

Exam Questions AWS-Certified-Security-Specialty

Amazon AWS Certified Security - Specialty

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NEW QUESTION 1

A company discovers a billing anomaly in its AWS account. A security consultant investigates the anomaly and discovers that an employee who left the company 30 days ago still has access to the account.

The company has not monitored account activity in the past.

The security consultant needs to determine which resources have been deployed or reconfigured by the employee as quickly as possible.

Which solution will meet these requirements?

- A. In AWS Cost Explorer, filter chart data to display results from the past 30 day
- B. Export the results to a data tabl
- C. Group the data table by re-source.
- D. Use AWS Cost Anomaly Detection to create a cost monito
- E. Access the detec-tion histor
- F. Set the time frame to Last 30 day
- G. In the search area, choose the service category.
- H. In AWS CloudTrail, filter the event history to display results from the past 30 day
- I. Create an Amazon Athena table that contains the dat
- J. Parti-tion the table by event source.
- K. Use AWS Audit Manager to create an assessment for the past 30 day
- L. Apply a usage-based framework to the assessmen
- M. Configure the assessment to as-sess by resource.

Answer: C

NEW QUESTION 2

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 3

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. A screenshot of a computer code Description automatically generated

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

C. A screenshot of a computer code Description automatically generated

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

D. A screenshot of a computer code Description automatically generated

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

Answer: A

NEW QUESTION 4

A company has retail stores The company is designing a solution to store scanned copies of customer receipts on Amazon S3 Files will be between 100 KB and 5 MB in PDF format Each retail store must have a unique encryption key Each object must be encrypted with a unique key Which solution will meet these requirements?

- A. Create a dedicated AWS Key Management Service (AWS KMS) customer managed key for each retail store Use the S3 Put operation to upload the objects to Amazon S3 Specify server-side encryption with AWS KMS keys (SSE-KMS) and the key ID of the store's key
- B. Create a new AWS Key Management Service (AWS KMS) customer managed key every day for each retail store Use the KMS Encrypt operation to encrypt objects Then upload the objects to Amazon S3
- C. Run the AWS Key Management Service (AWS KMS) GenerateDataKey operation every day for each retail store Use the data key and client-side encryption to encrypt the objects Then upload the objects to Amazon S3
- D. Use the AWS Key Management Service (AWS KMS) ImportKeyMaterial operation to import new key material to AWS KMS every day for each retail store Use a customer managed key and the KMS Encrypt operation to encrypt the objects Then upload the objects to Amazon S3

Answer: A

Explanation:

To meet the requirements of storing scanned copies of customer receipts on Amazon S3, where files will be between 100 KB and 5 MB in PDF format, each retail store must have a unique encryption key, and each object must be encrypted with a unique key, the most appropriate solution would be to create a dedicated AWS Key Management Service (AWS KMS) customer managed key for each retail store. Then, use the S3 Put operation to upload the objects to Amazon S3, specifying server-side encryption with AWS KMS keys (SSE-KMS) and the key ID of the store's key.

References: : Amazon S3 - Amazon Web Services : AWS Key Management Service - Amazon Web Services : Amazon S3 - Amazon Web Services : AWS Key Management Service - Amazon Web Service

NEW QUESTION 5

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 6

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 trail
- 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 7

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 federation based 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 8

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 occurred (AccessDenied) when calling the AssumeRole operation."

Which combination of steps should the security engineer take to resolve this error? (Select TWO.)

- A. Ensure that LambdaAuditRole has the sts:AssumeRole permission for AcmeAuditFactoryRole.
- 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-1 Region endpoint.

Answer: AC

NEW QUESTION 9

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 10

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 (from 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 the 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 will secure.

Answer: CDF

NEW QUESTION 10

A company's engineering team is developing a new application that creates IAM Key Management Service (IAM KMS) CMK grants for users immediately after a grant is created. Users must be able to use the CMK to encrypt a 512-byte payload. During load testing, a bug appears intermittently where `AccessDeniedExceptions` are occasionally triggered when a user first attempts to encrypt using the CMK. Which solution should the company's security specialist recommend?

- A. Instruct users to implement a retry mechanism every 2 minutes until the call succeeds.
- B. Instruct the engineering team to consume a random grant token from users, and to call the `CreateGrant` operation, passing it the grant token.
- C. Instruct users to use that grant token in their call to encrypt.
- D. Instruct the engineering team to create a random name for the grant when calling the `CreateGrant` operation.
- E. Return the name to the users and instruct them to provide the name as the grant token in the call to encrypt.
- F. Instruct the engineering team to pass the grant token returned in the `CreateGrant` response to users. Instruct users to use that grant token in their call to encrypt.

Answer: D

Explanation:

To avoid `AccessDeniedExceptions` when users first attempt to encrypt using the CMK, the security specialist should recommend the following solution:

- Instruct the engineering team to pass the grant token returned in the `CreateGrant` response to users. This allows the engineering team to use the grant token as a form of temporary authorization for the grant.
- Instruct users to use that grant token in their call to encrypt. This allows the users to use the grant token as a proof that they have permission to use the CMK, and to avoid any eventual consistency issues with the grant creation.

NEW QUESTION 11

A developer has created an AWS Lambda function in a company's development account. The Lambda function requires the use of an AWS Key Management Service (AWS KMS) customer managed key that exists in a security account that the company's security team controls. The developer obtains the ARN of the KMS key from a previous Lambda function in the development account. The previous Lambda function had been working properly with the KMS key. When the developer uses the ARN and tests the new Lambda function, an error message states that access is denied to the KMS key in the security account. The developer tests the previous Lambda function that uses the same KMS key and discovers that the previous Lambda function still can encrypt data as expected. A security engineer must resolve the problem so that the new Lambda function in the development account can use the KMS key from the security account. Which combination of steps should the security engineer take to meet these requirements? (Select TWO.)

- A. In the security account, configure an IAM role for the new Lambda function.
- B. Attach an IAM policy that allows access to the KMS key in the security account.
- C. In the development account, configure an IAM role for the new Lambda function.
- D. Attach a key policy that allows access to the KMS key in the security account.
- E. In the development account, configure an IAM role for the new Lambda function.
- F. Attach an IAM policy that allows access to the KMS key in the security account.
- G. Configure a key policy for the KMS key in the security account to allow access to the IAM role of the new Lambda function in the security account.
- H. Configure a key policy for the KMS key in the security account to allow access to the IAM role of the new Lambda function in the development account.

Answer: CE

Explanation:

To allow cross-account access to a KMS key, the key policy of the KMS key must grant permission to the external account or principal, and the IAM policy of the external account or principal must delegate the key policy permission. In this case, the new Lambda function in the development account needs to use the KMS key in the security account, so the key policy of the KMS key must allow access to the IAM role of the new Lambda function in the development account (option E), and the IAM role of the new Lambda function in the development account must have an IAM policy that allows access to the KMS key in the security account (option C). Option A is incorrect because it creates an IAM role for the new Lambda function in the security account, not in the development account. Option B is incorrect because it attaches a key policy to an IAM role, which is not valid. Option D is incorrect because it allows access to the IAM role of the new Lambda function in the security account, not in the development account. Verified References:

- <https://docs.aws.amazon.com/autoscaling/ec2/userguide/key-policy-requirements-EBS-encryption.html>

NEW QUESTION 14

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 19

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 key.
- 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 key.
- 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 20

A company's cloud operations team is responsible for building effective security for IAM cross-account access. The team asks a security engineer to help troubleshoot why some developers in the developer account (123456789012) in the developers group are not able to assume a cross-account role (ReadS3) into a production account (999999999999) to read the contents of an Amazon S3 bucket (productionapp). The two account policies are as follows:

Developer account 123456789012:

Developer group permissions:

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Action": "sts:AssumeRole",
      "Resource": "arn:aws:iam::999999999999:role/ReadS3"
    }
  ]
}
```

Production account 999999999999:

Production account ReadS3 role policy:

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Action": "s3:ListAllMyBuckets",
      "Resource": "*"
    },
    {
      "Effect": "Allow",
      "Action": [
        "s3:ListBucket",
        "s3:GetBucketLocation"
      ]
    }
  ]
}
```

Production account ReadS3 role policy - trust relationship:

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Principal": {
        "AWS": "arn:aws:iam::888888888888:root"
      },
      "Action": "sts:AssumeRole",
      "Condition": {
        "BoolIfExists": {
          "aws:MultiFactorAuthPresent": "true"
        }
      }
    }
  ]
}
```

Which recommendations should the security engineer make to resolve this issue? (Select TWO.)

- A. Ask the developers to change their password and use a different web browser.
- B. Ensure that developers are using multi-factor authentication (MFA) when they log in to their developer account as the developer role.
- C. Modify the production account ReadS3 role policy to allow the PutBucketPolicy action on the productionapp S3 bucket.
- D. Update the trust relationship policy on the production account S3 role to allow the account number of the developer account.
- E. Update the developer group permissions in the developer account to allow access to the productionapp S3 bucket.

Answer: AD

NEW QUESTION 24

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 account
- 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 account
- 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 account
- 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 account
- 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 26

There are currently multiple applications hosted in a VPC. During monitoring it has been noticed that multiple port scans are coming in from a specific IP Address block. The internal security team has requested that all offending IP Addresses be denied for the next 24 hours. Which of the following is the best method to quickly and temporarily deny access from the specified IP Address's.

Please select:

- A. Create an AD policy to modify the Windows Firewall settings on all hosts in the VPC to deny access from the IP Address block.
- B. Modify the Network ACLs associated with all public subnets in the VPC to deny access from the IP Address block.
- C. Add a rule to all of the VPC Security Groups to deny access from the IP Address block.
- D. Modify the Windows Firewall settings on all AMI'S that your organization uses in that VPC to deny access from the IP address block.

Answer: B

Explanation:

NACL acts as a firewall at the subnet level of the VPC and we can deny the offending IP address block at the subnet level using NACL rules to block the incoming traffic to the VPC instances. Since NACL rules are applied as per the Rule numbers make sure that this rule number should take precedence over other rule numbers if there are any such rules that will allow traffic from these IP ranges. The lowest rule number has more precedence over a rule that has a higher number. The IAM Documentation mentions the following as a best practices for IAM users

For extra security, enable multi-factor authentication (MFA) for privileged IAM users (users who are allowed access to sensitive resources or APIs). With MFA, users have a device that generates a unique authentication code (a one-time password, or OTP). Users must provide both their normal credentials (like their user name and password) and the OTP. The MFA device can either be a special piece of hardware, or it can be a virtual device (for example, it can run in an app on a smartphone).

Options C is invalid because these options are not available Option D is invalid because there is not root access for users

For more information on IAM best practices, please visit the below URL: <https://docs.IAM.amazon.com/IAM/latest/UserGuide/best-practices.html>

The correct answer is: Modify the Network ACLs associated with all public subnets in the VPC to deny access from the IP Address block.

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NEW QUESTION 27

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 1024-65535. 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 30

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 ELBSecutyPolicy-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 31

Amazon GuardDuty has detected communications to a known command and control endpoint from a company's Amazon EC2 instance. The instance was found to be running a vulnerable version of a common web framework. The company's security operations team wants to quickly identify other compute resources with the specific version of that framework installed.

Which approach should the team take to accomplish this task?

- A. Scan all the EC2 instances for noncompliance with IAM Confi
- B. Use Amazon Athena to query IAM CloudTrail logs for the framework installation
- C. Scan all the EC2 instances with the Amazon Inspector Network Reachability rules package to identify instances running a web server with RecognizedPortWithListener findings
- D. Scan all the EC2 instances with IAM Systems Manager to identify the vulnerable version of the web framework
- E. Scan an the EC2 instances with IAM Resource Access Manager to identify the vulnerable version of the web framework

Answer: C

Explanation:

To quickly identify other compute resources with the specific version of the web framework installed, the team should do the following:

- Scan all the EC2 instances with AWS Systems Manager to identify the vulnerable version of the web framework. This allows the team to use AWS Systems Manager Inventory to collect and query information about the software installed on their EC2 instances, and to filter the results by software name and version.

NEW QUESTION 35

A company has an application that uses dozens of Amazon DynamoDB tables to store data. Auditors find that the tables do not comply with the company's data protection policy.

The company's retention policy states that all data must be backed up twice each month: once at midnight on the 15th day of the month and again at midnight on the 25th day of the month. The company must retain the backups for 3 months.

Which combination of steps should a security engineer take to meet these re-quirements? (Select TWO.)

- A. Use the DynamoDB on-demand backup capability to create a backup pla
- B. Con-figure a lifecycle policy to expire backups after 3 months.
- C. Use AWS DataSync to create a backup pla
- D. Add a backup rule that includes a retention period of 3 months.
- E. Use AVVS Backup to create a backup pla
- F. Add a backup rule that includes a retention period of 3 months.
- G. Set the backup frequency by using a cron schedule expressio
- H. Assign each DynamoDB table to the backup plan.
- I. Set the backup frequency by using a rate schedule expressio
- J. Assign each DynamoDB table to the backup plan.

Answer: AD

NEW QUESTION 39

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 40

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

Which solution meets these requirements in the MOST secure way?

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

Answer: C

Explanation:

This solution ensures that the Lambda functions are deployed inside the VPC and can communicate with the Amazon RDS DB instance securely. The security group attached to the Lambda functions only allows

outbound traffic to the VPC CIDR range, and the DB instance security group only allows traffic from the Lambda security group. This solution ensures that the Lambda functions can communicate with the DB instance securely and that the DB instance is not exposed to the public internet.

NEW QUESTION 43

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

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

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

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

Answer: ACE

NEW QUESTION 46

A security engineer needs to create an Amazon S3 bucket policy to grant least privilege read access to IAM user accounts that are named User1, 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 50

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

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

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

Answer: A

Explanation:

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

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

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

NEW QUESTION 52

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

Please select:

- A. Set up VPC peering between the central server VPC and each of the teams VPCs.
- B. Set up IAM DirectConnect between the central server VPC and each of the teams VPCs.

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

Answer: A

Explanation:

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

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

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

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

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

NEW QUESTION 54

A company hosts a public website on an Amazon EC2 instance. HTTPS traffic must be able to access the website. The company uses SSH for management of the web server.

The website is on the subnet 10.0.1.0/24. The management subnet is 192.168.100.0/24. A security engineer must create a security group for the EC2 instance. Which combination of steps should the security engineer take to meet these requirements in the MOST secure manner? (Select TWO.)

- A. Allow port 22 from source 0.0.0.0/0.
B. Allow port 443 from source 0.0.0.0/0.
C. Allow port 22 from 192.168.100.0/24.
D. Allow port 22 from 10.0.1.0/24.
E. Allow port 443 from 10.0.1.0/24.

Answer: BC

Explanation:

The correct answer is B and C.

* B. Allow port 443 from source 0.0.0.0/0.

This is correct because port 443 is used for HTTPS traffic, which must be able to access the website from any source IP address.

* C. Allow port 22 from 192.168.100.0/24.

This is correct because port 22 is used for SSH, which is the management protocol for the web server. The management subnet is 192.168.100.0/24, so only this subnet should be allowed to access port 22.

* A. Allow port 22 from source 0.0.0.0/0.

This is incorrect because it would allow anyone to access port 22, which is a security risk. SSH should be restricted to the management subnet only.

* D. Allow port 22 from 10.0.1.0/24.

This is incorrect because it would allow the website subnet to access port 22, which is unnecessary and a security risk. SSH should be restricted to the management subnet only.

* E. Allow port 443 from 10.0.1.0/24.

This is incorrect because it would limit the HTTPS traffic to the website subnet only, which defeats the purpose of having a public website.

NEW QUESTION 55

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 60

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 minimizes 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 key
C. Upload the signature to the AWS identity provider entity defined in AWS Identity and Access Management (IAM) by using the AWS CLI.
D. Download the updated SAML metadata file from the identity service provider
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 Access 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 62

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 instance
- B. Send the custom logs to CloudTrail instead of CloudWatch.
- C. Add Amazon S3 to the trust policy of the EC2 instance
- 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 instance
- 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 64

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 SDK
- B. Use each keyring individually or combine keyrings into a multi-keyring
- C. Decrypt the data by using a keyring that has the primary key in the multi-keyring.
- D. Use data key caching
- E. Use the local cache that the AWS Encryption SDK provides with a caching cryptographic materials manager.
- F. Use KMS key rotation
- G. Use a local cache in the AWS Encryption SDK with a caching cryptographic materials manager.
- H. Use keyrings with the AWS Encryption SDK
- I. Use each keyring individually or combine keyrings into a multi-keyring
- 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 65

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 69

A company is running workloads in a single IAM account on Amazon EC2 instances and Amazon EMR clusters. A recent security audit revealed that multiple Amazon Elastic Block Store (Amazon EBS) volumes and snapshots are not encrypted. The company's security engineer is working on a solution that will allow users to deploy EC2 instances and EMR clusters while ensuring that all new EBS volumes and EBS snapshots are encrypted at rest. The solution must also minimize operational overhead. Which steps should the security engineer take to meet these requirements?

- A. Create an Amazon Event Bridge (Amazon CloudWatch Events) event with an EC2 instance as the source and create volume as the event trigger.
- B. When the event is triggered, invoke an IAM Lambda function to evaluate and notify the security engineer if the EBS volume that was created is not encrypted.
- C. Use a customer managed IAM policy that will verify that the encryption tag of the CreateVolume context is set to true.
- D. Apply this rule to all users.
- E. Create an IAM Config rule to evaluate the configuration of each EC2 instance on creation or modification. Have the IAM Config rule trigger an IAM Lambda function to alert the security team and terminate the instance if the EBS volume is not encrypted.
- F. 5
- G. Use the IAM Management Console or IAM CLI to enable encryption by default for EBS volumes in each IAM Region where the company operates.

Answer: D

Explanation:

To ensure that all new EBS volumes and EBS snapshots are encrypted at rest and minimize operational overhead, the security engineer should do the following:

- Use the AWS Management Console or AWS CLI to enable encryption by default for EBS volumes in each AWS Region where the company operates. This allows the security engineer to automatically encrypt any new EBS volumes and snapshots created from those volumes, without requiring any additional actions from users.

NEW QUESTION 74

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

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

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

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

Answer: AE

Explanation:

The combination of solutions that will meet the requirements are:

- A. Create a local individual break glass IAM user for the security team. Create a trail in AWS CloudTrail that has Amazon CloudWatch Logs turned on. Use Amazon EventBridge to monitor local user activities. This is a valid solution because it allows the security team to access the workload AWS account and instances using a local IAM user that does not depend on SAML federation. It also enables logging and monitoring of the break glass user activities using AWS CloudTrail, Amazon CloudWatch Logs, and Amazon EventBridge123.
 - E. Configure AWS Systems Manager Session Manager for Amazon EC2. Configure an AWS CloudTrail filter based on Session Manager. Send the results to an Amazon Simple Notification Service (Amazon SNS) topic. This is a valid solution because it allows the security team to access the workload instances without opening any inbound ports or managing SSH keys or bastion hosts. It also enables logging and notification of the break glass user activities using AWS CloudTrail, Session Manager, and Amazon SNS456.
- The other options are incorrect because:
- B. Creating a break glass EC2 key pair for the AWS account and providing it to the security team is not a valid solution, because it requires opening inbound ports on the instances and managing SSH keys, which increases the security risk and complexity7.
 - C. Creating a break glass IAM role for the account and allowing security team members to perform the AssumeRoleWithSAML operation is not a valid solution, because it still depends on SAML federation, which might not work in case of SAML errors8.
 - D. Creating a local individual break glass IAM user on the operating system level of each workload instance and configuring unrestricted security groups on the instances to grant access to the break glass IAM users is not a valid solution, because it requires opening inbound ports on the instances and managing multiple local users, which increases the security risk and complexity9.

References:

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

NEW QUESTION 79

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 84

A company hosts business-critical applications on Amazon EC2 instances in a VPC. The VPC uses default DHCP options sets. A security engineer needs to log all DNS queries that internal resources make in the VPC. The security engineer also must create a list of the most common DNS queries over time.

Which solution will meet these requirements?

- A. Install the Amazon CloudWatch agent on each EC2 instance in the VPC.
- B. Use the CloudWatch agent to stream the DNS query logs to an Amazon CloudWatch Logs log group.
- C. Use CloudWatch metric filters to automatically generate metrics that list the most common DNS queries.
- D. Install a BIND DNS server in the VPC.
- E. Create a bash script to list the DNS request number of common DNS queries from the BIND logs.
- F. Create VPC flow logs for all subnets in the VPC.
- G. Stream the flow logs to an Amazon CloudWatch Logs log group.
- H. Use CloudWatch Logs Insights to list the most common DNS queries for the log group in a custom dashboard.
- I. Configure Amazon Route 53 Resolver query logging.
- J. Add an Amazon CloudWatch Logs log group as the destination.
- K. Use Amazon CloudWatch Contributor Insights to analyze the data and create time series that display the most common DNS queries.

Answer: D

Explanation:

<https://aws.amazon.com/blogs/aws/log-your-vpc-dns-queries-with-route-53-resolver-query-logs/>

NEW QUESTION 85

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

A security engineer validates that AWS CloudTrail is turned on in all AWS Regions. CloudTrail is sending logs to an S3 bucket that is named DOC-EXAMPLE-BUCKET2. This S3 bucket is in the same AWS account as DOC-EXAMPLE-BUCKET1. However, CloudTrail has not been configured to send logs to Amazon CloudWatch Logs.

The company wants to know if any objects in DOC-EXAMPLE-BUCKET1 were accessed with the IAM access key in the past 60 days. If any objects were accessed, the company wants to know if any of the objects that are text files (.txt extension) contained personally identifiable information (PII).

Which combination of steps should the security engineer take to gather this information? (Choose two.)

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

Answer: AD

NEW QUESTION 88

A company is attempting to conduct forensic analysis on an Amazon EC2 instance, but the company is unable to connect to the instance by using AWS Systems Manager Session Manager. The company has installed AWS Systems Manager Agent (SSM Agent) on the EC2 instance.

The EC2 instance is in a subnet in a VPC that does not have an internet gateway attached. The company has associated a security group with the EC2 instance. The security group does not have inbound or outbound rules. The subnet's network ACL allows all inbound and outbound traffic.

Which combination of actions will allow the company to conduct forensic analysis on the EC2 instance without compromising forensic data? (Select THREE.)

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

Answer: BCF

NEW QUESTION 93

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 team
- B. Associate policies with each IAM group
- C. Provision IAM users for each application team member
- 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 roles for each team
- F. Conduct a quarterly review of the IAM roles the team leads have provisioned
- G. Ensure that the application team leads have the appropriate training to review IAM roles.
- H. Put each AWS account in its own OU
- I. Add an SCP to each OU to grant access to only the AWS services that the teams plan to use
- J. Include conditions in 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 (C).

Verified References:

➤ https://docs.aws.amazon.com/IAM/latest/UserGuide/access_policies_boundaries.html

NEW QUESTION 97

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

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

Answer: A

NEW QUESTION 101

A company created an IAM account for its developers to use for testing and learning purposes. Because the IAM account will be shared among multiple teams of developers, the company wants to restrict the ability to stop and terminate Amazon EC2 instances so that a team can perform these actions only on the instances it owns.

Developers were instructed to tag all their instances with a Team tag key and use the team name in the tag value. One of the first teams to use this account is Business Intelligence. A security engineer needs to develop a highly scalable solution for providing developers with access to the appropriate resources within the account. The security engineer has already created individual IAM roles for each team.

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

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

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

B. For each team create an IAM policy similar to the one that follows. Populate the IAM TagKeys/Team condition key with a proper team name.

C. Attach the resulting policies to the corresponding IAM roles.

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

D. Tag each IAM role with a Team tag key.

E. and use the team name in the tag value.

F. Create an IAM policy similar to the one that follows, and attach it to all the IAM roles used by developers.

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

G. Tag each IAM role with the Team key, and use the team name in the tag value.

H. Create an IAM policy similar to the one that follows, and attach it to all the IAM roles used by developers.


```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "NotAction": [
        "ec2:StopInstances",
        "ec2:TerminateInstances"
      ],
      "Resource": "*"
    },
    {
      "Effect": "Allow",
      "Action": [
        "ec2:StopInstances",
        "ec2:TerminateInstances"
      ],
      "Resource": "*",
      "Condition": {
        "ForAnyValue:StringEquals": {
          "aws:TagKeys/Team": "2 (aws:PrincipalTag/Team)"
        }
      }
    }
  ]
}
```

Answer: A

NEW QUESTION 104

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

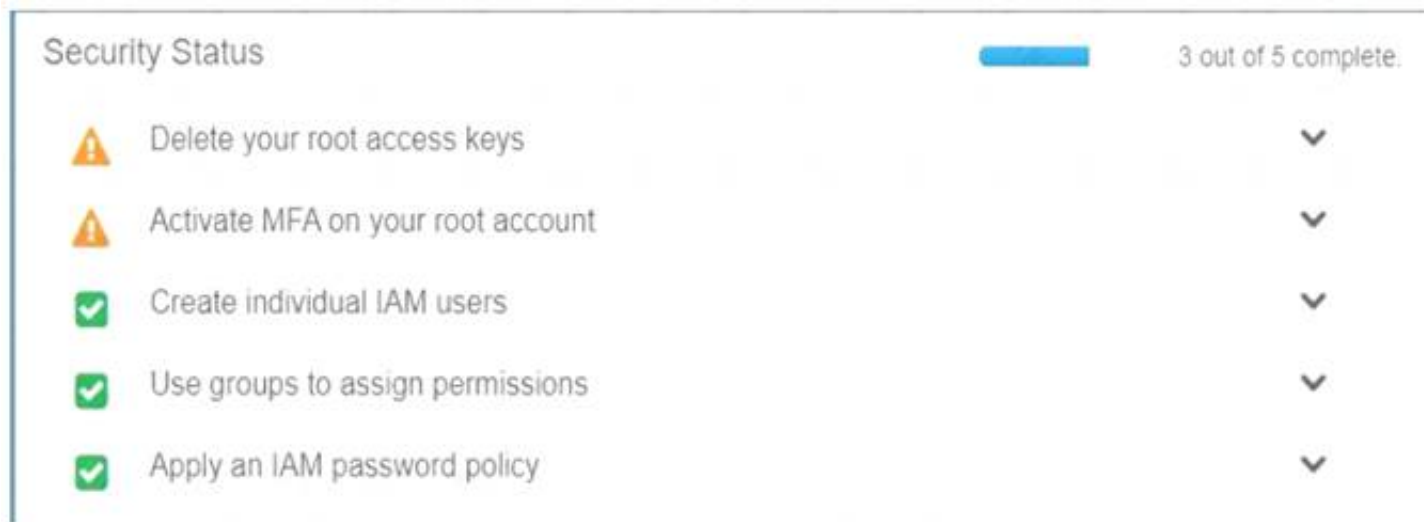
- A. Use short but complex password on the root account and any administrators.
- B. Use IAM Geo-Lock and disallow anyone from logging in except for in your city.
- C. Use MFA on all users and accounts, especially on the root account.
- D. Don't write down or remember the root account password after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

Answer: C

Explanation:

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

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



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

http://docs.IAM.amazon.com/IAM/latest/UserGuide/id_credentials_mfa.html

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 108

An international company wants to combine AWS Security Hub findings across all the company's AWS Regions and from multiple accounts. In addition, the company wants to create a centralized custom dashboard to correlate these findings with operational data for deeper analysis and insights. The company needs an analytics tool to search and visualize Security Hub findings. Which combination of steps will meet these requirements? (Select THREE.)

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

Answer: BDF

Explanation:

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

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

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

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

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

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

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

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

To use S3 with Security Hub findings, you need to create an S3 bucket that will store the logs from Kinesis Data Firehose delivery streams. You can then partition the data in the bucket by using prefixes such as account ID or Region. This will improve the performance and cost-effectiveness of querying the data.

According to the AWS documentation, AWS Glue is a fully managed extract, transform, and load (ETL) service that makes it easy to prepare and load your data for analytics. You can use Glue to crawl your data sources, identify data formats, and suggest schemas and transformations. You can also use Glue Data Catalog as a central metadata repository for your data assets.

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

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

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

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

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

NEW QUESTION 111

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

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

Answer: C

Explanation:

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

NEW QUESTION 114

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

How can the security engineer implement this solution?

- A. Create a new security group in the database VPC and create an inbound rule that allows all traffic from the IP address range of the application VPC
- B. Add a new network ACL rule on the database subnet
- C. Configure the rule to TCP port 1521 from the IP address range of the application VPC

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

Answer: C

NEW QUESTION 116

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

A.

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

B. A computer code with black text Description automatically generated

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

C. A computer code with black text Description automatically generated

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

D. A computer code with text Description automatically generated

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

Answer: C

Explanation:

https://docs.aws.amazon.com/IAM/latest/UserGuide/reference_policies_examples_aws_deny-requested-region.h

NEW QUESTION 118

A company is planning to use Amazon Elastic File System (Amazon EFS) with its on-premises servers. The company has an existing IAM Direct Connect connection established between its on-premises data center and an IAM Region. Security policy states that the company's on-premises firewall should only have specific IP addresses added to the allow list and not a CIDR range. The company also wants to restrict access so that only certain data center-based servers have access to Amazon EFS.

How should a security engineer implement this solution?

- A. Add the file-system-id efs IAM-region amazonIAM.com URL to the allow list for the data center firewall. Install the IAM CLI on the data center-based servers to mount the EFS file system in the EFS security group. Add the data center IP range to the allow list. Mount the EFS using the EFS file system name.
- B. Assign an Elastic IP address to Amazon EFS and add the Elastic IP address to the allow list for the data center firewall. Install the IAM CLI on the data center-based servers to mount the EFS file system. In the EFS security group, add the IP addresses of the data center servers to the allow list. Mount the EFS using the Elastic IP address.
- C. Add the EFS file system mount target IP addresses to the allow list for the data center firewall. In the EFS security group, add the data center server IP addresses to the allow list. Use the Linux terminal to mount the EFS file system using the IP address of one of the mount targets.
- D. Assign a static range of IP addresses for the EFS file system by contacting IAM Support. In the EFS security group, add the data center server IP addresses to the allow list. Use the Linux terminal to mount the EFS file system using one of the static IP addresses.

Answer: B

Explanation:

To implement the solution, the security engineer should do the following:

- Assign an Elastic IP address to Amazon EFS and add the Elastic IP address to the allow list for the data center firewall. This allows the security engineer to use a specific IP address for the EFS file system that can be added to the firewall rules, instead of a CIDR range or a URL.
- Install the AWS CLI on the data center-based servers to mount the EFS file system. This allows the security engineer to use the mount helper provided by AWS CLI to mount the EFS file system with encryption in transit.
- In the EFS security group, add the IP addresses of the data center servers to the allow list. This allows the security engineer to restrict access to the EFS file system to only certain data center-based servers.
- Mount the EFS using the Elastic IP address. This allows the security engineer to use the Elastic IP address as the DNS name for mounting the EFS file system.

NEW QUESTION 123

A company has multiple departments. Each department has its own IAM account. All these accounts belong to the same organization in IAM Organizations. A large .csv file is stored in an Amazon S3 bucket in the sales department's IAM account. The company wants to allow users from the other accounts to access the .csv file's content through the combination of IAM Glue and Amazon Athena. However, the company does not want to allow users from the other accounts to access other files in the same folder. Which solution will meet these requirements?

- A. Apply a user policy in the other accounts to allow IAM Glue and Athena to access the .csv file.
- B. Use S3 Select to restrict access to the .csv file.
- C. In IAM Glue Data Catalog, use S3 Select as the source of the IAM Glue database.
- D. Define an IAM Glue Data Catalog resource policy in IAM Glue to grant cross-account S3 object access to the .csv file.
- E. Grant IAM Glue access to Amazon S3 in a resource-based policy that specifies the organization as the principal.

Answer: A

NEW QUESTION 125

Within a VPC, a corporation runs an Amazon RDS Multi-AZ DB instance. The database instance is connected to the internet through a NAT gateway via two subnets.

Additionally, the organization has application servers that are hosted on Amazon EC2 instances and use the RDS database. These EC2 instances have been deployed onto two more private subnets inside the same VPC. These EC2 instances connect to the internet through a default route via the same NAT gateway.

Each VPC subnet has its own route table.

The organization implemented a new security requirement after a recent security examination. Never allow the database instance to connect to the internet. A security engineer must perform this update promptly without interfering with the network traffic of the application servers.

How will the security engineer be able to comply with these requirements?

- A. Remove the existing NAT gateway
- B. Create a new NAT gateway that only the application server subnets can use.
- C. Configure the DB instance's inbound network ACL to deny traffic from the security group ID of the NAT gateway.
- D. Modify the route tables of the DB instance subnets to remove the default route to the NAT gateway.
- E. Configure the route table of the NAT gateway to deny connections to the DB instance subnets.

Answer: C

Explanation:

Each subnet has a route table, so modify the routing associated with DB instance subnets to prevent internet access.

NEW QUESTION 130

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

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

What should the Security Engineer do to troubleshoot this issue?

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

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

B)

Add the following statement to the CMK key policy:

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

C)

Add the following statement to the CMK key policy:

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

D)

Add the following statement to the CMK key policy:


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

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

Answer: D

NEW QUESTION 135

A company is undergoing a layer 3 and layer 4 DDoS attack on its web servers running on IAM. Which combination of IAM services and features will provide protection in this scenario? (Select THREE).

- A. Amazon Route 53
- B. IAM Certificate Manager (ACM)
- C. Amazon S3
- D. IAM Shield
- E. Elastic Load Balancer
- F. Amazon GuardDuty

Answer: DEF

NEW QUESTION 137

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

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

Answer: A

NEW QUESTION 140

A company's security engineer is developing an incident response plan to detect suspicious activity in an AWS account for VPC hosted resources. The security engineer needs to provide visibility for as many AWS Regions as possible. Which combination of steps will meet these requirements MOST cost-effectively? (Select TWO.)

- A. Turn on VPC Flow Logs for all VPCs in the account.
- B. Activate Amazon GuardDuty across all AWS Regions.
- C. Activate Amazon Detective across all AWS Regions.
- D. Create an Amazon Simple Notification Service (Amazon SNS) topi
- E. Create an Amazon EventBridge rule that responds to findings and publishes the find-ings to the SNS topic.
- F. Create an AWS Lambda functio
- G. Create an Amazon EventBridge rule that in-vokes the Lambda function to publish findings to Amazon Simple Email Ser-vice (Amazon SES).

Answer: BD

Explanation:

To detect suspicious activity in an AWS account for VPC hosted resources, the security engineer needs to use a service that can monitor network traffic and API calls across all AWS Regions. Amazon GuardDuty is a threat detection service that can do this by analyzing VPC Flow Logs, AWS CloudTrail event logs, and DNS logs. By activating GuardDuty across all AWS Regions, the security engineer can provide visibility for as many regions as possible. GuardDuty generates findings that contain details about the potential threats detected in the account. To respond to these findings, the security engineer needs to create a mechanism that can notify the relevant stakeholders or take remedial actions. One way to do this is to use Amazon EventBridge, which is a serverless event bus service that can connect AWS services and third-party applications. By creating an EventBridge rule that responds to GuardDuty findings and publishes them to an Amazon Simple Notification Service (Amazon SNS) topic, the security engineer can enable subscribers of the topic to receive notifications via email, SMS, or other methods. This is a cost-effective solution that does not require any additional infrastructure or code.

NEW QUESTION 141

A business requires a forensic logging solution for hundreds of Docker-based apps running on Amazon EC2. The solution must analyze logs in real time, provide message replay, and persist logs.

Which Amazon Web Offerings (IAM) services should be employed to satisfy these requirements? (Select two.)

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

Answer: BD

NEW QUESTION 143

A company deploys a distributed web application on a fleet of Amazon EC2 instances. The fleet is behind an Application Load Balancer (ALB) that will be configured to terminate the TLS connection. All TLS traffic to the ALB must stay secure, even if the certificate private key is compromised. How can a security engineer meet this requirement?

- A. Create an HTTPS listener that uses a certificate that is managed by IAM Certificate Manager (ACM).
- B. Create an HTTPS listener that uses a security policy that uses a cipher suite with perfect forward secrecy (PFS).
- C. Create an HTTPS listener that uses the Server Order Preference security feature.
- D. Create a TCP listener that uses a custom security policy that allows only cipher suites with perfect forward secrecy (PFS).

Answer: A

NEW QUESTION 145

A team is using AWS Secrets Manager to store an application database password. Only a limited number of IAM principals within the account can have access to the secret. The principals who require access to the secret change frequently. A security engineer must create a solution that maximizes flexibility and scalability. Which solution will meet these requirements?

- A. Use a role-based approach by creating an IAM role with an inline permissions policy that allows access to the secret.
- B. Update the IAM principals in the role trust policy as required.
- C. Deploy a VPC endpoint for Secrets Manager.
- D. Create and attach an endpoint policy that specifies the IAM principals that are allowed to access the secret.
- E. Update the list of IAM principals as required.
- F. Use a tag-based approach by attaching a resource policy to the secret.
- G. Apply tags to the secret and the IAM principal.
- H. Use the aws:PrincipalTag and aws:ResourceTag IAM condition keys to control access.
- I. Use a deny-by-default approach by using IAM policies to deny access to the secret explicitly.
- J. Attach the policies to an IAM group.
- K. Add all IAM principals to the IAM group.
- L. Remove principals from the group when they need access.
- M. Add the principals to the group again when access is no longer allowed.

Answer: C

NEW QUESTION 148

A company is building an application on IAM 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 field.
- D. Use an IAM Lambda function to rotate database credential.
- E. Set up TLS for the connection to the database.
- F. Install a database on an Amazon EC2 instance.
- G. Enable third-party disk encryption to encrypt the Amazon Elastic Block Store (Amazon EBS) volume.
- H. Store the database credentials in IAM CloudHSM with automatic rotation.
- 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 IAM Secrets Manager with automatic rotation.
- M. Set up TLS for the connection to the RDS hosted database.
- N. Set up an IAM CloudHSM cluster with IAM Key Management Service (IAM KMS) to store KMS keys. Set up Amazon RDS encryption using IAM KMS to encrypt the databases.
- O. Store database credentials in the IAM Systems Manager Parameter Store with automatic rotation.
- P. Set up TLS for the connection to the RDS hosted database.

Answer: C

Explanation:

To protect the sensitive data against any data breach and minimize management overhead, the security engineer should recommend the following solution:

- Enable Amazon RDS encryption to encrypt the database and snapshots. This allows the security engineer to use AWS Key Management Service (AWS KMS) to encrypt data at rest for the database and any backups or replicas.
- Enable Amazon Elastic Block Store (Amazon EBS) encryption on Amazon EC2 instances. This allows the security engineer to use AWS KMS to encrypt data at rest for the EC2 instances and any snapshots or volumes.
- Store the database credentials in AWS Secrets Manager with automatic rotation. This allows the security engineer to encrypt and manage secrets centrally, and to configure automatic rotation schedules for them.
- Set up TLS for the connection to the RDS hosted database. This allows the security engineer to encrypt data in transit between the EC2 instances and the

database.

NEW QUESTION 153

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

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

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

Answer: AC

Explanation:

If you lose the private key for an EBS-backed instance, you can regain access to your instance. You must stop the instance, detach its root volume and attach it to another instance as a data volume, modify the `authorized_keys` file with a new public key, move the volume back to the original instance, and restart the instance.

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/TroubleshootingInstancesConnecting.html#replacing>

NEW QUESTION 154

During a manual review of system logs from an Amazon Linux EC2 instance, a Security Engineer noticed that there are sudo commands that were never properly alerted or reported on the Amazon CloudWatch Logs agent

Why were there no alerts on the sudo commands?

- A. There is a security group blocking outbound port 80 traffic that is preventing the agent from sending the logs
- B. The IAM instance profile on the EC2 instance was not properly configured to allow the CloudWatchLogs agent to push the logs to CloudWatch
- C. CloudWatch Logs status is set to ON versus SECURE, which prevents it from pulling in OS security event logs
- D. The VPC requires that all traffic go through a proxy, and the CloudWatch Logs agent does not support a proxy configuration.

Answer: B

Explanation:

the reason why there were no alerts on the sudo commands. Sudo commands are commands that allow a user to execute commands as another user, usually the superuser or root. CloudWatch Logs agent is a software agent that can send log data from an EC2 instance to CloudWatch Logs, a service that monitors and stores log data. The CloudWatch Logs agent needs an IAM instance profile, which is a container for an IAM role that allows applications running on an EC2 instance to make API requests to AWS services. If the IAM instance profile on the EC2 instance was not properly configured to allow the CloudWatch Logs agent to push the logs to CloudWatch, then there would be no alerts on the sudo commands. The other options are either irrelevant or invalid for explaining why there were no alerts on the sudo commands.

NEW QUESTION 156

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

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

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

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

Answer: A

NEW QUESTION 161

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