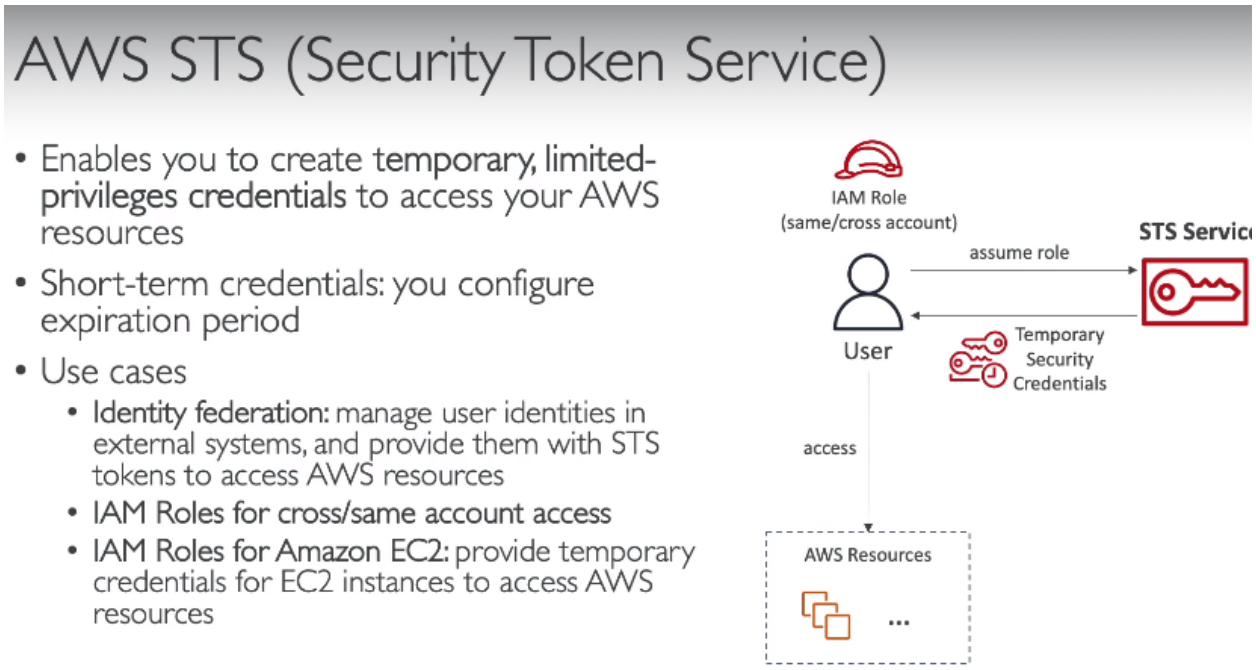
Security Token Service(STS)



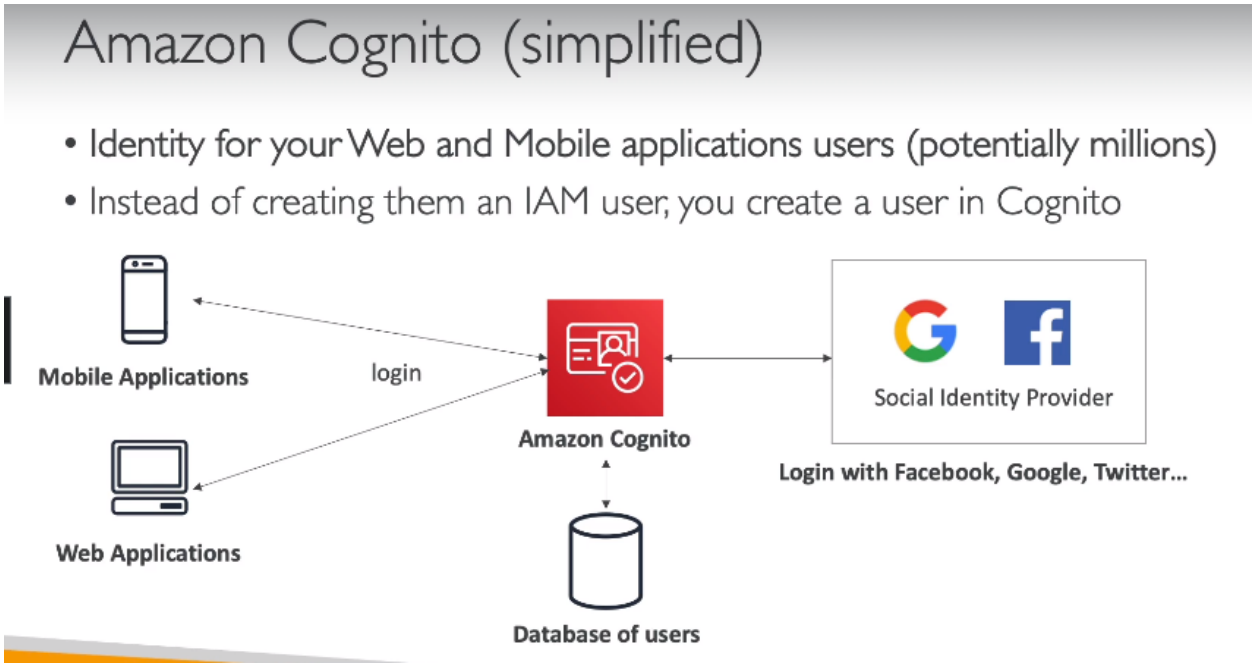
1.
2. Anytime from an example perspective that you see, you need to create temporary, limited privileges credentials think AWS STS

AWS Cognito

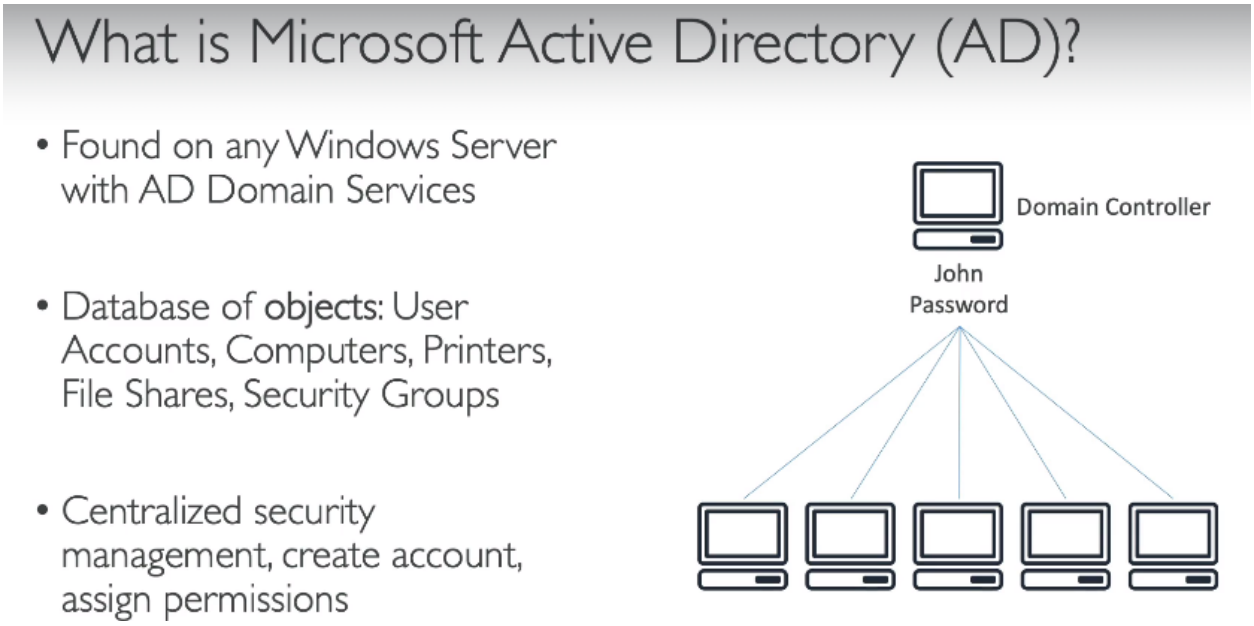
1. Sure. Amazon Cognito is an AWS service that provides user sign-up, sign-in, and authentication for your web and mobile apps. It also provides AWS credentials that your apps can use to access other AWS services.

   Here is a practical example of how Amazon Cognito can be used:

   - You are building a mobile app that allows users to create and share shopping lists. You need to provide a way for users to sign up for the app and sign in to their accounts. You also need to provide a way for users to access their shopping lists from any device.
   - You can use Amazon Cognito to handle all of these tasks. You can create a user pool in Amazon Cognito that will store user information such as their email address, password, and phone number. You can then use the Amazon Cognito SDK to integrate your app with the user pool. This will allow users to sign up for the app and sign in using their email address and password.
   - Once a user is signed in, you can use the Amazon Cognito identity pool to generate AWS credentials for the user. These credentials can then be used by your app to access other AWS services, such as Amazon S3, to store the user's shopping lists.

2. 

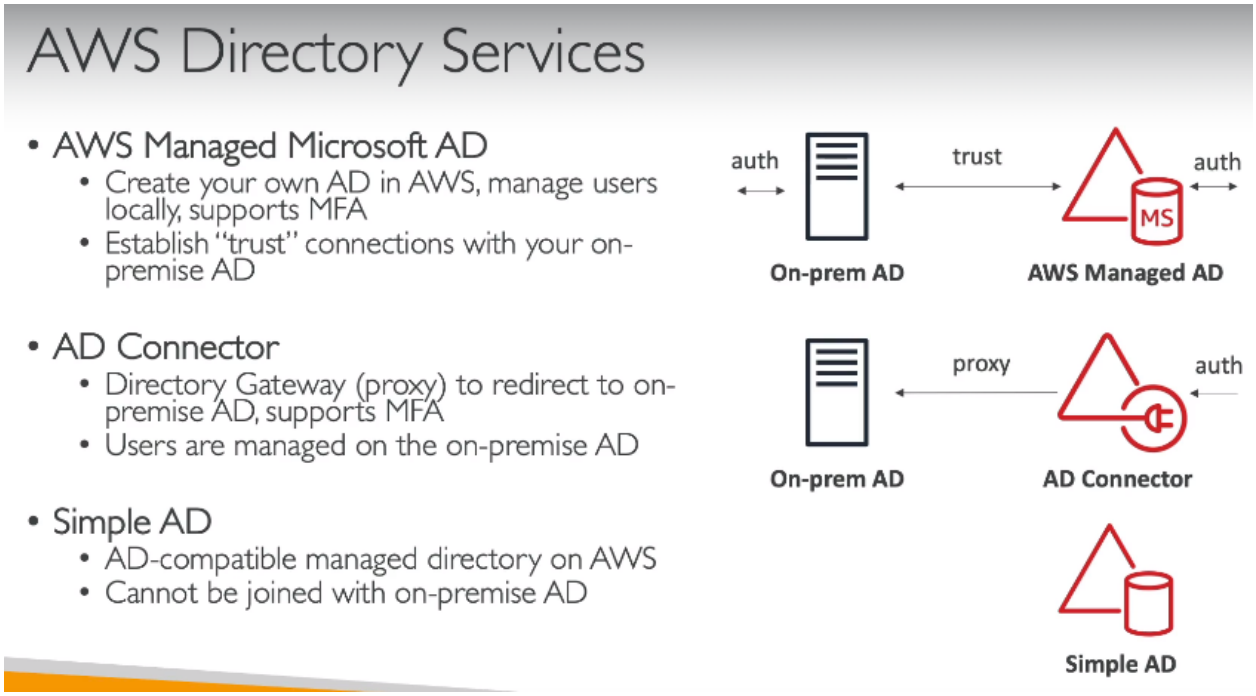
AWS Directory Services Overview

1. 

2. Sure. Microsoft Active Directory (AD) is a directory service that helps organizations manage their IT infrastructure. It is a hierarchical database that stores information about users, computers, applications, and other network resources. AD uses this information to authenticate users and control access to resources.

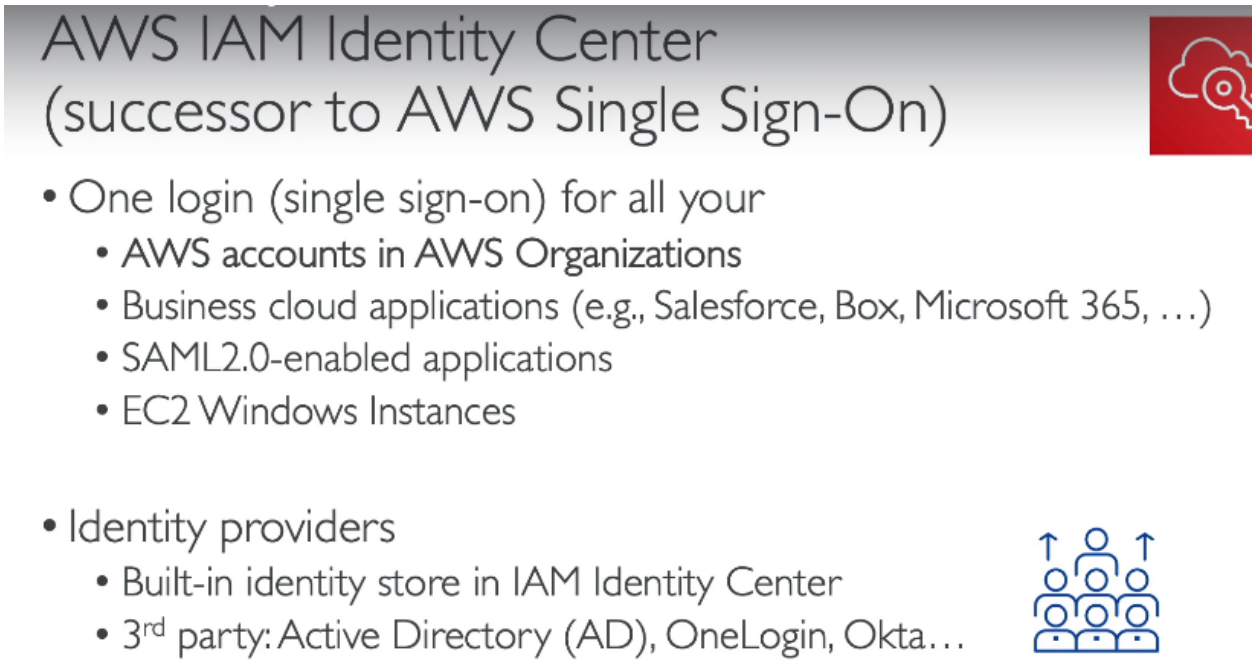
   Here is a practical example of how Microsoft Active Directory can be used:

   - You are the IT administrator for a company with 100 employees. You need to create a system that allows employees to sign in to their computers and access network resources. You also need to control who has access to different resources, such as sensitive files or applications.
   - You can use Microsoft Active Directory to handle all of these tasks. You can create user accounts for each employee and store their information in Active Directory. You can then assign permissions to each user account, so that they only have access to the resources that they need.
   - When an employee logs in to their computer, Active Directory will authenticate their username and password. If the authentication is successful, the employee will be granted access to their resources.

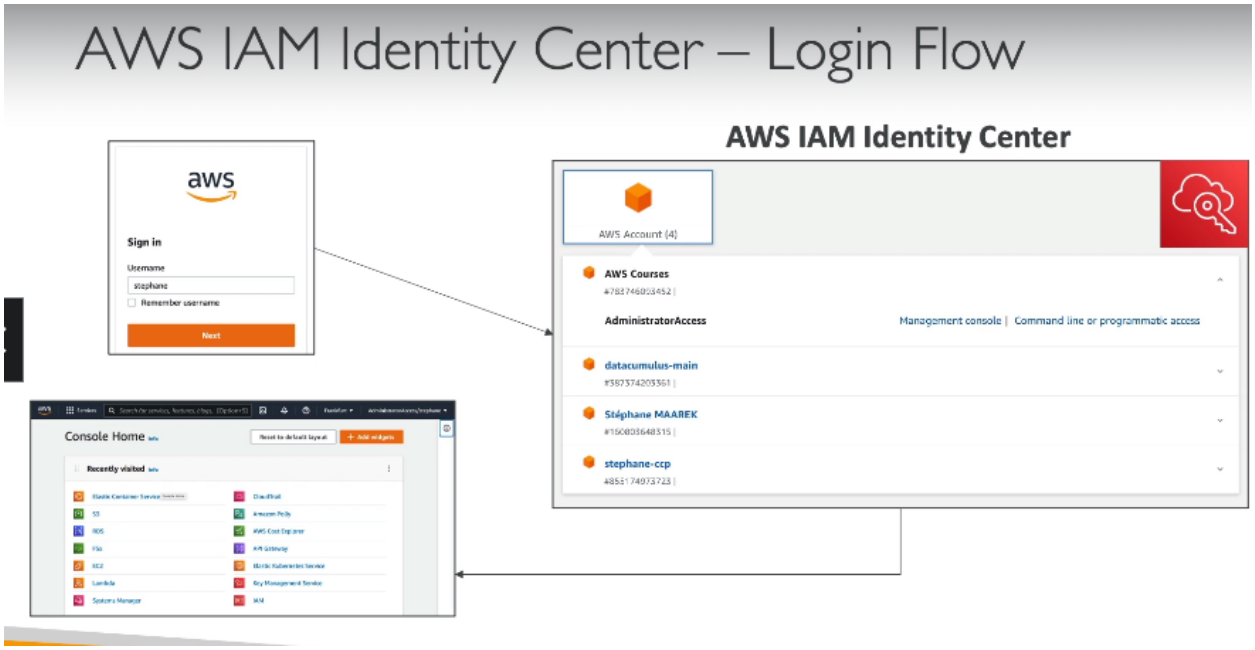


3.
4. at the Cloud Practitioner Exam, all you need to is know that Directory Services is used whenever you hear about Active Directory or Microsoft Active Directory.

AWS IAM Identity Center

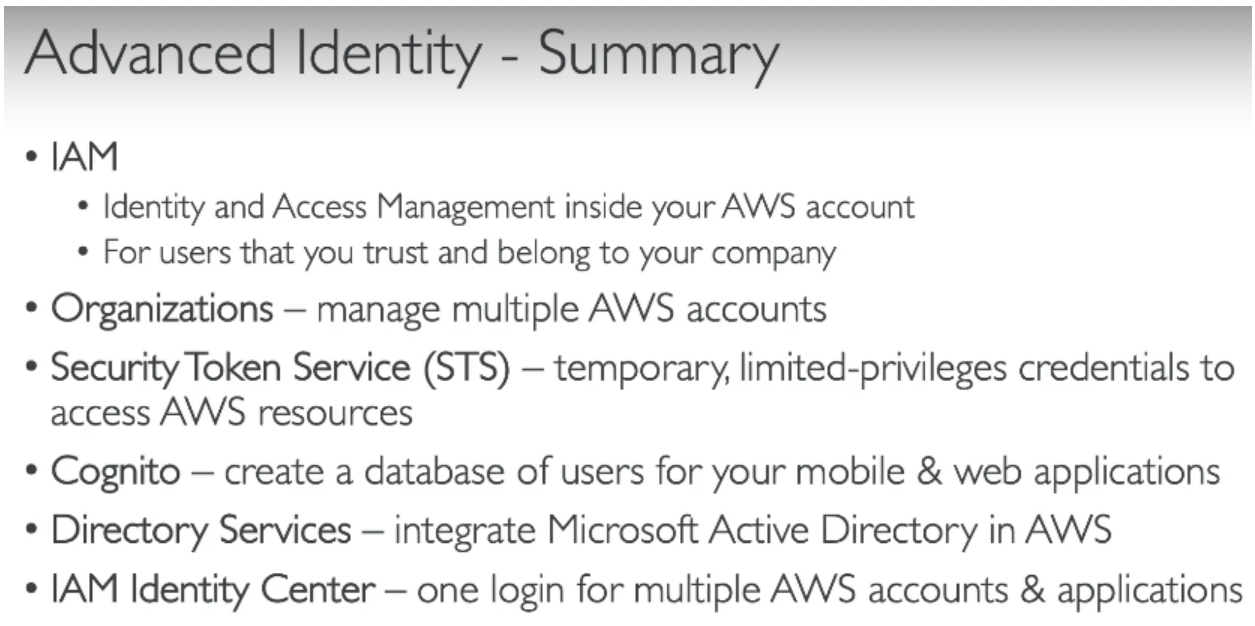


1.



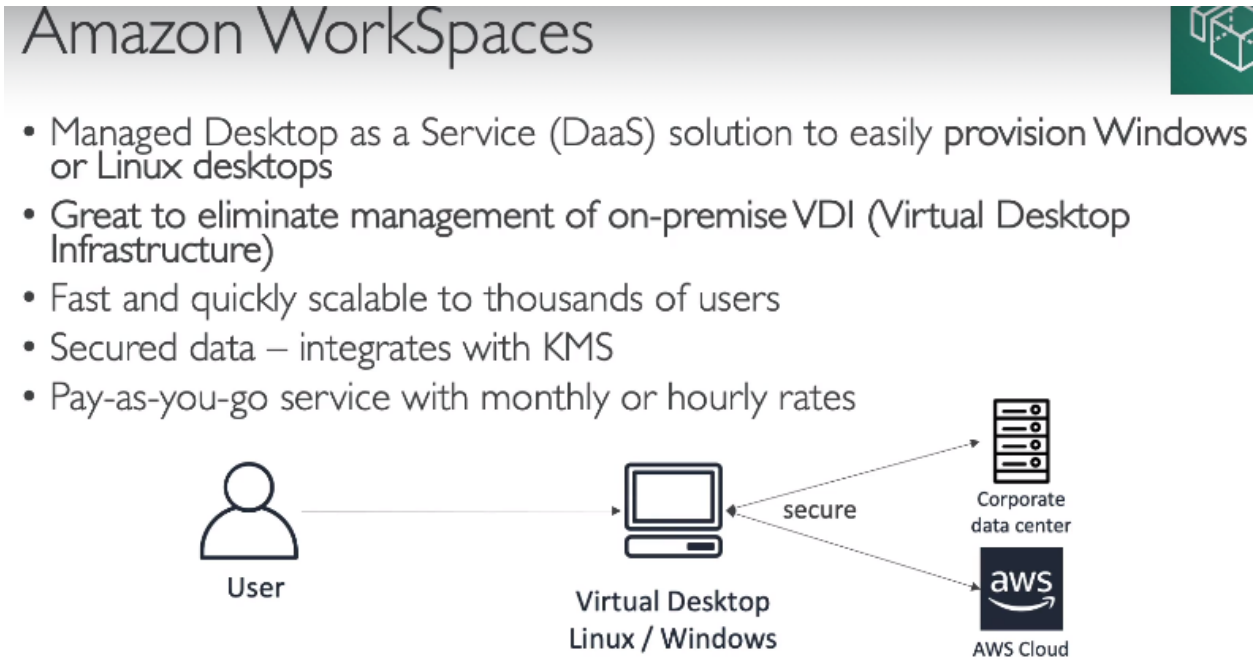
2.
3. In this picture if we sign in..we have access to IAM Identity center
4. Here we have access to four accounts under my organization. And then, I can click on one of them and click on management console and I'm going to have direct access to the management console of a specific account.

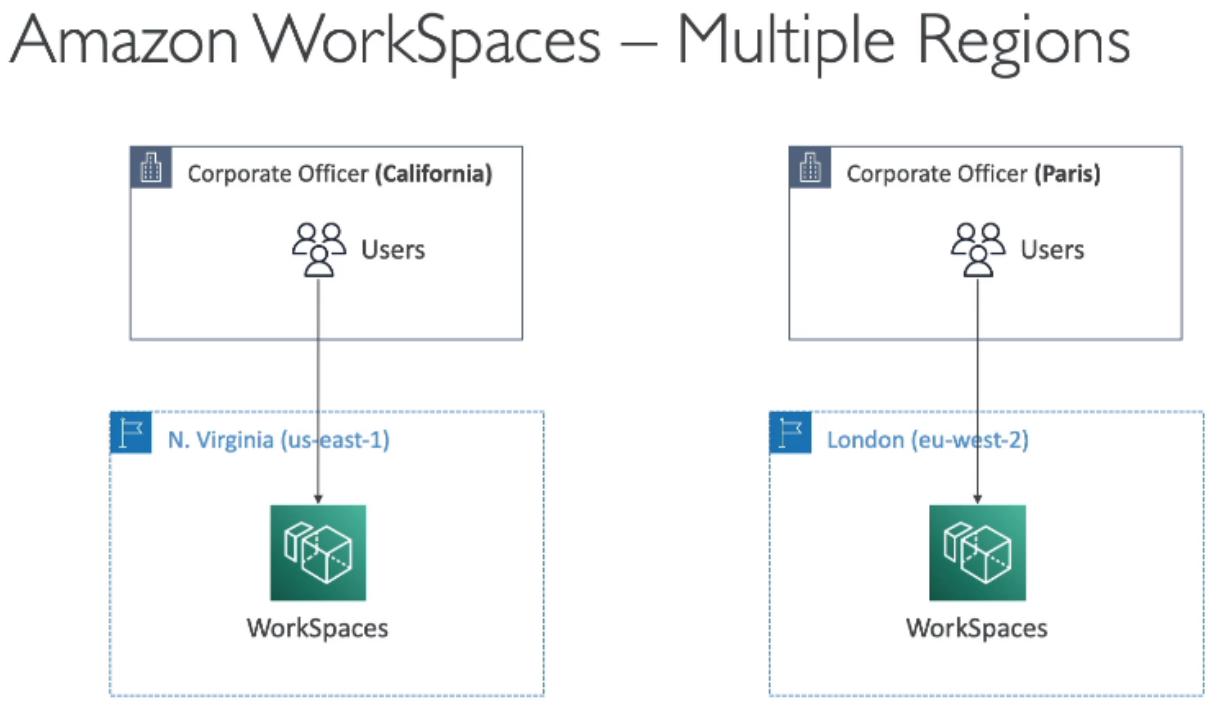
Advanced Identity - Summary



1.

Other Services - AWS WorkSpaces

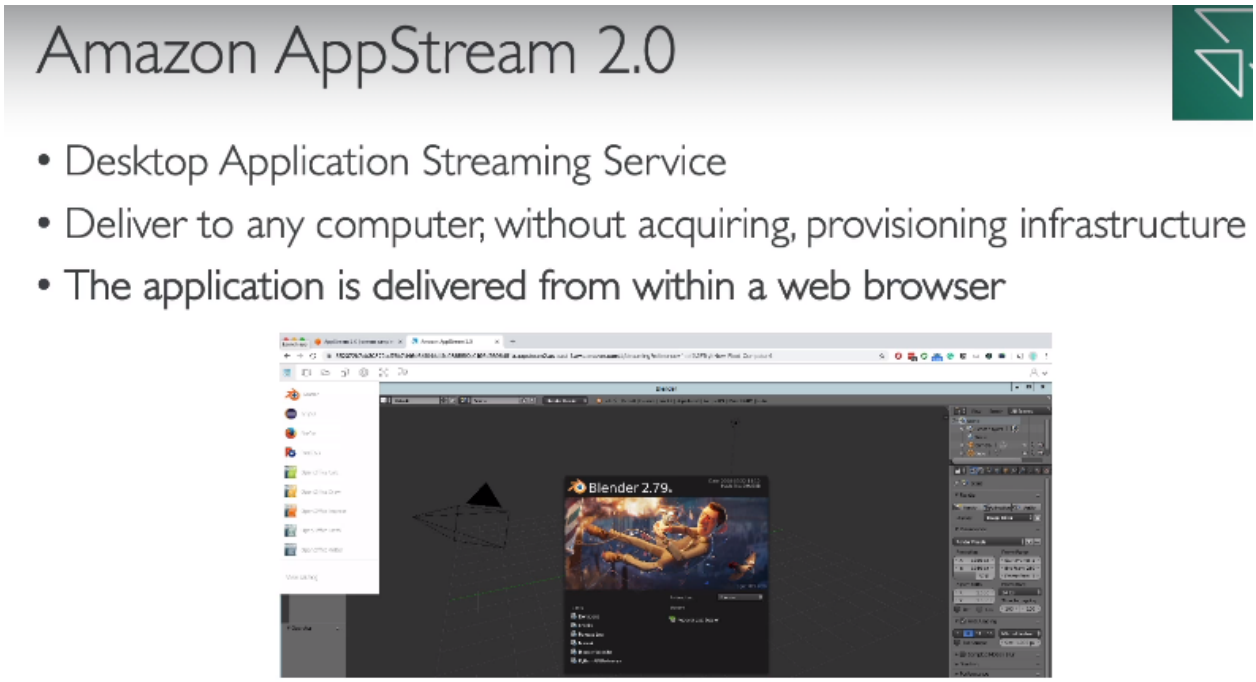
1. 

2. if you see anything related to virtual desktops or manage desktop as a service, think workspaces.
3. 

4. To minimise latency we should have workspaces inside our own region to the users in the region

5. And overall, if you wanna minimize latency,always think about deploying close to users.

Amazon AppStream 2.0

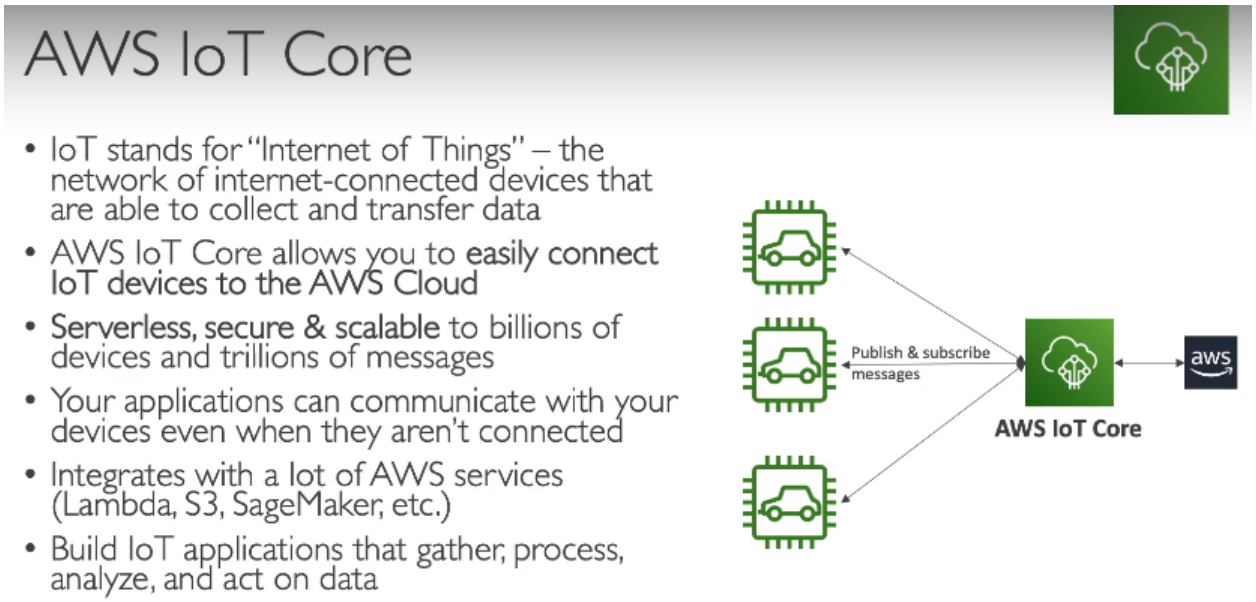
1. 

2. Say you want to have the Blender application to create the 3D models directly from within a web browser, you can with Amazon AppStream. So it is application-focused, and they're delivered through your web browser.

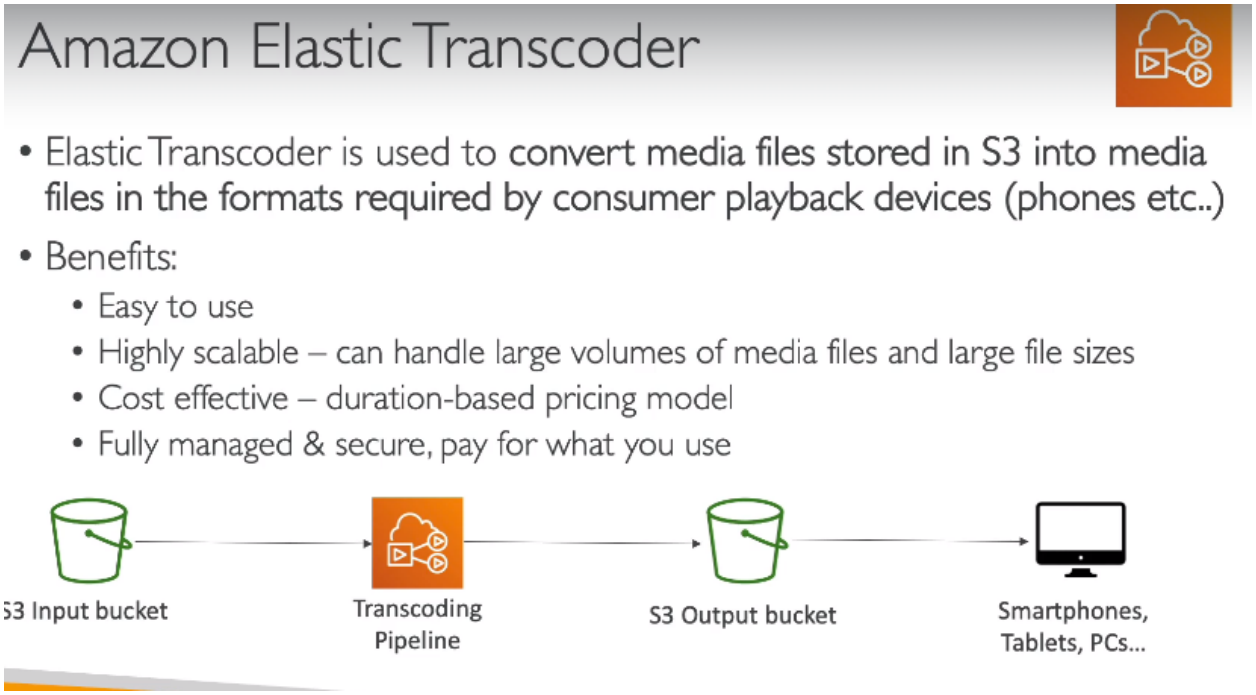
3. Here is an example of how Amazon AppStream 2.0 and Amazon WorkSpaces can be used in different scenarios:

   - A company that wants to provide its employees with access to a CAD program could use Amazon AppStream 2.0. The company could create an AppStream 2.0 fleet that is dedicated to the CAD program, and then assign users to the fleet. When a user logs in to the fleet, they will be able to access the CAD program without having to download or install it on their local device.
   - A school that wants to provide its students with a complete desktop environment could use Amazon WorkSpaces. The school could create a pool of WorkSpaces that are configured with the student's preferred operating system and applications. When a student logs in to a WorkSpace, they will have a complete desktop environment that is ready to use.

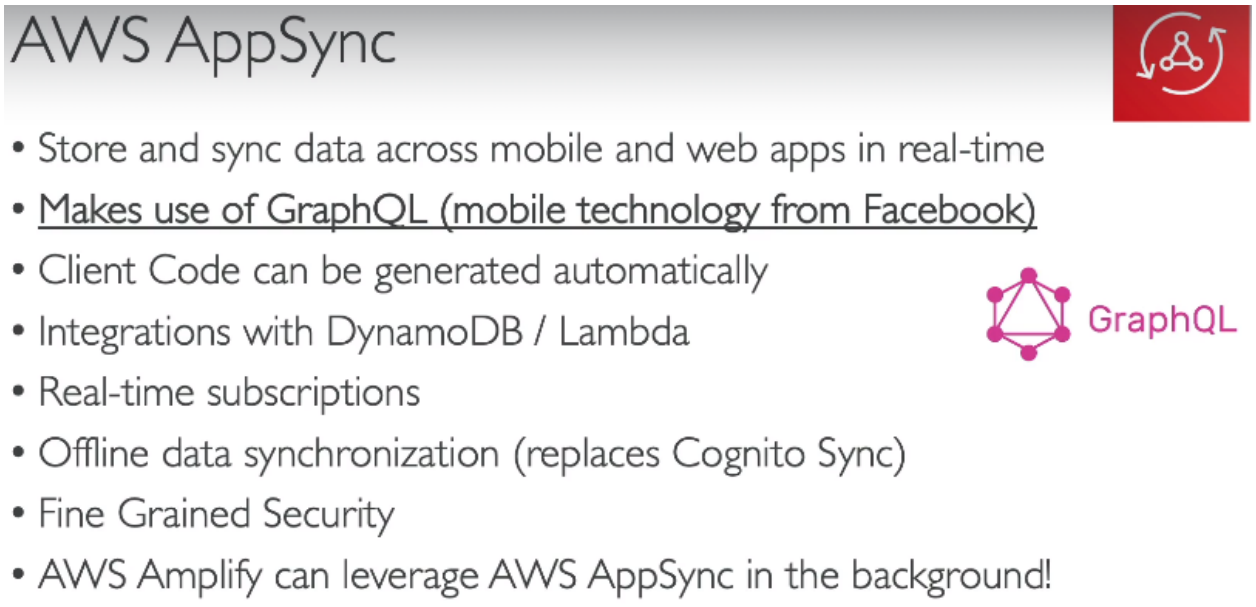
AWS IoT Core

1. 

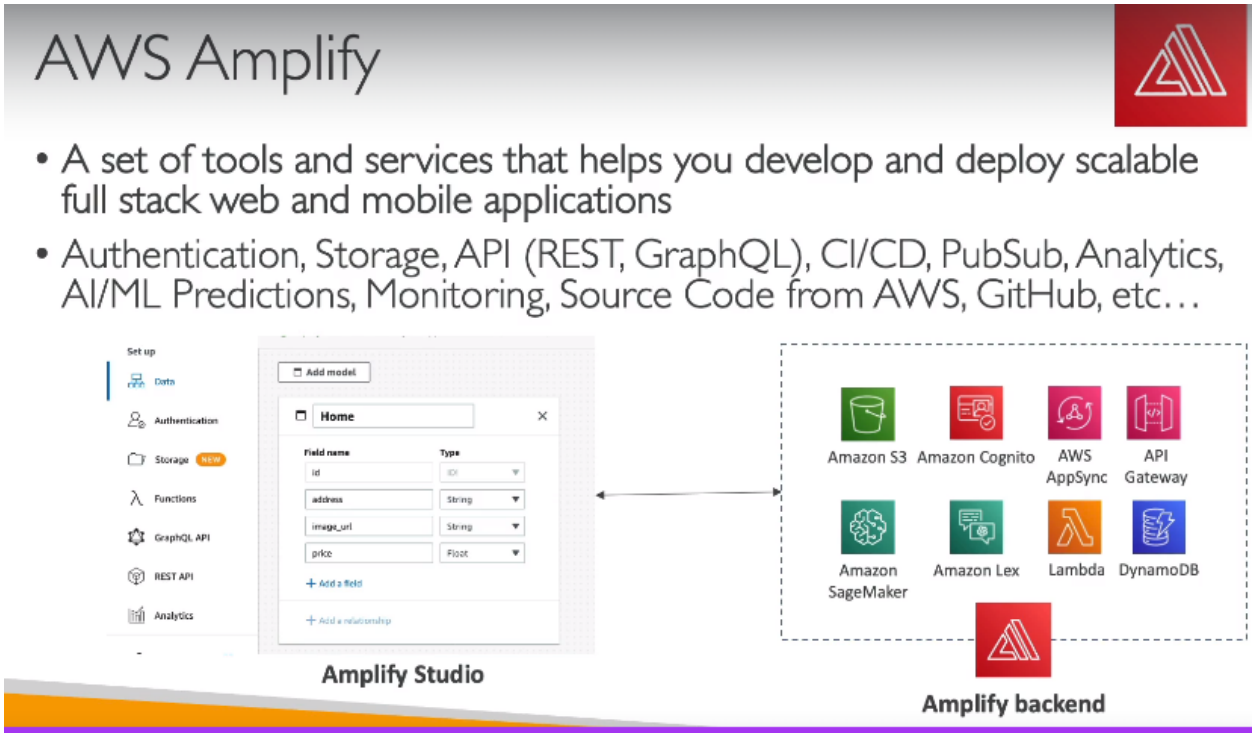
AWS Elastic Transcoder

1. 

AWS AppSync

1. 

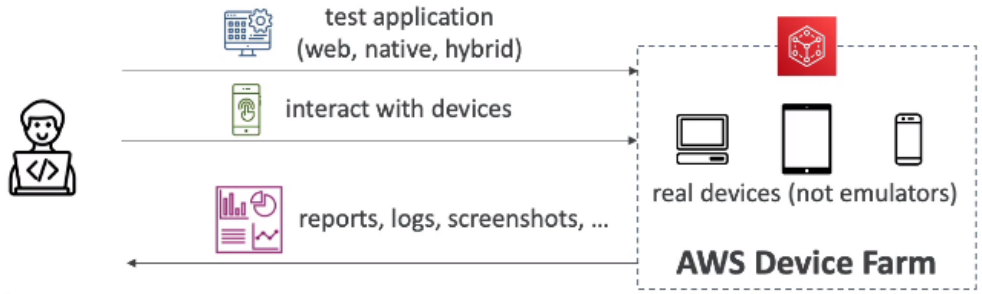
AWS Amplify

1. 

AWS Device Farm

1. # AWS Device Farm

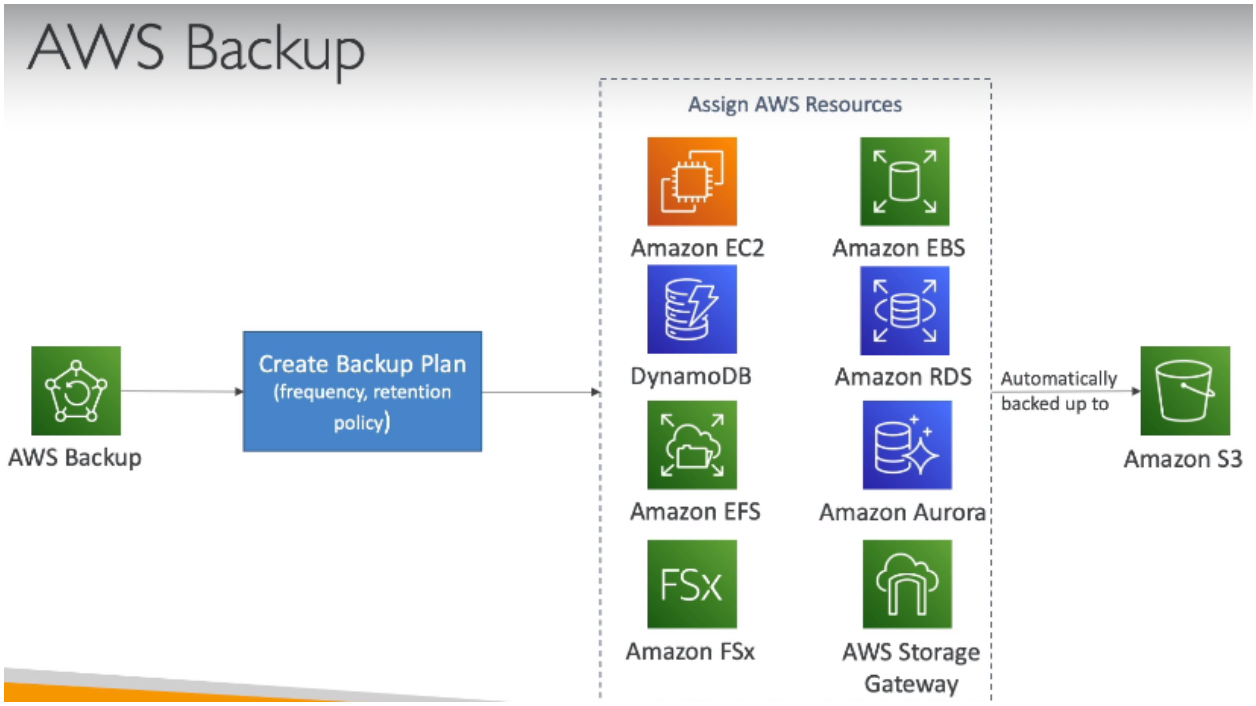
- Fully-managed service that tests your web and mobile apps against desktop browsers, real mobile devices, and tablets
- Run tests concurrently on multiple devices (speed up execution)
- Ability to configure device settings (GPS, language, Wi-Fi, Bluetooth, …)



AWS BackUp

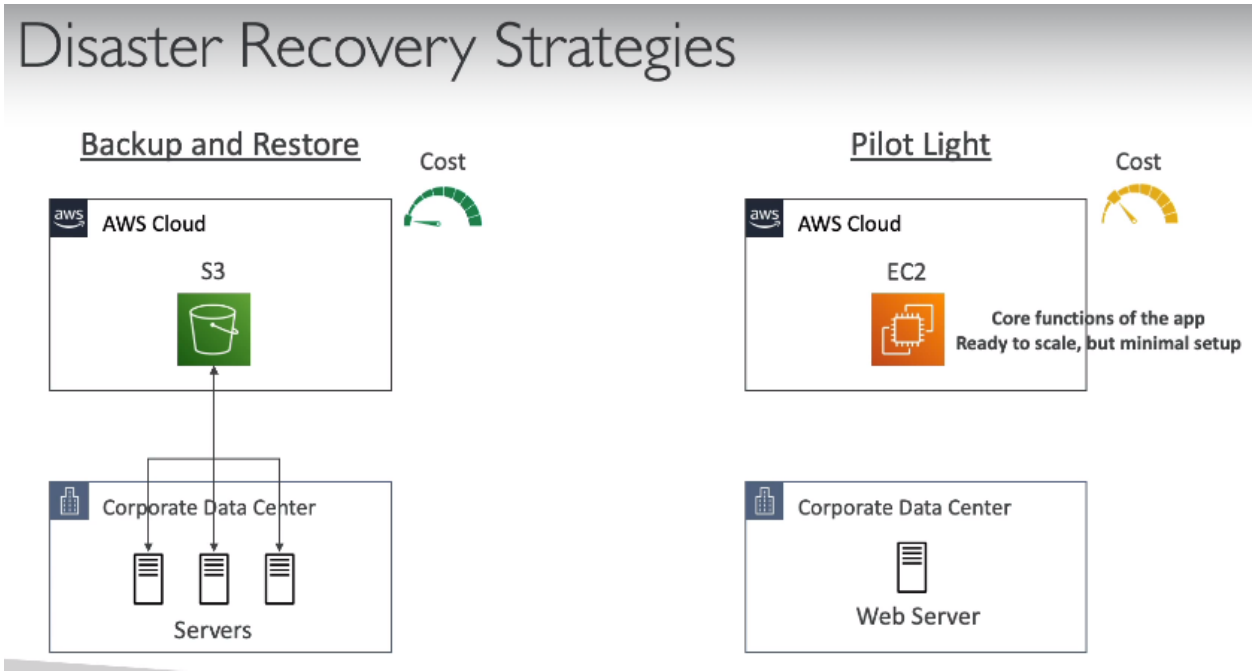
1. # AWS Backup

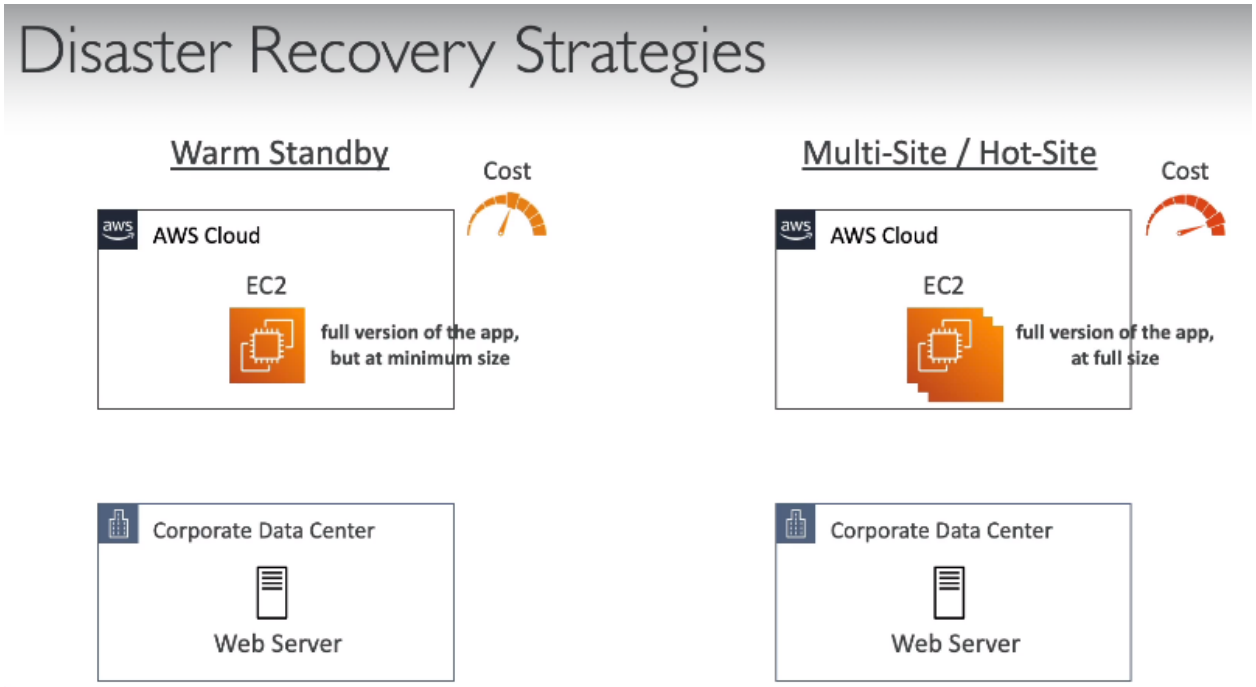
- Fully-managed service to centrally manage and automate backups across AWS services
- On-demand and scheduled backups
- Supports PITR (Point-in-time Recovery)
- Retention Periods, Lifecycle Management, Backup Policies, …
- Cross-Region Backup
- Cross-Account Backup (using AWS Organizations)

2. 

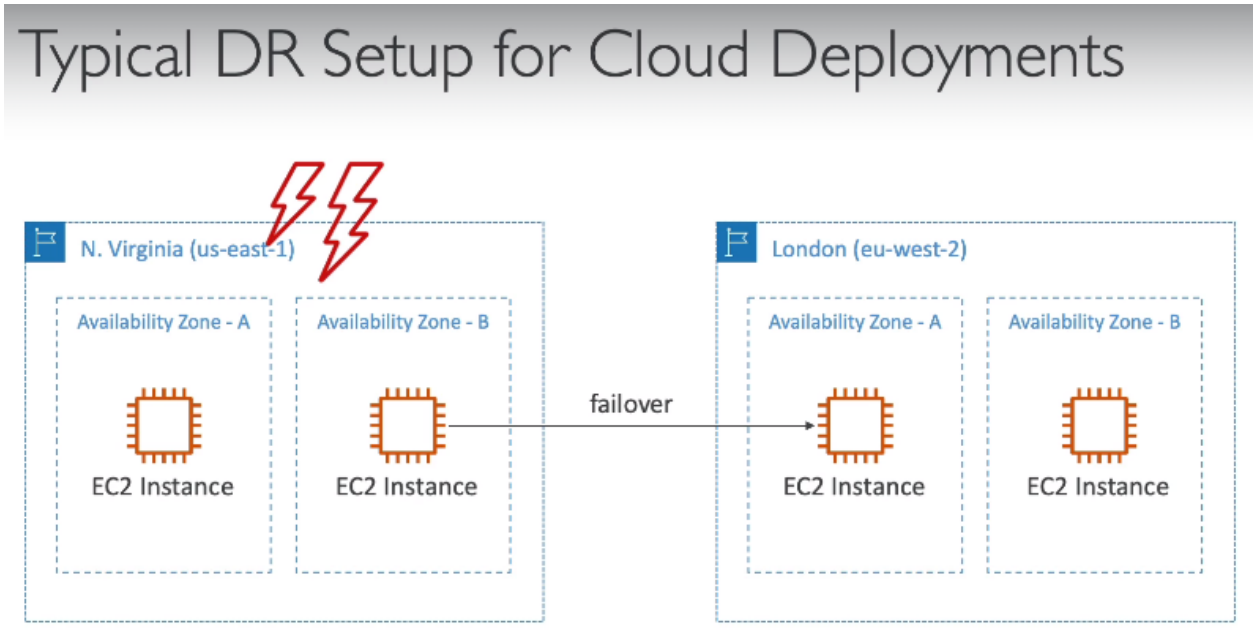
Disaster Recovery Strategies

1. In the exam, we'll just ask you. Hey, which one is the cheapest. So the cheapest is backup and restore.

2. 



3.
4. Cheapest is backup and store…expensive is hot site



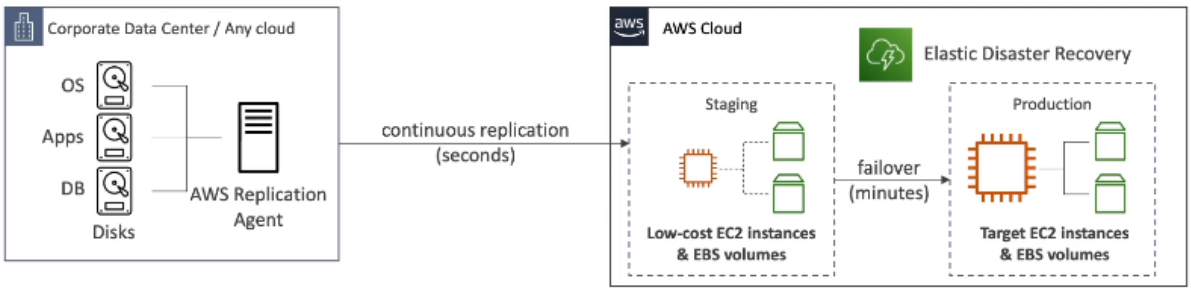
5.
6. So say we have our instance in us-east-one, and there's a disaster that strikes us-east-one. Then we can fill over all our traffic into another region. For example, eu-west-two using route 53.

AWS DRS

AWS Elastic Disaster Recovery (DRS)

- *Used to be named "CloudEndure Disaster Recovery"*

- Quickly and easily **recover** your physical, virtual, and cloud-based servers into AWS
- Example: protect your most critical databases (including Oracle, MySQL, and SQL Server), enterprise apps (SAP), protect your data from ransomware attacks, …
- Continuous block-level replication for your servers



1.
2. In our corporate data center we have AWS replication agent..which is used to replicate our OS,apps and DB into AWS cloud staging area
3. If any disaster occurs in our center..We redirect our data from staging to production and use this for temporary need
4. If our data center comes back to normal ..we can perform failback
5. which is that the system falls back into your incorporated sensor and you're operating normally.

AWS Data Sync

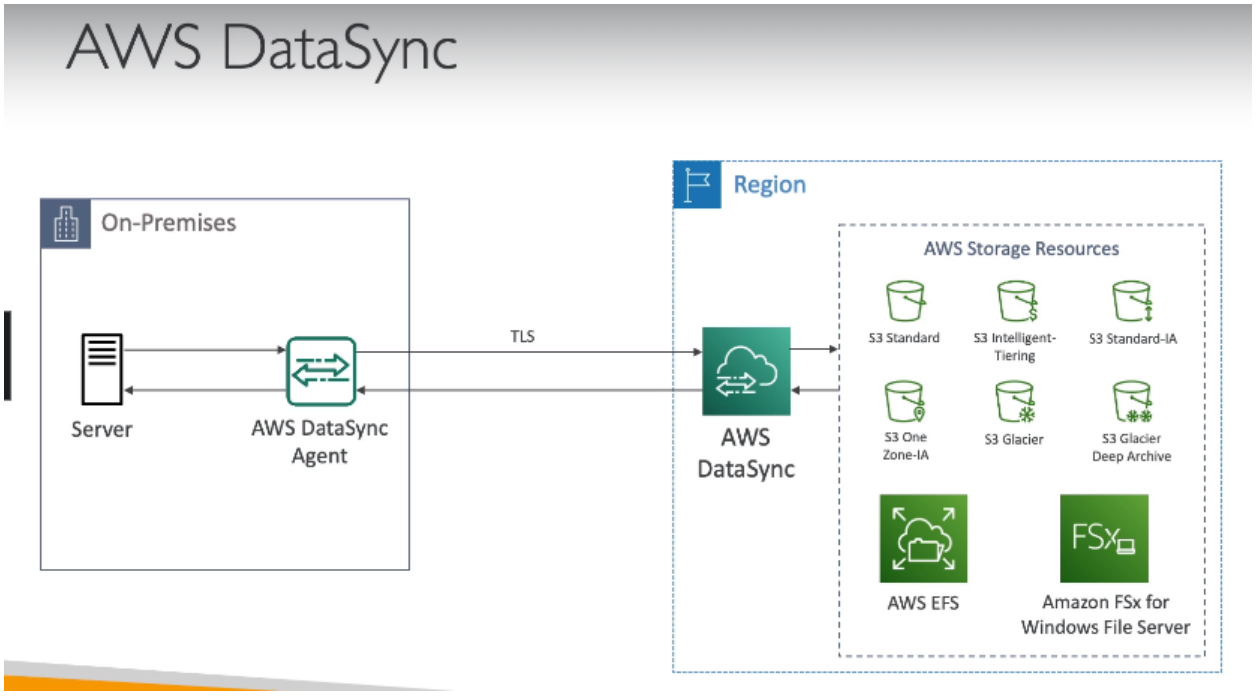
1.

AWS DataSync

- Move large amount of data from on-premises to AWS
- Can synchronize to: Amazon S3 (any storage classes – including Glacier), Amazon EFS, Amazon FSx for Windows

- Replication tasks can be scheduled hourly, daily, weekly
- The replication tasks are incremental after the first full load

2.



AWS Application Discovery Service

AWS Application Discovery Service

- Plan migration projects by gathering information about on-premises data centers
- Server utilization data and dependency mapping are important for migrations

- Agentless Discovery (AWS Agentless Discovery Connector)
  - VM inventory, configuration, and performance history such as CPU, memory, and disk usage
- Agent-based Discovery (AWS Application Discovery Agent)
  - System configuration, system performance, running processes, and details of the network connections between systems

- Resulting data can be viewed within AWS Migration Hub

1.
2. If we are planning to move our on premises data centers to cloud..we have 2 options
3. Agentless Discovery and Agent based Discovery
4. And the simplest way to move from on-premisesto AWS is using the AWS Application Migration Service,

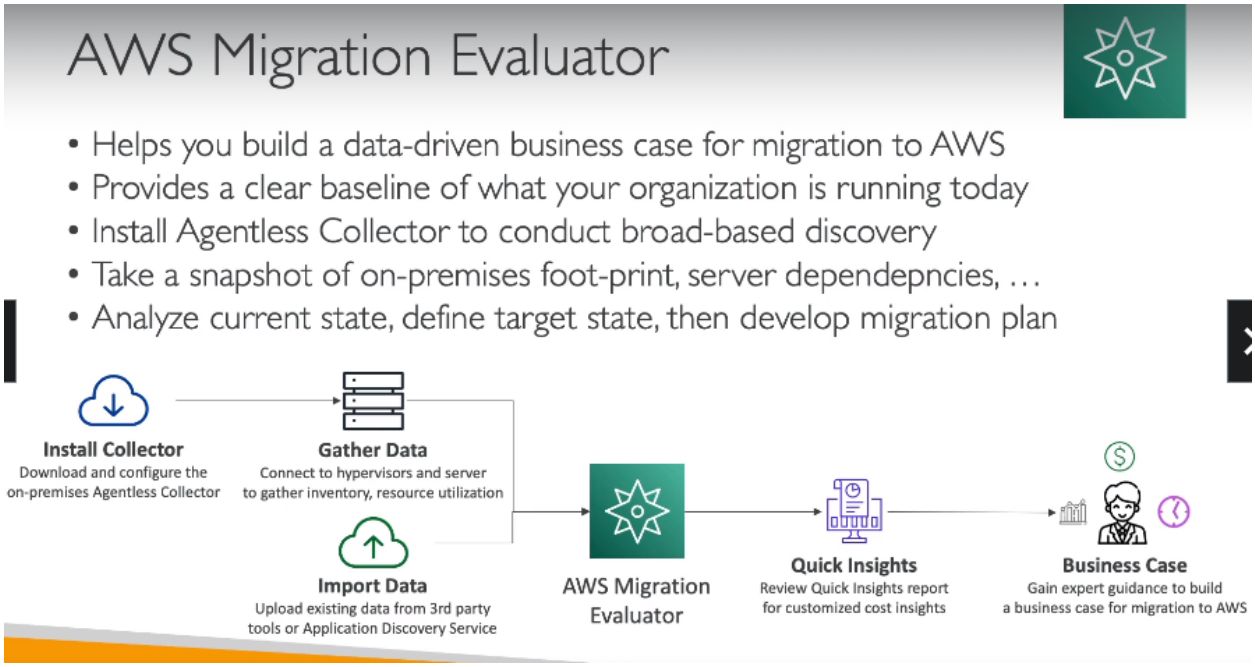
AWS Application Migration Service (MGN)

- *The "AWS evolution" of CloudEndure Migration, replacing AWS Server Migration Service (SMS)*

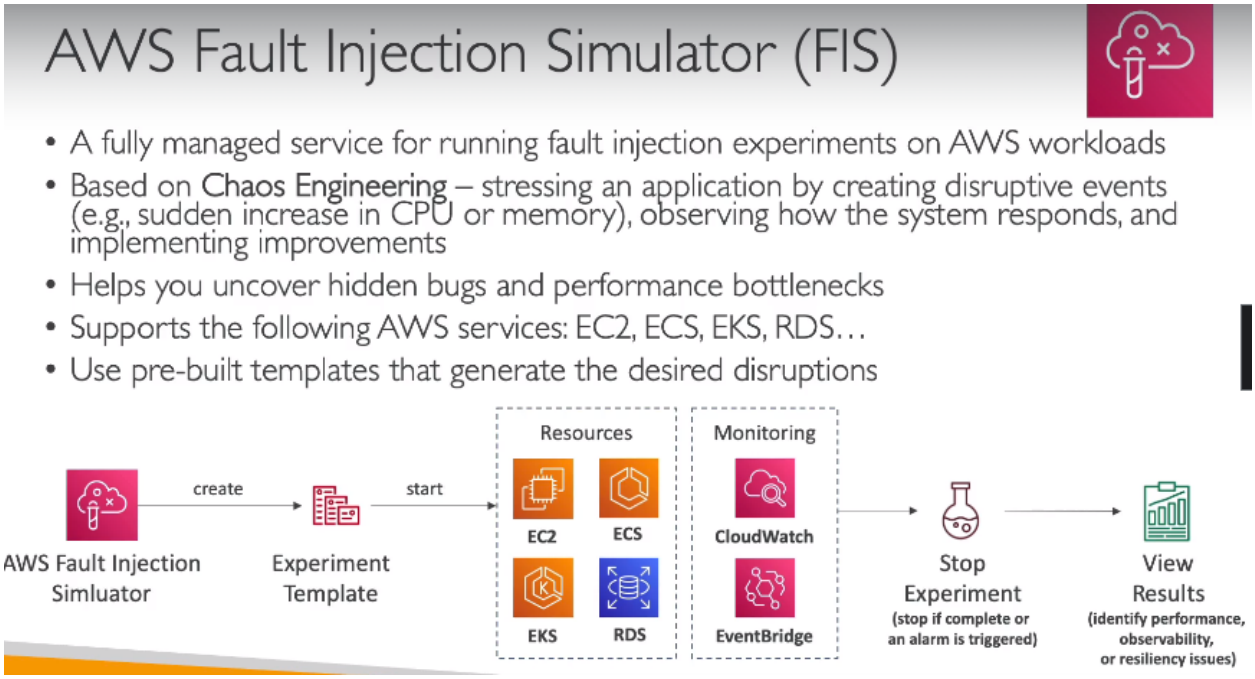
- Lift-and-shift (rehost) solution which simplify **migrating** applications to AWS
- Converts your physical, virtual, and cloud-based servers to run natively on AWS
- Supports wide range of platforms, Operating Systems, and databases
- Minimal downtime, reduced costs

5. 

AWS Migration Evaluator

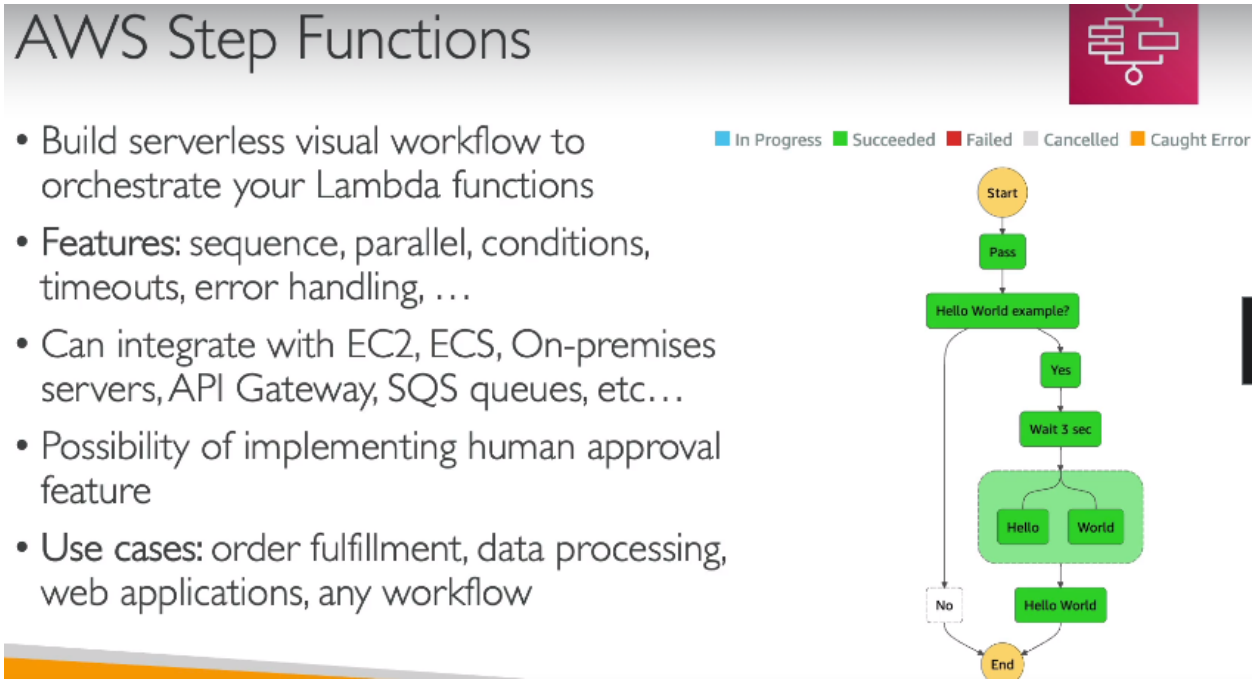
1. 

AWS Fault Injection Simulator(FIS)

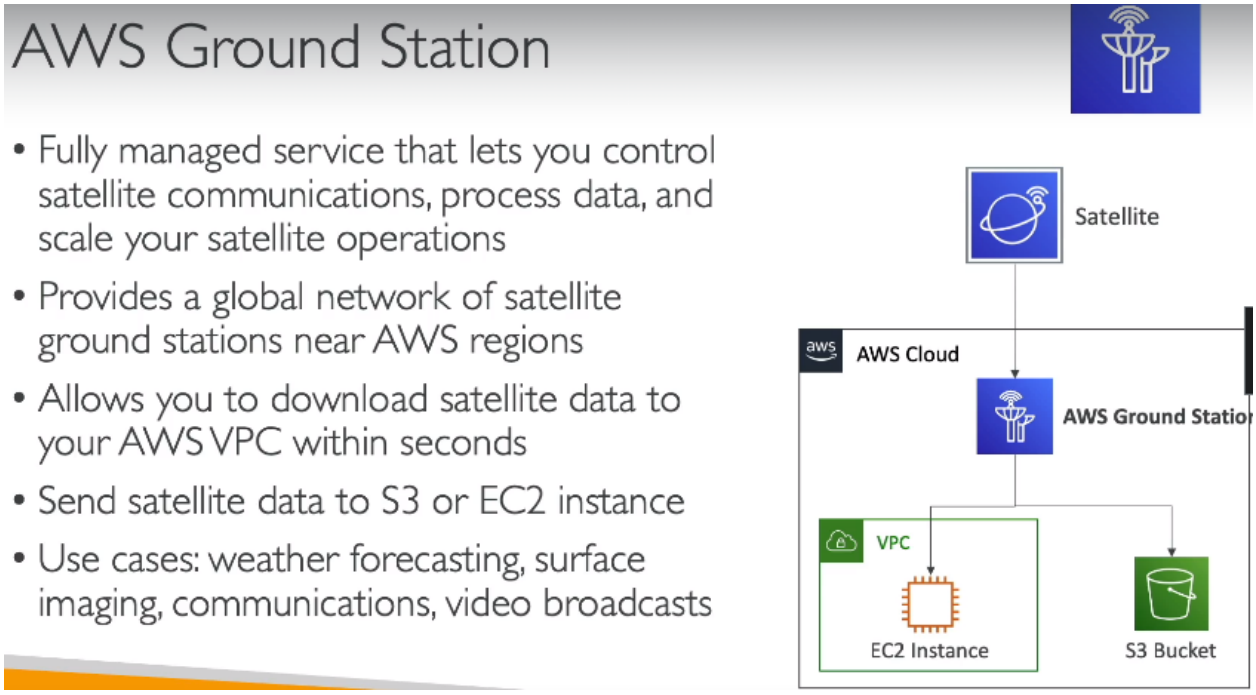
1. 

AWS Step Function

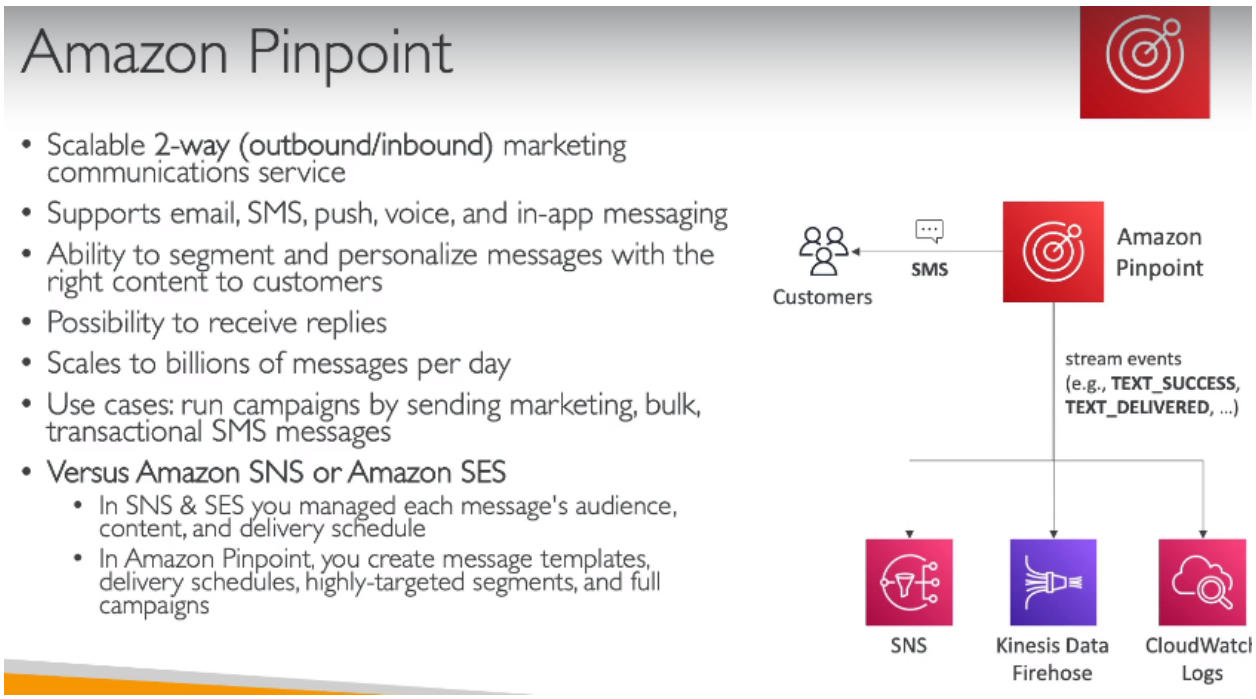
1.



AWS Ground Station

1. 

AWS PinPoint

1. 

2. So see Pinpoint as the next evolution of SNS and SES, in case you wanna do full-blown marketing communications service.