

# Exam Questions SCS-C02

AWS Certified Security - Specialty

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### NEW QUESTION 1

- (Exam Topic 1)

An application is currently secured using network access control lists and security groups. Web servers are located in public subnets behind an Application Load Balancer (ALB); application servers are located in private subnets.

How can edge security be enhanced to safeguard the Amazon EC2 instances against attack? (Choose two.)

- A. Configure the application's EC2 instances to use NAT gateways for all inbound traffic.
- B. Move the web servers to private subnets without public IP addresses.
- C. Configure IAM WAF to provide DDoS attack protection for the ALB.
- D. Require all inbound network traffic to route through a bastion host in the private subnet.
- E. Require all inbound and outbound network traffic to route through an IAM Direct Connect connection.

**Answer:** BC

### NEW QUESTION 2

- (Exam Topic 1)

A company has multiple IAM accounts that are part of IAM Organizations. The company's Security team wants to ensure that even those Administrators with full access to the company's IAM accounts are unable to access the company's Amazon S3 buckets

How should this be accomplished?

- A. Use SCPs
- B. Add a permissions boundary to deny access to Amazon S3 and attach it to all roles
- C. Use an S3 bucket policy
- D. Create a VPC endpoint for Amazon S3 and deny statements for access to Amazon S3

**Answer:** A

### NEW QUESTION 3

- (Exam Topic 1)

A security engineer has created an Amazon Cognito user pool. The engineer needs to manually verify the ID and access token sent by the application for troubleshooting purposes

What is the MOST secure way to accomplish this?

- A. Extract the subject (sub), audience (aud), and cognito:username from the ID token payload Manually check the subject and audience for the user name In the user pool
- B. Search for the public key with a key ID that matches the key ID In the header of the token
- C. Then use a JSON Web Token (JWT) library to validate the signature of the token and extract values, such as the expiry date
- D. Verify that the token is not expire
- E. Then use the token\_use claim function In Amazon Cognito to validate the key IDs
- F. Copy the JSON Web Token (JWT) as a JSON document Obtain the public JSON Web Key (JWK) and convert It to a pem fil
- G. Then use the file to validate the original JWT.

**Answer:** A

### NEW QUESTION 4

- (Exam Topic 1)

A city is implementing an election results reporting website that will use Amazon CloudFront The website runs on a fleet of Amazon EC2 instances behind an Application Load Balancer (ALB) in an Auto Scaling group. Election results are updated hourly and are stored as .pdf tiles in an Amazon S3 bucket. A Security Engineer needs to ensure that all external access to the website goes through CloudFront.

Which solution meets these requirements?

- A. Create an IAM role that allows CloudFront to access the specific S3 bucket
- B. Modify the S3 bucket policy to allow only the new IAM role to access its content
- C. Create an interface VPC endpoint for CloudFront to securely communicate with the ALB.
- D. Create an IAM role that allows CloudFront to access the specific S3 bucket
- E. Modify the S3 bucket policy to allow only the new IAM role to access its content
- F. Associate the ALB with a security group that allows only incoming traffic from the CloudFront service to communicate with the ALB.
- G. Create an origin access identity (OAI) in CloudFront
- H. Modify the S3 bucket policy to allow only the new OAI to access the bucket content
- I. Create an interface VPC endpoint for CloudFront to securely communicate with the ALB.
- J. Create an origin access identity (OAI) in CloudFront
- K. Modify the S3 bucket policy to allow only the new OAI to access the bucket content
- L. Associate the ALB with a security group that allows only incoming traffic from the CloudFront service to communicate with the ALB.

**Answer:** C

### NEW QUESTION 5

- (Exam Topic 1)

A company had one of its Amazon EC2 key pairs compromised. A Security Engineer must identify which current Linux EC2 instances were deployed and used the compromised key pair.

How can this task be accomplished?

- A. Obtain the list of instances by directly querying Amazon EC2 using: IAM ec2 describe-instances--filters "Name=key-name,Values=KEYNAMEHERE".
- B. Obtain the fingerprint for the key pair from the IAM Management Console, then search for the fingerprint in the Amazon Inspector logs.
- C. Obtain the output from the EC2 instance metadata using: curl http://169.254.169.254/latest/meta-data/public-keys/0/.
- D. Obtain the fingerprint for the key pair from the IAM Management Console, then search for the fingerprint in Amazon CloudWatch Logs using: IAM logs filter-log-events.

Answer: A

**NEW QUESTION 6**

- (Exam Topic 1)

The Security Engineer is managing a traditional three-tier web application that is running on Amazon EC2 instances. The application has become the target of increasing numbers of malicious attacks from the Internet.

What steps should the Security Engineer take to check for known vulnerabilities and limit the attack surface? (Choose two.)

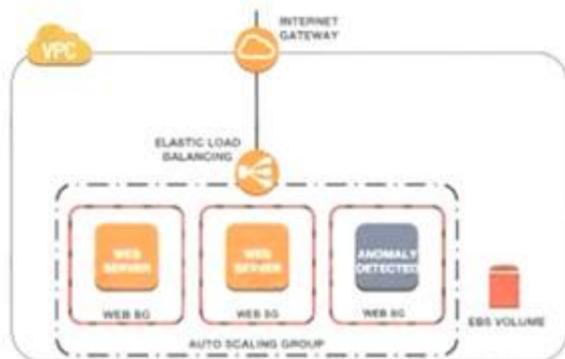
- A. Use IAM Certificate Manager to encrypt all traffic between the client and application servers.
- B. Review the application security groups to ensure that only the necessary ports are open.
- C. Use Elastic Load Balancing to offload Secure Sockets Layer encryption.
- D. Use Amazon Inspector to periodically scan the backend instances.
- E. Use IAM Key Management Services to encrypt all the traffic between the client and application servers.

Answer: BD

**NEW QUESTION 7**

- (Exam Topic 1)

A Security Engineer noticed an anomaly within a company EC2 instance as shown in the image. The Engineer must now investigate what e causing the anomaly. What are the MOST effective steps to take lo ensure that the instance is not further manipulated while allowing the Engineer to understand what happened?



- A. Remove the instance from the Auto Scaling group Place the instance within an isolation security group, detach the EBS volume launch an EC2 instance with a forensic toolkit and attach the E8S volume to investigate
- B. Remove the instance from the Auto Scaling group and the Elastic Load Balancer Place the instance within an isolation security group, launch an EC2 instance with a forensic toolkit, and allow the forensic toolkit image to connect to the suspicious Instance to perform the Investigation.
- C. Remove the instance from the Auto Scaling group Place the Instance within an isolation security group, launch an EC2 Instance with a forensic toolkit and use the forensic toolkit imago to deploy an ENI as a network span port to inspect all traffic coming from the suspicious instance.
- D. Remove the instance from the Auto Scaling group and the Elastic Load Balancer Place the instance within an isolation security group, make a copy of the EBS volume from a new snapshot, launch an EC2 Instance with a forensic toolkit and attach the copy of the EBS volume to investigate.

Answer: B

**NEW QUESTION 8**

- (Exam Topic 1)

A company has implemented centralized logging and monitoring of IAM CloudTrail logs from all Regions in an Amazon S3 bucket. The log Hies are encrypted using IAM KMS. A Security Engineer is attempting to review the log files using a third-party tool hosted on an Amazon EC2 instance The Security Engineer is unable to access the logs in the S3 bucket and receives an access denied error message

What should the Security Engineer do to fix this issue?

- A. Check that the role the Security Engineer uses grants permission to decrypt objects using the KMS CMK.
- B. Check that the role the Security Engineer uses grants permission to decrypt objects using the KMS CMK and gives access to the S3 bucket and objects
- C. Check that the role the EC2 instance profile uses grants permission lo decrypt objects using the KMS CMK and gives access to the S3 bucket and objects
- D. Check that the role the EC2 instance profile uses grants permission to decrypt objects using the KMS CMK

Answer: C

**NEW QUESTION 9**

- (Exam Topic 1)

A company has a VPC with several Amazon EC2 instances behind a NAT gateway. The company's security policy states that all network traffic must be logged and must include the original source and destination IP addresses. The existing VPC Flow Logs do not include this information. A security engineer needs to recommend a solution.

Which combination of steps should the security engineer recommend? (Select TWO )

- A. Edit the existing VPC Flow Log
- B. Change the log format of the VPC Flow Logs from the Amazon default format to a custom format.
- C. Delete and recreate the existing VPC Flow Log
- D. Change the log format of the VPC Flow Logs from the Amazon default format to a custom format.
- E. Change the destination to Amazon CloudWatch Logs.
- F. Include the pkt-srcaddr and pkt-dstaddr fields in the log format.
- G. Include the subnet-id and instance-id fields in the log format.

Answer: AE

**NEW QUESTION 10**

- (Exam Topic 1)

A company recently performed an annual security assessment of its IAM environment. The assessment showed that audit logs are not available beyond 90 days and that unauthorized changes to IAM policies are made without detection. How should a security engineer resolve these issues?

- A. Create an Amazon S3 lifecycle policy that archives IAM CloudTrail trail logs to Amazon S3 Glacier after 90 day
- B. Configure Amazon Inspector to provide a notification when a policy change is made to resources.
- C. Configure IAM Artifact to archive IAM CloudTrail logs Configure IAM Trusted Advisor to provide a notification when a policy change is made to resources.
- D. Configure Amazon CloudWatch to export log groups to Amazon S3. Configure IAM CloudTrail to provide a notification when a policy change is made to resources.
- E. Create an IAM CloudTrail trail that stores audit logs in Amazon S3. Configure an IAM Config rule to provide a notification when a policy change is made to resources.

**Answer: D**

**Explanation:**

<https://docs.IAM.amazon.com/IAMcloudtrail/latest/userguide/best-practices-security.html>

"For an ongoing record of events in your IAM account, you must create a trail. Although CloudTrail provides 90 days of event history information for management events in the CloudTrail console without creating a trail, it is not a permanent record, and it does not provide information about all possible types of events. For an ongoing record, and for a record that contains all the event types you specify, you must create a trail, which delivers log files to an Amazon S3 bucket that you specify."

<https://IAM.amazon.com/blogs/security/how-to-record-and-govern-your-iam-resource-configurations-using-IAM>

**NEW QUESTION 10**

- (Exam Topic 1)

After a recent security audit involving Amazon S3, a company has asked assistance reviewing its S3 buckets to determine whether data is properly secured. The first S3 bucket on the list has the following bucket policy.

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Principal": "*",
      "Action": "s3:*",
      "Resource": "arn:aws:s3:::examplebucket/*",
      "Condition": {
        "IpAddress": {
          "aws:SourceIp": [
            "10.10.10.0/24"
          ]
        }
      }
    }
  ]
}
```

Is this bucket policy sufficient to ensure that the data is not publicly accessible?

- A. Yes, the bucket policy makes the whole bucket publicly accessible despite now the S3 bucket ACL or object ACLs are configured.
- B. Yes, none of the data in the bucket is publicly accessible, regardless of how the S3 bucket ACL and object ACLs are configured.
- C. No, the IAM user policy would need to be examined first to determine whether any data is publicly accessible.
- D. No, the S3 bucket ACL and object ACLs need to be examined first to determine whether any data is publicly accessible.

**Answer: A**

**NEW QUESTION 15**

- (Exam Topic 1)

A company's application runs on Amazon EC2 and stores data in an Amazon S3 bucket The company wants additional security controls in place to limit the likelihood of accidental exposure of data to external parties

Which combination of actions will meet this requirement? (Select THREE.)

- A. Encrypt the data in Amazon S3 using server-side encryption with Amazon S3 managed encryption keys (SSE-S3)
- B. Encrypt the data in Amazon S3 using server-side encryption with IAM KMS managed encryption keys (SSE-KMS)
- C. Create a new Amazon S3 VPC endpoint and modify the VPC's routing tables to use the new endpoint
- D. Use the Amazon S3 Block Public Access feature.
- E. Configure the bucket policy to allow access from the application instances only
- F. Use a NACL to filter traffic to Amazon S3

**Answer: BCE**

**NEW QUESTION 17**

- (Exam Topic 1)

A Security Engineer is looking for a way to control access to data that is being encrypted under a CMK. The Engineer is also looking to use additional authenticated data (AAD) to prevent tampering with ciphertext.

Which action would provide the required functionality?

- A. Pass the key alias to IAM KMS when calling Encrypt and Decrypt API actions.
- B. Use IAM policies to restrict access to Encrypt and Decrypt API actions.
- C. Use kms:EncryptionContext as a condition when defining IAM policies for the CMK.
- D. Use key policies to restrict access to the appropriate IAM groups.

**Answer: C**

**Explanation:**

<https://IAM.amazon.com/blogs/security/how-to-protect-the-integrity-of-your-encrypted-data-by-using-IAM-key> One of the most important and critical concepts in IAM Key Management Service (KMS) for advanced and secure data usage is EncryptionContext. Using EncryptionContext properly can help significantly improve the security of your applications. EncryptionContext is a key-value map (both strings) that is provided to KMS with each encryption and decryption request. EncryptionContext provides three benefits: Additional authenticated data (AAD), Audit trail, Authorization context

#### NEW QUESTION 19

- (Exam Topic 1)

A security engineer need to ensure their company's uses of IAM meets IAM security best practices. As part of this, the IAM account root user must not be used for daily work. The root user must be monitored for use, and the Security team must be alerted as quickly as possible if the root user is used. Which solution meets these requirements?

- A. Set up an Amazon CloudWatch Events rule that triggers an Amazon SNS notification.
- B. Set up an Amazon CloudWatch Events rule that triggers an Amazon SNS notification logs from S3 and generate notifications using Amazon SNS.
- C. Set up a rule in IAM config to trigger root user event
- D. Trigger an IAM Lambda function and generate notifications using Amazon SNS.
- E. Use Amazon Inspector to monitor the usage of the root user and generate notifications using Amazon SNS

**Answer:** A

#### NEW QUESTION 24

- (Exam Topic 1)

An organization policy states that all encryption keys must be automatically rotated every 12 months. Which IAM Key Management Service (KMS) key type should be used to meet this requirement?

- A. IAM managed Customer Master Key (CMK)
- B. Customer managed CMK with IAM generated key material
- C. Customer managed CMK with imported key material
- D. IAM managed data key

**Answer:** B

#### NEW QUESTION 28

- (Exam Topic 1)

A company has several critical applications running on a large fleet of Amazon EC2 instances. As part of a security operations review, the company needs to apply a critical operating system patch to EC2 instances within 24 hours of the patch becoming available from the operating system vendor. The company does not have a patching solution deployed on IAM, but does have IAM Systems Manager configured. The solution must also minimize administrative overhead. What should a security engineer recommend to meet these requirements?

- A. Create an IAM Config rule defining the patch as a required configuration for EC2 instances.
- B. Use the IAM Systems Manager Run Command to patch affected instances.
- C. Use an IAM Systems Manager Patch Manager predefined baseline to patch affected instances.
- D. Use IAM Systems Manager Session Manager to log in to each affected instance and apply the patch.

**Answer:** B

#### NEW QUESTION 29

- (Exam Topic 1)

A company is trying to replace its on-premises bastion hosts used to access on-premises Linux servers with IAM Systems Manager Session Manager. A security engineer has installed the Systems Manager Agent on all servers. The security engineer verifies that the agent is running on all the servers, but Session Manager cannot connect to them. The security engineer needs to perform verification steps before Session Manager will work on the servers. Which combination of steps should the security engineer perform? (Select THREE.)

- A. Open inbound port 22 to 0.0.0.0 on all Linux servers.
- B. Enable the advanced-instances tier in Systems Manager.
- C. Create a managed-instance activation for the on-premises servers.
- D. Reconfigure the Systems Manager Agent with the activation code and ID.
- E. Assign an IAM role to all of the on-premises servers.
- F. Initiate an inventory collection with Systems Manager on the on-premises servers

**Answer:** CEF

#### NEW QUESTION 33

- (Exam Topic 1)

Users report intermittent availability of a web application hosted on IAM. Monitoring systems report an excess of abnormal network traffic followed by high CPU utilization on the application web tier. Which of the following techniques will improve the availability of the application? (Select TWO.)

- A. Deploy IAM WAF to block all unsecured web applications from accessing the internet.
- B. Deploy an Intrusion Detection/Prevention System (IDS/IPS) to monitor or block unusual incoming network traffic.
- C. Configure security groups to allow outgoing network traffic only from hosts that are protected with up-to-date antivirus software.
- D. Create Amazon CloudFront distribution and configure IAM WAF rules to protect the web applications from malicious traffic.
- E. Use the default Amazon VPC for external-facing systems to allow IAM to actively block malicious network traffic affecting Amazon EC2 instances.

**Answer:** BD

#### NEW QUESTION 37

- (Exam Topic 1)

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

What policy should the Engineer implement?

A

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

B

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

C

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

D

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

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

**Answer:** B

**NEW QUESTION 40**

- (Exam Topic 1)

A Security Engineer has launched multiple Amazon EC2 instances from a private AMI using an IAM CloudFormation template. The Engineer notices instances terminating right after they are launched. What could be causing these terminations?

- A. The IAM user launching those instances is missing ec2:Runinstances permission.
- B. The AMI used as encrypted and the IAM does not have the required IAM KMS permissions.
- C. The instance profile used with the EC2 instances is unable to query instance metadata.
- D. IAM currently does not have sufficient capacity in the Region.

**Answer:** B

**Explanation:**

<https://docs.IAM.amazon.com/IAMEC2/latest/UserGuide/troubleshooting-launch.html>

**NEW QUESTION 44**

- (Exam Topic 1)

While securing the connection between a company's VPC and its on-premises data center, a Security Engineer sent a ping command from an on-premises host (IP address 203.0.113.12) to an Amazon EC2 instance (IP address 172.31.16.139). The ping command did not return a response. The flow log in the VPC showed the following:

```
2 123456789010 eni-1235b8ca 203.0.113.12 172.31.16.139 0 0 1 4 336 1432917027 1432917142 ACCEPT OK
2 123456789010 eni-1235b8ca 172.31.16.139 203.0.113.12 0 0 1 4 336 1432917094 1432917142 REJECT OK
```

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

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

**Answer:** D

**NEW QUESTION 49**

- (Exam Topic 1)

A Security Engineer has discovered that, although encryption was enabled on the Amazon S3 bucket example bucket, anyone who has access to the bucket has the ability to retrieve the files. The Engineer wants to limit access to each IAM user can access an assigned folder only. What should the Security Engineer do to achieve this?

- A. Use envelope encryption with the IAM-managed CMK IAM/s3.
- B. Create a customer-managed CMK with a key policy granting "kms:Decrypt" based on the "\${IAM:username}" variable.
- C. Create a customer-managed CMK for each use
- D. Add each user as a key user in their corresponding key policy.
- E. Change the applicable IAM policy to grant S3 access to "Resource": "arn:IAM:s3:::examplebucket/\${IAM:username}/\*"

**Answer:** B

**Explanation:**

Reference: <https://IAM.amazon.com/premiumsupport/knowledge-center/iam-s3-user-specific-folder/>

**NEW QUESTION 54**

- (Exam Topic 1)

A Security Administrator at a university is configuring a fleet of Amazon EC2 instances. The EC2 instances are shared among students, and non-root SSH access is allowed. The Administrator is concerned about students attacking other IAM account resources by using the EC2 instance metadata service. What can the Administrator do to protect against this potential attack?

- A. Disable the EC2 instance metadata service.
- B. Log all student SSH interactive session activity.
- C. Implement ip tables-based restrictions on the instances.
- D. Install the Amazon Inspector agent on the instances.

**Answer:** A

**Explanation:**

"To turn off access to instance metadata on an existing instance....." <https://docs.IAM.amazon.com/IAMEC2/latest/UserGuide/configuring-instance-metadata-service.html> You can disable the service for existing (running or stopped) ec2 instances. <https://docs.IAM.amazon.com/cli/latest/reference/ec2/modify-instance-metadata-options.html>

**NEW QUESTION 56**

- (Exam Topic 1)

A company has hundreds of IAM accounts, and a centralized Amazon S3 bucket used to collect IAM CloudTrail for all of these accounts. A security engineer wants to create a solution that will enable the company to run ad hoc queries against its CloudTrail logs dating back 3 years from when the trails were first enabled in the company's IAM account.

How should the company accomplish this with the least amount of administrative overhead?

- A. Run an Amazon EMR cluster that uses a MapReduce job to examine the CloudTrail trails.
- B. Use the events history/feature of the CloudTrail console to query the CloudTrail trails.
- C. Write an IAM Lambda function to query the CloudTrail trails Configure the Lambda function to be executed whenever a new file is created in the CloudTrail S3 bucket.
- D. Create an Amazon Athena table that points at the S3 bucket the CloudTrail trails are being written to Use Athena to run queries against the trails.

**Answer:** D

**NEW QUESTION 58**

- (Exam Topic 1)

A company has the software development teams that are creating applications that store sensitive data in Amazon S3 Each team's data must always be separate. The company's security team must design a data encryption strategy for both teams that provides the ability to audit key usage. The solution must also minimize operational overhead

what should the security team recommend?

- A. Tell the application teams to use two different S3 buckets with separate IAM Key Management Service (IAM KMS) IAM managed CMKs Limit the key policy to allow encryption and decryption of the CMKs to their respective teams only
- B. Force the teams to use encryption context to encrypt and decrypt
- C. Tell the application teams to use two different S3 buckets with a single IAM Key Management Service (IAM KMS) IAM managed CMK Limit the key policy to allow encryption and decryption of the CMK only
- D. Do not allow the teams to use encryption context to encrypt and decrypt
- E. Tell the application teams to use two different S3 buckets with separate IAM Key Management Service (IAM KMS) customer managed CMKs Limit the key policies to allow encryption and decryption of the CMKs to their respective teams only Force the teams to use encryption context to encrypt and decrypt
- F. Tell the application teams to use two different S3 buckets with a single IAM Key Management Service (IAM KMS) customer managed CMK Limit the key policy to allow encryption and decryption of the CMK only Do not allow the teams to use encryption context to encrypt and decrypt

**Answer:** A

**NEW QUESTION 60**

- (Exam Topic 1)

A company's Security Officer is concerned about the risk of IAM account root user logins and has assigned a Security Engineer to implement a notification solution for near-real-time alerts upon account root user logins.

How should the Security Engineer meet these requirements?

- A. Create a cron job that runs a script to download the IAM IAM security credentials W
- B. parse the file for account root user logins and email the Security team's distribution list
- C. Run IAM CloudTrail logs through Amazon CloudWatch Events to detect account root user logins and trigger an IAM Lambda function to send an Amazon SNS notification to the Security team's distribution list.
- D. Save IAM CloudTrail logs to an Amazon S3 bucket in the Security team's account Process the CloudTrail logs with the Security Engineer's logging solution for account root user logins Send an Amazon SNS notification to the Security team upon encountering the account root user login events
- E. Save VPC Flow Logs to an Amazon S3 bucket in the Security team's account and process the VPC Flow Logs with their logging solutions for account root user logins Send an Amazon SNS notification to the Security team upon encountering the account root user login events

**Answer:** B

**NEW QUESTION 64**

- (Exam Topic 1)

A security engineer has noticed an unusually high amount of traffic coming from a single IP address. This was discovered by analyzing the Application Load Balancer's access logs. How can the security engineer limit the number of requests from a specific IP address without blocking the IP address?

- A. Add a rule to the Application Load Balancer to route the traffic originating from the IP address in question and show a static webpage.
- B. Implement a rate-based rule with IAM WAF
- C. Use IAM Shield to limit the originating traffic hit rate.
- D. Implement the GeoLocation feature in Amazon Route 53.

Answer: C

#### NEW QUESTION 65

- (Exam Topic 1)

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

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

Answer: B

#### NEW QUESTION 67

- (Exam Topic 1)

A company wants to encrypt data locally while meeting regulatory requirements related to key exhaustion. The encryption key can be no more than 10 days old or encrypt more than 2<sup>16</sup> objects. Any encryption key must be generated on a FIPS-validated hardware security module (HSM). The company is cost-conscious, as plans to upload an average of 100 objects to Amazon S3 each second for sustained operations across 5 data producers. Which approach MOST efficiently meets the company's needs?

- A. Use the IAM Encryption SDK and set the maximum age to 10 days and the minimum number of messages encrypted to 2<sup>16</sup>. Use IAM Key Management Service (IAM KMS) to generate the master key and data key. Use data key caching with the Encryption SDK during the encryption process.
- B. Use IAM Key Management Service (IAM KMS) to generate an IAM managed CMK.
- C. Then use Amazon S3 client-side encryption configured to automatically rotate with every object.
- D. Use IAM CloudHSM to generate the master key and data key.
- E. Then use Boto 3 and Python to locally encrypt data before uploading the object. Rotate the data key every 10 days or after 2<sup>16</sup> objects have been uploaded to Amazon S3.
- F. Use server-side encryption with Amazon S3 managed encryption keys (SSE-S3) and set the master key to automatically rotate.

Answer: A

#### NEW QUESTION 70

- (Exam Topic 1)

The Development team receives an error message each time the team members attempt to encrypt or decrypt a Secure String parameter from the SSM Parameter Store by using an IAM KMS customer managed key (CMK). Which CMK-related issues could be responsible? (Choose two.)

- A. The CMK specified in the application does not exist.
- B. The CMK specified in the application is currently in use.
- C. The CMK specified in the application is using the CMK KeyID instead of CMK Amazon Resource Name.
- D. The CMK specified in the application is not enabled.
- E. The CMK specified in the application is using an alias.

Answer: AD

#### Explanation:

[https://docs.amazonaws.cn/en\\_us/kms/latest/developerguide/services-parameter-store.html](https://docs.amazonaws.cn/en_us/kms/latest/developerguide/services-parameter-store.html)

#### NEW QUESTION 72

- (Exam Topic 1)

A company is using IAM Organizations to manage multiple IAM member accounts. All of these accounts have Amazon GuardDuty enabled in all Regions. The company's IAM Security Operations Center has a centralized security account for logging and monitoring. One of the member accounts has received an excessively high bill. A security engineer discovers that a compromised Amazon EC2 instance is being used to mine crypto currency. The Security Operations Center did not receive a GuardDuty finding in the central security account.

but there was a GuardDuty finding in the account containing the compromised EC2 instance. The security engineer needs to ensure an GuardDuty finding are available in the security account.

What should the security engineer do to resolve this issue?

- A. Set up an Amazon CloudWatch Event rule to forward all GuardDuty findings to the security account. Use an IAM Lambda function as a target to raise findings.
- B. Set up an Amazon CloudWatch Events rule to forward all GuardDuty findings to the security account. Use an IAM Lambda function as a target to raise findings in IAM Security Hub.
- C. Check that GuardDuty in the security account is able to assume a role in the compromised account using the GuardDuty fast findings permission. Schedule an Amazon CloudWatch Events rule and an IAM Lambda function to periodically check for GuardDuty findings.
- D. Use the IAM GuardDuty get-members IAM CLI command in the security account to see if the account is listed. Send an invitation from GuardDuty in the security account to GuardDuty in the compromised account. Accept the invitation to forward all future GuardDuty findings.

Answer: D

#### NEW QUESTION 73

- (Exam Topic 1)

A company is using IAM Organizations to manage multiple IAM accounts. The company has an application that allows users to assume the AppUser IAM role to download files from an Amazon S3 bucket that is encrypted with an IAM KMS CMK. However when users try to access the files in the S3 bucket they get an access denied error.

What should a Security Engineer do to troubleshoot this error? (Select THREE )

- A. Ensure the KMS policy allows the AppUser role to have permission to decrypt for the CMK

- B. Ensure the S3 bucket policy allows the AppUser role to have permission to get objects for the S3 bucket
- C. Ensure the CMK was created before the S3 bucket.
- D. Ensure the S3 block public access feature is enabled for the S3 bucket.
- E. Ensure that automatic key rotation is disabled for the CMK
- F. Ensure the SCPs within Organizations allow access to the S3 bucket.

**Answer:** ABF

#### NEW QUESTION 76

- (Exam Topic 1)

A company needs its Amazon Elastic Block Store (Amazon EBS) volumes to be encrypted at all times. During a security incident, EBS snapshots of suspicious instances are shared to a forensics account for analysis. A security engineer attempting to share a suspicious EBS snapshot to the forensics account receives the following error:

"Unable to share snapshot: An error occurred (OperationNotPermitted) when calling the ModifySnapshotAttribute operation: Encrypted snapshots with EBS default key cannot be shared."

Which combination of steps should the security engineer take in the incident account to complete the sharing operation? (Select THREE)

- A. Create a customer managed CMK. Copy the EBS snapshot encrypting the destination snapshot using the new CMK.
- B. Allow forensics accounting principals to use the CMK by modifying its policy.
- C. Create an Amazon EC2 instance.
- D. Attach the encrypted and suspicious EBS volume.
- E. Copy data from the suspicious volume to an unencrypted volume.
- F. Snapshot the unencrypted volume.
- G. Copy the EBS snapshot to the new decrypted snapshot.
- H. Restore a volume from the suspicious EBS snapshot.
- I. Create an unencrypted EBS volume of the same size.
- J. Share the target EBS snapshot with the forensics account.

**Answer:** ABF

#### NEW QUESTION 79

- (Exam Topic 1)

A company is operating an open-source software platform that is internet-facing. The legacy software platform no longer receives security updates. The software platform operates using Amazon Route 53 weighted load balancing to send traffic to two Amazon EC2 instances that connect to an Amazon RDS database. A recent report suggests this software platform is vulnerable to SQL injection attacks, with samples of attacks provided. The company's security engineer must secure this system against SQL injection attacks within 24 hours. The secure, engineer's solution involves the least amount of effort and maintains normal operations during implementation.

What should the security engineer do to meet these requirements?

- A. Create an Application Load Balancer with the existing EC2 instances as a target group. Create an IAM WAF web ACL containing rules that protect the application from this attack.
- B. Then apply it to the ALB. Test to ensure the vulnerability has been mitigated, then redirect the Route 53 records to point to the ALB. Update security groups on the EC2 instances to prevent direct access from the internet.
- C. Create an Amazon CloudFront distribution specifying one EC2 instance as an origin. Create an IAM WAF web ACL containing rules that protect the application from this attack, then apply it to the distribution. Test to ensure the vulnerability has been mitigated, then redirect the Route 53 records to point to CloudFront.
- D. Obtain the latest source code for the platform and make the necessary updates. Test the updated code to ensure that the vulnerability has been mitigated, then deploy the patched version of the platform to the EC2 instances.
- E. Update the security group that is attached to the EC2 instances, removing access from the internet to the TCP port used by the SQL database. Create an IAM WAF web ACL containing rules that protect the application from this attack, then apply it to the EC2 instances. Test to ensure the vulnerability has been mitigated.
- F. Then restore the security group to the original setting.

**Answer:** A

#### NEW QUESTION 82

- (Exam Topic 1)

A company's security information events management (SIEM) tool receives new IAM CloudTrail logs from an Amazon S3 bucket that is configured to send all object creation event notifications to an Amazon SNS topic. An Amazon SQS queue is subscribed to this SNS topic. The company's SIEM tool then ports this SQS queue for new messages using an IAM role and fetches new log events from the S3 bucket based on the SQS messages.

After a recent security review that resulted in restricted permissions, the SIEM tool has stopped receiving new CloudTrail logs.

Which of the following are possible causes of this issue? (Select THREE)

- A. The SQS queue does not allow the SQS SendMessage action from the SNS topic.
- B. The SNS topic does not allow the SNS Publish action from Amazon S3.
- C. The SNS topic is not delivering raw messages to the SQS queue.
- D. The S3 bucket policy does not allow CloudTrail to perform the PutObject action.
- E. The IAM role used by the SIEM tool does not have permission to subscribe to the SNS topic.
- F. The IAM role used by the SIEM tool does not allow the SQS DeleteMessage action.

**Answer:** ADF

#### NEW QUESTION 83

- (Exam Topic 1)

A security engineer has noticed that VPC Flow Logs are getting a lot of REJECT traffic originating from a single Amazon EC2 instance in an Auto Scaling group. The security engineer is concerned that this EC2 instance may be compromised.

What immediate action should the security engineer take? What immediate action should the security engineer take?

- A. Remove the instance from the Auto Scaling group. Close the security group from ingress only from a single forensic IP address to perform an analysis.
- B. Remove the instance from the Auto Scaling group. Change the network ACL rules to allow traffic only from a single forensic IP address to perform an analysis. Add a rule to deny all other traffic.

- C. Remove the instance from the Auto Scaling group Enable Amazon GuardDuty in that IAM account Install the Amazon Inspector agent on the suspicious EC 2 instance to perform a scan.
- D. Take a snapshot of the suspicious EC2 instance
- E. Create a new EC2 instance from the snapshot in a closed security group with ingress only from a single forensic IP address to perform an analysis

**Answer: B**

**NEW QUESTION 87**

- (Exam Topic 1)

A Security Engineer creates an Amazon S3 bucket policy that denies access to all users. A few days later, the Security Engineer adds an additional statement to the bucket policy to allow read-only access to one other employee. Even after updating the policy the employee still receives an access denied message. What is the likely cause of this access denial?

- A. The ACL in the bucket needs to be updated.
- B. The IAM policy does not allow the user to access the bucket
- C. It takes a few minutes for a bucket policy to take effect
- D. The allow permission is being overridden by the deny.

**Answer: D**

**NEW QUESTION 88**

- (Exam Topic 1)

An application developer is using an IAM Lambda function that must use IAM KMS to perform encrypt and decrypt operations for API keys that are less than 2 KB. Which key policy would allow the application to do this while granting least privilege?

- A. 

```
{
  "Sid": "AllowUseOfTheKey",
  "Effect": "Allow",
  "Principal": {"AWS": "arn:aws:iam::444455556666:role/EncryptionApp"},
  "Action": [
    "kms:*"
  ],
  "Resource": "*"
}
```
- B. 

```
{
  "Sid": "AllowUseOfTheKey",
  "Effect": "Allow",
  "Principal": {"AWS": "arn:aws:iam::444455556666:role/EncryptionApp"},
  "Action": [
    "kms:Encrypt",
    "kms:Decrypt"
  ],
  "Resource": "*"
}
```
- C. 

```
{
  "Sid": "AllowUseOfTheKey",
  "Effect": "Allow",
  "Principal": {"AWS": "arn:aws:iam::444455556666:role/EncryptionApp"},
  "Action": [
    "kms:DescribeKey",
    "kms:GenerateDataKey*",
    "kms:Encrypt",
    "kms:ReEncrypt*",
    "kms:Decrypt"
  ]
}
```
- D. 

```
{
  "Sid": "AllowUseOfTheKey",
  "Effect": "Allow",
  "Principal": {"AWS": "arn:aws:iam::444455556666:role/EncryptionApp"},
  "Action": [
    "kms:DescribeKey",
    "kms:GenerateDataKey*",
    "kms:Encrypt",
    "kms:ReEncrypt*",
    "kms:Disable*",
    "kms:Decrypt"
  ],
}
```

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

**Answer: C**

**NEW QUESTION 90**

- (Exam Topic 1)

A company plans to use custom AMIs to launch Amazon EC2 instances across multiple IAM accounts in a single Region to perform security monitoring and analytics tasks. The EC2 instances are launched in EC2 Auto Scaling groups. To increase the security of the solution, a Security Engineer will manage the lifecycle of the custom AMIs in a centralized account and will encrypt them with a centrally managed IAM KMS CMK. The Security Engineer configured the KMS key policy to allow cross-account access. However, the EC2 instances are still not being properly launched by the EC2 Auto Scaling groups. Which combination of configuration steps should the Security Engineer take to ensure the EC2 Auto Scaling groups have been granted the proper permissions to execute tasks?

- A. Create a customer-managed CMK in the centralized account
- B. Allow other applicable accounts to use that key for cryptographic operations by applying proper cross-account permissions in the key policy
- C. Create an IAM role in all applicable accounts and configure its access policy to allow the use of the centrally managed CMK for cryptographic operation
- D. Configure EC2 Auto Scaling groups within each applicable account to use the created IAM role to launch EC2 instances.
- E. Create a customer-managed CMK in the centralized account
- F. Allow other applicable accounts to use that key for cryptographic operations by applying proper cross-account permissions in the key policy
- G. Create an IAM role in all applicable accounts and configure its access policy with permissions to create grants for the centrally managed CM
- H. Use this IAM role to create a grant for the centrally managed CMK with permissions to perform cryptographic operations and with the EC2 Auto Scaling service-linked role defined as the grantee principal.
- I. Create a customer-managed CMK or an IAM managed CMK in the centralized account
- J. Allow other applicable accounts to use that key for cryptographic operations by applying proper cross-account permissions in the key policy
- K. Use the CMK administrator to create a CMK grant that includes permissions to perform cryptographic operations that define EC2 Auto Scaling service-linked roles from all other accounts as the grantee principal.
- L. Create a customer-managed CMK or an IAM managed CMK in the centralized account
- M. Allow other applicable accounts to use that key for cryptographic operations by applying proper cross-account permissions in the key policy
- N. Modify the access policy for the EC2 Auto Scaling roles to perform cryptographic operations against the centrally managed CMK.

**Answer:** B

#### NEW QUESTION 95

- (Exam Topic 1)

A Security Engineer is setting up a new IAM account. The Engineer has been asked to continuously monitor the company's IAM account using automated compliance checks based on IAM best practices and Center for Internet Security (CIS) IAM Foundations Benchmarks. How can the Security Engineer accomplish this using IAM services?

- A. Enable IAM Config and set it to record all resources in all Regions and global resources
- B. Then enable IAM Security Hub and confirm that the CIS IAM Foundations compliance standard is enabled
- C. Enable Amazon Inspector and configure it to scan all Regions for the CIS IAM Foundations Benchmark
- D. Then enable IAM Security Hub and configure it to ingest the Amazon Inspector findings
- E. Enable Amazon Inspector and configure it to scan all Regions for the CIS IAM Foundations Benchmark
- F. Then enable IAM Shield in all Regions to protect the account from DDoS attacks.
- G. Enable IAM Config and set it to record all resources in all Regions and global resources. Then enable Amazon Inspector and configure it to enforce CIS IAM Foundations Benchmarks using IAM Config rules.

**Answer:** A

#### Explanation:

<https://docs.IAM.amazon.com/securityhub/latest/userguide/securityhub-standards-cis-config-resources.html>

#### NEW QUESTION 96

- (Exam Topic 1)

A company's Security Engineer has been asked to monitor and report all IAM account root user activities. Which of the following would enable the Security Engineer to monitor and report all root user activities? (Select TWO)

- A. Configuring IAM Organizations to monitor root user API calls on the paying account
- B. Creating an Amazon CloudWatch Events rule that will trigger when any API call from the root user is reported
- C. Configuring Amazon Inspector to scan the IAM account for any root user activity
- D. Configuring IAM Trusted Advisor to send an email to the Security team when the root user logs in to the console
- E. Using Amazon SNS to notify the target group

**Answer:** BE

#### NEW QUESTION 101

- (Exam Topic 1)

A security engineer is auditing a production system and discovers several additional IAM roles that are not required and were not previously documented during the last audit 90 days ago. The engineer is trying to find out who created these IAM roles and when they were created. The solution must have the lowest operational overhead.

Which solution will meet this requirement?

- A. Import IAM CloudTrail logs from Amazon S3 into an Amazon Elasticsearch Service cluster, and search through the combined logs for CreateRole events.
- B. Create a table in Amazon Athena for IAM CloudTrail event
- C. Query the table in Amazon Athena for CreateRole events.
- D. Use IAM Config to look up the configuration timeline for the additional IAM roles and view the linked IAM CloudTrail event.
- E. Download the credentials report from the IAM console to view the details for each IAM entity, including the creation dates.

**Answer:** A

#### NEW QUESTION 104

- (Exam Topic 2)

A company plans to migrate a sensitive dataset to Amazon S3. A Security Engineer must ensure that the data is encrypted at rest. The encryption solution must enable the company to generate its own keys without needing to manage key storage or the encryption process. What should the Security Engineer use to accomplish this?

- A. Server-side encryption with Amazon S3-managed keys (SSE-S3)
- B. Server-side encryption with IAM KMS-managed keys (SSE-KMS)
- C. Server-side encryption with customer-provided keys (SSE-C)
- D. Client-side encryption with an IAM KMS-managed CMK

**Answer:** B

**Explanation:**

Reference <https://IAM.amazon.com/s3/faqs/>

**NEW QUESTION 108**

- (Exam Topic 2)

An application running on EC2 instances must use a username and password to access a database. The developer has stored those secrets in the SSM Parameter Store with type SecureString using the default KMS CMK. Which combination of configuration steps will allow the application to access the secrets via the API? Select 2 answers from the options below

Please select:

- A. Add the EC2 instance role as a trusted service to the SSM service role.
- B. Add permission to use the KMS key to decrypt to the SSM service role.
- C. Add permission to read the SSM parameter to the EC2 instance role.
- D. .
- E. Add permission to use the KMS key to decrypt to the EC2 instance role.
- F. Add the SSM service role as a trusted service to the EC2 instance role.

**Answer:** CD

**Explanation:**

The below example policy from the IAM Documentation is required to be given to the EC2 Instance in order to read a secure string from IAM KMS. Permissions need to be given to the Get Parameter API and the KMS API call to decrypt the secret.

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

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Action": [
        "ssm:GetParameter"
      ],
      "Resource": "arn:aws:ssm:us-west-2:111122223333:parameter/ReadableParameters/*"
    },
    {
      "Effect": "Allow",
      "Action": [
        "kms:Decrypt"
      ],
      "Resource": "arn:aws:kms:us-west-2:111122223333:key/1234abcd-12ab-34cd-56ef-1234567890ab"
    }
  ]
}
```

Option A is invalid because roles can be attached to EC2 and not EC2 roles to SSM Option B is invalid because the KMS key does not need to decrypt the SSM service role.

Option E is invalid because this configuration is valid For more information on the parameter store, please visit the below URL:

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

The correct answers are: Add permission to read the SSM parameter to the EC2 instance role., Add permission to use the KMS key to decrypt to the EC2 instance role

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**NEW QUESTION 111**

- (Exam Topic 2)

During a recent security audit, it was discovered that multiple teams in a large organization have placed restricted data in multiple Amazon S3 buckets, and the data may have been exposed. The auditor has requested that the organization identify all possible objects that contain personally identifiable information (PII) and then determine whether this information has been accessed.

What solution will allow the Security team to complete this request?

- A. Using Amazon Athena, query the impacted S3 buckets by using the PII query identifier function.
- B. Then, create a new Amazon CloudWatch metric for Amazon S3 object access to alert when the objects are accessed.
- C. Enable Amazon Macie on the S3 buckets that were impacted, then perform data classification.
- D. For identified objects that contain PII, use the research function for auditing IAM CloudTrail logs and S3 bucket logs for GET operations.
- E. Enable Amazon GuardDuty and enable the PII rule set on the S3 buckets that were impacted, then perform data classification.
- F. Using the PII findings report from GuardDuty, query the S3 bucket logs by using Athena for GET operations.
- G. Enable Amazon Inspector on the S3 buckets that were impacted, then perform data classification.
- H. For identified objects that contain PII, query the S3 bucket logs by using Athena for GET operations.

**Answer:** B

**NEW QUESTION 113**

- (Exam Topic 2)

You have an instance setup in a test environment in IAM. You installed the required application and the promoted the server to a production environment. Your IT Security team has advised that there maybe traffic flowing in from an unknown IP address to port 22. How can this be mitigated immediately?  
Please select:

- A. Shutdown the instance
- B. Remove the rule for incoming traffic on port 22 for the Security Group
- C. Change the AMI for the instance
- D. Change the Instance type for the instance

**Answer: B**

**Explanation:**

In the test environment the security groups might have been opened to all IP addresses for testing purpose. Always to ensure to remove this rule once all testing is completed.

Option A, C and D are all invalid because this would affect the application running on the server. The easiest way is just to remove the rule for access on port 22. For more information on authorizing access to an instance, please visit the below URL: <https://docs.IAM.amazon.com/IAMEC2/latest/UserGuide/authorizing-access-to-an-instance.html>

The correct answer is: Remove the rule for incoming traffic on port 22 for the Security Group Submit your Feedback/Queries to our Experts

**NEW QUESTION 116**

- (Exam Topic 2)

A company has enabled Amazon GuardDuty in all Regions as part of its security monitoring strategy. In one of the VPCs, the company hosts an Amazon EC2 instance working as an FTP server that is contacted by a high number of clients from multiple locations. This is identified by GuardDuty as a brute force attack due to the high number of connections that happen every hour.

The finding has been flagged as a false positive. However, GuardDuty keeps raising the issue. A Security Engineer has been asked to improve the signal-to-noise ratio. The Engineer needs to ensure that changes do not compromise the visibility of potential anomalous behavior.

How can the Security Engineer address the issue?

- 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 and deploy it to GuardDuty to stop receiving the notifications
- C. Use GuardDuty filters with auto archiving enabled to close the findings
- D. Create an IAM Lambda function that closes the finding whenever a new occurrence is reported

**Answer: B**

**Explanation:**

Trusted IP lists consist of IP addresses that you have whitelisted for secure communication with your IAM infrastructure and applications. GuardDuty does not generate findings for IP addresses on trusted IP lists. At any given time, you can have only one uploaded trusted IP list per IAM account per region.

**NEW QUESTION 118**

- (Exam Topic 2)

Example.com hosts its internal document repository on Amazon EC2 instances. The application runs on EC2 instances and previously stored the documents on encrypted Amazon EBS volumes. To optimize the application for scale, example.com has moved the files to Amazon S3. The security team has mandated that all the files are securely deleted from the EBS volume, and it must certify that the data is unreadable before releasing the underlying disks.

Which of the following methods will ensure that the data is unreadable by anyone else?

- A. Change the volume encryption on the EBS volume to use a different encryption mechanism
- B. Then, release the EBS volumes back to IAM.
- C. Release the volumes back to IA
- D. IAM immediately wipes the disk after it is deprovisioned.
- E. Delete the encryption key used to encrypt the EBS volume
- F. Then, release the EBS volumes back to IAM.
- G. Delete the data by using the operating system delete command
- H. Run Quick Format on the drive and then release the EBS volumes back to IAM.

**Answer: D**

**Explanation:**

Amazon EBS volumes are presented to you as raw unformatted block devices that have been wiped prior to being made available for use. Wiping occurs immediately before reuse so that you can be assured that the wipe process completed. If you have procedures requiring that all data be wiped via a specific method, such as those detailed in NIST 800-88 ("Guidelines for Media Sanitization"), you have the ability to do so on Amazon EBS. You should conduct a specialized wipe procedure prior to deleting the volume for compliance with your established requirements.

<https://d0.IAMstatic.com/whitepapers/IAM-security-whitepaper.pdf>

**NEW QUESTION 123**

- (Exam Topic 2)

A security team must present a daily briefing to the CISO that includes a report of which of the company's thousands of EC2 instances and on-premises servers are missing the latest security patches. All instances/servers must be brought into compliance within 24 hours so they do not show up on the next day's report.

How can the security team fulfill these requirements?

Please select:

- A. Use Amazon QuickSight and Cloud Trail to generate the report of out of compliance instances/servers. Redeploy all out of compliance instances/servers using an AMI with the latest patches.
- B. Use Systems Manager Patch Manager to generate the report of out of compliance instances/ server
- C. Use Systems Manager Patch Manager to install the missing patches.
- D. Use Systems Manager Patch Manager to generate the report of out of compliance instances/ servers. Redeploy all out of1 compliance instances/servers using an AMI with the latest patches.
- E. Use Trusted Advisor to generate the report of out of compliance instances/server
- F. Use Systems Manager Patch Manager to install the missing patches.

**Answer:** B

**Explanation:**

Use the Systems Manager Patch Manager to generate the report and also install the missing patches. The IAM Documentation mentions the following IAM Systems Manager Patch Manager automates the process of patching managed instances with security-related updates. For Linux-based instances, you can also install patches for non-security updates. You can patch fleets of Amazon EC2 instances or your on-premises servers and virtual machines (VMs) by operating system type. This includes supported versions of Windows, Ubuntu Server, Red Hat Enterprise Linux (RHEL), SUSE Linux Enterprise Server (SLES), and Amazon Linux. You can scan instances to see only a report of missing patches, or you can scan and automatically install all missing patches.

Option A is invalid because Amazon QuickSight and Cloud Trail cannot be used to generate the list of servers that don't meet compliance needs.

Option C is wrong because deploying instances via new AMI'S would impact the applications hosted on these servers

Option D is invalid because Amazon Trusted Advisor cannot be used to generate the list of servers that don't meet compliance needs.

For more information on the IAM Patch Manager, please visit the below URL: <https://docs.IAM.amazon.com/systems-manager/latest/userguide/systems-manager-patch.html> (

The correct answer is: Use Systems Manager Patch Manager to generate the report of out of compliance instances/ servers. Use Systems Manager Patch Manager to install the missing patches.

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**NEW QUESTION 125**

- (Exam Topic 2)

An organization wants to deploy a three-tier web application whereby the application servers run on Amazon EC2 instances. These EC2 instances need access to credentials that they will use to authenticate their SQL connections to an Amazon RDS DB instance. Also, IAM Lambda functions must issue queries to the RDS database by using the same database credentials.

The credentials must be stored so that the EC2 instances and the Lambda functions can access them. No other access is allowed. The access logs must record when the credentials were accessed and by whom.

What should the Security Engineer do to meet these requirements?

- A. Store the database credentials in IAM Key Management Service (IAM KMS). Create an IAM role with access to IAM KMS by using the EC2 and Lambda service principals in the role's trust policy
- B. Add the role to an EC2 instance profile
- C. Attach the instance profile to the EC2 instance
- D. Set up Lambda to use the new role for execution.
- E. Store the database credentials in IAM KM
- F. Create an IAM role with access to KMS by using the EC2 and Lambda service principals in the role's trust policy
- G. Add the role to an EC2 instance profile
- H. Attach the instance profile to the EC2 instances and the Lambda function.
- I. Store the database credentials in IAM Secrets Manager
- J. Create an IAM role with access to Secrets Manager by using the EC2 and Lambda service principals in the role's trust policy
- K. Add the role to an EC2 instance profile
- L. Attach the instance profile to the EC2 instances and the Lambda function.
- M. Store the database credentials in IAM Secrets Manager
- N. Create an IAM role with access to Secrets Manager by using the EC2 and Lambda service principals in the role's trust policy
- O. Add the role to an EC2 instance profile
- P. Attach the instance profile to the EC2 instance
- Q. Set up Lambda to use the new role for execution.

**Answer:** D

**NEW QUESTION 127**

- (Exam Topic 2)

A Security Engineer must implement mutually authenticated TLS connections between containers that communicate inside a VPC.

Which solution would be MOST secure and easy to maintain?

- A. Use IAM Certificate Manager to generate certificates from a public certificate authority and deploy them to all the containers.
- B. Create a self-signed certificate in one container and use IAM Secrets Manager to distribute the certificate to the other containers to establish trust.
- C. Use IAM Certificate Manager Private Certificate Authority (ACM PCA) to create a subordinate certificate authority, then create the private keys in the containers and sign them using the ACM PCA API.
- D. Use IAM Certificate Manager Private Certificate Authority (ACM PCA) to create a subordinate certificate authority, then use IAM Certificate Manager to generate the private certificates and deploy them to all the containers.

**Answer:** D

**NEW QUESTION 129**

- (Exam Topic 2)

A company hosts a popular web application that connects to an Amazon RDS MySQL DB instance running in a private VPC subnet that was created with default ACL settings. The IT Security department has a suspicion that a DDoS attack is coming from a suspecting IP. How can you protect the subnets from this attack? Please select:

- A. Change the Inbound Security Groups to deny access from the suspecting IP
- B. Change the Outbound Security Groups to deny access from the suspecting IP
- C. Change the Inbound NACL to deny access from the suspecting IP
- D. Change the Outbound NACL to deny access from the suspecting IP

**Answer:** C

**Explanation:**

Option A and B are invalid because by default the Security Groups already block traffic. You can use NACL's as an additional security layer for the subnet to deny traffic.

Option D is invalid since just changing the Inbound Rules is sufficient. The IAM Documentation mentions the following

A network access control list (ACL) is an optional layer of security for your VPC that acts as a firewall for

controlling traffic in and out of one or more subnets. You might set up network ACLs with rules similar to your security groups in order to add an additional layer of security to your VPC.

The correct answer is: Change the Inbound NACL to deny access from the suspecting IP

#### NEW QUESTION 131

- (Exam Topic 2)

A Software Engineer is trying to figure out why network connectivity to an Amazon EC2 instance does not appear to be working correctly. Its security group allows inbound HTTP traffic from 0.0.0.0/0, and the outbound rules have not been modified from the default. A custom network ACL associated with its subnet allows inbound HTTP traffic from 0.0.0.0/0 and has no outbound rules.

What would resolve the connectivity issue?

- A. The outbound rules on the security group do not allow the response to be sent to the client on the ephemeral port range.
- B. The outbound rules on the security group do not allow the response to be sent to the client on the HTTP port.
- C. An outbound rule must be added to the network ACL to allow the response to be sent to the client on the ephemeral port range.
- D. An outbound rule must be added to the network ACL to allow the response to be sent to the client on the HTTP port.

**Answer:** C

#### Explanation:

<https://docs.IAM.amazon.com/vpc/latest/userguide/vpc-network-acls.html>

#### NEW QUESTION 132

- (Exam Topic 2)

A company plans to move most of its IT infrastructure to IAM. They want to leverage their existing on-premises Active Directory as an identity provider for IAM. Which combination of steps should a Security Engineer take to federate the company's on-premises Active Directory with IAM? (Choose two.)

- A. Create IAM roles with permissions corresponding to each Active Directory group.
- B. Create IAM groups with permissions corresponding to each Active Directory group.
- C. Configure Amazon Cloud Directory to support a SAML provider.
- D. Configure Active Directory to add relying party trust between Active Directory and IAM.
- E. Configure Amazon Cognito to add relying party trust between Active Directory and IAM.

**Answer:** AD

#### Explanation:

<https://IAM.amazon.com/blogs/security/how-to-establish-federated-access-to-your-IAM-resources-by-using-acti>

#### NEW QUESTION 135

- (Exam Topic 2)

An application outputs logs to a text file. The logs must be continuously monitored for security incidents. Which design will meet the requirements with MINIMUM effort?

- A. Create a scheduled process to copy the component's logs into Amazon S3. Use S3 events to trigger a Lambda function that updates Amazon CloudWatch metrics with the log data.
- B. Set up CloudWatch alerts based on the metrics.
- C. Install and configure the Amazon CloudWatch Logs agent on the application's EC2 instance.
- D. Create a CloudWatch metric filter to monitor the application log.
- E. Set up CloudWatch alerts based on the metrics.
- F. Create a scheduled process to copy the application log files to IAM CloudTrail.
- G. Use S3 events to trigger Lambda functions that update CloudWatch metrics with the log data.
- H. Set up CloudWatch alerts based on the metrics.
- I. Create a file watcher that copies data to Amazon Kinesis when the application writes to the log file. Have Kinesis trigger a Lambda function to update Amazon CloudWatch metrics with the log data.
- J. Set up CloudWatch alerts based on the metrics.

**Answer:** B

#### Explanation:

<https://docs.IAM.amazon.com/AmazonCloudWatch/latest/logs/QuickStartEC2Instance.html>

#### NEW QUESTION 137

- (Exam Topic 2)

A company wants to have a secure way of generating, storing and managing cryptographic keys. Which of the following can be used for this purpose?

Please select:

- A. Use KMS and the normal KMS encryption keys
- B. Use KMS and use an external key material
- C. Use S3 Server Side encryption
- D. Use Cloud HSM

**Answer:** D

#### Explanation:

The IAM Documentation mentions the following

The IAM CloudHSM service helps you meet corporate, contractual and regulatory compliance requirements for data security by using dedicated Hardware Security Module (HSM) instances within the IAM cloud. IAM and IAM Marketplace partners offer a variety of solutions for protecting sensitive data within the IAM platform, but for some applications and data subject to contractual or regulatory mandates for managing cryptographic keys, additional protection may be necessary.

CloudHSM complements existing data protection solutions and allows you to protect your encryption keys within HSMs that are designed and validated to government

standards for secure key management. CloudHSM allows you to securely generate, store and manage cryptographic keys used for data encryption in a way that keys are accessible only by you.

Option A,B and Care invalid because in all of these cases, the management of the key will be with IAM. Here the question specifically mentions that you want to have exclusive access over the keys. This can be achieved with Cloud HSM

For more information on CloudHSM, please visit the following URL: <https://IAM.amazon.com/cloudhsm/faq>:

The correct answer is: Use Cloud HSM Submit your Feedback/Queries to our Experts

#### NEW QUESTION 139

- (Exam Topic 2)

An organization has tens of applications deployed on thousands of Amazon EC2 instances. During testing, the Application team needs information to let them know whether the network access control lists (network ACLs) and security groups are working as expected.

How can the Application team's requirements be met?

- A. Turn on VPC Flow Logs, send the logs to Amazon S3, and use Amazon Athena to query the logs.
- B. Install an Amazon Inspector agent on each EC2 instance, send the logs to Amazon S3, and use Amazon EMR to query the logs.
- C. Create an IAM Config rule for each network ACL and security group configuration, send the logs to Amazon S3, and use Amazon Athena to query the logs.
- D. Turn on IAM CloudTrail, send the trails to Amazon S3, and use IAM Lambda to query the trails.

**Answer:** A

#### NEW QUESTION 140

- (Exam Topic 2)

Which option for the use of the IAM Key Management Service (KMS) supports key management best practices that focus on minimizing the potential scope of data exposed by a possible future key compromise?

- A. Use KMS automatic key rotation to replace the master key, and use this new master key for future encryption operations without re-encrypting previously encrypted data.
- B. Generate a new Customer Master Key (CMK), re-encrypt all existing data with the new CMK, and use it for all future encryption operations.
- C. Change the CMK alias every 90 days, and update key-calling applications with the new key alias.
- D. Change the CMK permissions to ensure that individuals who can provision keys are not the same individuals who can use the keys.

**Answer:** A

#### Explanation:

"automatic key rotation has no effect on the data that the CMK protects. It does not rotate the data keys that the CMK generated or re-encrypt any data protected by the CMK, and it will not mitigate the effect of a compromised data key. You might decide to create a new CMK and use it in place of the original CMK. This has the same effect as rotating the key material in an existing CMK, so it's often thought of as manually rotating the key."

<https://docs.aws.amazon.com/kms/latest/developerguide/rotate-keys.html>

<https://docs.IAM.amazon.com/kms/latest/developerguide/rotate-keys.html#rotate-keys-manually> for IAM standards

#### NEW QUESTION 143

- (Exam Topic 2)

A Software Engineer wrote a customized reporting service that will run on a fleet of Amazon EC2 instances. The company security policy states that application logs for the reporting service must be centrally collected.

What is the MOST efficient way to meet these requirements?

- A. Write an IAM Lambda function that logs into the EC2 instance to pull the application logs from the EC2 instance and persists them into an Amazon S3 bucket.
- B. Enable IAM CloudTrail logging for the IAM account, create a new Amazon S3 bucket, and then configure Amazon CloudWatch Logs to receive the application logs from CloudTrail.
- C. Create a simple cron job on the EC2 instances that synchronizes the application logs to an Amazon S3 bucket by using rsync.
- D. Install the Amazon CloudWatch Logs Agent on the EC2 instances, and configure it to send the application logs to CloudWatch Logs.

**Answer:** D

#### Explanation:

<https://IAM.amazon.com/blogs/IAM/cloudwatch-log-service/>

#### NEW QUESTION 147

- (Exam Topic 2)

The Information Technology department has stopped using Classic Load Balancers and switched to Application Load Balancers to save costs. After the switch, some users on older devices are no longer able to connect to the website.

What is causing this situation?

- A. Application Load Balancers do not support older web browsers.
- B. The Perfect Forward Secrecy settings are not configured correctly.
- C. The intermediate certificate is installed within the Application Load Balancer.
- D. The cipher suites on the Application Load Balancers are blocking connections.

**Answer:** D

#### Explanation:

<https://docs.IAM.amazon.com/elasticloadbalancing/latest/application/create-https-listener.html>

#### NEW QUESTION 148

- (Exam Topic 2)

A Lambda function reads metadata from an S3 object and stores the metadata in a DynamoDB table. The function is triggered whenever an object is stored within the S3 bucket.

How should the Lambda function be given access to the DynamoDB table? Please select:

- A. Create a VPC endpoint for DynamoDB within a VP
- B. Configure the Lambda function to access resources in the VPC.
- C. Create a resource policy that grants the Lambda function permissions to write to the DynamoDB table. Attach the poll to the DynamoDB table.
- D. Create an IAM user with permissions to write to the DynamoDB tabl
- E. Store an access key for that user in the Lambda environment variables.
- F. Create an IAM service role with permissions to write to the DynamoDB tabl
- G. Associate that role with the Lambda function.

**Answer:** D

**Explanation:**

The ideal way is to create an IAM role which has the required permissions and then associate it with the Lambda function

The IAM Documentation additionally mentions the following

Each Lambda function has an IAM role (execution role) associated with it. You specify the IAM role when you create your Lambda function. Permissions you grant to this role determine what IAM Lambda can do when it assumes the role. There are two types of permissions that you grant to the IAM role:

If your Lambda function code accesses other IAM resources, such as to read an object from an S3 bucket or write logs to CloudWatch Logs, you need to grant permissions for relevant Amazon S3 and CloudWatch actions to the role.

If the event source is stream-based (Amazon Kinesis Data Streams and DynamoDB streams), IAM Lambda polls these streams on your behalf. IAM Lambda needs permissions to poll the stream and read new records on the stream so you need to grant the relevant permissions to this role.

Option A is invalid because the VPC endpoint allows access instances in a private subnet to access DynamoDB

Option B is invalid because resources policies are present for resources such as S3 and KMS, but not IAM Lambda

Option C is invalid because IAM Roles should be used and not IAM Users

For more information on the Lambda permission model, please visit the below URL: <https://docs.IAM.amazon.com/lambda/latest/dg/intro-permission-model.html>

The correct answer is: Create an IAM service role with permissions to write to the DynamoDB table. Associate that role with the Lambda function.

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**NEW QUESTION 152**

- (Exam Topic 2)

A Security Engineer must add additional protection to a legacy web application by adding the following HTTP security headers:

- Content Security-Policy
- X-Frame-Options
- X-XSS-Protection

The Engineer does not have access to the source code of the legacy web application. Which of the following approaches would meet this requirement?

- A. Configure an Amazon Route 53 routing policy to send all web traffic that does not include the required headers to a black hole.
- B. Implement an IAM Lambda@Edge origin response function that inserts the required headers.
- C. Migrate the legacy application to an Amazon S3 static website and front it with an Amazon CloudFront distribution.
- D. Construct an IAM WAF rule to replace existing HTTP headers with the required security headers by using regular expressions.

**Answer:** B

**NEW QUESTION 155**

- (Exam Topic 2)

An IAM account includes two S3 buckets: bucket1 and bucket2. The bucket2 does not have a policy defined, but bucket1 has the following bucket policy:

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Principal": {"AWS": "arn:aws:iam::123456789012:user/alice"},
      "Action": "s3:*",
      "Resource": ["arn:aws:s3:::bucket1", "arn:aws:s3:::bucket1/*"]
    }
  ]
}
```

In addition, the same account has an IAM User named "alice", with the following IAM policy.

```
{
  "Version": "2012-10-17",
  "Statement": [{
    "Effect": "Allow",
    "Action": "s3:*",
    "Resource": ["arn:aws:s3:::bucket2", "arn:aws:s3:::bucket2/*"]
  }
]
```

Which buckets can user "alice" access?

- A. Bucket1 only

- B. Bucket2 only
- C. Both bucket1 and bucket2
- D. Neither bucket1 nor bucket2

**Answer:** C

**Explanation:**

Both S3 policies and IAM policies can be used to grant access to buckets. IAM policies specify what actions are allowed or denied on what IAM resources (e.g. allow ec2:TerminateInstance on the EC2 instance with instance\_id=i-8b3620ec). You attach IAM policies to IAM users, groups, or roles, which are then subject to the permissions you've defined. In other words, IAM policies define what a principal can do in your IAM environment. S3 bucket policies, on the other hand, are attached only to S3 buckets. S3 bucket policies specify what actions are allowed or denied for which principals on the bucket that the bucket policy is attached to (e.g. allow user Alice to PUT but not DELETE objects in the bucket).

<https://IAM.amazon.com/blogs/security/iam-policies-and-bucket-policies-and-acls-oh-my-controlling-access-to>

**NEW QUESTION 158**

- (Exam Topic 2)

During a security event, it is discovered that some Amazon EC2 instances have not been sending Amazon CloudWatch logs. Which steps can the Security Engineer take to troubleshoot this issue? (Select two.)

- A. Connect to the EC2 instances that are not sending the appropriate logs and verify that the CloudWatch Logs agent is running.
- B. Log in to the IAM account and select CloudWatch Log
- C. Check for any monitored EC2 instances that are in the "Alerting" state and restart them using the EC2 console.
- D. Verify that the EC2 instances have a route to the public IAM API endpoints.
- E. Connect to the EC2 instances that are not sending log
- F. Use the command prompt to verify that the right permissions have been set for the Amazon SNS topic.
- G. Verify that the network access control lists and security groups of the EC2 instances have the access to send logs over SNMP.

**Answer:** AC

**Explanation:**

<https://docs.IAM.amazon.com/AmazonCloudWatch/latest/monitoring/cloudwatch-and-interface-VPC.html>

**NEW QUESTION 161**

- (Exam Topic 2)

You have enabled Cloudtrail logs for your company's IAM account. In addition, the IT Security department has mentioned that the logs need to be encrypted. How can this be achieved?

Please select:

- A. Enable SSL certificates for the Cloudtrail logs
- B. There is no need to do anything since the logs will already be encrypted
- C. Enable Server side encryption for the trail
- D. Enable Server side encryption for the destination S3 bucket

**Answer:** B

**Explanation:**

The IAM Documentation mentions the following.

By default CloudTrail event log files are encrypted using Amazon S3 server-side encryption (SSE). You can also choose to encryption your log files with an IAM Key Management Service (IAM KMS) key. You can store your log files in your bucket for as long as you want. You can also define Amazon S3 lifecycle rules to archive or delete log files automatically. If you want notifications about lo file delivery and validation, you can set up Amazon SNS notifications.

Option A.C and D are not valid since logs will already be encrypted

For more information on how Cloudtrail works, please visit the following URL: <https://docs.IAM.amazon.com/IAMcloudtrail/latest/useruide/how-cloudtrail-works.html>

The correct answer is: There is no need to do anything since the logs will already be encrypted

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**NEW QUESTION 164**

- (Exam Topic 2)

A company has a forensic logging use case whereby several hundred applications running on Docker on EC2 need to send logs to a central location. The Security Engineer must create a logging solution that is able to perform real-time analytics on the log files, grants the ability to replay events, and persists data.

Which IAM Services, together, can satisfy this use case? (Select two.)

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

**Answer:** AB

**Explanation:**

<https://docs.aws.amazon.com/whitepapers/latest/IAM-overview/analytics.html#amazon-athena>

**NEW QUESTION 166**

- (Exam Topic 2)

A company has deployed a custom DNS server in IAM. The Security Engineer wants to ensure that Amazon EC2 instances cannot use the Amazon-provided DNS.

How can the Security Engineer block access to the Amazon-provided DNS in the VPC?

- A. Deny access to the Amazon DNS IP within all security groups.
- B. Add a rule to all network access control lists that deny access to the Amazon DNS IP.
- C. Add a route to all route tables that black holes traffic to the Amazon DNS IP.
- D. Disable DNS resolution within the VPC configuration.

**Answer:** D

**Explanation:**

<https://docs.IAM.amazon.com/vpc/latest/userguide/vpc-dns.html>

**NEW QUESTION 170**

- (Exam Topic 2)

Your company has mandated that all calls to the IAM KMS service be recorded. How can this be achieved? Please select:

- A. Enable logging on the KMS service
- B. Enable a trail in Cloudtrail
- C. Enable Cloudwatch logs
- D. Use Cloudwatch metrics

**Answer:** B

**Explanation:**

The IAM Documentation states the following

IAM KMS is integrated with CloudTrail, a service that captures API calls made by or on behalf of IAM KMS in your IAM account and delivers the log files to an Amazon S3 bucket that you specify. CloudTrail captures

API calls from the IAM KMS console or from the IAM KMS API. Using the information collected by CloudTrail, you can determine what request was made, the source IP address from which the request was made, who made the request when it was made, and so on.

Option A is invalid because logging is not possible in the KMS service

Option C and D are invalid because Cloudwatch cannot be used to monitor API calls For more information on logging using Cloudtrail please visit the below URL

<https://docs.IAM.amazon.com/kms/latest/developerguide/loeeing-usine-cloudtrail.html> The correct answer is: Enable a trail in Cloudtrail

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**NEW QUESTION 175**

- (Exam Topic 2)

An organization has a system in IAM that allows a large number of remote workers to submit data files. File sizes vary from a few kilobytes to several megabytes.

A recent audit highlighted a concern that data files are not encrypted while in transit over untrusted networks.

Which solution would remediate the audit finding while minimizing the effort required?

- A. Upload an SSL certificate to IAM, and configure Amazon CloudFront with the passphrase for the private key.
- B. Call KMS.Encrypt() in the client, passing in the data file contents, and call KMS.Decrypt() server-side.
- C. Use IAM Certificate Manager to provision a certificate on an Elastic Load Balancing in front of the web service's servers.
- D. Create a new VPC with an Amazon VPC VPN endpoint, and update the web service's DNS record.

**Answer:** C

**NEW QUESTION 179**

- (Exam Topic 2)

You have an Ec2 Instance in a private subnet which needs to access the KMS service. Which of the following methods can help fulfil this requirement, keeping security in perspective

Please select:

- A. Use a VPC endpoint
- B. Attach an Internet gateway to the subnet
- C. Attach a VPN connection to the VPC
- D. Use VPC Peering

**Answer:** A

**Explanation:**

The IAM Documentation mentions the following

You can connect directly to IAM KMS through a private endpoint in your VPC instead of connecting over the internet. When you use a VPC endpoint communication between your VPC and IAM KMS is conducted entirely within the IAM network.

Option B is invalid because this could open threats from the internet

Option C is invalid because this is normally used for communication between on-premise environments and IAM.

Option D is invalid because this is normally used for communication between VPCs

For more information on accessing KMS via an endpoint, please visit the following URL <https://docs.IAM.amazon.com/kms/latest/developerguide/kms-vpc-endpoint.html>

The correct answer is: Use a VPC endpoint Submit your Feedback/Queries to our Experts

**NEW QUESTION 181**

- (Exam Topic 2)

A company maintains sensitive data in an Amazon S3 bucket that must be protected using an IAM KMS

CMK. The company requires that keys be rotated automatically every year. How should the bucket be configured?

- A. Select server-side encryption with Amazon S3-managed keys (SSE-S3) and select an IAM-managed CMK.
- B. Select Amazon S3-IAM KMS managed encryption keys (S3-KMS) and select a customer-managed CMK with key rotation enabled.
- C. Select server-side encryption with Amazon S3-managed keys (SSE-S3) and select a customer-managed CMK that has imported key material.
- D. Select server-side encryption with IAM KMS-managed keys (SSE-KMS) and select an alias to an IAM-managed CMK.

Answer: B

#### NEW QUESTION 185

- (Exam Topic 2)

A Security Administrator has a website hosted in Amazon S3. The Administrator has been given the following requirements:

- > Users may access the website by using an Amazon CloudFront distribution.
- > Users may not access the website directly by using an Amazon S3 URL.

Which configurations will support these requirements? (Choose two.)

- A. Associate an origin access identity with the CloudFront distribution.
- B. Implement a "Principal": "cloudfront.amazonaws.com" condition in the S3 bucket policy.
- C. Modify the S3 bucket permissions so that only the origin access identity can access the bucket contents.
- D. Implement security groups so that the S3 bucket can be accessed only by using the intended CloudFront distribution.
- E. Configure the S3 bucket policy so that it is accessible only through VPC endpoints, and place the CloudFront distribution into the specified VPC.

Answer: AC

#### NEW QUESTION 188

- (Exam Topic 2)

A company uses user data scripts that contain sensitive information to bootstrap Amazon EC2 instances. A Security Engineer discovers that this sensitive information is viewable by people who should not have access to it.

What is the MOST secure way to protect the sensitive information used to bootstrap the instances?

- A. Store the scripts in the AMI and encrypt the sensitive data using IAM KMS Use the instance role profile to control access to the KMS keys needed to decrypt the data.
- B. Store the sensitive data in IAM Systems Manager Parameter Store using the encrypted string parameter and assign the GetParameters permission to the EC2 instance role.
- C. Externalize the bootstrap scripts in Amazon S3 and encrypt them using IAM KM
- D. Remove the scripts from the instance and clear the logs after the instance is configured.
- E. Block user access of the EC2 instance's metadata service using IAM policie
- F. Remove all scripts and clear the logs after execution.

Answer: B

#### NEW QUESTION 191

- (Exam Topic 2)

You are devising a policy to allow users to have the ability to access objects in a bucket called appbucket. You define the below custom bucket policy

```
{ "ID": "Policy1502987489630",
  "Version": "2012-10-17",
  "Statement": [
    {
      "Sid": "Stmt1502987487640",
      "Action": [
        "s3:GetObject",
        "s3:GetObjectVersion"
      ],
      "Effect": "Allow",
      "Resource": "arn:aws:s3:::appbucket",
      "Principal": "*"
    }
  ]
}
```

But when you try to apply the policy you get the error "Action does not apply to any resource(s) in statement." What should be done to rectify the error Please select:

- A. Change the IAM permissions by applying PutBucketPolicy permissions.
- B. Verify that the policy has the same name as the bucket nam
- C. If no
- D. make it the same.
- E. Change the Resource section to "arn:iam:s3:::appbucket/\*".
- F. Create the bucket "appbucket" and then apply the policy.

Answer: C

#### Explanation:

When you define access to objects in a bucket you need to ensure that you specify to which objects in the bucket access needs to be given to. In this case, the \* can be used to assign the permission to all objects in the bucket

Option A is invalid because the right permissions are already provided as per the question requirement Option B is invalid because it is not necessary that the policy has the same name as the bucket

Option D is invalid because this should be the default flow for applying the policy For more information on bucket policies please visit the below URL:

<https://docs.IAM.amazon.com/AmazonS3/latest/dev/example-bucket-policies.html>

The correct answer is: Change the Resource section to "arn:iam:s3:::appbucket/" Submit your Feedback/Queries to our Experts

### NEW QUESTION 193

- (Exam Topic 2)

A Systems Engineer has been tasked with configuring outbound mail through Simple Email Service (SES) and requires compliance with current TLS standards. The mail application should be configured to connect to which of the following endpoints and corresponding ports?

- A. email.us-east-1.amazonaws.com over port 8080
- B. email-pop3.us-east-1.amazonaws.com over port 995
- C. email-smtp.us-east-1.amazonaws.com over port 587
- D. email-imap.us-east-1.amazonaws.com over port 993

**Answer: C**

#### Explanation:

<https://docs.IAM.amazonaws.com/ses/latest/DeveloperGuide/smtp-connect.html>

### NEW QUESTION 197

- (Exam Topic 2)

A Security Architect is evaluating managed solutions for storage of encryption keys. The requirements are:

- Storage is accessible by using only VPCs.
- Service has tamper-evident controls.
- Access logging is enabled.
- Storage has high availability.

Which of the following services meets these requirements?

- A. Amazon S3 with default encryption
- B. IAM CloudHSM
- C. Amazon DynamoDB with server-side encryption
- D. IAM Systems Manager Parameter Store

**Answer: B**

### NEW QUESTION 198

- (Exam Topic 2)

A company has five IAM accounts and wants to use IAM CloudTrail to log API calls. The log files must be stored in an Amazon S3 bucket that resides in a new account specifically built for centralized services with a unique top-level prefix for each trail. The configuration must also enable detection of any modification to the logs.

Which of the following steps will implement these requirements? (Choose three.)

- A. Create a new S3 bucket in a separate IAM account for centralized storage of CloudTrail logs, and enable "Log File Validation" on all trails.
- B. Use an existing S3 bucket in one of the accounts, apply a bucket policy to the new centralized S3 bucket that permits the CloudTrail service to use the "s3:PutObject" action and the "s3:GetBucketACL" action, and specify the appropriate resource ARNs for the CloudTrail trails.
- C. Apply a bucket policy to the new centralized S3 bucket that permits the CloudTrail service to use the "s3:PutObject" action and the "s3:GetBucketACL" action, and specify the appropriate resource ARNs for the CloudTrail trails.
- D. Use unique log file prefixes for trails in each IAM account.
- E. Configure CloudTrail in the centralized account to log all accounts to the new centralized S3 bucket.
- F. Enable encryption of the log files by using IAM Key Management Service

**Answer: ACE**

#### Explanation:

<https://docs.IAM.amazonaws.com/IAMcloudtrail/latest/userguide/best-practices-security.html>

If you have created an organization in IAM Organizations, you can create a trail that will log all events for all IAM accounts in that organization. This is sometimes referred to as an organization trail. You can also choose to edit an existing trail in the master account and apply it to an organization, making it an organization trail. Organization trails log events for the master account and all member accounts in the organization. For more information about IAM Organizations, see Organizations Terminology and Concepts. Note Reference: <https://docs.IAM.amazonaws.com/IAMcloudtrail/latest/userguide/creating-trail-organization.html> You must be logged in with the master account for the organization in order to create an organization trail. You must also have sufficient permissions for the IAM user or role in the master account in order to successfully create an organization trail. If you do not have sufficient permissions, you will not see the option to apply a trail to an organization.

### NEW QUESTION 202

- (Exam Topic 2)

An Amazon EC2 instance is part of an EC2 Auto Scaling group that is behind an Application Load Balancer (ALB). It is suspected that the EC2 instance has been compromised.

Which steps should be taken to investigate the suspected compromise? (Choose three.)

- A. Detach the elastic network interface from the EC2 instance.
- B. Initiate an Amazon Elastic Block Store volume snapshot of all volumes on the EC2 instance.
- C. Disable any Amazon Route 53 health checks associated with the EC2 instance.
- D. De-register the EC2 instance from the ALB and detach it from the Auto Scaling group.
- E. Attach a security group that has restrictive ingress and egress rules to the EC2 instance.
- F. Add a rule to an IAM WAF to block access to the EC2 instance.

**Answer: BDE**

#### Explanation:

[https://d1.IAMstatic.com/whitepapers/IAM\\_security\\_incident\\_response.pdf](https://d1.IAMstatic.com/whitepapers/IAM_security_incident_response.pdf)

### NEW QUESTION 207

- (Exam Topic 2)

You are designing a custom IAM policy that would allow users to list buckets in S3 only if they are MFA authenticated. Which of the following would best match this requirement?

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

```

"Version": "2012-10-17",
"Statement": {
  "Effect": "Allow",
  "Action": [
    "s3:ListAllMyBuckets",
    "s3:GetBucketLocation"
  ],
  "Resource": "Resource": "arn:aws:s3:*",
  "Condition": {
    "Bool": {"aws:MultiFactorAuthPresent": true}
  }
}

```

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

```

"Version": "2012-10-17",
"Statement": {
  "Effect": "Allow",
  "Action": [
    "s3:ListAllMyBuckets",
    "s3:GetBucketLocation"
  ],
  "Resource": "Resource": "arn:aws:s3:*",
  "Condition": {
    "Bool": {"aws:MultiFactorAuthPresent": false}
  }
}

```

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

```

"Version": "2012-10-17",
"Statement": {
  "Effect": "Allow",
  "Action": [
    "s3:ListAllMyBuckets",
    "s3:GetBucketLocation"
  ],
  "Resource": "Resource": "arn:aws:s3:*",
  "Condition": {
    "aws:MultiFactorAuthPresent": false
  }
}

```

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

```

"Version": "2012-10-17",
"Statement": {
  "Effect": "Allow",
  "Action": [
    "s3:ListAllMyBuckets",
    "s3:GetBucketLocation"
  ],
  "Resource": "Resource": "arn:aws:s3:*",
  "Condition": {
    "aws:MultiFactorAuthPresent": true
  }
}

```

**Answer: A**

**Explanation:**

The Condition clause can be used to ensure users can only work with resources if they are MFA authenticated. Option B and C are wrong since the IAM:MultiFactorAuthPresent clause should be marked as true. Here you are saying that onl if the user has been MFA activated, that means it is true, then allow access.

Option D is invalid because the "boor clause is missing in the evaluation for the condition clause. Boolean conditions let you construct Condition elements that restrict access based on comparing a key to "true" or "false."

Here in this scenario the boot attribute in the condition element will return a value True for option A which will ensure that access is allowed on S3 resources. For more information on an example on such a policy, please visit the following URL:

**NEW QUESTION 208**

- (Exam Topic 2)

An Amazon S3 bucket is encrypted using an IAM KMS CMK. An IAM user is unable to download objects from the S3 bucket using the IAM Management Console; however, other users can download objects from the S3 bucket.

Which policies should the Security Engineer review and modify to resolve this issue? (Select three.)

- A. The CMK policy
- B. The VPC endpoint policy

- C. The S3 bucket policy
- D. The S3 ACL
- E. The IAM policy

**Answer:** ACE

**Explanation:**

<https://IAM.amazon.com/premiumsupport/knowledge-center/decrypt-kms-encrypted-objects-s3/>

**NEW QUESTION 211**

- (Exam Topic 2)

Your development team has started using IAM resources for development purposes. The IAM account has just been created. Your IT Security team is worried about possible leakage of IAM keys. What is the first level of measure that should be taken to protect the IAM account. Please select:

- A. Delete the IAM keys for the root account
- B. Create IAM Groups
- C. Create IAM Roles
- D. Restrict access using IAM policies

**Answer:** A

**Explanation:**

The first level or measure that should be taken is to delete the keys for the IAM root user

When you log into your account and go to your Security Access dashboard, this is the first step that can be seen C:\Users\wk\Desktop\mudassar\Untitled.jpg



Option B and C are wrong because creation of IAM groups and roles will not change the impact of leakage of IAM root access keys

Option D is wrong because the first key aspect is to protect the access keys for the root account For more information on best practises for Security Access keys, please visit the below URL:

<https://docs.IAM.amazon.com/eeneral/latest/gr/IAM-access-keys-best-practices.html>

The correct answer is: Delete the IAM keys for the root account Submit your Feedback/Queries to our Experts

**NEW QUESTION 215**

- (Exam Topic 2)

A Development team has asked for help configuring the IAM roles and policies in a new IAM account. The team using the account expects to have hundreds of master keys and therefore does not want to manage access control for customer master keys (CMKs).

Which of the following will allow the team to manage IAM KMS permissions in IAM without the complexity of editing individual key policies?

- A. The account's CMK key policy must allow the account's IAM roles to perform KMS EnableKey.
- B. Newly created CMKs must have a key policy that allows the root principal to perform all actions.
- C. Newly created CMKs must allow the root principal to perform the kms CreateGrant API operation.
- D. Newly created CMKs must mirror the IAM policy of the KMS key administrator.

**Answer:** B

**Explanation:**

<https://docs.IAM.amazon.com/kms/latest/developerguide/key-policies.html#key-policy-default-allow-root-enabl>

**NEW QUESTION 217**

- (Exam Topic 2)

A Security Engineer must design a solution that enables the Incident Response team to audit for changes to a user's IAM permissions in the case of a security incident.

How can this be accomplished?

- A. Use IAM Config to review the IAM policy assigned to users before and after the incident.
- B. Run the GenerateCredentialReport via the IAM CLI, and copy the output to Amazon S3 daily for auditing purposes.
- C. Copy IAM CloudFormation templates to S3, and audit for changes from the template.
- D. Use Amazon EC2 Systems Manager to deploy images, and review IAM CloudTrail logs for changes.

**Answer:** A

**Explanation:**

<https://IAM.amazon.com/blogs/security/how-to-record-and-govern-your-iam-resource-configurations-using-IAM>

**NEW QUESTION 218**

- (Exam Topic 2)

A Security Engineer is working with the development team to design a supply chain application that stores sensitive inventory data in an Amazon S3 bucket. The application will use an IAM KMS customer master key (CMK) to encrypt the data on Amazon S3. The inventory data on Amazon S3 will be shared of vendors. All vendors will use IAM principals from their own IAM accounts to access the data on Amazon S3. The vendor list may change weekly, and the solution must support

cross-account access.

What is the MOST efficient way to manage access control for the KMS CMK?

- A. Use KMS grants to manage key access
- B. Programmatically create and revoke grants to manage vendor access.
- C. Use an IAM role to manage key access
- D. Programmatically update the IAM role policies to manage vendor access.
- E. Use KMS key policies to manage key access
- F. Programmatically update the KMS key policies to manage vendor access.
- G. Use delegated access across IAM accounts by using IAM roles to manage key access
- H. Programmatically update the IAM trust policy to manage cross-account vendor access.

**Answer: A**

**NEW QUESTION 219**

- (Exam Topic 2)

Your company has defined privileged users for their IAM Account. These users are administrators for key resources defined in the company. There is now a mandate to enhance the security authentication for these users. How can this be accomplished?

Please select:

- A. Enable MFA for these user accounts
- B. Enable versioning for these user accounts
- C. Enable accidental deletion for these user accounts
- D. Disable root access for the users

**Answer: A**

**Explanation:**

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 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).

Option B,C and D are invalid because no such security options are available in IAM For more information on IAM best practices, please visit the below URL

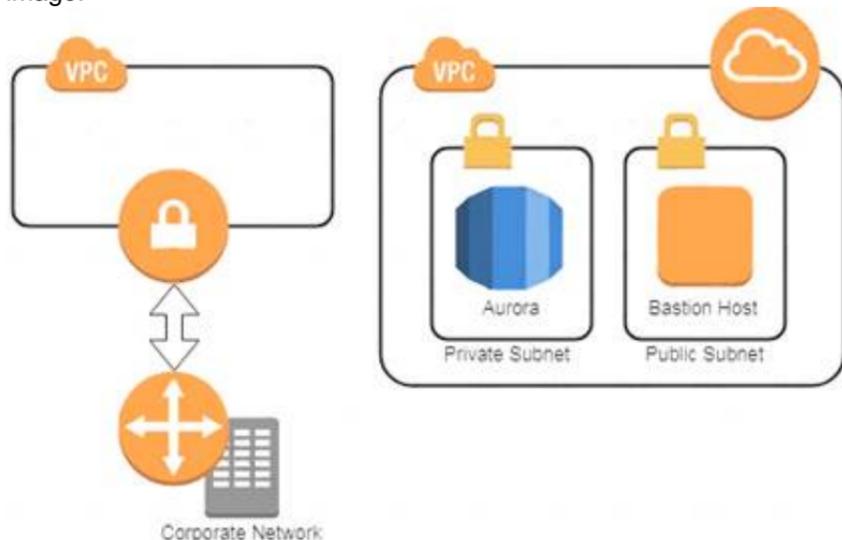
<https://docs.IAM.amazon.com/IAM/latest/UserGuide/best-practices.html> The correct answer is: Enable MFA for these user accounts

Submit your Feedback/Queries to our Experts

**NEW QUESTION 222**

- (Exam Topic 2)

A company has two IAM accounts, each containing one VPC. The first VPC has a VPN connection with its corporate network. The second VPC, without a VPN, hosts an Amazon Aurora database cluster in private subnets. Developers manage the Aurora database from a bastion host in a public subnet as shown in the image.



A security review has flagged this architecture as vulnerable, and a Security Engineer has been asked to make this design more secure. The company has a short deadline and a second VPN connection to the Aurora account is not possible.

How can a Security Engineer securely set up the bastion host?

- A. Move the bastion host to the VPC with VPN connectivity
- B. Create a VPC peering relationship between the bastion host VPC and Aurora VPC.
- C. Create a SSH port forwarding tunnel on the Developer's workstation to the bastion host to ensure that only authorized SSH clients can access the bastion host.
- D. Move the bastion host to the VPC with VPN connectivity
- E. Create a cross-account trust relationship between the bastion VPC and Aurora VPC, and update the Aurora security group for the relationship.
- F. Create an IAM Direct Connect connection between the corporate network and the Aurora account, and adjust the Aurora security group for this connection.

**Answer: A**

**NEW QUESTION 225**

- (Exam Topic 2)

The Security Engineer is managing a web application that processes highly sensitive personal information. The application runs on Amazon EC2. The application has strict compliance requirements, which instruct that all incoming traffic to the application is protected from common web exploits and that all outgoing traffic from the EC2 instances is restricted to specific whitelisted URLs.

Which architecture should the Security Engineer use to meet these requirements?

- A. Use IAM Shield to scan inbound traffic for web exploit
- B. Use VPC Flow Logs and IAM Lambda to restrict egress traffic to specific whitelisted URLs.

- C. Use IAM Shield to scan inbound traffic for web exploit
- D. Use a third-party IAM Marketplace solution to restrict egress traffic to specific whitelisted URLs.
- E. Use IAM WAF to scan inbound traffic for web exploit
- F. Use VPC Flow Logs and IAM Lambda to restrict egress traffic to specific whitelisted URLs.
- G. Use IAM WAF to scan inbound traffic for web exploit
- H. Use a third-party IAM Marketplace solution to restrict egress traffic to specific whitelisted URLs.

**Answer:** D

**Explanation:**

IAM Shield is mainly for DDos Attacks. IAM WAF is mainly for some other types of attacks like Injection and XSS etc. In this scenario, it seems it is WAF functionality that is needed. VPC logs do show the source and destination IP and Port, they never show any URL .. because URL are level 7 while VPC are concerned about lower network levels.

<https://docs.IAM.amazon.com/vpc/latest/userguide/flow-logs.html>

**NEW QUESTION 226**

- (Exam Topic 2)

A Security Engineer must enforce the use of only Amazon EC2, Amazon S3, Amazon RDS, Amazon DynamoDB, and IAM STS in specific accounts. What is a scalable and efficient approach to meet this requirement?

- A Set up an AWS Organizations hierarchy, and replace the FullAWSAccess policy with the following Service Control Policy for the governed organization units:

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Action": [
        "dynamodb:*", "rds:*", "ec2:*",
"s3:*", "sts:*"
      ],
      "Effect": "Allow",
      "Resource": "*"
    }
  ]
}
```

- B Create multiple IAM users for the regulated accounts, and attach the following policy statement to restrict services as required:

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Action": *
      "Effect": "Allow",
      "Resource": "*"
    }
    {
      "NotAction": [
        "dynamodb:*", "rds:*", "ec2:*",
"s3:*", "sts:*"
      ],
      "Effect": "Deny ",
      "Resource": "*"
    }
  ]
}
```

- C Set up an Organizations hierarchy, replace the global FullAWSAccess with the following Service Control Policy at the top level:

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Action": [
        "dynamodb:*", "rds:*", "ec2:*",
"s3:*", "sts:*"
      ],
      "Effect": "Allow",
      "Resource": "*"
    }
  ]
}
```

D Set up all users in the Active Directory for federated access to all accounts in the company. Associate Active Directory groups with IAM groups, and attach the following policy statement to restrict services as required:

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Action": *
      "Effect": "Allow",
      "Resource": "*"
    }
  ]
  "NotAction": [
    "dynamodb:*", "rds:*", "ec2:*",
    "s3:*", "sts:*"
  ],
  "Effect": "Deny ",
  "Resource": "*"
}
```

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

**Answer:** A

**Explanation:**

It says specific accounts which mean specific governed OUs under your organization and you apply specific service control policy to these OUs.

**NEW QUESTION 231**

- (Exam Topic 2)

IAM CloudTrail is being used to monitor API calls in an organization. An audit revealed that CloudTrail is failing to deliver events to Amazon S3 as expected. What initial actions should be taken to allow delivery of CloudTrail events to S3? (Select two.)

- A. Verify that the S3 bucket policy allow CloudTrail to write objects.
- B. Verify that the IAM role used by CloudTrail has access to write to Amazon CloudWatch Logs.
- C. Remove any lifecycle policies on the S3 bucket that are archiving objects to Amazon Glacier.
- D. Verify that the S3 bucket defined in CloudTrail exists.
- E. Verify that the log file prefix defined in CloudTrail exists in the S3 bucket.

**Answer:** BD

**Explanation:**

<https://docs.IAM.amazon.com/IAMcloudtrail/latest/userguide/create-s3-bucket-policy-for-cloudtrail.html>

**NEW QUESTION 236**

- (Exam Topic 2)

Your IT Security team has advised to carry out a penetration test on the resources in their company's IAM Account. This is as part of their capability to analyze the security of the Infrastructure. What should be done first in this regard?

Please select:

- A. Turn on Cloud trail and carry out the penetration test
- B. Turn on VPC Flow Logs and carry out the penetration test
- C. Submit a request to IAM Support
- D. Use a custom IAM Marketplace solution for conducting the penetration test

**Answer:** C

**Explanation:**

This concept is given in the IAM Documentation

How do I submit a penetration testing request for my IAM resources? Issue

I want to run a penetration test or other simulated event on my IAM architecture. How do I get permission from IAM to do that?

Resolution

Before performing security testing on IAM resources, you must obtain approval from IAM. After you submit your request IAM will reply in about two business days. IAM might have additional questions about your test which can extend the approval process, so plan accordingly and be sure that your initial request is as detailed as possible.

If your request is approved, you'll receive an authorization number.

Option A.B and D are all invalid because the first step is to get prior authorization from IAM for penetration tests

For more information on penetration testing, please visit the below URL

\* <https://IAM.amazon.com/security/penetration-testing/>

\* <https://IAM.amazon.com/premiumsupport/knowledge-center/penetration-testing/> (

The correct answer is: Submit a request to IAM Support Submit your Feedback/Queries to our Experts

**NEW QUESTION 237**

- (Exam Topic 2)

You have a 2 tier application hosted in IAM. It consists of a web server and database server (SQL Server) hosted on separate EC2 Instances. You are devising the security groups for these EC2 Instances. The Web tier needs to be accessed by users across the Internet. You have created a web security group(wg-123) and database security group(db-345). Which combination of the following security group rules will allow the application to be secure and functional. Choose 2 answers from the options given below.

Please select:

- A. wg-123 -Allow ports 80 and 443 from 0.0.0.0/0
- B. db-345 - Allow port 1433 from wg-123
- C. wg-123 - Allow port 1433 from wg-123
- D. db-345 -Allow ports 1433 from 0.0.0.0/0

**Answer:** AB

**Explanation:**

The Web security groups should allow access for ports 80 and 443 for HTTP and HTTPS traffic to all users from the internet.

The database security group should just allow access from the web security group from port 1433. Option C is invalid because this is not a valid configuration

Option D is invalid because database security should not be allowed on the internet For more information on Security Groups please visit the below URL:

<https://docs.IAM.amazon.com/IAMEC2/latest/UserGuide/usins-network-security.html>

The correct answers are: wg-123 - Allow ports 80 and 443 from 0.0.0.0/0, db-345 - Allow port 1433 from wg-123

Submit your Feedback/Queries to our Experts

**NEW QUESTION 238**

- (Exam Topic 2)

Compliance requirements state that all communications between company on-premises hosts and EC2 instances be encrypted in transit. Hosts use custom proprietary protocols for their communication, and EC2 instances need to be fronted by a load balancer for increased availability.

Which of the following solutions will meet these requirements?

- A. Offload SSL termination onto an SSL listener on a Classic Load Balancer, and use a TCP connection between the load balancer and the EC2 instances.
- B. Route all traffic through a TCP listener on a Classic Load Balancer, and terminate the TLS connection on the EC2 instances.
- C. Create an HTTPS listener using an Application Load Balancer, and route all of the communication through that load balancer.
- D. Offload SSL termination onto an SSL listener using an Application Load Balancer, and re-spawn and SSL connection between the load balancer and the EC2 instances.

**Answer:** B

**Explanation:**

<https://IAM.amazon.com/blogs/compute/maintaining-transport-layer-security-all-the-way-to-your-container-usin>

**NEW QUESTION 239**

- (Exam Topic 2)

A Security Engineer discovers that developers have been adding rules to security groups that allow SSH and RDP traffic from 0.0.0.0/0 instead of the organization firewall IP.

What is the most efficient way to remediate the risk of this activity?

- A. Delete the internet gateway associated with the VPC.
- B. Use network access control lists to block source IP addresses matching 0.0.0.0/0.
- C. Use a host-based firewall to prevent access from all but the organization's firewall IP.
- D. Use IAM Config rules to detect 0.0.0.0/0 and invoke an IAM Lambda function to update the security group with the organization's firewall IP.

**Answer:** D

**NEW QUESTION 240**

- (Exam Topic 2)

A distributed web application is installed across several EC2 instances in public subnets residing in two Availability Zones. Apache logs show several intermittent brute-force attacks from hundreds of IP addresses at the layer 7 level over the past six months.

What would be the BEST way to reduce the potential impact of these attacks in the future?

- A. Use custom route tables to prevent malicious traffic from routing to the instances.
- B. Update security groups to deny traffic from the originating source IP addresses.
- C. Use network ACLs.
- D. Install intrusion prevention software (IPS) on each instance.

**Answer:** D

**Explanation:**

<https://docs.IAM.amazon.com/vpc/latest/userguide/amazon-vpc-limits.html> NACL has limit 20 (can increase to maximum 40 rule), and more rule will make more low-latency

**NEW QUESTION 243**

- (Exam Topic 2)

A company hosts a critical web application on the IAM Cloud. This is a key revenue generating application for the company. The IT Security team is worried about potential DDos attacks against the web site. The senior management has also specified that immediate action needs to be taken in case of a potential DDos attack. What should be done in this regard?

Please select:

- A. Consider using the IAM Shield Service
- B. Consider using VPC Flow logs to monitor traffic for DDos attack and quickly take actions on a trigger of a potential attack.
- C. Consider using the IAM Shield Advanced Service

D. Consider using Cloudwatch logs to monitor traffic for DDos attack and quickly take actions on a trigger of a potential attack.

**Answer:** C

**Explanation:**

Option A is invalid because the normal IAM Shield Service will not help in immediate action against a DDos attack. This can be done via the IAM Shield Advanced Service

Option B is invalid because this is a logging service for VPCs traffic flow but cannot specifically protect against DDos attacks.

Option D is invalid because this is a logging service for IAM Services but cannot specifically protect against DDos attacks.

The IAM Documentation mentions the following

IAM Shield Advanced provides enhanced protections for your applications running on Amazon EC2. Elastic Load Balancing (ELB), Amazon CloudFront and Route 53 against larger and more sophisticated attacks. IAM Shield Advanced is available to IAM Business Support and IAM Enterprise Support customers. IAM Shield Advanced protection provides always-on, flow-based monitoring of network traffic and active application monitoring to provide near real-time notifications of DDos attacks. IAM Shield Advanced also gives customers highly flexible controls over attack mitigations to take actions instantly. Customers can also engage the DDos Response Team (DRT) 24X7 to manage and mitigate their application layer DDos attacks.

For more information on IAM Shield, please visit the below URL: <https://IAM.amazon.com/shield/faqs>;

The correct answer is: Consider using the IAM Shield Advanced Service Submit your Feedback/Queries to our Experts

**NEW QUESTION 248**

- (Exam Topic 2)

An application makes calls to IAM services using the IAM SDK. The application runs on Amazon EC2 instances with an associated IAM role. When the application attempts to access an object within an Amazon S3 bucket; the Administrator receives the following error message: HTTP 403: Access Denied.

Which combination of steps should the Administrator take to troubleshoot this issue? (Select three.)

- A. Confirm that the EC2 instance's security group authorizes S3 access.
- B. Verify that the KMS key policy allows decrypt access for the KMS key for this IAM principle.
- C. Check the S3 bucket policy for statements that deny access to objects.
- D. Confirm that the EC2 instance is using the correct key pair.
- E. Confirm that the IAM role associated with the EC2 instance has the proper privileges.
- F. Confirm that the instance and the S3 bucket are in the same Region.

**Answer:** BCE

**NEW QUESTION 249**

- (Exam Topic 2)

An organization is using IAM CloudTrail, Amazon CloudWatch Logs, and Amazon CloudWatch to send alerts when new access keys are created. However, the alerts are no longer appearing in the Security Operations mail box.

Which of the following actions would resolve this issue?

- A. In CloudTrail, verify that the trail logging bucket has a log prefix configured.
- B. In Amazon SNS, determine whether the "Account spend limit" has been reached for this alert.
- C. In SNS, ensure that the subscription used by these alerts has not been deleted.
- D. In CloudWatch, verify that the alarm threshold "consecutive periods" value is equal to, or greater than 1.

**Answer:** C

**NEW QUESTION 250**

- (Exam Topic 2)

An application has been built with Amazon EC2 instances that retrieve messages from Amazon SQS. Recently, IAM changes were made and the instances can no longer retrieve messages.

What actions should be taken to troubleshoot the issue while maintaining least privilege. (Select two.)

- A. Configure and assign an MFA device to the role used by the instances.
- B. Verify that the SQS resource policy does not explicitly deny access to the role used by the instances.
- C. Verify that the access key attached to the role used by the instances is active.
- D. Attach the AmazonSQSFullAccess managed policy to the role used by the instances.
- E. Verify that the role attached to the instances contains policies that allow access to the queue.

**Answer:** BE

**NEW QUESTION 251**

- (Exam Topic 2)

The IAM Systems Manager Parameter Store is being used to store database passwords used by an IAM Lambda function. Because this is sensitive data, the parameters are stored as type SecureString and protected by an IAM KMS key that allows access through IAM. When the function executes, this parameter cannot be retrieved as the result of an access denied error.

Which of the following actions will resolve the access denied error?

- A. Update the ssm.amazonaws.com principal in the KMS key policy to allow kms: Decrypt.
- B. Update the Lambda configuration to launch the function in a VPC.
- C. Add a policy to the role that the Lambda function uses, allowing kms: Decrypt for the KMS key.
- D. Add lambda.amazonaws.com as a trusted entity on the IAM role that the Lambda function uses.

**Answer:** C

**Explanation:**

[https://docs.amazonaws.cn/en\\_us/AmazonRDS/latest/AuroraUserGuide/AuroraMySQL.Integrating.Authorizin](https://docs.amazonaws.cn/en_us/AmazonRDS/latest/AuroraUserGuide/AuroraMySQL.Integrating.Authorizin)

**NEW QUESTION 254**

- (Exam Topic 2)

A company has complex connectivity rules governing ingress, egress, and communications between Amazon EC2 instances. The rules are so complex that they cannot be implemented within the limits of the maximum number of security groups and network access control lists (network ACLs).

What mechanism will allow the company to implement all required network rules without incurring additional cost?

- A. Configure IAM WAF rules to implement the required rules.
- B. Use the operating system built-in, host-based firewall to implement the required rules.
- C. Use a NAT gateway to control ingress and egress according to the requirements.
- D. Launch an EC2-based firewall product from the IAM Marketplace, and implement the required rules in that product.

**Answer: B**

#### NEW QUESTION 255

- (Exam Topic 2)

A company has a customer master key (CMK) with imported key materials. Company policy requires that all encryption keys must be rotated every year.

What can be done to implement the above policy?

- A. Enable automatic key rotation annually for the CMK.
- B. Use IAM Command Line Interface to create an IAM Lambda function to rotate the existing CMK annually.
- C. Import new key material to the existing CMK and manually rotate the CMK.
- D. Create a new CMK, import new key material to it, and point the key alias to the new CMK.

**Answer: D**

#### Explanation:

[https://docs.IAM.amazon.com/en\\_pv/kms/latest/developerguide/rotate-keys.html#rotate-keys-manually](https://docs.IAM.amazon.com/en_pv/kms/latest/developerguide/rotate-keys.html#rotate-keys-manually) "You might prefer to rotate keys manually so you can control the rotation frequency. It's also a good solution for CMKs that are not eligible for automatic key rotation, such as asymmetric CMKs, CMKs in custom key stores and CMKs with imported key material. Because the new CMK is a different resource from the current CMK, it has a different key ID and ARN. When you change CMKs, you need to update references to the CMK ID or ARN in your applications. Aliases, which associate a friendly name with a CMK, make this process easier. Use an alias to refer to a CMK in your applications. Then, when you want to change the CMK that the application uses, change the target CMK of the alias. To update the target CMK of an alias, use UpdateAlias operation in the IAM KMS API. "

#### NEW QUESTION 259

- (Exam Topic 2)

The Security team believes that a former employee may have gained unauthorized access to IAM resources sometime in the past 3 months by using an identified access key.

What approach would enable the Security team to find out what the former employee may have done within IAM?

- A. Use the IAM CloudTrail console to search for user activity.
- B. Use the Amazon CloudWatch Logs console to filter CloudTrail data by user.
- C. Use IAM Config to see what actions were taken by the user.
- D. Use Amazon Athena to query CloudTrail logs stored in Amazon S3.

**Answer: A**

#### Explanation:

You can use CloudTrail to search event history for the last 90 days. You can use CloudWatch queries to search API history beyond the last 90 days. You can use Athena to query CloudTrail logs over the last 90 days. <https://IAM.amazon.com/premiumsupport/knowledge-center/view-iam-history/>

#### NEW QUESTION 264

- (Exam Topic 2)

Amazon CloudWatch Logs agent is successfully delivering logs to the CloudWatch Logs service. However, logs stop being delivered after the associated log stream has been active for a specific number of hours.

What steps are necessary to identify the cause of this phenomenon? (Choose two.)

- A. Ensure that file permissions for monitored files that allow the CloudWatch Logs agent to read the file have not been modified.
- B. Verify that the OS Log rotation rules are compatible with the configuration requirements for agent streaming.
- C. Configure an Amazon Kinesis producer to first put the logs into Amazon Kinesis Streams.
- D. Create a CloudWatch Logs metric to isolate a value that changes at least once during the period before logging stops.
- E. Use IAM CloudFormation to dynamically create and maintain the configuration file for the CloudWatch Logs agent.

**Answer: AB**

#### Explanation:

[https://acloud.guru/forums/IAM-certified-security-specialty/discussion/-Lm5A3w6\\_NybQPhh6tRP/Cloudwatch](https://acloud.guru/forums/IAM-certified-security-specialty/discussion/-Lm5A3w6_NybQPhh6tRP/Cloudwatch)

#### NEW QUESTION 269

- (Exam Topic 2)

You have just received an email from IAM Support stating that your IAM account might have been

compromised. Which of the following steps would you look to carry out immediately. Choose 3 answers from the options below.

Please select:

- A. Change the root account password.
- B. Rotate all IAM access keys
- C. Keep all resources running to avoid disruption
- D. Change the password for all IAM users.

**Answer: ABD**

**Explanation:**

One of the articles from IAM mentions what should be done in such a scenario

If you suspect that your account has been compromised, or if you have received a notification from IAM that the account has been compromised, perform the following tasks:

Change your IAM root account password and the passwords of any IAM users.

Delete or rotate all root and IAM Identity and Access Management (IAM) access keys.

Delete any resources on your account you didn't create, especially running EC2 instances, EC2 spot bids, or IAM users.

Respond to any notifications you received from IAM Support through the IAM Support Center.

Option C is invalid because there could be compromised instances or resources running on your environment. They should be shutdown or stopped immediately.

For more information on the article, please visit the below URL: <https://IAM.amazon.com/premiumsupport/knowledge-center/potential-account-compromise>

The correct answers are: Change the root account password. Rotate all IAM access keys. Change the password for all IAM users. Submit your Feedback/Queries to our Experts

**NEW QUESTION 272**

- (Exam Topic 3)

Your company has mandated that all data in IAM be encrypted at rest. How can you achieve this for EBS volumes? Choose 2 answers from the options given below

Please select:

- A. Use Windows bit locker for EBS volumes on Windows instances
- B. Use TrueEncrypt for EBS volumes on Linux instances
- C. Use IAM Systems Manager to encrypt the existing EBS volumes
- D. Boot EBS volume can be encrypted during launch without using custom AMI

**Answer:** AB

**Explanation:**

EBS encryption can also be enabled when the volume is created and not for existing volumes. One can use existing tools for OS level encryption.

Option C is incorrect.

IAM Systems Manager is a management service that helps you automatically collect software inventory, apply OS patches, create system images, and configure Windows and Linux operating systems.

Option D is incorrect

You cannot choose to encrypt a non-encrypted boot volume on instance launch. To have encrypted boot volumes during launch, your custom AMI must have its boot volume encrypted before launch.

For more information on the Security Best practices, please visit the following URL: [com/whit Security Practices](https://aws.amazon.com/whit).

The correct answers are: Use Windows bit locker for EBS volumes on Windows instances. Use TrueEncrypt for EBS volumes on Linux instances

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**NEW QUESTION 275**

- (Exam Topic 3)

When managing permissions for the API gateway, what can be used to ensure that the right level of permissions are given to developers, IT admins and users?

These permissions should be easily managed.

Please select:

- A. Use the secure token service to manage the permissions for the different users
- B. Use IAM Policies to create different policies for the different types of users.
- C. Use the IAM Config tool to manage the permissions for the different users
- D. Use IAM Access Keys to create sets of keys for the different types of users.

**Answer:** B

**Explanation:**

The IAM Documentation mentions the following

You control access to Amazon API Gateway with IAM permissions by controlling access to the following two API Gateway component processes:

\* To create, deploy, and manage an API in API Gateway, you must grant the API developer permissions to perform the required actions supported by the API management component of API Gateway.

\* To call a deployed API or to refresh the API caching, you must grant the API caller permissions to perform required IAM actions supported by the API execution component of API Gateway.

Option A, C and D are invalid because these cannot be used to control access to IAM services. This needs to be done via policies. For more information on permissions with the API gateway, please visit the following URL:

<https://docs.IAM.amazon.com/apisateway/latest/developerguide/permissions.html>

The correct answer is: Use IAM Policies to create different policies for the different types of users. Submit your Feedback/Queries to our Experts

**NEW QUESTION 277**

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