

Lifecycle rule actions

Choose the actions you want this rule to perform. Per-request fees apply. [Learn more](#) or see [Amazon S3 pricing](#)

- ☐ Transition *current* versions of objects between storage classes
- ☐ Transition *previous* versions of objects between storage classes
- ☐ Expire *current* versions of objects
- ☐ Permanently delete *previous* versions of objects
- ☐ Delete expired delete markers or incomplete multipart uploads

When a lifecycle rule is scoped with tags, these actions are unavailable.



ASG Scaling Policy

Predictive scaling

Dynamic scaling

Scheduled Action

Specific time or event
Time :09:00 am

Target tracking

Step

Simple

When: CPU >50

How: AWS

determine itself

When: CPU >50

How: Add 1 EC2

Step 1:

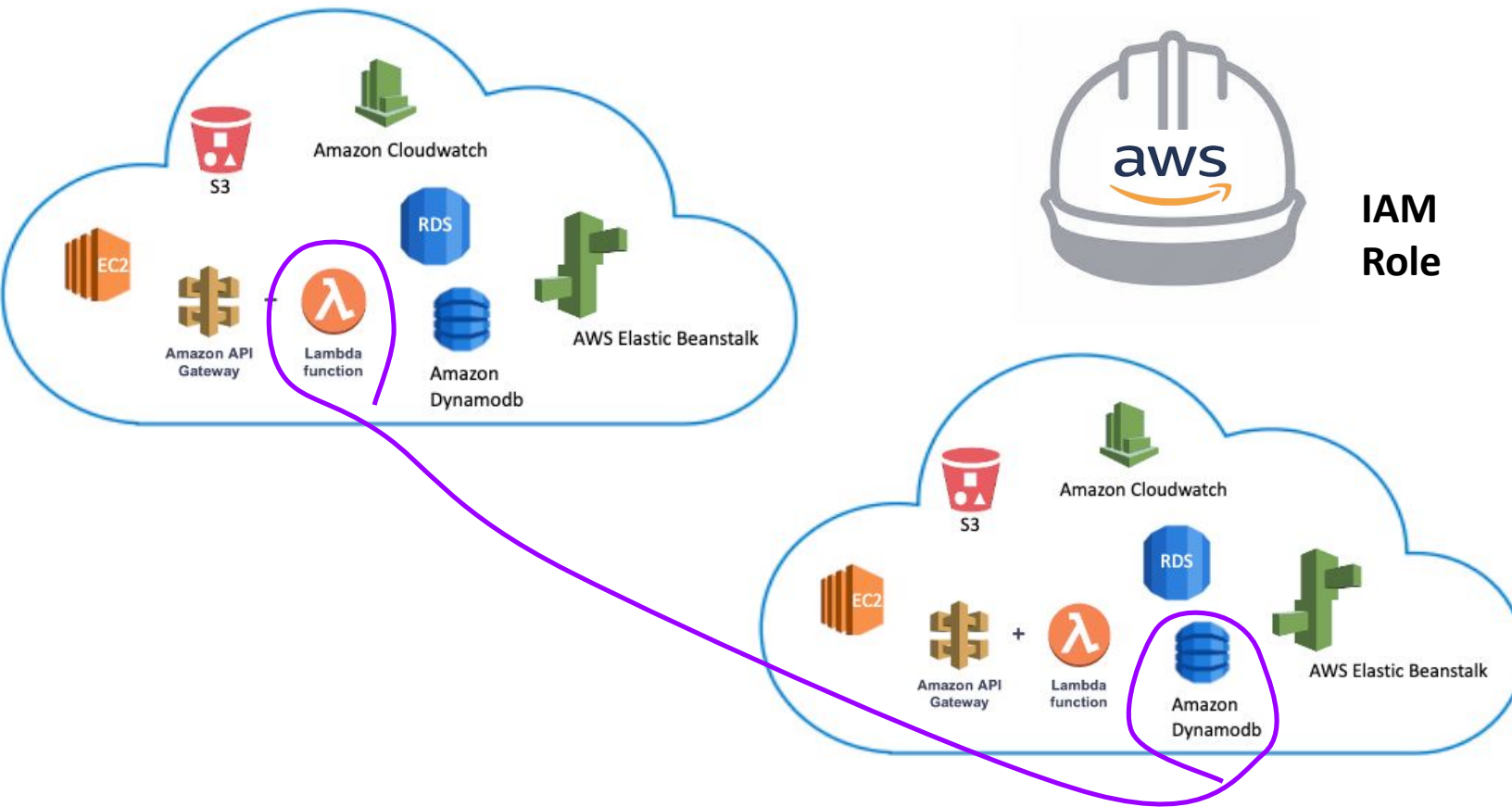
- When: 50<CPU<80

- How: Add 1 EC2

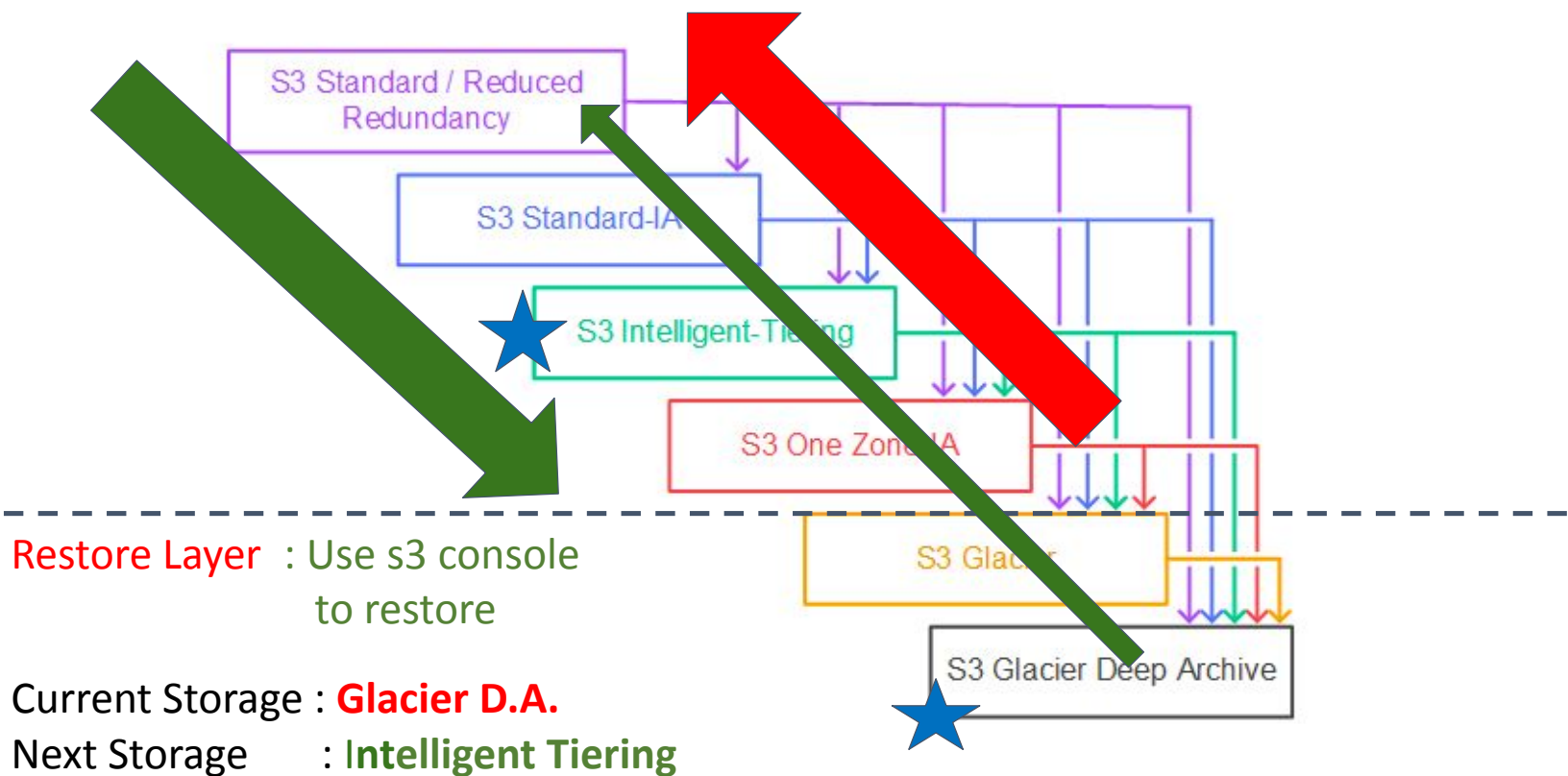
Step:2

- When: CPU >80

- How: Add 2 EC2



S3 Lifecycle Configuration-AWS console or CLI



Amazon FSx file systems



Amazon FSx for NetApp ONTAP

Fully managed shared storage built on NetApp's popular ONTAP file system.



Amazon FSx for OpenZFS

Fully managed shared storage built on the popular OpenZFS file system.



Amazon FSx for Windows File Server

Fully managed shared storage built on Windows Server.



Amazon FSx for Lustre

Fully managed shared storage built on the world's most popular high-performance file system.



- For Linux Instance
- Can't write/read S3

- Compatible with Windows Active Directory

- HPC
- Compatible with S3

- Compatible with FSx File Gateway

Cost Savings Plan

1 year/1000 dollars/limit

Compute Saving Plans

%66 Cost Saving

EC2
Fargate
Lambda

Reserved Instances

1 year/1500 dollars/limitless

Convertible RI (Reserved Instance)

%66 Cost Saving

EC2

EC2 Instance Saving Plans

%72 Cost Saving

EC2

Standard RI (Reserved Instance)

%72 Cost Saving

EC2

convertible to the other size of instance

You are building an automated transcription service where Amazon EC2 worker instances process an uploaded audio file and generate a text file. You must store both of these files in the same durable storage until the text file is retrieved. Customers fetch the text files frequently. You do not know about the storage capacity requirements. Which storage option would be both cost-efficient and highly available in this situation?



Amazon EBS



Amazon Glacier



amazon S3



Instance Store

Network ACL: `acl-02fec58ef42e8e6e9`

Default NACL

Details

Inbound Rules

Outbound Rules

Subnet associations

Tags

Edit inbound rules

View

All rules

Rule #	Type	Protocol	Port Range	Source	Allow / Deny
100	ALL Traffic	ALL	ALL	0.0.0.0/0	ALLOW
*	ALL Traffic	ALL	ALL	0.0.0.0/0	DENY

Edit outbound rules

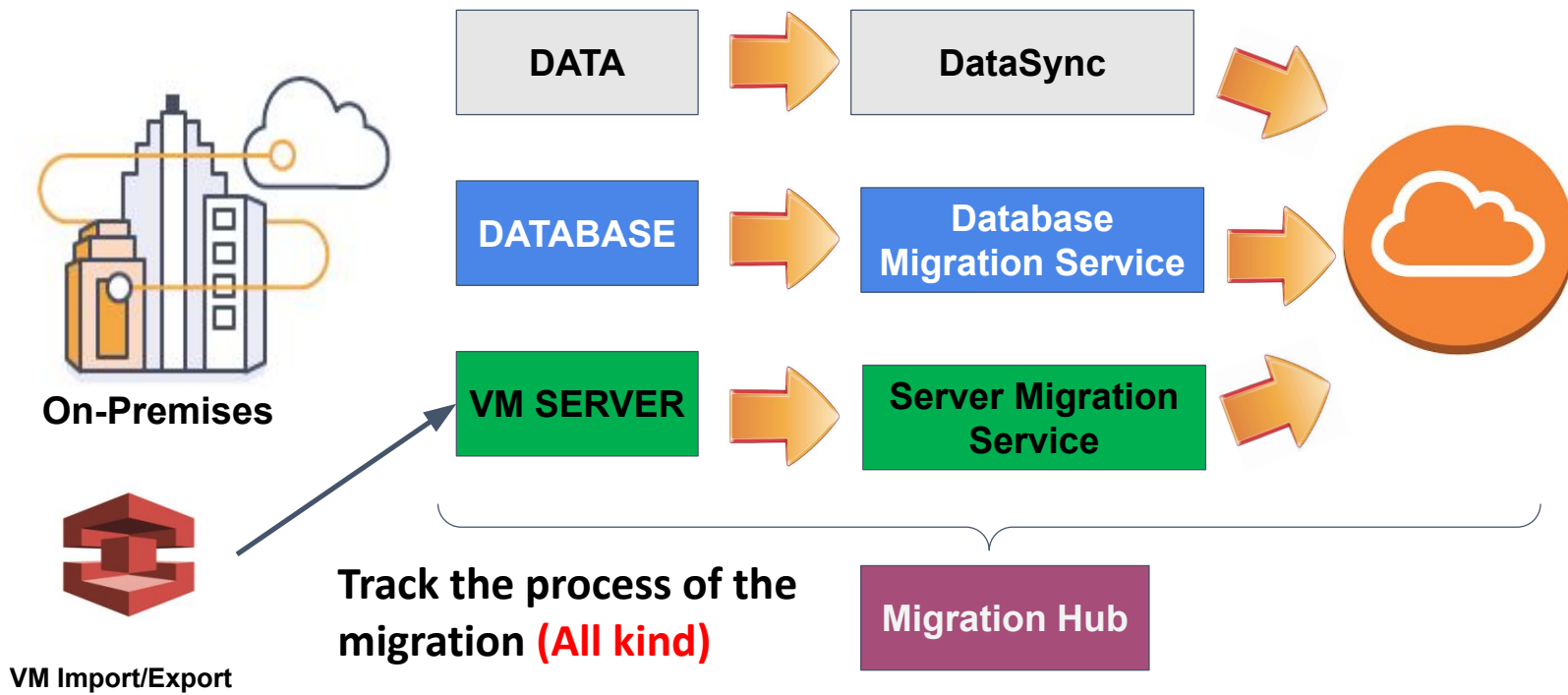
View

All rules

Rule #	Type	Protocol	Port Range	Destination	Allow / Deny
100	ALL Traffic	ALL	ALL	0.0.0.0/0	ALLOW
*	ALL Traffic	ALL	ALL	0.0.0.0/0	DENY

What will be migrated ?

Which Service will be used ?



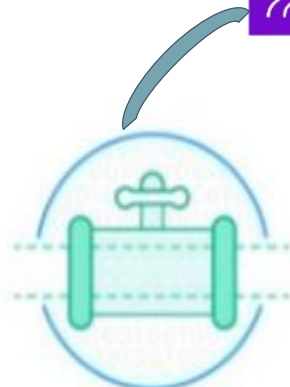
Real time Streaming

Capture

Transfer/Load

Analyze

Kinesis Video Stream



Kinesis Streams

Kinesis Data Stream



Kinesis Firehose

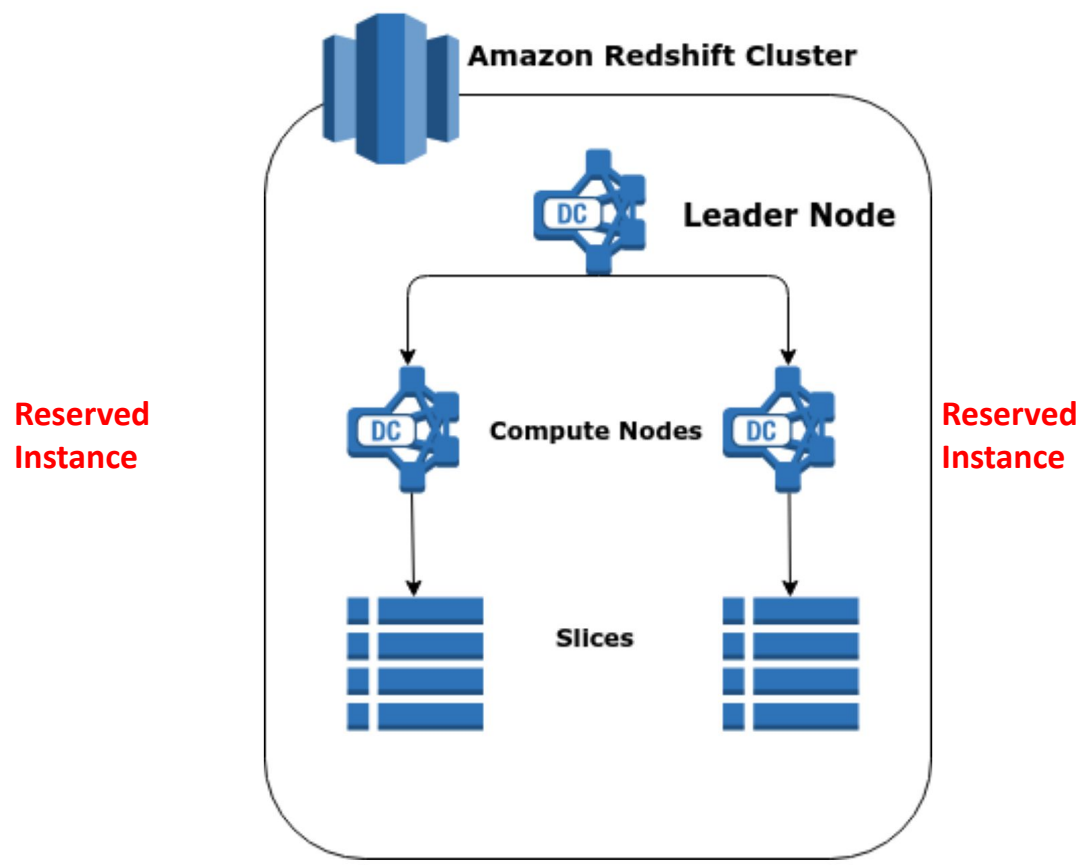
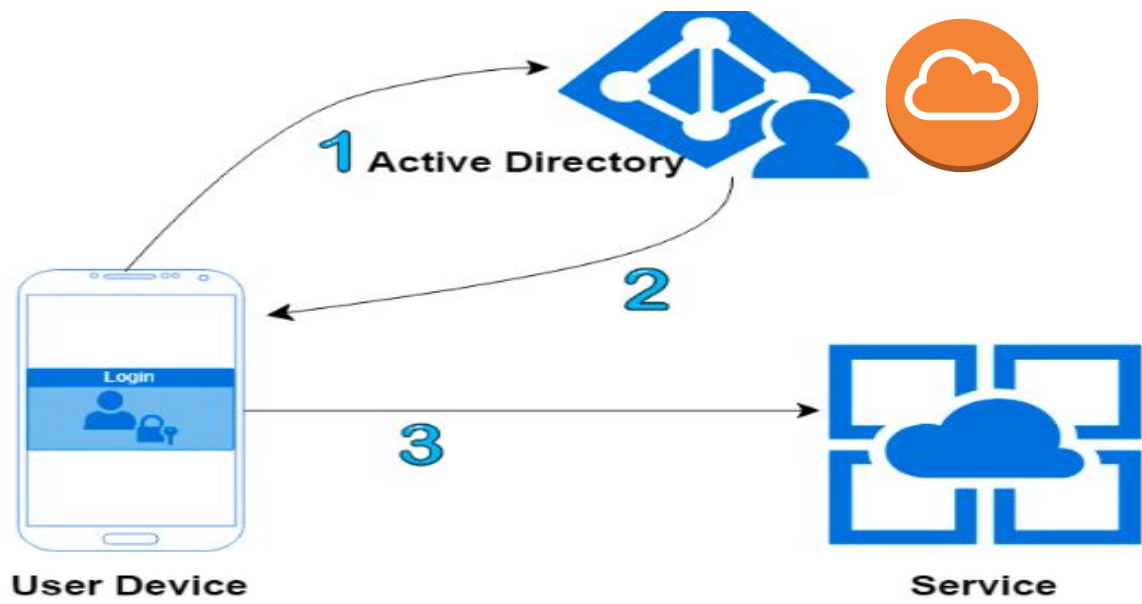
Load streaming data into Amazon S3, Amazon Redshift, and Amazon Elasticsearch Service



Kinesis Analytics

Analyze data streams using standard SQL queries

Your company authenticates users in a very disconnected network requiring each user to have several username/password combinations for different applications. You have been assigned a task of consolidating and migrating services to the cloud and reducing the number of usernames and passwords employees need to use. What would you recommend?



What will be migrated ?

Which Service will be used ?



On-Premises



Snowball

DATA



DataSync



DATABASE



Database Migration Service



VM SERVER



Server Migration Service



Physical data transfer device

Migration Hub

Linux operating system

Contains rules that block request patterns associated with exploitation of vulnerabilities specific to Linux, including LFI attacks. This can help prevent attacks that expose file contents or execute code for which the attacker should not have had access.

200

☐ Add to web ACL

PHP application

Contains rules that block request patterns associated with exploiting vulnerabilities specific to the use of the PHP, including injection of unsafe PHP functions. This can help prevent exploits that allow an attacker to remotely execute code or commands.

100

☐ Add to web ACL

POSIX operating system

Contains rules that block request patterns associated with exploiting vulnerabilities specific to POSIX/POSIX-like OS, including LFI attacks. This can help prevent attacks that expose file contents or execute code for which access should not been allowed.

100

☐ Add to web ACL

SQL database

Contains rules that allow you to block request patterns associated with exploitation of SQL databases, like SQL injection attacks. This can help prevent remote injection of unauthorized queries.

200

☐ Add to web ACL

Windows operating system

Contains rules that block request patterns associated with exploiting vulnerabilities specific to Windows, (e.g., PowerShell commands). This can help prevent exploits that allow attacker to run unauthorized commands or execute malicious code.

200

☐ Add to web ACL

WordPress application

The WordPress Applications group contains rules that block request patterns associated with the exploitation of vulnerabilities specific to WordPress sites.

100

☐ Add to web ACL



Verileri anlık internetten çekmek için



amazon
QuickSight

Verileri görselleştirmek için



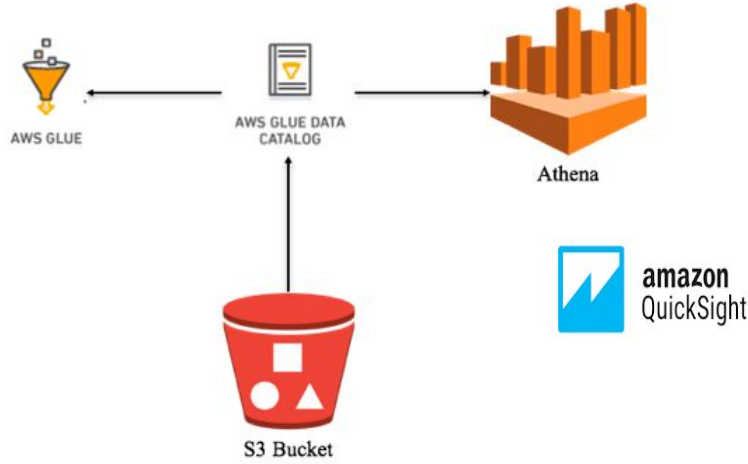
Amazon
Athena

Serverless -verileri
sorgulamak için (S3)



Amazon Glue

Verileri ayıklamak, dönüştürmek
ve yüklemek amacıyla
geliştirilmiş



Root



SCP

Default Service Control Policy (SCP). **Allows ***



t Project_OU



SCP

Prevents "Deleting VPC Flow Logs"



Dev_OU



SCP

Allows "ec2:DeleteFlowLogs"

YES , he can Delete

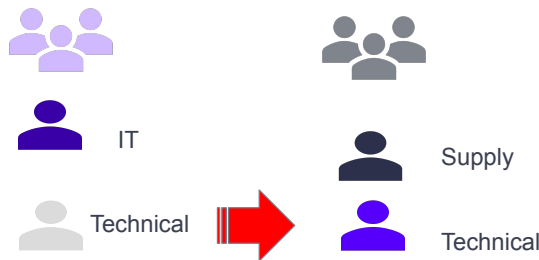
No, he can not Delete

MEMBER AND MASTER ACCOUNT LEAVING PROCESS

1. Remove the **member account** from the old Organization.
2. Send an invite to the **member account** from the new Organization.
3. Accept the invite to the new Organization from the **member account**.
4. Delete the old Organization.
5. Send an invite to the **master account**
6. Accept the invite to the new Organization from the **master account**

AWS Organization-1

AWS Organization-2



Create policy













Policy actions ▾

↺ ⚙ ⓘ






Filter policies ▾

Q API

Showing 12 results

	Policy name ▾	Description
<input type="radio"/>	▶  AmazonAPIGatewayAdministrator	Provides full access to create/edit/delete APIs in Amazon API Gateway via the AWS Management Console.
<input type="radio"/>	▶  AmazonAPIGatewayInvokeFullAccess	Provides full access to invoke APIs in Amazon API Gateway.
<input type="radio"/>	▶  AmazonAPIGatewayPushToCloudWatchLogs	Allows API Gateway to push logs to user's account.
<input type="radio"/>	▶  AmazonAugmentedAIIntegratedAPIAccess	Provides access to perform all operations Amazon Augmented AI resources, including FlowDefinitions, HumanTaskUis...
<input type="radio"/>	▶  AmazonDynamoDBFullAccesswithDataPipeline	Provides full access to Amazon DynamoDB including Export/Import using AWS Data Pipeline via the AWS Manageme...
<input type="radio"/>	▶  AmazonEC2RoleforDataPipelineRole	Default policy for the Amazon EC2 Role for Data Pipeline service role.
<input type="radio"/>	▶  AmazonMQApiFullAccess	Provides full access to AmazonMQ via our API/SDK.
<input type="radio"/>	▶  AmazonMQApiReadOnlyAccess	Provides read only access to AmazonMQ via our API/SDK.
<input type="radio"/>	▶  APIGatewayServiceRolePolicy	Allows API Gateway to manage associated AWS Resources on behalf of the customer.
<input type="radio"/>	▶  AWSDataPipeline_FullAccess	Provides full access to Data Pipeline, list access for S3, DynamoDB, Redshift, RDS, SNS, and IAM roles, and passRole...
<input type="radio"/>	▶  AWSDataPipeline_PowerUser	Provides full access to Data Pipeline, list access for S3, DynamoDB, Redshift, RDS, SNS, and IAM roles, and passRole...
<input type="radio"/>	▶  AWSDataPipelineRole	Default policy for the AWS Data Pipeline service role.

Which type of record?

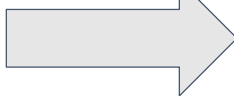
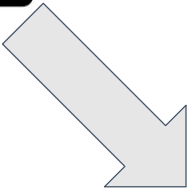
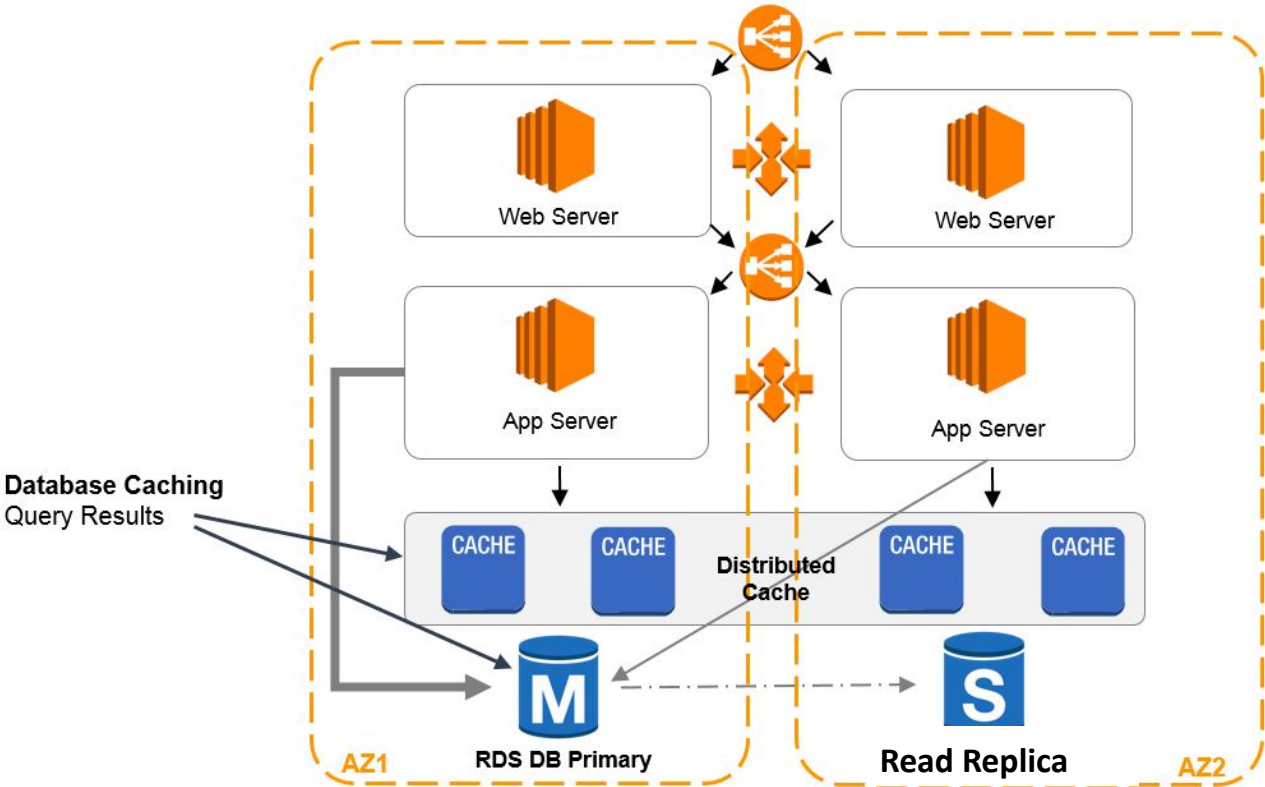
Create Domain Variations via Sub Domains	Mapping Value	Value Type	Record Type
www.clarusway.us	 Point out	<ul style="list-style-type: none"> ● IP of Server 1.2.3.4.5 ● Another Domain www.xxxxx.com ● AWS End point S3 Bucket url Load Balancer DNS CloudFront ● Etc.. 	 A AAA  CNAME  Alias  MX

Record Value type determines the record type

There is an urgent requirement to monitor some database metrics for a database hosted on AWS and send notifications. Which AWS services can accomplish this? (Select Two)

- ☐ A. Amazon Simple Email Service
- ☐ B. Amazon CloudWatch
- ☐ C. Amazon Simple Queue Service
- ☐ D. Amazon Route 53
- ☐ E. Amazon Simple Notification Service

Database Caching Diagram



AWS Organization

Consolidated billing \$

\$



All future

Account A separately : 8TB usage = 8 \$

Account B separately : 4 TB usage = 4 \$

0

pay \$1 for each TB
in the first 10 TB

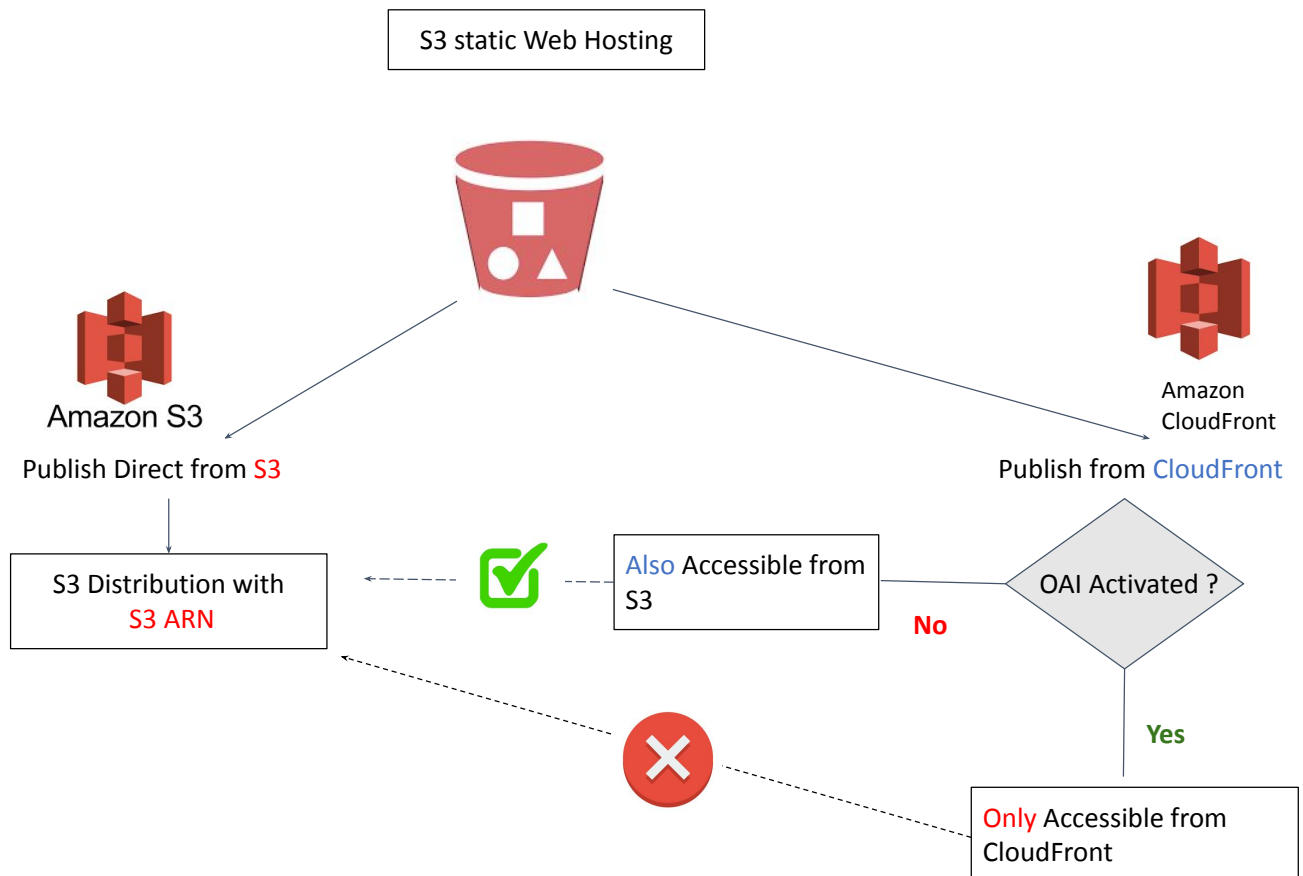
10 TB

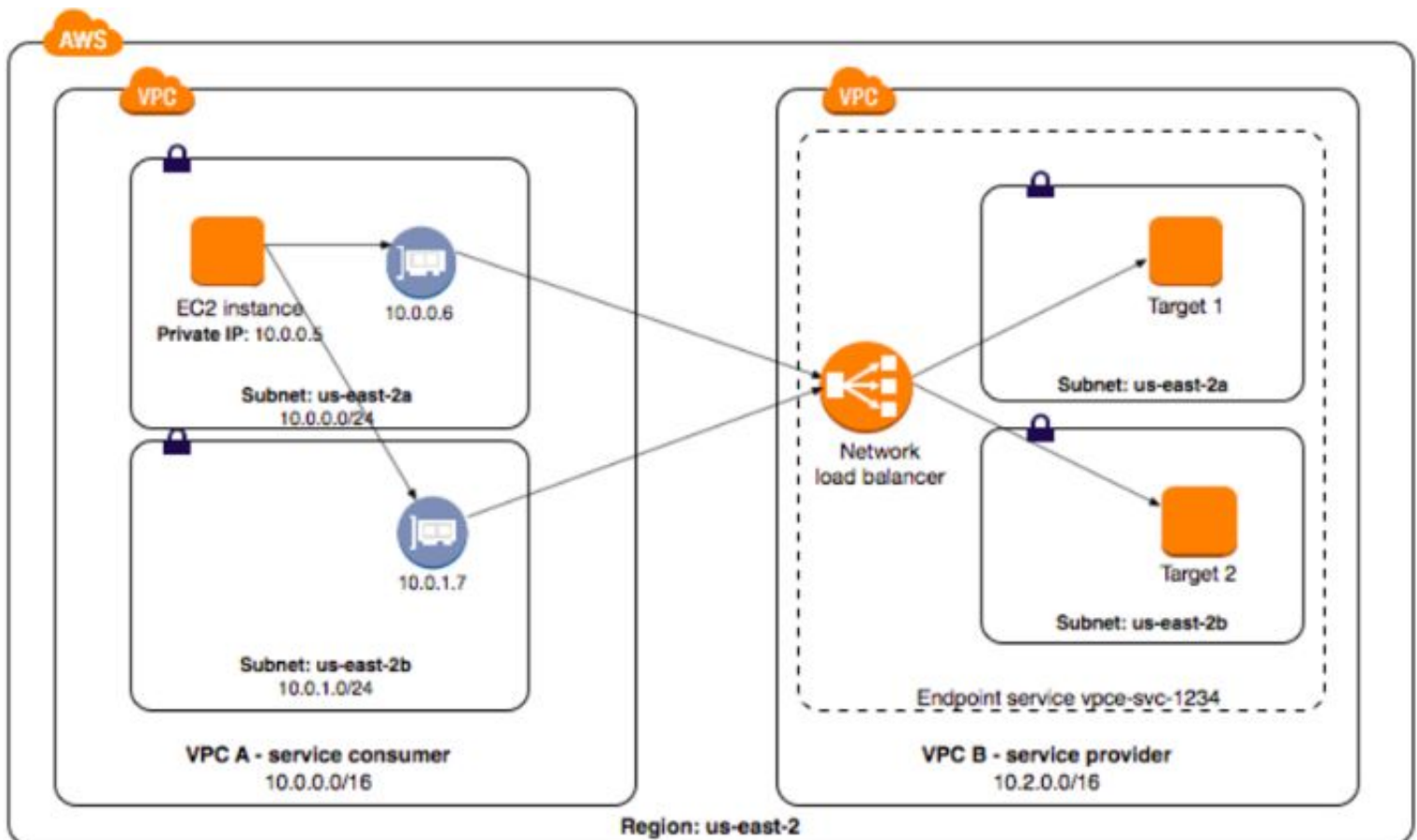
pay \$0.5 for TB after
10 TB

+-----
12 \$

Consolidated billing : 10 TB x 1 \$ = 10 \$ for the first 10 TB
2TB X 0.5 = 1 \$ for the next 2 TB

+-----
11 \$





Services

- [AWS App Mesh](#)
- [Amazon Aurora](#)
- [AWS Certificate Manager Private Certificate Authority](#)
- [AWS CodeBuild](#)
- [Amazon EC2](#)
- [EC2 Image Builder](#)
- [AWS Glue](#)
- [AWS License Manager](#)
- [AWS Network Firewall](#)
- [AWS Outposts](#)
- [AWS Resource Groups](#)
- [Amazon Route 53](#)
- [Amazon VPC](#)

CORS Domains:

<http://www.domainnamea.com>,

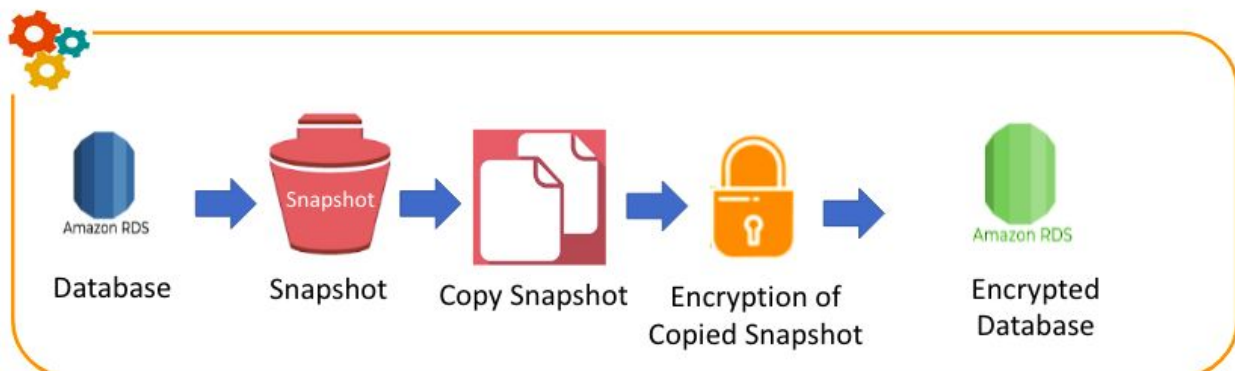
<https://www.secure.domainnamea.com>,

<http://www.domainnameb.com>.

Attempts

<https://www.domainnameb.com>

<http://www.domainnameb.com:80>



You currently manage a set of web servers hosted on EC2 Servers with public IP addresses. These IP addresses are mapped to domain names. There was an urgent maintenance activity that had to be carried out on the servers. The servers had to be stopped and restarted. Now the web application hosted on these EC2 Instances is not accessible via the domain names configured earlier. Which of the following could be a reason for this?

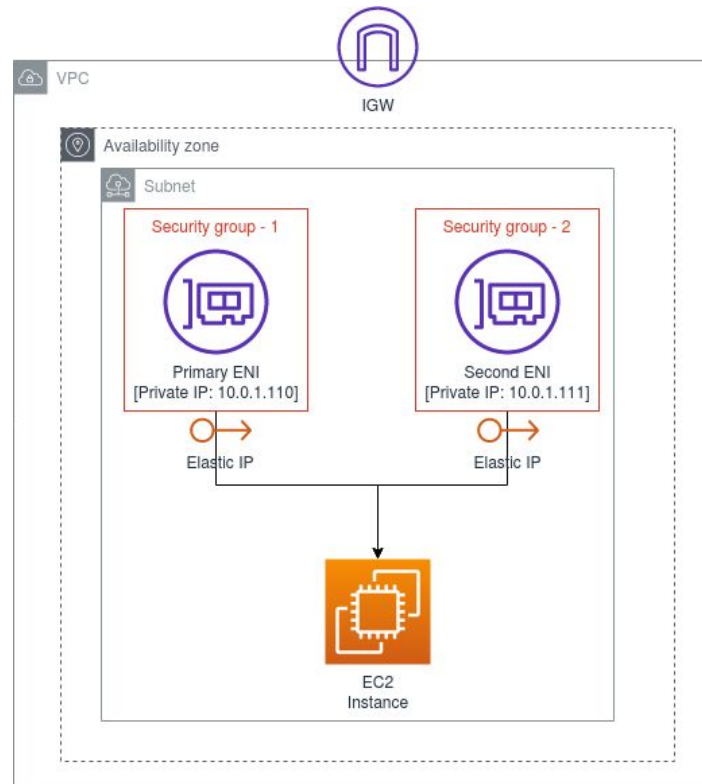
- ☐ A. The Route 53 hosted zone needs to be restarted.
- ☐ B. The network interfaces need to be initialized again.
- ☐ C. The public IP addresses need to be associated with the ENI again.
- ☐ D. The public IP addresses have changed after the instance was stopped and started again.



ENI → ENA → EFA

- | ENI | ENA | EFA |
|--|--|---|
| <ul style="list-style-type: none"> • Upto 10 GBPS • VMDq • TCP/IP • Multiple ENI/instance • Traffic can traverse across subnets • <u>VPC Networking</u> • <u>General purpose</u> • Default | <ul style="list-style-type: none"> • Upto 25 GBPS • SR-IOV • TCP/IP • Single setting/per instance • Traffic can traverse across subnets • <u>Low latency apps</u> • Optional on supported instance type | <ul style="list-style-type: none"> • Upto 100 GBPS • OS-Bypass • SRD • One EFA per instance • OS Bypass traffic is limited to single subnet and is not routable • <u>HPC and ML Apps</u> • Optional on supported instance type |

Exam tip: HPC & Machine Learning >>>>> EFA

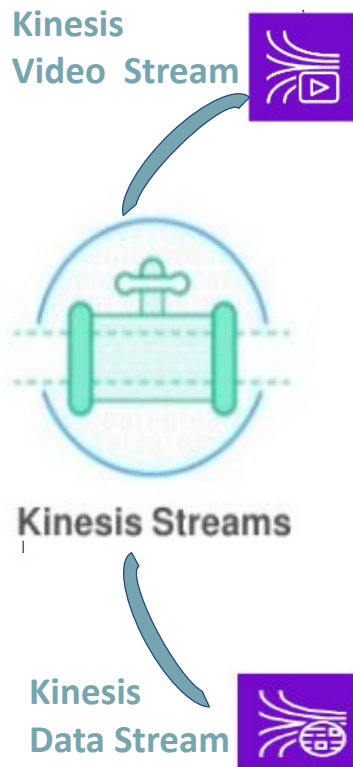


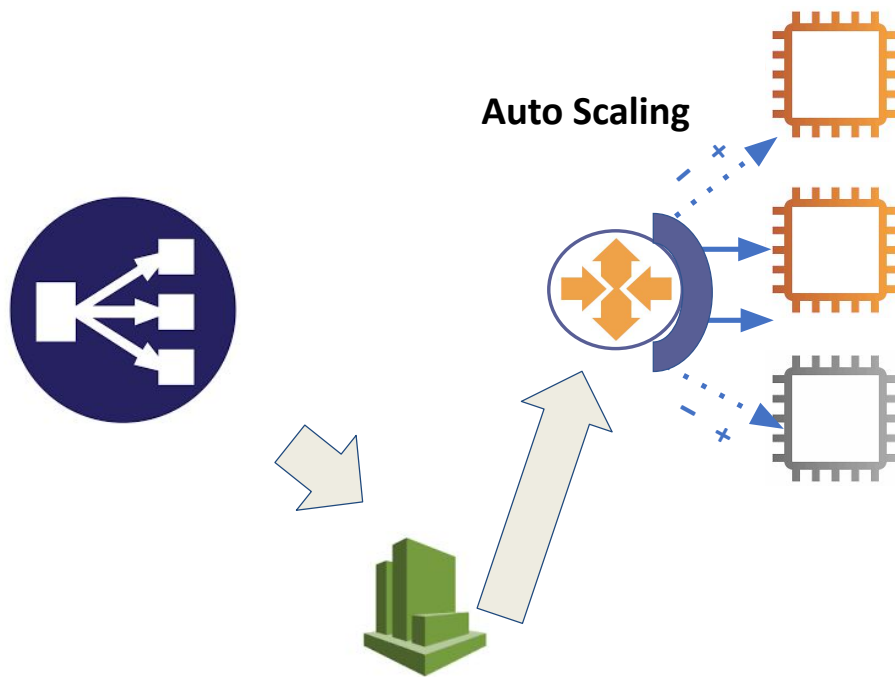
Real time Streaming

Capture

Transfer/Load

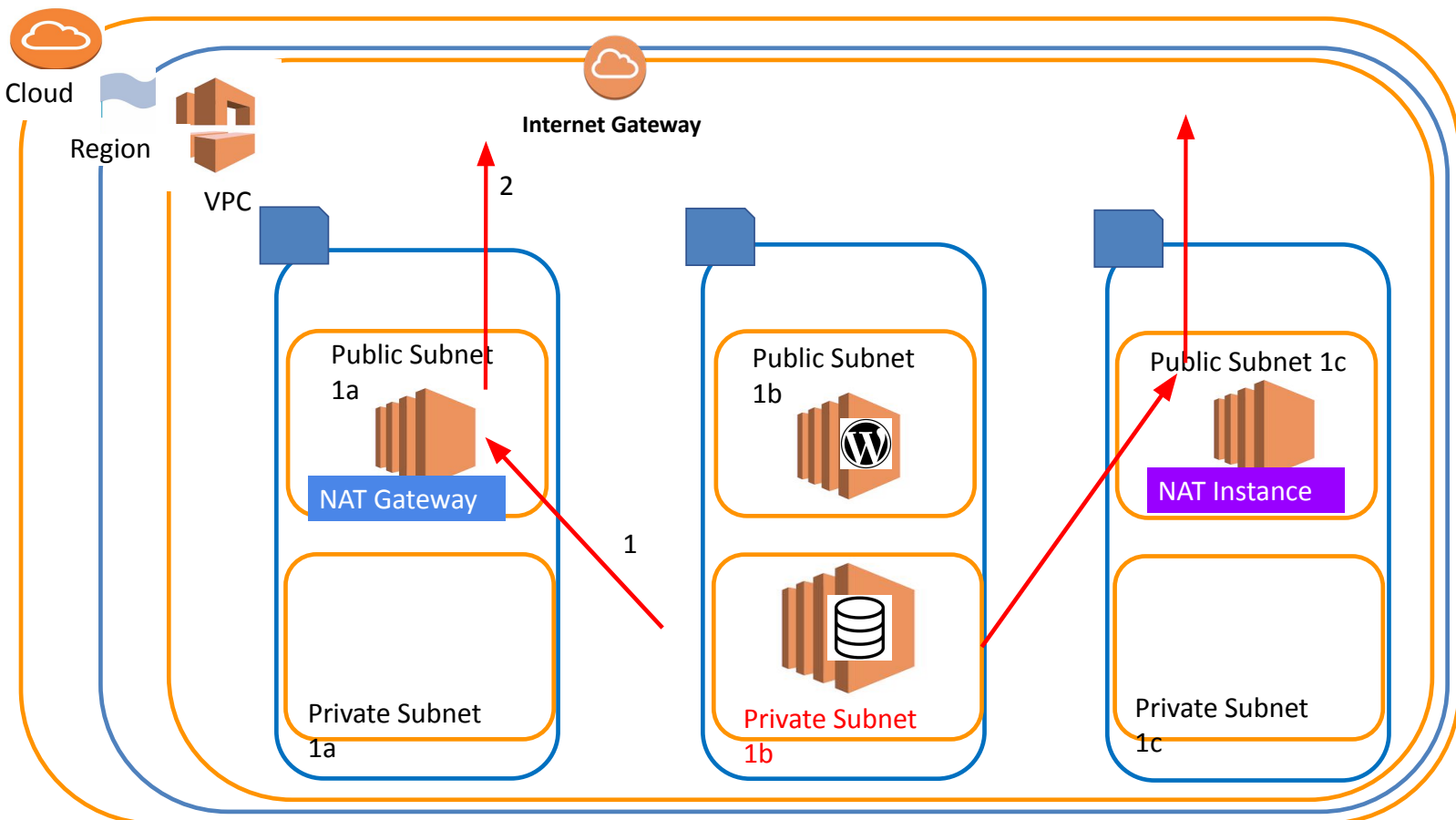
Analyze

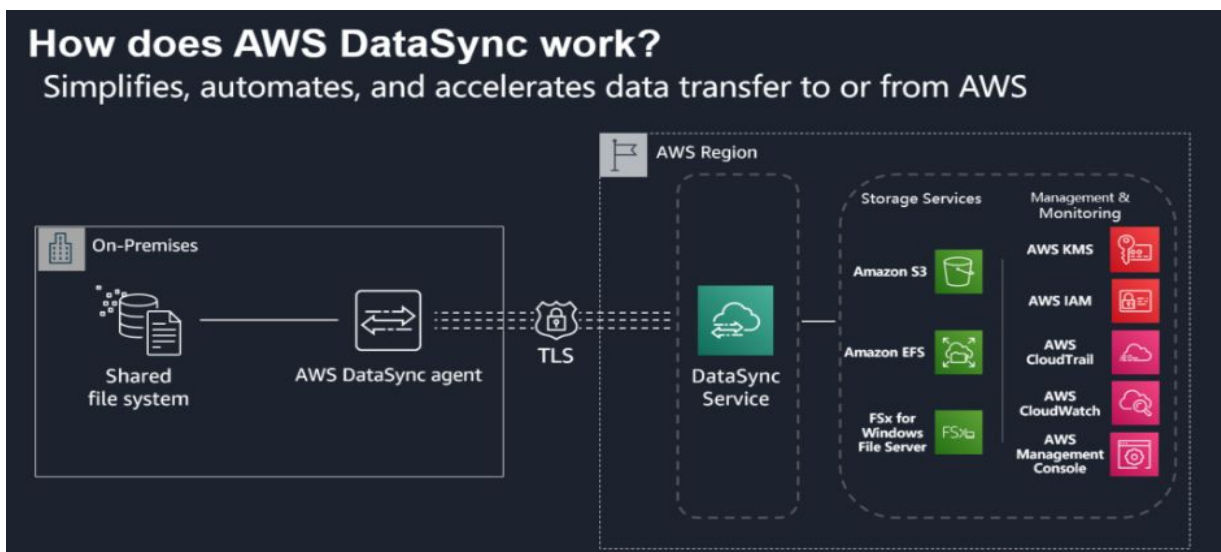
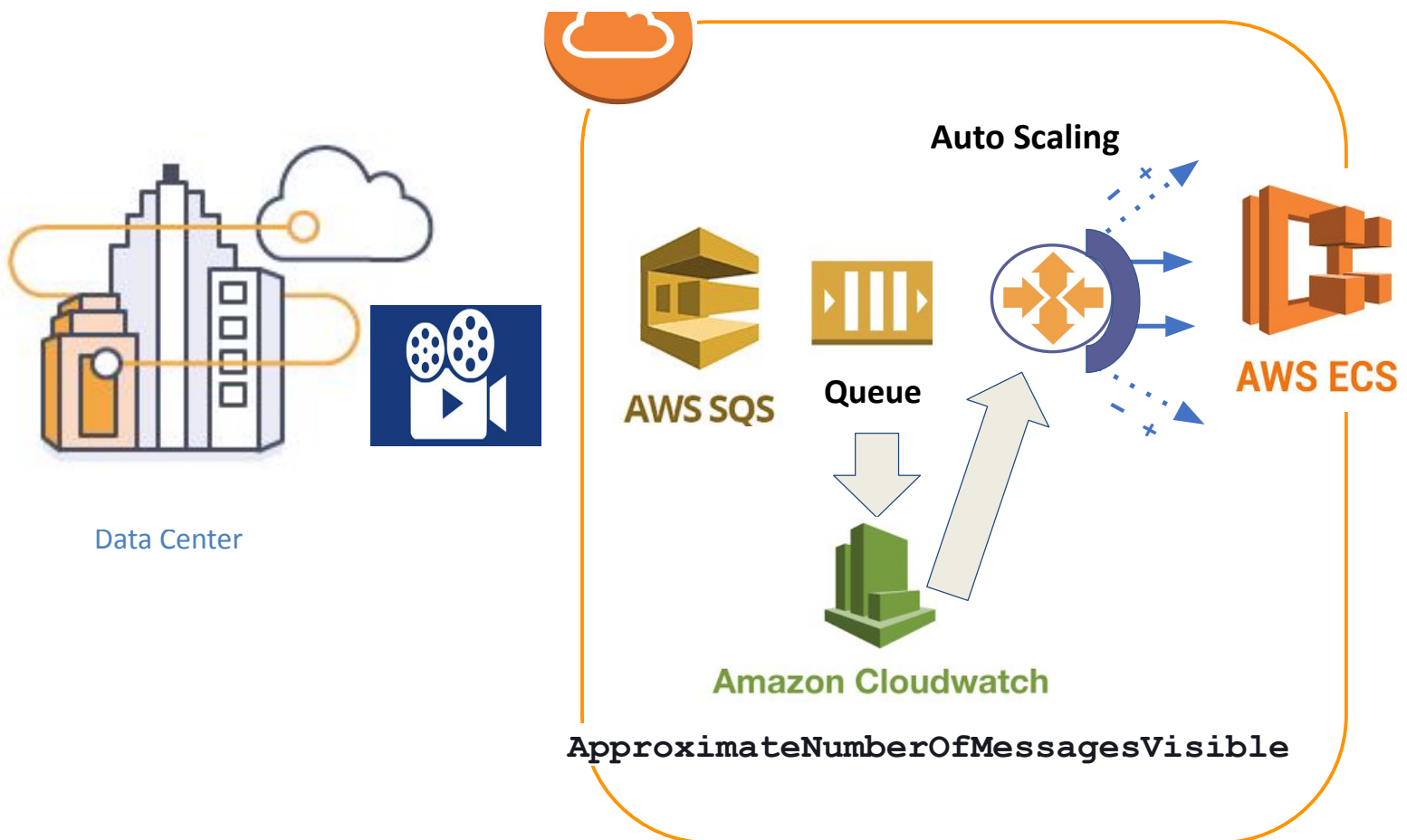




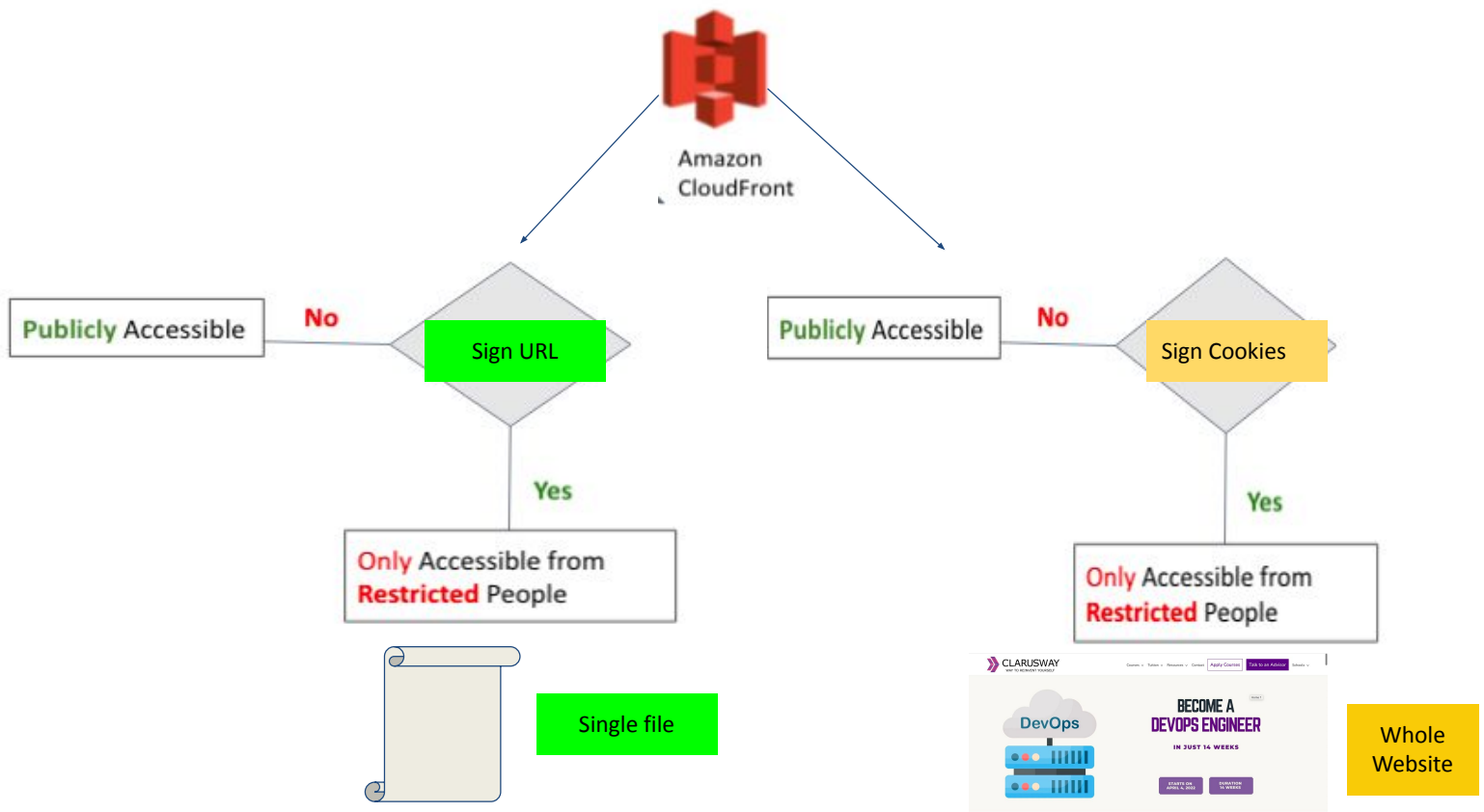
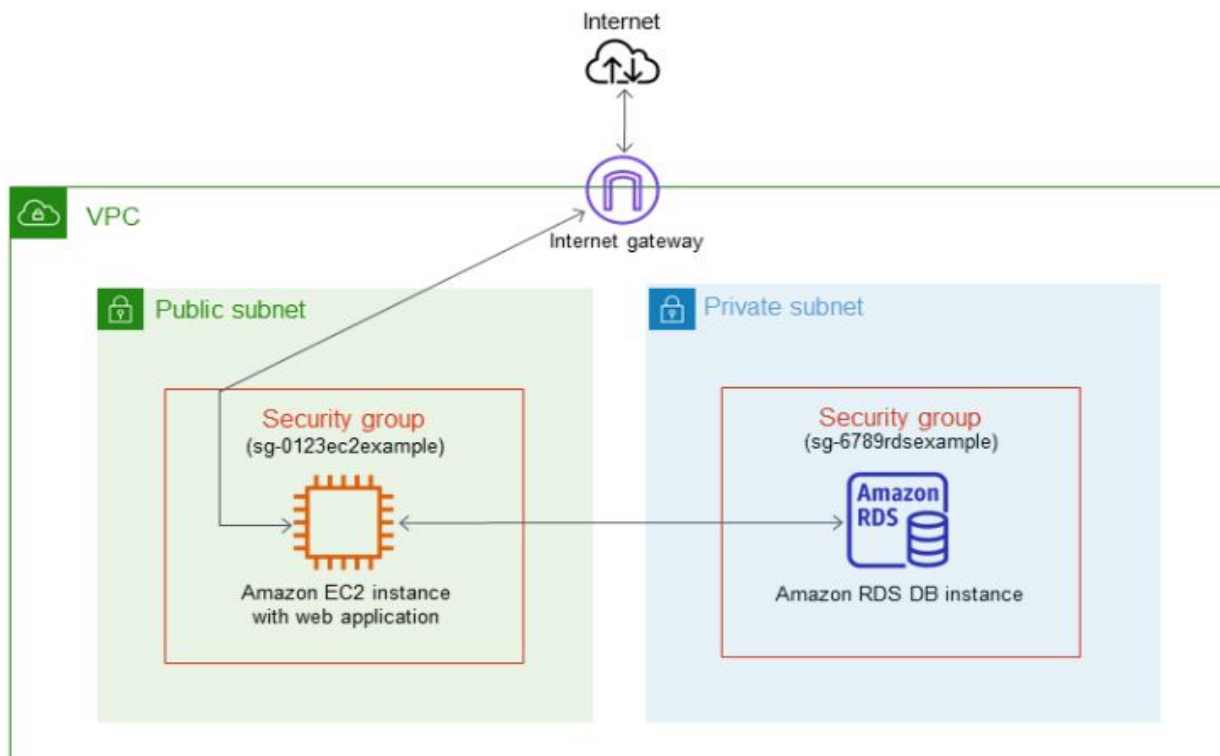
Amazon Cloudwatch

CPU utilization

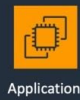




- **Public endpoints:**
- **Federal Information Processing Standard (FIPS) endpoints:** USA and Canada
- **Virtual private cloud (VPC) endpoints:** If you use a VPC endpoint, all communication from DataSync to AWS occurs through the endpoint in your AWS VPC. This establishes a private connection between your self-managed storage system, your VPC, and AWS services, providing extra security as your data is copied over the network.



Amazon DynamoDB Streams



Application

1



DynamoDB Table

2



DynamoDB Streams

3



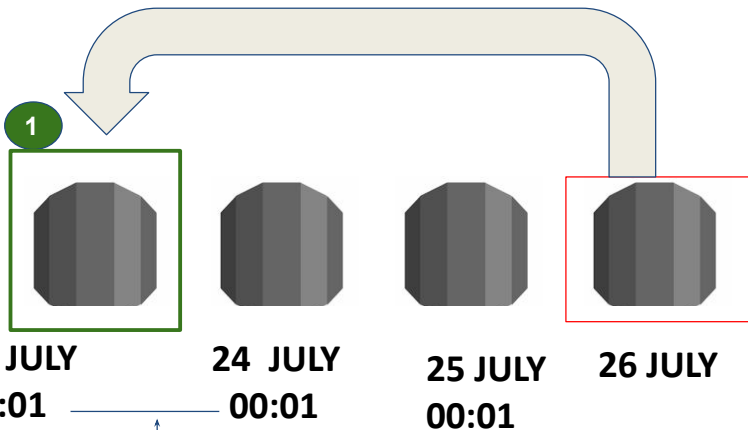
AWS Lambda



Amazon CloudWatch

1. Application inserts / updates / deletes item
2. A record is written to the DynamoDB stream
3. A Lambda function is triggered
4. The Lambda function writes to CloudWatch Logs

When enabled, DynamoDB Streams captures a time-ordered sequence of item-level modifications in a DynamoDB table and durably stores the information for **up to 24 hours**. Applications can access a series of stream *records*, which contain an item change, from a DynamoDB stream in near real time.

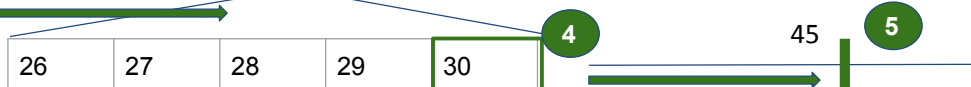
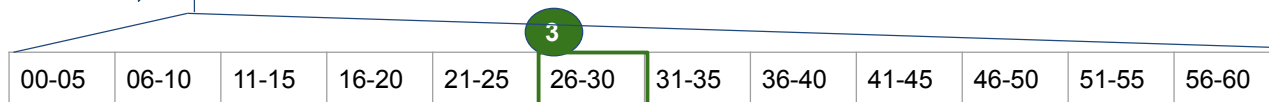


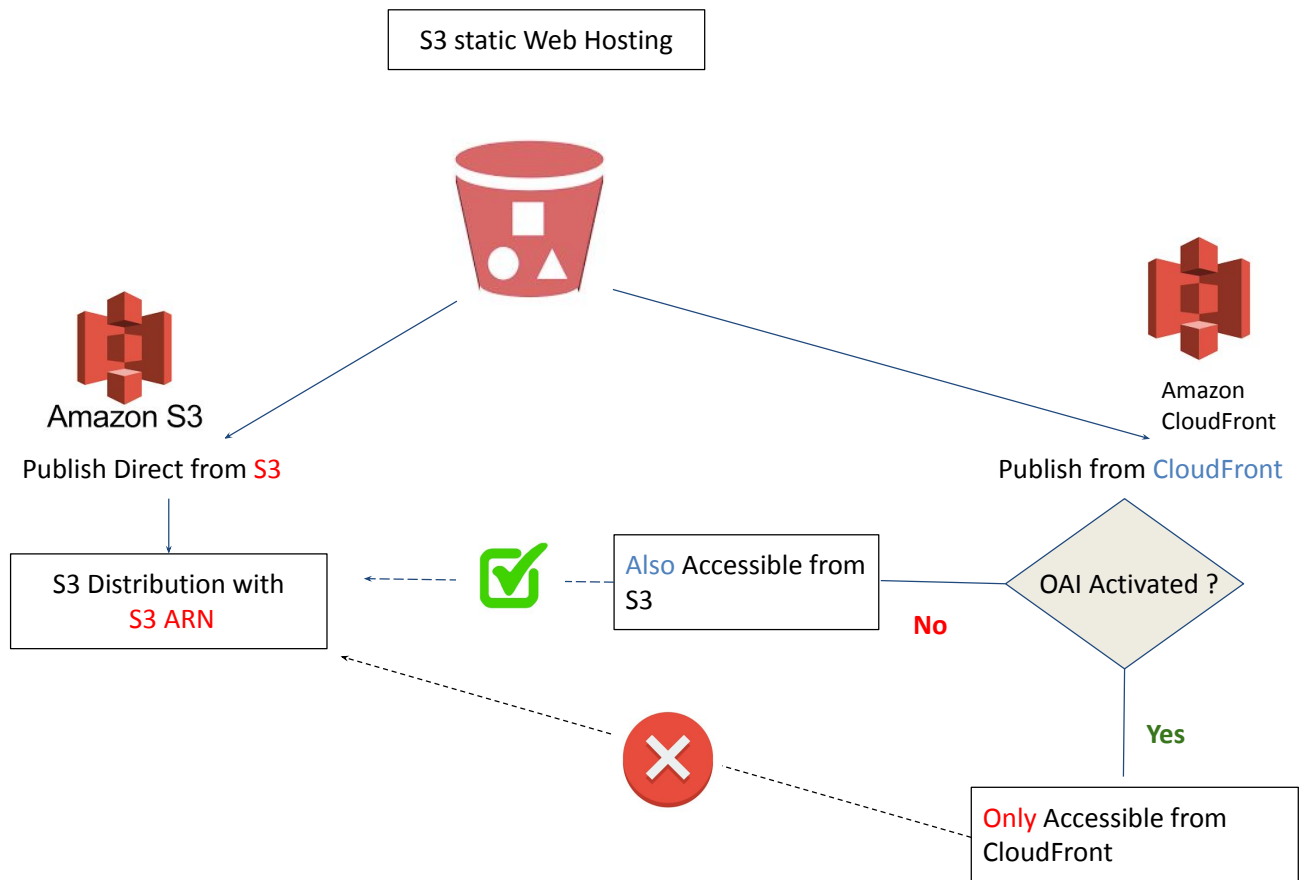
Point in time recovery

DESIRED :

23 JULY 2021
08:30:45

Snapshot
Transaction Logs





Real time Streaming

Capture

Transfer/Load

Analyze

Kinesis Video Stream



Kinesis Streams

Kinesis Data Stream



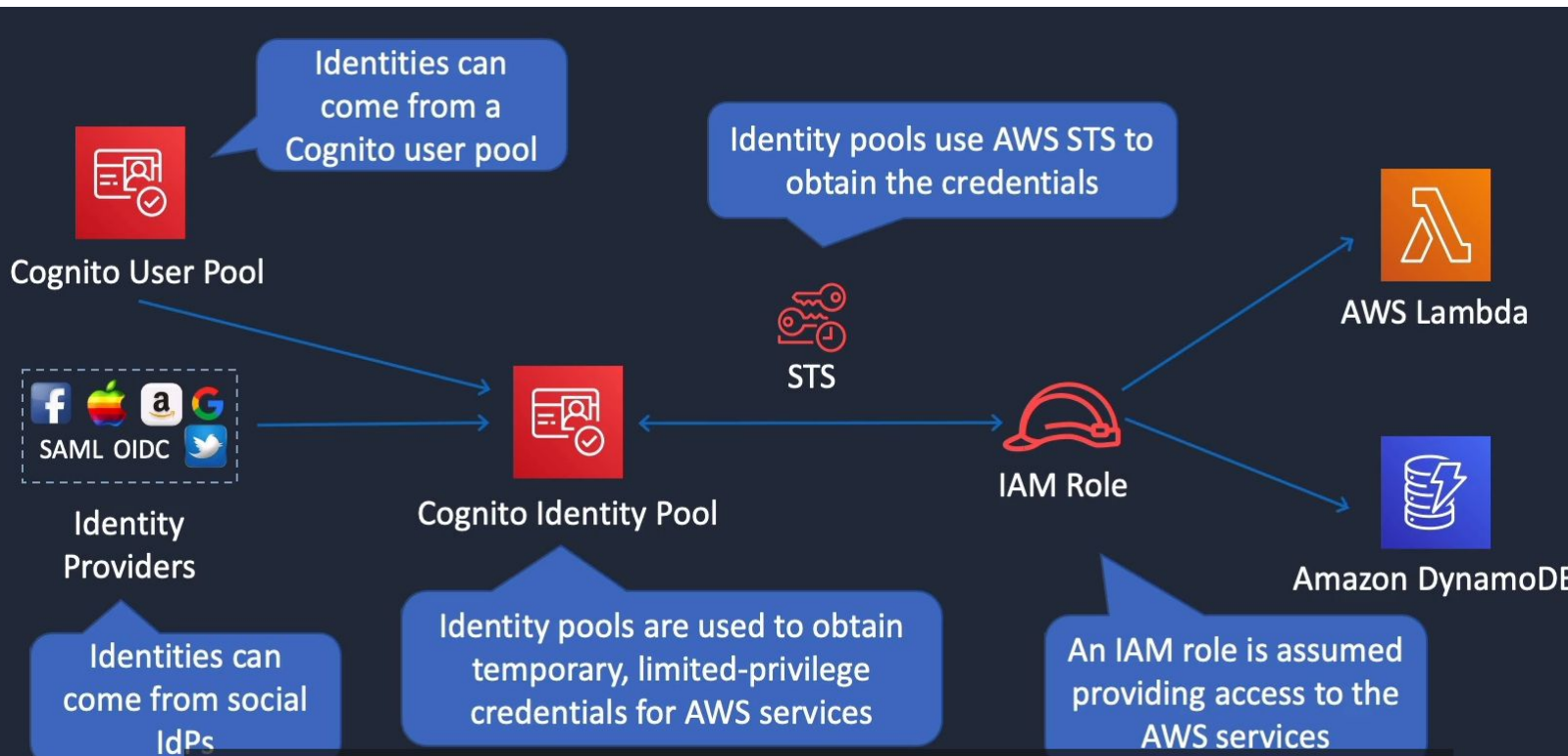
Kinesis Firehose

Load streaming data into Amazon S3, Amazon Redshift, and Amazon Elasticsearch Service

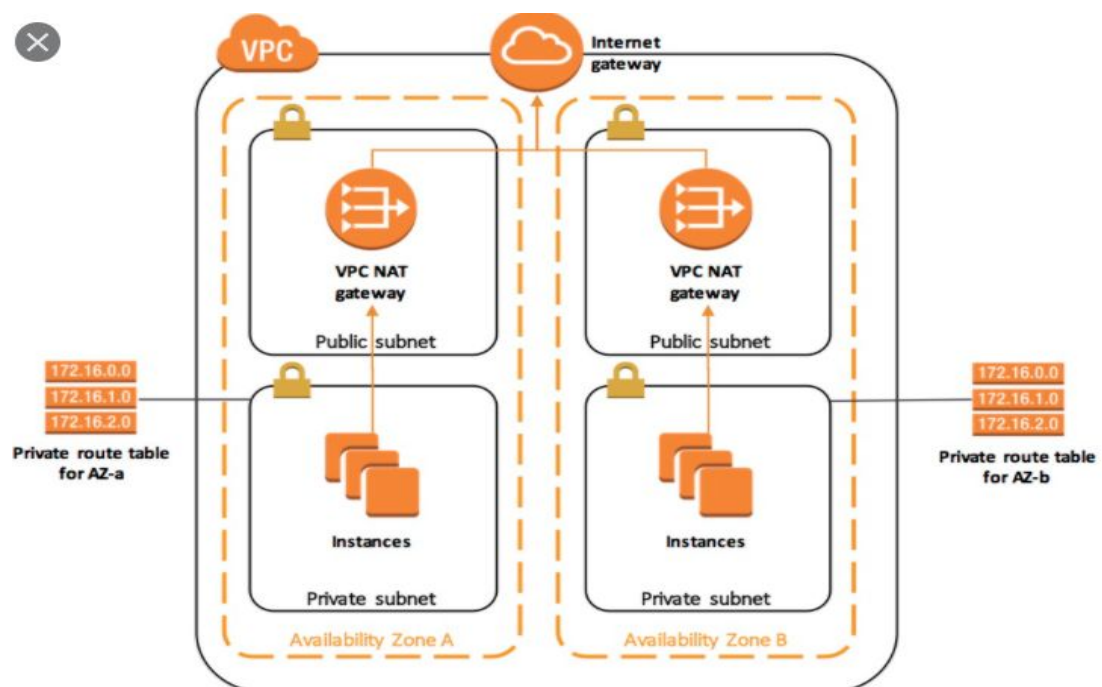


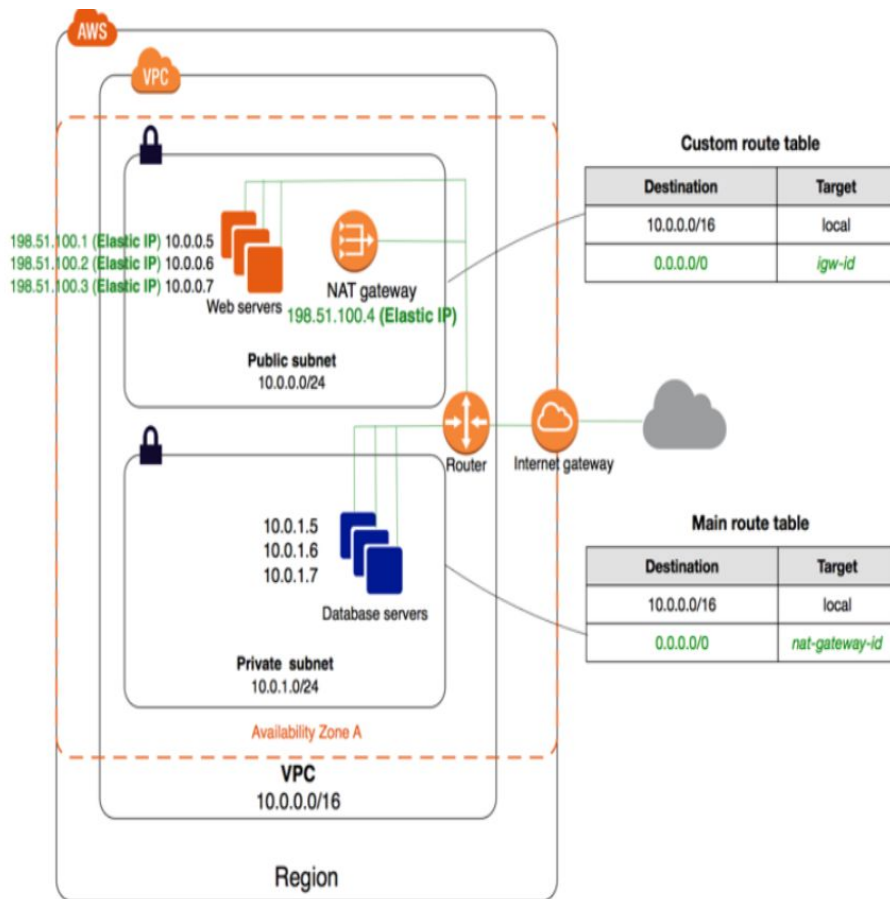
Kinesis Analytics

Analyze data streams using standard SQL queries



If you have resources in multiple Availability Zones and they share one NAT Gateway, in the event that the NAT Gateway's Availability Zone is down, resources in the other Availability Zones lose internet access. To create an Availability Zone-independent architecture, create a NAT Gateway in each Availability Zone and configure your routing to ensure that resources use the NAT Gateway in the same Availability Zone.





Amazon S3 > mycloudtrails3bucket-mk

mycloudtrails3bucket-mk

private bucket

Objects Properties Permissions Metrics Management Access Points

Objects (1)

Objects are the fundamental entities stored in Amazon S3. You can use [Amazon S3 inventory](#) to get a list of all objects in your bucket. For others to access:

Refresh Copy URL Open Download Delete Actions Create folder Upload

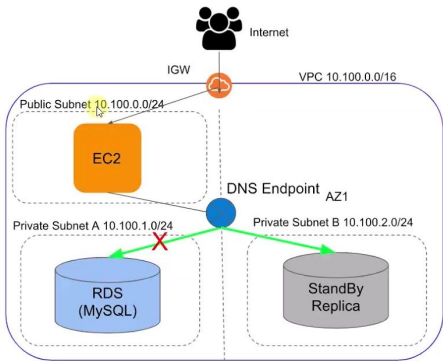
Find objects by prefix

Name	Type	Last modified
Yeni Metin Belgesi.txt	txt	May 25, 2021, 15:48:52 (UTC+03:00)

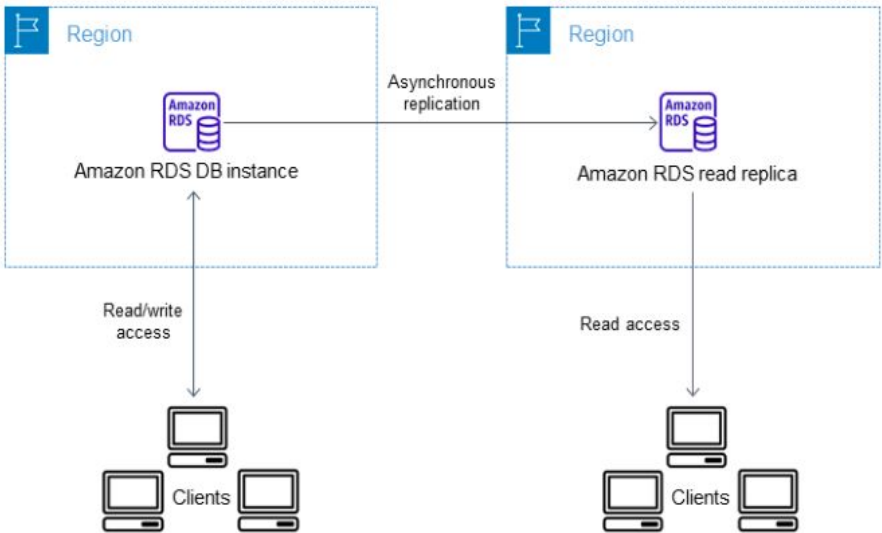
```
$ aws s3 presign s3://mycloudtrails3bucket-mk/"Yeni Metin Belgesi.txt" --expires-in 30
https://mycloudtrails3bucket-mk.s3.us-east-1.amazonaws.com/Yeni%20Metin%20Belgesi.txt?X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=AKIAY3YMFVJJYLFDLWV5%2F20210525%2Fus-east-1%2Fs3%2Faws4_request&X-Amz-Date=20210525T125743Z&X-Amz-Expires=30&X-Amz-SignedHeaders=host&X-Amz-Signature=b02d2c978829ff3bed34001380b8b9e0b51262727d2b37391c4b5c12e0d6f31c
```


With Amazon RDS, you can create a MariaDB, MySQL, Oracle, or PostgreSQL read replica in a different AWS Region from the source DB instance. Creating a cross-Region read replica isn't supported for SQL Server on Amazon RDS.

RDS Multi-AZ Failover

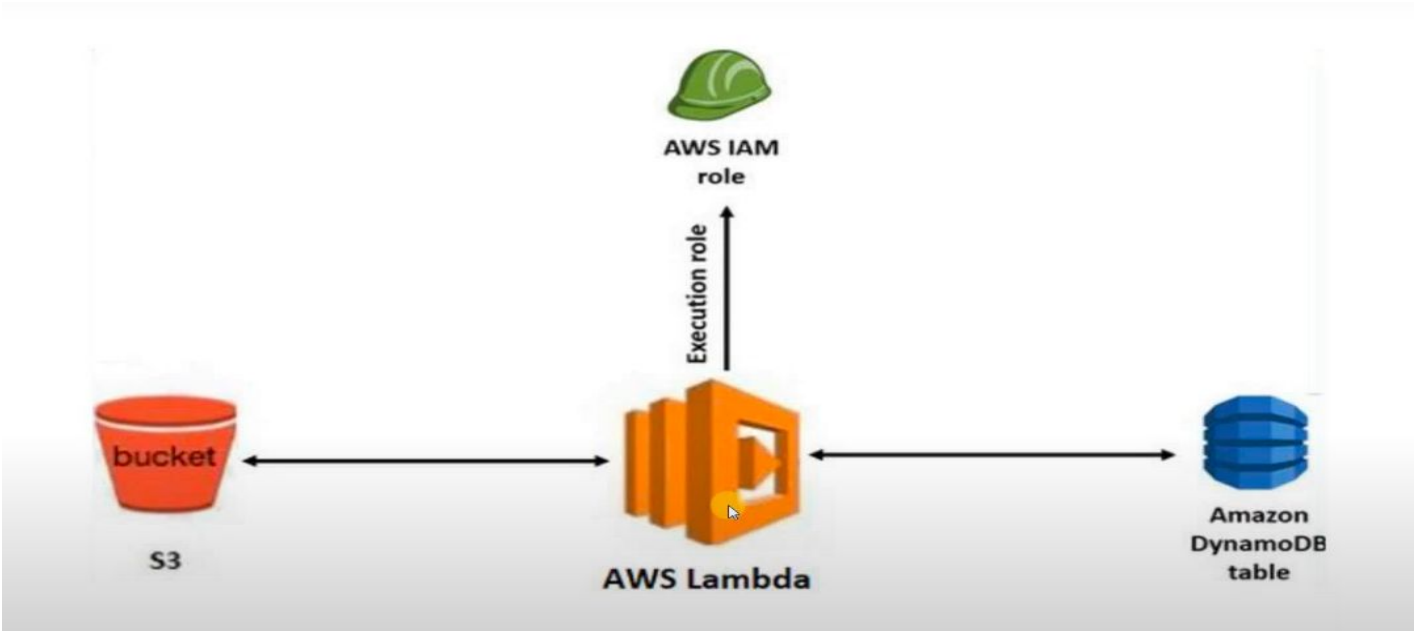


Availability -



Performance- Asenkron

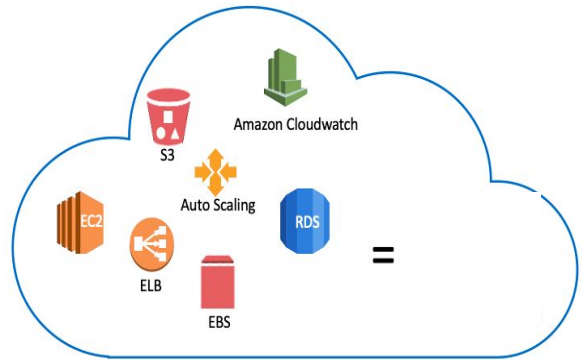
Exam tip: DynamoDb and Metadata



Introduction to Elastic Beanstalk

Why AWS Elastic Beanstalk?

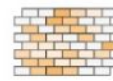
```
14 return d[task][lenal];
15 }
16 }
17
18 template<class T>
19 unsigned int levenshtein_distance(const T& s1, const T& s2) {
20     unsigned int len1 = s1.size(), len2 = s2.size();
21     vector<unsigned int> col(len2+1, prevCol[0]);
22
23     for (unsigned int i = 1; i = len1; i++) {
24         prevCol[0] = i;
25         for (unsigned int j = 1; j = len2; j++) {
26             col[j] = min(
27                 col[j-1] + (s1[i-1] != s2[j-1]),
28                 prevCol[j] + 1,
29                 col[j] + 1);
30         }
31     }
32     return col[len2];
33 }
```



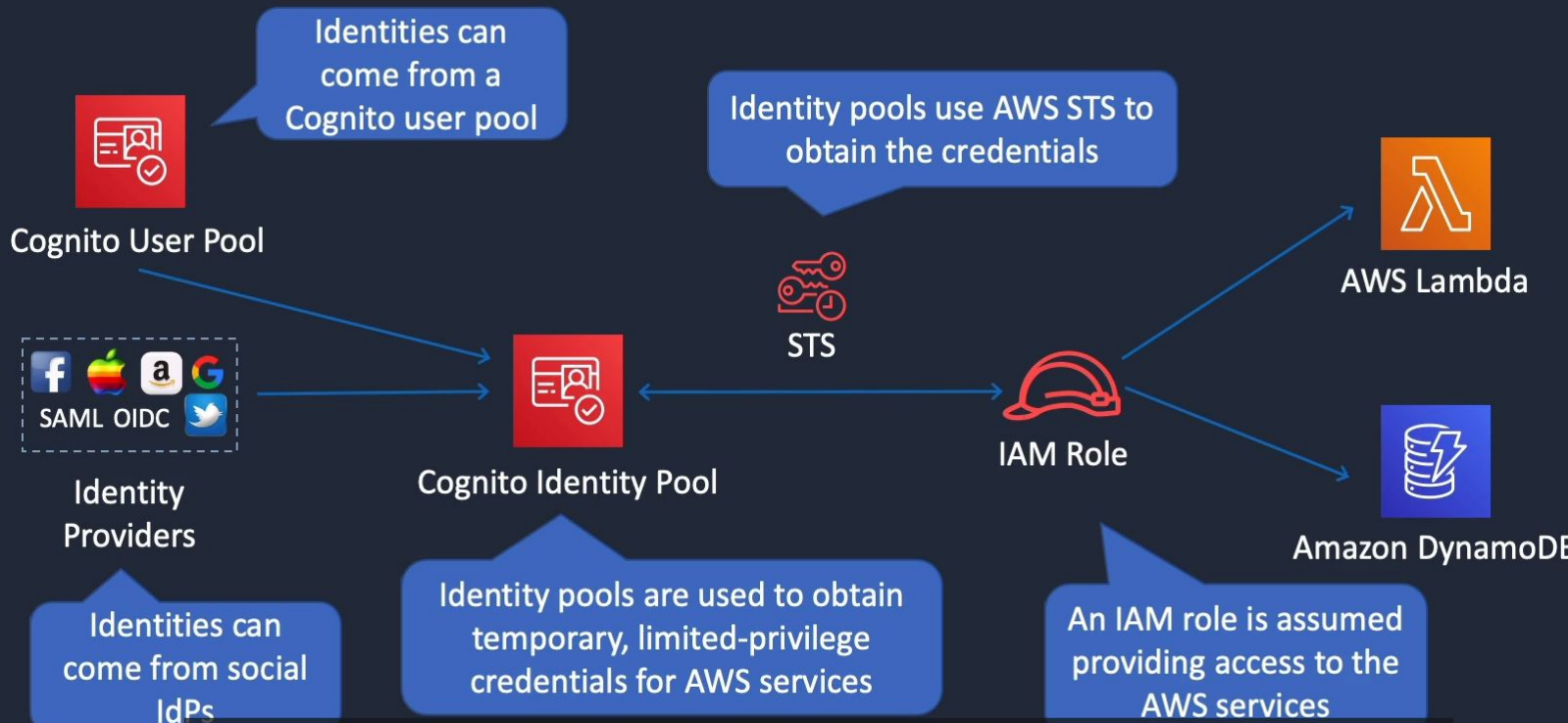
Template

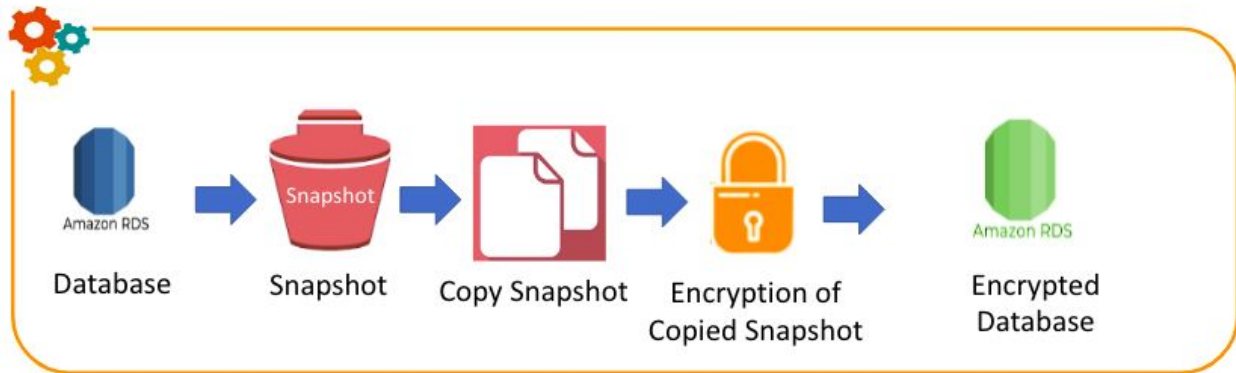


CloudFormation



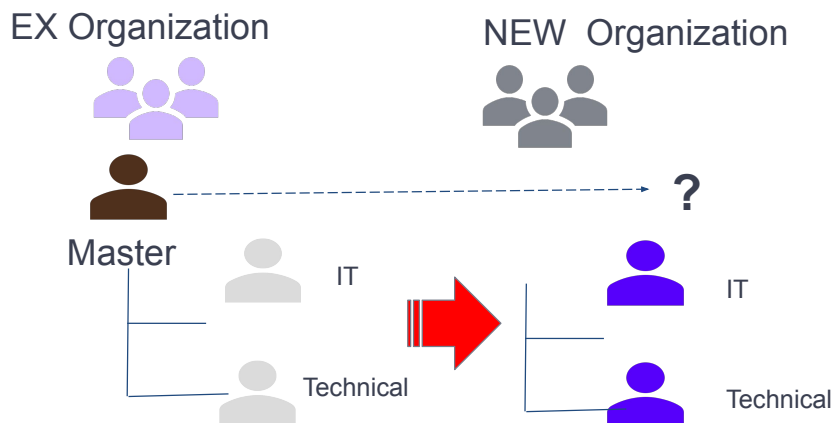
Stack

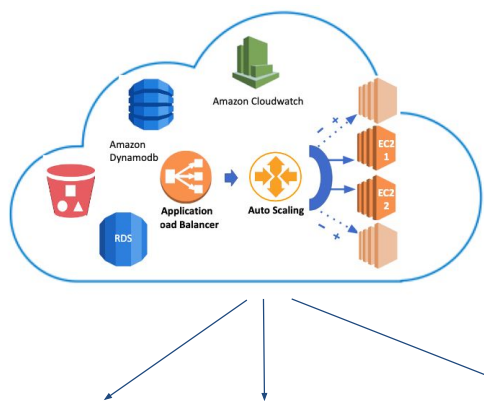
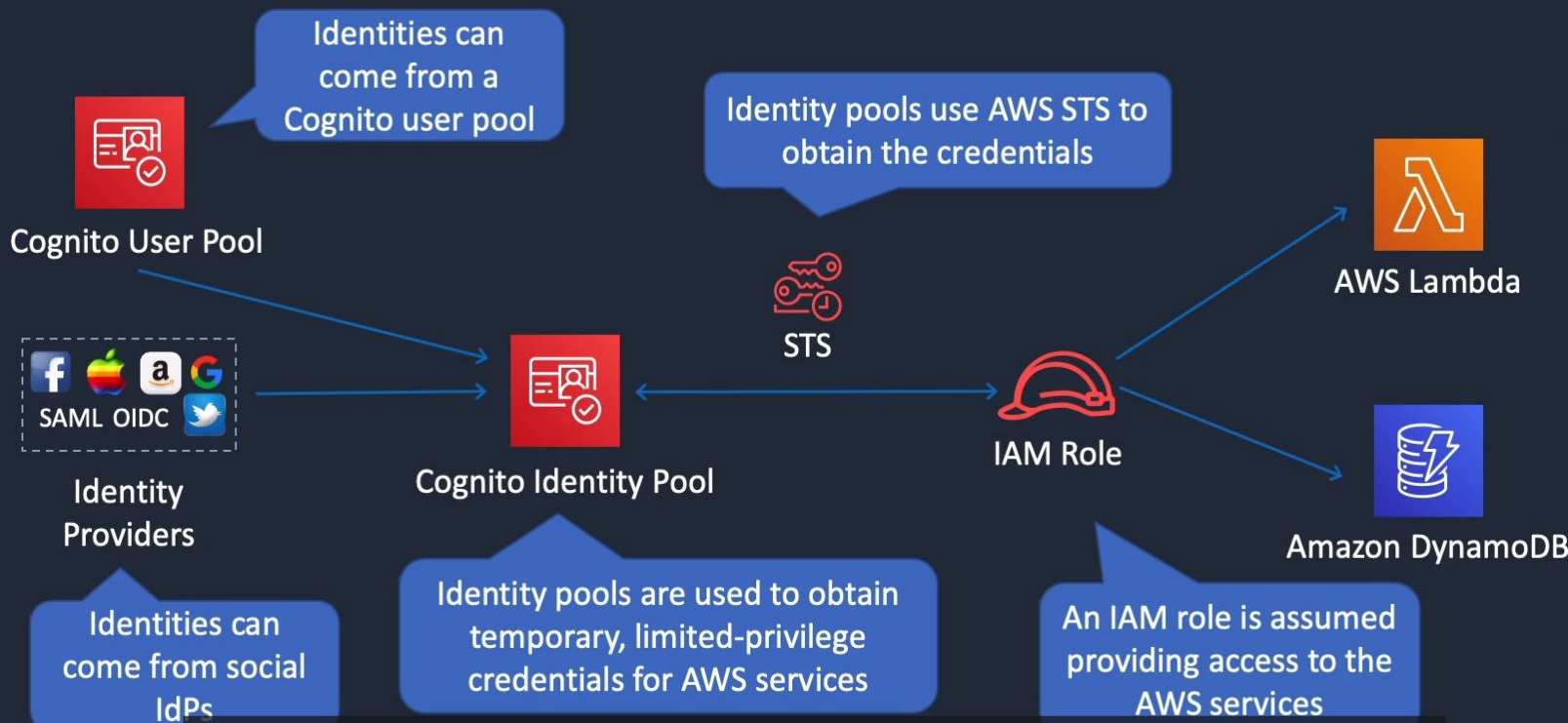




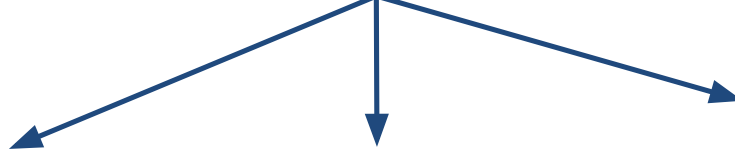
MEMBER AND MASTER ACCOUNT LEAVING PROCESS

1. Remove the **member account** from the old Organization.
2. Send an invite to the **member account** from the new Organization.
3. Accept the invite to the new Organization from the **member account**.
4. Delete the old Organization.
5. Send an invite to the **master account**
6. Accept the invite to the new Organization from the **master account**





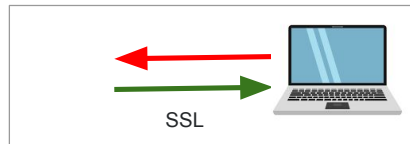
Component	Description
Templates	The JSON or YAML text file that contains the instructions for building out the AWS environment
Stacks	The entire environment described by the template and created, updated, and deleted as a single unit
StackSets	AWS CloudFormation StackSets extends the functionality of stacks by enabling you to create, update, or delete stacks across multiple accounts and regions with a single operation
Change Sets	A summary of proposed changes to your stack that will allow you to see how those changes might impact your existing resources before implementing them



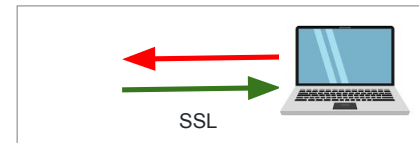
Server Side Encryption (**At Rest**)



Encryption in **Transition**



Client Side Encryption (**Transition+At Rest**)



Failover Scenario



EC2
Volumes



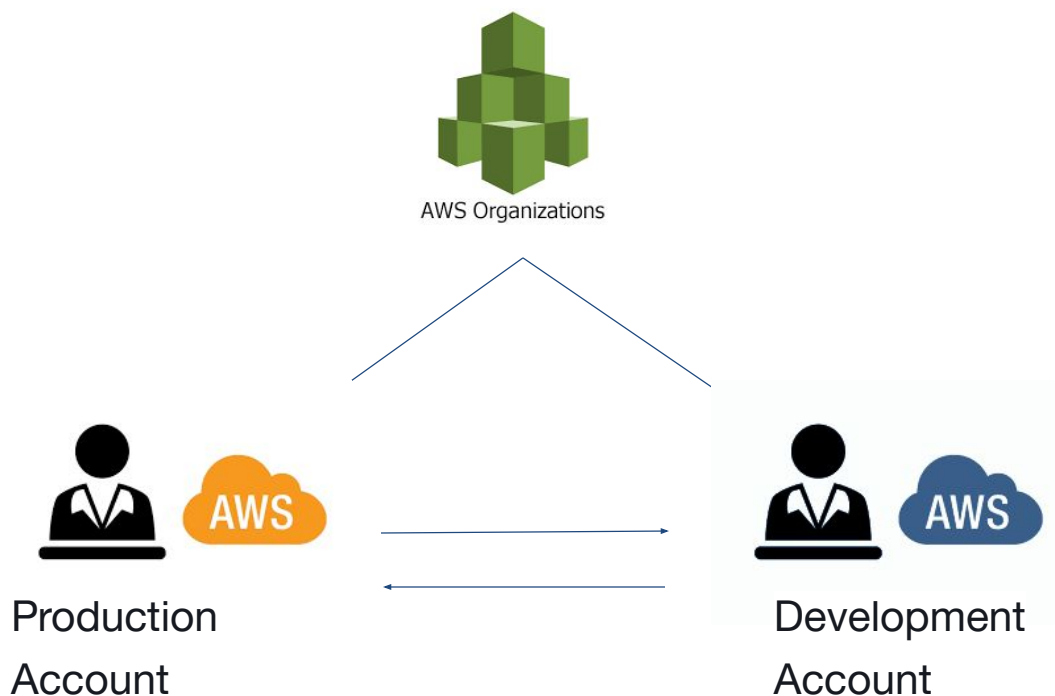
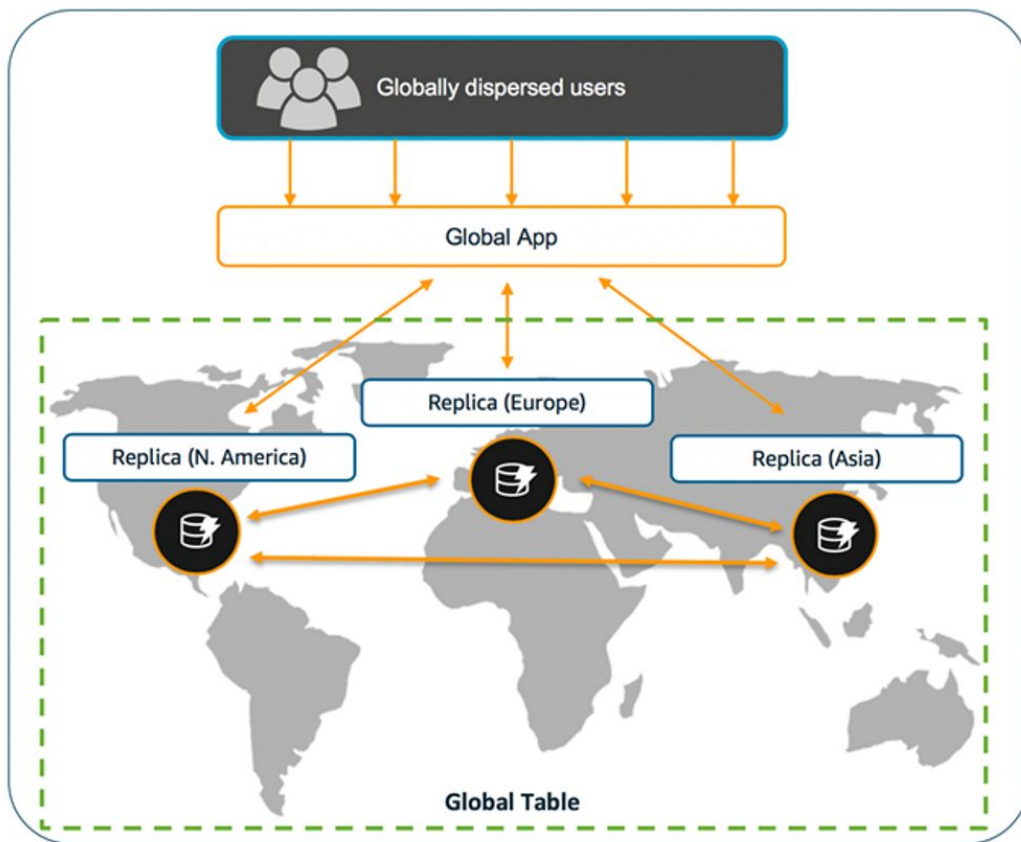
Snapshot



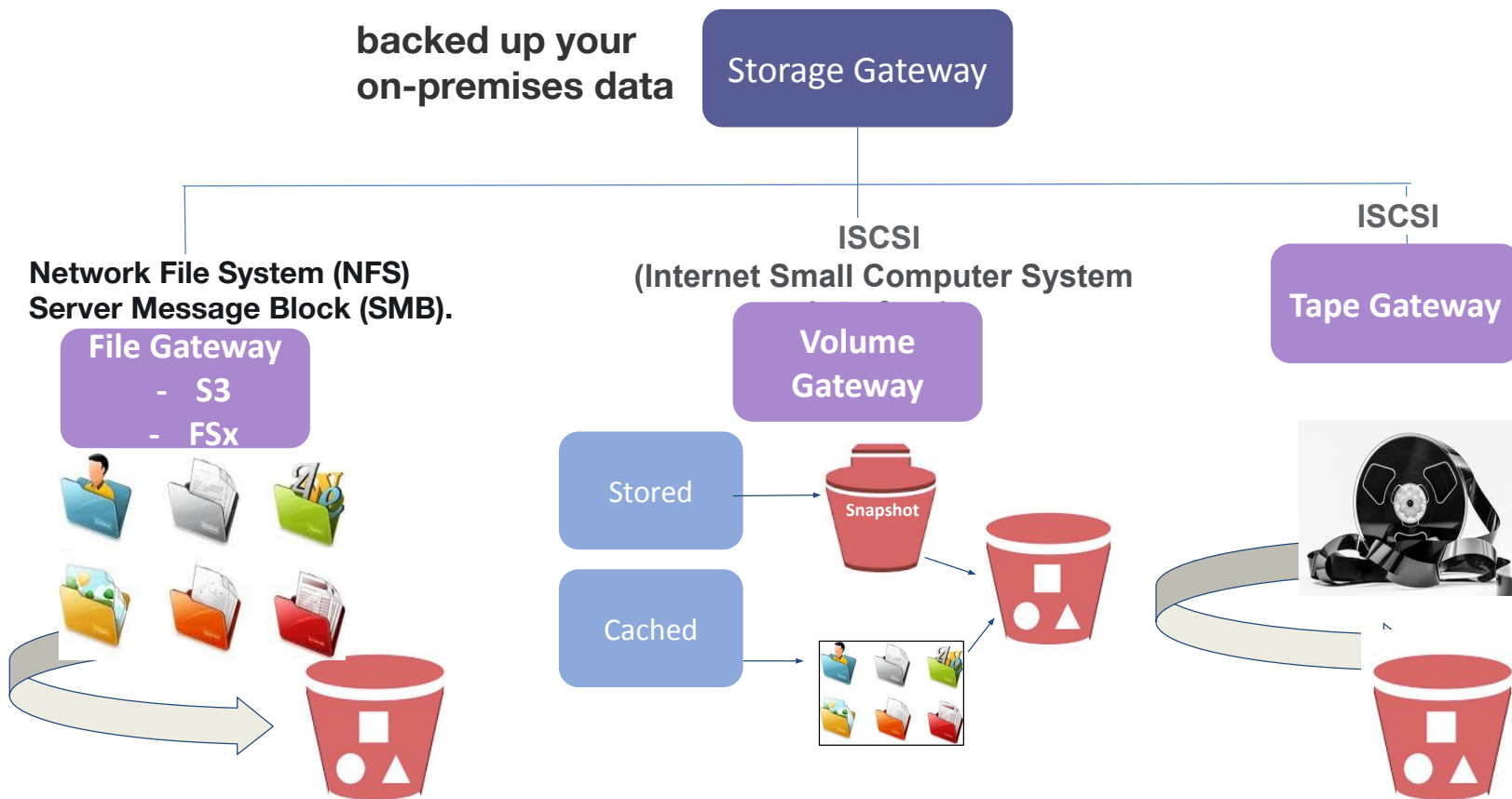
Amazon AMI



EC2 Instance



Enable resource sharing in AWS Organizations with RAM



Info: The term **legacy** database commonly refers to a database that has been in use for many years and is therefore unsuitable for modern apps and environments.

- DMS create a replication instance for migrating. Your databases are fully operational when migrating.
- **Homogeneous** database migrations (**Oracle to Oracle**) (need **Engine conversion**)
- Heterogenous** database migrations (**Microsoft SQL to Aurora**) (**Use SCT**)
- Use **SCT (Schema conversion tool)** from one schema to another schema for **Heterogenous** migrations

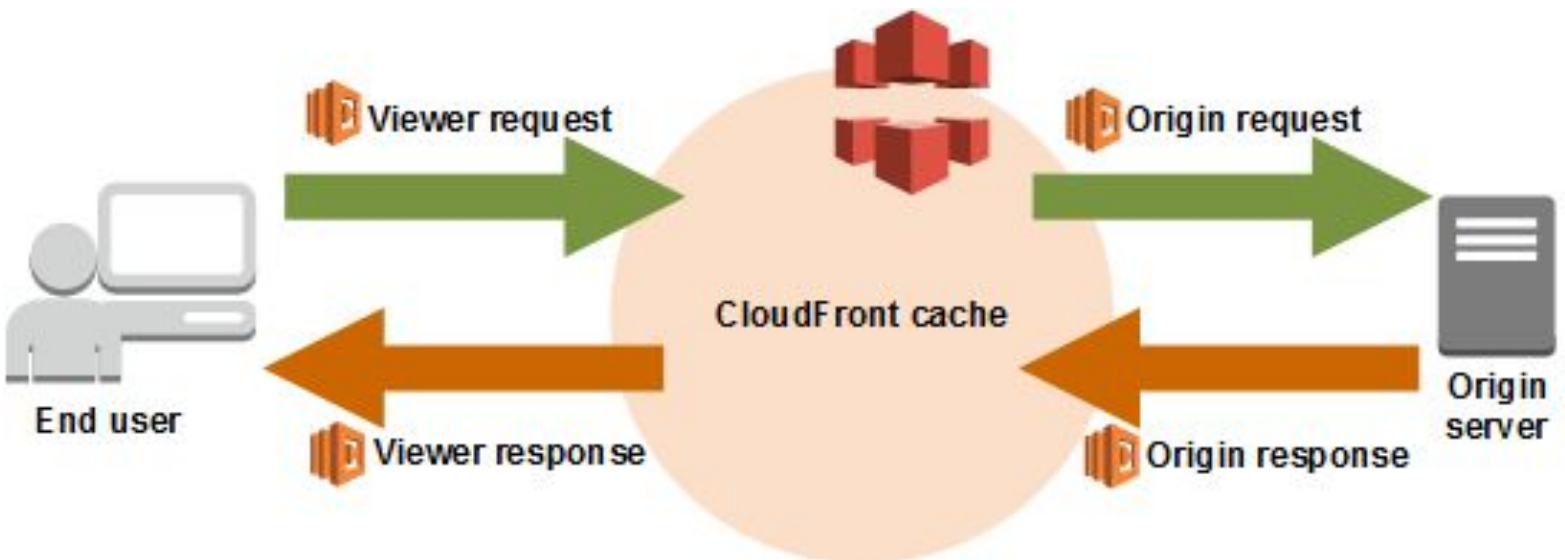
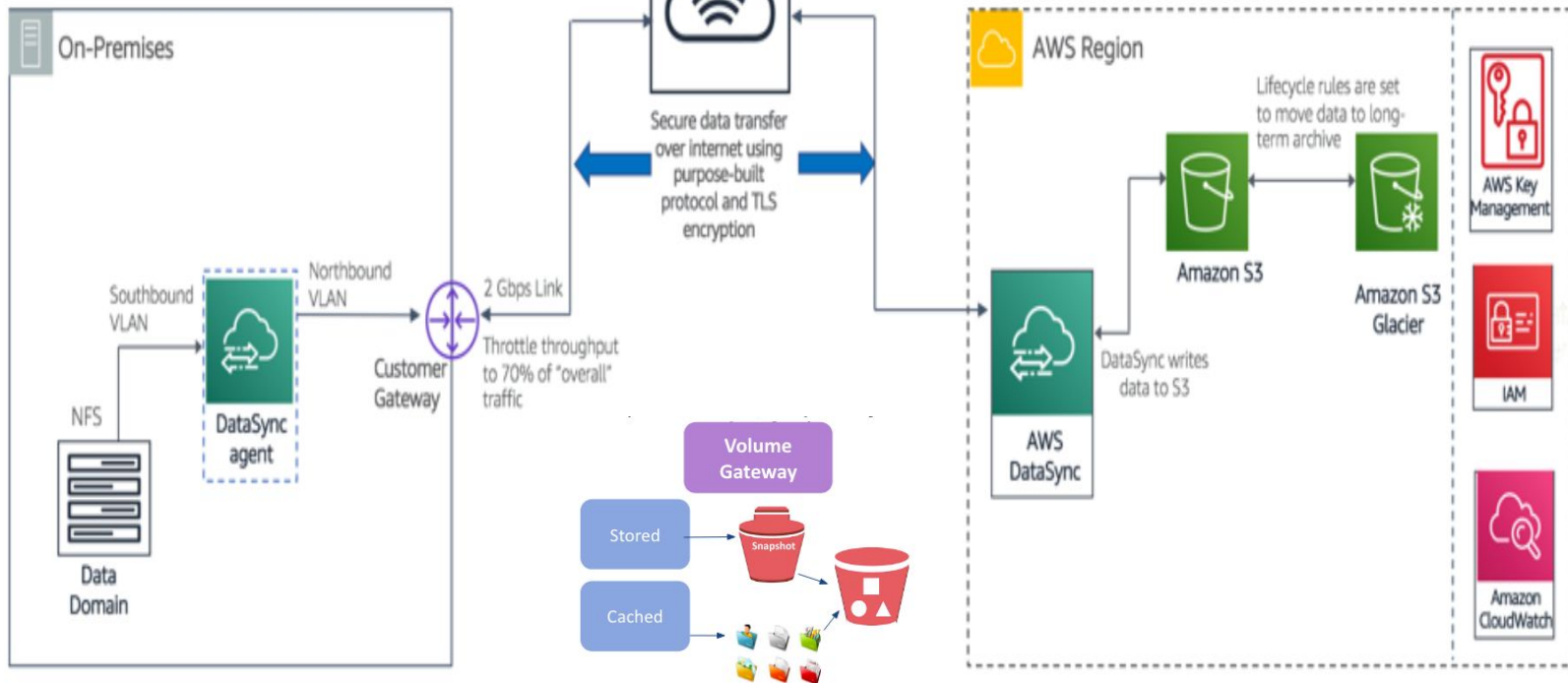
From **Legacy** to **DynamoDb** >>>>>> **Heterogenous** database migrations

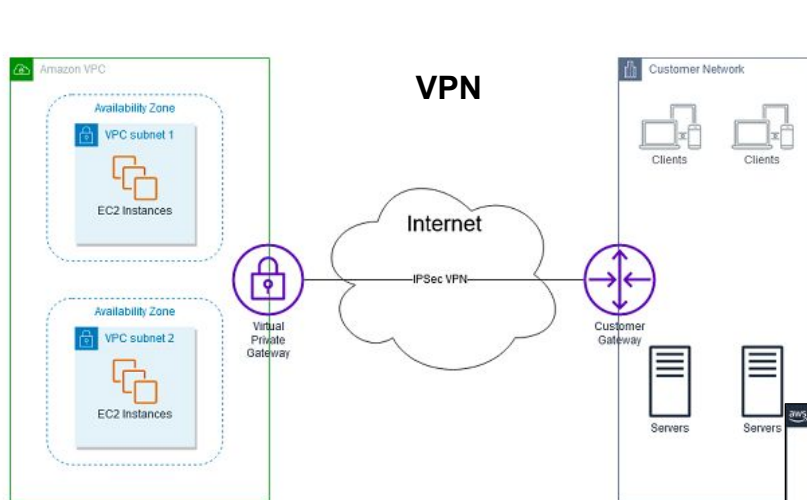
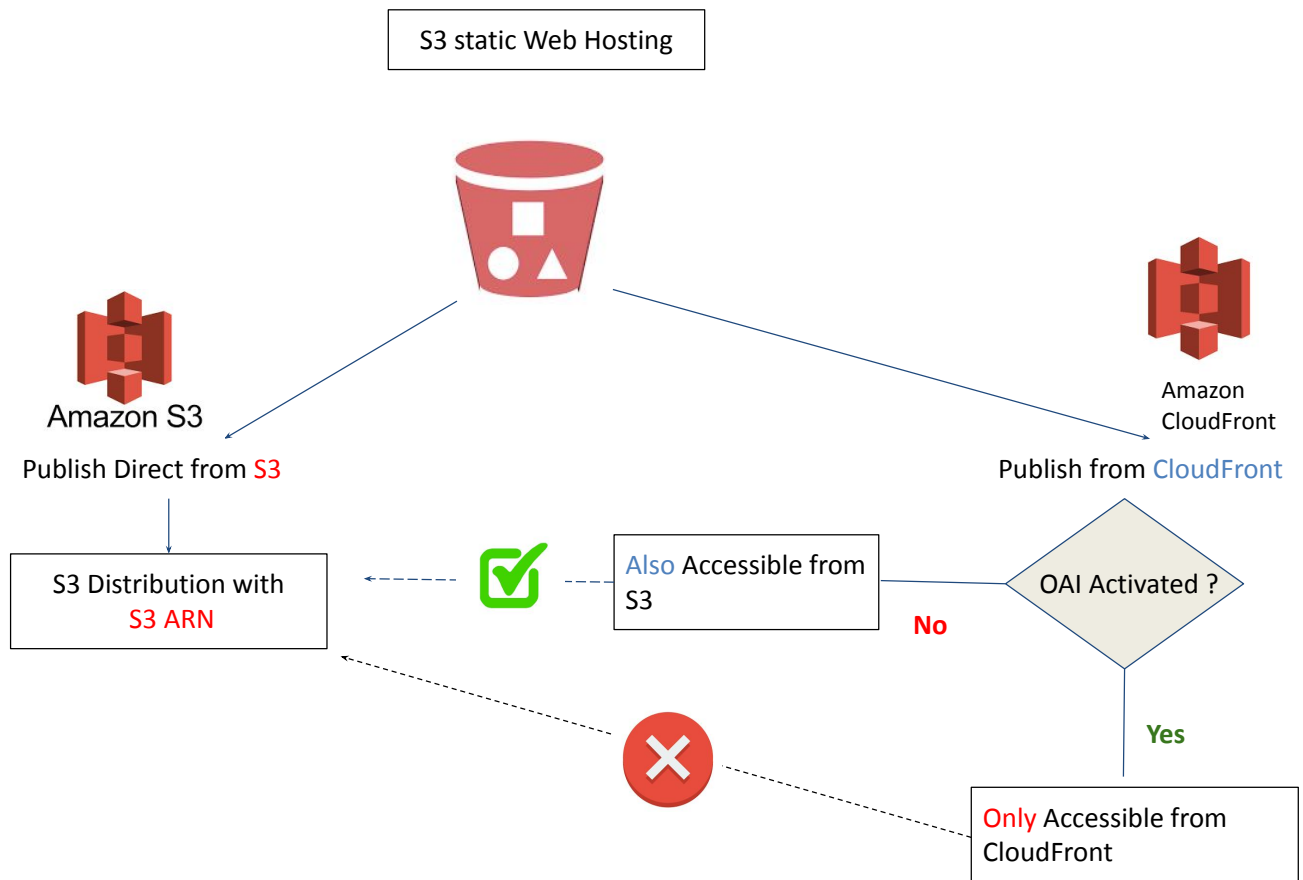


SCT (Schema conversion tool)

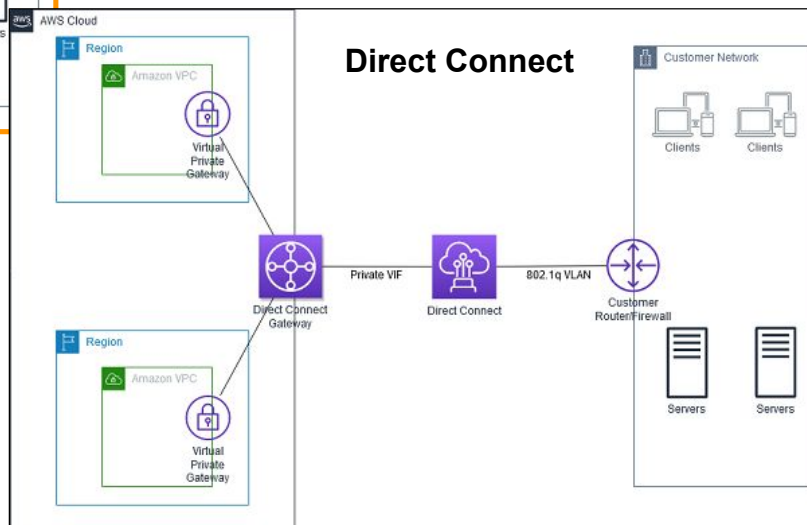
KEY words: Transfer db to AWS ,
Snapshots of db in S3,

No impact on client usage of app
S3 data is fully synced with the on premise db.

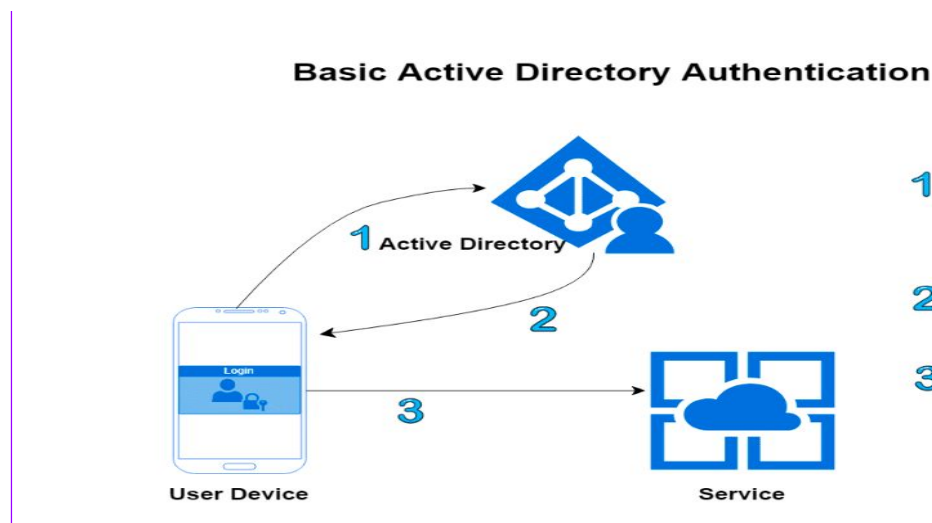




Within the term "IPsec," "IP" stands for "Internet Protocol" and "sec" for "secure."



VPN connections are very cheap (\$37.20/month)
Built in a few minutes



**AWS Directory
Service for
Microsoft Active
Directory**

Simple AD

AD Connector

Amazon Cognito



**SAA 03 Practice Test 3
Osvaldo**