

# Exam Questions SCS-C02

AWS Certified Security - Specialty

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### NEW QUESTION 1

- (Exam Topic 1)

A Security Engineer has been asked to troubleshoot inbound connectivity to a web server. This single web server is not receiving inbound connections from the internet, whereas all other web servers are functioning properly.

The architecture includes network ACLs, security groups, and a virtual security appliance. In addition, the Development team has implemented Application Load Balancers (ALBs) to distribute the load across all web servers. It is a requirement that traffic between the web servers and the internet flow through the virtual security appliance.

The Security Engineer has verified the following:

- \* 1. The rule set in the Security Groups is correct
- \* 2. The rule set in the network ACLs is correct
- \* 3. The rule set in the virtual appliance is correct

Which of the following are other valid items to troubleshoot in this scenario? (Choose two.)

- A. Verify that the 0.0.0.0/0 route in the route table for the web server subnet points to a NAT gateway.
- B. Verify which Security Group is applied to the particular web server's elastic network interface (ENI).
- C. Verify that the 0.0.0.0/0 route in the route table for the web server subnet points to the virtual security appliance.
- D. Verify the registered targets in the ALB.
- E. Verify that the 0.0.0.0/0 route in the public subnet points to a NAT gateway.

**Answer:** CD

#### Explanation:

<https://docs.IAM.amazon.com/IAMEC2/latest/UserGuide/using-eni.html>

### 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 several thousand Amazon EC2 instances split across production and development environments. Each instance is tagged with its environment. The Engineer needs to analyze and patch all the development EC2 instances to ensure they are not currently exposed to any common vulnerabilities or exposures (CVEs)

Which combination of steps is the MOST efficient way for the Engineer to meet these requirements? (Select TWO.)

- A. Log on to each EC2 instance, check and export the different software versions installed, and verify this against a list of current CVEs.
- B. Install the Amazon Inspector agent on all development instances Build a custom rule package, and configure Inspector to perform a scan using this custom rule on all instances tagged as being in the development environment.
- C. Install the Amazon Inspector agent on all development instances Configure Inspector to perform a scan using the CVE rule package on all instances tagged as being in the development environment.
- D. Install the Amazon EC2 System Manager agent on all development instances Issue the Run command to EC2 System Manager to update all instances
- E. Use IAM Trusted Advisor to check that all EC2 instances have been patched to the most recent version of operating system and installed software.

**Answer:** CD

### NEW QUESTION 4

- (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 5

- (Exam Topic 1)

A Developer is building a serverless application that uses Amazon API Gateway as the front end. The application will not be publicly accessible. Other legacy applications running on Amazon EC2 will make calls to the application A Security Engineer Has been asked to review the security controls for authentication and authorization of the application

Which combination of actions would provide the MOST secure solution? (Select TWO )

- A. Configure an IAM policy that allows the least permissive actions to communicate with the API Gateway Attach the policy to the role used by the legacy EC2 instances
- B. Enable IAM WAF for API Gateway Configure rules to explicitly allow connections from the legacy EC2 instances
- C. Create a VPC endpoint for API Gateway Attach an IAM resource policy that allows the role of the legacy EC2 instances to call specific APIs
- D. Create a usage plan Generate a set of API keys for each application that needs to call the API.
- E. Configure cross-origin resource sharing (CORS) in each API Share the CORS information with the applications that call the API.

**Answer:** AE

#### NEW QUESTION 6

- (Exam Topic 1)

A company has a website with an Amazon CloudFront HTTPS distribution, an Application Load Balancer (ALB) with multiple web instances for dynamic website content, and an Amazon S3 bucket for static website content. The company's security engineer recently updated the website security requirements:

- HTTPS needs to be enforced for all data in transit with specific ciphers.
- The CloudFront distribution needs to be accessible from the internet only. Which solution will meet these requirements?

- A. Set up an S3 bucket policy with the IAMsecuretransport key Configure the CloudFront origin access identity (OAI) with the S3 bucket Configure CloudFront to use specific cipher
- B. Enforce the ALB with an HTTPS listener only and select the appropriate security policy for the ciphers Link the ALB with IAM WAF to allow access from the CloudFront IP ranges.
- C. Set up an S3 bucket policy with the IAM:securetransport ke
- D. Configure the CloudFront origin access identity (OAI) with the S3 bucke
- E. Enforce the ALB with an HTTPS listener only and select the appropriate security policy for the ciphers.
- F. Modify the CloudFront distribution to use IAM WA
- G. Force HTTPS on the S3 bucket with specific ciphers in the bucket polic
- H. Configure an HTTPS listener only for the AL
- I. Set up a security group to limit access to the ALB from the CloudFront IP ranges
- J. Modify the CloudFront distribution to use the ALB as the origi
- K. Enforce an HTTPS listener on the AL
- L. Create a path-based routing rule on the ALB with proxies that connect lo Amazon S3. Create a bucket policy to allow access from these proxies only.

**Answer:** A

#### Explanation:

<https://IAM.amazon.com/blogs/security/automatically-update-IAM-waf-ip-sets-with-IAM-ip-ranges/> to update CF ip range.

#### NEW QUESTION 7

- (Exam Topic 1)

A city is implementing an election results reporting website that will use Amazon GoudFront 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 bucke
- 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 bucke
- 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 CloudFron
- 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 CloudFron
- 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 8

- (Exam Topic 1)

An external Auditor finds that a company's user passwords have no minimum length. The company is currently using two identity providers:

- IAM IAM federated with on-premises Active Directory
- Amazon Cognito user pools to accessing an IAM Cloud application developed by the company Which combination o1 actions should the Security Engineer take to solve this issue? (Select TWO.)

- A. Update the password length policy In the on-premises Active Directory configuration.
- B. Update the password length policy In the IAM configuration.
- C. Enforce an IAM policy In Amazon Cognito and IAM IAM with a minimum password length condition.
- D. Update the password length policy in the Amazon Cognito configuration.
- E. Create an SCP with IAM Organizations that enforces a minimum password length for IAM IAM and Amazon Cognito.

**Answer:** AD

#### NEW QUESTION 9

- (Exam Topic 1)

A company Is building a data lake on Amazon S3. The data consists of millions of small files containing sensitive information. The security team has the following requirements for the architecture:

- Data must be encrypted in transit.
- Data must be encrypted at rest.

• The bucket must be private, but if the bucket is accidentally made public, the data must remain confidential. Which combination of steps would meet the requirements? (Select THREE.)

- A. Enable AES-256 encryption using server-side encryption with Amazon S3-managed encryption keys (SSE-S3) on the S3 bucket
- B. Enable default encryption with server-side encryption with IAM KMS-managed keys (SSE-KMS) on the S3 bucket.
- C. Add a bucket policy that includes a deny if a PutObject request does not include IAMiSecureTcanspopt.
- D. Add a bucket policy with ws: SourceIp to Allow uploads and downloads from the corporate intranet only.
- E. Add a bucket policy that includes a deny if a PutObject request does not include s3:x-amz-sairv9r-side-encyption: "IAM: kms".
- F. Enable Amazon Macie to monitor and act on changes to the data lake's S3 bucket.

**Answer:** BDF

**NEW QUESTION 10**

- (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--fi1ters "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 10**

- (Exam Topic 1)

A Security Engineer discovered a vulnerability in an application running on Amazon ECS. The vulnerability allowed attackers to install malicious code. Analysis of the code shows it exfiltrates data on port 5353 in batches at random time intervals.

While the code of the containers is being patched, how can Engineers quickly identify all compromised hosts and stop the egress of data on port 5353?

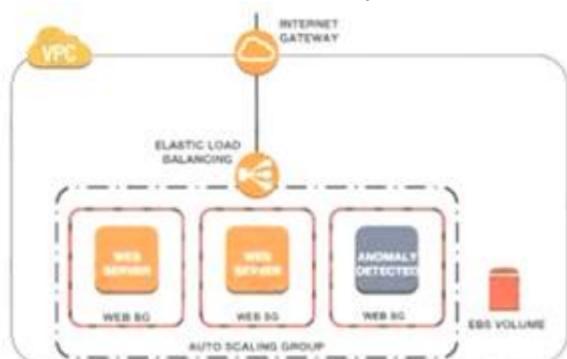
- A. Enable IAM Shield Advanced and IAM WA
- B. Configure an IAM WAF custom filter for egress traffic on port 5353
- C. Enable Amazon Inspector on Amazon ECS and configure a custom assessment to evaluate containers that have port 5353 open
- D. Update the NACLs to block port 5353 outbound.
- E. Create an Amazon CloudWatch custom metric on the VPC Flow Logs identifying egress traffic on port 5353. Update the NACLs to block port 5353 outbound.
- F. Use Amazon Athena to query IAM CloudTrail logs in Amazon S3 and look for any traffic on port 5353. Update the security groups to block port 5353 outbound.

**Answer:** C

**NEW QUESTION 14**

- (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 is causing the anomaly. What are the MOST effective steps to take to 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 EBS 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 image 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 16**

- (Exam Topic 1)

A security engineer is designing an incident response plan to address the risk of a compromised Amazon EC2 instance. The plan must recommend a solution to meet the following requirements:

- A trusted forensic environment must be provisioned
  - Automated response processes must be orchestrated
- Which IAM services should be included in the plan? (Select TWO)

A. IAM CloudFormation

- B. Amazon GuardDuty
- C. Amazon Inspector
- D. Amazon Macie
- E. IAM Step Functions

**Answer:** AE

#### NEW QUESTION 21

- (Exam Topic 1)

A security engineer needs to configure monitoring and auditing for IAM Lambda.

Which combination of actions using IAM services should the security engineer take to accomplish this goal? (Select TWO.)

- A. Use IAM Config to track configuration changes to Lambda functions, runtime environments, tags, handler names, code sizes, memory allocation, timeout settings, and concurrency settings, along with Lambda IAM execution role, subnet, and security group associations.
- B. Use IAM CloudTrail to implement governance, compliance, operational, and risk auditing for Lambda.
- C. Use Amazon Inspector to automatically monitor for vulnerabilities and perform governance, compliance, operational, and risk auditing for Lambda.
- D. Use IAM Resource Access Manager to track configuration changes to Lambda functions, runtime environments, tags, handler names, code sizes, memory allocation, timeout settings, and concurrency settings, along with Lambda IAM execution role, subnet, and security group associations.
- E. Use Amazon Macie to discover, classify, and protect sensitive data being executed inside the Lambda function.

**Answer:** AB

#### NEW QUESTION 26

- (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 files 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 to 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 28

- (Exam Topic 1)

A website currently runs on Amazon EC2 with mostly static content on the site. Recently, the site was subjected to a DDoS attack, and a Security Engineer was tasked with redesigning the edge security to help mitigate this risk in the future.

What are some ways the Engineer could achieve this? (Select THREE.)

- A. Use IAM X-Ray to inspect the traffic going to the EC2 instances.
- B. Move the static content to Amazon S3 and front this with an Amazon CloudFront distribution.
- C. Change the security group configuration to block the source of the attack traffic.
- D. Use IAM WAF security rules to inspect the inbound traffic.
- E. Use Amazon Inspector assessment templates to inspect the inbound traffic.
- F. Use Amazon Route 53 to distribute traffic.

**Answer:** BDF

#### NEW QUESTION 33

- (Exam Topic 1)

A company requires that SSH commands used to access its Amazon EC2 instances be traceable to the user who executed each command.

How should a Security Engineer accomplish this?

- A. Allow inbound access on port 22 at the security group attached to the instance. Use IAM Systems Manager Session Manager for shell access to Amazon EC2 instances with the user tag defined. Enable Amazon CloudWatch logging for Systems Manager sessions.
- B. Use Amazon S3 to securely store one Privacy Enhanced Mail Certificate (PEM file) for each user. Allow Amazon EC2 to read from Amazon S3 and import every user that wants to use SSH to access EC2 instances. Allow inbound access on port 22 at the security group attached to the instance. Install the Amazon CloudWatch agent on the EC2 instance and configure it to ingest audit logs for the instance.
- C. Deny inbound access on port 22 at the security group attached to the instance. Use IAM Systems Manager Session Manager for shell access to Amazon EC2 instances with the user tag defined. Enable Amazon CloudWatch logging for Systems Manager sessions.
- D. Use Amazon S3 to securely store one Privacy Enhanced Mail Certificate (PEM file) for each team or group. Allow Amazon EC2 to read from Amazon S3 and import every user that wants to use SSH to access EC2 instances. Allow inbound access on port 22 at the security group attached to the instance. Install the Amazon CloudWatch agent on the EC2 instance and configure it to ingest audit logs for the instance.

**Answer:** C

#### NEW QUESTION 36

- (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 39

- (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 40

- (Exam Topic 1)

A company's security engineer is configuring Amazon S3 permissions to ban all current and future public buckets However, the company hosts several websites directly off S3 buckets with public access enabled

The engineer needs to block me pubic S3 buckets without causing any outages on me easting websites The engineer has set up an Amazon CloudFrom distribution (or each website

Which set or steps should the security engineer implement next?

- A. Configure an S3 bucket as the origin an origin access identity (OAI) for the CloudFront distribution Switch the DNS records from websites to point to the CloudFront distribution Enable Nock public access settings at the account level
- B. Configure an S3 bucket as the origin with an origin access identity (OAI) for the CloudFront distribution Switch the ONS records tor the websites to point to the CloudFront disinfection Then, tor each S3 bucket enable block public access settings
- C. Configure an S3 bucket as the origin with an origin access identity (OAI) for the CloudFront distribution Enable block public access settings at the account level
- D. Configure an S3 bucket as the origin for me CloudFront distribution Configure the S3 bucket policy to accept connections from the CloudFront points of presence only Switch the DNS records for the websites to point to the CloudFront distribution Enable block public access settings at me account level

**Answer:** A

#### NEW QUESTION 44

- (Exam Topic 1)

A security engineer is responsible for providing secure access to IAM resources for thousands of developer in a company's corporate identity provider (idp). The developers access a set of IAM services from the corporate premises using IAM credential. Due to the velum of require for provisioning new IAM users, it is taking a long time to grant access permissions. The security engineer receives reports that developer are sharing their IAM credentials with others to avoid provisioning delays. The causes concern about overall security for the security engineer.

Which actions will meet the program requirements that address security?

- A. Create an Amazon CloudWatch alarm for IAM CloudTrail Events Create a metric filter to send a notification when me same set of IAM credentials is used by multiple developer
- B. Create a federation between IAM and the existing corporate IdP Leverage IAM roles to provide federated access to IAM resources
- C. Create a VPN tunnel between the corporate premises and the VPC Allow permissions to all IAM services only if it originates from corporate premises.
- D. Create multiple IAM rotes for each IAM user Ensure that users who use the same IAM credentials cannot assume the same IAM role at the same time.

**Answer:** B

#### NEW QUESTION 46

- (Exam Topic 1)

A company has an application hosted in an Amazon EC2 instance and wants the application to access secure strings stored in IAM Systems Manager Parameter Store When the application tries to access the secure string key value, it fails.

Which factors could be the cause of this failure? (Select TWO.)

- A. The EC2 instance role does not have decrypt permissions on the IAM Key Management Sen/ice (IAM KMS) key used to encrypt the secret
- B. The EC2 instance role does not have read permissions to read the parameters In Parameter Store
- C. Parameter Store does not have permission to use IAM Key Management Service (IAM KMS) to decrypt the parameter
- D. The EC2 instance role does not have encrypt permissions on the IAM Key Management Service (IAM KMS) key associated with the secret
- E. The EC2 instance does not have any tags associated.

**Answer:** AB

**Explanation:**

<https://docs.IAM.amazon.com/systems-manager/latest/userguide/sysman-paramstore-access.html>

**NEW QUESTION 47**

- (Exam Topic 1)

After multiple compromises of its Amazon EC2 instances, a company's Security Officer is mandating that memory dumps of compromised instances be captured for further analysis. A Security Engineer just received an EC2 abuse notification report from IAM stating that an EC2 instance running the most recent Windows Server 2019 Base AMI is compromised.

How should the Security Engineer collect a memory dump of the EC2 instance for forensic analysis?

- A. Give consent to the IAM Security team to dump the memory core on the compromised instance and provide it to IAM Support for analysis.
- B. Review memory dump data that the IAM Systems Manager Agent sent to Amazon CloudWatch Logs.
- C. Download and run the EC2Rescue for Windows Server utility from IAM.
- D. Reboot the EC2 Windows Server, enter safe mode, and select memory dump.

**Answer: C**

**Explanation:**

<https://docs.IAM.amazon.com/IAMEC2/latest/WindowsGuide/ec2rw-cli.html>

**NEW QUESTION 49**

- (Exam Topic 1)

A company wants to encrypt the private network between its on-premises environment and IAM. The company also wants a consistent network experience for its employees.

What should the company do to meet these requirements?

- A. Establish an IAM Direct Connect connection with IAM and set up a Direct Connect gateway
- B. In the Direct Connect gateway configuration, enable IPsec and BGP, and then leverage native IAM network encryption between Availability Zones and Regions.
- C. Establish an IAM Direct Connect connection with IAM and set up a Direct Connect gateway
- D. Using the Direct Connect gateway, create a private virtual interface and advertise the customer gateway private IP address
- E. Create a VPN connection using the customer gateway and the virtual private gateway
- F. Establish a VPN connection with the IAM virtual private cloud over the internet
- G. Establish an IAM Direct Connect connection with IAM and establish a public virtual interface
- H. For prefixes that need to be advertised, enter the customer gateway public IP address
- I. Create a VPN connection over Direct Connect using the customer gateway and the virtual private gateway.

**Answer: D**

**NEW QUESTION 51**

- (Exam Topic 1)

A large government organization is moving to the cloud and has specific encryption requirements. The first workload to move requires that a customer's data be immediately destroyed when the customer makes that request.

Management has asked the security team to provide a solution that will securely store the data, allow only authorized applications to perform encryption and decryption and allow for immediate destruction of the data

Which solution will meet these requirements?

- A. Use IAM Secrets Manager and an IAM SDK to create a unique secret for the customer-specific data
- B. Use IAM Key Management Service (IAM KMS) and the IAM Encryption SDK to generate and store a data encryption key for each customer.
- C. Use IAM Key Management Service (IAM KMS) with service-managed keys to generate and store customer-specific data encryption keys
- D. Use IAM Key Management Service (IAM KMS) and create an IAM CloudHSM custom key store Use CloudHSM to generate and store a new CMK for each customer.

**Answer: A**

**NEW QUESTION 56**

- (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 58

- (Exam Topic 1)

A company's on-premises data center forwards DNS logs to a third-party security incident events management (SIEM) solution that alerts on suspicious behavior. The company wants to introduce a similar capability to its IAM accounts that includes automatic remediation. The company expects to double in size within the next few months.

Which solution meets the company's current and future logging requirements?

- A. Enable Amazon GuardDuty and IAM Security Hub in all Regions and all account
- B. Designate a master security account to receive all alerts from the child account
- C. Set up specific rules within Amazon EventBridge to trigger an IAM Lambda function for remediation steps.
- D. Ingest all IAM CloudTrail logs, VPC Flow Logs, and DNS logs into a single Amazon S3 bucket in a designated security account
- E. Use the current on-premises SIEM to monitor the logs and send a notification to an Amazon SNS topic to alert the security team of remediation steps.
- F. Ingest all IAM CloudTrail logs, VPC Flow Logs, and DNS logs into a single Amazon S3 bucket in a designated security account
- G. Launch an Amazon EC2 instance and install the current SIEM to monitor the logs and send a notification to an Amazon SNS topic to alert the security team of remediation steps.
- H. Enable Amazon GuardDuty and IAM Security Hub in all Regions and all account
- I. Designate a master security account to receive all alerts from the child account
- J. Create an IAM Organizations SCP that denies access to certain API calls that are on an ignore list.

**Answer:** A

#### NEW QUESTION 59

- (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.amazonaws.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 64

- (Exam Topic 1)

A company uses Microsoft Active Directory for access management for on-premises resources and wants to use the same mechanism for accessing its IAM accounts. Additionally, the development team plans to launch a public-facing application for which they need a separate authentication solution.

When combining two of the following would satisfy these requirements? (Select TWO)

- A. Set up domain controllers on Amazon EC2 to extend the on-premises directory to IAM
- B. Establish network connectivity between on-premises and the user's VPC
- C. Use Amazon Cognito user pools for application authentication
- D. Use AD Connector for application authentication.
- E. Set up federated sign-in to IAM through ADFS and SAML.

**Answer:** CD

#### NEW QUESTION 69

- (Exam Topic 1)

A company's security team has defined a set of IAM Config rules that must be enforced globally in all IAM accounts the company owns. What should be done to provide a consolidated compliance overview for the security team?

- A. Use IAM Organizations to limit IAM Config rules to the appropriate Regions, and then consolidate the Amazon CloudWatch dashboard into one IAM account.
- B. Use IAM Config aggregation to consolidate the views into one IAM account, and provide role access to the security team.
- C. Consolidate IAM Config rule results with an IAM Lambda function and push data to Amazon SQS
- D. Use Amazon SNS to consolidate and alert when some metrics are triggered.
- E. Use Amazon GuardDuty to load data results from the IAM Config rules compliance status, aggregate GuardDuty findings of all IAM accounts into one IAM account, and provide role access to the security team.

**Answer:** B

#### NEW QUESTION 70

- (Exam Topic 1)

A company is collecting IAM CloudTrail log data from multiple IAM accounts by managing individual trails in each account and forwarding log data to a centralized Amazon S3 bucket residing in a log archive account. After CloudTrail introduced support for IAM Organizations trails, the company decided to further centralize management and automate deployment of the CloudTrail logging capability across all of its IAM accounts.

The company's security engineer created an IAM Organizations trail in the master account, enabled server-side encryption with IAM KMS managed keys (SSE-

KMS) for the log files, and specified the same bucket as the storage location. However, the engineer noticed that logs recorded by the new trail were not delivered to the bucket.

Which factors could cause this issue? (Select TWO.)

- A. The CMK key policy does not allow CloudTrail to make encrypt and decrypt API calls against the key.
- B. The CMK key policy does not allow CloudTrail to make GenerateDataKey API calls against the key.
- C. The IAM role used by the CloudTrail trail does not have permissions to make PutObject API calls against a folder created for the Organizations trail.
- D. The S3 bucket policy does not allow CloudTrail to make PutObject API calls against a folder created for the Organizations trail.
- E. The CMK key policy does not allow the IAM role used by the CloudTrail trail to use the key for cryptographic operations.

**Answer: AD**

#### NEW QUESTION 72

- (Exam Topic 1)

An company is using IAM Secrets Manager to store secrets that are encrypted using a CMK and are stored in the security account 111122223333. One of the company's production accounts, 444455556666, must to retrieve the secret values from the security account 111122223333. A security engineer needs to apply a policy to the secret in the security account based on least privilege access so the production account can retrieve the secret value only.

Which policy should the security engineer apply?

- A. 

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Action": "secretsmanager:*",
      "Principal": {"AWS": "444455556666"},
      "Resource": "*"
    }
  ]
}
```
- B. 

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Action": "secretsmanager:*",
      "Principal": {"AWS": "111122223333"},
      "Resource": "*"
    }
  ]
}
```
- C. 

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Action": "secretsmanager:GetSecretValue",
      "Principal": {"AWS": "111122223333"},
      "Resource": "*"
    }
  ]
}
```
- D. 

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Action": "secretsmanager:GetSecretValue",
      "Principal": {"AWS": "444455556666"},
      "Resource": "*"
    }
  ]
}
```

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

**Answer: A**

#### NEW QUESTION 76

- (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 78

- (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 81**

- (Exam Topic 1)

A company is designing the securely architecture (or a global latency-sensitive web application it plans to deploy to IAM. A Security Engineer needs to configure a highly available and secure two-tier architecture. The security design must include controls to prevent common attacks such as DDoS, cross-site scripting, and SQL injection.

Which solution meets these requirements?

- A. Create an Application Load Balancer (ALB) that uses public subnets across multiple Availability Zones within a single Region
- B. Point the ALB to an Auto Scaling group with Amazon EC2 instances in private subnets across multiple Availability Zones within the same Region
- C. Create an AmazonCloudFront distribution that uses the ALB as its origin
- D. Create appropriate IAM WAF ACLs and enable them on the CloudFront distribution.
- E. Create an Application Load Balancer (ALB) that uses private subnets across multiple Availability Zones within a single Region
- F. Point the ALB to an Auto Scaling group with Amazon EC2 instances in private subnets across multiple Availability Zones within the same Region
- G. Create an Amazon CloudFront distribution that uses the ALB as its origin
- H. Create appropriate IAM WAF ACLs and enable them on the CloudFront distribution.
- I. Create an Application Load Balancer (ALB) that uses public subnets across multiple Availability Zones within a single Region
- J. Point the ALB to an Auto Scaling group with Amazon EC2 instances in private subnets across multiple Availability Zones within the same Region
- K. Create appropriate IAM WAF ACLs and enable them on the ALB.
- L. Create an Application Load Balancer (ALB) that uses private subnets across multiple Availability Zones within a single Region
- M. Point the ALB to an Auto Scaling group with Amazon EC2 instances in private subnets across multiple Availability Zones within the same Region
- N. Create appropriate IAM WAF ACLs and enable them on the ALB.

**Answer: A**

**NEW QUESTION 84**

- (Exam Topic 1)

A Security Engineer for a large company is managing a data processing application used by 1,500 subsidiary companies. The parent and subsidiary companies all use IAM. The application uses TCP port 443 and runs on Amazon EC2 behind a Network Load Balancer (NLB). For compliance reasons, the application should only be accessible to the subsidiaries and should not be available on the public internet. To meet the compliance requirements for restricted access, the Engineer has received the public and private CIDR block ranges for each subsidiary

What solution should the Engineer use to implement the appropriate access restrictions for the application?

- A. Create a NACL to allow access on TCP port 443 from the 1,500 subsidiary CIDR block ranges. Associate the NACL to both the NLB and EC2 instances
- B. Create an IAM security group to allow access on TCP port 443 from the 1,500 subsidiary CIDR block range
- C. Associate the security group to the NLB
- D. Create a second security group for EC2 instances with access on TCP port 443 from the NLB security group.
- E. Create an IAM PrivateLink endpoint service in the parent company account attached to the NLB
- F. Create an IAM security group for the instances to allow access on TCP port 443 from the IAM PrivateLink endpoint
- G. Use IAM PrivateLink interface endpoints in the 1,500 subsidiary IAM accounts to connect to the data processing application.
- H. Create an IAM security group to allow access on TCP port 443 from the 1,500 subsidiary CIDR block range
- I. Associate the security group with EC2 instances.

**Answer: D**

**NEW QUESTION 85**

- (Exam Topic 1)

A Security Engineer is setting up an IAM CloudTrail trail for all regions in an IAM account. For added security, the logs are stored using server-side encryption with IAM KMS-managed keys (SSE-KMS) and have log integrity validation enabled.

While testing the solution, the Security Engineer discovers that the digest files are readable, but the log files are not. What is the MOST likely cause?

- A. The log files fail integrity validation and automatically are marked as unavailable.

- B. The KMS key policy does not grant the Security Engineer's IAM user or role permissions to decrypt with it.
- C. The bucket is set up to use server-side encryption with Amazon S3-managed keys (SSE-S3) as the default and does not allow SSE-KMS-encrypted files.
- D. An IAM policy applicable to the Security Engineer's IAM user or role denies access to the "CloudTrail/" prefix in the Amazon S3 bucket

**Answer:** B

**Explanation:**

Enabling server-side encryption encrypts the log files but not the digest files with SSE-KMS. Digest files are encrypted with Amazon S3-managed encryption keys (SSE-S3). <https://docs.IAM.amazon.com/IAMcloudtrail/latest/userguide/encrypting-cloudtrail-log-files-with-IAM-kms.htm>

**NEW QUESTION 89**

- (Exam Topic 1)

A company hosts a web-based application that captures and stores sensitive data in an Amazon DynamoDB table. A security audit reveals that the application does not provide end-to-end data protection or the ability to detect unauthorized data changes. The software engineering team needs to make changes that will address the audit findings.

Which set of steps should the software engineering team take?

- A. Use an IAM Key Management Service (IAM KMS) CM
- B. Encrypt the data at rest.
- C. Use IAM Certificate Manager (ACM) Private Certificate Authority. Encrypt the data in transit.
- D. Use a DynamoDB encryption client
- E. Use client-side encryption and sign the table items
- F. Use the IAM Encryption SDK
- G. Use client-side encryption and sign the table items.

**Answer:** A

**NEW QUESTION 93**

- (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 96**

- (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 so that 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 `"${IAM:username}"` variable.
- C. Create a customer-managed CMK for each user
- D. Add each user as a key user in their corresponding key policy.
- E. Change the applicable IAM policy to grant S3 access to `"Resource": "arn:iam:s3:::examplebucket/${IAM:username}/*"`

**Answer:** B

**Explanation:**

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

**NEW QUESTION 98**

- (Exam Topic 1)

A company's web application is hosted on Amazon EC2 instances running behind an Application Load Balancer (ALB) in an Auto Scaling group. An IAM WAF web ACL is associated with the ALB. IAM CloudTrail is enabled, and stores logs in Amazon S3 and Amazon CloudWatch Logs.

The operations team has observed some EC2 instances reboot at random. After rebooting, all access logs on the instances have been deleted. During an investigation, the operations team found that each reboot happened just after a PHP error occurred on the `new-user-creation.php` file. The operations team needs to view log information to determine if the company is being attacked.

Which set of actions will identify the suspect attacker's IP address for future occurrences?

- A. Configure VPC Flow Logs on the subnet where the ALB is located, and stream the data to CloudWatch. Search for the `new-user-creation.php` occurrences in CloudWatch.
- B. Configure the CloudWatch agent on the ALB. Configure the agent to send application logs to CloudWatch. Update the instance role to allow CloudWatch Logs access.
- C. Export the logs to CloudWatch. Search for the `new-user-creation.php` occurrences in CloudWatch.
- D. Configure the ALB to export access logs to an Amazon Elasticsearch Service cluster, and use the service to search for the `new-user-creation.php` occurrences.
- E. Configure the web ACL to send logs to Amazon Kinesis Data Firehose, which delivers the logs to an S3 bucket. Use Amazon Athena to query the logs and find the `new-user-creation.php` occurrences.

**Answer:** D

**Explanation:**

You send logs from your web ACL to an Amazon Kinesis Data Firehose with a configured storage destination. After you enable logging, IAM WAF delivers logs to your storage destination through the HTTPS endpoint of Kinesis Data Firehose. <https://docs.IAM.amazon.com/waf/latest/developerguide/logging.html>

**NEW QUESTION 100**

- (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 be 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 tools at the S3 bucket the CloudTrail trails are being written to Use Athena to run queries against the trails.

**Answer: D**

**NEW QUESTION 101**

- (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 me 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 process to allow encryption and decryption of the CMKs to their respective teams onl
- 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 onl
- 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 102**

- (Exam Topic 1)

A recent security audit identified that a company's application team injects database credentials into the environment variables of an IAM Fargate task. The company's security policy mandates that all sensitive data be encrypted at rest and in transit.

When combination of actions should the security team take to make the application compliant within the security policy? (Select THREE)

- A. Store the credentials securely in a file in an Amazon S3 bucket with restricted access to the application team IAM role Ask the application team to read the credentials from the S3 object instead
- B. Create an IAM Secrets Manager secret and specify the key/value pairs to be stored in this secret
- C. Modify the application to pull credentials from the IAM Secrets Manager secret instead of the environment variables.
- D. Add the following statement to the container instance IAM role policy

```
{
  "Effect": "Allow",
  "Action": [
    "ssm:GetParameters",
    "secretsmanager:GetSecretValue",
    "kms:Decrypt"
  ],
  "Resource": [
    "arn:aws:secretsmanager:<region>:<aws_account_id>:secret:secret_name",
    "arn:aws:kms:<region>:<aws_account_id>:key/key_id"
  ]
}
```

E. Add the following statement to the execution role policy.

```
{
  "Effect": "Allow",
  "Action": [
    "ssm:GetParameters",
    "secretsmanager:GetSecretValue",
    "kms:Decrypt"
  ],
  "Resource": [
    "arn:aws:secretsmanager:<region>:<aws_account_id>:secret:secret_name",
    "arn:aws:kms:<region>:<aws_account_id>:key/key_id"
  ]
}
```

- F. Log in to the IAM Fargate instance, create a script to read the secret value from IAM Secret Manager, and inject the environment variable
- G. Ask the application team to redeploy the application.

**Answer: BEF**

**NEW QUESTION 107**

- (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 111

- (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 116

- (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 When 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 3<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 CM
- 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 119

- (Exam Topic 1)

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

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

How can the Security Engineer provide the Developer with Amazon S3 access without affecting other accounts?

- A. Move the SCP to the root OU of Organizations to remove the restriction to access Amazon S3.
- B. Add an IAM policy for the Developer, which grants S3 access.
- C. Create a new OU without applying the SCP restricting S3 access
- D. Move the Developer account to this new OU.
- E. Add an allow list for the Developer account for the S3 service.

**Answer: C**

#### NEW QUESTION 123

- (Exam Topic 1)

A company has a VPC with an IPv6 address range and a public subnet with an IPv6 address block. The VPC currently hosts some public Amazon EC2 instances but a Security Engineer needs to migrate a second application into the VPC that also requires IPv6 connectivity.

This new application will occasionally make API requests to an external, internet-accessible endpoint to receive updates However, the Security team does not want the application's EC2 instance exposed directly to the internet The Security Engineer intends to create a private subnet with a custom route table and to associate the route table with the private subnet

What else does the Security Engineer need to do to ensure the application will not be exposed directly to the internet, but can still communicate as required"

- A. Launch a NAT instance in the public subnet Update the custom route table with a new route to the NAT instance
- B. Remove the internet gateway, and add IAM PrivateLink to the VPC Then update the custom route table with a new route to IAM PrivateLink
- C. Add a managed NAT gateway to the VPC Update the custom route table with a new route to the gateway
- D. Add an egress-only internet gateway to the VP
- E. Update the custom route table with a new route to the gateway

Answer: D

**NEW QUESTION 128**

- (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 129**

- (Exam Topic 1)

A company is running an application on Amazon EC2 instances in an Auto Scaling group. The application stores logs locally. A security engineer noticed that logs were lost after a scale-in event. The security engineer needs to recommend a solution to ensure the durability and availability of log data. All logs must be kept for a minimum of 1 year for auditing purposes. What should the security engineer recommend?

- A. Within the Auto Scaling lifecycle, add a hook to create and attach an Amazon Elastic Block Store (Amazon EBS) log volume each time an EC2 instance is created.
- B. When the instance is terminated, the EBS volume can be reattached to another instance for log review.
- C. Create an Amazon Elastic File System (Amazon EFS) file system and add a command in the user data section of the Auto Scaling launch template to mount the EFS file system during EC2 instance creation. Configure a process on the instance to copy the logs once a day from an instance Amazon Elastic Block Store (Amazon EBS) volume to a directory in the EFS file system.
- D. Build the Amazon CloudWatch agent into the AMI used in the Auto Scaling group.
- E. Configure the CloudWatch agent to send the logs to Amazon CloudWatch Logs for review.
- F. Within the Auto Scaling lifecycle, add a lifecycle hook at the terminating state transition and alert the engineering team by using a lifecycle notification to Amazon Simple Notification Service (Amazon SNS). Configure the hook to remain in the Terminating:Wait state for 1 hour to allow manual review of the security logs prior to instance termination.

Answer: B

**NEW QUESTION 132**

- (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 in IAM Security Hub.
- 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 135**

- (Exam Topic 1)

A Security Engineer manages IAM Organizations for a company. The Engineer would like to restrict IAM usage to allow Amazon S3 only in one of the organizational units (OUs). The Engineer adds the following SCP to the OU:

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Sid": "AllowS3",
      "Effect": "Allow",
      "Action": "s3:*",
      "Resource": "*"
    }
  ]
}
```

The next day, API calls to IAM appear in IAM CloudTrail logs in an account under that OU. How should the Security Engineer resolve this issue?

- A. Move the account to a new OU and deny IAM:\* permissions.
- B. Add a Deny policy for all non-S3 services at the account level.
- C. Change the policy to:{"Version": "2012-10-17", "Statement": [{"Sid": "AllowS3", "Effect": "Allow", "Action": "s3:\*", "Resource": "\*/\*\*"}]}
- D. Detach the default FullIAMAccess SCP

**Answer:** D

**Explanation:**

[https://docs.IAM.amazon.com/organizations/latest/APIReference/API\\_DetachPolicy.html](https://docs.IAM.amazon.com/organizations/latest/APIReference/API_DetachPolicy.html)

Every root, OU, and account must have at least one SCP attached. If you want to replace the default FullIAMAccess policy with an SCP that limits the permissions that can be delegated, you must attach the replacement SCP before you can remove the default SCP. This is the authorization strategy of an "allow list". If you instead attach a second SCP and leave the FullIAMAccess SCP still attached, and specify "Effect": "Deny" in the second SCP to override the "Effect": "Allow" in the FullIAMAccess policy (or any other attached SCP), you're using the authorization strategy of a "deny list".

**NEW QUESTION 140**

- (Exam Topic 1)

A company has several production IAM accounts and a central security IAM account. The security account is used for centralized monitoring and has IAM privileges to all resources in every corporate account. All of the company's Amazon S3 buckets are tagged with a value denoting the data classification of their contents.

A Security Engineer is deploying a monitoring solution in the security account that will enforce bucket policy compliance. The system must monitor S3 buckets in all production accounts and confirm that any policy change is in accordance with the bucket's data classification. If any change is out of compliance; the Security team must be notified quickly.

Which combination of actions would build the required solution? (Choose three.)

- A. Configure Amazon CloudWatch Events in the production accounts to send all S3 events to the security account event bus.
- B. Enable Amazon GuardDuty in the security account
- C. and join the production accounts as members.
- D. Configure an Amazon CloudWatch Events rule in the security account to detect S3 bucket creation or modification events.
- E. Enable IAM Trusted Advisor and activate email notifications for an email address assigned to the security contact.
- F. Invoke an IAM Lambda function in the security account to analyze S3 bucket settings in response to S3 events, and send non-compliance notifications to the Security team.
- G. Configure event notifications on S3 buckets for PUT; POST, and DELETE events.

**Answer:** DEF

**NEW QUESTION 145**

- (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 instanc
- D. Attach the encrypted and suspicious EBS volum
- E. Copy data from the suspicious volume to an unencrypted volum
- F. Snapshot the unencrypted volume
- G. Copy the EBS snapshot to the new decrypted snapshot
- H. Restore a volume from the suspicious EBS snapsho
- I. Create an unencrypted EBS volume of the same size.
- J. Share the target EBS snapshot with the forensics account.

**Answer:** ABF

**NEW QUESTION 146**

- (Exam Topic 1)

A Solutions Architect is designing a web application that uses Amazon CloudFront, an Elastic Load Balancing Application Load Balancer, and an Auto Scaling group of Amazon EC2 instances. The load balancer and EC2 instances are in the US West (Oregon) region. It has been decided that encryption in transit is necessary by using a customer-branded domain name from the client to CloudFront and from CloudFront to the load balancer.

Assuming that IAM Certificate Manager is used, how many certificates will need to be generated?

- A. One in the US West (Oregon) region and one in the US East (Virginia) region.
- B. Two in the US West (Oregon) region and none in the US East (Virginia) region.
- C. One in the US West (Oregon) region and none in the US East (Virginia) region.
- D. Two in the US East (Virginia) region and none in the US West (Oregon) region.

**Answer:** A

**Explanation:**

Why? If you want to require HTTPS between viewers and CloudFront, you must change the IAM Region to US East (N. Virginia) in the IAM Certificate Manager console before you request or import a certificate. If you want to require HTTPS between CloudFront and your origin, and you're using an ELB load balancer as your origin, you can request or import a certificate in any Region.

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

**NEW QUESTION 147**

- (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 created event notification to an Amazon SNS topic. An Amazon SQS queue is subscribed to this SNS topic. The company's SEM 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 SEM 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 SEM tool does not have permission to subscribe to the SNS topic
- F. The IAM role used by the SEM tool does not allow the SQS DeleteMessage action.

**Answer:** ADF

**NEW QUESTION 150**

- (Exam Topic 1)

A developer is creating an IAM Lambda function that requires environment variables to store connection information and logging settings. The developer is required to use an IAM KMS Customer Master Key (CMK) supplied by the information security department in order to adhere to company standards for securing Lambda environment variables.

Which of the following are required for this configuration to work? (Select TWO.)

- A. The developer must configure Lambda access to the VPC using the --vpc-config parameter.
- B. The Lambda function execution role must have the kms:Decrypt permission added in the IAM IAM policy.
- C. The KMS key policy must allow permissions for the developer to use the KMS key.
- D. The IAM IAM policy assigned to the developer must have the kms:GenerateDataKey permission added.
- E. The Lambda execution role must have the kms:Encrypt permission added in the IAM IAM policy.

**Answer:** BC

**NEW QUESTION 153**

- (Exam Topic 1)

A security engineer has noticed that VPC Flow Logs are getting a lot 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 EC2 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 155**

- (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"
  ],
  "Resource": "*"
}
```

```
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 157

- (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 CMK
- 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 160

- (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 resource
- 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 161

- (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 166

- (Exam Topic 1)

A company has a compliance requirement to rotate its encryption keys on an annual basis. A Security Engineer needs a process to rotate the KMS Customer Master Keys (CMKs) that were created using imported key material.

How can the Engineer perform the key rotation process MOST efficiently?

- A. Create a new CMK, and redirect the existing Key Alias to the new CMK
- B. Select the option to auto-rotate the key
- C. Upload new key material into the existing CMK.
- D. Create a new CMK, and change the application to point to the new CMK

Answer: A

#### NEW QUESTION 171

- (Exam Topic 2)

The Security Engineer created a new IAM Key Management Service (IAM KMS) key with the following key policy:

```
{
  "Effect": "Allow",
  "Principal": {"AWS": "arn:aws:iam::111122223333:root"},
  "Action": "kms:*";
  "Resource": "*"
}
```

What are the effects of the key policy? (Choose two.)

- A. The policy allows access for the IAM account 111122223333 to manage key access through IAM policies.
- B. The policy allows all IAM users in account 111122223333 to have full access to the KMS key.
- C. The policy allows the root user in account 111122223333 to have full access to the KMS key.
- D. The policy allows the KMS service-linked role in account 111122223333 to have full access to the KMS key.
- E. The policy allows all IAM roles in account 111122223333 to have full access to the KMS key.

Answer: AC

#### Explanation:

Giving the IAM account full access to the CMK does this; it enables you to use IAM policies to give IAM users and roles in the account access to the CMK. It does not by itself give any IAM users or roles access to the CMK, but it enables you to use IAM policies to do so.

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

#### NEW QUESTION 173

- (Exam Topic 2)

The Security Engineer implemented a new vault lock policy for 10TB of data and called initiate-vault-lock 12 hours ago. The Audit team identified a typo that is allowing incorrect access to the vault.

What is the MOST cost-effective way to correct this?

- A. Call the abort-vault-lock operation, fix the typo, and call the initiate-vault-lock again.
- B. Copy the vault data to Amazon S3, delete the vault, and create a new vault with the data.
- C. Update the policy, keeping the vault lock in place.
- D. Update the policy and call initiate-vault-lock again to apply the new policy.

Answer: A

#### Explanation:

Initiate the lock by attaching a vault lock policy to your vault, which sets the lock to an in-progress state and returns a lock ID. While in the in-progress state, you have 24 hours to validate your vault lock policy before the lock ID expires. Use the lock ID to complete the lock process. If the vault lock policy doesn't work as expected, you can abort the lock and restart from the beginning. For information on how to use the S3 Glacier API to lock a vault, see Locking a Vault by Using the Amazon S3 Glacier API. <https://docs.IAM.amazon.com/amazonglacier/latest/dev/vault-lock-policy.html>

#### NEW QUESTION 178

- (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 183

- (Exam Topic 2)

Your company has an EC2 Instance that is hosted in an IAM VPC. There is a requirement to ensure that logs files from the EC2 Instance are stored accordingly. The access should also be limited for the destination of the log files. How can this be accomplished? Choose 2 answers from the options given below. Each answer forms part of the solution  
Please select:

- A. Stream the log files to a separate Cloudtrail trail
- B. Stream the log files to a separate Cloudwatch Log group
- C. Create an IAM policy that gives the desired level of access to the Cloudtrail trail
- D. Create an IAM policy that gives the desired level of access to the Cloudwatch Log group

**Answer: BD**

**Explanation:**

You can create a Log group and send all logs from the EC2 Instance to that group. You can then limit the access to the Log groups via an IAM policy. Option A is invalid because Cloudtrail is used to record API activity and not for storing log files Option C is invalid because Cloudtrail is the wrong service to be used for this requirement

For more information on Log Groups and Log Streams, please visit the following URL:

\* <https://docs.IAM.amazon.com/AmazonCloudWatch/latest/logs/Workin>

For more information on Access to Cloudwatch logs, please visit the following URL:

\* <https://docs.IAM.amazon.com/AmazonCloudWatch/latest/logs/auth-and-access-control-cwl.html>

The correct answers are: Stream the log files to a separate Cloudwatch Log group. Create an IAM policy that gives the desired level of access to the Cloudwatch Log group

Submit your Feedback/Queries to our Experts

**NEW QUESTION 184**

- (Exam Topic 2)

You have a web site that is sitting behind IAM Cloudfront. You need to protect the web site against threats such as SQL injection and Cross site scripting attacks. Which of the following service can help in such a scenario Please select:

- A. IAM Trusted Advisor
- B. IAM WAF
- C. IAM Inspector
- D. IAM Config

**Answer: B**

**Explanation:**

The IAM Documentation mentions the following

IAM WAF is a web application firewall that helps detect and block malicious web requests targeted at your web applications. IAM WAF allows you to create rules that can help protect against common web exploits like SQL injection and cross-site scripting. With IAM WAF you first identify the resource (either an Amazon CloudFront distribution or an Application Load Balancer) that you need to protect.

Option A is invalid because this will only give advise on how you can better the security in your IAM account but not protect against threats mentioned in the question.

Option C is invalid because this can be used to scan EC2 Instances for vulnerabilities but not protect against threats mentioned in the question.

Option D is invalid because this can be used to check config changes but not protect against threats mentioned in the quest

For more information on IAM WAF, please visit the following URL: <https://IAM.amazon.com/waf/details>;

The correct answer is: IAM WAF

Submit your Feedback/Queries to our Experts

**NEW QUESTION 188**

- (Exam Topic 2)

During a recent internal investigation, it was discovered that all API logging was disabled in a production account, and the root user had created new API keys that appear to have been used several times.

What could have been done to detect and automatically remediate the incident?

- A. Using Amazon Inspector, review all of the API calls and configure the inspector agent to leverage SNS topics to notify security of the change to IAM CloudTrail, and revoke the new API keys for the root user.
- B. Using IAM Config, create a config rule that detects when IAM CloudTrail is disabled, as well as any calls to the root user create-api-ke
- C. Then use a Lambda function to re-enable CloudTrail logs and deactivate the root API keys.
- D. Using Amazon CloudWatch, create a CloudWatch event that detects IAM CloudTrail deactivation and a separate Amazon Trusted Advisor check to automatically detect the creation of root API key
- E. Then use a Lambda function to enable IAM CloudTrail and deactivate the root API keys.
- F. Using Amazon CloudTrail, create a new CloudTrail event that detects the deactivation of CloudTrail logs, and a separate CloudTrail event that detects the creation of root API key
- G. Then use a Lambda function to enable CloudTrail and deactivate the root API keys.

**Answer: B**

**Explanation:**

<https://docs.IAM.amazon.com/config/latest/developerguide/cloudtrail-enabled.html> <https://docs.IAM.amazon.com/config/latest/developerguide/iam-root-access-key-check.html>

**NEW QUESTION 189**

- (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 functio

- 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 classificatio
- 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 classificatio
- 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 classificatio
- H. For identified objects that contain PII, query the S3 bucket logs by using Athena for GET operations.

**Answer: B**

#### NEW QUESTION 191

- (Exam Topic 2)

The Security Engineer has discovered that a new application that deals with highly sensitive data is storing Amazon S3 objects with the following key pattern, which itself contains highly sensitive data.

Pattern: "randomID\_datestamp\_PII.csv" Example:

"1234567\_12302017\_000-00-0000 csv"

The bucket where these objects are being stored is using server-side encryption (SSE). Which solution is the most secure and cost-effective option to protect the sensitive data?

- A. Remove the sensitive data from the object name, and store the sensitive data using S3 user-defined metadata.
- B. Add an S3 bucket policy that denies the action s3:GetObject
- C. Use a random and unique S3 object key, and create an S3 metadata index in Amazon DynamoDB using client-side encrypted attributes.
- D. Store all sensitive objects in Binary Large Objects (BLOBS) in an encrypted Amazon RDS instance.

**Answer: C**

#### Explanation:

<https://docs.IAM.amazon.com/AmazonS3/latest/dev/UsingMetadata.html> <https://IAM.amazon.com/blogs/database/best-practices-for-securing-sensitive-data-in-IAM-data-stores/>

#### NEW QUESTION 195

- (Exam Topic 2)

An organization has three applications running on IAM, each accessing the same data on Amazon S3. The data on Amazon S3 is server-side encrypted by using an IAM KMS Customer Master Key (CMK).

What is the recommended method to ensure that each application has its own programmatic access control permissions on the KMS CMK?

- A. Change the key policy permissions associated with the KMS CMK for each application when it must access the data in Amazon S3.
- B. Have each application assume an IAM role that provides permissions to use the IAM Certificate Manager CMK.
- C. Have each application use a grant on the KMS CMK to add or remove specific access controls on the KMS CMK.
- D. Have each application use an IAM policy in a user context to have specific access permissions on the KMS CMK.

**Answer: C**

#### NEW QUESTION 197

- (Exam Topic 2)

A company has Windows Amazon EC2 instances in a VPC that are joined to on-premises Active Directory servers for domain services. The security team has enabled Amazon GuardDuty on the IAM account to alert on issues with the instances.

During a weekly audit of network traffic, the Security Engineer notices that one of the EC2 instances is attempting to communicate with a known command-and-control server but failing. This alert does not show up in GuardDuty.

Why did GuardDuty fail to alert to this behavior?

- A. GuardDuty did not have the appropriate alerts activated.
- B. GuardDuty does not see these DNS requests.
- C. GuardDuty only monitors active network traffic flow for command-and-control activity.
- D. GuardDuty does not report on command-and-control activity.

**Answer: B**

#### Explanation:

[https://docs.IAM.amazon.com/guardduty/latest/ug/guardduty\\_data-sources.html](https://docs.IAM.amazon.com/guardduty/latest/ug/guardduty_data-sources.html) [https://docs.IAM.amazon.com/guardduty/latest/ug/guardduty\\_backdoor.html](https://docs.IAM.amazon.com/guardduty/latest/ug/guardduty_backdoor.html)

#### NEW QUESTION 202

- (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 polic
- B. Add the role to an EC2 instance profil
- 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 polic
- G. Add the role to an EC2 instance profil
- 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 204

- (Exam Topic 2)

A Security Engineer is working with a Product team building a web application on IAM. The application uses Amazon S3 to host the static content, Amazon API Gateway to provide RESTful services; and Amazon DynamoDB as the backend data store. The users already exist in a directory that is exposed through a SAML identity provider.

Which combination of the following actions should the Engineer take to enable users to be authenticated into the web application and call APIs? (Choose three.)

- A. Create a custom authorization service using IAM Lambda.
- B. Configure a SAML identity provider in Amazon Cognito to map attributes to the Amazon Cognito user pool attributes.
- C. Configure the SAML identity provider to add the Amazon Cognito user pool as a relying party.
- D. Configure an Amazon Cognito identity pool to integrate with social login providers.
- E. Update DynamoDB to store the user email addresses and passwords.
- F. Update API Gateway to use a COGNITO\_USER\_POOLS authorizer.

**Answer: BDE**

#### NEW QUESTION 208

- (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 209

- (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 214

- (Exam Topic 2)

A company is using CloudTrail to log all IAM API activity for all regions in all of its accounts. The CISO has asked that additional steps be taken to protect the integrity of the log files.

What combination of steps will protect the log files from intentional or unintentional alteration? Choose 2 answers from the options given below

Please select:

- A. Create an S3 bucket in a dedicated log account and grant the other accounts write only access
- B. Deliver all log files from every account to this S3 bucket.
- C. Write a Lambda function that queries the Trusted Advisor Cloud Trail check
- D. Run the function every 10 minutes.
- E. Enable CloudTrail log file integrity validation

- F. Use Systems Manager Configuration Compliance to continually monitor the access policies of S3 buckets containing Cloud Trail logs.
- G. Create a Security Group that blocks all traffic except calls from the CloudTrail service.
- H. Associate the security group with all the Cloud Trail destination S3 buckets.

**Answer:** AC

**Explanation:**

The IAM Documentation mentions the following

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

Option B is invalid because there is no such thing as Trusted Advisor Cloud Trail checks Option D is invalid because Systems Manager cannot be used for this purpose.

Option E is invalid because Security Groups cannot be used to block calls from other services For more information on Cloudtrail log file validation, please visit the below URL:

<https://docs.IAM.amazon.com/IAMcloudtrail/latest/userguide/cloudtrail-loc-file-validation-intro.html> For more information on delivering Cloudtrail logs from multiple accounts, please visit the below URL:

<https://docs.IAM.amazon.com/IAMcloudtrail/latest/userguide/cloudtrail-receive-logs-from-multiple-accounts.html>

The correct answers are: Create an S3 bucket in a dedicated log account and grant the other accounts write only access. Deliver all log files from every account to this S3 bucket, Enable Cloud Trail log file integrity validation

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**NEW QUESTION 218**

- (Exam Topic 2)

What is the function of the following IAM Key Management Service (KMS) key policy attached to a customer master key (CMK)?

```
{
  "Effect": "Allow",
  "Principal": {
    "AWS": "arn:aws:iam::111122223333:user/ExampleUser"
  },
  "Action": [
    "kms:Encrypt",
    "kms:Decrypt",
    "kms:GenerateDataKey*",
    "kms:CreateGrant",
    "kms:ListGrants"
  ],
  "Resource": "*",
  "Condition": {
    "StringEquals": {
      "kms:ViaService": [
        "workmail.us-west-2.amazonaws.com",
        "ses.us-west-2.amazonaws.com"
      ]
    }
  }
}
```

- A. The Amazon WorkMail and Amazon SES services have delegated KMS encrypt and decrypt permissions to the ExampleUser principal in the 111122223333 account.
- B. The ExampleUser principal can transparently encrypt and decrypt email exchanges specifically between ExampleUser and IAM.
- C. The CMK is to be used for encrypting and decrypting only when the principal is ExampleUser and the request comes from WorkMail or SES in the specified region.
- D. The key policy allows WorkMail or SES to encrypt or decrypt on behalf of the user for any CMK in the account.

**Answer:** C

**NEW QUESTION 222**

- (Exam Topic 2)

A company wants to have a secure way of generating, storing and managing cryptographic exclusive access for the 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 design 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 223

- (Exam Topic 2)

Some highly sensitive analytics workloads are to be moved to Amazon EC2 hosts. Threat modeling has found that a risk exists where a subnet could be maliciously or accidentally exposed to the internet.

Which of the following mitigations should be recommended?

- A. Use IAM Config to detect whether an Internet Gateway is added and use an IAM Lambda function to provide auto-remediation.
- B. Within the Amazon VPC configuration, mark the VPC as private and disable Elastic IP addresses.
- C. Use IPv6 addressing exclusively on the EC2 hosts, as this prevents the hosts from being accessed from the internet.
- D. Move the workload to a Dedicated Host, as this provides additional network security controls and monitorin

**Answer:** A

#### Explanation:

By default, Private instance has a private IP address, but no public IP address. These instances can communicate with each other, but can't access the Internet. You can enable Internet access for an instance launched into a nondefault subnet by attaching an Internet gateway to its VPC (if its VPC is not a default VPC) and associating an Elastic IP address with the instance. Alternatively, to allow an instance in your VPC to initiate outbound connections to the Internet but prevent unsolicited inbound connections from the Internet, you can use a network address translation (NAT) instance. NAT maps multiple private IP addresses to a single public IP address. A NAT instance has an Elastic IP address and is connected to the Internet through an Internet gateway. You can connect an instance in a private subnet to the Internet through the NAT instance, which routes traffic from the instance to the Internet gateway, and routes any responses to the instance.

### NEW QUESTION 224

- (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 227

- (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 228

- (Exam Topic 2)

An application has been written that publishes custom metrics to Amazon CloudWatch. Recently, IAM changes have been made on the account and the metrics are no longer being reported.

Which of the following is the LEAST permissive solution that will allow the metrics to be delivered?

- A. Add a statement to the IAM policy used by the application to allow logs:putLogEvents and logs:createLogStream
- B. Modify the IAM role used by the application by adding the CloudWatchFullAccess managed policy.
- C. Add a statement to the IAM policy used by the application to allow cloudwatch:putMetricData.
- D. Add a trust relationship to the IAM role used by the application for cloudwatch.amazonaws.com.

**Answer:** C

#### Explanation:

<https://docs.IAM.amazon.com/AmazonCloudWatch/latest/monitoring/permissions-reference-cw.html>

#### NEW QUESTION 229

- (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 230

- (Exam Topic 2)

A company uses IAM Organization to manage 50 IAM accounts. The finance staff members log in as IAM IAM users in the FinanceDept IAM account. The staff members need to read the consolidated billing information in the MasterPayer IAM account. They should not be able to view any other resources in the MasterPayer IAM account. IAM access to billing has been enabled in the MasterPayer account.

Which of the following approaches grants the finance staff the permissions they require without granting any unnecessary permissions?

- A. Create an IAM group for the finance users in the FinanceDept account, then attach the IAM managed ReadOnlyAccess IAM policy to the group.
- B. Create an IAM group for the finance users in the MasterPayer account, then attach the IAM managed ReadOnlyAccess IAM policy to the group.
- C. Create an IAM IAM role in the FinanceDept account with the ViewBilling permission, then grant the finance users in the MasterPayer account the permission to assume that role.
- D. Create an IAM IAM role in the MasterPayer account with the ViewBilling permission, then grant the finance users in the FinanceDept account the permission to assume that role.

**Answer: D**

#### Explanation:

IAM Region that You Request a Certificate In (for IAM Certificate Manager) If you want to require HTTPS between viewers and CloudFront, you must change the IAM region to US East (N. Virginia) in the IAM Certificate Manager console before you request or import a certificate. If you want to require HTTPS between CloudFront and your origin, and you're using an ELB load balancer as your origin, you can request or import a certificate in any region.

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

#### NEW QUESTION 234

- (Exam Topic 2)

A Security Engineer is implementing a solution to allow users to seamlessly encrypt Amazon S3 objects without having to touch the keys directly. The solution must be highly scalable without requiring continual management. Additionally, the organization must be able to immediately delete the encryption keys. Which solution meets these requirements?

- A. Use IAM KMS with IAM managed keys and the ScheduleKeyDeletion API with a PendingWindowInDays set to 0 to remove the keys if necessary.
- B. Use KMS with IAM imported key material and then use the DeleteImportedKeyMaterial API to remove the key material if necessary.
- C. Use IAM CloudHSM to store the keys and then use the CloudHSM API or the PKCS11 library to delete the keys if necessary.
- D. Use the Systems Manager Parameter Store to store the keys and then use the service API operations to delete the key if necessary.

**Answer: B**

#### Explanation:

<https://docs.IAM.amazon.com/kms/latest/developerguide/importing-keys-delete-key-material.html>

#### NEW QUESTION 238

- (Exam Topic 2)

Which of the following minimizes the potential attack surface for applications?

- A. Use security groups to provide stateful firewalls for Amazon EC2 instances at the hypervisor level.
- B. Use network ACLs to provide stateful firewalls at the VPC level to prevent access to any specific IAM resource.
- C. Use IAM Direct Connect for secure trusted connections between EC2 instances within private subnets.
- D. Design network security in a single layer within the perimeter network (also known as DMZ, demilitarized zone, and screened subnet) to facilitate quicker responses to threats.

**Answer: A**

#### Explanation:

<https://IAM.amazon.com/answers/networking/vpc-security-capabilities/> Security Group is stateful and hypervisor level.

#### NEW QUESTION 239

- (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 242**

- (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 243**

- (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 248**

- (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 252**

- (Exam Topic 2)

An organization wants to be alerted when an unauthorized Amazon EC2 instance in its VPC performs a network port scan against other instances in the VPC.

When the Security team performs its own internal tests in a separate account by using pre-approved third-party scanners from the IAM Marketplace, the Security team also then receives multiple Amazon GuardDuty events from Amazon CloudWatch alerting on its test activities.

How can the Security team suppress alerts about authorized security tests while still receiving alerts about the unauthorized activity?

- A. Use a filter in IAM CloudTrail to exclude the IP addresses of the Security team's EC2 instances.
- B. Add the Elastic IP addresses of the Security team's EC2 instances to a trusted IP list in Amazon GuardDuty.
- C. Install the Amazon Inspector agent on the EC2 instances that the Security team uses.
- D. Grant the Security team's EC2 instances a role with permissions to call Amazon GuardDuty API operations.

**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. Threat lists consist of known malicious IP addresses. GuardDuty generates findings based on threat lists. At any given time, you can have up to six uploaded threat lists per IAM account per region. [https://docs.IAM.amazon.com/guardduty/latest/ug/guardduty\\_upload\\_lists.html](https://docs.IAM.amazon.com/guardduty/latest/ug/guardduty_upload_lists.html)

**NEW QUESTION 255**

- (Exam Topic 2)

A corporate cloud security policy states that communications between the company's VPC and KMS must travel entirely within the IAM network and not use public service endpoints.

Which combination of the following actions MOST satisfies this requirement? (Choose two.)

- A. Add the IAM:sourceVpce condition to the IAM KMS key policy referencing the company's VPC endpoint ID.
- B. Remove the VPC internet gateway from the VPC and add a virtual private gateway to the VPC to prevent direct, public internet connectivity.
- C. Create a VPC endpoint for IAM KMS with private DNS enabled.
- D. Use the KMS Import Key feature to securely transfer the IAM KMS key over a VPN.
- E. Add the following condition to the IAM KMS key policy: "IAM:SourceIp": "10.0.0.0/16".

**Answer:** AC

**Explanation:**

An IAM policy can deny access to KMS except through your VPC endpoint with the following condition statement:

```
"Condition": { "StringNotEquals": {
"IAM:sourceVpce": "vpce-0295a3caf8414c94a"
}
}
```

If you select the Enable Private DNS Name option, the standard IAM KMS DNS hostname (<https://kms.<region>.amazonIAM.com>) resolves to your VPC endpoint.

**NEW QUESTION 257**

- (Exam Topic 2)

Your company has a set of resources defined in the IAM Cloud. Their IT audit department has requested to get a list of resources that have been defined across the account. How can this be achieved in the easiest manner?

Please select:

- A. Create a powershell script using the IAM CL
- B. Query for all resources with the tag of production.
- C. Create a bash shell script with the IAM CL
- D. Query for all resources in all region
- E. Store the results in an S3 bucket.
- F. Use Cloud Trail to get the list of all resources
- G. Use IAM Config to get the list of all resources

**Answer:** D

**Explanation:**

The most feasible option is to use IAM Config. When you turn on IAM Config, you will get a list of resources defined in your IAM Account.

A sample snapshot of the resources dashboard in IAM Config is shown below <C:\Users\wk\Desktop\mudassar\Untitled.jpg>

Resources	
Total resource count	131
Top 10 resource types	Total
 IAM Policy	45
 IAM Role	40
 EC2 Subnet	7
 EC2 SecurityGroup	6
 EC2 RouteTable	6
 EC2 VPC	4
 EC2 NetworkAcl	4

Option A is incorrect because this would give the list of production based resources and now all resources Option B is partially correct But this will just add more maintenance overhead.  
Option C is incorrect because this can be used to log API activities but not give an account of all resou For more information on IAM Config, please visit the below URL: <https://docs.IAM.amazon.com/config/latest/developereuide/how-does-confie-work.html>  
The correct answer is: Use IAM Config to get the list of all resources  
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#### NEW QUESTION 262

- (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.amazonIAM.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 263

- (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 264

- (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 268

- (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:GelBucketACL" 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.amazon.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.amazon.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 269

- (Exam Topic 2)

A company stores data on an Amazon EBS volume attached to an Amazon EC2 instance. The data is asynchronously replicated to an Amazon S3 bucket. Both the EBS volume and the S3 bucket are encrypted with the same IAM KMS Customer Master Key (CMK). A former employee scheduled a deletion of that CMK before leaving the company. The company's Developer Operations department learns about this only after the CMK has been deleted. Which steps must be taken to address this situation?

- A. Copy the data directly from the EBS encrypted volume before the volume is detached from the EC2 instance.
- B. Recover the data from the EBS encrypted volume using an earlier version of the KMS backing key.
- C. Make a request to IAM Support to recover the S3 encrypted data.
- D. Make a request to IAM Support to restore the deleted CMK, and use it to recover the data.

**Answer:** A

#### Explanation:

<https://docs.IAM.amazon.com/kms/latest/developerguide/deleting-keys.html#deleting-keys-how-it-works>

#### NEW QUESTION 271

- (Exam Topic 2)

A security alert has been raised for an Amazon EC2 instance in a customer account that is exhibiting strange behavior. The Security Engineer must first isolate the EC2 instance and then use tools for further investigation.

What should the Security Engineer use to isolate and research this event? (Choose three.)

- A. IAM CloudTrail
- B. Amazon Athena
- C. IAM Key Management Service (IAM KMS)
- D. VPC Flow Logs
- E. IAM Firewall Manager
- F. Security groups

**Answer:** ADF

#### Explanation:

[https://github.com/IAMlabs/aws-well-architected-labs/blob/master/Security/300\\_Incident\\_Response\\_with\\_IAM](https://github.com/IAMlabs/aws-well-architected-labs/blob/master/Security/300_Incident_Response_with_IAM)

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