Amazon

Exam Questions AWS-Certified-Solutions-Architect-Professional

Amazon AWS Certified Solutions Architect Professional

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NEW QUESTION 1
- (Exam Topic 2)
A company has set up its entire infrastructure on AWS. The company uses Amazon EC2 instances to host its ecommerce website and uses Amazon S3 to store static data. Three engineers at the company handle the cloud administration and development through one AWS account. Occasionally, an engineer alters an EC2 security group configuration of another engineer and causes noncompliance issues in the environment.
A solutions architect must set up a system that tracks changes that the engineers make. The system must send alerts when the engineers make noncompliant changes to the security settings for the EC2 instances.
What is the FASTEST way for the solutions architect to meet these requirements?

A. Set up AWS Organizations for the compan
B. Apply SCPs to govern and track noncompliant security group changes that are made to the AWS account.
C. Enable AWS CloudTrail to capture the changes to EC2 security group
D. Enable Amazon CtoudWatch rules to provide alerts when noncompliant security settings are detected.
E. Enable SCPs on the AWS account to provide alerts when noncompliant security group changes are made to the environment.
F. Enable AWS Config on the EC2 security groups to track any noncompliant changes Send the changes as alerts through an Amazon Simple Notification Service (Amazon SNS) topic.

Answer: D

Explanation:
https://aws.amazon.com/es/blogs/industries/how-to-monitor-alert-and-remediate-non-compliant-hipaa-findings

NEW QUESTION 2
- (Exam Topic 2)
An external audit of a company's serverless application reveals IAM policies that grant too many permissions. These policies are attached to the company's AWS Lambda execution roles. Hundreds of the company's Lambda functions have broad access permissions, such as full access to Amazon S3 buckets and Amazon DynamoDB tables. The company wants each function to have only the minimum permissions that the function needs to complete its task.
A solutions architect must determine which permissions each Lambda function needs.
What should the solutions architect do to meet this requirement with the LEAST amount of effort?

A. Set up Amazon CodeGuru to profile the Lambda functions and search for AWS API call
B. Create an inventory of the required API calls and resources for each Lambda functio
C. Create new IAM access policies for each Lambda functio
D. Review the new policies to ensure that they meet the company's business requirements.
E. Turn on AWS CloudTrail logging for the AWS accoun
F. Use AWS Identity and Access Management Access Analyzer to generate IAM access policies based on the activity recorded in the CloudTrail lo
G. Review the generated policies to ensure that they meet the company's business requirements.
H. Turn on AWS CloudTrail logging for the AWS accoun
I. Create a script to parse the CloudTrail log, search for AWS API calls by Lambda execution role, and create a summary repor
J. Review the repor
K. Create IAM access policies that provide more restrictive permissions for each Lambda function.
L. Turn on AWS CloudTrail logging for the AWS accoun
M. Export the CloudTrail logs to Amazon S3. Use Amazon EMR to process the CloudTrail logs in Amazon S3 and produce a report of API calls and resources used by each execution rol
N. Create a new IAM access policy for each rol
O. Export the generated roles to an S3 bucke
P. Review the generated policies to ensure that they meet the company's business requirements.

Answer: B

Explanation:
IAM Access Analyzer helps you identify the resources in your organization and accounts, such as Amazon S3 buckets or IAM roles, shared with an external entity. This lets you identify unintended access to your resources and data, which is a security risk. IAM Access Analyzer identifies resources shared with external principals by using logic-based reasoning to analyze the resource-based policies in your AWS environment.
https://docs.aws.amazon.com/IAM/latest/UserGuide/what-is-access-analyzer.html

NEW QUESTION 3
- (Exam Topic 2)
A retail company needs to provide a series of data files to another company, which is its business partner These files are saved in an Amazon S3 bucket under Account A. which belongs to the retail company. The business partner company wants one of its 1AM users. User_DataProcessor. to access the files from its own AWS account (Account B).
Which combination of steps must the companies take so that User_DataProcessor can access the S3 bucket successfully? (Select TWO.)

A. Turn on the cross-origin resource sharing (CORS) feature for the S3 bucket in Account
B. In Account
C. set the S3 bucket policy to the following:

```
{
    "Effect": "Allow",
    "Action": [
        "s3:GetObject",
        "s3:ListBucket"
    ],
    "Resource": "arn:aws:s3:::AccountABucketName/*"
}
```

D. In Account
E. set the S3 bucket policy to the following:

```
{
    "Effect": "Allow",
    "Principal": {
        "AWS": "arn:aws:iam::AccountB:user/User_DataProcessor"
    },
    "Action": [
        "s3:GetObject",
        "s3:ListBucket"
    ],
    "Resource": [
        "arn:aws:s3:::AccountABucketName/*"
    ]
}
```

F. In Account

G. set the permissions of User_DataProcessor to the following:

```
{
    "Effect": "Allow",
    "Action": [
        "s3:GetObject",
        "s3:ListBucket"
    ],
    "Resource": "arn:aws:s3:::AccountABucketName/*"
}
```

H. In Account Bt set the permissions of User_DataProcessor to the following:

```
{
    "Effect": "Allow",
    "Principal": {
        "AWS": "arn:aws:iam::AccountB:user/User_DataProcessor"
    },
    "Action": [
        "s3:GetObject",
        "s3:ListBucket"
    ],
    "Resource": [
        "arn:aws:s3:::AccountABucketName/*"
    ]
}
```

Answer: CD

Explanation:
https://aws.amazon.com/premiumsupport/knowledge-center/cross-account-access-s3/

NEW QUESTION 4
- (Exam Topic 2)
A company has VPC flow logs enabled for its NAT gateway. The company is seeing Action = ACCEPT for inbound traffic that comes from public IP address 198.51.100.2 destined for a private Amazon EC2 instance.
A solutions architect must determine whether the traffic represents unsolicited inbound connections from the internet. The first two octets of the VPC CIDR block are 203.0.
Which set of steps should the solutions architect take to meet these requirements?

A. Open the AWS CloudTrail consol
B. Select the log group that contains the NAT gateway's elastic network interface and the private instance's elastic network interfac
C. Run a query to filter with the destination address set as "like 203.0" and the source address set as "like 198.51.100.2". Run the stats command to filter the sum of bytes transferred by the source address and the destination address.
D. Open the Amazon CloudWatch consol
E. Select the log group that contains the NAT gateway's elastic network interface and the private instance's elastic network interfac
F. Run a query to filter with the destination address set as "like 203.0" and the source address set as "like 198.51.100.2". Run the stats command to filter the sum of bytes transferred by the source address and the destination address.
G. Open the AWS CloudTrail consol
H. Select the log group that contains the NAT gateway's elastic network interface and the private instance's elastic network interfac
I. Run a query to filter with the destination address set as "like 198.51.100.2" and the source address set as "like 203.0". Run the stats command to filter the sum of bytes transferred by the source address and the destination address.
J. Open the Amazon CloudWatch consol
K. Select the log group that contains the NAT gateway's elastic network interface and the private instance's elastic network interfac
L. Run a query to filter with the destination address set as "like 198.51.100.2" and the source address set as "like 203.0". Run the stats command to filter the sum of bytes transferred by the source address and the destination address.

Answer: D

Explanation:
https://aws.amazon.com/premiumsupport/knowledge-center/vpc-analyze-inbound-traffic-nat-gateway/ by Cloudxie says "select appropriate log"

NEW QUESTION 5

- (Exam Topic 2)
A company built an application based on AWS Lambda deployed in an AWS CloudFormation stack. The last production release of the web application introduced an issue that resulted in an outage lasting several minutes. A solutions architect must adjust the deployment process to support a canary release.
Which solution will meet these requirements?

A. Create an alias for every new deployed version of the Lambda functio
B. Use the AWS CLI update-alias command with the routing-config parameter to distribute the load.
C. Deploy the application into a new CloudFormation stac
D. Use an Amazon Route 53 weighted routing policy to distribute the load.
E. Create a version for every new deployed Lambda functio
F. Use the AWS CLIupdate-function-contiguration command with the routing-config parameter to distribute the load.
G. Configure AWS CodeDeploy and use CodeDeployDefault.OneAtATime in the Deployment configuration to distribute the load.

Answer: A

Explanation:
https://aws.amazon.com/blogs/compute/implementing-canary-deployments-of-aws-lambda-functions-with-alias

NEW QUESTION 6
- (Exam Topic 2)
A company has an application in the AWS Cloud. The application runs on a fleet of 20 Amazon EC2 instances. The EC2 instances are persistent and store data on multiple attached Amazon Elastic Block Store (Amazon EBS) volumes.
The company must maintain backups in a separate AWS Region. The company must be able to recover the EC2 instances and their configuration within I business day, with loss of no more than I day's worth of data. The company has limited staff and needs a backup solution that optimizes operational efficiency and cost. The company already has created an AWS CloudFormation template that can deploy the required network configuration in a secondary Region.
Which solution will meet these requirements?

A. Create a second CloudFormation template that can recreate the EC2 instances in the secondary Region.Run daily multivolume snapshots by using AWS Systems Manager Automation runbook
B. Copy the snapshots to the secondary Regio
C. In the event of a failure, launch the CloudFormation templates, restore the EBS volumes from snapshots, and transfer usage to the secondary Region.
D. Use Amazon Data Lifecycle Manager (Amazon DLM) to create daily multivolume snapshots of the EBS volume
E. In the event of a failure, launch theCloudFormation template and use Amazon DLM to restore the EBS volumes and transfer usage to the secondary Region.
F. Use AWS Backup to create a scheduled daily backup plan for the EC2 instance
G. Configure the backup task to copy the backups to a vault in the secondary Regio
H. In the event of a failure, launch the CloudFormation template, restore the instance volumes and configurations from the backup vault, and transfer usage to the secondary Region.
I. Deploy EC2 instances of the same size and configuration to the secondary Regio
J. Configure AWS DataSync daily to copy data from the primary Region to the secondary Regio
K. In the event of a failure, launch the CloudFormation template and transfer usage to the secondary Region.

Answer: C

Explanation:
Using AWS Backup to create a scheduled daily backup plan for the EC2 instances will enable taking snapshots of the EC2 instances and their attached EBS volumes1. Configuring the backup task to copy the backups to a vault in the secondary Region will enable maintaining backups in a separate Region1. In the event of a failure, launching the CloudFormation template will enable deploying the network configuration in the secondary Region2. Restoring the instance volumes and configurations from the backup vault will enable recovering the EC2 instances and their data1. Transferring usage to the secondary Region will enable resuming operations2.

NEW QUESTION 7
- (Exam Topic 2)
A company is storing sensitive data in an Amazon S3 bucket. The company must log all activities for objects in the S3 bucket and must keep the logs for 5 years. The company's security team also must receive an email notification every time there is an attempt to delete data in the S3 bucket.
Which combination of steps will meet these requirements MOST cost-effectively? (Select THREE.)

A. Configure AWS CloudTrail to log S3 data events.
B. Configure S3 server access logging for the S3 bucket.
C. Configure Amazon S3 to send object deletion events to Amazon Simple Email Service (Amazon SES).
D. Configure Amazon S3 to send object deletion events to an Amazon EventBridge event bus that publishes to an Amazon Simple Notification Service (Amazon SNS) topic.
E. Configure Amazon S3 to send the logs to Amazon Timestream with data storage tiering.
F. Configure a new S3 bucket to store the logs with an S3 Lifecycle policy.

Answer: ADF

Explanation:
Configuring AWS CloudTrail to log S3 data events will enable logging all activities for objects in the S3 bucket1. Data events are object-level API operations such as GetObject, DeleteObject, and PutObject1. Configuring Amazon S3 to send object deletion events to an Amazon EventBridge event bus that publishes to an Amazon Simple Notification Service (Amazon SNS) topic will enable sending email notifications every time there is an attempt to delete data in the S3 bucket2. EventBridge can route events from S3 to SNS, which can send emails to subscribers2. Configuring a new S3 bucket to store the logs with an S3 Lifecycle policy will enable keeping the logs for 5 years in a cost-effective way3. A lifecycle policy can transition the logs to a cheaper storage class such as Glacier or delete them after a specified period of time3.

NEW QUESTION 8
- (Exam Topic 2)
A company is migrating a document processing workload to AWS. The company has updated many applications to natively use the Amazon S3 API to store, retrieve, and modify documents that a processing server generates at a rate of approximately 5 documents every second. After the document processing is finished, customers can download the documents directly from Amazon S3.
During the migration, the company discovered that it could not immediately update the processing server that generates many documents to support the S3 API.

The server runs on Linux and requires fast local access to the files that the server generates and modifies. When the server finishes processing, the files must be available to the public for download within 30 minutes.
Which solution will meet these requirements with the LEAST amount of effort?

A. Migrate the application to an AWS Lambda functio
B. Use the AWS SDK for Java to generate, modify, and access the files that the company stores directly in Amazon S3.
C. Set up an Amazon S3 File Gateway and configure a file share that is linked to the document store.Mount the file share on an Amazon EC2 instance by using NF
D. When changes occur in Amazon S3, initiate a RefreshCache API call to update the S3 File Gateway.
E. Configure Amazon FSx for Lustre with an import and export polic
F. Link the new file system to an S3 bucke
G. Install the Lustre client and mount the document store to an Amazon EC2 instance by using NFS.
H. Configure AWS DataSync to connect to an Amazon EC2 instanc
I. Configure a task to synchronize the generated files to and from Amazon S3.

Answer: C

Explanation:
The company should configure Amazon FSx for Lustre with an import and export policy. The company should link the new file system to an S3 bucket. The company should install the Lustre client and mount the document store to an Amazon EC2 instance by using NFS. This solution will meet the requirements with the least amount of effort because Amazon FSx for Lustre is a fully managed service that provides a
high-performance file system optimized for fast processing of workloads such as machine learning, high
performance computing, video processing, financial modeling, and electronic design automation1. Amazon FSx for Lustre can be linked to an S3 bucket and can import data from and export data to the bucket2. The import and export policy can be configured to automatically import new or changed objects from S3 and export new or changed files to S33. This will ensure that the files are available to the public for download within 30 minutes. Amazon FSx for Lustre supports NFS version 3.0 protocol for Linux clients.
The other options are not correct because:

- Migrating the application to an AWS Lambda function would require a lot of effort and may not be feasible for the existing server that generates many documents. Lambda functions have limitations on execution time, memory, disk space, and network bandwidth.
- Setting up an Amazon S3 File Gateway would not work because S3 File Gateway does not support write-back caching, which means that files written to the file share are uploaded to S3 immediately and are not available locally until they are downloaded again. This would not provide fast local access to the
files that the server generates and modifies.
- Configuring AWS DataSync to connect to an Amazon EC2 instance would not meet the requirement of making the files available to the public for download within 30 minutes. DataSync is a service that transfers data between on-premises storage systems and AWS storage services over the internet or AWS Direct Connect. DataSync tasks can be scheduled to run at specific times or intervals, but they are not triggered by file changes.

References:

- https://aws.amazon.com/fsx/lustre/
- https://docs.aws.amazon.com/fsx/latest/LustreGuide/create-fs-linked-data-repo.html
- https://docs.aws.amazon.com/fsx/latest/LustreGuide/import-export-data-repositories.html
- https://docs.aws.amazon.com/fsx/latest/LustreGuide/mounting-on-premises.html
- https://docs.aws.amazon.com/lambda/latest/dg/gettingstarted-limits.html
- https://docs.aws.amazon.com/storagegateway/latest/userguide/StorageGatewayConcepts.html
- https://docs.aws.amazon.com/datasync/latest/userguide/what-is-datasync.html

NEW QUESTION 9
- (Exam Topic 2)
A company's interactive web application uses an Amazon CloudFront distribution to serve images from an Amazon S3 bucket. Occasionally, third-party tools ingest corrupted images into the S3 bucket. This image corruption causes a poor user experience in the application later. The company has successfully implemented and tested Python logic to detect corrupt images.
A solutions architect must recommend a solution to integrate the detection logic with minimal latency between the ingestion and serving.
Which solution will meet these requirements?

A. Use a Lambda@Edge function that is invoked by a viewer-response event.
B. Use a Lambda@Edge function that is invoked by an origin-response event.
C. Use an S3 event notification that invokes an AWS Lambda function.
D. Use an S3 event notification that invokes an AWS Step Functions state machine.

Answer: B

Explanation:
This solution will allow the detection logic to be run as soon as the image is uploaded to the S3 bucket, before it is served to users via the CloudFront distribution. This way, the detection logic can quickly identify any corrupted images and prevent them from being served to users, minimizing latency between ingestion and serving.
Reference: AWS Lambda@Edge documentation:
https://docs.aws.amazon.com/lambda/latest/dg/lambda-edge.html You can use Lambda@Edge to run your code in response to CloudFront events, such as a viewer request, an origin request, a response, or an error.

NEW QUESTION 10
- (Exam Topic 2)
A company uses AWS Organizations with a single OU named Production to manage multiple accounts All accounts are members of the Production OU Administrators use deny list SCPs in the root of the organization to manage access to restricted services.
The company recently acquired a new business unit and invited the new unit's existing AWS account to the organization Once onboarded the administrators of the new business unit discovered that they are not able to update existing AWS Config rules to meet the company's policies.
Which option will allow administrators to make changes and continue to enforce the current policies without introducing additional long-term maintenance?

A. Remove the organization's root SCPs that limit access to AWS Config Create AWS Service Catalog products for the company's standard AWS Config rules and deploy them throughout the organization, including the new account.
B. Create a temporary OU named Onboarding for the new account Apply an SCP to the Onboarding OU to allow AWS Config actions Move the new account to the

Production OU when adjustments to AWS Config are complete
C. Convert the organization's root SCPs from deny list SCPs to allow list SCPs to allow the required services only Temporarily apply an SCP to the organization's root that allows AWS Config actions forprincipals only in the new account.
D. Create a temporary OU named Onboarding for the new account Apply an SCP to the Onboarding OU to allow AWS Config action
E. Move the organization's root SCP to the Production O
F. Move the new account to the Production OU when adjustments to AWS Config are complete.

Answer: D

Explanation:
An SCP at a lower level can't add a permission after it is blocked by an SCP at a higher level. SCPs can only filter; they never add permissions. SO you need to create a new OU for the new account assign an SCP, and move the root SCP to Production OU. Then move the new account to production OU when AWS config is done.

NEW QUESTION 10
- (Exam Topic 2)
A company is running an application that uses an Amazon ElastiCache for Redis cluster as a caching layer A recent security audit revealed that the company has configured encryption at rest for ElastiCache However the company did not configure ElastiCache to use encryption in transit Additionally, users can access the cache without authentication
A solutions architect must make changes to require user authentication and to ensure that the company is using end-to-end encryption
Which solution will meet these requirements?

A. Create an AUTH token Store the token in AWS System Manager Parameter Store, as an encrypted parameter Create a new cluster with AUTH and configure encryption in transit Update the application toretrieve the AUTH token from Parameter Store when necessary and to use the AUTH token for authentication
B. Create an AUTH token Store the token in AWS Secrets Manager Configure the existing cluster to use the AUTH token and configure encryption in transit Update the application to retrieve the AUTH token from Secrets Manager when necessary and to use the AUTH token for authentication.
C. Create an SSL certificate Store the certificate in AWS Secrets Manager Create a new cluster and configure encryption in transit Update the application to retrieve the SSL certificate from Secrets Manager when necessary and to use the certificate for authentication.
D. Create an SSL certificate Store the certificate in AWS Systems Manager Parameter Store, as an encrypted advanced parameter Update the existing cluster to configure encryption in transit Update the application to retrieve the SSL certificate from Parameter Store when necessary and to use the certificate for authentication

Answer: B

Explanation:
Creating an AUTH token and storing it in AWS Secrets Manager and configuring the existing cluster to use the AUTH token and configure encryption in transit, and updating the application to retrieve the AUTH token from Secrets Manager when necessary and to use the AUTH token for authentication, would meet the requirements for user authentication and end-to-end encryption.
AWS Secrets Manager is a service that enables you to easily rotate, manage, and retrieve database credentials, API keys, and other secrets throughout their lifecycle. Secrets Manager also enables you to encrypt the data and ensure that only authorized users and applications can access it.
By configuring the existing cluster to use the AUTH token and encryption in transit, all data will be encrypted as it is sent over the network, providing additional security for the data stored in ElastiCache.
Additionally, by updating the application to retrieve the AUTH token from Secrets Manager when necessary and to use the AUTH token for authentication, it ensures that only authorized users and applications can access the cache.
Reference:
AWS Secrets Manager documentation: https://aws.amazon.com/secrets-manager/ Encryption in transit for ElastiCache: https://docs.aws.amazon.com/AmazonElastiCache/latest/red-ug/encryption.html
Authentication and Authorization for ElastiCache: https://docs.aws.amazon.com/AmazonElastiCache/latest/red-ug/accessing-elasticache.html

NEW QUESTION 14
- (Exam Topic 2)
A large company runs workloads in VPCs that are deployed across hundreds of AWS accounts. Each VPC consists to public subnets and private subnets that span across multiple Availability Zones. NAT gateways are deployed in the public subnets and allow outbound connectivity to the internet from the private subnets.
A solutions architect is working on a hub-and-spoke design. All private subnets in the spoke VPCs must route traffic to the internet through an egress VPC. The solutions architect already has deployed a NAT gateway in an egress VPC in a central AWS account.
Which set of additional steps should the solutions architect take to meet these requirements?

A. Create peering connections between the egress VPC and the spoke VPC
B. Configure the required routing to allow access to the internet.
C. Create a transit gateway, and share it with the existing AWS account
D. Attach existing VPCs to the transit gateway Configure the required routing to allow access to the internet.
E. Create a transit gateway in every accoun
F. Attach the NAT gateway to the transit gateway
G. Configure the required routing to allow access to the internet.
H. Create an AWS PrivateLink connection between the egress VPC and the spoke VPC
I. Configure the required routing to allow access to the internet

Answer: B

Explanation:
https://d1.awsstatic.com/architecture-diagrams/ArchitectureDiagrams/NAT-gateway-centralized-egress-ra.pdf?d

NEW QUESTION 19
- (Exam Topic 2)
A solutions architect must create a business case for migration of a company's on-premises data center to the AWS Cloud. The solutions architect will use a configuration management database (CMDB) export of all the company's servers to create the case.
Which solution will meet these requirements MOST cost-effectively?

A. Use AWS Well-Architected Tool to import the CMDB data to perform an analysis and generate recommendations.
B. Use Migration Evaluator to perform an analysi

C. Use the data import template to upload the data from the CMDB export.
D. Implement resource matching rule
E. Use the CMDB export and the AWS Price List Bulk API to query CMDB data against AWS services in bulk.
F. Use AWS Application Discovery Service to import the CMDB data to perform an analysis.

Answer: B

Explanation:
https://aws.amazon.com/blogs/architecture/accelerating-your-migration-to-aws/ Build a business case with AWS Migration Evaluator The foundation for a successful migration starts with a defined business objective (for example, growth or new offerings). In order to enable the business drivers, the established business case must then be aligned to a technical capability (increased security and elasticity). AWS Migration Evaluator (formerly known as TSO Logic) can help you meet these objectives. To get started, you can choose to upload exports from third-party tools such as Configuration Management Database (CMDB) or install a collector agent to monitor. You will receive an assessment after data collection, which includes a projected cost estimate and savings of running your on-premises workloads in the AWS Cloud. This estimate will provide a summary of the projected costs to re-host on AWS based on usage patterns. It will show the breakdown of costs by infrastructure and software licenses. With this information, you can make the business case and plan next steps.

NEW QUESTION 22
- (Exam Topic 2)
A company is migrating a legacy application from an on-premises data center to AWS. The application uses MongoDB as a key-value database According to the company's technical guidelines, all Amazon EC2 instances must be hosted in a private subnet without an internet connection. In addition, all connectivity between applications and databases must be encrypted. The database must be able to scale based on demand.
Which solution will meet these requirements?

A. Create new Amazon DocumentDB (with MongoDB compatibility) tables for the application with Provisioned IOPS volume
B. Use the instance endpoint to connect to Amazon DocumentDB.
C. Create new Amazon DynamoDB tables for the application with on-demand capacit
D. Use a gateway VPC endpoint for DynamoDB to connect to the DynamoDB tables
E. Create new Amazon DynamoDB tables for the application with on-demand capacit
F. Use an interface VPC endpoint for DynamoDB to connect to the DynamoDB tables.
G. Create new Amazon DocumentDB (with MongoDB compatibility) tables for the application with Provisioned IOPS volumes Use the cluster endpoint to connect to Amazon DocumentDB

Answer: A

Explanation:
A is the correct answer because it uses Amazon DocumentDB (with MongoDB compatibility) as a key-value database that can scale based on demand and supports encryption in transit and at rest. Amazon DocumentDB is a fully managed document database service that is designed to be compatible with the MongoDB API. It is a NoSQL database that is optimized for storing, indexing, and querying JSON data. Amazon DocumentDB supports encryption in transit using TLS and encryption at rest using AWS Key Management Service (AWS KMS). Amazon DocumentDB also supports provisioned IOPS volumes that can scale up to 64 TiB of storage and 256,000 IOPS per cluster. To connect to Amazon DocumentDB, you can use the instance endpoint, which connects to a specific instance in the cluster, or the cluster endpoint, which connects to the primary instance or one of the replicas in the cluster. Using the cluster endpoint is recommended for high availability and load balancing purposes. References:

- https://docs.aws.amazon.com/documentdb/latest/developerguide/what-is.html
- https://docs.aws.amazon.com/documentdb/latest/developerguide/security.encryption.html
- https://docs.aws.amazon.com/documentdb/latest/developerguide/limits.html
- https://docs.aws.amazon.com/documentdb/latest/developerguide/connecting.html

NEW QUESTION 24
- (Exam Topic 2)
A solutions architect is reviewing a company's process for taking snapshots of Amazon RDS DB instances. The company takes automatic snapshots every day and retains the snapshots for 7 days.
The solutions architect needs to recommend a solution that takes snapshots every 6 hours and retains the snapshots for 30 days. The company uses AWS Organizations to manage all of its AWS accounts. The company needs a consolidated view of the health of the RDS snapshots.
Which solution will meet these requirements with the LEAST operational overhead?

A. Turn on the cross-account management feature in AWS Backu
B. Create a backup plan that specifies the frequency and retention requirement
C. Add a tag to the DB instance
D. Apply the backup plan by using tag
E. Use AWS Backup to monitor the status of the backups.
F. Turn on the cross-account management feature in Amazon RD
G. Create a snapshot global policy that specifies the frequency and retention requirement
H. Use the RDS console in the management account to monitor the status of the backups.
I. Turn on the cross-account management feature in AWS CloudFormatio
J. From the management account, deploy a CloudFormation stack set that contains a backup plan from AWS Backup thatspecifies the frequency and retention requirement
K. Create an AWS Lambda function in the management account to monitor the status of the backup
L. Create an Amazon EventBridge rule in each account to run the Lambda function on a schedule.
M. Configure AWS Backup in each accoun
N. Create an Amazon Data Lifecycle Manager lifecycle policy that specifies the frequency and retention requirement
O. Specify the DB instances as the target resourc
P. Use the Amazon Data Lifecycle Manager console in each member account to monitor the status of the backups.

Answer: A

Explanation:
Turning on the cross-account management feature in AWS Backup will enable managing and monitoring backups across multiple AWS accounts that belong to the same organization in AWS Organizations1. Creating a backup plan that specifies the frequency and retention requirements will enable taking snapshots every 6 hours and retaining them for 30 days2. Adding a tag to the DB instances will enable applying the backup plan by using tags2. Using AWS Backup to monitor the

status of the backups will enable having a consolidated view of the health of the RDS snapshots1.

NEW QUESTION 28
- (Exam Topic 2)
A company has multiple business units that each have separate accounts on AWS. Each business unit manages its own network with several VPCs that have CIDR ranges that overlap. The company's marketing team has created a new internal application and wants to make the application accessible to all the other business units. The solution must use private IP addresses only.
Which solution will meet these requirements with the LEAST operational overhead?

A. Instruct each business unit to add a unique secondary CIDR range to the business unit's VP
B. Peer the VPCs and use a private NAT gateway in the secondary range to route traffic to the marketing team.
C. Create an Amazon EC2 instance to serve as a virtual appliance in the marketing account's VP
D. Create an AWS Site-to-Site VPN connection between the marketing team and each business unit's VP
E. Perform NAT where necessary.
F. Create an AWS PrivateLink endpoint service to share the marketing applicatio
G. Grant permission to specific AWS accounts to connect to the servic
H. Create interface VPC endpoints in other accounts to access the application by using private IP addresses.
I. Create a Network Load Balancer (NLB) in front of the marketing application in a private subne
J. Create an API Gateway AP
K. Use the Amazon API Gateway private integration to connect the API to the NL
L. Activate IAM authorization for the AP
M. Grant access to the accounts of the other business units.

Answer: C

Explanation:
With AWS PrivateLink, the marketing team can create an endpoint service to share their internal application with other accounts securely using private IP addresses. They can grant permission to specific AWS accounts to connect to the service and create interface VPC endpoints in the other accounts to access the application by using private IP addresses. This option does not require any changes to the network of the other business units, and it does not require peering or NATing. This solution is both scalable and secure.
https://aws.amazon.com/blogs/networking-and-content-delivery/connecting-networks-with-overlapping-ip-range

NEW QUESTION 29
- (Exam Topic 2)
A company has several AWS accounts. A development team is building an automation framework for cloud governance and remediation processes. The automation framework uses AWS Lambda functions in a centralized account. A solutions architect must implement a least privilege permissions policy that allows the Lambda functions to run in each of the company's AWS accounts.
Which combination of steps will meet these requirements? (Choose two.)

A. In the centralized account, create an IAM role that has the Lambda service as a trusted entit
B. Add an inline policy to assume the roles of the other AWS accounts.
C. In the other AWS accounts, create an IAM role that has minimal permission
D. Add the centralized account's Lambda IAM role as a trusted entity.
E. In the centralized account, create an IAM role that has roles of the other accounts as trusted entities.Provide minimal permissions.
F. In the other AWS accounts, create an IAM role that has permissions to assume the role of the centralized accoun
G. Add the Lambda service as a trusted entity.
H. In the other AWS accounts, create an IAM role that has minimal permission
I. Add the Lambda service as a trusted entity.

Answer: AB

Explanation:
https://medium.com/@it.melnichenko/invoke-a-lambda-across-multiple-aws-accounts-8c094b2e70be

NEW QUESTION 32
- (Exam Topic 2)
A company runs an application in an on-premises data center. The application gives users the ability to upload media files. The files persist in a file server. The web application has many users. The application server is overutilized, which causes data uploads to fail occasionally. The company frequently adds new storage to the file server. The company wants to resolve these challenges by migrating the application to AWS.
Users from across the United States and Canada access the application. Only authenticated users should have the ability to access the application to upload files. The company will consider a solution that refactors the application, and the company needs to accelerate application development.
Which solution will meet these requirements with the LEAST operational overhead?

A. Use AWS Application Migration Service to migrate the application server to Amazon EC2 instances.Create an Auto Scaling group for the EC2 instance
B. Use an Application Load Balancer to distribute the request
C. Modify the application to use Amazon S3 to persist the file
D. Use Amazon Cognito to authenticate users.
E. Use AWS Application Migration Service to migrate the application server to Amazon EC2 instances.Create an Auto Scaling group for the EC2 instance
F. Use an Application Load Balancer to distribute the request
G. Set up AWS IAM Identity Center (AWS Single Sign-On) to give users the ability to sign in to the applicatio
H. Modify the application to use Amazon S3 to persist the files.
I. Create a static website for uploads of media file
J. Store the static assets in Amazon S3. Use AWS AppSync to create an AP
K. Use AWS Lambda resolvers to upload the media files to Amazon S3. Use Amazon Cognito to authenticate users.
L. Use AWS Amplify to create a static website for uploads of media file
M. Use Amplify Hosting to serve the website through Amazon CloudFron
N. Use Amazon S3 to store the uploaded media file
O. Use Amazon Cognito to authenticate users.

Answer: D

Explanation:
The company should use AWS Amplify to create a static website for uploads of media files. The company should use Amplify Hosting to serve the website through Amazon CloudFront. The company should use Amazon S3 to store the uploaded media files. The company should use Amazon Cognito to authenticate users. This solution will meet the requirements with the least operational overhead because AWS Amplify is a complete solution that lets frontend web and mobile developers easily build, ship, and host full-stack applications on AWS, with the flexibility to leverage the breadth of AWS services as use cases evolve. No cloud expertise needed1. By using AWS Amplify, the company can refactor the application to a serverless architecture that reduces operational complexity and costs. AWS Amplify offers the following features and benefits:

- Amplify Studio: A visual interface that enables you to build and deploy a full-stack app quickly, including frontend UI and backend.
- Amplify CLI: A local toolchain that enables you to configure and manage an app backend with just a few commands.
- Amplify Libraries: Open-source client libraries that enable you to build cloud-powered mobile and web apps.
- Amplify UI Components: Open-source design system with cloud-connected components for building feature-rich apps fast.
- Amplify Hosting: Fully managed CI/CD and hosting for fast, secure, and reliable static and server-side rendered apps.

By using AWS Amplify to create a static website for uploads of media files, the company can leverage Amplify Studio to visually build a pixel-perfect UI and connect it to a cloud backend in clicks. By using Amplify Hosting to serve the website through Amazon CloudFront, the company can easily deploy its web app or website to the fast, secure, and reliable AWS content delivery network (CDN), with hundreds of points of presence globally. By using Amazon S3 to store the uploaded media files, the company can benefit from a highly scalable, durable, and cost-effective object storage service that can handle any amount of data2. By using Amazon Cognito to authenticate users, the company can add user sign-up, sign-in, and access control to its web app with a fully managed service that scales to support millions of users3.
The other options are not correct because:

- Using AWS Application Migration Service to migrate the application server to Amazon EC2 instances would not refactor the application or accelerate development. AWS Application Migration Service (AWS MGN) is a service that enables you to migrate physical servers, virtual machines (VMs), or cloud servers from any source infrastructure to AWS without requiring agents or specialized tools. However, this would not address the challenges of overutilization and data uploads failures. It would also not reduce operational overhead or costs compared to a serverless architecture.
- Creating a static website for uploads of media files and using AWS AppSync to create an API would not be as simple or fast as using AWS Amplify. AWS AppSync is a service that enables you to create flexible APIs for securely accessing, manipulating, and combining data from one or more data sources. However, this would require more configuration and management than using Amplify Studio and Amplify Hosting. It would also not provide authentication features like Amazon Cognito.
- Setting up AWS IAM Identity Center (AWS Single Sign-On) to give users the ability to sign in to the application would not be as suitable as using Amazon Cognito. AWS Single Sign-On (AWS SSO) is a service that enables you to centrally manage SSO access and user permissions across multiple AWS accounts and business applications. However, this service is designed for enterprise customers who need to manage access for employees or partners across multiple resources. It is not intended for authenticating end users of web or mobile apps.

References:

- https://aws.amazon.com/amplify/
- https://aws.amazon.com/s3/
- https://aws.amazon.com/cognito/
- https://aws.amazon.com/mgn/
- https://aws.amazon.com/appsync/
- https://aws.amazon.com/single-sign-on/

NEW QUESTION 34
- (Exam Topic 2)
A company operates a proxy server on a fleet of Amazon EC2 instances. Partners in different countries use the proxy server to test the company's functionality. The EC2 instances are running in a VPC. and the instances have access to the internet.
The company's security policy requires that partners can access resources only from domains that the company owns.
Which solution will meet these requirements?

A. Create an Amazon Route 53 Resolver DNS Firewall domain list that contains the allowed domains.Configure a DNS Firewall rule group with a rule that has a high numeric value that blocks all request
B. Configure a rule that has a low numeric value that allows requests for domains in the allowed lis
C. Associate the rule group with the VPC.
D. Create an Amazon Route 53 Resolver DNS Firewall domain list that contains the allowed domains.Configure a Route 53 outbound endpoin
E. Associate the outbound endpoint with the VP
F. Associate the domain list with the outbound endpoint.
G. Create an Amazon Route 53 traffic flow policy to match the allowed domain
H. Configure the traffic flow policy to forward requests that match to the Route 53 Resolve
I. Associate the traffic flow policy with the VPC.
J. Create an Amazon Route 53 outbound endpoin
K. Associate the outbound endpoint with the VP
L. Configure a Route 53 traffic flow policy to forward requests for allowed domains to the outbound endpoin
M. Associate the traffic flow policy with the VPC.

Answer: A

Explanation:
The company should create an Amazon Route 53 Resolver DNS Firewall domain list that contains the allowed domains. The company should configure a DNS Firewall rule group with a rule that has a high numeric value that blocks all requests. The company should configure a rule that has a low numeric value that allows requests for domains in the allowed list. The company should associate the rule group with the VPC. This solution will meet the requirements because Amazon Route 53 Resolver DNS Firewall is a feature that enables you to filter and regulate outbound DNS traffic for your VPC. You can create reusable collections of filtering rules in DNS Firewall rule groups and associate them with your VPCs. You can specify lists of domain names to allow or block, and you can customize the responses for the DNS queries that you block1. By creating a domain list with the allowed domains and a rule group with rules to allow or block requests based on the domain list, the company can enforce its security policy and control access to sites.
The other options are not correct because:

- Configuring a Route 53 outbound endpoint and associating it with the VPC would not help with filtering outbound DNS traffic. A Route 53 outbound endpoint is a resource that enables you to forward DNS
queries from your VPC to your network over AWS Direct Connect or VPN connections2. It does not provide any filtering capabilities.
- Creating a Route 53 traffic flow policy to match the allowed domains would not help with filtering outbound DNS traffic. A Route 53 traffic flow policy is a

resource that enables you to route traffic based on multiple criteria, such as endpoint health, geographic location, and latency3. It does not provide any filtering capabilities.

- Creating a Gateway Load Balancer (GWLB) would not help with filtering outbound DNS traffic. A GWLB is a service that enables you to deploy, scale, and manage third-party virtual appliances such as firewalls, intrusion detection and prevention systems, and deep packet inspection systems in the cloud4. It does not provide any filtering capabilities.

References:

- https://docs.aws.amazon.com/Route53/latest/DeveloperGuide/resolver-dns-firewall.html
- https://docs.aws.amazon.com/Route53/latest/DeveloperGuide/resolver-outbound-endpoints.html
- https://docs.aws.amazon.com/Route53/latest/DeveloperGuide/traffic-flow.html
- https://docs.aws.amazon.com/elasticloadbalancing/latest/gateway/introduction.html

NEW QUESTION 35
- (Exam Topic 2)
A company is running a web application in a VPC. The web application runs on a group of Amazon EC2 instances behind an Application Load Balancer (ALB). The ALB is using AWS WAF.
An external customer needs to connect to the web application. The company must provide IP addresses to all external customers.
Which solution will meet these requirements with the LEAST operational overhead?

A. Replace the ALB with a Network Load Balancer (NLB). Assign an Elastic IP address to the NLB.
B. Allocate an Elastic IP addres
C. Assign the Elastic IP address to the ALProvide the Elastic IP address to the customer.
D. Create an AWS Global Accelerator standard accelerato
E. Specify the ALB as the accelerator's endpoint.Provide the accelerator's IP addresses to the customer.
F. Configure an Amazon CloudFront distributio
G. Set the ALB as the origi
H. Ping the distribution's DNS name to determine the distribution's public IP addres
I. Provide the IP address to the customer.

Answer: C

Explanation:
https://docs.aws.amazon.com/global-accelerator/latest/dg/about-accelerators.alb-accelerator.html Option A is wrong. AWS WAF does not support associating with NLB.
https://docs.aws.amazon.com/waf/latest/developerguide/waf-chapter.html Option B is wrong. An ALB does not support an Elastic IP address.
https://aws.amazon.com/elasticloadbalancing/features/

NEW QUESTION 36
- (Exam Topic 2)
A company runs an intranet application on premises. The company wants to configure a cloud backup of the application. The company has selected AWS Elastic Disaster Recovery for this solution.
The company requires that replication traffic does not travel through the public internet. The application also must not be accessible from the internet. The company does not want this solution to consume all available network bandwidth because other applications require bandwidth.
Which combination of steps will meet these requirements? (Select THREE.)

A. Create a VPC that has at least two private subnets, two NAT gateways, and a virtual private gateway.
B. Create a VPC that has at least two public subnets, a virtual private gateway, and an internet gateway.
C. Create an AWS Site-to-Site VPN connection between the on-premises network and the target AWS network.
D. Create an AWS Direct Connect connection and a Direct Connect gateway between the on-premises network and the target AWS network.
E. During configuration of the replication servers, select the option to use private IP addresses for data replication.
F. During configuration of the launch settings for the target servers, select the option to ensure that the Recovery instance's private IP address matches the source server's private IP address.

Answer: BDE

Explanation:
AWS Elastic Disaster Recovery (AWS DRS) is a service that minimizes downtime and data loss with fast, reliable recovery of on-premises and cloud-based applications using affordable storage, minimal compute, and point-in-time recovery1. Users can set up AWS DRS on their source servers to initiate secure data replication to a staging area subnet in their AWS account, in the AWS Region they select. Users can then launch recovery instances on AWS within minutes, using the most up-to-date server state or a previous point in time.
To configure a cloud backup of the application with AWS DRS, users need to create a VPC that has at least
two public subnets, a virtual private gateway, and an internet gateway. A VPC is a logically isolated section of the AWS Cloud where users can launch AWS resources in a virtual network that they define2. A public subnet is a subnet that has a route to an internet gateway3. A virtual private gateway is the VPN concentrator on the Amazon side of the Site-to-Site VPN connection4. An internet gateway is a horizontally scaled, redundant, and highly available VPC component that allows communication between instances in the VPC and the internet. Users need to create at least two public subnets for redundancy and high availability. Users need to create a virtual private gateway and attach it to the VPC to enable VPN connectivity between the on-premises network and the target AWS network. Users need to create an internet gateway and attach it to the VPC to enable internet access for the replication servers.
To ensure that replication traffic does not travel through the public internet, users need to create an AWS Direct Connect connection and a Direct Connect gateway between the on-premises network and the target AWS network. AWS Direct Connect is a service that establishes a dedicated network connection from an on-premises network to one or more VPCs. A Direct Connect gateway is a globally available resource that allows users to connect multiple VPCs across different Regions to their on-premises networks using one or more Direct Connect connections. Users need to create an AWS Direct Connect connection between their on-premises network and an AWS Region. Users need to create a Direct Connect gateway and associate it with their VPC and their Direct Connect connection.
To ensure that the application is not accessible from the internet, users need to select the option to use private IP addresses for data replication during configuration of the replication servers. This option configures the replication servers with private IP addresses only, without assigning any public IP addresses or Elastic IP addresses. This way, the replication servers can only communicate with other resources within the VPC or through VPN connections.
Option A is incorrect because creating a VPC that has at least two private subnets, two NAT gateways, and a virtual private gateway is not necessary or cost-effective. A private subnet is a subnet that does not have a route to an internet gateway3. A NAT gateway is a highly available, managed Network Address Translation (NAT) service that enables instances in a private subnet to connect to the internet or other AWS services, but prevents the internet from initiating connections with those instances. Users do not need to create private subnets or NAT gateways for this use case, as they can use public subnets with private IP addresses for data replication.

Option C is incorrect because creating an AWS Site-to-Site VPN connection between the on-premises network and the target AWS network will not ensure that replication traffic does not travel through the public
internet. A Site-to-Site VPN connection consists of two VPN tunnels between an on-premises customer
gateway device and a virtual private gateway in your VPC4. The VPN tunnels are encrypted using IPSec protocols, but they still use public IP addresses for communication. Users need to use AWS Direct Connect instead of Site-to-Site VPN for this use case.
Option F is incorrect because selecting the option to ensure that the Recovery instance's private IP address matches the source server's private IP address during configuration of the launch settings for the target servers will not ensure that the application is not accessible from the internet. This option configures the Recovery instance with an identical private IP address as its source server when launched in drills or recovery mode. However, this option does not prevent assigning public IP addresses or Elastic IP addresses to the Recovery instance. Users need to select the option to use private IP addresses for data replication instead.

NEW QUESTION 39
- (Exam Topic 2)
A company is designing an AWS Organizations structure. The company wants to standardize a process to apply tags across the entire organization. The company will require tags with specific values when a user creates a new resource. Each of the company's OUs will have unique tag values.
Which solution will meet these requirements?

A. Use an SCP to deny the creation of resources that do not have the required tag
B. Create a tag policy that Includes the tag values that the company has assigned to each O
C. Attach the tag policies to the OUs.
D. Use an SCP to deny the creation of resources that do not have the required tag
E. Create a tag policy that includes the tag values that the company has assigned to each O
F. Attach the tag policies to the organization's management account.
G. Use an SCP to allow the creation of resources only when the resources have the required tag
H. Create a tag policy that includes the tag values that the company has assigned to each O
I. Attach the tag policies to the OUs.
J. Use an SCP to deny the creation of resources that do not have the required tag
K. Define the list of tags.Attach the SCP to the OUs

Answer: A

Explanation:
https://aws.amazon.com/blogs/mt/implement-aws-resource-tagging-strategy-using-aws-tag-policies-and-service

NEW QUESTION 43
- (Exam Topic 2)
A company has millions of objects in an Amazon S3 bucket. The objects are in the S3 Standard storage class. All the S3 objects are accessed frequently. The number of users and applications that access the objects is increasing rapidly. The objects are encrypted with server-side encryption with AWS KMS Keys (SSE-KMS).
A solutions architect reviews the company's monthly AWS invoice and notices that AWS KMS costs are increasing because of the high number of requests from Amazon S3. The solutions architect needs to optimize costs with minimal changes to the application.
Which solution will meet these requirements with the LEAST operational overhead?

A. Create a new S3 bucket that has server-side encryption with customer-provided keys (SSE-C) as the encryption typ
B. Copy the existing objects to the new S3 bucke
C. Specify SSE-C.
D. Create a new S3 bucket that has server-side encryption with Amazon S3 managed keys (SSE-S3) as the encryption typ
E. Use S3 Batch Operations to copy the existing objects to the new S3 bucke
F. Specify SSE-S3.
G. Use AWS CloudHSM to store the encryption key
H. Create a new S3 bucke
I. Use S3 Batch Operations to copy the existing objects to the new S3 bucke
J. Encrypt the objects by using the keys from CloudHSM.
K. Use the S3 Intelligent-Tiering storage class for the S3 bucke
L. Create an S3 Intelligent-Tiering archive configuration to transition objects that are not accessed for 90 days to S3 Glacier Deep Archive.

Answer: B

Explanation:
To reduce the volume of Amazon S3 calls to AWS KMS, use Amazon S3 bucket keys, which are protected encryption keys that are reused for a limited time in Amazon S3. Bucket keys can reduce costs for AWS KMS requests by up to 99%. You can configure a bucket key for all objects in an Amazon S3 bucket, or for a specific object in an Amazon S3 bucket. https://docs.aws.amazon.com/fr_fr/kms/latest/developerguide/services-s3.html

NEW QUESTION 47
- (Exam Topic 2)
A company runs an application on a fleet of Amazon EC2 instances that are in private subnets behind an
internet-facing Application Load Balancer (ALB). The ALB is the origin for an Amazon CloudFront distribution. An AWS WAF web ACL that contains various AWS managed rules is associated with the CloudFront distribution.
The company needs a solution that will prevent internet traffic from directly accessing the ALB. Which solution will meet these requirements with the LEAST operational overhead?

A. Create a new web ACL that contains the same rules that the existing web ACL contain
B. Associate the new web ACL with the ALB.
C. Associate the existing web ACL with the ALB.
D. Add a security group rule to the ALB to allow traffic from the AWS managed prefix list for CloudFront only.
E. Add a security group rule to the ALB to allow only the various CloudFront IP address ranges.

Answer: C

Explanation:

https://aws.amazon.com/about-aws/whats-new/2022/02/amazon-cloudfront-managed-prefix-list/

NEW QUESTION 49
- (Exam Topic 2)
A company is migrating a document processing workload to AWS. The company has updated many applications to natively use the Amazon S3 API to store, retrieve, and modify documents that a processing server generates at a rate of approximately 5 documents every second. After the document processing is finished, customers can download the documents directly from Amazon S3.
During the migration, the company discovered that it could not immediately update the processing server that generates many documents to support the S3 API. The server runs on Linux and requires fast local access to the files that the server generates and modifies. When the server finishes processing, the files must be available to the public for download within 30 minutes.
Which solution will meet these requirements with the LEAST amount of effort?

A. Migrate the application to an AWS Lambda functio
B. Use the AWS SDK for Java to generate, modify, and access the files that the company stores directly in Amazon S3.
C. Set up an Amazon S3 File Gateway and configure a file share that is linked to the document store.Mount the file share on an Amazon EC2 instance by using NF
D. When changes occur in Amazon S3, initiate a RefreshCache API call to update the S3 File Gateway.
E. Configure Amazon FSx for Lustre with an import and export polic
F. Link the new file system to an S3 bucke
G. Install the Lustre client and mount the document store to an Amazon EC2 instance by using NFS.
H. Configure AWS DataSync to connect to an Amazon EC2 instanc
I. Configure a task to synchronize the generated files to and from Amazon S3.

Answer: C

Explanation:
Amazon FSx for Lustre is a fully managed service that provides cost-effective, high-performance, scalable storage for compute workloads. Powered by Lustre, the world's most popular high-performance file system, FSx for Lustre offers shared storage with sub-ms latencies, up to terabytes per second of throughput, and millions of IOPS. FSx for Lustre file systems can also be linked to Amazon Simple Storage Service (S3) buckets, allowing you to access and process data concurrently from both a high-performance file system and from the S3 API.

NEW QUESTION 54
- (Exam Topic 2)
A company has an application that runs as a ReplicaSet of multiple pods in an Amazon Elastic Kubernetes Service (Amazon EKS) cluster. The EKS cluster has nodes in multiple Availability Zones. The application generates many small files that must be accessible across all running instances of the application. The company needs to back up the files and retain the backups for 1 year.
Which solution will meet these requirements while providing the FASTEST storage performance?

A. Create an Amazon Elastic File System (Amazon EFS) file system and a mount target for each subnet that contains nodes in the EKS cluste
B. Configure the ReplicaSet to mount the file syste
C. Direct the application to store files in the file syste
D. Configure AWS Backup to back up and retain copies of the data for 1 year.
E. Create an Amazon Elastic Block Store (Amazon EBS) volum
F. Enable the EBS Multi-Attach feature.Configure the ReplicaSet to mount the EBS volum
G. Direct the application to store files in the EBS volum
H. Configure AWS Backup to back up and retain copies of the data for 1 year.
I. Create an Amazon S3 bucke
J. Configure the ReplicaSet to mount the S3 bucke
K. Direct the application to store files in the S3 bucke
L. Configure S3 Versioning to retain copies of the dat
M. Configure an S3 Lifecycle policy to delete objects after 1 year.
N. Configure the ReplicaSet to use the storage available on each of the running application pods to store the files locall
O. Use a third-party tool to back up the EKS cluster for 1 year.

Answer: A

Explanation:
In the past, EBS can be attached only to one ec2 instance but not anymore but there are limitations like - it works only on io1/io2 instance types and many others as described here. https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ebs-volumes-multi.html EFS has shareable storage
In terms of performance, Amazon EFS is optimized for workloads that require high levels of aggregate throughput and IOPS, whereas EBS is optimized for low-latency, random access I/O operations. Amazon EFS is designed to scale throughput and capacity automatically as your storage needs grow, while EBS volumes can be resized on demand.

NEW QUESTION 56
- (Exam Topic 2)
A company runs its sales reporting application in an AWS Region in the United States. The application uses an Amazon API Gateway Regional API and AWS Lambda functions to generate on-demand reports from data in an Amazon RDS for MySQL database. The frontend of the application is hosted on Amazon S3 and is accessed by users through an Amazon CloudFront distribution. The company is using Amazon Route 53 as the DNS service for the domain. Route 53 is configured with a simple routing policy to route traffic to the API Gateway API.
In the next 6 months, the company plans to expand operations to Europe. More than 90% of the database traffic is read-only traffic. The company has already deployed an API Gateway API and Lambda functions in the new Region.
A solutions architect must design a solution that minimizes latency for users who download reports. Which solution will meet these requirements?

A. Use an AWS Database Migration Service (AWS DMS) task with full load to replicate the primary database in the original Region to the database in the new Regio
B. Change the Route 53 record to latency-based routing to connect to the API Gateway API.
C. Use an AWS Database Migration Service (AWS DMS) task with full load plus change data capture (CDC) to replicate the primary database in the original Region to the database in the new Regio
D. Change the Route 53 record to geolocation routing to connect to the API Gateway API.
E. Configure a cross-Region read replica for the RDS database in the new Regio
F. Change the Route 53 record to latency-based routing to connect to the API Gateway API.

G. Configure a cross-Region read replica for the RDS database in the new Regio
H. Change the Route 53 record to geolocation routing to connect to the API

Answer: C

Explanation:
The company should configure a cross-Region read replica for the RDS database in the new Region. The company should change the Route 53 record to latency-based routing to connect to the API Gateway API. This solution will meet the requirements because a cross-Region read replica is a feature that enables you to create a MariaDB, MySQL, Oracle, PostgreSQL, or SQL Server read replica in a different Region from the source DB instance. You can use cross-Region read replicas to improve availability and disaster recovery, scale out globally, or migrate an existing database to a new Region1. By creating a cross-Region read replica for the RDS database in the new Region, the company can have a standby copy of its primary database that can serve read-only traffic from users in Europe. A latency-based routing policy is a feature that enables you to route traffic based on the latency between your users and your resources. You can use latency-based routing to route traffic to the resource that provides the best latency2. By changing the Route 53 record to latency-based routing, the company can minimize latency for users who download reports by connecting them to the API Gateway API in the Region that provides the best response time.
The other options are not correct because:

- Using AWS Database Migration Service (AWS DMS) to replicate the primary database in the original Region to the database in the new Region would not be as cost-effective or simple as using a cross-Region read replica. AWS DMS is a service that enables you to migrate relational databases, data warehouses, NoSQL databases, and other types of data stores. You can use AWS DMS to perform one-time migrations or continuous data replication with high availability and consolidate databases into a petabyte-scale data warehouse3. However, AWS DMS requires more configuration and management than creating a cross-Region read replica, which is fully managed by Amazon RDS. AWS DMS also incurs additional charges for replication instances and tasks.
- Creating an Amazon API Gateway Data API service integration with Amazon Redshift would not help with disaster recovery or minimizing latency. The Data API is a feature that enables you to query your Amazon Redshift cluster using HTTP requests, without needing a persistent connection or a SQL client. It is useful for building applications that interact with Amazon Redshift, but not for replicating or recovering data from an RDS database.
- Creating an AWS Data Exchange datashare by connecting AWS Data Exchange to the Redshift cluster would not help with disaster recovery or minimizing latency. AWS Data Exchange is a service that makes it easy for AWS customers to exchange data in the cloud. You can use AWS Data Exchange to subscribe to a diverse selection of third-party data products or offer your own data products to other AWS customers. A datashare is a feature that enables you to share live and secure access to your Amazon Redshift data across your accounts or with third parties without copying or moving the underlying data. It is useful for sharing query results and views with other users, but not for replicating or recovering data from an RDS database.

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NEW QUESTION 58
- (Exam Topic 2)
A company runs a processing engine in the AWS Cloud The engine processes environmental data from logistics centers to calculate a sustainability index The company has millions of devices in logistics centers that are spread across Europe The devices send information to the processing engine through a RESTful API The API experiences unpredictable bursts of traffic The company must implement a solution to process all data that the devices send to the processing engine Data loss is unacceptable
Which solution will meet these requirements?

A. Create an Application Load Balancer (ALB) for the RESTful API Create an Amazon Simple Queue Service (Amazon SQS) queue Create a listener and a target group for the ALB Add the SQS queue as the target Use a container that runs in Amazon Elastic Container Service (Amazon ECS) with the Fargate launch type to process messages in the queue
B. Create an Amazon API Gateway HTTP API that implements the RESTful API Create an Amazon Simple Queue Service (Amazon SQS) queue Create an API Gateway service integration with the SQS queue Create an AWS Lambda function to process messages in the SQS queue
C. Create an Amazon API Gateway REST API that implements the RESTful API Create a fleet of Amazon EC2 instances in an Auto Scaling group Create an API Gateway Auto Scaling group proxy integration Use the EC2 instances to process incoming data
D. Create an Amazon CloudFront distribution for the RESTful API Create a data stream in Amazon Kinesis Data Streams Set the data stream as the origin for the distribution Create an AWS Lambda function to consume and process data in the data stream

Answer: A

Explanation:
it will use the ALB to handle the unpredictable bursts of traffic and route it to the SQS queue. The SQS queue will act as a buffer to store incoming data temporarily and the container running in Amazon ECS with the Fargate launch type will process messages in the queue. This approach will ensure that all data is processed and prevent data loss.

NEW QUESTION 63
- (Exam Topic 2)
A company has five development teams that have each created five AWS accounts to develop and host applications. To track spending, the development teams log in to each account every month, record the current cost from the AWS Billing and Cost Management console, and provide the information to the company's finance team.
The company has strict compliance requirements and needs to ensure that resources are created only in AWS Regions in the United States. However, some resources have been created in other Regions.
A solutions architect needs to implement a solution that gives the finance team the ability to track and consolidate expenditures for all the accounts. The solution also must ensure that the company can create resources only in Regions in the United States.
Which combination of steps will meet these requirements in the MOST operationally efficient way? (Select THREE.)

A. Create a new account to serve as a management accoun
B. Create an Amazon S3 bucket for the finance learn Use AWS Cost and Usage Reports to create monthly reports and to store the data in the finance team's S3 bucket.
C. Create a new account to serve as a management accoun
D. Deploy an organization in AWS Organizations with all features enable
E. Invite all the existing accounts to the organizatio

F. Ensure that each account accepts the invitation.
G. Create an OU that includes all the development team
H. Create an SCP that allows the creation of resources only in Regions that are in the United State
I. Apply the SCP to the OU.
J. Create an OU that includes all the development team
K. Create an SCP that denies (he creation of resources in Regions that are outside the United State
L. Apply the SCP to the OU.
M. Create an 1AM role in the management account Attach a policy that includes permissions to view the Billing and Cost Management consol
N. Allow the finance learn users to assume the rol
O. Use AWS Cost Explorer and the Billing and Cost Management console to analyze cost.
P. Create an 1AM role in each AWS accoun
Q. Attach a policy that includes permissions to view the Billing and Cost Management consol
R. Allow the finance team users to assume the role.

Answer: BCE

Explanation:
AWS Organizations is a service that enables you to consolidate multiple AWS accounts into an organization that you create and centrally manage. By creating a management account and inviting all the existing accounts to join the organization, the solutions architect can track and consolidate expenditures for all the accounts using AWS Cost Management tools such as AWS Cost Explorer and AWS Budgets. An organizational unit (OU) is a group of accounts within an organization that can be used to apply policies and simplify management. A service control policy (SCP) is a type of policy that you can use to manage permissions in your organization. By creating an OU that includes all the development teams and applying an SCP that allows the creation of resources only in Regions that are in the United States, the solutions architect can ensure that the company meets its compliance requirements and avoids unwanted charges from other Regions. An IAM role is an identity with permission policies that determine what the identity can and cannot do in AWS. By creating an IAM role in the management account and allowing the finance team users to assume it, the solutions architect can give them access to view the Billing and Cost Management console without sharing credentials or creating additional users. References:

- https://docs.aws.amazon.com/organizations/latest/userguide/orgs_introduction.html
- https://docs.aws.amazon.com/organizations/latest/userguide/orgs_manage_policies_scp.html
- https://docs.aws.amazon.com/IAM/latest/UserGuide/id_roles.html
- https://docs.aws.amazon.com/aws-cost-management/latest/userguide/what-is-costmanagement.html

NEW QUESTION 65
- (Exam Topic 2)
A company processes environment data. The has a set up sensors to provide a continuous stream of data from different areas in a city. The data is available in JSON format.
The company wants to use an AWS solution to send the data to a database that does not require fixed schemas for storage. The data must be send in real time.
Which solution will meet these requirements?

A. Use Amazon Kinesis Data Firehouse to send the data to Amazon Redshift.
B. Use Amazon Kinesis Data streams to send the data to Amazon DynamoDB.
C. Use Amazon Managed Streaming for Apache Kafka (Amazon MSK) to send the data to Amazon Aurora.
D. Use Amazon Kinesis Data firehouse to send the data to Amazon Keyspaces (for Apache Cassandra).

Answer: B

Explanation:
Amazon Kinesis Data Streams is a service that enables real-time data ingestion and processing. Amazon DynamoDB is a NoSQL database that does not require fixed schemas for storage. By using Kinesis Data Streams and DynamoDB, the company can send the JSON data to a database that can handle schemaless data in real time. References:

- https://docs.aws.amazon.com/streams/latest/dev/introduction.html
- https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/Introduction.html

NEW QUESTION 67
- (Exam Topic 2)
A company needs to audit the security posture of a newly acquired AWS account. The company's data security team requires a notification only when an Amazon S3 bucket becomes publicly exposed. The company has already established an Amazon Simple Notification Service (Amazon SNS) topic that has the data security team's email address subscribed.
Which solution will meet these requirements?

A. Create an S3 event notification on all S3 buckets for the isPublic even
B. Select the SNS topic as the target for the event notifications.
C. Create an analyzer in AWS Identity and Access Management Access Analyze
D. Create an Amazon EventBridge rule for the event type "Access Analyzer Finding" with a filter for "isPublic: true." Select the SNS topic as the EventBridge rule target.
E. Create an Amazon EventBridge rule for the event type "Bucket-Level API Call via CloudTrail" with a filter for "PutBucketPolicy." Select the SNS topic as the EventBridge rule target.
F. Activate AWS Config and add the cloudtrail-s3-dataevents-enabled rul
G. Create an Amazon EventBridge rule for the event type "Config Rules Re-evaluation Status" with a filter for "NON_COMPLIANT." Select the SNS topic as the EventBridge rule target.

Answer: B

Explanation:
Access Analyzer is to assess the access policy. https://docs.aws.amazon.com/ja_jp/AmazonS3/latest/userguide/access-control-block-public-access.html

NEW QUESTION 72
- (Exam Topic 1)
A company has deployed an application on AWS Elastic Beanstalk. The application uses Amazon Aurora for the database layer. An Amazon CloudFront

distribution serves web requests and includes the Elastic Beanstalk domain name as the origin server. The distribution is configured with an alternate domain name that visitors use when they access the application.
Each week, the company takes the application out of service for routine maintenance. During the time that the application is unavailable, the company wants visitors to receive an informational message instead of a
CloudFront error message.
A solutions architect creates an Amazon S3 bucket as the first step in the process.
Which combination of steps should the solutions architect take next to meet the requirements? (Choose three.)

A. Upload static informational content to the S3 bucket.
B. Create a new CloudFront distributio
C. Set the S3 bucket as the origin.
D. Set the S3 bucket as a second origin in the original CloudFront distributio
E. Configure the distribution and the S3 bucket to use an origin access identity (OAI).
F. During the weekly maintenance, edit the default cache behavior to use the S3 origi
G. Revert the change when the maintenance is complete.
H. During the weekly maintenance, create a cache behavior for the S3 origin on the new distributio
I. Set the path pattern to \ Set the precedence to 0. Delete the cache behavior when the maintenance is complete.
J. During the weekly maintenance, configure Elastic Beanstalk to serve traffic from the S3 bucket.

Answer: ACD

Explanation:
The company wants to serve static content from an S3 bucket during the maintenance period. To do this, the following steps are required:

- Upload static informational content to the S3 bucket. This will provide the source of the content that will be served to the visitors.
- Set the S3 bucket as a second origin in the original CloudFront distribution. Configure the distribution and the S3 bucket to use an origin access identity (OAI). This will allow CloudFront to access the S3 bucket securely and prevent public access to the bucket.
- During the weekly maintenance, edit the default cache behavior to use the S3 origin. Revert the change when the maintenance is complete. This will redirect all web requests to the S3 bucket instead of the Elastic Beanstalk domain name.

The other options are not correct because:

- Creating a new CloudFront distribution is not necessary and would require changing the alternate domain name configuration.
- Creating a cache behavior for the S3 origin on a new distribution would not work because the visitors would still access the original distribution using the alternate domain name.
- Configuring Elastic Beanstalk to serve traffic from the S3 bucket is not possible and would not achieve the desired result.

References:

- https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/distribution-web-values-specify.

NEW QUESTION 77
- (Exam Topic 1)
A company is running an event ticketing platform on AWS and wants to optimize the platform's
cost-effectiveness. The platform is deployed on Amazon Elastic Kubernetes Service (Amazon EKS) with Amazon EC2 and is backed by an Amazon RDS for MySQL DB instance. The company is developing new application features to run on Amazon EKS with AWS Fargate.
The platform experiences infrequent high peaks in demand. The surges in demand depend on event dates. Which solution will provide the MOST cost-effective setup for the platform?

A. Purchase Standard Reserved Instances for the EC2 instances that the EKS cluster uses in its baseline loa
B. Scale the cluster with Spot Instances to handle peak
C. Purchase 1-year All Upfront Reserved Instances for the database to meet predicted peak load for the year.
D. Purchase Compute Savings Plans for the predicted medium load of the EKS cluste
E. Scale the cluster with On-Demand Capacity Reservations based on event dates for peak
F. Purchase 1-year No Upfront Reserved Instances for the database to meet the predicted base loa
G. Temporarily scale out database read replicas during peaks.
H. Purchase EC2 Instance Savings Plans for the predicted base load of the EKS cluste
I. Scale the cluster with Spot Instances to handle peak
J. Purchase 1-year All Upfront Reserved Instances for the database to meet the predicted base loa
K. Temporarily scale up the DB instance manually during peaks.
L. Purchase Compute Savings Plans for the predicted base load of the EKS cluste
M. Scale the cluster with Spot Instances to handle peak
N. Purchase 1-year All Upfront Reserved Instances for the database to meet the predicted base loa
O. Temporarily scale up the DB instance manually during peaks.

Answer: B

Explanation:
They all mention using spot instances and EKS based on EC2. A spot instance is not appropriate for a production server and the company is developing new application designed for AWS Fargate, which means we must plan the future cost improvement including AWS Fargate.
https://aws.amazon.com/savingsplans/compute-pricing/

NEW QUESTION 80
- (Exam Topic 1)
A start up company hosts a fleet of Amazon EC2 instances in private subnets using the latest Amazon Linux 2 AMI. The company's engineers rely heavily on SSH access to the instances for troubleshooting.
The company's existing architecture includes the following:
• A VPC with private and public subnets, and a NAT gateway
• Site-to-Site VPN for connectivity with the on-premises environment
• EC2 security groups with direct SSH access from the on-premises environment
The company needs to increase security controls around SSH access and provide auditing of commands executed by the engineers.
Which strategy should a solutions architect use?

A. Install and configure EC2 Instance Connect on the fleet of EC2 instance
B. Remove all security group rules attached to EC2 instances that allow inbound TCP on port 22. Advise the engineers to remotely access the instances by using the EC2 Instance Connect CLI.
C. Update the EC2 security groups to only allow inbound TCP on port 22 to the IP addresses of the engineer's device
D. Install the Amazon CloudWatch agent on all EC2 instances and send operating system audit logs to CloudWatch Logs.
E. Update the EC2 security groups to only allow inbound TCP on port 22 to the IP addresses of the engineer's device
F. Enable AWS Config for EC2 security group resource change
G. Enable AWS Firewall Manager and apply a security group policy that automatically remediates changes to rules.
H. Create an IAM role with the AmazonSSMManagedInstanceCore managed policy attache
I. Attach the IAM role to all the EC2 instance
J. Remove all security group rules attached to the EC2 instances that allow inbound TCP on port 22. Have the engineers install the AWS Systems Manager Session Manager plugin for their devices and remotely access the instances by using the start-session API call from Systems Manager.

Answer: D

Explanation:
Allows client machines to be able to connect to Session Manager using the AWS CLI instead of going through the AWS EC2 or AWS Server Manager console.
https://docs.aws.amazon.com/systems-manager/latest/userguide/session-manager-working-with-install-plugin.ht https://docs.aws.amazon.com/systems-manager/latest/userguide/session-manager-working-with-install-plugin.ht

NEW QUESTION 83
- (Exam Topic 1)
A company is developing a new service that will be accessed using TCP on a static port A solutions architect must ensure that the service is highly available, has redundancy across Availability Zones, and is accessible using the DNS name myservice.com, which is publicly accessible The service must use fixed address assignments so other companies can add the addresses to their allow lists.
Assuming that resources are deployed in multiple Availability Zones in a single Region, which solution will meet these requirements?

A. Create Amazon EC2 instances with an Elastic IP address for each instance Create a Network Load Balancer (NLB) and expose the static TCP port Register EC2instances with the NLB Create a new name server record set named my service com, and assign the Elastic IP addresses of the EC2 instances to the record set Provide the Elastic IP addresses of the EC2 instances to the other companies to add to their allow lists
B. Create an Amazon ECS cluster and a service definition for the application Create and assign public IP addresses for the ECS cluster Create a Network Load Balancer (NLB) and expose the TCP port Create atarget group and assign the ECS cluster name to the NLB Create a new A record set named my service com and assign the public IP addresses of the ECS cluster to the record set Provide the public IP addresses of the ECS cluster to the other companies to add to their allow lists
C. Create Amazon EC2 instances for the service Create one Elastic IP address for each Availability Zone Create a Network Load Balancer (NLB) and expose the assigned TCP port Assign the Elastic IP addresses to the NLB for each Availability Zone Create a target group and register the EC2 instances with the NLB Create a new A (alias) record set named my service com, and assign the NLB DNS name to the record set.
D. Create an Amazon ECS cluster and a service definition for the application Create and assign public IP address for each host in the cluster Create an Application Load Balancer (ALB) and expose the static TCP port Create a target group and assign the ECS service definition name to the ALB Create a new CNAME record set and associate the public IP addresses to the record set Provide the Elastic IP addresses of the Amazon EC2 instances to the other companies to add to their allow lists

Answer: C

Explanation:
https://docs.aws.amazon.com/Route53/latest/DeveloperGuide/routing-to-elb-load-balancer.html
Create a Network Load Balancer (NLB) and expose the assigned TCP port. Assign the Elastic IP addresses to the NLB for each Availability Zone. Create a target group and register the EC2 instances with the NLB. Create a new A (alias) record set named my.service.com, and assign the NLB DNS name to the record set. As it uses the NLB as the resource in the A-record, traffic will be routed through the NLB, and it will automatically route the traffic to the healthy instances based on the health checks and also it provides the fixed address assignments as the other companies can add the NLB's Elastic IP addresses to their allow lists.

NEW QUESTION 84
- (Exam Topic 1)
A company is developing a new serverless API by using Amazon API Gateway and AWS Lambda. The company integrated the Lambda functions with API Gateway to use several shared libraries and custom classes.
A solutions architect needs to simplify the deployment of the solution and optimize for code reuse. Which solution will meet these requirements?

A. Deploy the shared libraries and custom classes into a Docker imag
B. Store the image in an S3 bucket.Create a Lambda layer that uses the Docker image as the sourc
C. Deploy the API's Lambda functions as Zip package
D. Configure the packages to use the Lambda layer.
E. Deploy the shared libraries and custom classes to a Docker imag
F. Upload the image to Amazon Elastic Container Registry (Amazon ECR). Create a Lambda layer that uses the Docker image as the sourc
G. Deploy the API's Lambda functions as Zip package
H. Configure the packages to use the Lambda layer.
I. Deploy the shared libraries and custom classes to a Docker container in Amazon Elastic Container Service (Amazon ECS) by using the AWS Fargate launch typ
J. Deploy the API's Lambda functions as Zip package
K. Configure the packages to use the deployed container as a Lambda layer.
L. Deploy the shared libraries, custom classes, and code for the API's Lambda functions to a Docker imag
M. Upload the image to Amazon Elastic Container Registry (Amazon ECR). Configure the API's Lambda functions to use the Docker image as the deployment package.

Answer: B

Explanation:
Deploying the shared libraries and custom classes to a Docker image and uploading the image to Amazon Elastic Container Registry (Amazon ECR) and creating a Lambda layer that uses the Docker image as the source. Then, deploying the API's Lambda functions as Zip packages and configuring the packages to use the Lambda layer would meet the requirements for simplifying the deployment and optimizing for code reuse.
A Lambda layer is a distribution mechanism for libraries, custom runtimes, and other function dependencies. It allows you to manage your in-development function code separately from your dependencies, this way you can easily update your dependencies without having to update your entire function code.
By deploying the shared libraries and custom classes to a Docker image and uploading the image to Amazon Elastic Container Registry (ECR), it makes it easy to

manage and version the dependencies. This way, the company can use the same version of the dependencies across different Lambda functions.
By creating a Lambda layer that uses the Docker image as the source, the company can configure the API's Lambda functions to use the layer, reducing the need to include the dependencies in each function package, and making it easy to update the dependencies across all functions at once.
Reference:
AWS Lambda Layers documentation: https://docs.aws.amazon.com/lambda/latest/dg/configuration-layers.html
AWS Elastic Container Registry (ECR) documentation: https://aws.amazon.com/ecr/ Building Lambda Layers with Docker documentation: https://aws.amazon.com/blogs/compute/building-lambda-layers-with-docker/

NEW QUESTION 85
- (Exam Topic 1)
A large mobile gaming company has successfully migrated all of its on-premises infrastructure to the AWS Cloud. A solutions architect is reviewing the environment to ensure that it was built according to the design and that it is running in alignment with the Well-Architected Framework.
While reviewing previous monthly costs in Cost Explorer, the solutions architect notices that the creation and subsequent termination of several large instance types account for a high proportion of the costs. The solutions architect finds out that the company's developers are launching new Amazon EC2 instances as part of their testing and that the developers are not using the appropriate instance types.
The solutions architect must implement a control mechanism to limit the instance types that only the developers can launch.
Which solution will meet these requirements?

A. Create a desired-instance-type managed rule in AWS Confi
B. Configure the rule with the instance types that are allowe
C. Attach the rule to an event to run each time a new EC2 instance is launched.
D. In the EC2 console, create a launch template that specifies the instance types that are allowe
E. Assign the launch template to the developers' IAM accounts.
F. Create a new IAM polic
G. Specify the instance types that are allowe
H. Attach the policy to an IAM group that contains the IAM accounts for the developers
I. Use EC2 Image Builder to create an image pipeline for the developers and assist them in the creation of a golden image.

Answer: C

Explanation:
This is doable with IAM policy creation to restrict users to specific instance types. Found the below article. https://blog.vizuri.com/limiting-allowed-aws-instance-type-with-iam-policy

NEW QUESTION 88
- (Exam Topic 1)
A solutions architect needs to advise a company on how to migrate its on-premises data processing application to the AWS Cloud. Currently, users upload input files through a web portal. The web server then stores the uploaded files on NAS and messages the processing server over a message queue. Each media file can take up to 1 hour to process. The company has determined that the number of media files awaiting processing is significantly higher during business hours, with the number of files rapidly declining after business hours.
What is the MOST cost-effective migration recommendation?

A. Create a queue using Amazon SQ
B. Configure the existing web server to publish to the new queue.When there are messages in the queue, invoke an AWS Lambda function to pull requests from the queue and process the file
C. Store the processed files in an Amazon S3 bucket.
D. Create a queue using Amazon
E. Configure the existing web server to publish to the new queu
F. When there are messages in the queue, create a new Amazon EC2 instance to pull requests from the queue and process the file
G. Store the processed files in Amazon EF
H. Shut down the EC2 instance after the task is complete.
I. Create a queue using Amazon M
J. Configure the existing web server to publish to the new queue.When there are messages in the queue, invoke an AWS Lambda function to pull requests from the queue and process the file
K. Store the processed files in Amazon EFS.
L. Create a queue using Amazon SO
M. Configure the existing web server to publish to the new queu
N. Use Amazon EC2 instances in an EC2 Auto Scaling group to pull requests from the queue and process the file
O. Scale the EC2 instances based on the SOS queue lengt
P. Store the processed files in an Amazon S3 bucket.

Answer: D

Explanation:
https://aws.amazon.com/blogs/compute/operating-lambda-performance-optimization-part-1/

NEW QUESTION 89
- (Exam Topic 1)
A company has migrated its forms-processing application to AWS. When users interact with the application, they upload scanned forms as files through a web application. A database stores user metadata and references to files that are stored in Amazon S3. The web application runs on Amazon EC2 instances and an Amazon RDS for PostgreSQL database.
When forms are uploaded, the application sends notifications to a team through Amazon Simple Notification Service (Amazon SNS). A team member then logs in and processes each form. The team member performs data validation on the form and extracts relevant data before entering the information into another system that uses an API.
A solutions architect needs to automate the manual processing of the forms. The solution must provide accurate form extraction, minimize time to market, and minimize long-term operational overhead.
Which solution will meet these requirements?

A. Develop custom libraries to perform optical character recognition (OCR) on the form
B. Deploy the libraries to an Amazon Elastic Kubernetes Service (Amazon EKS) cluster as an application tie

C. Use this tier to process the forms when forms are uploade
D. Store the output in Amazon S3. Parse this output by extracting the data into an Amazon DynamoDB tabl
E. Submit the data to the target system's AP
F. Host the new application tier on EC2 instances.
G. Extend the system with an application tier that uses AWS Step Functions and AWS Lambd
H. Configure this tier to use artificial intelligence and machine learning (AI/ML) models that are trained and hosted on an EC2 instance to perform optical character recognition (OCR) on the forms when forms are uploade
I. Store the output in Amazon S3. Parse this output by extracting the data that is required within the application tie
J. Submit the data to the target system's API.
K. Host a new application tier on EC2 instance
L. Use this tier to call endpoints that host artificial intelligence and machine learning (AI/ML) models that are trained and hosted in Amazon SageMaker to perform optical character recognition (OCR) on the form
M. Store the output in Amazon ElastiCach
N. Parse this output by extracting the data that is required within the application tie
O. Submit the data to the target system's API.
P. Extend the system with an application tier that uses AWS Step Functions and AWS Lambd
Q. Configure this tier to use Amazon Textract and Amazon Comprehend to perform optical character recognition (OCR) on the forms when forms are uploade
R. Store the output in Amazon S3. Parse this output by extracting the data that is required within the application tie
S. Submit the data to the target system's API.

Answer: D

Explanation:
Extend the system with an application tier that uses AWS Step Functions and AWS Lambda. Configure this tier to use Amazon Textract and Amazon Comprehend to perform optical character recognition (OCR) on the forms when forms are uploaded. Store the output in Amazon S3. Parse this output by extracting the data that is required within the application tier. Submit the data to the target system's API. This solution meets the requirements of accurate form extraction, minimal time to market, and minimal long-term operational overhead. Amazon Textract and Amazon Comprehend are fully managed and serverless services that can perform OCR and extract relevant data from the forms, which eliminates the need to develop custom libraries or train and host models. Using AWS Step Functions and Lambda allows for easy automation of the process and the ability to scale as needed.

NEW QUESTION 93
- (Exam Topic 1)
A company is hosting a three-tier web application in an on-premises environment. Due to a recent surge in traffic that resulted in downtime and a significant financial impact, company management has ordered that the application be moved to AWS. The application is written in .NET and has a dependency on a MySQL database A solutions architect must design a scalable and highly available solution to meet the demand of 200000 daily users.
Which steps should the solutions architect take to design an appropriate solution?

A. Use AWS Elastic Beanstalk to create a new application with a web server environment and an Amazon RDS MySQL Multi-AZ DB instance The environment should launch a Network Load Balancer (NLB) in front of an Amazon EC2 Auto Scaling group in multiple Availability Zones Use an Amazon Route 53 alias record to route traffic from the company's domain to the NLB.
B. Use AWS CloudFormation to launch a stack containing an Application Load Balancer (ALB) in front of an Amazon EC2 Auto Scaling group spanning three Availability Zone
C. The stack should launch a Multi-AZ deployment of an Amazon Aurora MySQL DB cluster with a Retain deletion polic
D. Use an Amazon Route 53 alias record to route traffic from the company's domain to the ALB
E. Use AWS Elastic Beanstalk to create an automatically scaling web server environment that spans two separate Regions with an Application Load Balancer (ALB) in each Regio
F. Create a Multi-AZ deployment of an Amazon Aurora MySQL DB cluster with a cross-Region read replica Use Amazon Route 53 with a geoproximity routing policy to route traffic between the two Regions.
G. Use AWS CloudFormation to launch a stack containing an Application Load Balancer (ALB) in front of an Amazon ECS cluster of Spot Instances spanning three Availability Zones The stack should launch an Amazon RDS MySQL DB instance with a Snapshot deletion policy Use an Amazon Route 53 alias record to route traffic from the company's domain to the ALB

Answer: C

Explanation:
Using AWS CloudFormation to launch a stack with an Application Load Balancer (ALB) in front of an Amazon EC2 Auto Scaling group spanning three Availability Zones, a Multi-AZ deployment of an Amazon Aurora MySQL DB cluster with a Retain deletion policy, and an Amazon Route 53 alias record to route traffic from the company’s domain to the ALB will ensure that

NEW QUESTION 98
- (Exam Topic 1)
A company is developing and hosting several projects in the AWS Cloud. The projects are developed across multiple AWS accounts under the same organization in AWS Organizations. The company requires the cost lor cloud infrastructure to be allocated to the owning project. The team responsible for all of the AWS accounts has discovered that several Amazon EC2 instances are lacking the Project tag used for cost allocation.
Which actions should a solutions architect take to resolve the problem and prevent it from happening in the future? (Select THREE.)

A. Create an AWS Config rule in each account to find resources with missing tags.
B. Create an SCP in the organization with a deny action for ec2:RunInstances if the Project tag is missing.
C. Use Amazon Inspector in the organization to find resources with missing tags.
D. Create an IAM policy in each account with a deny action for ec2:RunInstances if the Project tag is missing.
E. Create an AWS Config aggregator for the organization to collect a list of EC2 instances with the missing Project tag.
F. Use AWS Security Hub to aggregate a list of EC2 instances with the missing Project tag.

Answer: ABE

Explanation:
https://docs.aws.amazon.com/config/latest/developerguide/config-rule-multi-account-deployment.html
https://docs.aws.amazon.com/config/latest/developerguide/aggregate-data.html
https://docs.aws.amazon.com/organizations/latest/userguide/orgs_manage_policies_scps_examples_tagging.htm

NEW QUESTION 100
- (Exam Topic 1)
A company has a serverless application comprised of Amazon CloudFront, Amazon API Gateway, and AWS Lambda functions. The current deployment process of the application code is to create a new version number of the Lambda function and run an AWS CLI script to update. If the new function version has errors, another CLI script reverts by deploying the previous working version of the function. The company would like to decrease the time to deploy new versions of the application logic provided by the Lambda functions, and also reduce the time to detect and revert when errors are identified.
How can this be accomplished?

A. Create and deploy nested AWS CloudFormation stacks with the parent stack consisting of the AWS CloudFront distribution and API Gateway, and the child stack containing the Lambda functio
B. For changes to Lambda, create an AWS CloudFormation change set and deploy; if errors are triggered, revert the AWS CloudFormation change set to the previous version.
C. Use AWS SAM and built-in AWS CodeDeploy to deploy the new Lambda version, gradually shift traffic to the new version, and use pre-traffic and post-traffic test functions to verify cod
D. Rollback if Amazon CloudWatch alarms are triggered.
E. Refactor the AWS CLI scripts into a single script that deploys the new Lambda versio
F. When deployment is completed, the script tests execut
G. If errors are detected, revert to the previous Lambda version.
H. Create and deploy an AWS CloudFormation stack that consists of a new API Gateway endpoint that references the new Lambda versio
I. Change the CloudFront origin to the new API Gateway endpoint, monitor errors and if detected, change the AWS CloudFront origin to the previous API Gateway endpoint.

Answer: B

Explanation:
https://aws.amazon.com/about-aws/whats-new/2017/11/aws-lambda-supports-traffic-shifting-and-phased-deploy

NEW QUESTION 102
- (Exam Topic 1)
A company is running applications on AWS in a multi-account environment. The company's sales team and marketing team use separate AWS accounts in AWS Organizations.
The sales team stores petabytes of data in an Amazon S3 bucket. The marketing team uses Amazon QuickSight for data visualizations. The marketing team needs access to data that the sates team stores in the S3 bucket. The company has encrypted the S3 bucket with an AWS Key Management Service (AWS KMS) key. The marketing team has already created the IAM service role for QuickSight to provide QuickSight access in the marketing AWS account. The company needs a solution that will provide secure access to the data in the S3 bucket across AWS accounts.
Which solution will meet these requirements with the LEAST operational overhead?

A. Create a new S3 bucket in the marketing accoun
B. Create an S3 replication rule in the sales account to copy the objects to the new S3 bucket in the marketing accoun
C. Update the QuickSight permissions in the marketing account to grant access to the new S3 bucket.
D. Create an SCP to grant access to the S3 bucket to the marketing accoun
E. Use AWS Resource Access Manager (AWS RAM) to share the KMS key from the sates account with the marketing accoun
F. Update the QuickSight permissions in the marketing account to grant access to the S3 bucket.
G. Update the S3 bucket policy in the marketing account to grant access to the QuickSight rol
H. Create a KMS grant for the encryption key that is used in the S3 bucke
I. Grant decrypt access to the QuickSight rol
J. Update the QuickSight permissions in the marketing account to grant access to the S3 bucket.
K. Create an IAM role in the sales account and grant access to the S3 bucke
L. From the marketing account, assume the IAM role in the sales account to access the S3 bucke
M. Update the QuickSight rote, to create a trust relationship with the new IAM role in the sales account.

Answer: D

Explanation:
Create an IAM role in the sales account and grant access to the S3 bucket. From the marketing account, assume the IAM role in the sales account to access the S3 bucket. Update the QuickSight role, to create a trust relationship with the new IAM role in the sales account.
This approach is the most secure way to grant cross-account access to the data in the S3 bucket while minimizing operational overhead. By creating an IAM role in the sales account, the marketing team can assume the role in their own account, and have access to the S3 bucket. And updating the QuickSight role, to create a trust relationship with the new IAM role in the sales account will grant the marketing team to access the data in the S3 bucket and use it for data visualization using QuickSight.
AWS Resource Access Manager (AWS RAM) also allows sharing of resources between accounts, but it would require additional management and configuration to set up the sharing, which would increase operational overhead.
Using S3 replication would also replicate the data to the marketing account, but it would not provide the marketing team access to the original data, and also it would increase operational overhead with managing the replication process.
IAM roles and policies, KMS grants and trust relationships are a powerful combination for managing
cross-account access in a secure and efficient manner. References:
- AWS IAM Roles
- AWS KMS - Key Grants
- AWS RAM

NEW QUESTION 106
- (Exam Topic 1)
A software company has deployed an application that consumes a REST API by using Amazon API Gateway. AWS Lambda functions, and an Amazon DynamoDB table. The application is showing an increase in the number of errors during PUT requests. Most of the PUT calls come from a small number of clients that are authenticated with specific API keys.
A solutions architect has identified that a large number of the PUT requests originate from one client. The API is noncritical, and clients can tolerate retries of unsuccessful calls. However, the errors are displayed to customers and are causing damage to the API's reputation.
What should the solutions architect recommend to improve the customer experience?

A. Implement retry logic with exponential backoff and irregular variation in the client applicatio

B. Ensure that the errors are caught and handled with descriptive error messages.
C. Implement API throttling through a usage plan at the API Gateway leve
D. Ensure that the client application handles code 429 replies without error.
E. Turn on API caching to enhance responsiveness for the production stag
F. Run 10-minute load tests.Verify that the cache capacity is appropriate for the workload.
G. Implement reserved concurrency at the Lambda function level to provide the resources that are needed during sudden increases in traffic.

Answer: B

Explanation:
https://aws.amazon.com/premiumsupport/knowledge-center/aws-batch-requests-error/ https://aws.amazon.com/premiumsupport/knowledge-center/api-gateway-429-limit/

NEW QUESTION 107
- (Exam Topic 1)
A company is running an application in the AWS Cloud. The application runs on containers in an Amazon Elastic Container Service (Amazon ECS) cluster. The ECS tasks use the Fargate launch type. The application's data is relational and is stored in Amazon Aurora MySQL. To meet regulatory requirements, the application must be able to recover to a separate AWS Region in the event of an application failure. In case of a failure, no data can be lost. Which solution will meet these requirements with the LEAST amount of operational overhead?

A. Provision an Aurora Replica in a different Region.
B. Set up AWS DataSync for continuous replication of the data to a different Region.
C. Set up AWS Database Migration Service (AWS DMS) to perform a continuous replication of the data to a different Region.
D. Use Amazon Data Lifecycle Manager {Amazon DLM) to schedule a snapshot every 5 minutes.

Answer: A

Explanation:
Provision an Aurora Replica in a different Region will meet the requirement of the application being able to recover to a separate AWS Region in the event of an application failure, and no data can be lost, with the least amount of operational overhead.

NEW QUESTION 109
- (Exam Topic 1)
A finance company hosts a data lake in Amazon S3. The company receives financial data records over SFTP each night from several third parties. The company runs its own SFTP server on an Amazon EC2 instance in a public subnet of a VPC. After the files ate uploaded, they are moved to the data lake by a cron job that runs on the same instance. The SFTP server is reachable on DNS sftp.examWe.com through the use of Amazon Route 53.
What should a solutions architect do to improve the reliability and scalability of the SFTP solution?

A. Move the EC2 instance into an Auto Scaling grou
B. Place the EC2 instance behind an Application Load Balancer (ALB). Update the DNS record sftp.example.com in Route 53 to point to the ALB.
C. Migrate the SFTP server to AWS Transfer for SFT
D. Update the DNS record sftp.example.com in Route 53 to point to the server endpoint hostname.
E. Migrate the SFTP server to a file gateway in AWS Storage Gatewa
F. Update the DNS record sflp.example.com in Route 53 to point to the file gateway endpoint.
G. Place the EC2 instance behind a Network Load Balancer (NLB). Update the DNS record sftp.example.com in Route 53 to point to the NLB.

Answer: B

Explanation:
https://aws.amazon.com/aws-transfer-family/faqs/ https://docs.aws.amazon.com/transfer/latest/userguide/what-is-aws-transfer-family.html
https://aws.amazon.com/about-aws/whats-new/2018/11/aws-transfer-for-sftp-fully-managed-sftp-for-s3/?nc1=h_

NEW QUESTION 113
- (Exam Topic 1)
A company is planning to migrate its business-critical applications from an on-premises data center to AWS. The company has an on-premises installation of a Microsoft SQL Server Always On cluster. The company wants to migrate to an AWS managed database service. A solutions architect must design a heterogeneous database migration on AWS.
Which solution will meet these requirements?

A. Migrate the SQL Server databases to Amazon RDS for MySQL by using backup and restore utilities.
B. Use an AWS Snowball Edge Storage Optimized device to transfer data to Amazon S3. Set up Amazon RDS for MySQ
C. Use S3 integration with SQL Server features, such as BULK INSERT.
D. Use the AWS Schema Conversion Tool to translate the database schema to Amazon RDS for MeSQ
E. Then use AWS Database Migration Service (AWS DMS) to migrate the data from on-premises databases to Amazon RDS.
F. Use AWS DataSync to migrate data over the network between on-premises storage and Amazon S3. Set up Amazon RDS for MySQ
G. Use S3 integration with SQL Server features, such as BULK INSERT.

Answer: C

Explanation:
https://aws.amazon.com/dms/schema-conversion-tool/
AWS Schema Conversion Tool (SCT) can automatically convert the database schema from Microsoft SQL Server to Amazon RDS for MySQL. This allows for a smooth transition of the database schema without any manual intervention. AWS DMS can then be used to migrate the data from the on-premises databases to the newly created Amazon RDS for MySQL instance. This service can perform a one-time migration of the data or can set up ongoing replication of data changes to keep the on-premises and AWS databases in sync.

NEW QUESTION 114
- (Exam Topic 1)
A retail company is hosting an ecommerce website on AWS across multiple AWS Regions. The company wants the website to be operational at all times for online

purchases. The website stores data in an Amazon RDS for MySQL DB instance.
Which solution will provide the HIGHEST availability for the database?

A. Configure automated backups on Amazon RD
B. In the case of disruption, promote an automated backup to be a standalone DB instanc
C. Direct database traffic to the promoted DB instanc
D. Create a replacement read replica that has the promoted DB instance as its source.
E. Configure global tables and read replicas on Amazon RD
F. Activate the cross-Region scop
G. In the case of disruption, use AWS Lambda to copy the read replicas from one Region to another Region.
H. Configure global tables and automated backups on Amazon RD
I. In the case of disruption, use AWS Lambda to copy the read replicas from one Region to another Region.
J. Configure read replicas on Amazon RD
K. In the case of disruption, promote a cross-Region and read replica to be a standalone DB instanc
L. Direct database traffic to the promoted DB instanc
M. Create areplacement read replica that has the promoted DB instance as its source.

Answer: D

Explanation:
This solution will provide the highest availability for the database, as the read replicas will allow the database to be available in multiple Regions, thus reducing the chances of disruption. Additionally, the promotion of the cross-Region read replica to become a standalone DB instance will ensure that the database is still available even if one of the Regions experiences disruptions.

NEW QUESTION 116
- (Exam Topic 1)
A company developed a pilot application by using AWS Elastic Beanstalk and Java. To save costs during development, the company's development team deployed the application into a single-instance environment. Recent tests indicate that the application consumes more CPU than expected. CPU utilization is regularly greater than 85%, which causes some performance bottlenecks.
A solutions architect must mitigate the performance issues before the company launches the application to production.
Which solution will meet these requirements with the LEAST operational overhead?

A. Create a new Elastic Beanstalk applicatio
B. Select a load-balanced environment typ
C. Select all Availability Zone
D. Add a scale-out rule that will run if the maximum CPU utilization is over 85% for 5 minutes.
E. Create a second Elastic Beanstalk environmen
F. Apply the traffic-splitting deployment polic
G. Specify a percentage of incoming traffic to direct to the new environment in the average CPU utilization is over 85% for 5 minutes.
H. Modify the existing environment's capacity configuration to use a load-balanced environment type.Select all Availability Zone
I. Add a scale-out rule that will run if the average CPU utilization is over 85% for 5 minutes.
J. Select the Rebuild environment action with the load balancing option Select an Availability Zones Add a scale-out rule that will run if the sum CPU utilization is over 85% for 5 minutes.

Answer: C

Explanation:
This solution will meet the requirements with the least operational overhead because it allows the company to modify the existing environment's capacity configuration, so it becomes a load-balanced environment type. By selecting all availability zones, the company can ensure that the application is running in multiple availability zones, which can help to improve the availability and scalability of the application. The company can also add a scale-out rule that will run if the average CPU utilization is over 85% for 5 minutes, which can help to mitigate the performance issues. This solution does not require creating new Elastic Beanstalk environments or rebuilding the existing one, which reduces the operational overhead.
You can refer to the AWS Elastic Beanstalk documentation for more information on how to use this service: https://aws.amazon.com/elasticbeanstalk/ You can refer to the AWS documentation for more information on how to use autoscaling: https://aws.amazon.com/autoscaling/

NEW QUESTION 120
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