



Amazon-Web-Services

Exam Questions SCS-C02

AWS Certified Security - Specialty

NEW QUESTION 1

A company in France uses Amazon Cognito with the Cognito Hosted UI as an identity broker for sign-in and sign-up processes. The company is marketing an application and expects that all the application's users will come from France. When the company launches the application the company's security team observes fraudulent sign-ups for the application. Most of the fraudulent registrations are from users outside of France. The security team needs a solution to perform custom validation at sign-up. Based on the results of the validation the solution must accept or deny the registration request. Which combination of steps will meet these requirements? (Select TWO.)

- A. Create a pre sign-up AWS Lambda trigger
- B. Associate the Amazon Cognito function with the Amazon Cognito user pool.
- C. Use a geographic match rule statement to configure an AWS WAF web ACL
- D. Associate the web ACL with the Amazon Cognito user pool.
- E. Configure an app client for the application's Amazon Cognito user pool
- F. Use the app client ID to validate the requests in the hosted UI.
- G. Update the application's Amazon Cognito user pool to configure a geographic restriction setting.
- H. Use Amazon Cognito to configure a social identity provider (IdP) to validate the requests on the hosted UI.

Answer: B

Explanation:

<https://docs.aws.amazon.com/cognito/latest/developerguide/user-pool-lambda-post-authentication.html>

NEW QUESTION 2

A security engineer needs to develop a process to investigate and respond to potential security events on a company's Amazon EC2 instances. All the EC2 instances are backed by Amazon Elastic Block Store (Amazon EBS). The company uses AWS Systems Manager to manage all the EC2 instances and has installed Systems Manager Agent (SSM Agent) on all the EC2 instances. The process that the security engineer is developing must comply with AWS security best practices and must meet the following requirements:

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

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

Answer: ACE

NEW QUESTION 3

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

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

Answer: D

Explanation:

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

NEW QUESTION 4

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

the security team the ability to change the key whenever the team wants to do so
 Which solution will meet these requirements?

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

Answer: A

Explanation:

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

NEW QUESTION 5

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

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

Answer: BD

Explanation:

The correct answer is B and D. In the dedicated security account, create an Amazon S3 bucket. Configure S3 Object Lock in compliance mode and a retention period of 2 years on the S3 bucket. Set the bucket policy to allow the organization's member accounts to write to the S3 bucket. Create an AWS CloudTrail trail for the organization. Configure logs to be delivered to the logging Amazon S3 bucket in the dedicated security account.

According to the AWS documentation, AWS CloudTrail is a service that enables governance, compliance, operational auditing, and risk auditing of your AWS account. With CloudTrail, you can log, continuously monitor, and retain account activity related to actions across your AWS infrastructure. CloudTrail provides event history of your AWS account activity, including actions taken through the AWS Management Console, AWS SDKs, command line tools, and other AWS services.

To use CloudTrail with multiple AWS accounts and regions, you need to enable AWS Organizations with all features enabled. This allows you to centrally manage your accounts and apply policies across your organization. You can also use CloudTrail as a service principal for AWS Organizations, which lets you create an organization trail that applies to all accounts in your organization. An organization trail logs events for all AWS Regions and delivers the log files to an S3 bucket that you specify.

To create an organization trail, you need to use an administrator account, such as the organization's management account or a delegated administrator account. You can then configure the trail to deliver logs to an S3 bucket in the dedicated security account. This will ensure that all account activity across all member accounts and regions is logged and reported to the security account.

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

To use S3 with CloudTrail logs, you need to create an S3 bucket in the dedicated security account that will store the logs from the organization trail. You can then configure S3 Object Lock on the bucket to prevent objects from being deleted or overwritten for a fixed amount of time or indefinitely. You can also enable compliance mode on the bucket, which prevents any user, including the root user in your account, from deleting or modifying a locked object until it reaches its retention date.

To set a retention period of 2 years on the S3 bucket, you need to create a default retention configuration for the bucket that specifies a retention mode (either governance or compliance) and a retention period (either a number of days or a date). You can then set the bucket policy to allow the organization's member accounts to write to the S3 bucket. This will ensure that all logs are retained in a secure storage location within the security account for 2 years and no changes or deletions are allowed.

Option A is incorrect because setting the bucket policy to allow the organization's management account to write to the S3 bucket is not sufficient, as it will not grant access to the other member accounts in the organization.

Option C is incorrect because using an S3 Lifecycle configuration that expires objects after 2 years is not secure, as it will allow users to delete or modify objects before they expire.

Option E is incorrect because using Lambda and Kinesis Data Firehose to forward logs from one S3 bucket to another is not necessary, as CloudTrail can directly deliver logs to an S3 bucket in another account. It also introduces additional operational overhead and complexity.

NEW QUESTION 6

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

- A. Create an Amazon Event Bridge (Amazon Cloud watch Events) event with an EC2 instance as the source and create volume as the event trigger
- B. When the event is triggered invoke an IAM Lambda function to evaluate and notify the security engineer if the EBS volume that was created is not encrypted.
- C. Use a customer managed IAM policy that will verify that the encryption ag of the Createvolume context is set to true

- D. Apply this rule to all users.
- E. Create an IAM Config rule to evaluate the configuration of each EC2 instance on creation or modification. Have the IAM Config rule trigger an IAM Lambda function to alert the security team and terminate the instance if the EBS volume is not encrypted.
- F. 5
- G. Use the IAM Management Console or IAM CLI to enable encryption by default for EBS volumes in each IAM Region where the company operates.

Answer: D

Explanation:

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

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

NEW QUESTION 7

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

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

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

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

Answer: AE

Explanation:

The combination of solutions that will meet the requirements are:

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

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 complexity.
- 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 errors.
- 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 complexity.

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 8

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

What should the security engineer recommend?

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

- J. Enable Amazon RDS encryption to encrypt the database and snapshot
- K. Enable Amazon Elastic Block Store (Amazon EBS) encryption on Amazon EC2 instance
- L. Store the database credentials in AWS Secrets Manager with automatic rotation
- M. Set up TLS for the connection to the RDS hosted database.
- N. Set up an AWS CloudHSM cluster with AWS Key Management Service (AWS KMS) to store KMS key
- O. Set up Amazon RDS encryption using AWS KSM to encrypt the databases
- 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 9

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

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

Answer: BCF

NEW QUESTION 10

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

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

Answer: C

Explanation:

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

References: : AWS KMS Developer Guide

NEW QUESTION 10

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

- A. Create an IAM group for each application team
- B. Associate policies with each IAM group
- C. Provision IAM users for each application team member
- D. Add the new IAM users to the appropriate IAM group by using role-based access control (RBAC).
- E. Delegate application team leads to provision IAM roles for each team
- F. Conduct a quarterly review of the IAM roles the team leads have provisioned
- G. Ensure that the application team leads have the appropriate training to review IAM roles.
- H. Put each AWS account in its own OU
- I. Add an SCP to each OU to grant access to only the AWS services that the teams plan to use
- J. Include conditions in the AWS account of each team.
- K. Create an SCP and a permissions boundary for IAM roles
- 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 15

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

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

Answer: A

NEW QUESTION 17

A company that uses AWS Organizations wants to see AWS Security Hub findings for many AWS accounts and AWS Regions. Some of the accounts are in the company's organization, and some accounts are in organizations that the company manages for customers. Although the company can see findings in the Security Hub administrator account for accounts in the company's organization, there are no findings from accounts in other organizations.

Which combination of steps should the company take to see findings from accounts that are outside the organization that includes the Security Hub administrator account? (Select TWO.)

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

Answer: CE

Explanation:

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

➤ Send invitations to accounts that are outside the company's organization from the Security Hub administrator account. This will allow the administrator account to view and manage findings from those accounts. The administrator account can send invitations by using the Security Hub console, API, or CLI. For more information, see [Sending invitations to member accounts](#).

➤ Send an administration request from the member accounts. This will allow the member accounts to accept the invitation from the administrator account and establish a relationship with it. The member accounts can send administration requests by using the Security Hub console, API, or CLI. For more information, see [Sending administration requests](#).

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

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

Verified References:

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

NEW QUESTION 20

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 al 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 AM policy similar to the one that fellows 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"
        ]
      },
      {
        "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 nam
- C. Attach the resuming policies to the corresponding IAM roles.

```

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

```

- D. Tag each IAM role with a Team tag ke
- E. and use the team name in the tag valu
- F. Create an IAM policy similar to the one that follows, and attach 4 to all the IAM roles used by developers.

```

    "Version": "2012-10-17",
    "Statement": [
      {
        "Effect": "Allow",
        "NotAction": [
          "ec2:StopInstances",
          "ec2:TerminateInstances"
        ]
      },
      {
        "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 valu
- H. Create an IAM policy similar to the one that follows, and 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 25

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

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

Answer: B

Explanation:

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

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

The other options are incorrect because:

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

References:

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

NEW QUESTION 28

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

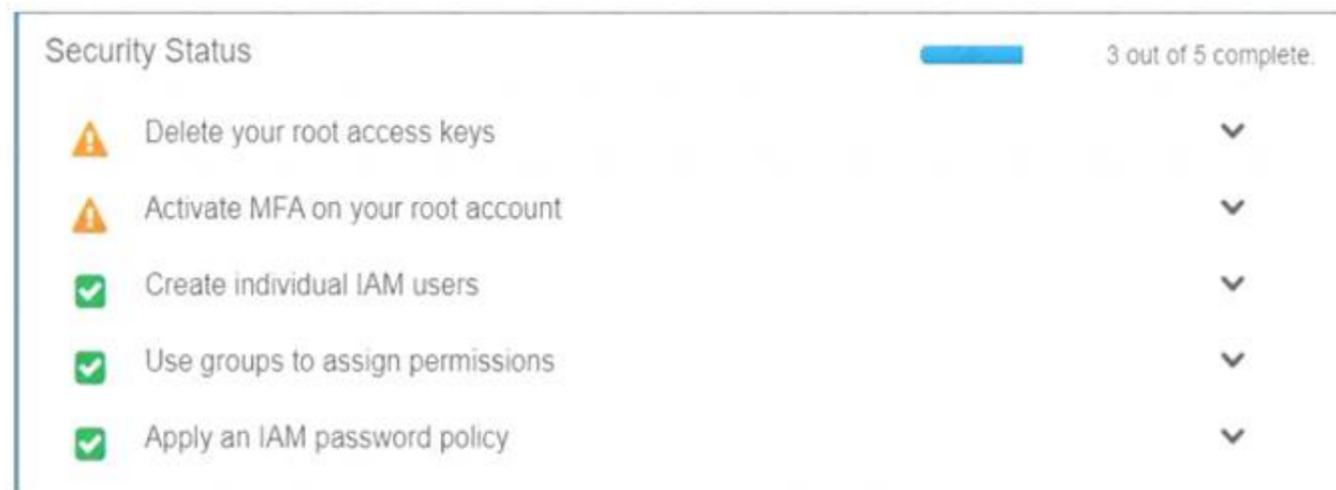
- A. Use short but complex password on the root account and any administrators.
- B. Use IAM Geo-Lock and disallow anyone from logging in except for in your city.
- C. Use MFA on all users and accounts, especially on the root account.
- D. Don't write down or remember the root account password after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

Answer: C

Explanation:

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

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



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

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

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

NEW QUESTION 31

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 32

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 35

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

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

Answer: C

NEW QUESTION 36

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 38

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

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

Answer: C

Explanation:

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

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

NEW QUESTION 39

A security engineer is checking an AWS CloudFormation template for vulnerabilities. The security engineer finds a parameter that has a default value that exposes an application's API key in plaintext. The parameter is referenced several times throughout the template. The security engineer must replace the parameter while maintaining the ability to reference the value in the template. Which solution will meet these requirements in the MOST secure way? `{resolve:s3:MyBucketName:MyObjectName}}`.

- A. Store the API key value as a SecureString parameter in AWS Systems Manager Parameter Store.
- B. In the template, replace all references to the value with `{{resolve:ssm:MySSMParameterName:1}}`.
- C. Store the API key value in AWS Secrets Manager.
- D. In the template, replace all references to the value with `{{resolve:secretsmanager:MySecretId:SecretString}}`.
- E. Store the API key value in Amazon DynamoDB.
- F. In the template, replace all references to the value with `{{resolve:dynamodb:MyTableName:MyPrimaryKey}}`.
- G. Store the API key value in a new Amazon S3 bucket.
- H. In the template, replace all references to the value with `{`

Answer: B

Explanation:

The correct answer is B. Store the API key value in AWS Secrets Manager. In the template, replace all references to the value with `{{resolve:secretsmanager:MySecretId:SecretString}}`.

This answer is correct because AWS Secrets Manager is a service that helps you protect secrets that are needed to access your applications, services, and IT resources. You can store and manage secrets such as database credentials, API keys, and other sensitive data in Secrets Manager. You can also use Secrets Manager to rotate, manage, and retrieve your secrets throughout their lifecycle¹. Secrets Manager integrates with AWS CloudFormation, which allows you to reference secrets from your templates using the `{{resolve:secretsmanager:...}}` syntax². This way, you can avoid exposing your secrets in plaintext and still use them in your resources.

The other options are incorrect because:

- A. Storing the API key value as a SecureString parameter in AWS Systems Manager Parameter Store is not a solution, because AWS CloudFormation does not support references to SecureString parameters. This means that you cannot use the `{{resolve:ssm:...}}` syntax to retrieve encrypted parameter values from Parameter Store³. You would have to use a custom resource or a Lambda function to decrypt the parameter value, which adds complexity and overhead to your template.
- C. Storing the API key value in Amazon DynamoDB is not a solution, because AWS CloudFormation does not support references to DynamoDB items. This means that you cannot use the `{{resolve:dynamodb:...}}` syntax to retrieve item values from DynamoDB tables⁴. You would have to

use a custom resource or a Lambda function to query the DynamoDB table, which adds complexity and overhead to your template.

➤ D. Storing the API key value in a new Amazon S3 bucket is not a solution, because AWS CloudFormation does not support references to S3 objects. This means that you cannot use the `{{resolve:s3:...}}` syntax to retrieve object values from S3 buckets. You would have to use a custom resource or a Lambda function to download the object from S3, which adds complexity and overhead to your template.

References:

1: What is AWS Secrets Manager? 2: Referencing AWS Secrets Manager secrets from Parameter Store parameters 3: Using dynamic references to specify template values 4: Amazon DynamoDB 5: Amazon Simple Storage Service (S3)

NEW QUESTION 42

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 45

What are the MOST secure ways to protect the AWS account root user of a recently opened AWS account? (Select TWO.)

- A. Use the AWS account root user access keys instead of the AWS Management Console.
- B. Enable multi-factor authentication for the AWS IAM users with the AdministratorAccess managed policy attached to them.
- C. Enable multi-factor authentication for the AWS account root user.
- D. Use AWS KMS to encrypt all AWS account root user and AWS IAM access keys and set automatic rotation to 30 days.
- E. Do not create access keys for the AWS account root user; instead, create AWS IAM users.

Answer: CE

NEW QUESTION 48

A company's public Application Load Balancer (ALB) recently experienced a DDoS attack. To mitigate this issue, the company deployed Amazon CloudFront in front of the ALB so that users would not directly access the Amazon EC2 instances behind the ALB.

The company discovers that some traffic is still coming directly into the ALB and is still being handled by the EC2 instances.

Which combination of steps should the company take to ensure that the EC2 instances will receive traffic only from CloudFront? (Choose two.)

- A. Configure CloudFront to add a cache key policy to allow a custom HTTP header that CloudFront sends to the ALB.
- B. Configure CloudFront to add a custom: HTTP header to requests that CloudFront sends to the ALB.
- C. Configure the ALB to forward only requests that contain the custom HTTP header.
- D. Configure the ALB and CloudFront to use the X-Forwarded-For header to check client IP addresses.
- E. Configure the ALB and CloudFront to use the same X.509 certificate that is generated by AWS Certificate Manager (ACM).

Answer: BC

Explanation:

To prevent users from directly accessing an Application Load Balancer and allow access only through CloudFront, complete these high-level steps: Configure CloudFront to add a custom HTTP header to requests that it sends to the Application Load Balancer. Configure the Application Load Balancer to only forward requests that contain the custom HTTP header. (Optional) Require HTTPS to improve the security of this solution.
<https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/restrict-access-to-load-balancer.html>

NEW QUESTION 52

A company is using Amazon Elastic Container Service (Amazon ECS) to deploy an application that deals with sensitive data. During a recent security audit, the company identified a security issue in which Amazon RDS credentials were stored with the application code in the company's source code repository.

A security engineer needs to develop a solution to ensure that database credentials are stored securely and rotated periodically. The credentials should be accessible to the application only. The engineer also needs to prevent database administrators from sharing database credentials as plaintext with other teammates. The solution must also minimize administrative overhead.

Which solution meets these requirements?

- A. Use the IAM Systems Manager Parameter Store to generate database credential.
- B. Use an IAM profile for ECS tasks to restrict access to database credentials to specific containers only.
- C. Use IAM Secrets Manager to store database credential.
- D. Use an IAM inline policy for ECS tasks to restrict access to database credentials to specific containers only.
- E. Use the IAM Systems Manager Parameter Store to store database credential.

- F. Use IAM roles for ECS tasks to restrict access to database credentials to specific containers only
- G. Use IAM Secrets Manager to store database credential
- H. Use IAM roles for ECS tasks to restrict access to database credentials to specific containers only.

Answer: D

Explanation:

To ensure that database credentials are stored securely and rotated periodically, the security engineer should do the following:

- Use AWS Secrets Manager to store database credentials. This allows the security engineer to encrypt and manage secrets centrally, and to configure automatic rotation schedules for them.
- Use IAM roles for ECS tasks to restrict access to database credentials to specific containers only. This allows the security engineer to grant fine-grained permissions to ECS tasks based on their roles, and to avoid sharing credentials as plaintext with other teammates.

NEW QUESTION 57

A company has multiple Amazon S3 buckets encrypted with customer-managed CMKs. Due to regulatory requirements the keys must be rotated every year. The company's Security Engineer has enabled automatic key rotation for the CMKs; however the company wants to verify that the rotation has occurred. What should the Security Engineer do to accomplish this?

- A. Filter IAM CloudTrail logs for KeyRotation events
- B. Monitor Amazon CloudWatch Events for any IAM KMS CMK rotation events
- C. Using the IAM CLI
- D. run the IAM kms get-key-rotation-status operation with the --key-id parameter to check the CMK rotation date
- E. Use Amazon Athena to query IAM CloudTrail logs saved in an S3 bucket to filter Generate New Key events

Answer: C

Explanation:

the aws kms get-key-rotation-status command returns a boolean value that indicates whether automatic rotation of the customer master key (CMK) is enabled¹. This command also shows the date and time when the CMK was last rotated². The other options are not valid ways to check the CMK rotation status.

NEW QUESTION 62

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 company's 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 list
- 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 delete 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 67

A security engineer needs to create an IAM Key Management Service (IAM KMS) key that will be used to encrypt all data stored in a company's Amazon S3 Buckets in the us-west-1 Region. The key will use

server-side encryption. Usage of the key must be limited to requests coming from Amazon S3 within the company's account.

Which statement in the KMS key policy will meet these requirements?

A)

```
{
  "Effect": "Allow",
  "Principal": {
    "AWS": "*"
  },
  "Action": [
    "kms:Encrypt",
    "kms:Decrypt",
    "kms:ReEncrypt*",
    "kms:GenerateDataKey*",
    "kms:DescribeKey"
  ],
  "Resource": "*",
  "Condition": {
    "StringEquals": {
      "kms:ViaService": "s3.us-west-1.amazonaws.com",
      "kms:CallerAccount": "<CustomerAccountID>"
    }
  }
}
```

B)

```
{
  "Effect": "Allow",
  "Principal": {
    "AWS": "s3.us-west-1.amazonaws.com"
  },
  "Action": [
    "kms:Encrypt",
    "kms:Decrypt",
    "kms:ReEncrypt*",
    "kms:GenerateDataKey*",
    "kms:DescribeKey"
  ],
  "Resource": "*",
  "Condition": {
    "StringEquals": {
      "kms:CallerAccount": "<CustomerAccountID>"
    }
  }
}
```

C)

```
{
  "Effect": "Allow",
  "Principal": {
    "AWS": "*"
  },
  "Action": [
    "kms:Encrypt",
    "kms:Decrypt",
    "kms:ReEncrypt*",
    "kms:GenerateDataKey*",
    "kms:DescribeKey"
  ],
  "Resource": "*",
  "Condition": {
    "StringEquals": {
      "kms:EncryptionContext:aws:s3:arn": [
        "arn:aws:s3:::"
      ]
    }
  }
}
```

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

Answer: A

NEW QUESTION 69

A security engineer needs to run an AWS CloudFormation script. The CloudFormation script builds AWS infrastructure to support a stack that includes web servers and a MySQL database. The stack has been deployed in pre-production environments and is ready for production.

The production script must comply with the principle of least privilege. Additionally, separation of duties must exist between the security engineer's IAM account and CloudFormation.

Which solution will meet these requirements?

- A. Use IAM Access Analyzer policy generation to generate a policy that allows the CloudFormation script to run and manage the stack
- B. Attach the policy to a new IAM role
- C. Modify the security engineer's IAM permissions to be able to pass the new role to CloudFormation.
- D. Create an IAM policy that allows ec2:* and rds:* permission
- E. Attach the policy to a new IAM role. Modify the security engineer's IAM permissions to be able to assume the new role.
- F. Use IAM Access Analyzer policy generation to generate a policy that allows the CloudFormation script to run and manage the stack
- G. Modify the security engineer's IAM permissions to be able to run the CloudFormation script.
- H. Create an IAM policy that allows ec2:* and rds:* permission
- I. Attach the policy to a new IAM role
- J. Use the IAM policy simulator to confirm that the policy allows the AWS API calls that are necessary to build the stack
- K. Modify the security engineer's IAM permissions to be able to pass the new role to CloudFormation.

Answer: A

Explanation:

The correct answer is A. Use IAM Access Analyzer policy generation to generate a policy that allows the CloudFormation script to run and manage the stack. Attach the policy to a new IAM role. Modify the security engineer's IAM permissions to be able to pass the new role to CloudFormation.

According to the AWS documentation, IAM Access Analyzer is a service that helps you identify the resources in your organization and accounts, such as Amazon S3 buckets or IAM roles, that are shared with an external entity. You can also use IAM Access Analyzer to generate fine-grained policies that grant least privilege access based on access activity and access attempts.

To use IAM Access Analyzer policy generation, you need to enable IAM Access Analyzer in your account or organization. You can then use the IAM console or the AWS CLI to generate a policy for a resource based on its access activity or access attempts. You can review and edit the generated policy before applying it to the resource.

To use IAM Access Analyzer policy generation with CloudFormation, you can follow these steps:

- > Run the CloudFormation script in a pre-production environment and monitor its access activity or access attempts using IAM Access Analyzer.
- > Use IAM Access Analyzer policy generation to generate a policy that allows the CloudFormation script to run and manage the stack. The policy will include only the permissions that are necessary for the script to function.
- > Attach the policy to a new IAM role that has a trust relationship with CloudFormation. This will allow CloudFormation to assume the role and execute the script.
- > Modify the security engineer's IAM permissions to be able to pass the new role to CloudFormation.

This will allow the security engineer to launch the stack using the role.

- > Run the CloudFormation script in the production environment using the new role.

This solution will meet the requirements of least privilege and separation of duties, as it will limit the permissions of both CloudFormation and the security engineer to only what is needed for running and managing the stack.

Option B is incorrect because creating an IAM policy that allows ec2:* and rds:* permissions is not following the principle of least privilege, as it will grant more permissions than necessary for running and managing the stack. Moreover, modifying the security engineer's IAM permissions to be able to assume the new role is not ensuring separation of duties, as it will allow the security engineer to bypass CloudFormation and directly access the resources.

Option C is incorrect because modifying the security engineer's IAM permissions to be able to run the CloudFormation script is not ensuring separation of duties, as it will allow the security engineer to execute the script without using CloudFormation.

Option D is incorrect because creating an IAM policy that allows ec2:* and rds:* permissions is not following the principle of least privilege, as it will grant more permissions than necessary for running and managing the stack. Using the IAM policy simulator to confirm that the policy allows the AWS API calls that are necessary to build the stack is not sufficient, as it will not generate a fine-grained policy based on access activity or access attempts.

NEW QUESTION 73

A company uses AWS Organizations. The company has teams that use an AWS CloudHSM hardware security module (HSM) that is hosted in a central AWS account. One of the teams creates its own new dedicated AWS account and wants to use the HSM that is hosted in the central account. How should a security engineer share the HSM that is hosted in the central account with the new dedicated account?

- A. Use AWS Resource Access Manager (AWS RAM) to share the VPC subnet ID of the HSM that is hosted in the central account with the new dedicated account
- B. Configure the CloudHSM security group to accept inbound traffic from the private IP addresses of client instances in the new dedicated account.
- C. Use AWS Identity and Access Management (IAM) to create a cross-account role to access the CloudHSM cluster that is in the central account Create a new IAM user in the new dedicated account Assign the cross-account role to the new IAM user.
- D. Use AWS IAM Identity Center (AWS Single Sign-On) to create an AWS Security Token Service (AWS STS) token to authenticate from the new dedicated account to the central account
- E. Use the cross-account permissions that are assigned to the STS token to invoke an operation on the HSM in the central account.
- F. Use AWS Resource Access Manager (AWS RAM) to share the ID of the HSM that is hosted in the central account with the new dedicated account
- G. Configure the CloudHSM security group to accept inbound traffic from the private IP addresses of client instances in the new dedicated account.

Answer: A

Explanation:

<https://aws.amazon.com/premiumsupport/knowledge-center/cloudhsm-share-clusters/#:~:text=In%20the%20nav>

NEW QUESTION 76

A company is running its workloads in a single AWS Region and uses AWS Organizations. A security engineer must implement a solution to prevent users from launching resources in other Regions. Which solution will meet these requirements with the LEAST operational overhead?

- A. Create an IAM policy that has an aws RequestedRegion condition that allows actions only in the designated Region Attach the policy to all users.
- B. Create an IAM policy that has an aws RequestedRegion condition that denies actions that are not in the designated Region Attach the policy to the AWS account in AWS Organizations.
- C. Create an IAM policy that has an aws RequestedRegion condition that allows the desired actions Attach the policy only to the users who are in the designated Region.
- D. Create an SCP that has an aws RequestedRegion condition that denies actions that are not in the designated Region
- E. Attach the SCP to the AWS account in AWS Organizations.

Answer: D

Explanation:

Although you can use a IAM policy to prevent users launching resources in other regions. The best practice is to use SCP when using AWS organizations.

https://docs.aws.amazon.com/organizations/latest/userguide/orgs_manage_policies_scps_examples_general.htm

NEW QUESTION 78

A business stores website images in an Amazon S3 bucket. The firm serves the photos to end users through Amazon CloudFront. The firm learned lately that the photographs are being accessible from nations in which it does not have a distribution license.

Which steps should the business take to safeguard the photographs and restrict their distribution? (Select two.)

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

Answer: AC

Explanation:

For Enable Geo-Restriction, choose Yes. For Restriction Type, choose Whitelist to allow access to certain countries, or choose Blacklist to block access from certain countries. <https://IAM.amazon.com/premiumsupport/knowledge-center/cloudfront-geo-restriction/>

NEW QUESTION 79

A company has a guideline that mandates the encryption of all Amazon S3 bucket data in transit. A security engineer must implement an S3 bucket policy that denies any S3 operations if data is not encrypted.

Which S3 bucket policy will meet this requirement?

A. {
 "Version": "2012-10-17",
 "Statement": [{
 "Sid": "AllowSSLRequestOnly",
 "Action": "s3:*",
 "Effect": "Deny",
 "Resource": [
 "arn:aws:s3:::DOC-EXAMPLE-BUCKET",
 "arn:aws:s3:::DOC-EXAMPLE-BUCKET/*"
],
 "Condition": {
 "Bool": {
 "aws:SecureTransport": "true"
 }
 },
 "Principal": "*"
 }]
 }

B. {
 "Version": "2012-10-17",
 "Statement": [{
 "Sid": "AllowSSLRequestOnly",
 "Action": "s3:*",
 "Effect": "Deny",
 "Resource": [
 "arn:aws:s3:::DOC-EXAMPLE-BUCKET",
 "arn:aws:s3:::DOC-EXAMPLE-BUCKET/*"
],
 "Condition": {
 "Bool": {
 "aws:SecureTransport": "false"
 }
 },
 "Principal": "*"
 }]
 }

C.

```
{
  "Version": "2012-10-17",
  "Statement": [{
    "Sid": "AllowSSLRequestOnly",
    "Action": "s3:*",
    "Effect": "Deny",
    "Resource": [
      "arn:aws:s3:::DOC-EXAMPLE-BUCKET",
      "arn:aws:s3:::DOC-EXAMPLE-BUCKET/*"
    ],
    "Condition": {
      "StringNotEquals": {
        "s3:x-amz-server-side-encryption": "AES256"
      }
    }
  }],
  "Principal": "*"
}
```

D. A screenshot of a computer code Description automatically generated {

```
"Version": "2012-10-17",
"Statement": [{
  "Sid": "AllowSSLRequestOnly",
  "Action": "s3:*",
  "Effect": "Deny",
  "Resource": [
    "arn:aws:s3:::DOC-EXAMPLE-BUCKET",
    "arn:aws:s3:::DOC-EXAMPLE-BUCKET/*"
  ],
  "Condition": {
    "StringNotEquals": {
      "s3:x-amz-server-side-encryption": true
    }
  }
}],
"Principal": "*"
}
```

Answer: B

Explanation:

<https://aws.amazon.com/blogs/security/how-to-use-bucket-policies-and-apply-defense-in-depth-to-help-secure-y>

NEW QUESTION 81

An international company has established a new business entity in South Korea. The company also has established a new AWS account to contain the workload for the South Korean region. The company has set up the workload in the new account in the ap-northeast-2 Region. The workload consists of three Auto Scaling groups of Amazon EC2 instances. All workloads that operate in this Region must keep system logs and application logs for 7 years.

A security engineer must implement a solution to ensure that no logging data is lost for each instance during scaling activities. The solution also must keep the logs for only the required period of 7 years.

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

- A. Ensure that the Amazon CloudWatch agent is installed on all the EC2 instances that the Auto Scaling groups launch.
- B. Generate a CloudWatch agent configuration file to forward the required logs to Amazon CloudWatch Logs.
- C. Set the log retention for desired log groups to 7 years.
- D. Attach an IAM role to the launch configuration or launch template that the Auto Scaling groups use. Configure the role to provide the necessary permissions to forward logs to Amazon CloudWatch Logs.
- E. Attach an IAM role to the launch configuration or launch template that the Auto Scaling groups use. Configure the role to provide the necessary permissions to forward logs to Amazon S3.
- F. Ensure that a log forwarding application is installed on all the EC2 instances that the Auto Scaling groups launch.
- G. Configure the log forwarding application to periodically bundle the logs and forward the logs to Amazon S3.
- H. Configure an Amazon S3 Lifecycle policy on the target S3 bucket to expire objects after 7 years.

Answer: ABC

Explanation:

The correct combination of steps that the security engineer should take to meet these requirements are A. Ensure that the Amazon CloudWatch agent is installed on all the EC2 instances that the Auto Scaling groups launch. Generate a CloudWatch agent configuration file to forward the required logs to Amazon CloudWatch Logs., B. Set the log retention for desired log groups to 7 years., and C. Attach an IAM role to the launch configuration or launch template that the Auto Scaling groups use. Configure the role to provide the necessary permissions to forward logs to Amazon CloudWatch Logs.

* A. This answer is correct because it meets the requirement of ensuring that no logging data is lost for each instance during scaling activities. By installing the CloudWatch agent on all the EC2 instances, the security engineer can collect and send system logs and application logs to CloudWatch Logs, which is a service that stores and monitors log data. By generating a CloudWatch agent configuration file, the security engineer can specify which logs to forward and how often.

* B. This answer is correct because it meets the requirement of keeping the logs for only the required period of 7 years. By setting the log retention for desired log groups, the security engineer can control how long CloudWatch Logs retains log events before deleting them. The security engineer can choose a predefined retention period of 7 years, or use a custom value.

* C. This answer is correct because it meets the requirement of providing the necessary permissions to forward logs to CloudWatch Logs. By attaching an IAM role to the launch configuration or launch template that the Auto Scaling groups use, the security engineer can grant permissions to the EC2 instances that are launched by the Auto Scaling groups. By configuring the role to provide the necessary permissions, such as cloudwatch:PutLogEvents and cloudwatch:CreateLogStream, the security engineer can allow the EC2 instances to send log data to CloudWatch Logs.

NEW QUESTION 86

A company is evaluating the use of AWS Systems Manager Session Manager to gain access to the company's Amazon EC2 instances. However, until the company implements the change, the company must protect the key file for the EC2 instances from read and write operations by any other users. When a security administrator tries to connect to a critical EC2 Linux instance during an emergency, the security administrator receives the following error. "Error Unprotected private key file - Permissions for 'ssh/my_private_key.pem' are too open". Which command should the security administrator use to modify the private key file permissions to resolve this error?

- A. `chmod 0040 ssh/my_private_key.pem`
- B. `chmod 0400 ssh/my_private_key.pem`
- C. `chmod 0004 ssh/my_private_key.pem`
- D. `chmod 0777 ssh/my_private_key.pem`

Answer: B

Explanation:

The error message indicates that the private key file permissions are too open, meaning that other users can read or write to the file. This is a security risk, as the private key should be accessible only by the owner of the file. To fix this error, the security administrator should use the `chmod` command to change the permissions of the private key file to `0400`, which means that only the owner can read the file and no one else can read or write to it.

The `chmod` command takes a numeric argument that represents the permissions for the owner, group, and others in octal notation. Each digit corresponds to a set of permissions: read (4), write (2), and execute (1). The digits are added together to get the final permissions for each category. For example, `0400` means that the owner has read permission (4) and no other permissions (0), and the group and others have no permissions at all (0).

The other options are incorrect because they either do not change the permissions at all (D), or they give too much or too little permissions to the owner, group, or others (A, C).

Verified References:

- > <https://superuser.com/questions/215504/permissions-on-private-key-in-ssh-folder>
- > <https://www.baeldung.com/linux/ssh-key-permissions>

NEW QUESTION 89

A security engineer logs in to the AWS Lambda console with administrator permissions. The security engineer is trying to view logs in Amazon CloudWatch for a Lambda function that is named myFunction.

When the security engineer chooses the option in the Lambda console to view logs in CloudWatch, an "error loading Log Streams" message appears.

The IAM policy for the Lambda function's execution role contains the following:

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Action": "logs:CreateLogGroup",
      "Resource": "arn:aws:logs:us-east-1:111111111111:*"
    },
    {
      "Effect": "Allow",
      "Action": ["logs:PutLogEvents"],
      "Resource": ["arn:aws:logs:us-east-1:111111111111:log-
group:/aws/Lambda/myFunction:*"]
    }
  ]
}
```

How should the security engineer correct the error?

- A. Move the `logs:CreateLogGroup` action to the second Allow statement.
- B. Add the `logs:PutDestination` action to the second Allow statement.
- C. Add the `logs:GetLogEvents` action to the second Allow statement.
- D. Add the `logs:CreateLogStream` action to the second Allow statement.

Answer: D

Explanation:

`CloudWatchLogsReadOnlyAccess` doesn't include `logs:CreateLogStream` but it includes `logs:Get*`
<https://docs.aws.amazon.com/AmazonCloudWatch/latest/logs/iam-identity-based-access-control-cwl.html#:~:te>

NEW QUESTION 90

A security engineer wants to evaluate configuration changes to a specific AWS resource to ensure that the resource meets compliance standards. However, the security engineer is concerned about a situation in which several configuration changes are made to the resource in quick succession. The security engineer wants to record only the latest configuration of that resource to indicate the cumulative impact of the set of changes.

Which solution will meet this requirement in the MOST operationally efficient way?

- A. Use AWS CloudTrail to detect the configuration changes by filtering API calls to monitor the changes. Use the most recent API call to indicate the cumulative impact of multiple calls.
- B. Use AWS Config to detect the configuration changes and to record the latest configuration in case of multiple configuration changes.
- C. Use Amazon CloudWatch to detect the configuration changes by filtering API calls to monitor the change.
- D. Use the most recent API call to indicate the cumulative impact of multiple calls.
- E. Use AWS Cloud Map to detect the configuration change.
- F. Generate a report of configuration changes from AWS Cloud Map to track the latest state by using a sliding time window.

Answer: B

Explanation:

AWS Config is a service that enables you to assess, audit, and evaluate the configurations of your AWS resources. AWS Config continuously monitors and records your AWS resource configurations and allows you to automate the evaluation of recorded configurations against desired configurations. To evaluate configuration changes to a specific AWS resource and ensure that it meets compliance standards, the security engineer should use AWS Config to detect the configuration changes and to record the latest configuration in case of multiple configuration changes. This will allow the security engineer to view the

current state of the resource and its compliance status, as well as its configuration history and timeline.

AWS Config records configuration changes as ConfigurationItems, which are point-in-time snapshots of the resource's attributes, relationships, and metadata. If multiple configuration changes occur within a short period of time, AWS Config records only the latest ConfigurationItem for that resource. This indicates the cumulative impact of the set of changes on the resource's configuration.

This solution will meet the requirement in the most operationally efficient way, as it leverages AWS Config's features to monitor, record, and evaluate resource configurations without requiring additional tools or services.

The other options are incorrect because they either do not record the latest configuration in case of multiple configuration changes (A, C), or do not use a valid service for evaluating resource configurations (D).

Verified References:

- <https://docs.aws.amazon.com/config/latest/developerguide/WhatIsConfig.html>
- <https://docs.aws.amazon.com/config/latest/developerguide/config-item-table.html>

NEW QUESTION 91

A company is operating a website using Amazon CloudFront. CloudFront servers some content from Amazon S3 and other from web servers running EC2 instances behind an Application Load Balancer (ALB). Amazon DynamoDB is used as the data store. The company already uses IAM Certificate Manager (ACM) to store a public TLS certificate that can optionally secure connections between the website users and CloudFront. The company has a new requirement to enforce end-to-end encryption in transit.

Which combination of steps should the company take to meet this requirement? (Select THREE.)

- A. Update the CloudFront distributio
- B. configuring it to optionally use HTTPS when connecting to origins on Amazon S3
- C. Update the web application configuration on the web servers to use HTTPS instead of HTTP when connecting to DynamoDB
- D. Update the CloudFront distribution to redirect HTTP corrections to HTTPS
- E. Configure the web servers on the EC2 instances to listen using HTTPS using the public ACM TLS certificate Update the ALB to connect to the target group using HTTPS
- F. Update the ALB listen to listen using HTTPS using the public ACM TLS certificat
- G. Update the CloudFront distribution to connect to the HTTPS listener.
- H. Create a TLS certificate Configure the web servers on the EC2 instances to use HTTPS only with that certificat
- I. Update the ALB to connect to the target group using HTTPS.

Answer: BCE

Explanation:

To enforce end-to-end encryption in transit, the company should do the following:

- Update the web application configuration on the web servers to use HTTPS instead of HTTP when connecting to DynamoDB. This ensures that the data is encrypted when it travels from the web servers to the data store.
- Update the CloudFront distribution to redirect HTTP requests to HTTPS. This ensures that the viewers always use HTTPS when they access the website through CloudFront.
- Update the ALB to listen using HTTPS using the public ACM TLS certificate. Update the CloudFront distribution to connect to the HTTPS listener. This ensures that the data is encrypted when it travels from CloudFront to the ALB and from the ALB to the web servers.

NEW QUESTION 93

A company's application team wants to replace an internal application with a new IAM architecture that consists of Amazon EC2 instances, an IAM Lambda function, and an Amazon S3 bucket in a single IAM Region. After an architecture review, the security team mandates that no application network traffic can traverse the public internet at any point. The security team already has an SCP in place for the company's organization in IAM Organizations to restrict the creation of internet gateways, NAT gateways, and egress-only gateways.

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

- A. Create an S3 endpoint that has a full-access policy for the application's VPC.
- B. Create an S3 access point for the S3 bucke
- C. Include a policy that restricts the network origin to VPCs.
- D. Launch the Lambda functio
- E. Enable the block public access configuration.
- F. Create a security group that has an outbound rule over port 443 with a destination of the S3 endpomt.Associate the security group with the EC2 instances.
- G. Create a security group that has an outbound rule over port 443 with a destination of the S3 access point.Associate the security group with the EC2 instances.
- H. Launch the Lambda function in a VPC.

Answer: ADF

NEW QUESTION 98

A developer signed in to a new account within an IAM Organization organizational unit (OU) containing multiple accounts. Access to the Amazon S3 service is restricted with the following SCP.

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Deny",
      "Action": "s3:*",
      "Resource": "*"
    }
  ]
}
```

How can the security engineer provide the developer with Amazon S3 access without affecting other account?

- A. Move the SCP to the root OU of organization to remove the restriction to access Amazon S3.
- B. Add an IAM policy for the developer, which grants S3 access.

- C. Create a new OU without applying the SCP restricting \$3 acces
- D. Move the developer account to this new OU.
- E. Add an allow list for the developer account for the \$3 service.

Answer: C

NEW QUESTION 100

A Development team has built an experimental environment to test a simple state web application. It has built an isolated VPC with a private and a public subnet. The public subnet holds only an Application Load Balancer, a NAT gateway, and an internet gateway. The private subnet holds all of the Amazon EC2 instances. There are 3 different types of servers. Each server type has its own Security Group that limits access to only required connectivity. The Security Groups have both inbound and outbound rules applied. Each subnet has both inbound and outbound network ACLs applied to limit access to only required connectivity. Which of the following should the team check if a server cannot establish an outbound connection to the internet? (Select THREE.)

- A. The route tables and the outbound rules on the appropriate private subnet security group
- B. The outbound network ACL rules on the private subnet and the Inbound network ACL rules on the public subnet
- C. The outbound network ACL rules on the private subnet and both the inbound and outbound rules on the public subnet
- D. The rules on any host-based firewall that may be applied on the Amazon EC2 instances
- E. The Security Group applied to the Application Load Balancer and NAT gateway
- F. That the 0.0.0.0 route in the private subnet route table points to the internet gateway in the public subnet

Answer: CEF

Explanation:

because these are the factors that could affect the outbound connection to the internet from a server in a private subnet. The outbound network ACL rules on the private subnet and both the inbound and outbound rules on the public subnet must allow the traffic to pass through. The security group applied to the application load balancer and NAT gateway must also allow the traffic from the private subnet. The 0.0.0.0 route in the private subnet route table must point to the NAT gateway in the public subnet, not the internet gateway. The other options are either irrelevant or incorrect for troubleshooting the outbound connection issue.

NEW QUESTION 102

A company plans to create individual child accounts within an existing organization in IAM Organizations for each of its DevOps teams. IAM CloudTrail has been enabled and configured on all accounts to write audit logs to an Amazon S3 bucket in a centralized IAM account. A security engineer needs to ensure that DevOps team members are unable to modify or disable this configuration. How can the security engineer meet these requirements?

- A. Create an IAM policy that prohibits changes to the specific CloudTrail trail and apply the policy to the IAM account root user.
- B. Create an S3 bucket policy in the specified destination account for the CloudTrail trail that prohibits configuration changes from the IAM account root user in the source account.
- C. Create an SCP that prohibits changes to the specific CloudTrail trail and apply the SCP to the appropriate organizational unit or account in Organizations.
- D. Create an IAM policy that prohibits changes to the specific CloudTrail trail and apply the policy to a new IAM group.
- E. Have team members use individual IAM accounts that are members of the new IAM group.

Answer: D

NEW QUESTION 106

A company receives a notification from the AWS Abuse team about an AWS account. The notification indicates that a resource in the account is compromised. The company determines that the compromised resource is an Amazon EC2 instance that hosts a web application. The compromised EC2 instance is part of an EC2 Auto Scaling group. The EC2 instance accesses Amazon S3 and Amazon DynamoDB resources by using an IAM access key and secret key. The IAM access key and secret key are stored inside the AMI that is specified in the Auto Scaling group's launch configuration. The company is concerned that the credentials that are stored in the AMI might also have been exposed. The company must implement a solution that remediates the security concerns without causing downtime for the application. The solution must comply with security best practices. Which solution will meet these requirements?

- A. Rotate the potentially compromised access key that the EC2 instance uses. Create a new AMI without the potentially compromised credentials. Perform an EC2 Auto Scaling instance refresh.
- B. Delete or deactivate the potentially compromised access key. Create an EC2 Auto Scaling linked IAM role that includes a custom policy that matches the potentially compromised access key permission. Associate the new IAM role with the Auto Scaling group. Perform an EC2 Auto Scaling instance refresh.
- C. Delete or deactivate the potentially compromised access key. Create a new AMI without the potentially compromised credentials. Create an IAM role that includes the correct permissions. Create a launch template for the Auto Scaling group to reference the new AMI and IAM role. Perform an EC2 Auto Scaling instance refresh.
- D. Rotate the potentially compromised access key. Create a new AMI without the potentially compromised access key. Use a user data script to supply the new access key as environmental variables in the Auto Scaling group's launch configuration. Perform an EC2 Auto Scaling instance refresh.

Answer: C

Explanation:

The AWS documentation states that you can create a new AMI without the potentially compromised credentials and create an IAM role that includes the correct permissions. You can then create a launch template for the Auto Scaling group to reference the new AMI and IAM role. This method is the most secure way to remediate the security concerns without causing downtime for the application.

References: : AWS Security Best Practices

NEW QUESTION 107

A company hosts a web application on an Apache web server. The application runs on Amazon EC2 instances that are in an Auto Scaling group. The company configured the EC2 instances to send the Apache web server logs to an Amazon CloudWatch Logs group that the company has configured to expire after 1 year. Recently, the company discovered in the Apache web server logs that a specific IP address is sending suspicious requests to the web application. A security engineer wants to analyze the past week of Apache web server logs to determine how many requests that the IP address sent and the corresponding URLs that the IP address requested. What should the security engineer do to meet these requirements with the LEAST effort?

- A. Export the CloudWatch Logs group data to Amazon S3. Use Amazon Macie to query the logs for the specific IP address and the requested URLs.
- B. Configure a CloudWatch Logs subscription to stream the log group to an Amazon OpenSearch Service cluster.
- C. Use OpenSearch Service to analyze the logs for the specific IP address and the requested URLs.
- D. Use CloudWatch Logs Insights and a custom query syntax to analyze the CloudWatch logs for the specific IP address and the requested URLs.
- E. Export the CloudWatch Logs group data to Amazon S3. Use AWS Glue to crawl the S3 bucket for only the log entries that contain the specific IP address.
- F. Use AWS Glue to view the results.

Answer: C

NEW QUESTION 111

A company has contracted with a third party to audit several AWS accounts. To enable the audit, cross-account IAM roles have been created in each account targeted for audit. The Auditor is having trouble accessing some of the accounts.

Which of the following may be causing this problem? (Choose three.)

- A. The external ID used by the Auditor is missing or incorrect.
- B. The Auditor is using the incorrect password.
- C. The Auditor has not been granted sts:AssumeRole for the role in the destination account.
- D. The Amazon EC2 role used by the Auditor must be set to the destination account role.
- E. The secret key used by the Auditor is missing or incorrect.
- F. The role ARN used by the Auditor is missing or incorrect.

Answer: ACF

Explanation:

The following may be causing the problem for the Auditor:

- > A. The external ID used by the Auditor is missing or incorrect. This is a possible cause, because the external ID is a unique identifier that is used to establish a trust relationship between the accounts. The external ID must match the one that is specified in the role's trust policy in the destination account1.
- > C. The Auditor has not been granted sts:AssumeRole for the role in the destination account. This is a possible cause, because sts:AssumeRole is the API action that allows the Auditor to assume the cross-account role and obtain temporary credentials. The Auditor must have an IAM policy that allows them to call sts:AssumeRole for the role ARN in the destination account2.
- > F. The role ARN used by the Auditor is missing or incorrect. This is a possible cause, because the role ARN is the Amazon Resource Name of the cross-account role that the Auditor wants to assume. The role ARN must be valid and exist in the destination account3.

NEW QUESTION 115

A company is migrating one of its legacy systems from an on-premises data center to AWS. The application server will run on AWS, but the database must remain in the on-premises data center for compliance reasons. The database is sensitive to network latency. Additionally, the data that travels between the on-premises data center and AWS must have IPsec encryption.

Which combination of AWS solutions will meet these requirements? (Choose two.)

- A. AWS Site-to-Site VPN
- B. AWS Direct Connect
- C. AWS VPN CloudHub
- D. VPC peering
- E. NAT gateway

Answer: AB

Explanation:

The correct combination of AWS solutions that will meet these requirements is A. AWS Site-to-Site VPN and B. AWS Direct Connect.

- * A. AWS Site-to-Site VPN is a service that allows you to securely connect your on-premises data center to your AWS VPC over the internet using IPsec encryption. This solution meets the requirement of encrypting the data in transit between the on-premises data center and AWS.
- * B. AWS Direct Connect is a service that allows you to establish a dedicated network connection between your on-premises data center and your AWS VPC. This solution meets the requirement of reducing network latency between the on-premises data center and AWS.
- * C. AWS VPN CloudHub is a service that allows you to connect multiple VPN connections from different locations to the same virtual private gateway in your AWS VPC. This solution is not relevant for this scenario, as there is only one on-premises data center involved.
- * D. VPC peering is a service that allows you to connect two or more VPCs in the same or different regions using private IP addresses. This solution does not meet the requirement of connecting an on-premises data center to AWS, as it only works for VPCs.
- * E. NAT gateway is a service that allows you to enable internet access for instances in a private subnet in your AWS VPC. This solution does not meet the requirement of connecting an on-premises data center to AWS, as it only works for outbound traffic from your VPC.

NEW QUESTION 118

A company has a group of Amazon EC2 instances in a single private subnet of a VPC with no internet gateway attached. A security engineer has installed the Amazon CloudWatch agent on all instances in that subnet to capture logs from a specific application. To ensure that the logs flow securely, the company's networking team has created VPC endpoints for CloudWatch monitoring and CloudWatch logs. The networking team has attached the endpoints to the VPC. The application is generating logs. However, when the security engineer queries CloudWatch, the logs do not appear.

Which combination of steps should the security engineer take to troubleshoot this issue? (Choose three.)

- A. Ensure that the EC2 instance profile that is attached to the EC2 instances has permissions to create log streams and write logs.
- B. Create a metric filter on the logs so that they can be viewed in the AWS Management Console.
- C. Check the CloudWatch agent configuration file on each EC2 instance to make sure that the CloudWatch agent is collecting the proper log files.
- D. Check the VPC endpoint policies of both VPC endpoints to ensure that the EC2 instances have permissions to use them.
- E. Create a NAT gateway in the subnet so that the EC2 instances can communicate with CloudWatch.
- F. Ensure that the security groups allow all the EC2 instances to communicate with each other to aggregate logs before sending.

Answer: ACD

Explanation:

The possible steps to troubleshoot this issue are:

- A. Ensure that the EC2 instance profile that is attached to the EC2 instances has permissions to create log streams and write logs. This is a necessary step because the CloudWatch agent uses the credentials from the instance profile to communicate with CloudWatch1.
 - C. Check the CloudWatch agent configuration file on each EC2 instance to make sure that the CloudWatch agent is collecting the proper log files. This is a necessary step because the CloudWatch agent needs to know which log files to monitor and send to CloudWatch2.
 - D. Check the VPC endpoint policies of both VPC endpoints to ensure that the EC2 instances have permissions to use them. This is a necessary step because the VPC endpoint policies control which principals can access the AWS services through the endpoints3.
- The other options are incorrect because:
- B. Creating a metric filter on the logs is not a troubleshooting step, but a way to extract metric data from the logs. Metric filters do not affect the visibility of the logs in the AWS Management Console.
 - E. Creating a NAT gateway in the subnet is not a solution, because the EC2 instances do not need internet access to communicate with CloudWatch through the VPC endpoints. A NAT gateway would also incur additional costs.
 - F. Ensuring that the security groups allow all the EC2 instances to communicate with each other is not a necessary step, because the CloudWatch agent does not require log aggregation before sending. Each EC2 instance can send its own logs independently to CloudWatch.

References:

1: IAM Roles for Amazon EC2 2: CloudWatch Agent Configuration File: Logs Section 3: Using Amazon VPC Endpoints : Metric Filters : NAT Gateways : CloudWatch Agent Reference: Log Aggregation

NEW QUESTION 123

A company's Security Auditor discovers that users are able to assume roles without using multi-factor authentication (MFA). An example of a current policy being applied to these users is as follows:

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Deny",
      "Principal": {
        "AWS": "arn:aws:iam::555555555555:root"
      },
      "Action": "sts:AssumeRole",
      "Condition": {
        "Bool": { "aws:MultiFactorAuthPresent": false}
      }
    }
  ]
}
```

The Security Auditor finds that the users who are able to assume roles without MFA are all coming from the IAM CLI. These users are using long-term IAM credentials. Which changes should a Security Engineer implement to resolve this security issue? (Select TWO.)

- A)
- ```
"Effect": "Deny",
"Condition": { "Bool": { "aws:MultiFactorAuthPresent": false} }
```
- B)
- ```
"Effect": "Allow",
"Condition": { "Bool": { "aws:MultiFactorAuthPresent": true} }
```
- C)
- ```
"Effect": "Allow", "Condition": { "BoolIfExists": { "aws:MultiFactorAuthPresent": true} }
```
- D)
- ```
"Effect": "Deny", "Condition": { "BoolIfExists": { "aws:MultiFactorAuthPresent": false} }
```
- E)
- ```
"Effect": "Deny", "Condition": { "BoolIfNotExist": { "aws:MultiFactorAuthPresent": true} }
```

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

**Answer: AD**

### NEW QUESTION 126

A company is using AWS to run a long-running analysis process on data that is stored in Amazon S3 buckets. The process runs on a fleet of Amazon EC2 instances that are in an Auto Scaling group. The EC2 instances are deployed in a private subnet of a VPC that does not have internet access. The EC2 instances and the S3 buckets are in the same AWS account

The EC2 instances access the S3 buckets through an S3 gateway endpoint that has the default access policy. Each EC2 instance is associated with an instance profile role that has a policy that explicitly allows the s3:GetObject action and the s3:PutObject action for only the required S3 buckets.

The company learns that one or more of the EC2 instances are compromised and are exfiltrating data to an S3 bucket that is outside the company's organization in AWS Organizations. A security engineer must implement a solution to stop this exfiltration of data and to keep the EC2 processing job functional.

Which solution will meet these requirements?

- A. Update the policy on the S3 gateway endpoint to allow the S3 actions only if the values of the aws:ResourceOrgID and aws:PrincipalOrgID condition keys match the company's values.

- B. Update the policy on the instance profile role to allow the S3 actions only if the value of the aws:ResourceOrgID condition key matches the company's value.
- C. Add a network ACL rule to the subnet of the EC2 instances to block outgoing connections on port 443.
- D. Apply an SCP on the AWS account to allow the S3 actions only if the values of the aws:ResourceOrgID and aws:PrincipalOrgID condition keys match the company's values.

**Answer: D**

**Explanation:**

The correct answer is D.

To stop the data exfiltration from the compromised EC2 instances, the security engineer needs to implement a solution that can deny access to any S3 bucket that is outside the company's organization. The solution should also allow the EC2 instances to access the required S3 buckets within the company's organization for the analysis process.

Option A is incorrect because updating the policy on the S3 gateway endpoint will not affect the access to S3 buckets that are outside the company's organization. The S3 gateway endpoint only applies to S3 buckets that are in the same AWS Region as the VPC. The compromised EC2 instances can still access S3 buckets in other Regions or other AWS accounts through the internet gateway or NAT device.

Option B is incorrect because updating the policy on the instance profile role will not prevent the compromised EC2 instances from using other credentials or methods to access S3 buckets outside the company's organization. The instance profile role only applies to requests that are made using the credentials of that role. The compromised EC2 instances can still use other IAM users, roles, or access keys to access S3 buckets outside the company's organization.

Option C is incorrect because adding a network ACL rule to block outgoing connections on port 443 will also block legitimate connections to S3 buckets within the company's organization. The network ACL rule will prevent the EC2 instances from accessing any S3 bucket through HTTPS, regardless of whether it is inside or outside the company's organization.

Option D is correct because applying an SCP on the AWS account will effectively deny access to any S3 bucket that is outside the company's organization. The SCP will apply to all IAM users, roles, and resources in the AWS account, regardless of how they access S3. The SCP will use the aws:ResourceOrgID and aws:PrincipalOrgID condition keys to check whether the S3 bucket and the principal belong to the same organization as the AWS account. If they do not match, the SCP will deny the S3 actions.

References:

- > Using service control policies
- > AWS Organizations service control policy examples

**NEW QUESTION 129**

A company has recently recovered from a security incident that required the restoration of Amazon EC2 instances from snapshots. The company uses an AWS Key

Management Service (AWS KMS) customer managed key to encrypt all Amazon Elastic Block Store (Amazon EBS) snapshots.

The company performs a gap analysis of its disaster recovery procedures and backup strategies. A security engineer needs to implement a solution so that the company can recover the EC2 instances if the AWS account is compromised and the EBS snapshots are deleted.

Which solution will meet this requirement?

- A. Create a new Amazon S3 bucket
- B. Use EBS lifecycle policies to move EBS snapshots to the new S3 bucket
- C. Use lifecycle policies to move snapshots to the S3 Glacier Instant Retrieval storage class
- D. Use S3 Object Lock to prevent deletion of the snapshots.
- E. Use AWS Systems Manager to distribute a configuration that backs up all attached disks to Amazon S3.
- F. Create a new AWS account that has limited privilege
- G. Allow the new account to access the KMS key that encrypts the EBS snapshot
- H. Copy the encrypted snapshots to the new account on a recurring basis.
- I. Use AWS Backup to copy EBS snapshots to Amazon S3. Use S3 Object Lock to prevent deletion of the snapshots.

**Answer: C**

**Explanation:**

This solution meets the requirement of recovering the EC2 instances if the AWS account is compromised and the EBS snapshots are deleted. By creating a new AWS account with limited privileges, the company can isolate the backup snapshots from the main account and reduce the risk of accidental or malicious deletion. By allowing the new account to access the KMS key that encrypts the EBS snapshots, the company can ensure that the snapshots are copied in an encrypted form and can be decrypted when needed. By copying the encrypted snapshots to the new account on a recurring basis, the company can maintain a consistent backup schedule and minimize data loss.

**NEW QUESTION 130**

A company has a web-based application using Amazon CloudFront and running on Amazon Elastic Container Service (Amazon ECS) behind an Application Load Balancer (ALB). The ALB is terminating TLS and balancing load across ECS service tasks. A security engineer needs to design a solution to ensure that application content is accessible only through CloudFront and that it is never accessible directly.

How should the security engineer build the MOST secure solution?

- A. Add an origin custom header. Set the viewer protocol policy to HTTP and HTTPS. Set the origin protocol policy to HTTPS only. Update the application to validate the CloudFront custom header.
- B. Add an origin custom header. Set the viewer protocol policy to HTTPS only. Set the origin protocol policy to match viewer. Update the application to validate the CloudFront custom header.
- C. Add an origin custom header. Set the viewer protocol policy to redirect HTTP to HTTPS. Set the origin protocol policy to HTTP only. Update the application to validate the CloudFront custom header.
- D. Add an origin custom header. Set the viewer protocol policy to redirect HTTP to HTTPS.
- E. Set the origin protocol policy to HTTPS only. Update the application to validate the CloudFront custom header.

**Answer: D**

**Explanation:**

To ensure that application content is accessible only through CloudFront and not directly, the security engineer should do the following:

- > Add an origin custom header. This is a header that CloudFront adds to the requests that it sends to the origin, but viewers cannot see or modify.
- > Set the viewer protocol policy to redirect HTTP to HTTPS. This ensures that the viewers always use HTTPS when they access the website through CloudFront.
- > Set the origin protocol policy to HTTPS only. This ensures that CloudFront always uses HTTPS when it connects to the origin.
- > Update the application to validate the CloudFront custom header. This means that the application checks if the request has the custom header and only

responds if it does. Otherwise, it denies or ignores the request. This prevents users from bypassing CloudFront and accessing the content directly on the origin.

### NEW QUESTION 133

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

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

**Answer: C**

#### Explanation:

The correct answer is C. Create rule sets in AWS CloudFormation Guard. Run validation checks for CloudFormation templates as a phase of the CI/CD process. This answer is correct because AWS CloudFormation Guard is a tool that helps you implement policy-as-code for your CloudFormation templates. You can use Guard to write rules that define your security policies, such as requiring encryption for EBS volumes, and then validate your templates against those rules before deploying them. You can integrate Guard into your CI/CD pipeline as a step that runs the validation checks and prevents the deployment of any non-compliant templates<sup>12</sup>.

The other options are incorrect because:

- A. Turning on AWS Trusted Advisor and configuring security notifications as webhooks in the preferences section of the CI/CD pipeline is not a solution, because AWS Trusted Advisor is not a policy-as-code tool, but a service that provides recommendations to help you follow AWS best practices. Trusted Advisor does not allow you to define your own security policies or validate your CloudFormation templates against them<sup>3</sup>.
- B. Turning on AWS Config and using the prebuilt or customized rules is not a solution, because AWS Config is not a policy-as-code tool, but a service that monitors and records the configuration changes of your AWS resources. AWS Config does not allow you to validate your CloudFormation templates before deploying them, but only evaluates the compliance of your resources after they are created<sup>4</sup>.
- D. Creating rule sets as SCPs and integrating them as a part of validation control in a phase of the CI/CD process is not a solution, because SCPs are not policy-as-code tools, but policies that you can use to manage permissions in your AWS Organizations. SCPs do not allow you to validate your CloudFormation templates, but only restrict the actions that users and roles can perform in your accounts<sup>5</sup>.

References:

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

### NEW QUESTION 135

A company is building a data processing application that uses AWS Lambda functions. The application's Lambda functions need to communicate with an Amazon RDS DB instance that is deployed within a VPC in the same AWS account. Which solution meets these requirements in the MOST secure way?

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

**Answer: C**

#### Explanation:

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

### NEW QUESTION 138

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

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

**Answer: B**

#### Explanation:

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

The IAM Documentation mentions the following as a best practices for IAM users

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

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

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

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

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#### NEW QUESTION 142

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

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

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

**Answer:** BCE

#### Explanation:

[https://d1.awsstatic.com/WWPS/pdf/aws\\_security\\_incident\\_response.pdf](https://d1.awsstatic.com/WWPS/pdf/aws_security_incident_response.pdf)

#### NEW QUESTION 147

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

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

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

**Answer:** AD

#### NEW QUESTION 150

A company's Security Engineer is copying all application logs to centralized Amazon S3 buckets. Currently, each of the company's applications is in its own IAM account, and logs are pushed into S3 buckets associated with each account. The Engineer will deploy an IAM Lambda function into each account that copies the relevant log files to the centralized S3 bucket.

The Security Engineer is unable to access the log files in the centralized S3 bucket. The Engineer's IAM user policy from the centralized account looks like this:

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

The centralized S3 bucket policy looks like this:

```

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

```

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

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

**Answer: C**

**NEW QUESTION 154**

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

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

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

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

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

**Answer: ACE**

**NEW QUESTION 156**

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