



Amazon-Web-Services

Exam Questions SCS-C01

AWS Certified Security- Specialty

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NEW QUESTION 1

A company uses Amazon Elastic Container Service (Amazon ECS) containers that have the Fargate launch type. The containers run web and mobile applications that are written in Java and Node.js. To meet network segmentation requirements, each of the company's business units deploys applications in its own dedicated AWS account.

Each business unit stores container images in an Amazon Elastic Container Registry (Amazon ECR) private registry in its own account.

A security engineer must recommend a solution to scan ECS containers and ECR registries for vulnerabilities in operating systems and programming language libraries.

The company's audit team must be able to identify potential vulnerabilities that exist in any of the accounts where applications are deployed.

Which solution will meet these requirements?

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

Answer: B

Explanation:

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

NEW QUESTION 2

An IT department currently has a Java web application deployed on Apache Tomcat running on Amazon EC2 instances. All traffic to the EC2 instances is sent through an internet-facing Application Load Balancer (ALB)

The Security team has noticed during the past two days thousands of unusual read requests coming from hundreds of IP addresses. This is causing the Tomcat server to run out of threads and reject new connections

Which the SIMPLEST change that would address this server issue?

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

Answer: A

Explanation:

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

NEW QUESTION 3

A company manages three separate IAM accounts for its production, development, and test environments. Each Developer is assigned a unique IAM user under the development account. A new application hosted on an Amazon EC2 instance in the developer account requires read access to the archived documents stored in an Amazon S3 bucket in the production account.

How should access be granted?

- A. Create an IAM role in the production account and allow EC2 instances in the development account to assume that role using the trust policy
- B. Provide read access for the required S3 bucket to this role.
- C. Use a custom identity broker to allow Developer IAM users to temporarily access the S3 bucket.
- D. Create a temporary IAM user for the application to use in the production account.
- E. Create a temporary IAM user in the production account and provide read access to Amazon S3. Generate the temporary IAM user's access key and secret key and store these on the EC2 instance used by the application in the development account.

Answer: A

Explanation:

<https://IAM.amazon.com/premiumsupport/knowledge-center/cross-account-access-s3/>

NEW QUESTION 4

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

- A. 1. Put all users into an IAM group with an access policy granting access to the S3 bucket.
- B. Have the account creation trigger an IAM Lambda function that manages the bucket policy, allowing access to accounts listed in the policy only.
- C. Add an SCP to the Organizations master account, allowing all principals access to the bucket.
- D. Specify the organization ID in the global key condition element of a bucket policy, allowing all principals access.

Answer: D

NEW QUESTION 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 two IAM accounts within IAM Organizations. In Account-1, Amazon EC2 Auto Scaling is launched using a service-linked role. In Account-2, Amazon EBS volumes are encrypted with an IAM KMS key. A Security Engineer needs to ensure that the service-linked role can launch instances with these encrypted volumes.

Which combination of steps should the Security Engineer take in both accounts? (Select TWO.)

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

Answer: CD

Explanation:

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

NEW QUESTION 7

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

What should the company do to set up the snapshot in us-west-1 with proper encryption?

- A. Use AWS Secrets Manager to store the customer managed key in us-west-1 as a secret. Use this secret to encrypt the snapshot in us-west-1.
- B. Create a new customer managed key in us-west-1. Use this new key to encrypt the snapshot in us-west-1.
- C. Create an IAM policy that allows access to the customer managed key in us-east-1. Specify `arn:aws:kms:us-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 8

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

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

Answer: C

NEW QUESTION 9

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

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

Answer: B

Explanation:

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

NEW QUESTION 10

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

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

Answer: D

Explanation:

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

- Migrate the website to Amazon S3, which is a highly scalable and durable object storage service that can host static websites. To do this, create an S3 bucket with the same name as the domain name of the website, enable static website hosting for the bucket, upload the website files to the bucket, and configure the bucket policy to allow public read access to the objects. For more information, see [Hosting a static website on Amazon S3](#).
- Import a public SSL certificate that is created by AWS Certificate Manager (ACM) to Amazon CloudFront, which is a global content delivery network (CDN)

service that can improve the performance and security of web applications. To do this, request or import a public SSL certificate for the domain name of the website using ACM, create a CloudFront distribution with the S3 bucket as the origin, and associate the SSL certificate with the distribution. For more information, see Using alternate domain names and HTTPS.

➤ Configure CloudFront to block traffic from outside the US, which is one of the requirements. To do this, create a CloudFront web ACL using AWS WAF, which is a web application firewall service that lets you control access to your web applications. In the web ACL, create a rule that uses a geo match condition to block requests that originate from countries other than the US. Associate the web ACL with the CloudFront distribution. For more information, see How AWS WAF works with Amazon CloudFront features.

➤ Migrate DNS to Amazon Route 53, which is a highly available and scalable cloud DNS service that can route traffic to various AWS services. To do this, register or transfer your domain name to Route 53, create a hosted zone for your domain name, and create an alias record that points your domain name to your CloudFront distribution. For more information, see Routing traffic to an Amazon CloudFront web distribution by using your domain name.

The other options are incorrect because they either do not implement SSL/TLS encryption for the website (A), do not use managed services whenever possible (B), or do not block IP addresses from outside the US ©. Verified References:

➤ <https://docs.aws.amazon.com/AmazonS3/latest/userguide/HostingWebsiteOnS3Setup.html>

➤ <https://docs.aws.amazon.com/waf/latest/developerguide/waf-cloudfront.html>

➤ <https://docs.aws.amazon.com/Route53/latest/DeveloperGuide/routing-to-cloudfront-distribution.html>

NEW QUESTION 10

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

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

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

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

Answer: AE

Explanation:

The combination of solutions that will meet the requirements are:

➤ A. Create a local individual break glass IAM user for the security team. Create a trail in AWS CloudTrail that has Amazon CloudWatch Logs turned on. Use Amazon EventBridge to monitor local user activities. This is a valid solution because it allows the security team to access the workload AWS account and instances using a local IAM user that does not depend on SAML federation. It also enables logging and monitoring of the break glass user activities using AWS CloudTrail, Amazon CloudWatch Logs, and Amazon EventBridge123.

➤ E. Configure AWS Systems Manager Session Manager for Amazon EC2. Configure an AWS CloudTrail filter based on Session Manager. Send the results to an Amazon Simple Notification Service (Amazon SNS) topic. This is a valid solution because it allows the security team to access the workload instances without opening any inbound ports or managing SSH keys or bastion hosts. It also enables logging and notification of the break glass user activities using AWS CloudTrail, Session Manager, and Amazon SNS456.

The other options are incorrect because:

➤ B. Creating a break glass EC2 key pair for the AWS account and providing it to the security team is not a valid solution, because it requires opening inbound ports on the instances and managing SSH keys, which increases the security risk and complexity7.

➤ C. Creating a break glass IAM role for the account and allowing security team members to perform the AssumeRoleWithSAML operation is not a valid solution, because it still depends on SAML federation, which might not work in case of SAML errors8.

➤ D. Creating a local individual break glass IAM user on the operating system level of each workload instance and configuring unrestricted security groups on the instances to grant access to the break glass IAM users is not a valid solution, because it requires opening inbound ports on the instances and managing multiple local users, which increases the security risk and complexity9.

References:

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

NEW QUESTION 13

A development team is attempting to encrypt and decode a secure string parameter from the IAM Systems Manager Parameter Store using an IAM Key Management Service (IAM KMS) CMK. However, each attempt results in an error message being sent to the development team.

Which CMK-related problems possibly account for the error? (Select two.)

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

Answer: AD

Explanation:

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

NEW QUESTION 14

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

- A. Enable VPC Flow Logs in all VPCs. Create a scheduled IAM Lambda function that downloads and parses the logs, and sends an Amazon SNS notification for violations.
- B. Use IAM CloudTrail to make a trail, and apply it to all Regions. Specify an Amazon S3 bucket to receive all the CloudTrail log files.
- C. Add the following bucket policy to the company's IAM CloudTrail bucket to prevent log tampering:

```
{ "Version": "2012-10-17", "Statement": { "Effect": "Deny", "Action": "s3:PutObject", "Principal": "-", "Resource": "arn:iam:s3:::cloudtrail/IAMLogs/11122223333/*" } }
```

 Create an Amazon S3 data event for a PutObject attempt, which sends notifications to an Amazon SNS topic.
- D. Create a Security Auditor role with permissions to access Amazon CloudWatch Logs in all Regions. Ship the logs to an Amazon S3 bucket and make a lifecycle policy to ship the logs to Amazon S3 Glacier.
- E. Verify that Amazon GuardDuty is enabled in all Regions, and create an Amazon CloudWatch Events rule for Amazon GuardDuty findings. Add an Amazon SNS topic as the rule's target.

Answer: AE

NEW QUESTION 17

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 file.
- 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 19

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

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

Answer: D

Explanation:

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

NEW QUESTION 23

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

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

The company wants to know if any objects in DOC-EXAMPLE-BUCKET1 were accessed with the IAM access key in the past 60 days. If any objects were accessed, the company wants to know if any of the objects that are text files (.txt extension) contained personally identifiable information (PII). Which combination of steps should the security engineer take to gather this information? (Choose two.)

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

Answer: AD

NEW QUESTION 24

Which of the following are valid configurations for using SSL certificates with Amazon CloudFront? (Select THREE)

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

Answer: ABC

Explanation:

The key length for an RSA certificate that you use with CloudFront is 2048 bits, even though ACM supports larger keys. If you use an imported certificate with CloudFront, your key length must be 1024 or 2048 bits and cannot exceed 2048 bits. You must import the certificate in the US East (N. Virginia) Region. You must have permission to use and import the SSL/TLS certificate

<https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/cnames-and-https-requirements.html>

NEW QUESTION 27

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 29

A company created an IAM account for its developers to use for testing and learning purposes Because MM account will be shared among multiple teams of

developers, the company wants to restrict the ability to stop and terminate Amazon EC2 instances so that a team can perform these actions only on the instances it owns.

Developers were instructed to tag 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 34

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

Which solution will meet these requirements?

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

Answer: A

NEW QUESTION 35

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

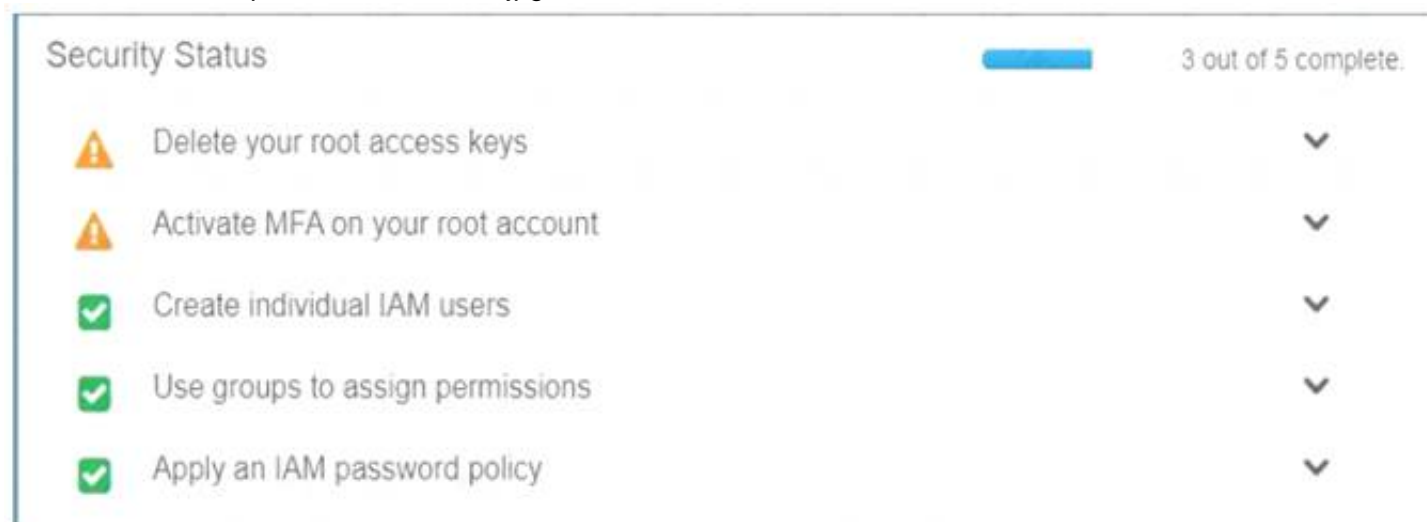
- A. Use short but complex password on the root account and any administrators.
- B. Use IAM IAM Geo-Lock and disallow anyone from logging in except for in your city.
- C. Use MFA on all users and accounts, especially on the root account.
- D. Don't write down or remember the root account password after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

Answer: C

Explanation:

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

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



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

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

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

NEW QUESTION 37

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

Please select:

- A. A Bastion host should be on a private subnet and never a public subnet due to security concerns
- B. A Bastion host sits on the outside of an internal network and is used as a gateway into the private network and is considered the critical strong point of the network

- C. Bastion hosts allow users to log in using RDP or SSH and use that session to SSH into internal network to access private subnet resources.
D. A Bastion host should maintain extremely tight security and monitoring as it is available to the public

Answer: C

Explanation:

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

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

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

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

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

NEW QUESTION 40

A security team is working on a solution that will use Amazon EventBridge (Amazon CloudWatch Events) to monitor new Amazon S3 objects. The solution will monitor for public access and for changes to any S3 bucket policy or setting that result in public access. The security team configures EventBridge to watch for specific API calls that are logged from AWS CloudTrail. EventBridge has an action to send an email notification through Amazon Simple Notification Service (Amazon SNS) to the security team immediately with details of the API call.

Specifically, the security team wants EventBridge to watch for the s3:PutObjectAcl, s3:DeleteBucketPolicy, and s3:PutBucketPolicy API invocation logs from CloudTrail. While developing the solution in a single account, the security team discovers that the s3:PutObjectAcl API call does not invoke an EventBridge event. However, the s3:DeleteBucketPolicy API call and the s3:PutBucketPolicy API call do invoke an event.

The security team has enabled CloudTrail for AWS management events with a basic configuration in the AWS Region in which EventBridge is being tested.

Verification of the EventBridge event pattern indicates that the pattern is set up correctly. The security team must implement a solution so that the s3:PutObjectAcl API call will invoke an EventBridge event. The solution must not generate false notifications.

Which solution will meet these requirements?

- A. Modify the EventBridge event pattern by selecting Amazon S3. Select All Events as the event type.
B. Modify the EventBridge event pattern by selecting Amazon S3. Select Bucket Level Operations as the event type.
C. Enable CloudTrail Insights to identify unusual API activity.
D. Enable CloudTrail to monitor data events for read and write operations to S3 buckets.

Answer: D

Explanation:

The correct answer is D. Enable CloudTrail to monitor data events for read and write operations to S3 buckets. According to the AWS documentation¹, CloudTrail data events are the resource operations performed on or within a resource. These are also known as data plane operations. Data events are often high-volume activities. For example, Amazon S3 object-level API activity (such as GetObject, DeleteObject, and PutObject) is a data event.

By default, trails do not log data events. To record CloudTrail data events, you must explicitly add the supported resources or resource types for which you want to collect activity. For more information, see Logging data events in the Amazon S3 User Guide².

In this case, the security team wants EventBridge to watch for the s3:PutObjectAcl API invocation logs from CloudTrail. This API uses the acl subresource to set the access control list (ACL) permissions for a new or existing object in an S3 bucket³. This is a data event that affects the S3 object resource type. Therefore, the security team must enable CloudTrail to monitor data events for read and write operations to S3 buckets in order to invoke an EventBridge event for this API call.

The other options are incorrect because:

- A. Modifying the EventBridge event pattern by selecting Amazon S3 and All Events as the event type will not capture the s3:PutObjectAcl API call, because this is a data event and not a management event. Management events provide information about management operations that are performed on resources in your AWS account. These are also known as control plane operations⁴.
➤ B. Modifying the EventBridge event pattern by selecting Amazon S3 and Bucket Level Operations as the event type will not capture the s3:PutObjectAcl API call, because this is a data event that affects the S3 object resource type and not the S3 bucket resource type. Bucket level operations are management events that affect the configuration or metadata of an S3 bucket⁵.
➤ C. Enabling CloudTrail Insights to identify unusual API activity will not help the security team monitor new S3 objects or changes to any S3 bucket policy or setting that result in public access. CloudTrail Insights helps AWS users identify and respond to unusual activity associated with API calls and API error rates by continuously analyzing CloudTrail management events⁶. It does not analyze data events or generate EventBridge events.

References:

1: CloudTrail log event reference - AWS CloudTrail 2: Logging data events - AWS CloudTrail 3: PutObjectAcl - Amazon Simple Storage Service 4: [Logging management events - AWS CloudTrail] 5: [Amazon S3 Event Types - Amazon Simple Storage Service] 6: Logging Insights events for trails - AWS CloudTrail

NEW QUESTION 43

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 44

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*" "s3:ListBucket"
- 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 46

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 49

A company has a single AWS account and uses an Amazon EC2 instance to test application code. The company recently discovered that the instance was compromised. The instance was serving up malware. The analysis of the instance showed that the instance was compromised 35 days ago.

A security engineer must implement a continuous monitoring solution that automatically notifies the company's security team about compromised instances through an email distribution list for high severity findings. The security engineer must implement the solution as soon as possible.

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

- A. Enable AWS Security Hub in the AWS account.
- B. Enable Amazon GuardDuty in the AWS account.
- C. Create an Amazon Simple Notification Service (Amazon SNS) topic.
- D. Subscribe the security team's email distribution list to the topic.

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

Answer: BCE

NEW QUESTION 51

A company wants to remove all SSH keys permanently from a specific subset of its Amazon Linux 2 Amazon EC2 instances that are using the same 1AM instance profile. However, three individuals who have IAM user accounts will need to access these instances by using an SSH session to perform critical duties. How can a security engineer provide the access to meet these requirements?

- A. Assign an 1AM policy to the instance profile to allow the EC2 instances to be managed by AWS Systems Manager. Provide the 1AM user accounts with permission to use Systems Manager. Remove the SSH keys from the EC2 instances. Use Systems Manager Inventory to select the EC2 instance and connect.
- B. Assign an 1AM policy to the 1AM user accounts to provide permission to use AWS Systems Manager Run Command. Remove the SSH keys from the EC2 instances. Use Run Command to open an SSH connection to the EC2 instance.
- C. Assign an 1AM policy to the instance profile to allow the EC2 instances to be managed by AWS Systems Manager. Provide the 1AM user accounts with permission to use Systems Manager. Remove the SSH keys from the EC2 instances. Use Systems Manager Session Manager to select the EC2 instance and connect.
- D. Assign an 1AM policy to the 1AM user accounts to provide permission to use the EC2 service in the AWS Management Console. Remove the SSH keys from the EC2 instances. Connect to the EC2 instance as the ec2-user through the AWS Management Console's EC2 SSH client method.

Answer: C

Explanation:

To provide access to the three individuals who have IAM user accounts to access the Amazon Linux 2 Amazon EC2 instances that are using the same IAM instance profile, the most appropriate solution would be to assign an IAM policy to the instance profile to allow the EC2 instances to be managed by AWS Systems Manager, provide the IAM user accounts with permission to use Systems Manager, remove the SSH keys from the EC2 instances, and use Systems Manager Session Manager to select the EC2 instance and connect.

References: : AWS Systems Manager Session Manager - AWS Systems Manager : AWS Systems Manager AWS Management Console : AWS Identity and Access Management - AWS Management Console : Amazon Elastic Compute Cloud - Amazon Web Services : Amazon Linux 2 - Amazon Web Services : AWS Systems Manager - AWS Management Console : AWS Systems Manager - AWS Management Console : AWS Systems Manager - AWS Management Console

NEW QUESTION 55

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

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

Answer: B

Explanation:

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

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

NEW QUESTION 57

A company has recently recovered from a security incident that required the restoration of Amazon EC2 instances from snapshots. After performing a gap analysis of its disaster recovery procedures and backup strategies, the company is concerned that, next time, it will not be able to recover the EC2 instances if the AWS account was compromised and Amazon EBS snapshots were deleted. All EBS snapshots are encrypted using an AWS KMS CMK. Which solution would solve this problem?

- A. Create a new Amazon S3 bucket
- B. Use EBS lifecycle policies to move EBS snapshots to the new S3 bucket
- C. Move snapshots to Amazon S3 Glacier using lifecycle policies, and apply Glacier Vault Lock policies to prevent deletion.
- D. Use AWS Systems Manager to distribute a configuration that performs local backups of all attached disks to Amazon S3.
- E. Create a new AWS account with limited privilege
- F. Allow the new account to access the AWS KMS key used to encrypt the EBS snapshots, and copy the encrypted snapshots to the new account on a recurring basis.

G. Use AWS Backup to copy EBS snapshots to Amazon S3.

Answer: C

Explanation:

This answer is correct because creating a new AWS account with limited privileges would provide an isolated and secure backup destination for the EBS snapshots. Allowing the new account to access the AWS KMS key used to encrypt the EBS snapshots would enable cross-account snapshot sharing without requiring re-encryption. Copying the encrypted snapshots to the new account on a recurring basis would ensure that the backups are up-to-date and consistent.

NEW QUESTION 59

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

Please select:

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

Answer: A

Explanation:

The IAM Documentation mentions the following

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

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

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

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

NEW QUESTION 62

A company has multiple departments. Each department has its own IAM account. All these accounts belong to the same organization in IAM Organizations.

A large .csv file is stored in an Amazon S3 bucket in the sales department's IAM account. The company wants to allow users from the other accounts to access the .csv file's content through the combination of IAM Glue and Amazon Athena. However, the company does not want to allow users from the other accounts to access other files in the same folder.

Which solution will meet these requirements?

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

Answer: A

NEW QUESTION 65

A company uses AWS Organizations and has production workloads across multiple AWS accounts. A security engineer needs to design a solution that will proactively monitor for suspicious behavior across all the accounts that contain production workloads.

The solution must automate remediation of incidents across the production accounts. The solution also must publish a notification to an Amazon Simple Notification Service (Amazon SNS) topic when a critical security finding is detected. In addition, the solution must send all security incident logs to a dedicated account.

Which solution will meet these requirements?

- A. Activate Amazon GuardDuty in each production account
- B. In a dedicated logging account
- C. aggregate all GuardDuty logs from each production account
- D. Remediate incidents by configuring GuardDuty to directly invoke an AWS Lambda function
- E. Configure the Lambda function to also publish notifications to the SNS topic.
- F. Activate AWS security Hub in each production account
- G. In a dedicated logging account
- H. aggregate all security Hub findings from each production account
- I. Remediate incidents by using AWS Config and AWS Systems Manager
- J. Configure Systems Manager to also publish notifications to the SNS topic.
- K. Activate Amazon GuardDuty in each production account
- L. In a dedicated logging account
- M. aggregate all GuardDuty logs from each production account Remediate incidents by using Amazon EventBridge to invoke a custom AWS Lambda function from the GuardDuty finding
- N. Configure the Lambda function to also publish notifications to the SNS topic.
- O. Activate AWS Security Hub in each production account
- P. In a dedicated logging account
- Q. aggregate all Security Hub findings from each production account
- R. Remediate incidents by using Amazon EventBridge to invoke a custom AWS Lambda function from the Security Hub finding
- S. Configure the Lambda function to also publish notifications to the SNS topic.

Answer: D

Explanation:

The correct answer is D.

To design a solution that will proactively monitor for suspicious behavior across all the accounts that contain production workloads, the security engineer needs to use a service that can aggregate and analyze security findings from multiple sources. AWS Security Hub is a service that provides a comprehensive view of your security posture across your AWS accounts and enables you to check your environment against security standards and best practices. Security Hub also integrates with other AWS services, such as Amazon GuardDuty, AWS Config, and AWS Systems Manager, to collect and correlate security findings.

To automate remediation of incidents across the production accounts, the security engineer needs to use a service that can trigger actions based on events. Amazon EventBridge is a serverless event bus service that allows you to connect your applications with data from a variety of sources. EventBridge can use rules to match events and route them to targets for processing. You can use EventBridge to invoke a custom AWS Lambda function from the Security Hub findings. Lambda is a serverless compute service that lets you run code without provisioning or managing servers.

To publish a notification to an Amazon SNS topic when a critical security finding is detected, the security engineer needs to use a service that can send messages to subscribers. Amazon SNS is a fully managed messaging service that enables you to decouple and scale microservices, distributed systems, and serverless applications. SNS can deliver messages to a variety of endpoints, such as email, SMS, or HTTP. You can configure the Lambda function to also publish notifications to the SNS topic.

To send all security incident logs to a dedicated account, the security engineer needs to use a service that can aggregate and store log data from multiple sources. AWS Security Hub allows you to aggregate security findings from multiple accounts into a single account using the delegated administrator feature. This feature enables you to designate an AWS account as the administrator for Security Hub in an organization. The administrator account can then view and manage Security Hub findings from all member accounts.

Therefore, option D is correct because it meets all the requirements of the solution. Option A is incorrect because GuardDuty does not provide a comprehensive view of your security posture across your AWS accounts. GuardDuty is primarily a threat detection service that monitors for malicious or unauthorized behavior. Option B is incorrect because Config and Systems Manager are not designed to automate remediation of incidents based on Security Hub findings. Config is a service that enables you to assess, audit, and evaluate the configurations of your AWS resources, while Systems Manager is a service that allows you to manage your infrastructure on AWS at scale. Option C is incorrect because GuardDuty does not provide a comprehensive view of your security posture across your AWS accounts.

References:

- AWS Security Hub
- Amazon EventBridge
- AWS Lambda
- Amazon SNS
- Aggregating Security Hub findings across accounts

NEW QUESTION 68

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

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

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

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

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

Answer: C

Explanation:

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

NEW QUESTION 70

A company uses an external identity provider to allow federation into different IAM accounts. A security engineer for the company needs to identify the federated user that terminated a production Amazon EC2 instance a week ago.

What is the FASTEST way for the security engineer to identify the federated user?

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

Answer: B

Explanation:

The fastest way to identify the federated user who terminated a production Amazon EC2 instance is to filter the IAM CloudTrail event history for the TerminateInstances event and identify the assumed IAM role. Then, review the AssumeRoleWithSAML event call in CloudTrail to identify the corresponding username. This method does not require any additional tools or queries, and it directly links the IAM role with the federated user.

Option A is incorrect because the role session name may not be the same as the federated user name, and it may not be unique or descriptive enough to identify the user.

Option C is incorrect because the IAM Access Advisor tab only shows when a role was last accessed, not by whom or for what purpose. It also does not show the specific time of access, only the date.

Option D is incorrect because using Amazon Athena to run SQL queries on the IAM CloudTrail logs is not the fastest way to identify the federated user, as it requires creating a table schema and running multiple queries. It also assumes that the federation is done using web identity providers, not SAML providers, as indicated by the AssumeRoleWithWebIdentity event.

References:

- AWS Identity and Access Management
- Logging AWS STS API Calls with AWS CloudTrail
- [Using Amazon Athena to Query S3 Data for CloudTrail Analysis]

NEW QUESTION 72

A security engineer must use AWS Key Management Service (AWS KMS) to design a key management solution for a set of Amazon Elastic Block Store (Amazon EBS) volumes that contain sensitive data. The solution needs to ensure that the key material automatically expires in 90 days. Which solution meets these criteria?

- A. A customer managed CMK that uses customer provided key material
- B. A customer managed CMK that uses AWS provided key material
- C. An AWS managed CMK
- D. Operation system-native encryption that uses GnuPG

Answer: A

Explanation:

```
https://awscli.amazonaws.com/v2/documentation/api/latest/reference/kms/import-key-material.html aws kms import-key-material \
--key-id 1234abcd-12ab-34cd-56ef-1234567890ab \
--encrypted-key-material fileb://EncryptedKeyMaterial.bin \
--import-token fileb://ImportToken.bin \
--expiration-model KEY_MATERIAL_EXPIRES \
--valid-to 2021-09-21T19:00:00Z
```

The correct answer is A. A customer managed CMK that uses customer provided key material.

A customer managed CMK is a KMS key that you create, own, and manage in your AWS account. You have full control over the key configuration, permissions, rotation, and deletion. You can use a customer managed CMK to encrypt and decrypt data in AWS services that are integrated with AWS KMS, such as Amazon EBS¹.

A customer managed CMK can use either AWS provided key material or customer provided key material. AWS provided key material is generated by AWS KMS and never leaves the service unencrypted. Customer provided key material is generated outside of AWS KMS and imported into a customer managed CMK. You can specify an expiration date for the imported key material, after which the CMK becomes unusable until you reimport new key material².

To meet the criteria of automatically expiring the key material in 90 days, you need to use customer provided key material and set the expiration date accordingly. This way, you can ensure that the data encrypted with the CMK will not be accessible after 90 days unless you reimport new key material and re-encrypt the data. The other options are incorrect for the following reasons:

- * B. A customer managed CMK that uses AWS provided key material does not expire automatically. You can enable automatic rotation of the key material every year, but this does not prevent access to the data encrypted with the previous key material. You would need to manually delete the CMK and its backing key material to make the data inaccessible³.
- * C. An AWS managed CMK is a KMS key that is created, owned, and managed by an AWS service on your behalf. You have limited control over the key configuration, permissions, rotation, and deletion. You cannot use an AWS managed CMK to encrypt data in other AWS services or applications. You also cannot set an expiration date for the key material of an AWS managed CMK⁴.
- * D. Operation system-native encryption that uses GnuPG is not a solution that uses AWS KMS. GnuPG is a command line tool that implements the OpenPGP standard for encrypting and signing data. It does not integrate with Amazon EBS or other AWS services. It also does not provide a way to automatically expire the key material used for encryption⁵.

References:

1: Customer Managed Keys - AWS Key Management Service 2: [Importing Key Material in AWS Key Management Service (AWS KMS) - AWS Key Management Service] 3: [Rotating Customer Master Keys - AWS Key Management Service] 4: [AWS Managed Keys - AWS Key Management Service] 5: The GNU Privacy Guard

NEW QUESTION 77

A security engineer is defining the controls required to protect the IAM account root user credentials in an IAM Organizations hierarchy. The controls should also limit the impact in case these credentials have been compromised.

Which combination of controls should the security engineer propose? (Select THREE.)

A)

Apply the following SCP:

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Sid": "GRRESTRICTROOTUSER",
      "Effect": "Deny",
      "Action": "*",
      "Resource": [
        "*"
      ],
      "Condition": {
        "StringLike": {
          "aws:PrincipalArn": [
            "arn:aws:iam::*:root"
          ]
        }
      }
    }
  ]
}
```

B)

Apply the following SCP:

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Sid": "GRRESTRICTROOTUSER",
      "Effect": "Deny",
      "Principal": "arn:aws:iam::*:root",
      "Action": "*",
      "Resource": [
        "*"
      ]
    }
  ]
}
```

- C) Enable multi-factor authentication (MFA) for the root user.
- D) Set a strong randomized password and store it in a secure location.
- E) Create an access key ID and secret access key, and store them in a secure location.
- F) Apply the following permissions boundary to the root user:

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Sid": "GRRESTRICTROOTUSER",
      "Effect": "Deny",
      "Action": "*",
      "Resource": [
        "*"
      ],
      "Condition": {
        "StringLike": {
          "aws:PrincipalArn": [
            "arn:aws:iam::*:root"
          ]
        }
      }
    }
  ]
}
```

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

Answer: ACE

NEW QUESTION 78

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

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

What should the Security Engineer do to troubleshoot this issue?

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

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

- B) Add the following statement to the CMK key policy:

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

C)

Add the following statement to the CMK key policy:

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

D)

Add the following statement to the CMK key policy:

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

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

Answer: D

NEW QUESTION 80

A Security Engineer is building a Java application that is running on Amazon EC2. The application communicates with an Amazon RDS instance and authenticates with a user name and password.

Which combination of steps can the Engineer take to protect the credentials and minimize downtime when the credentials are rotated? (Choose two.)

- A. Have a Database Administrator encrypt the credentials and store the ciphertext in Amazon S3. Grant permission to the instance role associated with the EC2 instance to read the object and decrypt the ciphertext.
- B. Configure a scheduled job that updates the credential in AWS Systems Manager Parameter Store and notifies the Engineer that the application needs to be restarted.
- C. Configure automatic rotation of credentials in AWS Secrets Manager.
- D. Store the credential in an encrypted string parameter in AWS Systems Manager Parameter Store.
- E. Grant permission to the instance role associated with the EC2 instance to access the parameter and the AWS KMS key that is used to encrypt it.
- F. Configure the Java application to catch a connection failure and make a call to AWS Secrets Manager to retrieve updated credentials when the password is rotated.
- G. Grant permission to the instance role associated with the EC2 instance to access Secrets Manager.

Answer: CE

Explanation:

AWS Secrets Manager is a service that helps you manage, retrieve, and rotate secrets such as database credentials, API keys, and other sensitive information. By configuring automatic rotation of credentials in AWS Secrets Manager, you can ensure that your secrets are changed regularly and securely, without requiring manual intervention or application downtime. You can also specify the rotation frequency and the rotation function that performs the logic of changing the credentials on the database and updating the secret in Secrets Manager¹.

* E. Configure the Java application to catch a connection failure and make a call to AWS Secrets Manager to retrieve updated credentials when the password is rotated. Grant permission to the instance role associated with the EC2 instance to access Secrets Manager.

By configuring the Java application to catch a connection failure and make a call to AWS Secrets Manager to retrieve updated credentials, you can avoid hard-coding the credentials in your application code or configuration files. This way, your application can dynamically obtain the latest credentials from Secrets Manager whenever the password is rotated, without needing to restart or redeploy the application. To enable this, you need to grant permission to the instance role associated with the EC2 instance to access Secrets Manager using IAM policies². You can also use the AWS SDK for Java to integrate your application with Secrets Manager³.

NEW QUESTION 82

A company needs a security engineer to implement a scalable solution for multi-account authentication and authorization. The solution should not introduce additional user-managed architectural components. Native IAM features should be used as much as possible. The security engineer has set up IAM Organizations with all features activated and IAM SSO enabled.

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

- A. Use AD Connector to create users and groups for all employees that require access to IAM accounts. Assign AD Connector groups to IAM accounts and link to the IAM roles in accordance with the employees' job functions and access requirements. Instruct employees to access IAM accounts by using the IAM Directory Service user portal.
- B. Use an IAM SSO default directory to create users and groups for all employees that require access to IAM account.
- C. Assign groups to IAM accounts and link to permission sets in accordance with the employees' job functions and access requirement.
- D. Instruct employees to access IAM accounts by using the IAM SSO user portal.
- E. Use an IAM SSO default directory to create users and groups for all employees that require access to IAM account.
- F. Link IAM SSO groups to the IAM users present in all accounts to inherit existing permission.
- G. Instruct employees to access IAM accounts by using the IAM SSO user portal.
- H. Use IAM Directory Service for Microsoft Active Directory to create users and groups for all employees that require access to IAM accounts. Enable IAM Management Console access in the created directory and specify IAM SSO as a source of information for integrated accounts and permission set.
- I. Instruct employees to access IAM accounts by using the IAM Directory Service user portal.

Answer: B

NEW QUESTION 85

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

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

Answer: A

NEW QUESTION 90

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

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

Answer: DEF

NEW QUESTION 94

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

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

Answer: BD

Explanation:

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

NEW QUESTION 99

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

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

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

Answer: BD

NEW QUESTION 100

A company is using IAM Secrets Manager to store secrets for its production Amazon RDS database. The Security Officer has asked that secrets be rotated every 3 months. Which solution would allow the company to securely rotate the secrets? (Select TWO.)

- A. Place the RDS instance in a public subnet and an IAM Lambda function outside the VP
- B. Schedule the Lambda function to run every 3 months to rotate the secrets.
- C. Place the RDS instance in a private subnet and an IAM Lambda function inside the VPC in the private subne
- D. Configure the private subnet to use a NAT gatewa
- E. Schedule the Lambda function to run every 3 months to rotate the secrets.
- F. Place the RDS instance in a private subnet and an IAM Lambda function outside the VP
- G. Configure the private subnet to use an internet gatewa
- H. Schedule the Lambda function to run every 3 months lo rotate the secrets.
- I. Place the RDS instance in a private subnet and an IAM Lambda function inside the VPC in the private subne
- J. Schedule the Lambda function to run quarterly to rotate the secrets.
- K. Place the RDS instance in a private subnet and an IAM Lambda function inside the VPC in the private subne
- L. Configure a Secrets Manager interface endpoint
- M. Schedule the Lambda function to run every 3 months to rotate the secrets.

Answer: BE

Explanation:

these are the solutions that can securely rotate the secrets for the production RDS database using Secrets Manager. Secrets Manager is a service that helps you manage secrets such as database credentials, API keys, and passwords. You can use Secrets Manager to rotate secrets automatically by using a Lambda function that runs on a schedule. The Lambda function needs to have access to both the RDS instance and the Secrets Manager service. Option B places the RDS instance in a private subnet and the Lambda function in the same VPC in another private subnet. The private subnet with the Lambda function needs to use a NAT gateway to access Secrets Manager over the internet. Option E places the RDS instance and the Lambda function in the same private subnet and configures a Secrets Manager interface endpoint, which is a private connection between the VPC and Secrets Manager. The other options are either insecure or incorrect for rotating secrets using Secrets Manager.

NEW QUESTION 101

A security engineer needs to set up an Amazon CloudFront distribution for an Amazon S3 bucket that hosts a static website. The security engineer must allow only specified IP addresses to access the website. The security engineer also must prevent users from accessing the website directly by using S3 URLs. Which solution will meet these requirements?

- A. Generate an S3 bucket polic
- B. Specify cloudfront.amazonaws.com as the principa
- C. Use the aws:SourceIp condition key to allow access only if the request comes from the specified IP addresses.
- D. Create a CloudFront origin access identity (OAI). Create the S3 bucket policy so that only the OAI has acces
- E. Create an AWS WAF web ACL and add an IP set rul
- F. Associate the web ACL with the CloudFront distribution.
- G. Implement security groups to allow only the specified IP addresses access and to restrict S3 bucket access by using the CloudFront distribution.
- H. Create an S3 bucket access point to allow access from only the CloudFront distributio
- I. Create an AWS WAF web ACL and add an IP set rul
- J. Associate the web ACL with the CloudFront distribution.

Answer: B

NEW QUESTION 106

A company needs to follow security best practices to deploy resources from an AWS CloudFormation template. The CloudFormation template must be able to configure sensitive database credentials.

The company already uses AWS Key Management Service (AWS KMS) and AWS Secrets Manager. Which solution will meet the requirements?

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

Answer: A

Explanation:

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

NEW QUESTION 109

A company has hundreds of AWS accounts in an organization in AWS Organizations. The company operates out of a single AWS Region. The company has a dedicated security tooling AWS account in the organization. The security tooling account is configured as the organization's delegated administrator for Amazon GuardDuty and AWS Security Hub. The company has configured the environment to automatically enable GuardDuty and Security Hub for existing AWS accounts and new AWS accounts.

The company is performing control tests on specific GuardDuty findings to make sure that the company's security team can detect and respond to security events. The security team launched an Amazon EC2 instance and attempted to run DNS requests against a test domain, example.com, to generate a DNS finding. However, the GuardDuty finding was never created in the Security Hub delegated administrator account.

Why was the finding was not created in the Security Hub delegated administrator account?

- A. VPC flow logs were not turned on for the VPC where the EC2 instance was launched.
- B. The VPC where the EC2 instance was launched had the DHCP option configured for a custom OpenDNS resolver.
- C. The GuardDuty integration with Security Hub was never activated in the AWS account where the finding was generated.
- D. Cross-Region aggregation in Security Hub was not configured.

Answer: C

Explanation:

The correct answer is C. The GuardDuty integration with Security Hub was never activated in the AWS account where the finding was generated.

According to the AWS documentation¹, GuardDuty findings are automatically sent to Security Hub only if the GuardDuty integration with Security Hub is enabled in the same account and Region. This means that the security tooling account, which is the delegated administrator for both GuardDuty and Security Hub, must enable the GuardDuty integration with Security Hub in each member account and Region where GuardDuty is enabled. Otherwise, the findings from GuardDuty will not be visible in Security Hub.

The other options are incorrect because:

➤ VPC flow logs are not required for GuardDuty to generate DNS findings. GuardDuty uses VPC DNS logs, which are automatically enabled for all VPCs, to detect malicious or unauthorized DNS activity.

➤ The DHCP option configured for a custom OpenDNS resolver does not affect GuardDuty's ability to generate DNS findings. GuardDuty uses its own threat intelligence sources to identify malicious domains, regardless of the DNS resolver used by the EC2 instance.

➤ Cross-Region aggregation in Security Hub is not relevant for this scenario, because the company operates out of a single AWS Region. Cross-Region aggregation allows Security Hub to aggregate findings from multiple Regions into a single Region.

References:

1: Managing GuardDuty accounts with AWS Organizations : Amazon GuardDuty Findings : How Amazon GuardDuty Works : Cross-Region aggregation in AWS Security Hub

NEW QUESTION 114

A company is using AWS Organizations to implement a multi-account strategy. The company does not have on-premises infrastructure. All workloads run on AWS. The company currently has eight member accounts. The company anticipates that it will have no more than 20 AWS accounts total at any time.

The company issues a new security policy that contains the following requirements:

- No AWS account should use a VPC within the AWS account for workloads.
- The company should use a centrally managed VPC that all AWS accounts can access to launch workloads in subnets.
- No AWS account should be able to modify another AWS account's application resources within the centrally managed VPC.
- The centrally managed VPC should reside in an existing AWS account that is named Account-A within an organization.

The company uses an AWS CloudFormation template to create a VPC that contains multiple subnets in Account-A. This template exports the subnet IDs through the CloudFormation Outputs section.

Which solution will complete the security setup to meet these requirements?

- A. Use a CloudFormation template in the member accounts to launch workload
- B. Configure the template to use the Fn::ImportValue function to obtain the subnet ID values.
- C. Use a transit gateway in the VPC within Account-
- D. Configure the member accounts to use the transit gateway to access the subnets in Account-A to launch workloads.
- E. Use AWS Resource Access Manager (AWS RAM) to share Account-A's VPC subnets with the remaining member account
- F. Configure the member accounts to use the shared subnets to launch workloads.
- G. Create a peering connection between Account-A and the remaining member account
- H. Configure the member accounts to use the subnets in Account-A through the VPC peering connection to launch workloads.

Answer: C

Explanation:

The correct answer is C. Use AWS Resource Access Manager (AWS RAM) to share Account-A's VPC

subnets with the remaining member accounts. Configure the member accounts to use the shared subnets to launch workloads.

This answer is correct because AWS RAM is a service that helps you securely share your AWS resources across AWS accounts, within your organization or organizational units (OUs), and with IAM roles and users for supported resource types¹. One of the supported resource types is VPC subnets², which means you can share the subnets in Account-A's VPC with the other member accounts using AWS RAM. This way, you can meet the requirements of using a centrally managed VPC, avoiding duplicate VPCs in each account, and launching workloads in shared subnets. You can also control the access to the shared subnets by using IAM policies and resource-based policies³, which can prevent one account from modifying another account's resources.

The other options are incorrect because:

➤ A. Using a CloudFormation template in the member accounts to launch workloads and using the Fn::ImportValue function to obtain the subnet ID values is not a solution, because Fn::ImportValue can only import values that have been exported by another stack within the same region⁴. This means that you cannot use Fn::ImportValue to reference the subnet IDs that are exported by Account-A's CloudFormation template, unless all the member accounts are in the same region as Account-A. This option also does not avoid creating duplicate VPCs in each account, which is one of the requirements.

➤ B. Using a transit gateway in the VPC within Account-A and configuring the member accounts to use the transit gateway to access the subnets in Account-A to launch workloads is not a solution, because a transit gateway does not allow you to launch workloads in another account's subnets. A transit gateway is a network transit hub that enables you to route traffic between your VPCs and on-premises networks⁵, but it does not enable you to share subnets across accounts.

➤ D. Creating a peering connection between Account-A and the remaining member accounts and configuring the member accounts to use the subnets in Account-A through the VPC peering connection to launch workloads is not a solution, because a VPC peering connection does not allow you to launch workloads in another account's subnets. A VPC peering connection is a networking connection between two VPCs that enables you to route traffic between them privately⁶, but it does not enable you to share subnets across accounts.

References:

1: What is AWS Resource Access Manager? 2: Shareable AWS resources 3: Managing permissions for shared resources 4: Fn::ImportValue 5: What is a transit gateway? 6: What is VPC peering?

NEW QUESTION 115

A company is using Amazon Route 53 Resolver for its hybrid DNS infrastructure. The company has set up Route 53 Resolver forwarding rules for authoritative domains that are hosted on on-premises DNS servers.

A new security mandate requires the company to implement a solution to log and query DNS traffic that goes to the on-premises DNS servers. The logs must show details of the source IP address of the instance from which the query originated. The logs also must show the DNS name that was requested in Route 53 Resolver. Which solution will meet these requirements?

- A. Use VPC Traffic Mirroring
- B. Configure all relevant elastic network interfaces as the traffic source, include amazon-dns in the mirror filter, and set Amazon CloudWatch Logs as the mirror target
- C. Use CloudWatch Insights on the mirror session logs to run queries on the source IP address and DNS name.
- D. Configure VPC flow logs on all relevant VPC
- E. Send the logs to an Amazon S3 bucket
- F. Use Amazon Athena to run SQL queries on the source IP address and DNS name.
- G. Configure Route 53 Resolver query logging on all relevant VPC
- H. Send the logs to Amazon CloudWatch Log
- I. Use CloudWatch Insights to run queries on the source IP address and DNS name.
- J. Modify the Route 53 Resolver rules on the authoritative domains that forward to the on-premises DNS server
- K. Send the logs to an Amazon S3 bucket
- L. Use Amazon Athena to run SQL queries on the source IP address and DNS name.

Answer: C

Explanation:

The correct answer is C. Configure Route 53 Resolver query logging on all relevant VPCs. Send the logs to Amazon CloudWatch Logs. Use CloudWatch Insights to run queries on the source IP address and DNS name.

According to the AWS documentation¹, Route 53 Resolver query logging lets you log the DNS queries that Route 53 Resolver handles for your VPCs. You can send the logs to CloudWatch Logs, Amazon S3, or Kinesis Data Firehose. The logs include information such as the following:

- The AWS Region where the VPC was created
- The ID of the VPC that the query originated from
- The IP address of the instance that the query originated from
- The instance ID of the resource that the query originated from
- The date and time that the query was first made
- The DNS name requested (such as prod.example.com)
- The DNS record type (such as A or AAAA)
- The DNS response code, such as NoError or ServFail
- The DNS response data, such as the IP address that is returned in response to the DNS query

You can use CloudWatch Insights to run queries on your log data and analyze the results using graphs and statistics². You can filter and aggregate the log data based on any field, and use operators and functions to perform calculations and transformations. For example, you can use CloudWatch Insights to find out how many queries were made for a specific domain name, or which instances made the most queries.

Therefore, this solution meets the requirements of logging and querying DNS traffic that goes to the on-premises DNS servers, showing details of the source IP address of the instance from which the query originated, and the DNS name that was requested in Route 53 Resolver.

The other options are incorrect because:

- A. Using VPC Traffic Mirroring would not capture the DNS queries that go to the on-premises DNS servers, because Traffic Mirroring only copies network traffic from an elastic network interface of an EC2 instance to a target for analysis³. Traffic Mirroring does not include traffic that goes through a Route 53 Resolver outbound endpoint, which is used to forward queries to on-premises DNS servers⁴. Therefore, this solution would not meet the requirements.
- B. Configuring VPC flow logs on all relevant VPCs would not capture the DNS name that was requested in Route 53 Resolver, because flow logs only record information about the IP traffic going to and from network interfaces in a VPC⁵. Flow logs do not include any information about the content or payload of a packet, such as a DNS query or response. Therefore, this solution would not meet the requirements.
- D. Modifying the Route 53 Resolver rules on the authoritative domains that forward to the on-premises DNS servers would not enable logging of DNS queries, because Resolver rules only specify how to forward queries for specified domain names to your network⁶. Resolver rules do not have any logging functionality by themselves. Therefore, this solution would not meet the requirements. References:

1: Resolver query logging - Amazon Route 53 2: Analyzing log data with CloudWatch Logs Insights - Amazon CloudWatch 3: What is Traffic Mirroring? - Amazon Virtual Private Cloud 4: Outbound Resolver endpoints - Amazon Route 53 5: Logging IP traffic using VPC Flow Logs - Amazon Virtual Private Cloud 6: Managing forwarding rules - Amazon Route 53

NEW QUESTION 120

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

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

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

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

- P. Run the scrip
- Q. Find the au-thorization failure in the trail event that is associated with the scrip
- R. Create a new IAM policy that includes the action and resource that caused the authorization failur
- S. Repeat the process until the script succeed
- T. Attach the new IAM policy to the role.

Answer: A

NEW QUESTION 125

A company is using IAM Organizations to develop a multi-account secure networking strategy. The company plans to use separate centrally managed accounts for shared services, auditing, and security inspection. The company plans to provide dozens of additional accounts to application owners for production and development environments.

Company security policy requires that all internet traffic be routed through a centrally managed security inspection layer in the security inspection account. A security engineer must recommend a solution that minimizes administrative overhead and complexity.

Which solution meets these requirements?

- A. Use IAM Control Towe
- B. Modify the default Account Factory networking template to automatically associate new accounts with a centrally managed VPC through a VPC peering connection and to create a default route to the VPC peer in the default route tabl
- C. Create an SCP that denies the CreateInternetGateway actio
- D. Attach the SCP to all accounts except the security inspection account.
- E. Create a centrally managed VPC in the security inspection accoun
- F. Establish VPC peering connections between the security inspection account and other account
- G. Instruct account owners to create default routes in their account route tables that point to the VPC pee
- H. Create an SCP that denies theAttach InternetGateway actio
- I. Attach the SCP to all accounts except the security inspection account.
- J. Use IAM Control Towe
- K. Modify the default Account Factory networking template to automatically associate new accounts with a centrally managed transitgateway and to create a default route to the transit gateway in the default route tabl
- L. Create an SCP that denies the AttachInternetGateway actio
- M. Attach the SCP to all accounts except the security inspection account.
- N. Enable IAM Resource Access Manager (IAM RAM) for IAM Organization
- O. Create a shared transit gateway, and make it available by using an IAM RAM resource shar
- P. Create an SCP that denies the CreateInternetGateway actio
- Q. Attach the SCP to all accounts except the security inspection accoun
- R. Create routes in the route tables of all accounts that point to the shared transit gateway.

Answer: C

NEW QUESTION 129

A company has enabled Amazon GuardDuty in all AWS Regions as part of its security monitoring strategy. In one of its VPCs, the company hosts an Amazon EC2 instance that works as an FTP server. A high number of clients from multiple locations contact the FTP server. GuardDuty identifies this activity as a brute force attack because of the high number of connections that happen every hour.

The company has flagged the finding as a false positive, but GuardDuty continues to raise the issue. A security engineer must improve the signal-to-noise ratio without compromising the companys visibility of potential anomalous behavior.

Which solution will meet these requirements?

- A. Disable the FTP rule in GuardDuty in the Region where the FTP server is deployed.
- B. Add the FTP server to a trusted IP lis
- C. Deploy the list to GuardDuty to stop receiving the notifications.
- D. Create a suppression rule in GuardDuty to filter findings by automatically archiving new findings that match the specified criteria.
- E. Create an AWS Lambda function that has the appropriate permissions to de-lete the finding whenever a new occurrence is reported.

Answer: C

Explanation:

"When you create an Amazon GuardDuty filter, you choose specific filter criteria, name the filter and can enable the auto-archiving of findings that the filter matches. This allows you to further tune GuardDuty to your unique environment, without degrading the ability to identify threats. With auto-archive set, all findings are still generated by GuardDuty, so you have a complete and immutable history of all suspicious activity."

NEW QUESTION 130

A company uses Amazon API Gateway to present REST APIs to users. An API developer wants to analyze API access patterns without the need to parse the log files.

Which combination of steps will meet these requirements with the LEAST effort? (Select TWO.)

- A. Configure access logging for the required API stage.
- B. Configure an AWS CloudTrail trail destination for API Gateway event
- C. Configure filters on the userIdentity, userAgent, and sourceIPAddress fields.
- D. Configure an Amazon S3 destination for API Gateway log
- E. Run Amazon Athena queries to analyze API access information.
- F. Use Amazon CloudWatch Logs Insights to analyze API access information.
- G. Select the Enable Detailed CloudWatch Metrics option on the required API stage.

Answer: CD

NEW QUESTION 134

A company maintains an open-source application that is hosted on a public GitHub repository. While creating a new commit to the repository, an engineer uploaded their IAM access key and secret access key. The engineer reported the mistake to a manager, and the manager immediately disabled the access key.

The company needs to assess the impact of the exposed access key. A security engineer must recommend a solution that requires the least possible managerial

overhead.

Which solution meets these requirements?

- A. Analyze an IAM Identity and Access Management (IAM) use report from IAM Trusted Advisor to see when the access key was last used.
- B. Analyze Amazon CloudWatch Logs for activity by searching for the access key.
- C. Analyze VPC flow logs for activity by searching for the access key
- D. Analyze a credential report in IAM Identity and Access Management (IAM) to see when the access key was last used.

Answer: A

Explanation:

To assess the impact of the exposed access key, the security engineer should recommend the following solution:

➤ Analyze an IAM use report from AWS Trusted Advisor to see when the access key was last used. This allows the security engineer to use a tool that provides information about IAM entities and credentials in their account, and check if there was any unauthorized activity with the exposed access key.

NEW QUESTION 139

An IAM user receives an Access Denied message when the user attempts to access objects in an Amazon S3 bucket. The user and the S3 bucket are in the same AWS account. The S3 bucket is configured to use server-side encryption with AWS KMS keys (SSE-KMS) to encrypt all of its objects at rest by using a customer managed key from the same AWS account. The S3 bucket has no bucket policy defined. The IAM user has been granted permissions through an IAM policy that allows the kms:Decrypt permission to the customer managed key. The IAM policy also allows the s3:List* and s3:Get* permissions for the S3 bucket and its objects.

Which of the following is a possible reason that the IAM user cannot access the objects in the S3 bucket?

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

Answer: D

Explanation:

The possible reason that the IAM user cannot access the objects in the S3 bucket is D. The KMS key policy has been edited to remove the ability for the AWS account to have full access to the key.

This answer is correct because the KMS key policy is the primary way to control access to the KMS key, and it must explicitly allow the AWS account to have full access to the key. If the KMS key policy has been edited to remove this permission, then the IAM policy that grants kms:Decrypt permission to the IAM user has no effect, and the IAM user cannot decrypt the objects in the S3 bucket¹².

The other options are incorrect because:

- A. The IAM policy does not need to allow the kms:DescribeKey permission, because this permission is not required for decrypting objects in S3 using SSE-KMS. The kms:DescribeKey permission allows getting information about a KMS key, such as its creation date, description, and key state³.
- B. The S3 bucket has not been changed to use the AWS managed key to encrypt objects at rest, because this would not cause an Access Denied message for the IAM user. The AWS managed key is a default KMS key that is created and managed by AWS for each AWS account and Region. The IAM user does not need any permissions on this key to use it for SSE-KMS⁴.
- C. An S3 bucket policy does not need to be added to allow the IAM user to access the objects, because the IAM user already has s3:List* and s3:Get* permissions for the S3 bucket and its objects through an IAM policy. An S3 bucket policy is an optional way to grant cross-account access or public access to an S3 bucket⁵.

References:

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

NEW QUESTION 141

A developer at a company uses an SSH key to access multiple Amazon EC2 instances. The company discovers that the SSH key has been posted on a public GitHub repository. A security engineer verifies that the key has not been used recently.

How should the security engineer prevent unauthorized access to the EC2 instances?

- A. Delete the key pair from the EC2 console
- B. Create a new key pair.
- C. Use the ModifyInstanceAttribute API operation to change the key on any EC2 instance that is using the key.
- D. Restrict SSH access in the security group to only known corporate IP addresses.
- E. Update the key pair in any AMI that is used to launch the EC2 instance
- F. Restart the EC2 instances.

Answer: C

Explanation:

To prevent unauthorized access to the EC2 instances, the security engineer should do the following:

➤ Restrict SSH access in the security group to only known corporate IP addresses. This allows the security engineer to use a virtual firewall that controls inbound and outbound traffic for their EC2 instances, and limit SSH access to only trusted sources.

NEW QUESTION 146

A company is using IAM Organizations. The company wants to restrict IAM usage to the eu-west-1 Region for all accounts under an OU that is named "development." The solution must persist restrictions to existing and new IAM accounts under the development OU.

- ☐ A. Include the following SCP on the development OU:

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Sid": "DenyNonDefaultRegions",
      "Effect": "Deny",
      "NotAction": [
        <Desired Global Services> ],
      "Resource": "*",
      "Condition": {
        "StringNotEquals": {
          "aws:RequestedRegion": [
            "eu-west-1"
          ]
        },
        "ArnNotLike": {
          "aws:PrincipalARN": "arn:aws:iam::*:role/AWSExecution"
        }
      }
    }
  ]
}
```

- ☐ B. Include the following SCP on the development account:

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Sid": "DenyNonDefaultRegions",
      "Effect": "Deny",
      "NotAction": [
        <Desired Global Services> ],
      "Resource": "*",
      "Condition": {
        "StringNotEquals": {
          "aws:RequestedRegion": [
            "eu-west-1"
          ]
        },
        "ArnNotLike": {
          "aws:PrincipalARN": "arn:aws:iam::*:role/AWSExecution"
        }
      }
    }
  ]
}
```

☐ C. Include the following SCP on the development OU

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Sid": "DenyNonDefaultRegions",
      "Effect": "Deny",
      "NotAction": [
        <Desired Global Services> ],
      "Resource": "*",
      "Condition": {
        "StringEquals": {
          "aws:RequestedRegion": [
            "eu-west-1"
          ]
        },
        "ArnNotLike": {
          "aws:PrincipalARN": "arn:aws:iam::*:role/AWSExecution"
        }
      }
    }
  ]
}
```

☐ D. Include the following SCP on the development OU

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Sid": "DenyNonDefaultRegions",
      "Effect": "Allow",
      "NotAction": [
        <Desired Global Services> ],
      "Resource": "*",
      "Condition": {
        "StringNotEquals": {
          "aws:RequestedRegion": [
            "us-east-1"
          ]
        },
        "ArnNotLike": {
          "aws:PrincipalARN": "arn:aws:iam::*:role/AWSExecution"
        }
      }
    }
  ]
}
```

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

Answer: A

NEW QUESTION 150

A company is using AWS WAF to protect a customized public API service that is based on Amazon EC2 instances. The API uses an Application Load Balancer. The AWS WAF web ACL is configured with an AWS Managed Rules rule group. After a software upgrade to the API and the client application, some types of requests are no longer working and are causing application stability issues. A security engineer discovers that AWS WAF logging is not turned on for the web ACL. The security engineer needs to immediately return the application to service, resolve the issue, and ensure that logging is not turned off in the future. The security engineer turns on logging for the web ACL and specifies Amazon Cloud-Watch Logs as the destination. Which additional set of steps should the security engineer take to meet the re-quirements?

- A. Edit the rules in the web ACL to include rules with Count action
- B. Review the logs to determine which rule is blocking the reques
- C. Modify the IAM policy of all AWS WAF administrators so that they cannot remove the log-ging configuration for any AWS WAF web ACLs.
- D. Edit the rules in the web ACL to include rules with Count action

- E. Review the logs to determine which rule is blocking the request
- F. Modify the AWS WAF resource policy so that AWS WAF administrators cannot remove the logging configuration for any AWS WAF web ACLs.
- G. Edit the rules in the web ACL to include rules with Count and Challenge action
- H. Review the logs to determine which rule is blocking the request
- I. Modify the AWS WAF resource policy so that AWS WAF administrators cannot remove the logging configuration for any AWS WAF web ACLs.
- J. Edit the rules in the web ACL to include rules with Count and Challenge action
- K. Review the logs to determine which rule is blocking the request
- L. Modify the IAM policy of all AWS WAF administrators so that they cannot remove the logging configuration for any AWS WAF web ACLs.

Answer: A

Explanation:

This answer is correct because it meets the requirements of returning the application to service, resolving the issue, and ensuring that logging is not turned off in the future. By editing the rules in the web ACL to include rules with Count actions, the security engineer can test the effect of each rule without blocking or allowing requests. By reviewing the logs, the security engineer can identify which rule is causing the problem and modify or delete it accordingly. By modifying the IAM policy of all AWS WAF administrators, the security engineer can restrict their permissions to prevent them from removing the logging configuration for any AWS WAF web ACLs.

NEW QUESTION 154

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