapping keys in the multi-keyring to decrypt the data.

Answer: B

Explanation:
The correct answer is B. Use data key caching. Use the local cache that the AWS Encryption SDK provides with a caching cryptographic materials manager.
This answer is correct because data key caching can improve performance, reduce cost, and help the company stay within the service limits of AWS KMS. Data key caching stores data keys and related cryptographic material in a cache, and reuses them for encryption and decryption operations. This reduces the number of requests to AWS KMS endpoints and avoids throttling. The AWS Encryption SDK provides a local cache and a caching cryptographic materials manager (caching CMM) that interacts with the cache and enforces security thresholds that the company can set1.
The other options are incorrect because:

> A. Using keyrings with the AWS Encryption SDK does not address the problem of throttling or cost optimization. Keyrings are used to generate, encrypt, and decrypt data keys, but they do not cache or reuse them. Using each keyring individually or combining them into a multi-keyring does not reduce the number of requests to AWS KMS endpoints2.

> C. Using KMS key rotation does not address the problem of throttling or cost optimization. Key rotation is a security practice that creates new cryptographic material for a KMS key every year, but it does not affect the data that the KMS key protects. Key rotation does not reduce the number of requests to AWS KMS endpoints, and it might incur additional costs for storing multiple versions of key material3.

> D. Using keyrings with the AWS Encryption SDK does not address the problem of throttling or cost optimization, as explained in option A. Moreover, using any of the wrapping keys in the multi-keyring to decrypt the data is not a valid option, because only one of the wrapping keys can decrypt a given data key. The wrapping key that encrypts a data key is stored in the encrypted data key structure, and only that wrapping key can decrypt it4.
References:
1: Data key caching - AWS Encryption SDK 2: Using keyrings - AWS Encryption SDK 3: Rotating AWS KMS keys - AWS Key Management Service 4: How keyrings work - AWS Encryption SDK

NEW QUESTION 125

A Security Engineer creates an Amazon S3 bucket policy that denies access to all users. A few days later, the Security Engineer adds an additional statement to the bucket policy to allow read-only access to one other employee. Even after updating the policy, the employee still receives an access denied message.

What is the likely cause of this access denial?

A. The ACL in the bucket needs to be updated
B. The IAM policy does not allow the user to access the bucket
C. It takes a few minutes for a bucket policy to take effect
D. The allow permission is being overridden by the deny

Answer: D

NEW QUESTION 127
A company has AWS accounts in an organization in AWS Organizations. The organization includes a dedicated security account.
All AWS account activity across all member accounts must be logged and reported to the dedicated security account. The company must retain all the activity logs in a secure storage location within the dedicated security account for 2 years. No changes or deletions of the logs are allowed.
Which combination of steps will meet these requirements with the LEAST operational overhead? (Select TWO.)

A. In the dedicated security account, create an Amazon S3 bucke
B. Configure S3 Object Lock in compliance mode and a retention period of 2 years on the S3 bucke
C. Set the bucket policy to allow the organization's management account to write to the S3 bucket.
D. In the dedicated security account, create an Amazon S3 bucke
E. Configure S3 Object Lock in compliance mode and a retention period of 2 years on the S3 bucke
F. Set the bucket policy to allow the organization's member accounts to write to the S3 bucket.
G. In the dedicated security account, create an Amazon S3 bucket that has an S3 Lifecycle configuration that expires objects after 2 year
H. Set the bucket policy to allow the organization's member accounts to write to the S3 bucket.
I. Create an AWS Cloud Trail trail for the organizatio
J. Configure logs to be delivered to the logging Amazon S3 bucket in the dedicated security account.
K. Turn on AWS CloudTrail in each accoun
L. Configure logs to be delivered to an Amazon S3 bucket that is created in the organization's management accoun
M. Forward the logs to the S3 bucket in the dedicated security account by using AWS Lambda and Amazon Kinesis Data Firehose.

Answer: BD

Explanation:
The correct answer is B and D. In the dedicated security account, create an Amazon S3 bucket. Configure S3 Object Lock in compliance mode and a retention period of 2 years on the S3 bucket. Set the bucket policy to allow the organization's member accounts to write to the S3 bucket. Create an AWS CloudTrail trail for the organization. Configure logs to be delivered to the logging Amazon S3 bucket in the dedicated security account.
According to the AWS documentation, AWS CloudTrail is a service that enables governance, compliance, operational auditing, and risk auditing of your AWS account. With CloudTrail, you can log, continuously monitor, and retain account activity related to actions across your AWS infrastructure. CloudTrail provides event history of your AWS account activity, including actions taken through the AWS Management Console, AWS SDKs, command line tools, and other AWS services.
To use CloudTrail 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 CloudTrail as a service principal for AWS Organizations, which lets you create an organization trail that applies to all accounts in your organization. An organization trail logs events for all AWS Regions and delivers the log files to an S3 bucket that you specify.
To create an organization trail, you need to use an administrator account, such as the organization's management account or a delegated administrator account. You can then configure the trail to deliver logs to an S3 bucket in the dedicated security account. This will ensure that all account activity across all member accounts and regions is logged and reported to the security account.
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 CloudTrail logs, you need to create an S3 bucket in the dedicated security account that will store the logs from the organization trail. You can then configure S3 Object Lock on the bucket to prevent objects from being deleted or overwritten for a fixed amount of time or indefinitely. You can also enable compliance mode on the bucket, which prevents any user, including the root user in your account, from deleting or modifying a locked object until it reaches its retention date.
To set a retention period of 2 years on the S3 bucket, you need to create a default retention configuration for the bucket that specifies a retention mode (either governance or compliance) and a retention period (either a number of days or a date). You can then set the bucket policy to allow the organization's member accounts to write to the S3 bucket. This will ensure that all logs are retained in a secure storage location within the security account for 2 years and no changes or deletions are allowed.
Option A is incorrect because setting the bucket policy to allow the organization's management account to write to the S3 bucket is not sufficient, as it will not grant access to the other member accounts in the organization.
Option C is incorrect because using an S3 Lifecycle configuration that expires objects after 2 years is not secure, as it will allow users to delete or modify objects before they expire.
Option E is incorrect because using Lambda and Kinesis Data Firehose to forward logs from one S3 bucket to another is not necessary, as CloudTrail can directly deliver logs to an S3 bucket in another account. It also introduces additional operational overhead and complexity.

NEW QUESTION 131
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 135
A company has several workloads running on AWS. Employees are required to authenticate using on-premises ADFS and SSO to access the AWS Management Console. Developers migrated an existing legacy web application to an Amazon EC2 instance. Employees need to access this application from anywhere on the internet, but currently, there is no authentication system built into the application.
How should the Security Engineer implement employee-only access to this system without changing the application?

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

Answer: A

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

NEW QUESTION 140
A company's Chief Security Officer has requested that a Security Analyst review and improve the security posture of each company IAM account The Security Analyst decides to do this by Improving IAM account root user security.
Which actions should the Security Analyst take to meet these requirements? (Select THREE.)

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

Answer: ADE

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

NEW QUESTION 143
A development team is attempting to encrypt and decode a secure string parameter from the IAM Systems Manager Parameter Store using an IAM Key Management Service (IAM KMS) CMK. However, each attempt results in an error message being sent to the development team.
Which CMK-related problems possibly account for the error? (Select two.)

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

Answer: AD

Explanation:
https://docs.IAM.amazon.com/kms/latest/developerguide/services-parameter-store.html#parameter-store-cmk-fa

NEW QUESTION 146
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 148
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 149
Which of the following are valid configurations for using SSL certificates with Amazon CloudFront? (Select THREE)

A. Default AWS Certificate Manager certificate
B. Custom SSL certificate stored in AWS KMS
C. Default CloudFront certificate
D. Custom SSL certificate stored in AWS Certificate Manager
E. Default SSL certificate stored in AWS Secrets Manager
F. Custom SSL certificate stored in AWS IAM

Answer: ABC

Explanation:
The key length for an RSA certificate that you use with CloudFront is 2048 bits, even though ACM supports larger keys. If you use an imported certificate with CloudFront, your key length must be 1024 or 2048 bits and cannot exceed 2048 bits. You must import the certificate in the US East (N. Virginia) Region. You must have permission to use and import the SSL/TLS certificate
https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/cnames-and-https-requirements.html

NEW QUESTION 152
A security engineer recently rotated all IAM access keys in an AWS account. The security engineer then configured AWS Config and enabled the following AWS Config managed rules; mfa-enabled-for-iam-console-access, iam-user-mfa-enabled, access-key-rotated, and iam-user-unused-credentials-check.
The security engineer notices that all resources are displaying as noncompliant after the IAM GenerateCredentialReport API operation is invoked.
What could be the reason for the noncompliant status?

A. The IAM credential report was generated within the past 4 hours.
B. The security engineer does not have the GenerateCredentialReport permission.
C. The security engineer does not have the GetCredentialReport permission.
D. The AWS Config rules have a MaximumExecutionFrequency value of 24 hours.

Answer: D

Explanation:
The correct answer is D. The AWS Config rules have a MaximumExecutionFrequency value of 24 hours. According to the AWS documentation1, the MaximumExecutionFrequency parameter specifies the maximum frequency with which AWS Config runs evaluations for a rule. For AWS Config managed rules, this value can be one of the following:
➢ One_Hour
➢ Three_Hours
➢ Six_Hours
➢ Twelve_Hours
➢ TwentyFour_Hours
If the rule is triggered by configuration changes, it will still run evaluations when AWS Config delivers the configuration snapshot. However, if the rule is triggered periodically, it will not run evaluations more often than the specified frequency.
In this case, the security engineer enabled four AWS Config managed rules that are triggered periodically. Therefore, these rules will only run evaluations every 24 hours, regardless of when the IAM credential report is generated. This means that the resources will display as noncompliant until the next evaluation cycle, which could take up to 24 hours after the IAM access keys are rotated.
The other options are incorrect because:
➢ A. The IAM credential report can be generated at any time, but it will not affect the compliance status of the resources until the next evaluation cycle of the AWS Config rules.
➢ B. The security engineer was able to invoke the IAM GenerateCredentialReport API operation, which means they have the GenerateCredentialReport permission. This permission is required to generate a credential report that lists all IAM users in an AWS account and their credential status2.
➢ C. The security engineer does not need the GetCredentialReport permission to enable or evaluate AWS Config rules. This permission is required to retrieve a credential report that was previously generated by using the GenerateCredentialReport operation2.

References:
1: AWS::Config::ConfigRule - AWS CloudFormation 2: IAM: Generate and retrieve IAM credential reports

NEW QUESTION 153
A Security Engineer receives alerts that an Amazon EC2 instance on a public subnet is under an SFTP brute force attack from a specific IP address, which is a known malicious bot. What should the Security Engineer do to block the malicious bot?

A. Add a deny rule to the public VPC security group to block the malicious IP
B. Add the malicious IP to IAM WAF backhsted IPs
C. Configure Linux iptables or Windows Firewall to block any traffic from the malicious IP
D. Modify the hosted zone in Amazon Route 53 and create a DNS sinkhole for the malicious IP

Answer: D

Explanation:
what the Security Engineer should do to block the malicious bot. SFTP is a protocol that allows secure file transfer over SSH. EC2 is a service that provides virtual servers in the cloud. A public subnet is a subnet that has a route to an internet gateway, which allows it to communicate with the internet. A brute force attack is a type of attack that tries to guess passwords or keys by trying many possible combinations. A malicious bot is a software program that performs automated tasks for malicious purposes. Route 53 is a service that provides DNS resolution and domain name registration. A DNS sinkhole is a technique that redirects malicious or unwanted traffic to a different destination, such as a black hole server or a honeypot. By modifying the hosted zone in Route 53 and creating a DNS sinkhole for the malicious IP, the Security Engineer can block the malicious bot from reaching the EC2 instance on the public subnet. The other options are either ineffective or inappropriate for blocking the malicious bot.

NEW QUESTION 155
A company uses AWS Organizations to manage a small number of AWS accounts. However, the company plans to add 1 000 more accounts soon. The company allows only a centralized security team to create IAM roles for all AWS accounts and teams. Application teams submit requests for IAM roles to the security team. The security team has a backlog of IAM role requests and cannot review and provision the IAM roles quickly.
The security team must create a process that will allow application teams to provision their own IAM roles. The process must also limit the scope of IAM roles and prevent privilege escalation.
Which solution will meet these requirements with the LEAST operational overhead?

A. Create an IAM group for each application tea
B. Associate policies with each IAM grou
C. Provision IAM users for each application team membe
D. Add the new IAM users to the appropriate IAM group by using role-based access control (RBAC).
E. Delegate application team leads to provision IAM rotes for each tea
F. Conduct a quarterly review of the IAM rotes the team leads have provisione
G. Ensure that the application team leads have the appropriate training to review IAM roles.
H. Put each AWS account in its own O
I. Add an SCP to each OU to grant access to only the AWS services that the teams plan to us
J. Include conditions tn the AWS account of each team.
K. Create an SCP and a permissions boundary for IAM role
L. Add the SCP to the root OU so that only roles that have the permissions boundary attached can create any new IAM roles.

Answer: D

Explanation:
To create a process that will allow application teams to provision their own IAM roles, while limiting the scope of IAM roles and preventing privilege escalation, the following steps are required:

» Create a service control policy (SCP) that defines the maximum permissions that can be granted to any IAM role in the organization. An SCP is a type of policy that you can use with AWS Organizations to manage permissions for all accounts in your organization. SCPs restrict permissions for entities in member accounts, including each AWS account root user, IAM users, and roles. For more information, see Service control policies overview.

» Create a permissions boundary for IAM roles that matches the SCP. A permissions boundary is an advanced feature for using a managed policy to set the maximum permissions that an identity-based policy can grant to an IAM entity. A permissions boundary allows an entity to perform only the actions
that are allowed by both its identity-based policies and its permissions boundaries. For more information, see Permissions boundaries for IAM entities.

» Add the SCP to the root organizational unit (OU) so that it applies to all accounts in the organization.
This will ensure that no IAM role can exceed the permissions defined by the SCP, regardless of how it is created or modified.

» Instruct the application teams to attach the permissions boundary to any IAM role they create. This will prevent them from creating IAM roles that can escalate their own privileges or access resources they are not authorized to access.
This solution will meet the requirements with the least operational overhead, as it leverages AWS Organizations and IAM features to delegate and limit IAM role creation without requiring manual reviews or approvals.
The other options are incorrect because they either do not allow application teams to provision their own IAM roles (A), do not limit the scope of IAM roles or prevent privilege escalation (B), or do not take advantage of managed services whenever possible ©.
Verified References:
» https://docs.aws.amazon.com/IAM/latest/UserGuide/access_policies_boundaries.html

NEW QUESTION 157
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
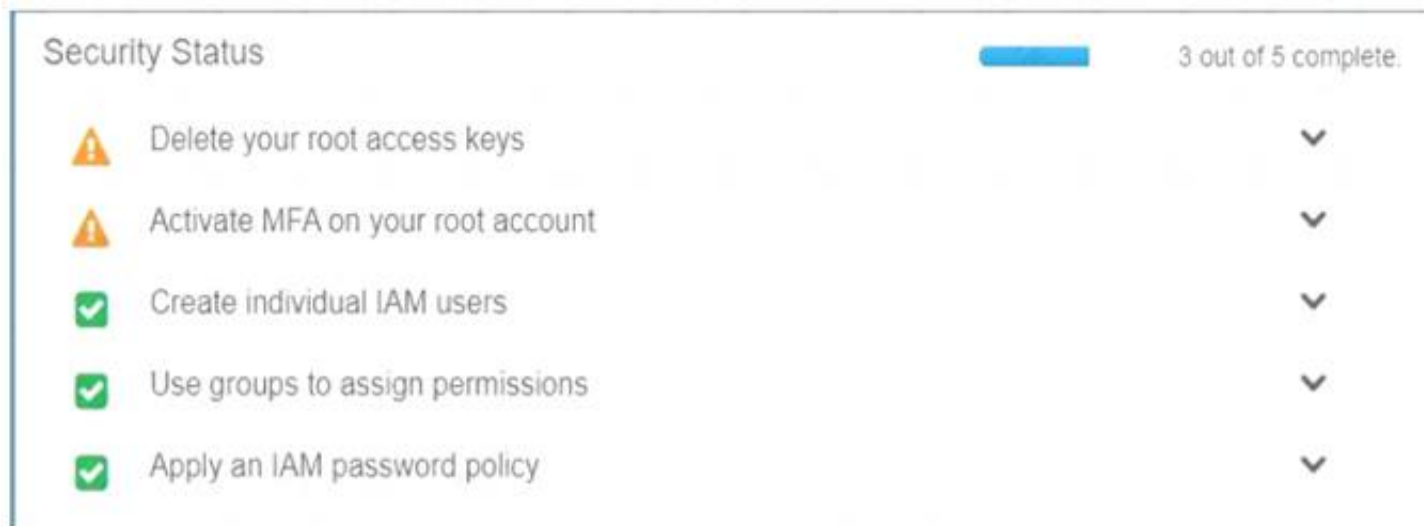
Option A is invalid because you need to have a good password policy Option B is invalid because there is no IAM Geo-Lock Option D is invalid because this is not a recommended practices For more information on MFA, please visit the below URL
http://docs.IAM.amazon.com/IAM/latest/UserGuide/id
credentials 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 162
A security engineer is configuring a mechanism to send an alert when three or more failed sign-in attempts to the AWS Management Console occur during a 5-minute period. The security engineer creates a trail in AWS CloudTrail to assist in this work.
Which solution will meet these requirements?

A. In CloudTrail, turn on Insights events on the trai
B. Configure an alarm on the insight with eventName matching ConsoleLogin and errorMessage matching "Failed authentication". Configure a threshold of 3 and a period of 5 minutes.
C. Configure CloudTrail to send events to Amazon CloudWatch Log
D. Create a metric filter for the relevant log grou
E. Create a filter pattern with eventName matching ConsoleLogin and errorMessage matching "Failed authentication". Create a CloudWatch alarm with a threshold of 3 and a period of 5 minutes.
F. Create an Amazon Athena table from the CloudTrail event
G. Run a query for eventName matching ConsoleLogin and for errorMessage matching "Failed authentication". Create a notification action from the query to send an Amazon Simple Notification Service (Amazon SNS) notification when the count equals 3 within a period of 5 minutes.
H. In AWS Identity and Access Management Access Analyzer, create a new analyze
I. Configure the analyzer to send an Amazon Simple Notification Service (Amazon SNS) notification when a failed sign-in event occurs 3 times for any IAM user within a period of 5 minutes.

Answer: B

Explanation:
The correct answer is B. Configure CloudTrail to send events to Amazon CloudWatch Logs. Create a metric filter for the relevant log group. Create a filter pattern with eventName matching ConsoleLogin and errorMessage matching "Failed authentication". Create a CloudWatch alarm with a threshold of 3 and a period of 5 minutes.
This answer is correct because it meets the requirements of sending an alert when three or more failed sign-in attempts to the AWS Management Console occur during a 5-minute period. By configuring CloudTrail to send events to CloudWatch Logs, the security engineer can create a metric filter that matches the desired pattern of failed sign-in events. Then, by creating a CloudWatch alarm based on the metric filter, the security engineer can set a threshold of 3 and a period of 5 minutes, and choose an action such as sending an email or an Amazon Simple Notification Service (Amazon SNS) message when the alarm is triggered12.
The other options are incorrect because:

≫ A. Turning on Insights events on the trail and configuring an alarm on the insight is not a solution, because Insights events are used to analyze unusual activity in management events, such as spikes in API call volume or error rates. Insights events do not capture failed sign-in attempts to the AWS Management Console3.

≫ C. Creating an Amazon Athena table from the CloudTrail events and running a query for failed sign-in events is not a solution, because it does not provide a mechanism to send an alert based on the query results. Amazon Athena is an interactive query service that allows analyzing data in Amazon S3 using standard SQL, but it does not support creating notifications or alarms from queries4.

≫ D. Creating an analyzer in AWS Identity and Access Management Access Analyzer and configuring it to send an Amazon SNS notification when a failed sign-in event occurs 3 times for any IAM user within a period of 5 minutes is not a solution, because IAM Access Analyzer is not a service that monitors
sign-in events, but a service that helps identify resources that are shared with external entities. IAM Access Analyzer does not generate findings for failed sign-in attempts to the AWS Management Console5.
References:
1: Sending CloudTrail Events to CloudWatch Logs - AWS CloudTrail 2: Creating Alarms Based on Metric Filters - Amazon CloudWatch 3: Analyzing unusual activity in management events - AWS CloudTrail 4: What is Amazon Athena? - Amazon Athena 5: Using AWS Identity and Access Management Access Analyzer - AWS Identity and Access Management

NEW QUESTION 164
A Network Load Balancer (NLB) target instance is not entering the InService state. A security engineer determines that health checks are failing.
Which factors could cause the health check failures? (Select THREE.)

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

Answer: ACD

NEW QUESTION 166
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 169
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