

Amazon

Exam Questions AWS-Certified-Security-Specialty

Amazon AWS Certified Security - Specialty



NEW QUESTION 1

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

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

Answer: A

Explanation:

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

NEW QUESTION 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 needs to improve its ability to identify and prevent IAM policies that grant public access or cross-account access to resources. The company has implemented AWS Organizations and has started using AWS Identity and Access Management Access Analyzer to refine overly broad access to accounts in the organization.

A security engineer must automate a response in the company's organization for any newly created policies that are overly permissive. The automation must remediate external access and must notify the company's security team.

Which combination of steps should the security engineer take to meet these requirements? (Select THREE.)

- A. Create an AWS Step Functions state machine that checks the resource type in the finding and adds an explicit Deny statement in the trust policy for the IAM role.
- B. Configure the state machine to publish a notification to an Amazon Simple Notification Service (Amazon SNS) topic.
- C. Create an AWS Batch job that forwards any resource type findings to an AWS Lambda function. Configure the Lambda function to add an explicit Deny statement in the trust policy for the IAM role.
- D. Configure the AWS Batch job to publish a notification to an Amazon Simple Notification Service (Amazon SNS) topic.

- E. In Amazon EventBridge, create an event rule that matches active IAM Access Analyzer findings and invokes AWS Step Functions for resolution.
- F. In Amazon CloudWatch, create a metric filter that matches active IAM Access Analyzer findings and invokes AWS Batch for resolution.
- G. Create an Amazon Simple Queue Service (Amazon SQS) queue.
- H. Configure the queue to forward a notification to the security team that an external principal has been granted access to the specific IAM role and has been blocked.
- I. Create an Amazon Simple Notification Service (Amazon SNS) topic for external or cross-account access notice.
- J. Subscribe the security team's email addresses to the topic.

Answer: ACF

Explanation:

The correct answer is A, C, and F.

To automate a response for any newly created policies that are overly permissive, the security engineer needs to use a combination of services that can monitor, analyze, remediate, and notify the security incidents.

Option A is correct because creating an AWS Step Functions state machine that checks the resource type in the finding and adds an explicit Deny statement in the trust policy for the IAM role is a valid way to remediate external access. AWS Step Functions is a service that allows you to coordinate multiple AWS services into serverless workflows. You can use Step Functions to invoke AWS Lambda functions, which can modify the IAM policies programmatically. You can also use Step Functions to publish a notification to an Amazon SNS topic, which can send messages to subscribers such as email addresses.

Option B is incorrect because creating an AWS Batch job that forwards any resource type findings to an AWS Lambda function is not a suitable way to automate a response. AWS Batch is a service that enables you to run batch computing workloads on AWS. Batch is designed for large-scale and long-running jobs that can benefit from parallelization and dynamic provisioning of compute resources. Batch is not intended for event-driven and real-time workflows that require immediate response.

Option C is correct because creating an Amazon EventBridge event rule that matches active IAM Access Analyzer findings and invokes AWS Step Functions for resolution is a valid way to monitor and analyze the security incidents. Amazon EventBridge is a serverless event bus service that allows you to connect your applications with data from various sources. EventBridge can use rules to match events and route them to targets for processing. You can use EventBridge to invoke AWS Step Functions state machines from the IAM Access Analyzer findings.

Option D is incorrect because creating an Amazon CloudWatch metric filter that matches active IAM Access Analyzer findings and invokes AWS Batch for resolution is not a suitable way to monitor and analyze the security incidents. Amazon CloudWatch is a service that provides monitoring and observability for your AWS resources and applications. CloudWatch can collect metrics, logs, and events from various sources and perform actions based on alarms or filters. However, CloudWatch cannot directly invoke AWS Batch jobs from the IAM Access Analyzer findings. You would need to use another service such as EventBridge or SNS to trigger the Batch job.

Option E is incorrect because creating an Amazon SQS queue that forwards a notification to the security team that an external principal has been granted access to the specific IAM role and has been blocked is not a valid way to notify the security incidents. Amazon SQS is a fully managed message queue service that enables you to decouple and scale microservices, distributed systems, and serverless applications. SQS can deliver messages to consumers that poll the queue for messages. However, SQS cannot directly forward a notification to the security team's email addresses. You would need to use another service such as SNS or SES to send email notifications.

Option F is correct because creating an Amazon SNS topic for external or cross-account access notices and subscribing the security team's email addresses to the topic is a valid way to notify the security incidents. Amazon SNS is a fully managed messaging service that enables you to decouple and scale microservices, distributed systems, and serverless applications. SNS can deliver messages to a variety of endpoints, such as email, SMS, or HTTP. You can use SNS to send email notifications to the security team when a critical security finding is detected.

References:

- AWS Step Functions
- AWS Batch
- Amazon EventBridge
- Amazon CloudWatch
- Amazon SQS
- Amazon SNS

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 deploys a set of standard IAM roles in AWS accounts. The IAM roles are based on job functions within the company. To balance operational efficiency and security, a security engineer implemented AWS Organizations SCPs to restrict access to critical security services in all company accounts.

All of the company's accounts and OUs within AWS Organizations have a default FullAWSAccess SCP that is attached. The security engineer needs to ensure that no one can disable Amazon GuardDuty and AWS Security Hub. The security engineer also must not override other permissions that are granted by IAM policies that are defined in the accounts.

Which SCP should the security engineer attach to the root of the organization to meet these requirements? A)

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

B)

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

C)


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

D)

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

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

Answer: A**NEW QUESTION 8**

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-west-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 9

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

- A. Create a new trail with the updated log file prefix, and then delete the original trail
- B. Update the existing bucket policy in the Amazon S3 console with the new log file prefix, and then update the log file prefix in the CloudTrail console.
- C. Update the existing bucket policy in the Amazon S3 console to allow the Security Engineer's Principal to perform `PutBucketPolicy`, and then update the log file prefix in the CloudTrail console.
- D. Update the existing bucket policy in the Amazon S3 console with the new log file prefix, and then update the log file prefix in the CloudTrail console.
- E. Update the existing bucket policy in the Amazon S3 console to allow the Security Engineer's Principal to perform `GetBucketPolicy`, and then update the log file prefix in the CloudTrail console.

Answer: C

Explanation:

The correct answer is C. Update the existing bucket policy in the Amazon S3 console with the new log file prefix, and then update the log file prefix in the CloudTrail console.

According to the AWS documentation¹, a bucket policy is a resource-based policy that you can use to grant access permissions to your Amazon S3 bucket and the objects in it. Only the bucket owner can associate a policy with a bucket. The permissions attached to the bucket apply to all of the objects in the bucket that are owned by the bucket owner.

When you create a trail in CloudTrail, you can specify an existing S3 bucket or create a new one to store your log files. CloudTrail automatically creates a bucket policy for your S3 bucket that grants CloudTrail write-only access to deliver log files to your bucket. The bucket policy also grants read-only access to AWS services that you can use to view and analyze your log data, such as Amazon Athena, Amazon CloudWatch Logs, and Amazon QuickSight.

If you want to update the log file prefix for an existing trail, you must also update the existing bucket policy in the S3 console with the new log file prefix. The log file prefix is part of the resource ARN that identifies the objects in your bucket that CloudTrail can access. If you don't update the bucket policy with the new log file prefix, CloudTrail will not be able to deliver log files to your bucket, and you will receive an error message when you try to save the change in the CloudTrail console.

The other options are incorrect because:

- A. Creating a new trail with the updated log file prefix, and then deleting the original trail is not necessary and may cause data loss or inconsistency. You can simply update the existing trail and its associated bucket policy with the new log file prefix.
- B. Updating the existing bucket policy in the S3 console to allow the Security Engineer's Principal to perform PutBucketPolicy is not relevant to this issue. The PutBucketPolicy action allows you to create or replace a policy on a bucket, but it does not affect CloudTrail's ability to deliver log files to your bucket. You still need to update the existing bucket policy with the new log file prefix.
- D. Updating the existing bucket policy in the S3 console to allow the Security Engineer's Principal to perform GetBucketPolicy is not relevant to this issue. The GetBucketPolicy action allows you to retrieve a policy on a bucket, but it does not affect CloudTrail's ability to deliver log files to your bucket. You still need to update the existing bucket policy with the new log file prefix.

References:

1: Using bucket policies - Amazon Simple Storage Service

NEW QUESTION 10

A security engineer is creating an AWS Lambda function. The Lambda function needs to use a role that is named LambdaAuditRole to assume a role that is named AcmeAuditFactoryRole in a different AWS account.

When the code is processed, the following error message appears: "An error occurred (AccessDenied) when calling the AssumeRole operation."

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

- A. Ensure that LambdaAuditRole has the sts:AssumeRole permission for AcmeAuditFactoryRole.
- B. Ensure that LambdaAuditRole has the AWSLambdaBasicExecutionRole managed policy attached.
- C. Ensure that the trust policy for AcmeAuditFactoryRole allows the sts:AssumeRole action from LambdaAuditRole.
- D. Ensure that the trust policy for LambdaAuditRole allows the sts:AssumeRole action from the lambda.amazonaws.com service.
- E. Ensure that the sts:AssumeRole API call is being issued to the us-east-1 Region endpoint.

Answer: AC

NEW QUESTION 10

A company has an organization in AWS Organizations. The company wants to use AWS CloudFormation StackSets in the organization to deploy various AWS design patterns into environments. These patterns consist of Amazon EC2 instances, Elastic Load Balancing (ELB) load balancers, Amazon RDS databases, and Amazon Elastic Kubernetes Service (Amazon EKS) clusters or Amazon Elastic Container Service (Amazon ECS) clusters.

Currently, the company's developers can create their own CloudFormation stacks to increase the overall speed of delivery. A centralized CI/CD pipeline in a shared services AWS account deploys each CloudFormation stack.

The company's security team has already provided requirements for each service in accordance with internal standards. If there are any resources that do not comply with the internal standards, the security team must receive notification to take appropriate action. The security team must implement a notification solution that gives developers the ability to maintain the same overall delivery speed that they currently have.

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

- A. Create an Amazon Simple Notification Service (Amazon SNS) topic
- B. Subscribe the security team's email addresses to the SNS topic
- C. Create a custom AWS Lambda function that will run the aws cloudformation validate-template AWS CLI command on all CloudFormation templates before the build stage in the CI/CD pipeline
- D. Configure the CI/CD pipeline to publish a notification to the SNS topic if any issues are found.
- E. Create an Amazon Simple Notification Service (Amazon SNS) topic
- F. Subscribe the security team's email addresses to the SNS topic
- G. Create custom rules in CloudFormation Guard for each resource configuration
- H. In the CI/CD pipeline, before the build stage, configure a Docker image to run the cfn-guard command on the CloudFormation templates
- I. Configure the CI/CD pipeline to publish a notification to the SNS topic if any issues are found.
- J. Create an Amazon Simple Notification Service (Amazon SNS) topic and an Amazon Simple Queue Service (Amazon SQS) queue
- K. Subscribe the security team's email addresses to the SNS topic
- L. Create an Amazon S3 bucket in the shared services AWS account
- M. Include an event notification to publish to the SQS queue when new objects are added to the S3 bucket
- N. Require the developers to put their CloudFormation templates in the S3 bucket
- O. Launch EC2 instances that automatically scale based on the SQS queue depth
- P. Configure the EC2 instances to use CloudFormation Guard to scan the templates and deploy the templates if there are no issues
- Q. Configure the CI/CD pipeline to publish a notification to the SNS topic if any issues are found.
- R. Create a centralized CloudFormation stack set that includes a standard set of resources that the developers can deploy in each AWS account
- S. Configure each CloudFormation template to meet the security requirement
- T. For any new resources or configurations, update the CloudFormation template and send the template to the security team for review
- . When the review is completed, add the new CloudFormation stack to the repository for the developers to use.

Answer: B

NEW QUESTION 12

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 16

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 18

A company is expanding its group of stores. On the day that each new store opens, the company wants to launch a customized web application for that store. Each store's application will have a non-production environment and a production environment. Each environment will be deployed in a separate AWS account. The company uses AWS Organizations and has an OU that is used only for these accounts. The company distributes most of the development work to third-party development teams. A security engineer needs to ensure that each team follows the company's deployment plan for AWS resources. The security engineer also must limit access to the deployment plan to only the developers who need access. The security engineer already has created an AWS CloudFormation template that implements the deployment plan. What should the security engineer do next to meet the requirements in the MOST secure way?

- A. Create an AWS Service Catalog portfolio in the organization's management account.
- B. Upload the CloudFormation template.
- C. Add the template to the portfolio's product list.
- D. Share the portfolio with the OIJ.
- E. Use the CloudFormation CLI to create a module from the CloudFormation template.
- F. Register the module as a private extension in the CloudFormation registry.
- G. Publish the extension.
- H. In the OU, create an SCP that allows access to the extension.
- I. Create an AWS Service Catalog portfolio in the organization's management account.
- J. Upload the CloudFormation template.
- K. Add the template to the portfolio's product list.
- L. Create an IAM role that has a trust policy that allows cross-account access to the portfolio for users in the OU account.
- M. Attach the `AWSServiceCatalogEndUserFullAccess` managed policy to the role.
- N. Use the CloudFormation CLI to create a module from the CloudFormation template.
- O. Register the module as a private extension in the CloudFormation registry.
- P. Publish the extension.
- Q. Share the extension with the OU.

Answer: A

Explanation:

The correct answer is A. Create an AWS Service Catalog portfolio in the organization's management account. Upload the CloudFormation template. Add the template to the portfolio's product list. Share the portfolio with the OU.

According to the AWS documentation, AWS Service Catalog is a service that allows you to create and manage catalogs of IT services that are approved for use on AWS. You can use Service Catalog to centrally manage commonly deployed IT services and help achieve consistent governance and compliance requirements, while enabling users to quickly deploy only the approved IT services they need.

To use Service Catalog with multiple AWS accounts, you need to enable AWS Organizations with all features enabled. This allows you to centrally manage your accounts and apply policies across your organization. You can also use Service Catalog as a service principal for AWS Organizations, which lets you share your portfolios with organizational units (OUs) or accounts in your organization.

To create a Service Catalog portfolio, you need to use an administrator account, such as the organization's management account. You can upload your CloudFormation template as a product in your portfolio, and define constraints and tags for it. You can then share your portfolio with the OU that contains the accounts for the web applications. This will allow the developers in those accounts to launch products from the shared portfolio using the Service Catalog end user console.

Option B is incorrect because CloudFormation modules are reusable components that encapsulate one or more resources and their configurations. They are not meant to be used as templates for deploying entire stacks of resources. Moreover, sharing a module with an OU does not grant access to launch stacks from it.

Option C is incorrect because creating an IAM role that has a trust policy that allows cross-account access to the portfolio is not secure. It would allow any user in the OU accounts to assume the role and access the portfolio, regardless of their job function or access requirements.

Option D is incorrect because sharing a module with an OU does not grant access to launch stacks from it. It also does not limit access to the deployment plan to only the developers who need access.

NEW QUESTION 20

Auditors for a health care company have mandated that all data volumes be encrypted at rest Infrastructure is deployed mainly via IAM CloudFormation however third-party frameworks and manual deployment are required on some legacy systems

What is the BEST way to monitor, on a recurring basis, whether all EBS volumes are encrypted?

- A. On a recurring basis, update an IAM user policies to require that EC2 instances are created with an encrypted volume
- B. Configure an IAM Config rule to run on a recurring basis for volume encryption
- C. Set up Amazon Inspector rules for volume encryption to run on a recurring schedule
- D. Use CloudWatch Logs to determine whether instances were created with an encrypted volume

Answer: B

Explanation:

To support answer B, use the reference <https://d1.IAMstatic.com/whitepapers/IAM-security-whitepaper.pdf> "For example, IAM Config provides a managed IAM Config Rules to ensure that encryption is turned on for all EBS volumes in your account."

NEW QUESTION 22

A company has an AWS Lambda function that creates image thumbnails from larger images. The Lambda function needs read and write access to an Amazon S3 bucket in the same AWS account.

Which solutions will provide the Lambda function this access? (Select TWO.)

- A. Create an IAM user that has only programmatic access
- B. Create a new access key pair
- C. Add environmental variables to the Lambda function with the access key ID and secret access key
- D. Modify the Lambda function to use the environmental variables at run time during communication with Amazon S3.
- E. Generate an Amazon EC2 key pair
- F. Store the private key in AWS Secrets Manager
- G. Modify the Lambda function to retrieve the private key from Secrets Manager and to use the private key during communication with Amazon S3.
- H. Create an IAM role for the Lambda function
- I. Attach an IAM policy that allows access to the S3 bucket.
- J. Create an IAM role for the Lambda function
- K. Attach a bucket policy to the S3 bucket to allow access. Specify the function's IAM role as the principal.
- L. Create a security group
- M. Attach the security group to the Lambda function
- N. Attach a bucket policy that allows access to the S3 bucket through the security group ID.

Answer: CD

NEW QUESTION 26

A developer has created an AWS Lambda function in a company's development account. The Lambda function requires the use of an AWS Key Management Service (AWS KMS) customer managed key that exists in a security account that the company's security team controls. The developer obtains the ARN of the KMS key from a previous Lambda function in the development account. The previous Lambda function had been working properly with the KMS key.

When the developer uses the ARN and tests the new Lambda function an error message states that access is denied to the KMS key in the security account. The developer tests the previous Lambda function that uses the same KMS key and discovers that the previous Lambda function still can encrypt data as expected.

A security engineer must resolve the problem so that the new Lambda function in the development account can use the KMS key from the security account.

Which combination of steps should the security engineer take to meet these requirements? (Select TWO.)

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

Answer: CE

Explanation:

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

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

NEW QUESTION 28

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 32

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 34

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:Decrypt permission for the key in us-east-1 that encrypts source objects.
- 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:Decrypt permission for the key in us-east-1 that encrypts source objects.
- 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:Decrypt permission.
- 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.

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 36

While securing the connection between a company's VPC and its on-premises data center, a Security Engineer sent a ping command from an on-premises host (IP address 203.0.113.12) to an Amazon EC2 instance (IP address 172.31.16.139).

The ping command did not return a response. The flow log in the VPC showed the following:

2 123456789010 eni-1235b8ca 203.0.113.12 172.31.16.139 0 0 1 4 336 1432917027 1432917142 ACCEPT OK

2 123456789010 eni-1235b8ca 172.31.16.139 203.0.113.12 0 0 1 4 336 1432917094 1432917142 REJECT OK

What action should be performed to allow the ping to work?

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

Answer: D

NEW QUESTION 41

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

Please select:

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

Answer: B

Explanation:

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

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

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

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

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

omit your Feedback/Queries to our Experts

NEW QUESTION 45

A company wants to deploy a distributed web application on a fleet of EC2 instances. The fleet will be fronted by a Classic Load Balancer that will be configured to terminate the TLS connection The company wants to make sure that all past and current TLS traffic to the Classic Load Balancer stays secure even if the certificate private key is leaked.

To ensure the company meets these requirements, a Security Engineer can configure a Classic Load Balancer with:

- A. An HTTPS listener that uses a certificate that is managed by Amazon Certification Manager.
- B. An HTTPS listener that uses a custom security policy that allows only perfect forward secrecy cipher suites
- C. An HTTPS listener that uses the latest IAM predefined ELBSecurityPolicy-TLS-1 -2-2017-01 security policy
- D. A TCP listener that uses a custom security policy that allows only perfect forward secrecy cipher suites.

Answer: B

Explanation:

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

NEW QUESTION 46

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

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

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

- A. Use the DynamoDB on-demand backup capability to create a backup pla

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

Answer: AD

NEW QUESTION 51

A company has a new partnership with a vendor. The vendor will process data from the company's customers. The company will upload data files as objects into an Amazon S3 bucket. The vendor will download the objects to perform data processing. The objects will contain sensitive data. A security engineer must implement a solution that prevents objects from residing in the S3 bucket for longer than 72 hours. Which solution will meet these requirements?

- A. Use Amazon Macie to scan the S3 bucket for sensitive data every 72 hours.
- B. Configure Macie to delete the objects that contain sensitive data when they are discovered.
- C. Configure an S3 Lifecycle rule on the S3 bucket to expire objects that have been in the S3 bucket for 72 hours.
- D. Create an Amazon EventBridge scheduled rule that invokes an AWS Lambda function every day. Program the Lambda function to remove any objects that have been in the S3 bucket for 72 hours.
- E. Use the S3 Intelligent-Tiering storage class for all objects that are uploaded to the S3 bucket.
- F. Use S3 Intelligent-Tiering to expire objects that have been in the S3 bucket for 72 hours.

Answer: B

NEW QUESTION 56

A company uses infrastructure as code (IaC) to create AWS infrastructure. The company writes the code as AWS CloudFormation templates to deploy the infrastructure. The company has an existing CI/CD pipeline that the company can use to deploy these templates. After a recent security audit, the company decides to adopt a policy-as-code approach to improve the company's security posture on AWS. The company must prevent the deployment of any infrastructure that would violate a security policy, such as an unencrypted Amazon Elastic Block Store (Amazon EBS) volume. Which solution will meet these requirements?

- A. Turn on AWS Trusted Advisor.
- B. Configure security notifications as webhooks in the preferences section of the CI/CD pipeline.
- C. Turn on AWS Config.
- D. Use the prebuilt rules or customized rule.
- E. Subscribe the CI/CD pipeline to an Amazon Simple Notification Service (Amazon SNS) topic that receives notifications from AWS Config.
- F. Create rule sets in AWS CloudFormation Guard.
- G. Run validation checks for CloudFormation templates as a phase of the CI/CD process.
- H. Create rule sets as SCPs.
- I. Integrate the SCPs as a part of validation control in a phase of the CI/CD process.

Answer: C

Explanation:

The correct answer is C. Create rule sets in AWS CloudFormation Guard. Run validation checks for CloudFormation templates as a phase of the CI/CD process. This answer is correct because AWS CloudFormation Guard is a tool that helps you implement policy-as-code for your CloudFormation templates. You can use Guard to write rules that define your security policies, such as requiring encryption for EBS volumes, and then validate your templates against those rules before deploying them. You can integrate Guard into your CI/CD pipeline as a step that runs the validation checks and prevents the deployment of any non-compliant templates¹².

The other options are incorrect because:

- A. Turning on AWS Trusted Advisor and configuring security notifications as webhooks in the preferences section of the CI/CD pipeline is not a solution, because AWS Trusted Advisor is not a policy-as-code tool, but a service that provides recommendations to help you follow AWS best practices. Trusted Advisor does not allow you to define your own security policies or validate your CloudFormation templates against them³.
- B. Turning on AWS Config and using the prebuilt or customized rules is not a solution, because AWS Config is not a policy-as-code tool, but a service that monitors and records the configuration changes of your AWS resources. AWS Config does not allow you to validate your CloudFormation templates before deploying them, but only evaluates the compliance of your resources after they are created⁴.
- D. Creating rule sets as SCPs and integrating them as a part of validation control in a phase of the CI/CD process is not a solution, because SCPs are not policy-as-code tools, but policies that you can use to manage permissions in your AWS Organizations. SCPs do not allow you to validate your CloudFormation templates, but only restrict the actions that users and roles can perform in your accounts⁵.

References:

1: What is AWS CloudFormation Guard? 2: Introducing AWS CloudFormation Guard 2.0 3: AWS Trusted Advisor 4: What Is AWS Config? 5: Service control policies - AWS Organizations

NEW QUESTION 59

A company has two teams, and each team needs to access its respective Amazon S3 buckets. The company anticipates adding more teams that also will have their own S3 buckets. When the company adds these teams, team members will need the ability to be assigned to multiple teams. Team members also will need the ability to change teams. Additional S3 buckets can be created or deleted.

An IAM administrator must design a solution to accomplish these goals. The solution also must be scalable and must require the least possible operational overhead.

Which solution meets these requirements?

- A. Add users to groups that represent the team.
- B. Create a policy for each team that allows the team to access its respective S3 buckets only.
- C. Attach the policy to the corresponding group.
- D. Create an IAM role for each team.

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

Answer: A

NEW QUESTION 63

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 64

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

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

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

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

Answer: ACE

NEW QUESTION 68

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 73

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

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

A)

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

B)

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

A. Option A

B. Option B

Answer: A

NEW QUESTION 77

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

Please select:

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

Answer: A

Explanation:

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

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

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

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

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

NEW QUESTION 81

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

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

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

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

Answer: B

Explanation:

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

According to the AWS documentation¹, the aws sts get-session-token CLI command returns a set of temporary credentials for an AWS account or IAM user. The credentials consist of an access key ID, a secret access key, and a security token. These credentials are valid for the specified duration only. The session duration for IAM users can be between 15 minutes and 36 hours, with a default of 12 hours.

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

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

The other options are incorrect because:

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

References:

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

NEW QUESTION 83

A company uses a third-party identity provider and SAML-based SSO for its AWS accounts. After the third-party identity provider renewed an expired signing certificate, users saw the following message when trying to log in:

Error: Response Signature Invalid (Service: AWSSecurityTokenService; Status Code: 400; Error Code: InvalidIdentityToken)

A security engineer needs to provide a solution that corrects the error and minimizes operational overhead.

Which solution meets these requirements?

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

Answer: C

Explanation:

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

NEW QUESTION 86

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 87

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 ACL.
- 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 URL.
- 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 91

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 94

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

What should the security engineer recommend?

- A. Enable Amazon RDS encryption to encrypt the database and snapshot.
- B. Enable Amazon Elastic Block Store (Amazon EBS) encryption on Amazon EC2 instance.
- C. Include the database credential in the EC2 user data field.
- D. Use an AWS Lambda function to rotate database credential.
- E. Set up TLS for the connection to the database.
- F. Install a database on an Amazon EC2 instance.
- G. Enable third-party disk encryption to encrypt Amazon Elastic Block Store (Amazon EBS) volume.

- H. Store the database credentials in AWS CloudHSM with automatic rotation
- I. Set up TLS for the connection to the database.
- J. Enable Amazon RDS encryption to encrypt the database and snapshot
- K. Enable Amazon Elastic Block Store (Amazon EBS) encryption on Amazon EC2 instance
- L. Store the database credentials in AWS Secrets Manager with automatic rotation
- M. Set up TLS for the connection to the RDS hosted database.
- N. Set up an AWS CloudHSM cluster with AWS Key Management Service (AWS KMS) to store KMS key
- O. Set up Amazon RDS encryption using AWS KMS to encrypt the database
- P. Store the database credentials in AWS Systems Manager Parameter Store with automatic rotation
- Q. Set up TLS for the connection to the RDS hosted database.

Answer: C

NEW QUESTION 95

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

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

Answer: BCF

NEW QUESTION 97

A company uses AWS Organizations to manage a multi-account AWS environment in a single AWS Region. The organization's management account is named management-01. The company has turned on AWS Config in all accounts in the organization. The company has designated an account named security-01 as the delegated administrator for AWS Config.

All accounts report the compliance status of each account's rules to the AWS Config delegated administrator account by using an AWS Config aggregator. Each account administrator can configure and manage the account's own AWS Config rules to handle each account's unique compliance requirements.

A security engineer needs to implement a solution to automatically deploy a set of 10 AWS Config rules to all existing and future AWS accounts in the organization. The solution must turn on AWS Config automatically during account creation.

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

- A. Create an AWS CloudFormation template that contains the 10 required AWS Config rules
- B. Deploy the template by using CloudFormation StackSets in the security-01 account.
- C. Create a conformance pack that contains the 10 required AWS Config rules
- D. Deploy the conformance pack from the security-01 account.
- E. Create a conformance pack that contains the 10 required AWS Config rules
- F. Deploy the conformance pack from the management-01 account.
- G. Create an AWS CloudFormation template that will activate AWS Config
- H. Deploy the template by using CloudFormation StackSets in the security-01 account.
- I. Create an AWS CloudFormation template that will activate AWS Config
- J. Deploy the template by using CloudFormation StackSets in the management-01 account.

Answer: BE

NEW QUESTION 100

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

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

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

Answer: DE

Explanation:

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

NEW QUESTION 104

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 106

A security engineer is using AWS Organizations and wants to optimize SCPs. The security engineer needs to ensure that the SCPs conform to best practices.

Which approach should the security engineer take to meet this requirement?

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

Answer: A

NEW QUESTION 108

A company used a lift-and-shift approach to migrate from its on-premises data centers to the AWS Cloud. The company migrated on-premises VMS to Amazon EC2 in-stances. Now the company wants to replace some of components that are running on the EC2 instances with managed AWS services that provide similar functionality.

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

Which solution will meet these requirements?

- A. Create an Amazon CloudWatch Logs log grou
- B. Configure the load balancers to send logs to the log grou
- C. Use the CloudWatch Logs console to search the log
- D. Create CloudWatch Logs filters on the logs for the required met-rics.
- E. Create an Amazon S3 bucke
- F. Configure the load balancers to send logs to the S3 bucke
- G. Use Amazon Athena to search the logs that are in the S3 bucke
- H. Create Amazon CloudWatch filters on the S3 log files for the re-quired metrics.
- I. Create an Amazon S3 bucke
- J. Configure the load balancers to send logs to the S3 bucke
- K. Use Amazon Athena to search the logs that are in the S3 bucke
- L. Create Athena queries for the required metric
- M. Publish the metrics to Amazon CloudWatch.
- N. Create an Amazon CloudWatch Logs log grou

- O. Configure the load balancers to send logs to the log group
- P. Use the AWS Management Console to search the log
- Q. Create Amazon Athena queries for the required metric
- R. Publish the metrics to Amazon CloudWatch.

Answer: C

Explanation:

- Amazon S3 is a service that provides scalable, durable, and secure object storage. You can use Amazon S3 to store and retrieve any amount of data from anywhere on the web¹
- AWS Elastic Load Balancing is a service that distributes incoming application or network traffic across multiple targets, such as EC2 instances, containers, or IP addresses. You can use Elastic Load Balancing to increase the availability and fault tolerance of your applications²
- Elastic Load Balancing supports access logging, which captures detailed information about requests sent to your load balancer. Each log contains information such as the time the request was received, the client's IP address, latencies, request paths, and server responses. You can use access logs to analyze traffic patterns and troubleshoot issues³
- You can configure your load balancer to store access logs in an Amazon S3 bucket that you specify. You can also specify the interval for publishing the logs, which can be 5 or 60 minutes. The logs are stored in a hierarchical folder structure by load balancer name, IP address, year, month, day, and time.
- Amazon Athena is a service that allows you to analyze data in Amazon S3 using standard SQL. You can use Athena to run ad-hoc queries and get results in seconds. Athena is serverless, so there is no infrastructure to manage and you pay only for the queries that you run.
- You can use Athena to search the access logs that are stored in your S3 bucket. You can create a table in Athena that maps to your S3 bucket and then run SQL queries on the table. You can also use the Athena console or API to view and download the query results.
- You can also use Athena to create queries for the required metrics, such as the number of requests per cipher or protocol. You can then publish the metrics to Amazon CloudWatch, which is a service that monitors and manages your AWS resources and applications. You can use CloudWatch to collect and track metrics, create alarms, and automate actions based on the state of your resources.
- By using this solution, you can meet the requirements of ensuring that all the load balancer logs are centralized and searchable for auditing and that metrics are generated to show which ciphers are in use.

NEW QUESTION 109

A company that uses AWS Organizations wants to see AWS Security Hub findings for many AWS accounts and AWS Regions. Some of the accounts are in the company's organization, and some accounts are in organizations that the company manages for customers. Although the company can see findings in the Security Hub administrator account for accounts in the company's organization, there are no findings from accounts in other organizations. Which combination of steps should the company take to see findings from accounts that are outside the organization that includes the Security Hub administrator account? (Select TWO.)

- A. Use a designated administration account to automatically set up member accounts.
- B. Create the AWS Service Role ForSecurity Hub service-linked role for Security Hub.
- C. Send an administration request from the member accounts.
- D. Enable Security Hub for all member accounts.
- E. Send invitations to accounts that are outside the company's organization from the Security Hub administrator account.

Answer: CE

Explanation:

To see Security Hub findings for accounts that are outside the organization that includes the Security Hub administrator account, the following steps are required:

- Send invitations to accounts that are outside the company's organization from the Security Hub administrator account. This will allow the administrator account to view and manage findings from those accounts. The administrator account can send invitations by using the Security Hub console, API, or CLI. For more information, see [Sending invitations to member accounts](#).
- Send an administration request from the member accounts. This will allow the member accounts to accept the invitation from the administrator account and establish a relationship with it. The member accounts can send administration requests by using the Security Hub console, API, or CLI. For more information, see [Sending administration requests](#).

This solution will enable the company to see Security Hub findings for many AWS accounts and AWS Regions, including accounts that are outside its own organization.

The other options are incorrect because they either do not establish a relationship between the administrator and member accounts (A, B), do not enable Security Hub for all member accounts (D), or do not use a valid service for Security Hub (F).

Verified References:

- <https://docs.aws.amazon.com/securityhub/latest/userguide/securityhub-member-accounts.html>

NEW QUESTION 110

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

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

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

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


```

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

```

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

```

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

```

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

```

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

```

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


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

Answer: A

NEW QUESTION 114

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

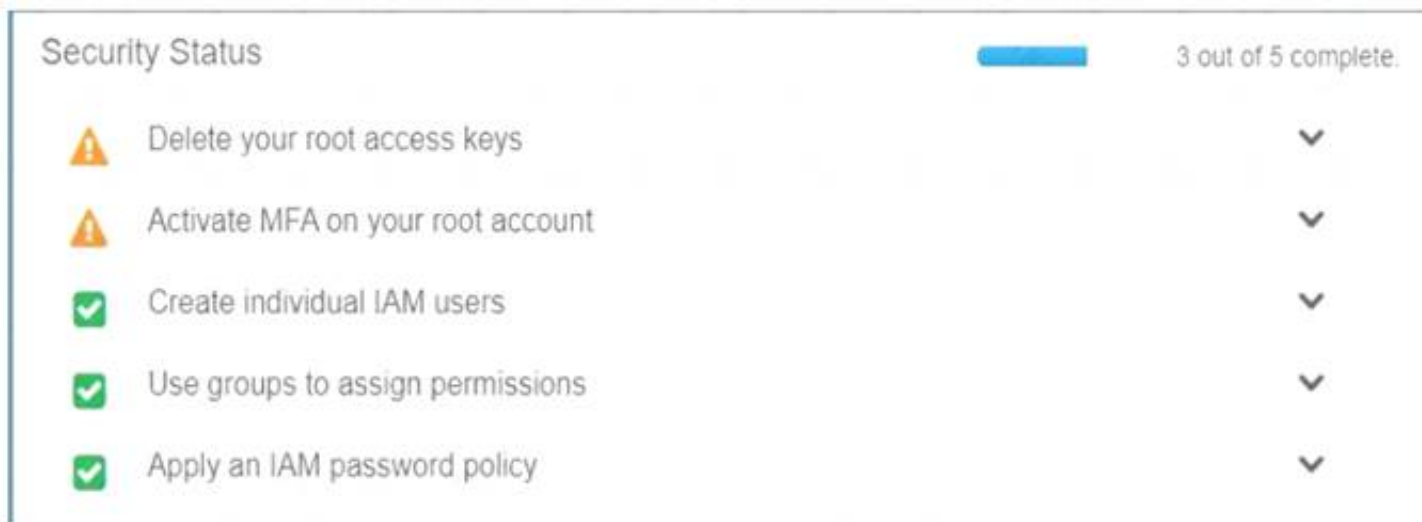
- A. Use short but complex password on the root account and any administrators.
- B. Use IAM Geo-Lock and disallow anyone from logging in except for in your city.
- C. Use MFA on all users and accounts, especially on the root account.
- D. Don't write down or remember the root account password after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

Answer: C

Explanation:

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

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



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

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

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

NEW QUESTION 115

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

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

Answer: BDF

Explanation:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

NEW QUESTION 118

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

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

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

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

Answer: AC

Explanation:

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

- Option A: “Bool” : { “aws:MultiFactorAuthPresent” : “true” } is a valid condition that checks if the principal (the IAM user) has authenticated with MFA before making the request. This condition will enforce MFA for the IAM users to access the specified services. This condition key is supported by all AWS services that support IAM policies1.
- Option B: “Bool” : { “aws:MultiFactorAuthPresent” : “false” } is the opposite of option A. This condition will allow access only if the principal has not authenticated with MFA, which is not the desired requirement. This condition key is supported by all AWS services that support IAM policies1.
- Option C: “NumericLessThan” : { “aws:MultiFactorAuthAge” : “7200” } is a valid condition that checks if the time since the principal authenticated with MFA is less than 7200 seconds (2 hours). This condition will enforce the session duration limit for the IAM users. This condition key is supported by all AWS services that support IAM policies1.
- Option D: “NumericGreaterThan” : { “aws:MultiFactorAuthAge” : “7200” } is the opposite of option C. This condition will allow access only if the time since the principal authenticated with MFA is more than 7200 seconds (2 hours), which is not the desired requirement. This condition key is supported by all AWS services that support IAM policies1.
- Option E: “NumericLessThan” : { “MaxSessionDuration” : “7200” } is not a valid condition key.

MaxSessionDuration is a property of an IAM role, not a condition key. It specifies the maximum session duration (in seconds) for the role, which can be between 3600 and 43200 seconds (1 to 12 hours). This property can be set when creating or modifying a role, but it cannot be used as a condition in a policy2.

NEW QUESTION 123

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 127

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 132

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 133

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 134

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 139

A developer is building a serverless application hosted on AWS that uses Amazon Redshift as a data store. The application has separate modules for readwrite

and read-only functionality The modules need their own database users for compliance reasons
Which combination of steps should a security engineer implement to grant appropriate access? (Select TWO.)

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

Answer: A

Explanation:

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

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

NEW QUESTION 142

A company uses Amazon GuardDuty. The company's security team wants all High severity findings to automatically generate a ticket in a third-party ticketing system through email integration.
Which solution will meet this requirement?

- A. Create a verified identity for the third-party ticketing email system in Amazon Simple Email Service (Amazon SES). Create an Amazon EventBridge rule that includes an event pattern that matches High severity GuardDuty finding
- B. Specify the SES identity as the target for the EventBridge rule.
- C. Create an Amazon Simple Notification Service (Amazon SNS) topic
- D. Subscribe the third-party ticketing email system to the SNS topic
- E. Create an Amazon EventBridge rule that includes an event pattern that matches High severity GuardDuty finding
- F. Specify the SNS topic as the target for the EventBridge rule.
- G. Use the GuardDuty CreateFilter API operation to build a filter in GuardDuty to monitor for High severity finding
- H. Export the results of the filter to an Amazon Simple Notification Service (Amazon SNS) topic
- I. Subscribe the third-party ticketing email system to the SNS topic.
- J. Use the GuardDuty CreateFilter API operation to build a filter in GuardDuty to monitor for High severity finding
- K. Create an Amazon Simple Notification Service (Amazon SNS) topic
- L. Subscribe the third-party ticketing email system to the SNS topic
- M. Create an Amazon EventBridge rule that includes an event pattern that matches GuardDuty findings that are selected by the filter
- N. Specify the SNS topic as the target for the EventBridge rule.

Answer: B

Explanation:

The correct answer is B. Create an Amazon Simple Notification Service (Amazon SNS) topic. Subscribe the third-party ticketing email system to the SNS topic. Create an Amazon EventBridge rule that includes an event pattern that matches High severity GuardDuty findings. Specify the SNS topic as the target for the EventBridge rule.

According to the AWS documentation¹, you can use Amazon EventBridge to create rules that match events from GuardDuty and route them to targets such as Amazon SNS topics. You can use event patterns to filter events based on criteria such as severity, type, or resource. For example, you can create a rule that matches only High severity findings and sends them to an SNS topic that is subscribed by a third-party ticketing email system. This way, you can automate the creation of tickets for High severity findings and notify the security team.

NEW QUESTION 144

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