

Amazon

Exam Questions AWS-Certified-Security-Specialty

Amazon AWS Certified Security - Specialty



NEW QUESTION 1

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

- A. Put all users into an IAM group with an access policy granting access to the S3 bucket.
- B. Have the account creation trigger an IAM Lambda function that manages the bucket policy, allowing access to accounts listed in the policy only.
- C. Add an SCP to the Organizations master account, allowing all principals access to the bucket.
- D. Specify the organization ID in the global key condition element of a bucket policy, allowing all principals access.

Answer: D

NEW QUESTION 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-policy.html> 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 wants to prevent SSH access through the use of SSH key pairs for any Amazon Linux 2 Amazon EC2 instances in its AWS account. However, a system administrator occasionally will need to access these EC2 instances through SSH in an emergency. For auditing purposes, the company needs to record any commands that a user runs in an EC2 instance.

What should a security engineer do to configure access to these EC2 instances to meet these requirements?

- A. Use the EC2 serial console Configure the EC2 serial console to save all commands that are entered to an Amazon S3 bucket
- B. Provide the EC2 instances with an IAM role that allows the EC2 serial console to access Amazon S3. Configure an IAM account for the system administrator
- C. Provide an IAM policy that allows the IAM account to use the EC2 serial console.
- D. Use EC2 Instance Connect Configure EC2 Instance Connect to save all commands that are entered to Amazon CloudWatch Log
- E. Provide the EC2 instances with an IAM role that allows the EC2 instances to access CloudWatch Logs Configure an IAM account for the system administrator
- F. Provide an IAM policy that allows the IAM account to use EC2 Instance Connect.
- G. Use an EC2 key pair with an EC2 instance that needs SSH access Access the EC2 instance with this key pair by using SSH
- H. Configure the EC2 instance to save all commands that are entered to Amazon CloudWatch Log
- I. Provide the EC2 instance with an IAM role that allows the EC2 instance to access Amazon S3 and CloudWatch Logs.
- J. Use AWS Systems Manager Session Manager Configure Session Manager to save all commands that are entered in a session to an Amazon S3 bucket
- K. Provide the EC2 instances with an IAM role that allows Systems Manager to manage the EC2 instance
- L. Configure an IAM account for the system administrator Provide an IAM policy that allows the IAM account to use Session Manager.

Answer: D

Explanation:

Open the AWS Systems Manager console at <https://console.aws.amazon.com/systems-manager/>. In the navigation pane, choose Session Manager. Choose the Preferences tab, and then choose Edit. Select the check box next to Enable under S3 logging. (Recommended) Select the check box next to Allow only encrypted S3 buckets. With this option turned on, log data is encrypted using the server-side encryption key specified for the bucket. If you don't want to encrypt the log data that is sent to Amazon S3, clear the check box. You must also clear the check box if encryption isn't allowed on the S3 bucket.

NEW QUESTION 5

Company A has an AWS account that is named Account A. Company A recently acquired Company B, which has an AWS account that is named Account B. Company B stores its files in an Amazon S3 bucket.

The administrators need to give a user from Account A full access to the S3 bucket in Account B.

After the administrators adjust the IAM permissions for the user in Account A to access the S3 bucket in Account B, the user still cannot access any files in the S3 bucket.

Which solution will resolve this issue?

- A. In Account B, create a bucket ACL to allow the user from Account A to access the S3 bucket in Account B.
- B. In Account B, create an object ACL to allow the user from Account A to access all the objects in the S3 bucket in Account B.
- C. In Account B, create a bucket policy to allow the user from Account A to access the S3 bucket in Account B.
- D. In Account B, create a user policy to allow the user from Account A to access the S3 bucket in Account B.

Answer: C

Explanation:

A bucket policy is a resource-based policy that defines permissions for a specific S3 bucket. It can be used to grant cross-account access to another AWS account or an IAM user or role in another account. A bucket policy can also specify which actions, resources, and conditions are allowed or denied.

A bucket ACL is an access control list that grants basic read or write permissions to predefined groups of users. It cannot be used to grant cross-account access to a specific IAM user or role in another account.

An object ACL is an access control list that grants basic read or write permissions to predefined groups of users for a specific object in an S3 bucket. It cannot be used to grant cross-account access to a specific IAM user or role in another account.

A user policy is an IAM policy that defines permissions for an IAM user or role in the same account. It cannot be used to grant cross-account access to another AWS account or an IAM user or role in another account.

For more information, see [Provide cross-account access to objects in Amazon S3 buckets](#) and [Example 2: Bucket owner granting cross-account bucket permissions](#).

NEW QUESTION 6

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 7

A company has an encrypted Amazon Aurora DB cluster in the us-east-1 Region. The DB cluster is encrypted with an AWS Key Management Service (AWS KMS) customer managed key. To meet compliance requirements, the company needs to copy a DB snapshot to the us-west-1 Region. However, when the company tries to copy the snapshot to us-west-1 the company cannot access the key that was used to encrypt the original database. What should the company do to set up the snapshot in us-west-1 with proper encryption?

- A. Use AWS Secrets Manager to store the customer managed key in us-west-1 as a secret Use this secret to encrypt the snapshot in us-west-1.
- B. Create a new customer managed key in us-west-1. Use this new key to encrypt the snapshot in us-west-1.
- C. Create an IAM policy that allows access to the customer managed key in us-east-1. Specify `arn:aws:kms:us-east-1:*` as the principal.
- D. Create an IAM policy that allows access to the customer managed key in us-east-1. Specify `arn:aws:rds:us-west-1:*` as the principal.

Answer: B

Explanation:

"If you copy an encrypted snapshot across Regions, you must specify a KMS key valid in the destination AWS Region. It can be a Region-specific KMS key, or a multi-Region key." <https://docs.aws.amazon.com/AmazonRDS/latest/AuroraUserGuide/aurora-copy-snapshot.html#aurora-copy-sna>

NEW QUESTION 8

A security engineer wants to use Amazon Simple Notification Service (Amazon SNS) to send email alerts to a company's security team for Amazon GuardDuty findings that have a High severity level. The security engineer also wants to deliver these findings to a visualization tool for further examination. Which solution will meet these requirements?

- A. Set up GuardDuty to send notifications to an Amazon CloudWatch alarm with two targets in CloudWatc
- B. From CloudWatch, stream the findings through Amazon Kinesis Data Streams into an Amazon OpenSearch Service domain as the first target for deliver
- C. Use Amazon QuickSight to visualize the finding
- D. Use OpenSearch queries for further analysi
- E. Deliver email alerts to the security team by configuring an SNS topic as a second target for the CloudWatch alar
- F. Use event pattern matching with an Amazon EventBridge event rule to send only High severity findings in the alerts.
- G. Set up GuardDuty to send notifications to AWS CloudTrail with two targets in CloudTrai
- H. From CloudTrail, stream the findings through Amazon Kinesis Data Firehose into an Amazon OpenSearch Service domain as the first target for deliver
- I. Use OpenSearch Dashboards to visualize the finding
- J. Use OpenSearch queries for further analysi
- K. Deliver email alerts to the security team by configuring an SNS topic as a second target for CloudTrai
- L. Use event pattern matching with a CloudTrail event rule to send only High severity findings in the alerts.
- M. Set up GuardDuty to send notifications to Amazon EventBridge with two target
- N. From EventBridge, stream the findings through Amazon Kinesis Data Firehose into an Amazon OpenSearch Service domain as the first target for deliver

- O. Use OpenSearch Dashboards to visualize the finding
- P. Use OpenSearch queries for further analysis
- Q. Deliver email alerts to the security team by configuring an SNS topic as a second target for EventBridge
- R. Use event pattern matching with an EventBridge event rule to send only High severity findings in the alerts.
- S. Set up GuardDuty to send notifications to Amazon EventBridge with two targets
- T. From EventBridge, stream the findings through Amazon Kinesis Data Streams into an Amazon OpenSearch Service domain as the first target for delivery
- . Use Amazon QuickSight to visualize the finding
- . Use OpenSearch queries for further analysis
- . Deliver email alerts to the security team by configuring an SNS topic as a second target for EventBridge
- . Use event pattern matching with an EventBridge event rule to send only High severity findings in the alerts.

Answer: C

NEW QUESTION 9

A company wants to migrate its static primary domain website to AWS. The company hosts the website and DNS servers internally. The company wants the website to enforce SSL/TLS encryption block IP addresses from outside the United States (US), and take advantage of managed services whenever possible. Which solution will meet these requirements?

- A. Migrate the website to Amazon S3 Import a public SSL certificate to an Application Load Balancer
- B. Balancer with rules to block traffic from outside the US Migrate DNS to Amazon Route 53.
- C. Migrate the website to Amazon EC2 Import a public SSL certificate that is created by AWS Certificate Manager (ACM) to an Application Load Balancer with rules to block traffic from outside the US Update DNS accordingly.
- D. Migrate the website to Amazon S3. Import a public SSL certificate to Amazon CloudFront Use AWS WAF rules to block traffic from outside the US Update DNS accordingly
- E. Migrate the website to Amazon S3 Import a public SSL certificate that is created by AWS Certificate Manager (ACM) to Amazon CloudFront
- F. CloudFront Configure CloudFront to block traffic from outside the US
- G. Migrate DNS to Amazon Route 53.

Answer: D

Explanation:

To migrate the static website to AWS and meet the requirements, the following steps are required:

- Migrate the website to Amazon S3, which is a highly scalable and durable object storage service that can host static websites. To do this, create an S3 bucket with the same name as the domain name of the website, enable static website hosting for the bucket, upload the website files to the bucket, and configure the bucket policy to allow public read access to the objects. For more information, see [Hosting a static website on Amazon S3](#).
 - Import a public SSL certificate that is created by AWS Certificate Manager (ACM) to Amazon CloudFront, which is a global content delivery network (CDN) service that can improve the performance and security of web applications. To do this, request or import a public SSL certificate for the domain name of the website using ACM, create a CloudFront distribution with the S3 bucket as the origin, and associate the SSL certificate with the distribution. For more information, see [Using alternate domain names and HTTPS](#).
 - Configure CloudFront to block traffic from outside the US, which is one of the requirements. To do this, create a CloudFront web ACL using AWS WAF, which is a web application firewall service that lets you control access to your web applications. In the web ACL, create a rule that uses a geo match condition to block requests that originate from countries other than the US. Associate the web ACL with the CloudFront distribution. For more information, see [How AWS WAF works with Amazon CloudFront features](#).
 - Migrate DNS to Amazon Route 53, which is a highly available and scalable cloud DNS service that can route traffic to various AWS services. To do this, register or transfer your domain name to Route 53, create a hosted zone for your domain name, and create an alias record that points your domain name to your CloudFront distribution. For more information, see [Routing traffic to an Amazon CloudFront web distribution by using your domain name](#).
- The other options are incorrect because they either do not implement SSL/TLS encryption for the website (A), do not use managed services whenever possible (B), or do not block IP addresses from outside the US (C). Verified References:
- <https://docs.aws.amazon.com/AmazonS3/latest/userguide/HostingWebsiteOnS3Setup.html>
 - <https://docs.aws.amazon.com/waf/latest/developerguide/waf-cloudfront.html>
 - <https://docs.aws.amazon.com/Route53/latest/DeveloperGuide/routing-to-cloudfront-distribution.html>

NEW QUESTION 10

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

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

Answer: B

Explanation:

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

NEW QUESTION 10

A company has a large fleet of Linux Amazon EC2 instances and Windows EC2 instances that run in private subnets. The company wants all remote administration to be performed as securely as possible in the AWS Cloud. Which solution will meet these requirements?

- A. Do not use SSH-RSA private keys during the launch of new instance
- B. Implement AWS Systems Manager Session Manager.

- C. Generate new SSH-RSA private keys for existing instance
- D. Implement AWS Systems Manager Session Manager.
- E. Do not use SSH-RSA private keys during the launch of new instance
- F. Configure EC2 Instance Connect.
- G. Generate new SSH-RSA private keys for existing instance
- H. Configure EC2 Instance Connect.

Answer: A

Explanation:

AWS Systems Manager Session Manager is a fully managed service that allows you to securely and remotely administer your EC2 instances without the need to open inbound ports, maintain bastion hosts, or manage SSH keys. Session Manager provides an interactive browser-based shell or CLI access to your instances, as well as port forwarding and auditing capabilities. Session Manager works with both Linux and Windows instances, and supports hybrid environments and edge devices.

EC2 Instance Connect is a feature that allows you to use SSH to connect to your Linux instances using short-lived keys that are generated on demand and delivered securely through the AWS metadata service. EC2 Instance Connect does not require any additional software installation or configuration on the instance, but it does require you to use SSH-RSA keys during the launch of new instances.

The correct answer is to use Session Manager, as it provides more security and flexibility than EC2 Instance Connect, and does not require SSH-RSA keys or inbound ports. Session Manager also works with Windows instances, while EC2 Instance Connect does not.

Verified References:

- <https://docs.aws.amazon.com/systems-manager/latest/userguide/session-manager.html>
- <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/Connect-using-EC2-Instance-Connect.html>
- <https://repost.aws/questions/QUnV4R9EoeSdW0GT3cKBUR7w/what-is-the-difference-between-ec-2-ins>

NEW QUESTION 15

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 18

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 20

A company wants to establish separate IAM Key Management Service (IAM KMS) keys to use for different IAM services. The company's security engineer created the following key policy to allow the infrastructure deployment team to create encrypted Amazon Elastic Block Store (Amazon EBS) volumes by assuming the InfrastructureDeployment IAM role:

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

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

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

Answer: C

Explanation:

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

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

NEW QUESTION 21

A System Administrator is unable to start an Amazon EC2 instance in the eu-west-1 Region using an IAM role. The same System Administrator is able to start an EC2 instance in the eu-west-2 and eu-west-3 Regions. The IAMSystemAdministrator access policy attached to the System Administrator IAM role allows unconditional access to all IAM services and resources within the account.

Which configuration caused this issue?

- A) An SCP is attached to the account with the following permission statement:

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "All",
      "Action": "*",
      "Resource": "*"
    },
    {
      "Effect": "Deny",
      "NotAction": [
        "iam:*",
        "organizations:*",
        "route53:*",
        "budgets:*",
        "waf:*",
        "cloudfront:*",
        "globalaccelerator:*",
        "importexport:*",
        "support:*"
      ],
      "Resource": "*",
      "Condition": {
        "StringEquals": {
          "aws:RequestedRegion": [
            "eu-west-*"
          ]
        }
      }
    }
  ]
}
```

B)
 A permission boundary policy is attached to the System Administrator role with the following permission statement:

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Action": [
        "ec2:*"
      ],
      "Resource": "*"
    },
    {
      "Effect": "Deny",
      "NotAction": [
        "iam:*",
        "organizations:*",
        "route53:*",
        "budgets:*",
        "waf:*",
        "cloudfront:*",
        "globalaccelerator:*",
        "importexport:*",
        "support:*",
        "ec2:*"
      ],
      "Resource": "*",
      "Condition": {
        "StringEquals": {
          "aws:RequestedRegion": [
            "eu-west-1"
          ]
        }
      }
    }
  ]
}
```

C) A permission boundary is attached to the System Administrator role with the following permission statement:

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Action": [
        "ec2:*"
      ],
      "Resource": "*"
    },
    {
      "Version": "2012-10-17",
      "Statement": [
        {
          "Effect": "Allow",
          "Action": "ec2:*",
          "Resource": "*",
          "Condition": {
            "StringEquals": {
              "aws:RequestedRegion": [
                "eu-west-1"
              ]
            }
          }
        }
      ]
    }
  ]
}
```

D) An SCP is attached to the account with the following statement:

```

"Version": "2012-10-17",
"Statement": [
  {
    "Effect": "Allow",
    "Action": "*",
    "Resource": "*"
  },
  {
    "Effect": "Deny",
    "NotAction": [
      "iam:*",
      "organization:*",
      "route53:*",
      "budgets:*",
      "waf:*",
      "cloudfront:*",
      "globalaccelerator:*",
      "importexport:*",
      "support:*",
      "ec2:*"
    ],
    "Resource": "*",
    "Condition": {
      "StringEquals": {
        "aws:RequestedRegion": "eu-west-1"
      }
    }
  }
]

```

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

Answer: B

NEW QUESTION 23

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 28

A security engineer receives an IAM abuse email message. According to the message, an Amazon EC2 instance that is running in the security engineer's IAM account is sending phishing email messages.

The EC2 instance is part of an application that is deployed in production. The application runs on many EC2 instances behind an Application Load Balancer. The instances run in an Amazon EC2 Auto Scaling group across multiple subnets and multiple Availability Zones.

The instances normally communicate only over the HTTP, HTTPS, and MySQL protocols. Upon investigation, the security engineer discovers that email messages are being sent over port 587. All other traffic is normal.

The security engineer must create a solution that contains the compromised EC2 instance, preserves forensic evidence for analysis, and minimizes application downtime. Which combination of steps must the security engineer take to meet these requirements? (Select THREE.)

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

Answer: ACE

NEW QUESTION 31

A company finds that one of its Amazon EC2 instances suddenly has a high CPU usage. The company does not know whether the EC2 instance is compromised or whether the operating system is performing background cleanup.

Which combination of steps should a security engineer take before investigating the issue? (Select THREE.)

- A. Disable termination protection for the EC2 instance if termination protection has not been disabled.

- B. Enable termination protection for the EC2 instance if termination protection has not been enabled.
- C. Take snapshots of the Amazon Elastic Block Store (Amazon EBS) data volumes that are attached to the EC2 instance.
- D. Remove all snapshots of the Amazon Elastic Block Store (Amazon EBS) data volumes that are attached to the EC2 instance.
- E. Capture the EC2 instance metadata, and then tag the EC2 instance as under quarantine.
- F. Immediately remove any entries in the EC2 instance metadata that contain sensitive information.

Answer: BCE

Explanation:

https://d1.awsstatic.com/WWPS/pdf/aws_security_incident_response.pdf

NEW QUESTION 34

A company uses Amazon RDS for MySQL as a database engine for its applications. A recent security audit revealed an RDS instance that is not compliant with company policy for encrypting data at rest. A security engineer at the company needs to ensure that all existing RDS databases are encrypted using server-side encryption and that any future deviations from the policy are detected.

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

- A. Create an IAM Config rule to detect the creation of unencrypted RDS database
- B. Create an Amazon EventBridge (Amazon CloudWatch Events) rule to trigger on the IAM Config rules compliance state change and use Amazon Simple Notification Service (Amazon SNS) to notify the security operations team.
- C. Use IAM System Manager State Manager to detect RDS database encryption configuration drift
- D. Create an Amazon EventBridge (Amazon CloudWatch Events) rule to track state changes and use Amazon Simple Notification Service (Amazon SNS) to notify the security operations team.
- E. Create a read replica for the existing unencrypted RDS database and enable replica encryption in the process
- F. Once the replica becomes active, promote it into a standalone database instance and terminate the unencrypted database instance.
- G. Take a snapshot of the unencrypted RDS database
- H. Copy the snapshot and enable snapshot encryption in the process
- I. Restore the database instance from the newly created encrypted snapshot
- J. Terminate the unencrypted database instance.
- K. Enable encryption for the identified unencrypted RDS instance by changing the configurations of the existing database

Answer: AD

NEW QUESTION 39

An ecommerce website was down for 1 hour following a DDoS attack. Users were unable to connect to the website during the attack period. The ecommerce company's security team is worried about future potential attacks and wants to prepare for such events. The company needs to minimize downtime in its response to similar attacks in the future.

Which steps would help achieve this? (Select TWO.)

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

Answer: BE

Explanation:

To minimize downtime in response to DDoS attacks, the company should do the following:

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

NEW QUESTION 40

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

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

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

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

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

Answer: BF

Explanation:

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

- Grant the IAM role the kms.Decrypt permission for the key in us-east-1 that encrypts source objects. This will allow the IAM role to decrypt the source objects before replicating them to the destination bucket. The kms.Decrypt permission must be granted in the key policy of the source KMS key or in an IAM policy attached to the IAM role.
 - Grant the IAM role the kms.Encrypt permission for the key in us-west-2 that encrypts objects that are in the destination S3 bucket. This will allow the IAM role to encrypt the replica objects with the destination KMS key before storing them in the destination bucket. The kms.Encrypt permission must be granted in the key policy of the destination KMS key or in an IAM policy attached to the IAM role.
- This solution will remediate the issue of encrypted objects not being replicated to the destination bucket. The other options are incorrect because they either do not grant the necessary permissions for CRR (A, C, D), or do not use a valid encryption method for CRR (E).

Verified References:

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

NEW QUESTION 42

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

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

Answer: AC

Explanation:

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

- Update the S3 bucket policy to restrict access to a CloudFront origin access identity (OAI). This allows the company to use a special CloudFront user that can access objects in their S3 bucket, and prevent anyone else from accessing them directly.
- Add a CloudFront geo restriction deny list of countries where the company lacks a license. This allows the company to use a feature that controls access to their content based on the geographic location of their viewers, and block requests from countries where they do not have a distribution license.

NEW QUESTION 47

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 registry
- 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 registry
- 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 registry
- 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 registry
- 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 50

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 direction. 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 application.
- > 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 protocols.
- > 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 ACL.

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 55

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 Config
- 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 all 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 60

A company has an application that uses an Amazon RDS PostgreSQL database. The company is developing an application feature that will store sensitive information for an individual in the database.

During a security review of the environment, the company discovers that the RDS DB instance is not encrypting data at rest. The company needs a solution that will provide encryption at rest for all the existing data and for any new data that is entered for an individual.

Which combination of options can the company use to meet these requirements? (Select TWO.)

- A. Create a snapshot of the DB instance
- B. Copy the snapshot to a new snapshot, and enable encryption for the copy process
- C. Use the new snapshot to restore the DB instance.
- D. Modify the configuration of the DB instance by enabling encryption
- E. Create a snapshot of the DB instance
- F. Use the snapshot to restore the DB instance.
- G. Use IAM Key Management Service (IAM KMS) to create a new default IAM managed AWS managed key. Select this key as the encryption key for operations with Amazon RDS.
- H. Use IAM Key Management Service (IAM KMS) to create a new CMK
- I. Select this key as the encryption key for operations with Amazon RDS.
- J. Create a snapshot of the DB instance
- K. Enable encryption on the snapshot. Use the snapshot to restore the DB instance.

Answer: CE

NEW QUESTION 63

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 66

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

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

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

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

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

Answer: CE

Explanation:

The AWS documentation states that you can add an outbound allow rule for 192.168.2.0/24 in subnet-2-NACL and add an outbound allow rule for 192.168.1.0/24 in subnet-2-NACL. This will allow the EC2 instances that are running in these two subnets to communicate again.

References: : Amazon VPC User Guide

NEW QUESTION 67

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 70

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

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

Answer: D

Explanation:

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

NEW QUESTION 74

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

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

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

A)

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

B)

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

C)

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

D)

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

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

Answer: A

NEW QUESTION 75

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

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

Answer: A

Explanation:

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

- > <https://docs.aws.amazon.com/secretsmanager/latest/userguide/rotating-secrets.html>
- > https://docs.aws.amazon.com/secretsmanager/latest/userguide/rotate-secrets_turn-on-for-other.html

NEW QUESTION 80

A company's security team is building a solution for logging and visualization. The solution will assist the company with the large variety and velocity of data that it receives from IAM across multiple accounts. The security team has enabled IAM CloudTrail and VPC Flow Logs in all of its accounts. In addition, the company has an organization in IAM Organizations and has an IAM Security Hub master account.

The security team wants to use Amazon Detective. However, the security team cannot enable Detective and is unsure why. What must the security team do to enable Detective?

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

Answer: D

NEW QUESTION 85

A company developed an application by using AWS Lambda, Amazon S3, Amazon Simple Notification Service (Amazon SNS), and Amazon DynamoDB. An external application puts objects into the company's S3 bucket and tags the objects with date and time. A Lambda function periodically pulls data from the company's S3 bucket based on date and time tags and inserts specific values into a DynamoDB table for further processing.

The data includes personally identifiable information (PII). The company must remove data that is older than 30 days from the S3 bucket and the DynamoDB table. Which solution will meet this requirement with the MOST operational efficiency?

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

Answer: B

NEW QUESTION 86

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

Which solution meets these requirements?

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

Answer: A

NEW QUESTION 87

A company is implementing new compliance requirements to meet customer needs. According to the new requirements, the company must not use any Amazon RDS DB instances or DB clusters that lack encryption of the underlying storage. The company needs a solution that will generate an email alert when an unencrypted DB instance or DB cluster is created. The solution also must terminate the unencrypted DB instance or DB cluster.

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

- A. Create an AWS Config managed rule to detect unencrypted RDS storage
- B. Configure an automatic remediation action to publish messages to an Amazon Simple Notification Service (Amazon SNS) topic that includes an AWS Lambda function and an email delivery target as subscriber

- C. Configure the Lambda function to delete the unencrypted resource.
- D. Create an AWS Config managed rule to detect unencrypted RDS storage
- E. Configure a manual remediation action to invoke an AWS Lambda function
- F. Configure the Lambda function to publish messages to an Amazon Simple Notification Service (Amazon SNS) topic and to delete the unencrypted resource.
- G. Create an Amazon EventBridge rule that evaluates RDS event patterns and is initiated by the creation of DB instances or DB clusters. Configure the rule to publish messages to an Amazon Simple Notification Service (Amazon SNS) topic that includes an AWS Lambda function and an email delivery target as a subscriber
- H. Configure the Lambda function to delete the unencrypted resource.
- I. Create an Amazon EventBridge rule that evaluates RDS event patterns and is initiated by the creation of DB instances or DB clusters
- J. Configure the rule to invoke an AWS Lambda function
- K. Configure the Lambda function to publish messages to an Amazon Simple Notification Service (Amazon SNS) topic and to delete the unencrypted resource.

Answer: A

Explanation:

<https://docs.aws.amazon.com/config/latest/developerguide/rds-storage-encrypted.html>

NEW QUESTION 91

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 95

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

Which statement should the security specialist include in the policy?

- A.

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

B.

```

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

```

```

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

```

```

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

```

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

Answer: D

NEW QUESTION 97

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

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

Answer: A

Explanation:

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

NEW QUESTION 100

A company plans to use AWS Key Management Service (AWS KMS) to implement an encryption strategy to protect data at rest. The company requires client-side encryption for company projects. The company is currently conducting multiple projects to test the company's use of AWS KMS. These tests have led to a sudden increase in the company's AWS resource consumption. The test projects include applications that issue multiple requests each second to KMS endpoints for encryption activities.

The company needs to develop a solution that does not throttle the company's ability to use AWS KMS. The solution must improve key usage for client-side encryption and must be cost optimized. Which solution will meet these requirements?

- A. Use keyrings with the AWS Encryption SD
- B. Use each keyring individually or combine keyrings into 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 SD
- 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 101

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

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

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

Answer: D

Explanation:

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

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

NEW QUESTION 104

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

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

Answer: C

Explanation:

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

NEW QUESTION 108

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

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

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

Answer: A

Explanation:

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

NEW QUESTION 111

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

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

Answer: AE

NEW QUESTION 114

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

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

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

Answer: C

Explanation:

https://docs.aws.amazon.com/organizations/latest/userguide/orgs_manage_policies_scps_syntax.html#scp-eleme

NEW QUESTION 119

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 121

A company wants to monitor the deletion of AWS Key Management Service (AWS KMS) customer managed keys. A security engineer needs to create an alarm that will notify the company before a KMS key is deleted. The security engineer has configured the integration of AWS CloudTrail with Amazon CloudWatch.

What should the security engineer do next to meet these requirements?

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

Answer: C

Explanation:

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

References: : AWS KMS Developer Guide

NEW QUESTION 125

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

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

Answer: D

Explanation:

The correct answer is D. The AWS Config rules have a MaximumExecutionFrequency value of 24 hours. According to the AWS documentation¹, the MaximumExecutionFrequency parameter specifies the maximum frequency with which AWS Config runs evaluations for a rule. For AWS Config managed rules, this value can be one of the following:

- > One_Hour
- > Three_Hours
- > Six_Hours
- > Twelve_Hours
- > TwentyFour_Hours

If the rule is triggered by configuration changes, it will still run evaluations when AWS Config delivers the configuration snapshot. However, if the rule is triggered periodically, it will not run evaluations more often than the specified frequency.

In this case, the security engineer enabled four AWS Config managed rules that are triggered periodically. Therefore, these rules will only run evaluations every 24 hours, regardless of when the IAM credential report is generated. This means that the resources will display as noncompliant until the next evaluation cycle, which could take up to 24 hours after the IAM access keys are rotated.

The other options are incorrect because:

- > A. The IAM credential report can be generated at any time, but it will not affect the compliance status of the resources until the next evaluation cycle of the AWS Config rules.
- > B. The security engineer was able to invoke the IAM GenerateCredentialReport API operation, which means they have the GenerateCredentialReport permission. This permission is required to generate a credential report that lists all IAM users in an AWS account and their credential status².
- > C. The security engineer does not need the GetCredentialReport permission to enable or evaluate AWS Config rules. This permission is required to retrieve a credential report that was previously generated by using the GenerateCredentialReport operation².

References:

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

NEW QUESTION 127

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

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

Answer: D

Explanation:

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

NEW QUESTION 131

A company uses AWS Organizations to manage a small number of AWS accounts. However, the company plans to add 1 000 more accounts soon. The company allows only a centralized security team to create IAM roles for all AWS accounts and teams. Application teams submit requests for IAM roles to the security team. The security team has a backlog of IAM role requests and cannot review and provision the IAM roles quickly.

The security team must create a process that will allow application teams to provision their own IAM roles. The process must also limit the scope of IAM roles and prevent privilege escalation.

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

- A. Create an IAM group for each application tea
- B. Associate policies with each IAM grou
- C. Provision IAM users for each application team membe
- D. Add the new IAM users to the appropriate IAM group by using role-based access control (RBAC).
- E. Delegate application team leads to provision IAM rotes for each tea
- F. Conduct a quarterly review of the IAM rotes the team leads have provisione
- G. Ensure that the application team leads have the appropriate training to review IAM roles.

- H. Put each AWS account in its own O
- I. Add an SCP to each OU to grant access to only the AWS services that the teams plan to us
- J. Include conditions tn the AWS account of each team.
- K. Create an SCP and a permissions boundary for IAM role
- L. Add the SCP to the root OU so that only roles that have the permissions boundary attached can create any new IAM roles.

Answer: D

Explanation:

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

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

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

➤ Add the SCP to the root organizational unit (OU) so that it applies to all accounts in the organization.

This will ensure that no IAM role can exceed the permissions defined by the SCP, regardless of how it is created or modified.

➤ Instruct the application teams to attach the permissions boundary to any IAM role they create. This will prevent them from creating IAM roles that can escalate their own privileges or access resources they are not authorized to access.

This solution will meet the requirements with the least operational overhead, as it leverages AWS Organizations and IAM features to delegate and limit IAM role creation without requiring manual reviews or approvals.

The other options are incorrect because they either do not allow application teams to provision their own IAM roles (A), do not limit the scope of IAM roles or prevent privilege escalation (B), or do not take advantage of managed services whenever possible ©.

Verified References:

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

NEW QUESTION 132

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

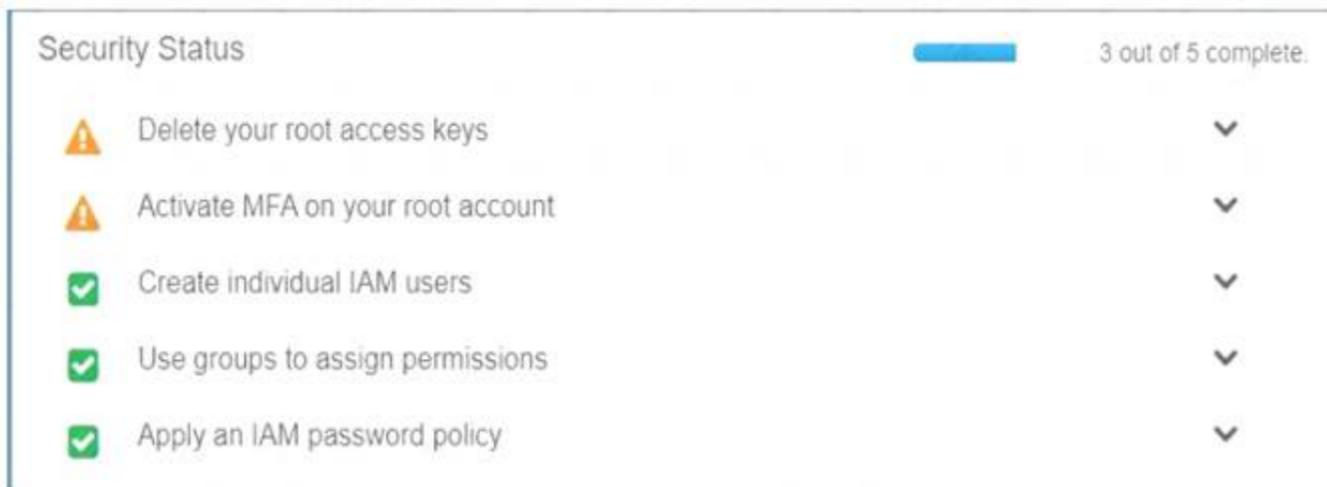
- A. Use short but complex password on the root account and any administrators.
- B. Use IAM IAM Geo-Lock and disallow anyone from logging in except for in your city.
- C. Use MFA on all users and accounts, especially on the root account.
- D. Don't write down or remember the root account password after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

Answer: C

Explanation:

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

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



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

http://docs.IAM.amazon.com/IAM/latest/UserGuide/id_credentials_mfa.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 137

A security engineer is configuring a mechanism to send an alert when three or more failed sign-in attempts to the AWS Management Console occur during a 5-minute period. The security engineer creates a trail in AWS CloudTrail to assist in this work.

Which solution will meet these requirements?

- A. In CloudTrail, turn on Insights events on the trail
- B. Configure an alarm on the insight with eventName matching ConsoleLogin and errorMessage matching "Failed authentication". Configure a threshold of 3 and a period of 5 minutes.
- C. Configure CloudTrail to send events to Amazon CloudWatch Log
- D. Create a metric filter for the relevant log group
- E. Create a filter pattern with eventName matching ConsoleLogin and errorMessage matching "Failed authentication". Create a CloudWatch alarm with a threshold of 3 and a period of 5 minutes.
- F. Create an Amazon Athena table from the CloudTrail event
- G. Run a query for eventName matching ConsoleLogin and for errorMessage matching "Failed authentication". Create a notification action from the query to send an Amazon Simple Notification Service (Amazon SNS) notification when the count equals 3 within a period of 5 minutes.

- H. In AWS Identity and Access Management Access Analyzer, create a new analyzer
 I. Configure the analyzer to send an Amazon Simple Notification Service (Amazon SNS) notification when a failed sign-in event occurs 3 times for any IAM user within a period of 5 minutes.

Answer: B

Explanation:

The correct answer is B. Configure CloudTrail to send events to Amazon CloudWatch Logs. Create a metric filter for the relevant log group. Create a filter pattern with eventName matching ConsoleLogin and errorMessage matching "Failed authentication". Create a CloudWatch alarm with a threshold of 3 and a period of 5 minutes.

This answer is correct because it meets the requirements of sending an alert when three or more failed sign-in attempts to the AWS Management Console occur during a 5-minute period. By configuring CloudTrail to send events to CloudWatch Logs, the security engineer can create a metric filter that matches the desired pattern of failed sign-in events. Then, by creating a CloudWatch alarm based on the metric filter, the security engineer can set a threshold of 3 and a period of 5 minutes, and choose an action such as sending an email or an Amazon Simple Notification Service (Amazon SNS) message when the alarm is triggered¹².

The other options are incorrect because:

- A. Turning on Insights events on the trail and configuring an alarm on the insight is not a solution, because Insights events are used to analyze unusual activity in management events, such as spikes in API call volume or error rates. Insights events do not capture failed sign-in attempts to the AWS Management Console³.
- C. Creating an Amazon Athena table from the CloudTrail events and running a query for failed sign-in events is not a solution, because it does not provide a mechanism to send an alert based on the query results. Amazon Athena is an interactive query service that allows analyzing data in Amazon S3 using standard SQL, but it does not support creating notifications or alarms from queries⁴.
- D. Creating an analyzer in AWS Identity and Access Management Access Analyzer and configuring it to send an Amazon SNS notification when a failed sign-in event occurs 3 times for any IAM user within a period of 5 minutes is not a solution, because IAM Access Analyzer is not a service that monitors sign-in events, but a service that helps identify resources that are shared with external entities. IAM Access Analyzer does not generate findings for failed sign-in attempts to the AWS Management Console⁵.

References:

- 1: Sending CloudTrail Events to CloudWatch Logs - AWS CloudTrail 2: Creating Alarms Based on Metric Filters - Amazon CloudWatch 3: Analyzing unusual activity in management events - AWS CloudTrail 4: What is Amazon Athena? - Amazon Athena 5: Using AWS Identity and Access Management Access Analyzer - AWS Identity and Access Management

NEW QUESTION 142

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

Which solution will meet these requirements?

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

Answer: A

NEW QUESTION 146

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

Please select:

- A. A Bastion host should be on a private subnet and never a public subnet due to security concerns
- B. A Bastion host sits on the outside of an internal network and is used as a gateway into the private network and is considered the critical strong point of the network
- C. Bastion hosts allow users to log in using RDP or SSH and use that session to S5H into internal network to access private subnet resources.
- D. A Bastion host should maintain extremely tight security and monitoring as it is available to the public

Answer: C

Explanation:

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

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

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

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

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

NEW QUESTION 149

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

- A. The target instance's security group does not allow traffic from the NLB.
- B. The target instance's security group is not attached to the NLB.
- C. The NLB's security group is not attached to the target instance.

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

Answer: ACD

NEW QUESTION 150

A security engineer needs to build a solution to turn IAM CloudTrail back on in multiple IAM Regions in case it is ever turned off. What is the MOST efficient way to implement this solution?

- A. Use IAM Config with a managed rule to trigger the IAM-EnableCloudTrail remediation.
- B. Create an Amazon EventBridge (Amazon CloudWatch Events) event with a cloudtrail.amazonaws.com event source and a StartLogging event name to trigger an IAM Lambda function to call the StartLogging API.
- C. Create an Amazon CloudWatch alarm with a cloudtrail.amazonaws.com event source and a StopLogging event name to trigger an IAM Lambda function to call the StartLogging API.
- D. Monitor IAM Trusted Advisor to ensure CloudTrail logging is enabled.

Answer: B

NEW QUESTION 152

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 156

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

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

Answer: C

NEW QUESTION 158

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 161

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

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

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

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

Answer: C

Explanation:

The correct answer is C. Change the Resource element to "arn:aws:s3:::DOC-EXAMPLE-BUCKET/*".

The reason is that the Resource element in the bucket policy specifies which objects in the bucket are affected by the policy. In this case, the policy only applies to the bucket itself, not the objects inside it. Therefore, the Lambda function cannot access the objects with the s3:GetObject permission. To fix this, the Resource element should include a wildcard (*) to match all objects in the bucket. This way, the policy grants the Lambda function permission to read any object in the bucket.

The other options are incorrect for the following reasons:

- > A. Removing the Condition element would not help, because it only restricts access based on the source IP address of the request. The Principal element should not be changed to the Lambda function ARN, because it specifies who is allowed or denied access by the policy. The policy should allow access to any principal ("*") and rely on IAM roles or policies to control access to the Lambda function.
- > B. Changing the Action element to include s3:GetBucket* would not help, because it would grant additional permissions that are not needed by the Lambda function, such as s3:GetBucketAcl or s3:GetBucketPolicy. The s3:GetObject* permission is sufficient for reading objects in the bucket.
- > D. Changing the Resource element to the Lambda function ARN would not make sense, because it would mean that the policy applies to the Lambda function itself, not the bucket or its objects. The Principal element should not be changed to s3.amazonaws.com, because it would grant access to any AWS service that uses S3, not just Lambda.

NEW QUESTION 163

A company has a single AWS account and uses an Amazon EC2 instance to test application code. The company recently discovered that the instance was

compromised. The instance was serving up malware. The analysis of the instance showed that the instance was compromised 35 days ago. A security engineer must implement a continuous monitoring solution that automatically notifies the company's security team about compromised instances through an email distribution list for high severity findings. The security engineer must implement the solution as soon as possible. Which combination of steps should the security engineer take to meet these requirements? (Choose three.)

- A. Enable AWS Security Hub in the AWS account.
- B. Enable Amazon GuardDuty in the AWS account.
- C. Create an Amazon Simple Notification Service (Amazon SNS) topic.
- D. Subscribe the security team's email distribution list to the topic.
- E. Create an Amazon Simple Queue Service (Amazon SQS) queue.
- F. Subscribe the security team's email distribution list to the queue.
- G. Create an Amazon EventBridge (Amazon CloudWatch Events) rule for GuardDuty findings of high severity.
- H. Configure the rule to publish a message to the topic.
- I. Create an Amazon EventBridge (Amazon CloudWatch Events) rule for Security Hub findings of high severity.
- J. Configure the rule to publish a message to the queue.

Answer: BCE

NEW QUESTION 165

A company deployed Amazon GuardDuty in the us-east-1 Region. The company wants all DNS logs that relate to the company's Amazon EC2 instances to be inspected. What should a security engineer do to ensure that the EC2 instances are logged?

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

Answer: C

Explanation:

To ensure that the EC2 instances are logged, the security engineer should do the following:

- Use AWS DNS resolvers for all EC2 instances. This allows the security engineer to use Amazon-provided DNS servers that resolve public DNS hostnames to private IP addresses within their VPC, and that log DNS queries in Amazon CloudWatch Logs.

NEW QUESTION 167

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

Please select:

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

Answer: A

Explanation:

The IAM Documentation mentions the following

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

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

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

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

NEW QUESTION 172

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