

AWS Solutions Architect—Associate Level

Lesson 1: AWS Overview



What You'll Learn



History of AWS

AWS as the Market Leader

Brief Overview of AWS Key Features

AWS's Globally Distributed Infrastructure

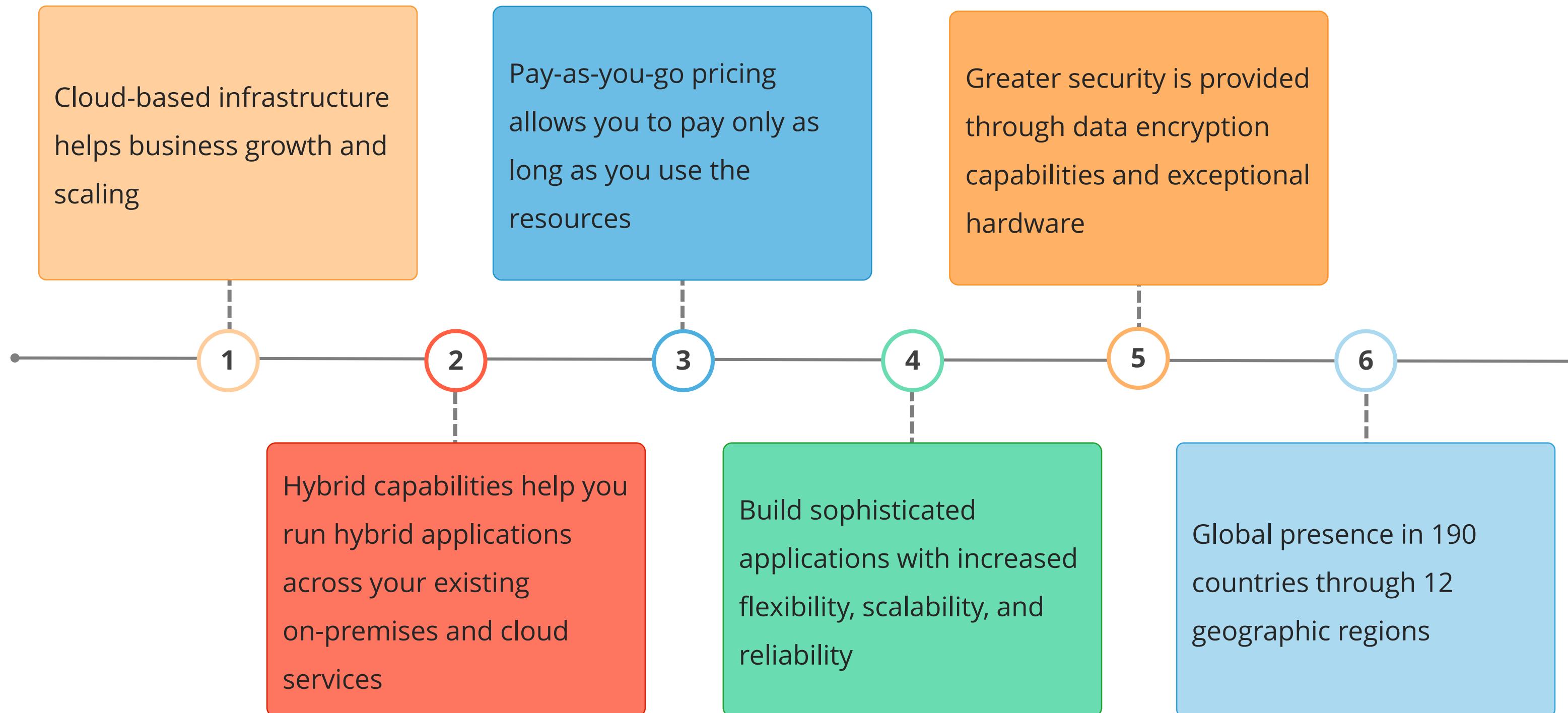
AWS Products and Services

1.01: Description of AWS

Brief overview of AWS

Features of AWS

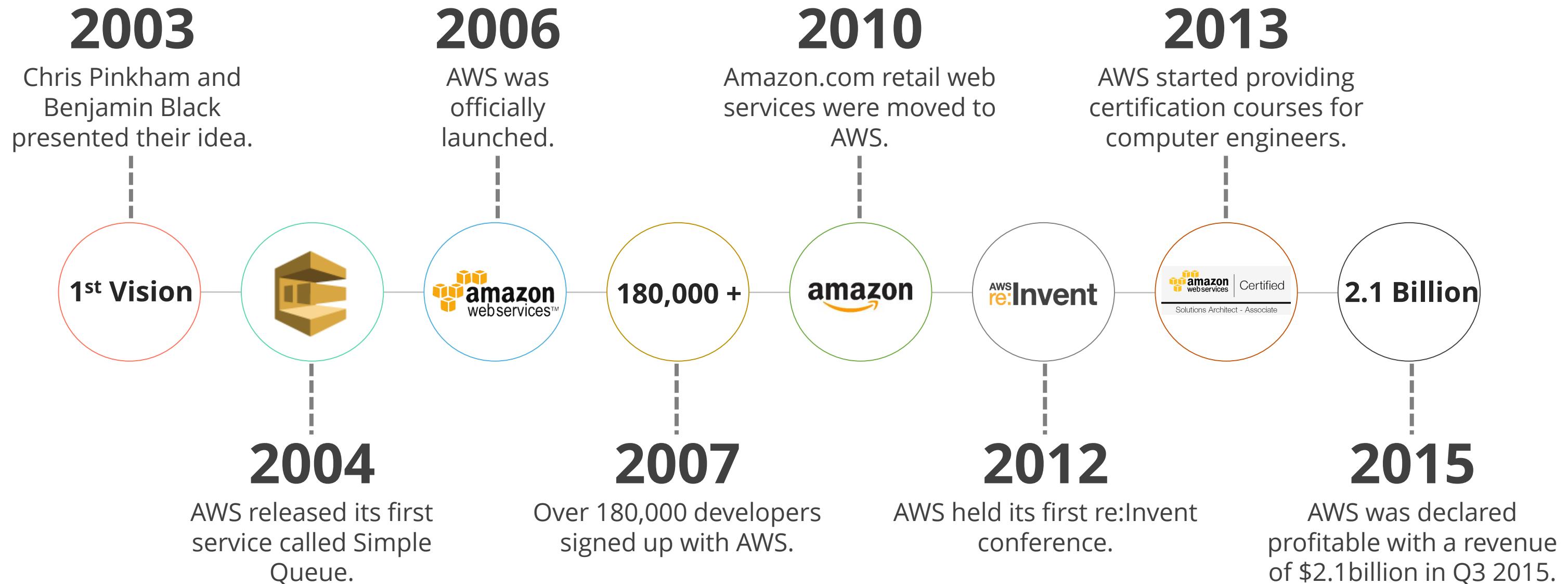
Amazon Web Services (AWS) is a secure cloud services platform.



1.02: History and Evolution of AWS

How AWS developed into the company it is today

History of AWS



Global Distribution

AWS is spread across the world through 16 geographic regions and 42 availability zones.

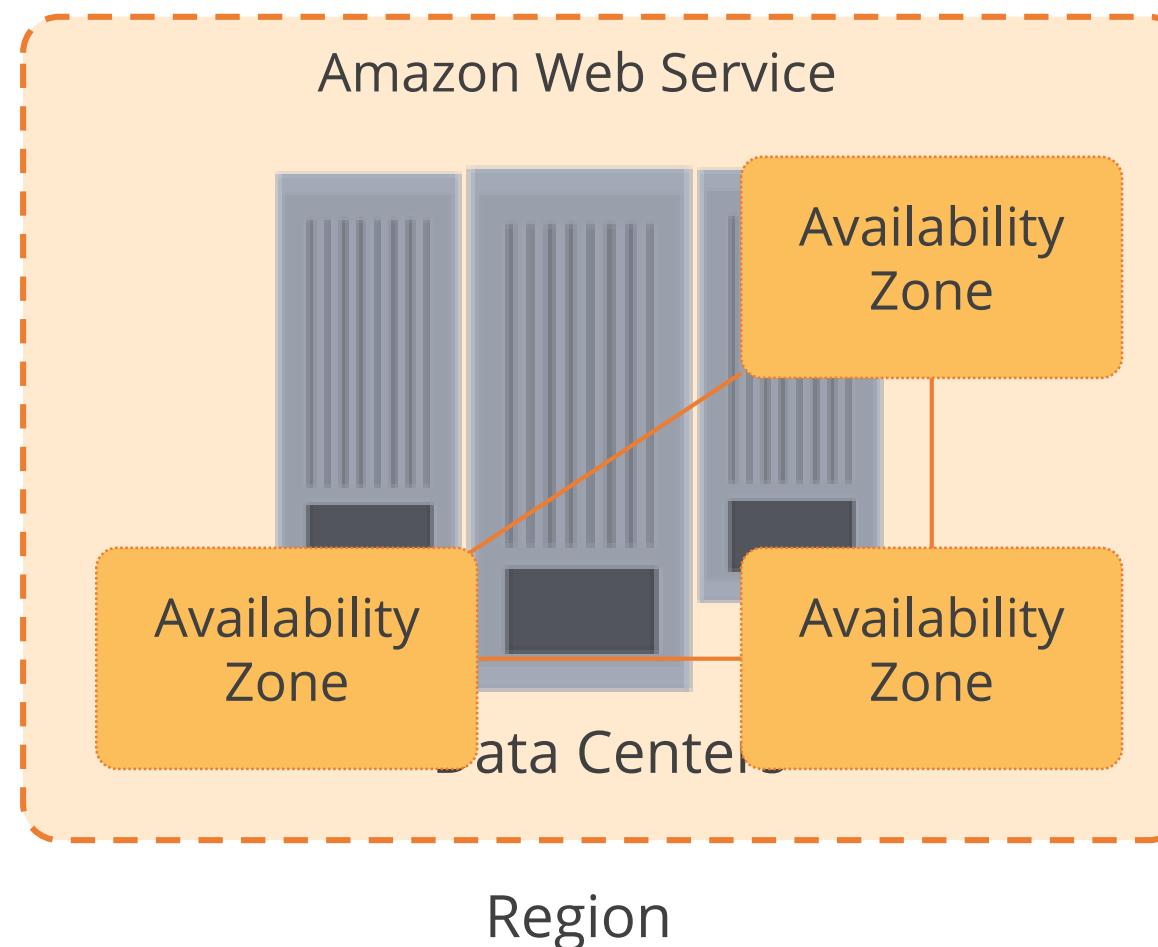
16 Geographic Regions



42 Availability Zones

Regions and Availability Zones

A region is a geographic area isolated from other Amazon regions to provide the greatest possible fault tolerance. Availability Zones located within a region, with at least 2 per region, are connected via low-latency links.



There is always a minimum of two availability zones per region.

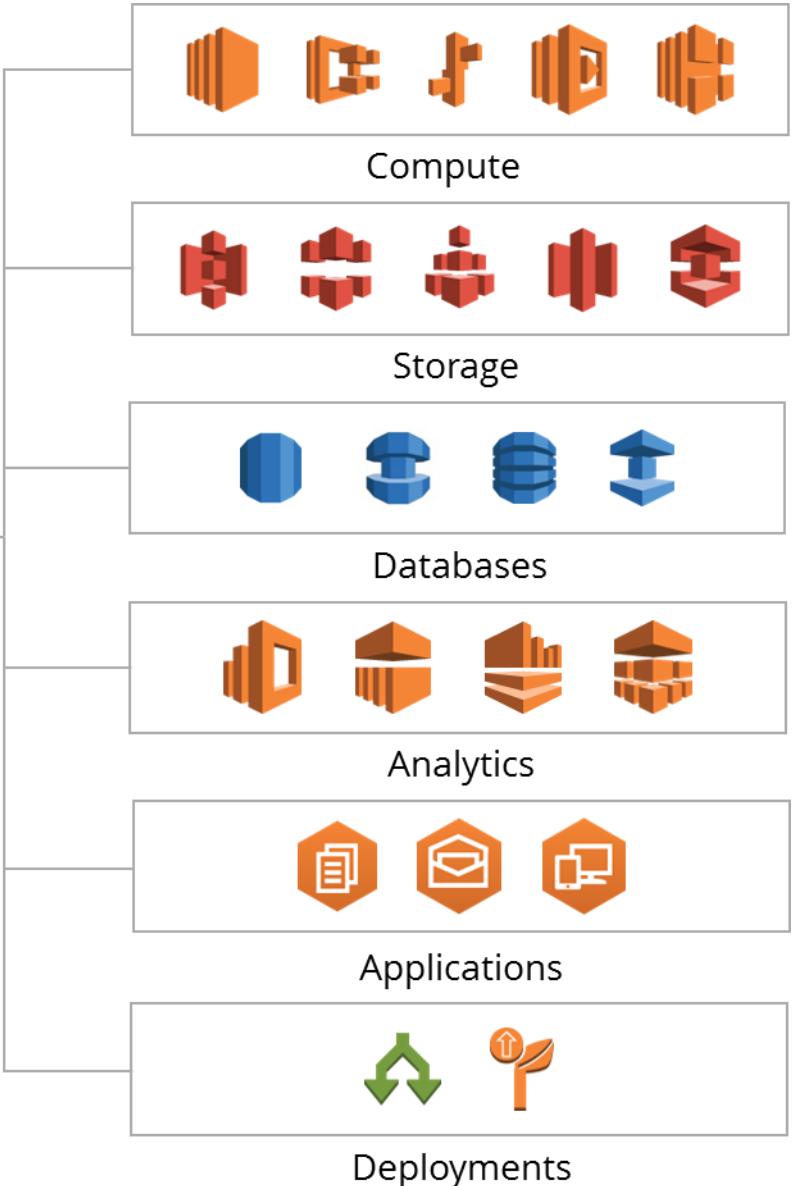
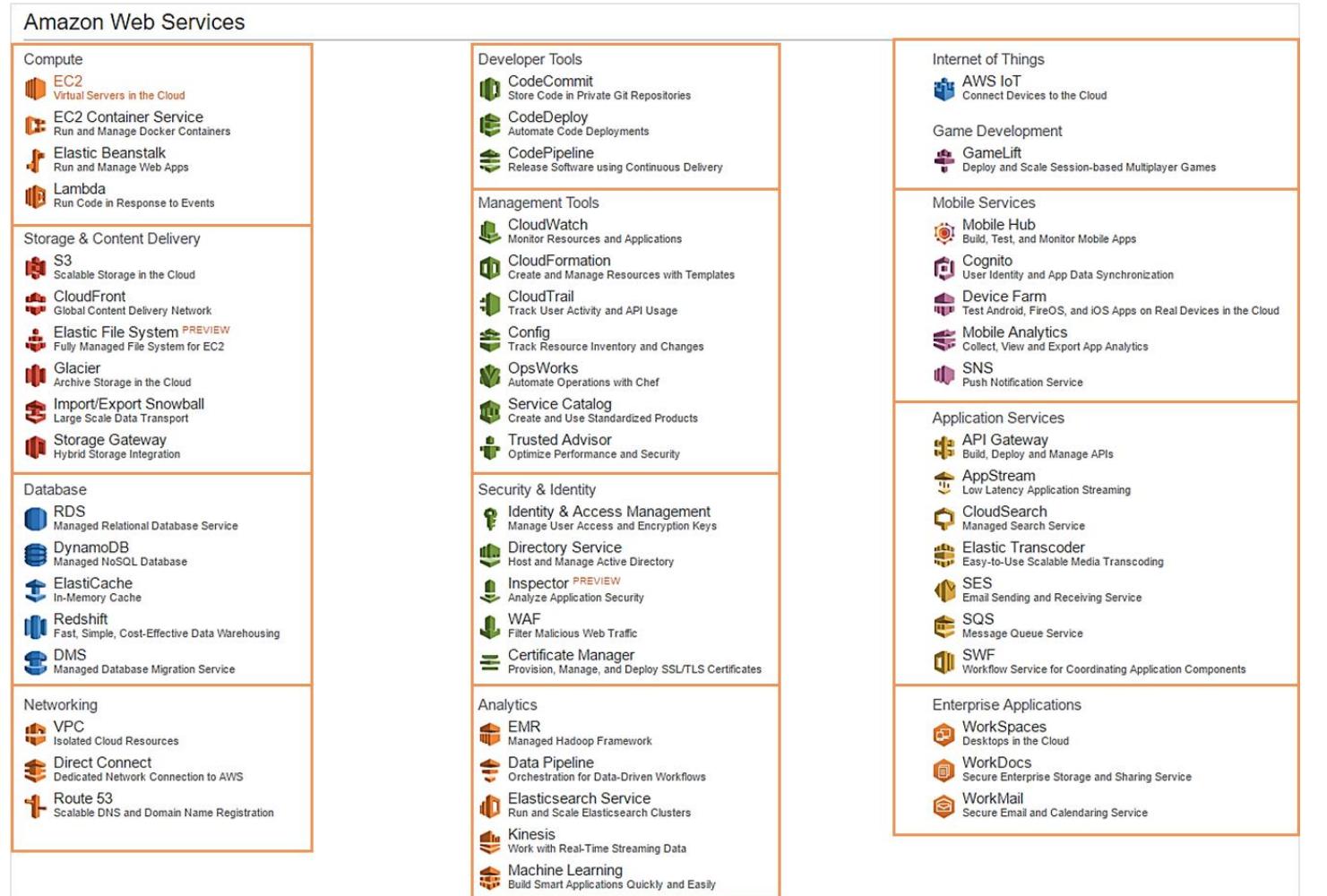
Edge Locations

Edge locations are located in most of the major cities around the world to distribute content to end users with reduced latency.



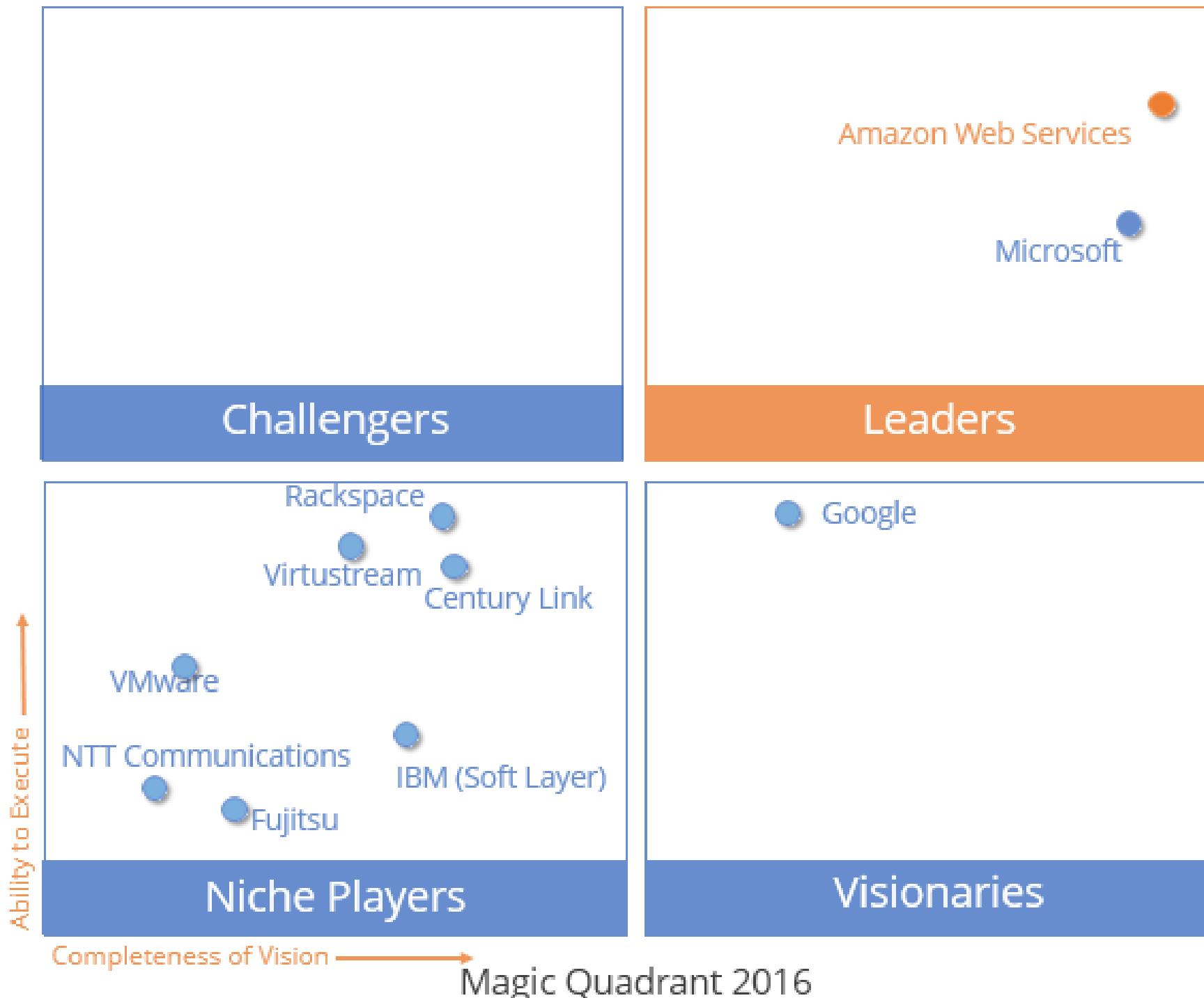
AWS Products

AWS offers a broad set of global compute, storage, database, analytics, application, and deployment services that help organizations with better speed, lower IT costs, and scale applications.



Market Leader

Gartner named AWS a market leader in Cloud Infrastructure as a Service.





Knowledge Check

KNOWLEDGE
CHECK

AWS has ____ geographic regions.

- a. 10
- b. 16
- c. 33
- d. 190



KNOWLEDGE
CHECK

AWS has ____ geographic regions.

- a. 10
- b. 16
- c. 33
- d. 190



The correct answer is **b.**

As of January 2017, AWS has 16 geographic regions and 42 Availability Zones.

KNOWLEDGE
CHECK

What is the minimum number of Availability Zones within a Region?

- a. 5
- b. 33
- c. 3
- d. 2



KNOWLEDGE
CHECK

What is the minimum number of Availability Zones within a Region?

- a. 5
- b. 33
- c. 3
- d. 2



The correct answer is **d**.

There are always at least two Availability Zones within a Region to provide fault tolerance.

KNOWLEDGE
CHECK

Which AWS product uses Edge Locations to provide a CDN service?

- a. Amazon EC2
- b. Amazon Web Services
- c. Amazon CloudFront
- d. None of the above



KNOWLEDGE
CHECK

Which AWS product uses Edge Locations to provide a CDN service?

- a. Amazon EC2
- b. Amazon Web Services
- c. Amazon CloudFront
- d. None of the above



The correct answer is **C**.

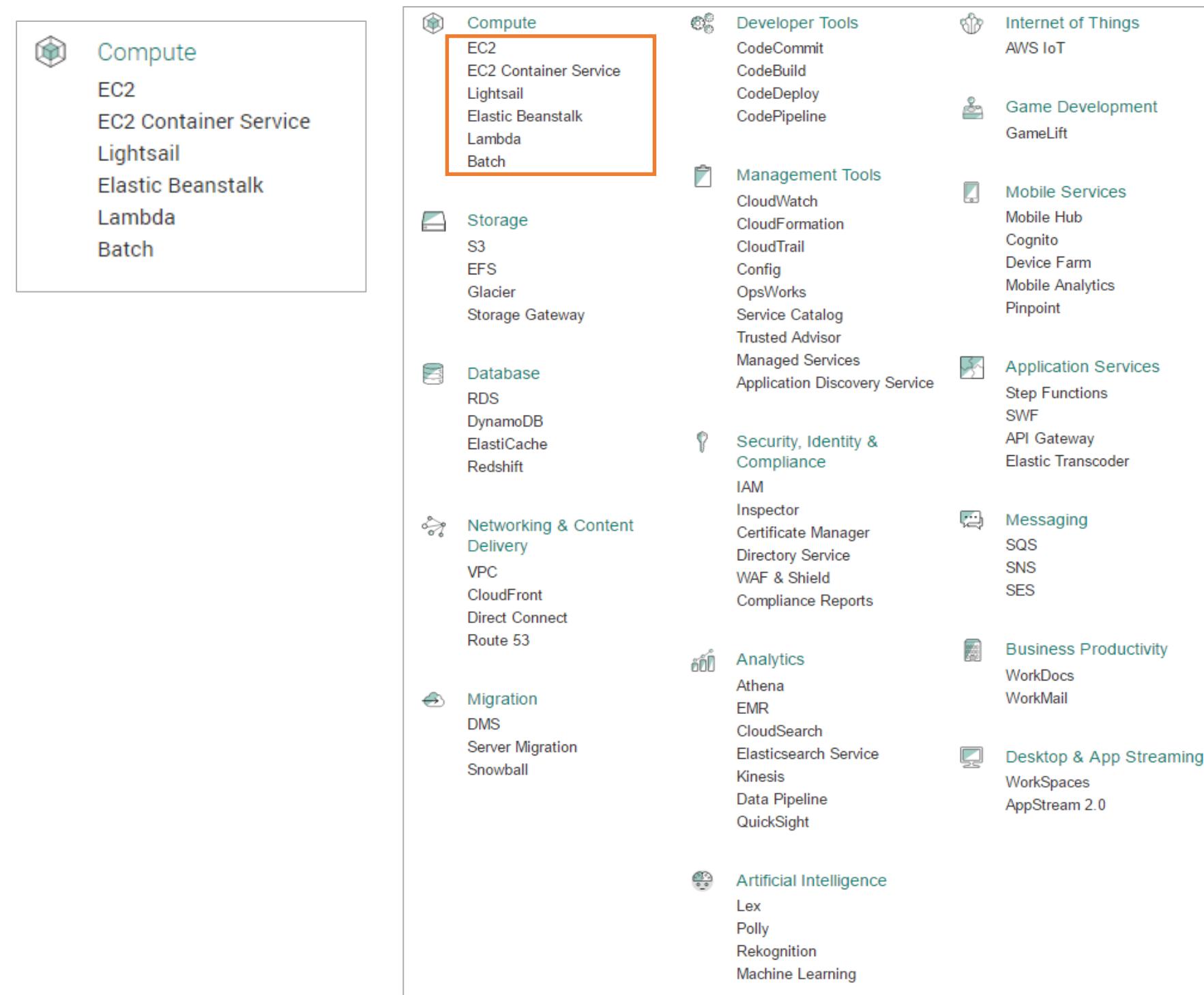
Amazon CloudFront is the Amazon Content Delivery Network (CDN) service that uses Edge Locations to provide content to end users with reduced latency.

1.03 Overview of AWS Products and Services

Overview of every product and service on the AWS platform

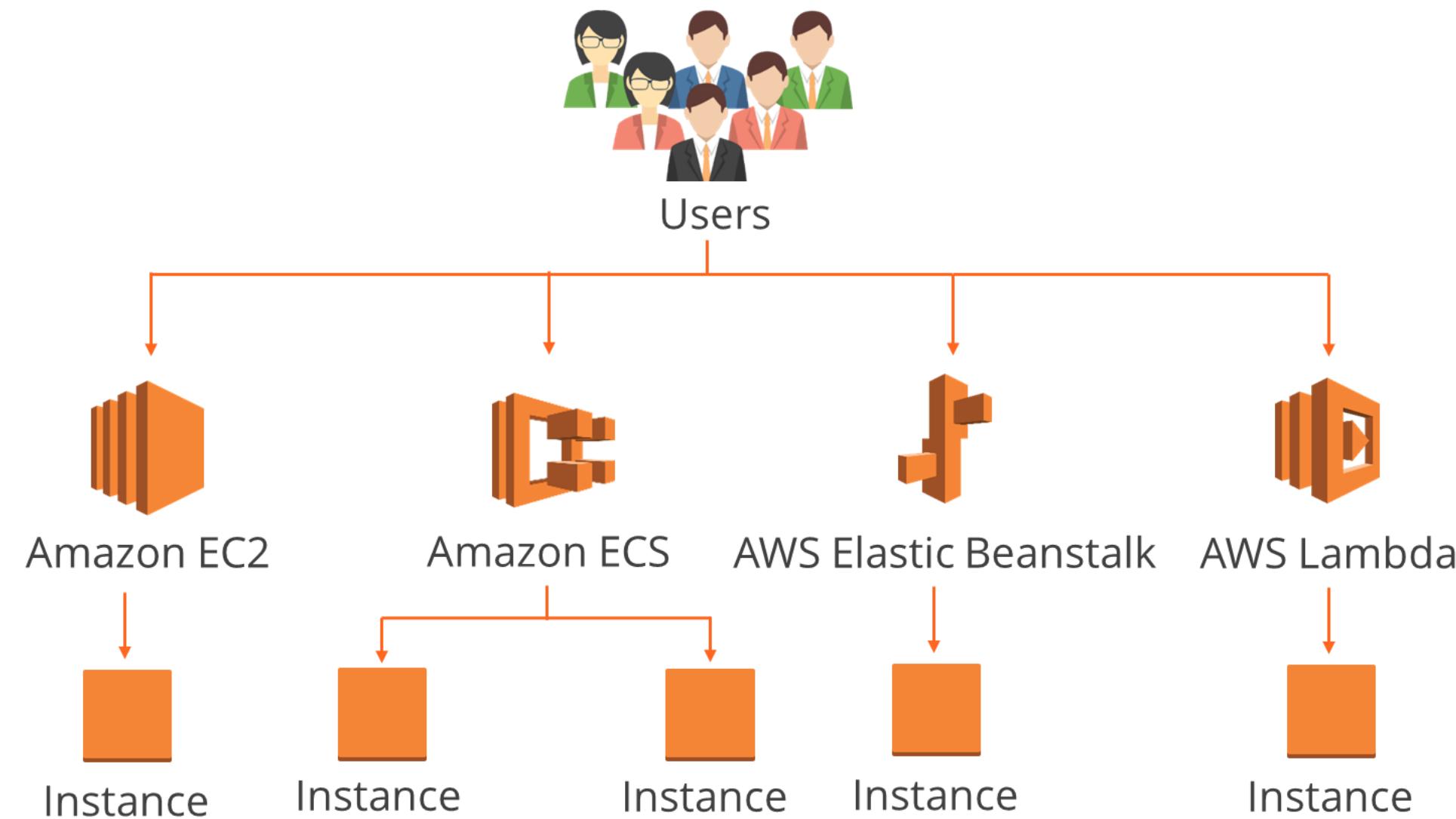
AWS Management Console

Let's start with the Compute section.



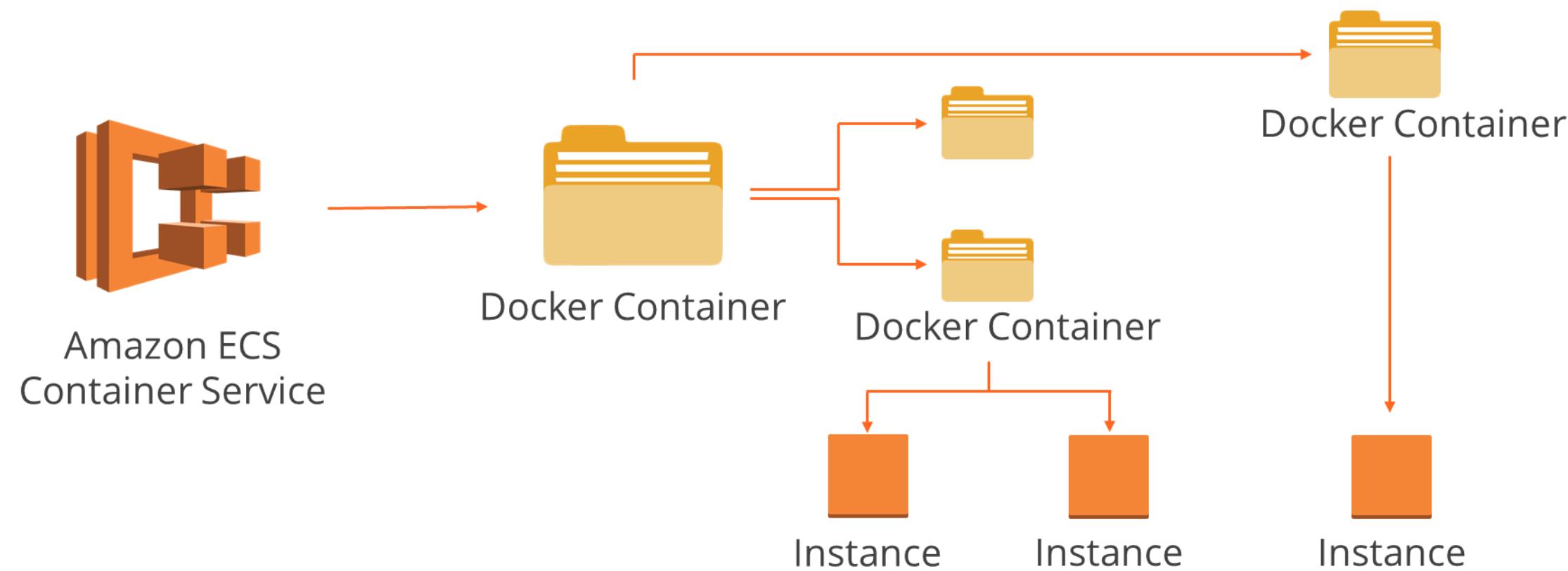
Compute

The Elastic Compute Cloud (EC2) from Amazon provides resizable compute capacity in the cloud, which is intended to make web-scale computing easier for developers.



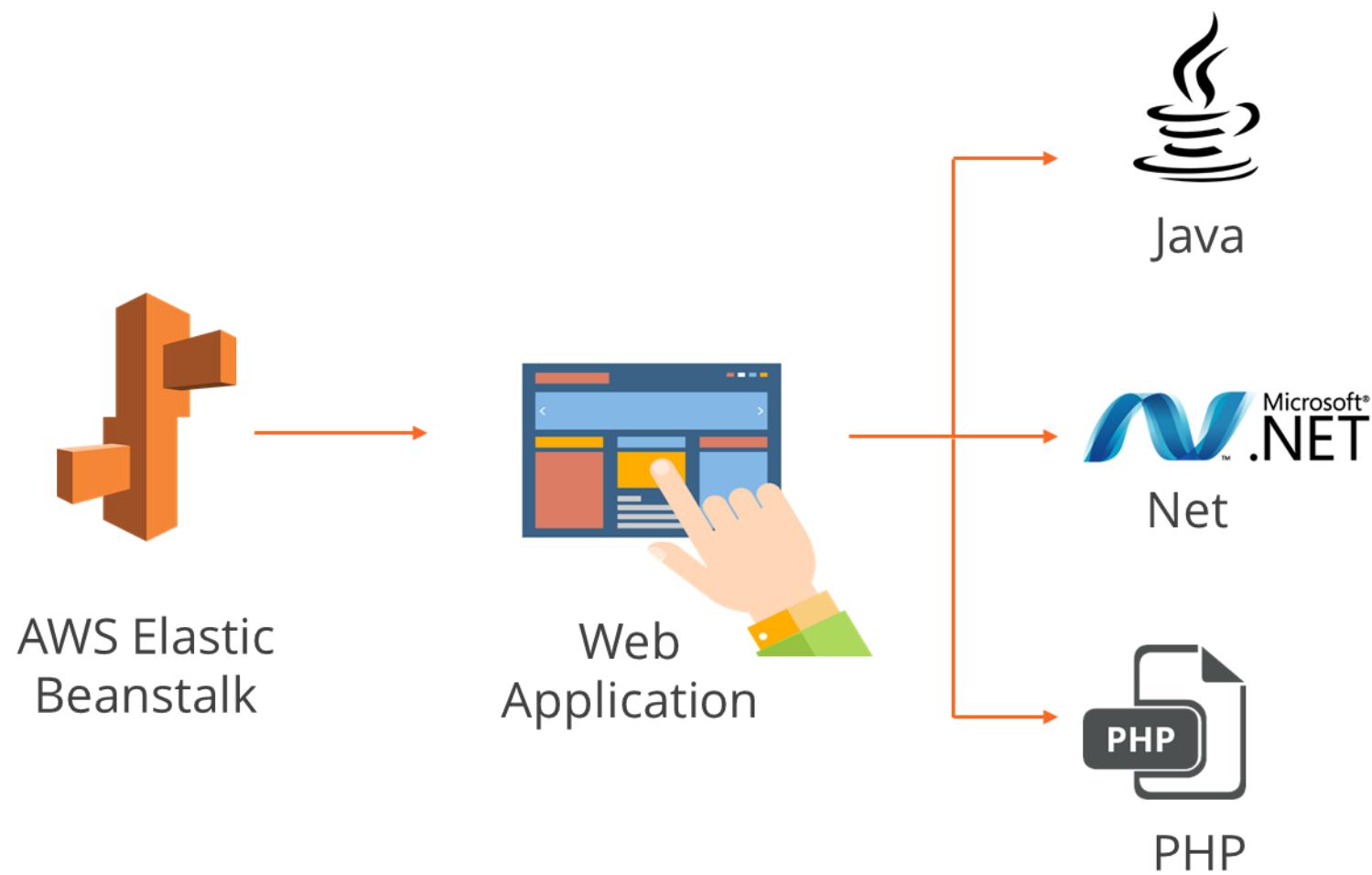
Compute (contd.)

Amazon EC2 Container Service (ECS) is a highly scalable, high performance container management service that supports Docker containers and allows you to easily run applications on a managed cluster of Amazon EC2 instances.



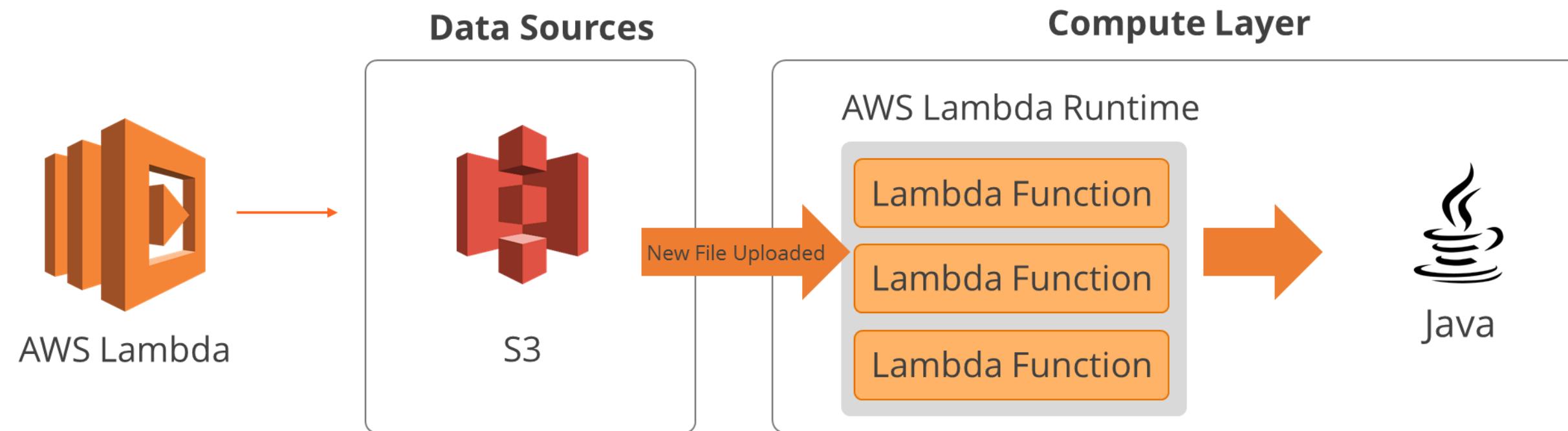
Compute (contd.)

AWS Elastic Beanstalk is an easy-to-use service for deploying and scaling web applications and services developed with Java, .NET, PHP, Node.js, Python, Ruby, Go, and Docker on familiar servers such as Apache, Nginx, Passenger, and IIS.



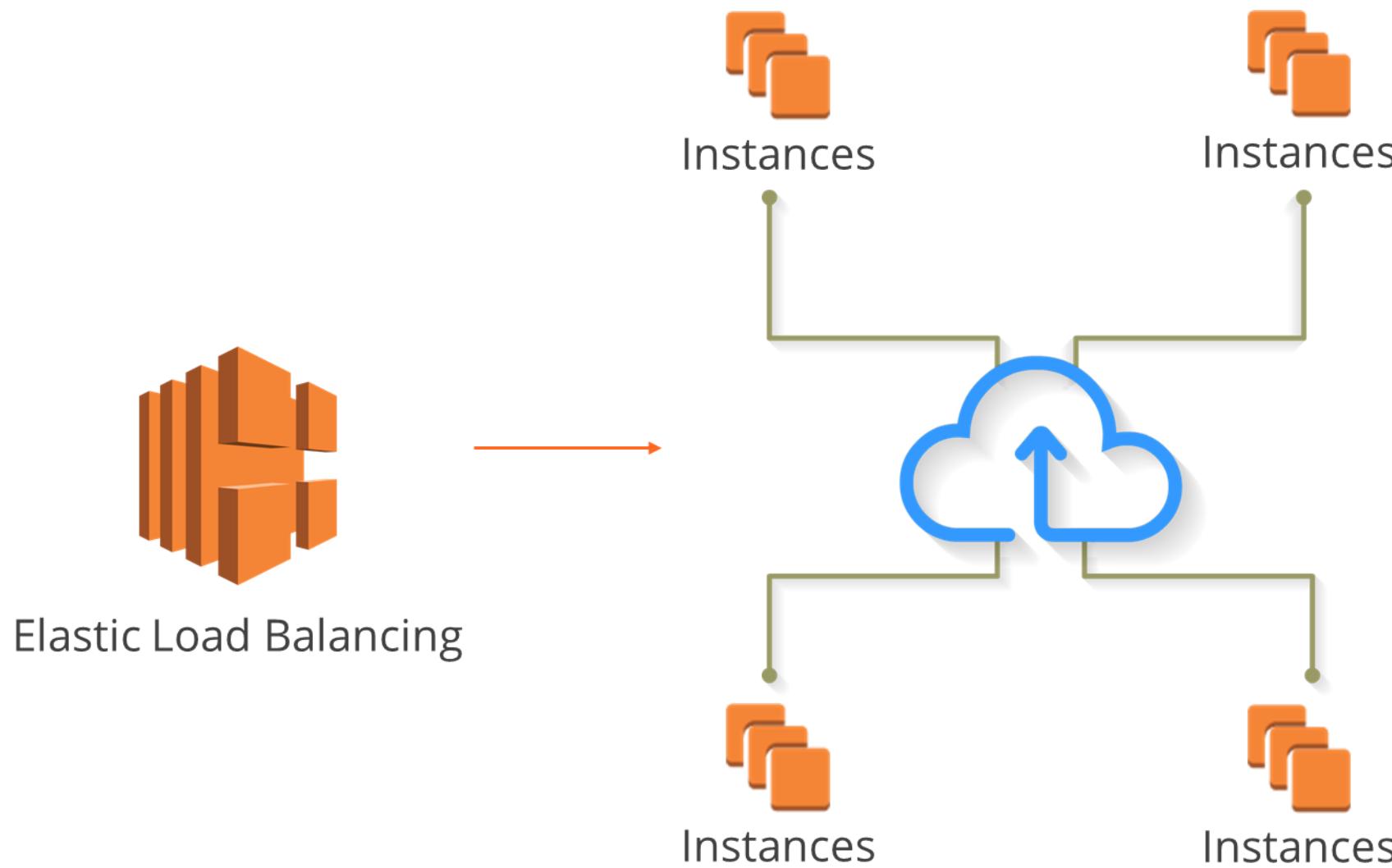
Compute (contd.)

AWS Lambda lets you run code without provisioning or managing servers. Pay for the compute time that you use; you only pay for execution time.



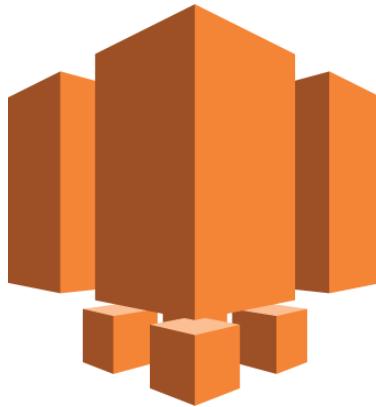
Compute (contd.)

Elastic Load Balancing is a networking service that automatically spreads out incoming application traffic across several available EC2 instances.



Compute (contd.)

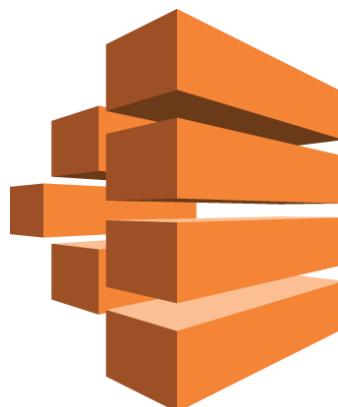
Amazon Lightsail is a new service that allows you to quickly and easily create your own Virtual Private Server, or VPS, for as little as \$5 per month.



Amazon Lightsail

Compute (contd.)

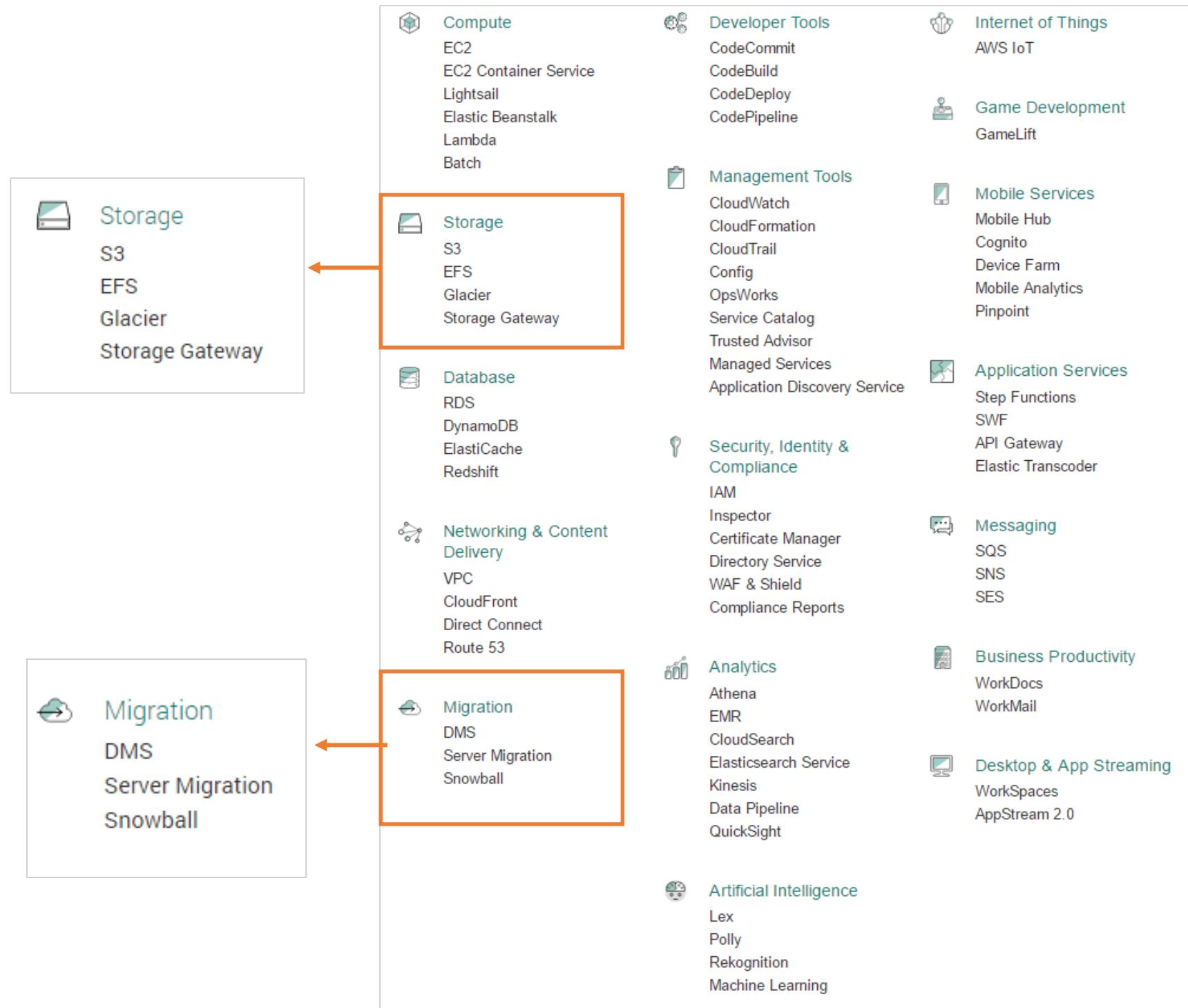
- AWS Batch is Amazon's attempt to eliminate third-party commercials or open source batch processing solutions.
- It enables you to easily and efficiently run huge quantities of batch computing jobs on AWS.
- It is a managed service, and it dynamically provisions the optimal quantity and type of compute required to run your batch jobs.



AWS Batch

AWS Management Console

Next section is Storage and Content Delivery.



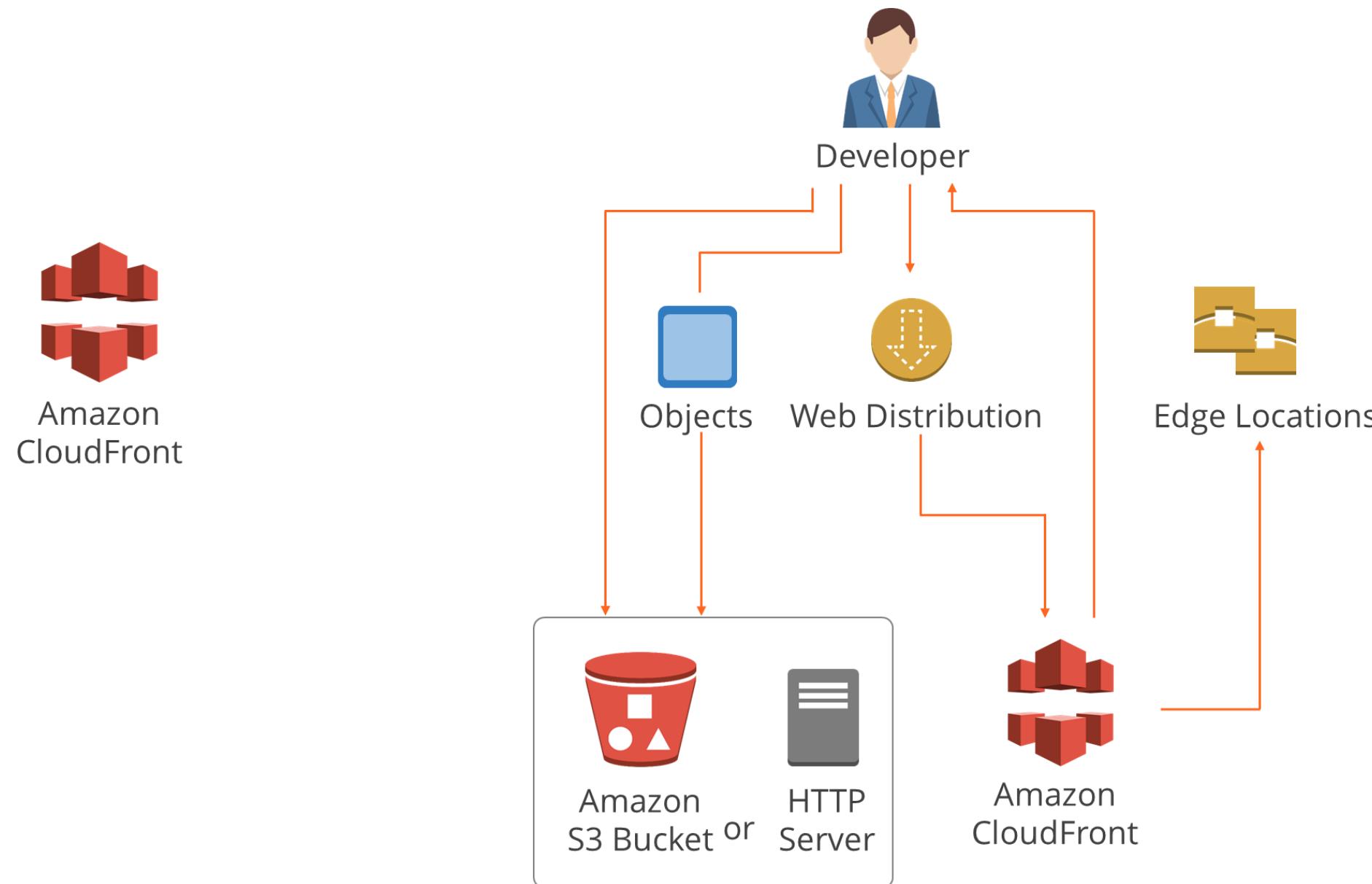
Storage and Content Delivery

Simple Storage Service (S3) is an object-based online storage service that offers unlimited data storage space in the cloud.



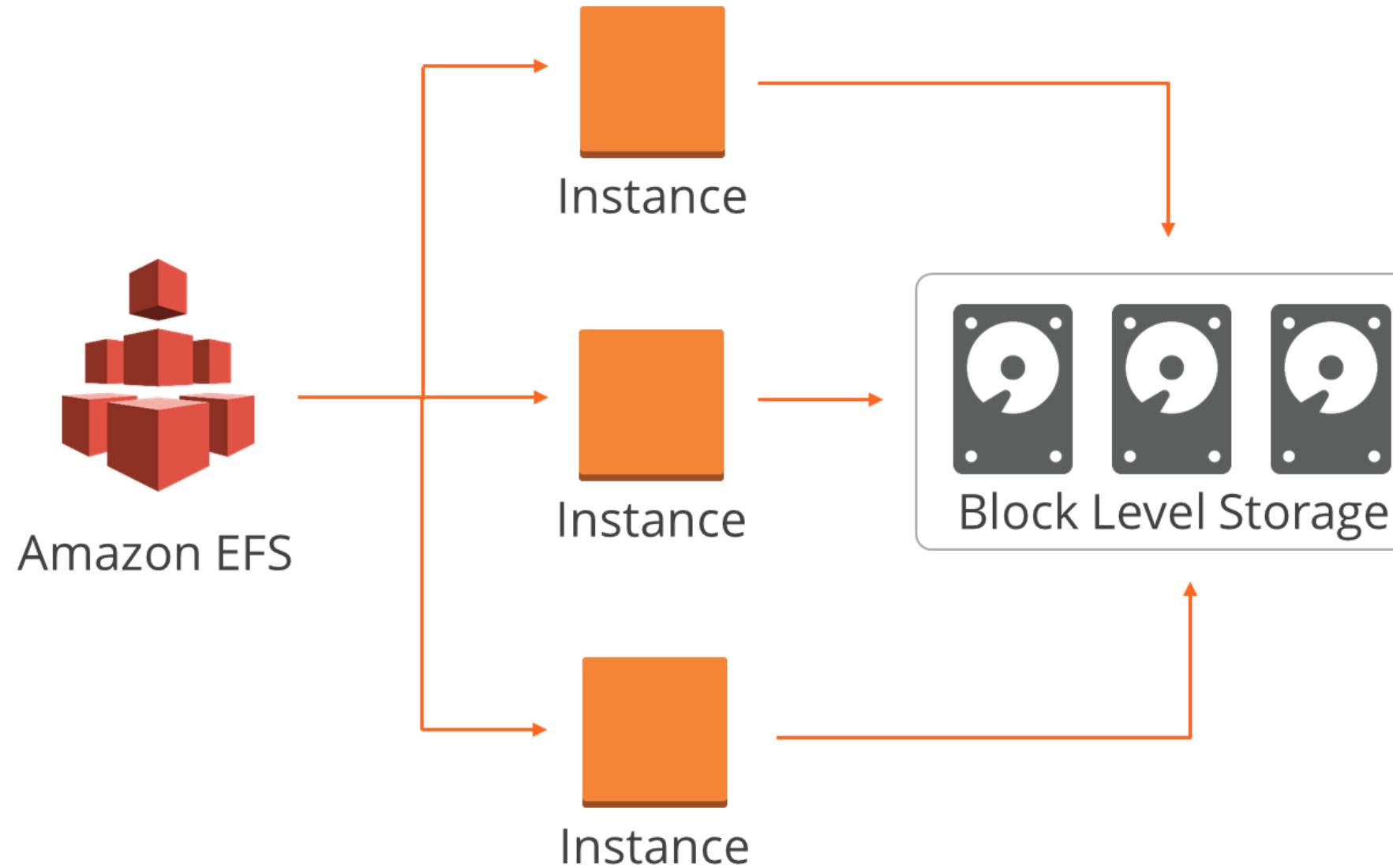
Storage and Content Delivery (contd.)

CloudFront is a content delivery service (CDN) that integrates with other Amazon's cloud services to provide an easy way for businesses and developers to distribute data through high-speed transfers.



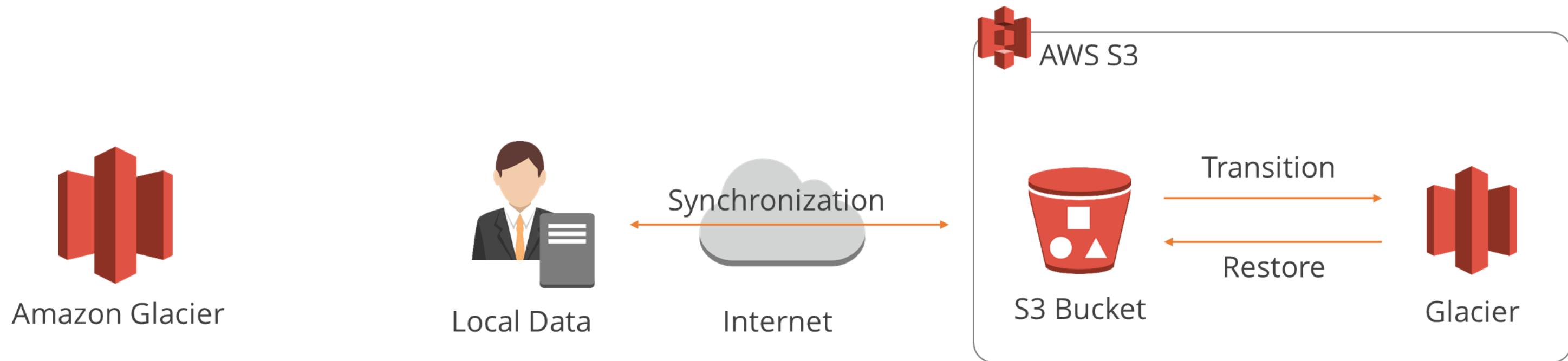
Storage and Content Delivery (contd.)

Elastic File System is a storage that can be attached to multiple EC2 instances.



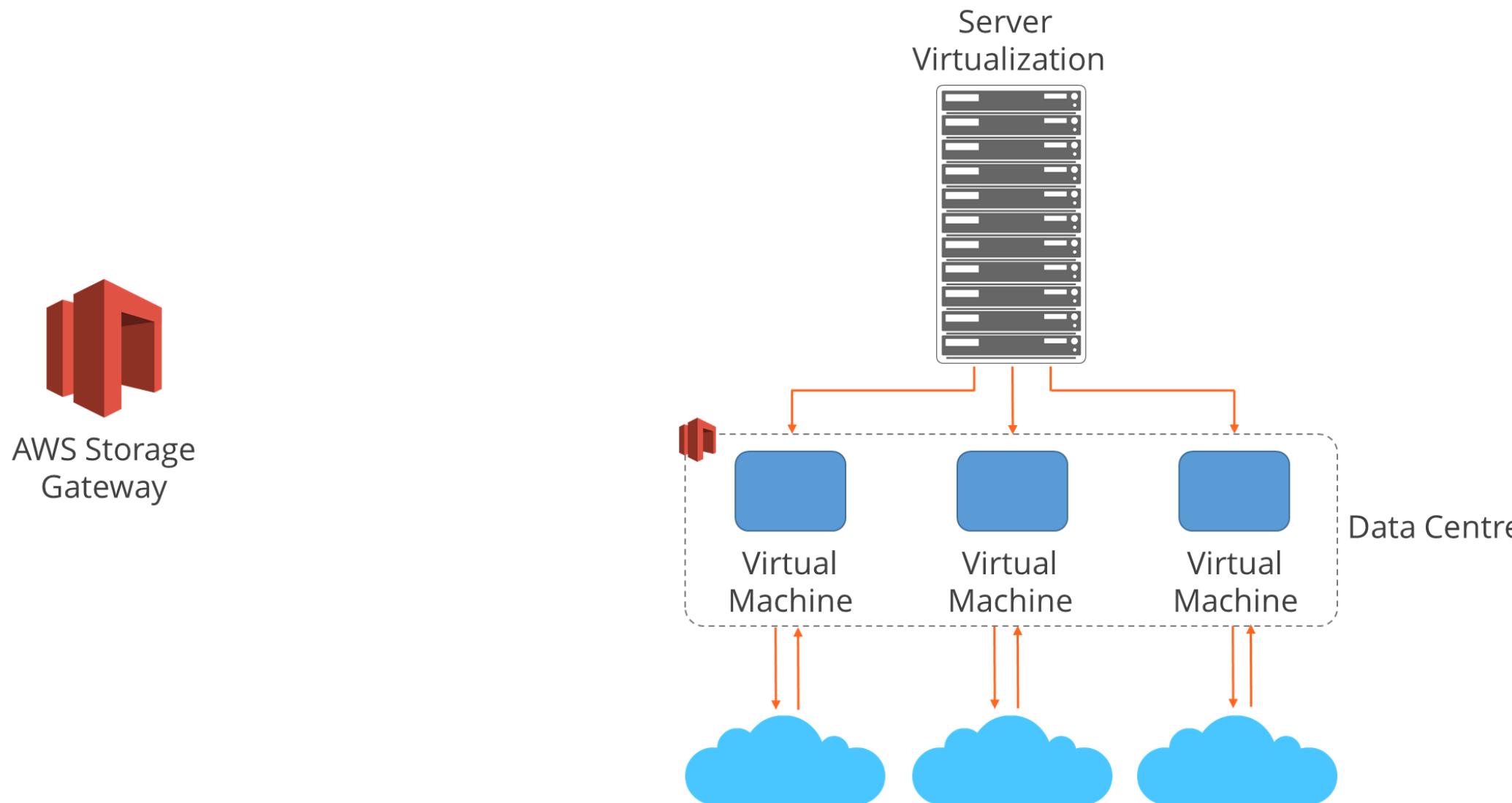
Storage and Content Delivery (contd.)

Amazon Glacier is the long-term backup/archiving service in the cloud.



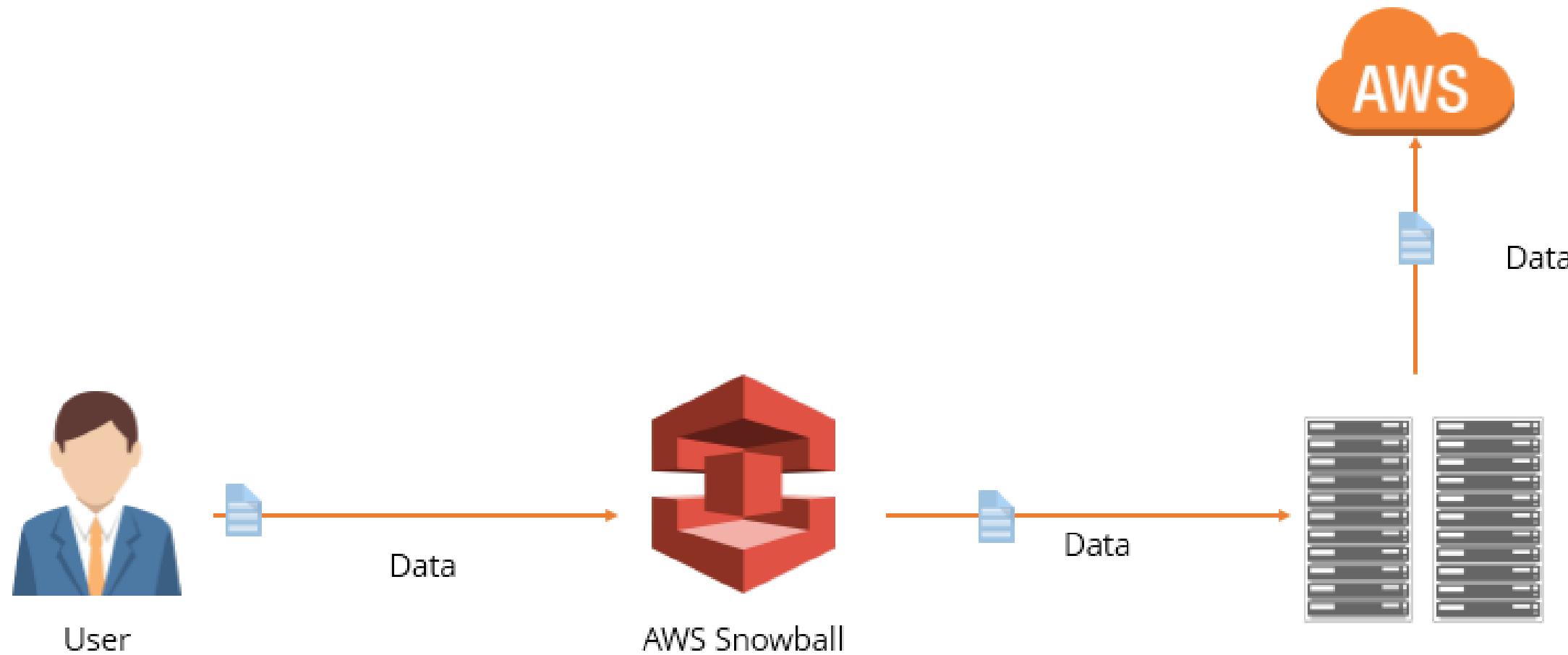
Storage and Content Delivery (contd.)

Storage gateway is used to increase the capacity to store files, such as Word documents.



Storage and Content Delivery (contd.)

- Amazon Snowball is used to move large amounts of data quickly (petabytes) without a network.
- Snowball Edge is a new version of Snowball; it has compute capacity that can be used to create local storage tiers.



Storage and Content Delivery (contd.)

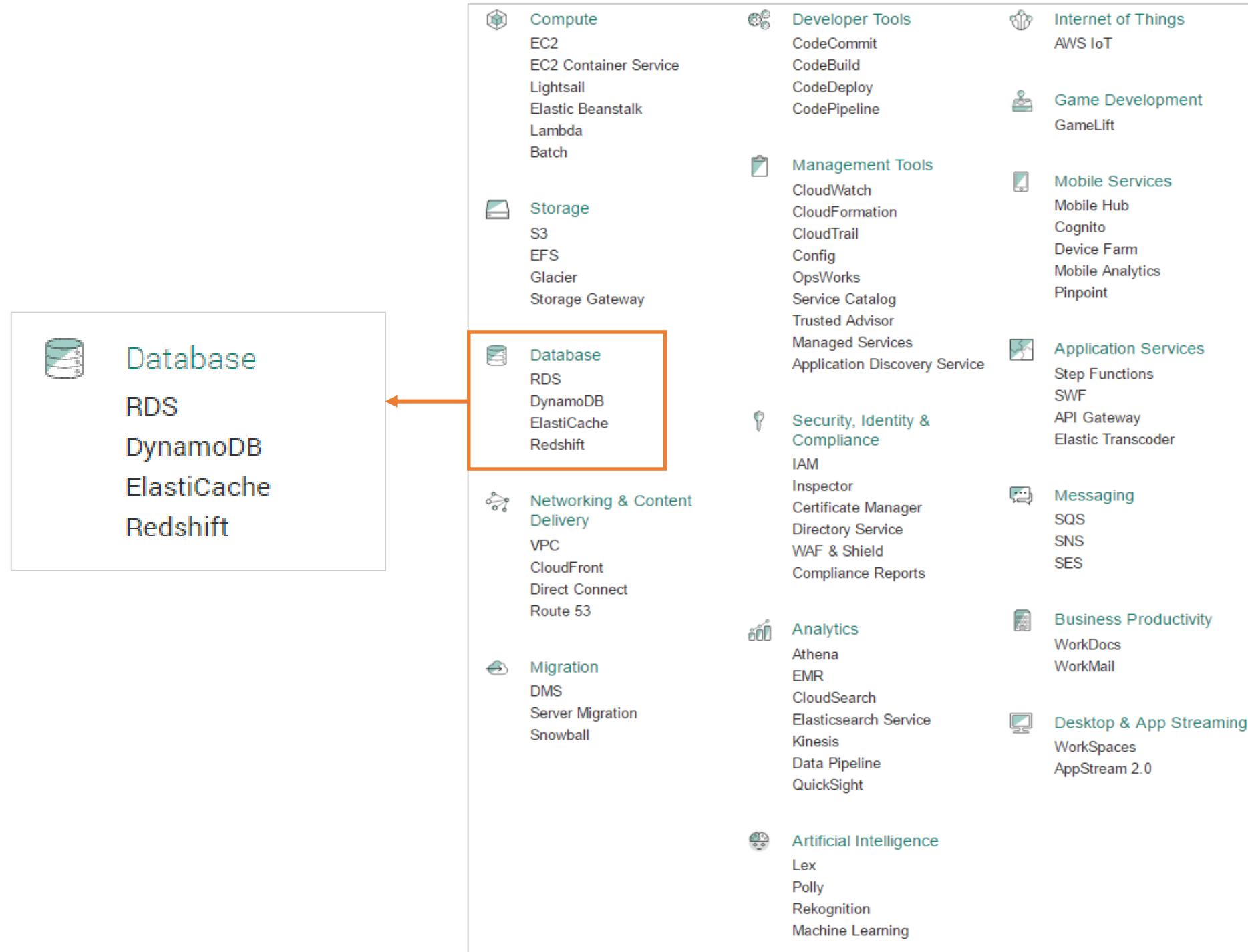
Amazon Snowmobile is an Exabyte-scale data transfer service used to move extremely large amounts of data to AWS.



AWS Snowmobile

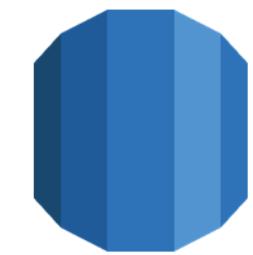
AWS Management Console

Next section is Database.

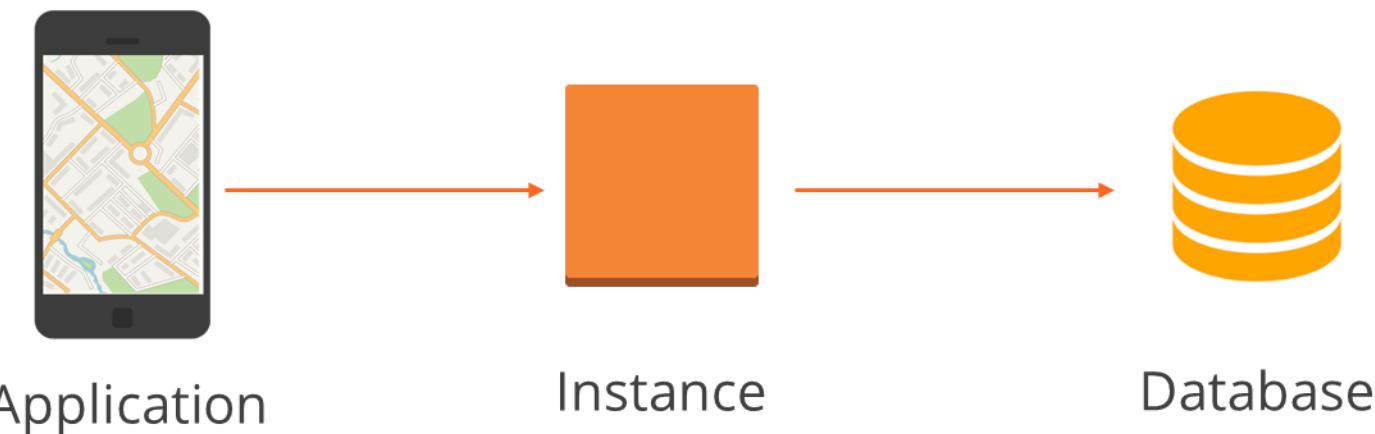
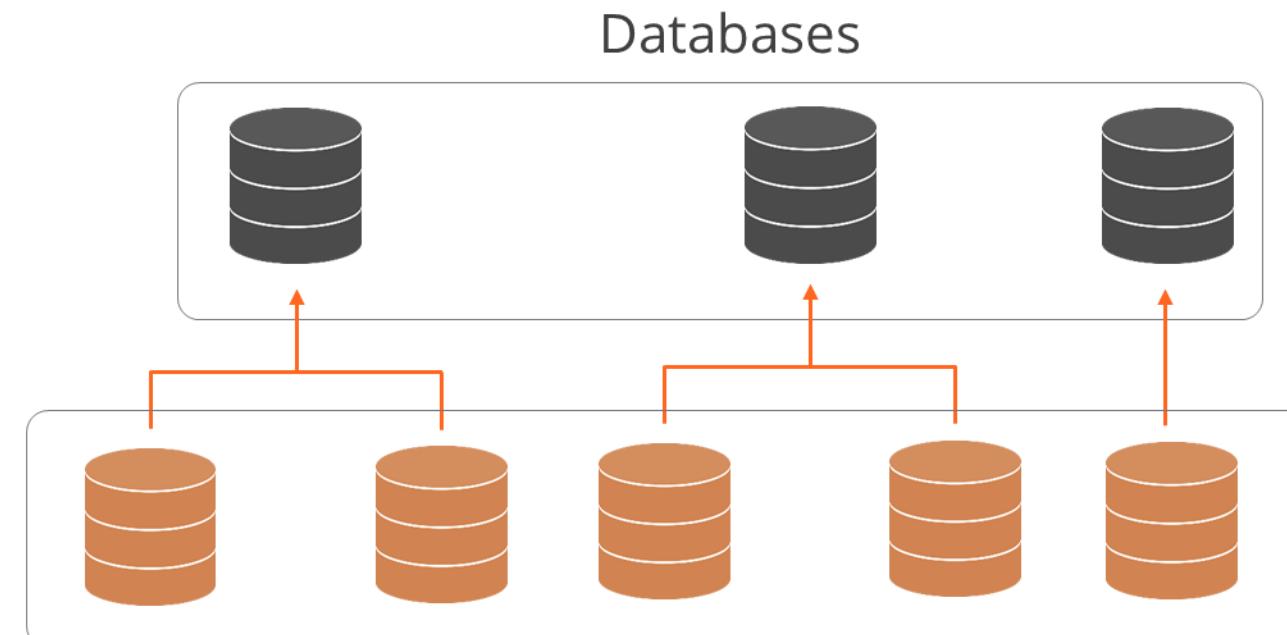


Database

The Relational Database Service (RDS) provides scalable relational databases in the cloud through a Web service.

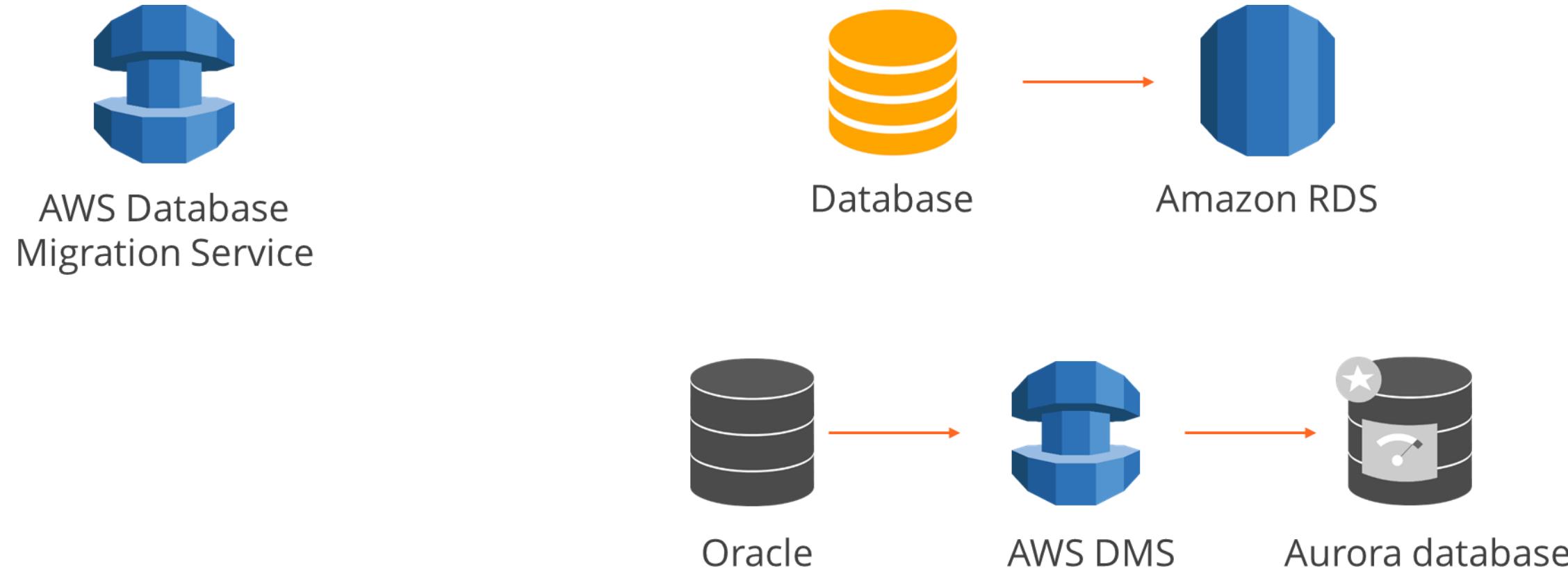


Amazon RDS



Database (contd.)

Replicate, migrate or convert your existing onsite databases onto AWS.



Database (contd.)

DynamoDB is Amazon's NoSQL offering.



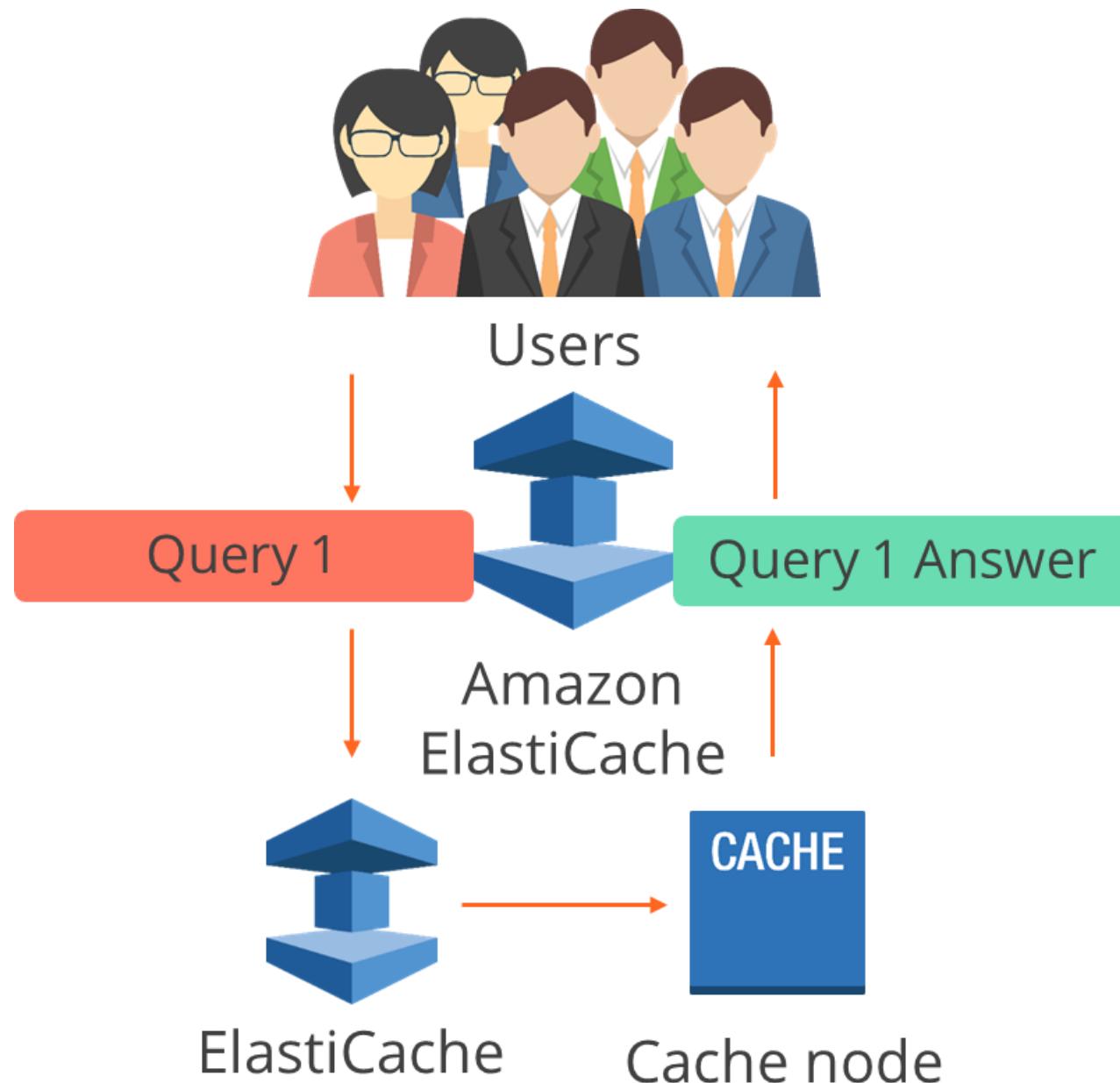
Amazon DynamoDB



Amazon DynamoDB = No SQL

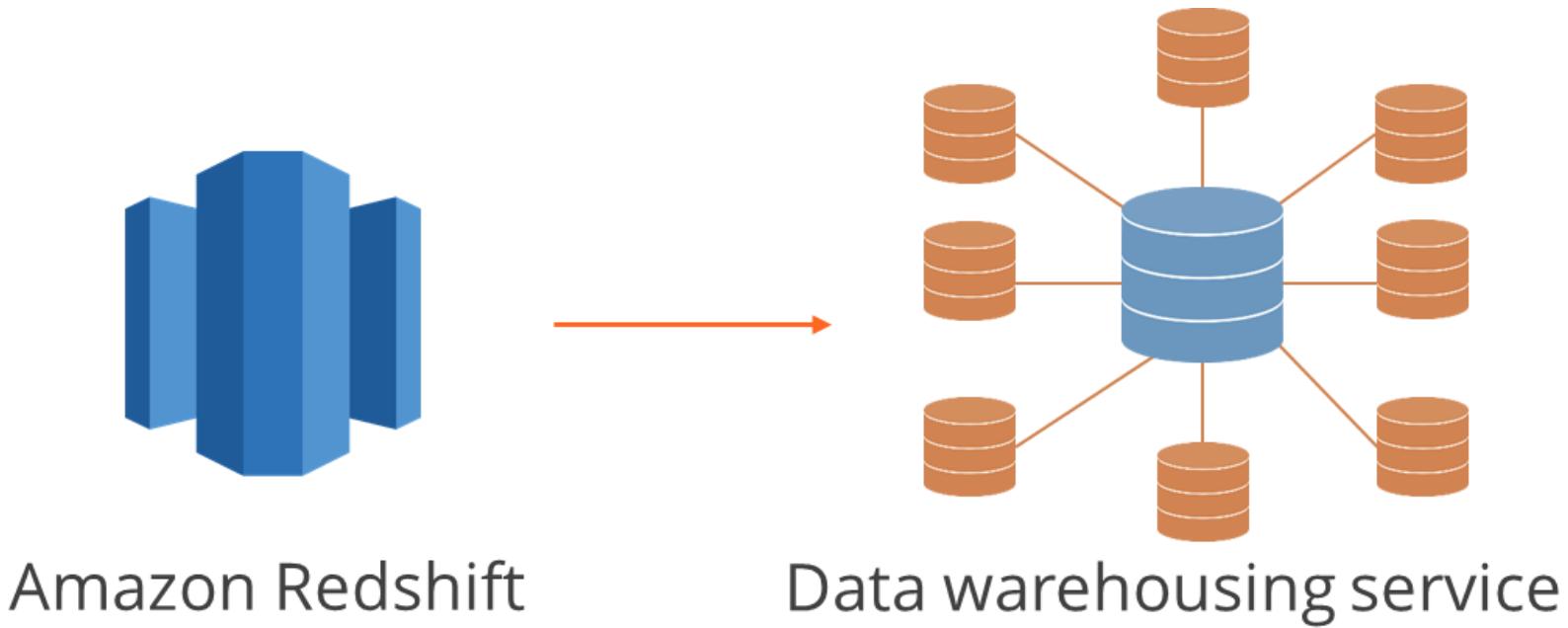
Database (contd.)

If you have users running the same queries, then you can cache these results in ElastiCache to reduce the load on your database instances.



Database (contd.)

RedShift is an Amazon Data Warehousing service.



Amazon Redshift = Data warehousing service



Knowledge Check

KNOWLEDGE
CHECK

Which AWS service is used to run Docker?

- a. Elastic Beanstalk
- b. EC2 Container Service
- c. Lambda
- d. Direct Connect



KNOWLEDGE
CHECK

Which AWS service is used to run Docker?

- a. Elastic Beanstalk
- b. EC2 Container Service
- c. Lambda
- d. Direct Connect



The correct answer is **b**.

EC2 Container Service is a management service that supports Docker containers. Elastic Beanstalk is used to deploy and scale web applications. Lambda lets you run code without provisioning or managing servers and Direct Connect allows you to directly join your corporate site with AWS.

KNOWLEDGE
CHECK

What is an Amazon NoSQL product?

- a. RDS
- b. DMS
- c. RedShift
- d. DynamoDB



KNOWLEDGE
CHECK

What is an Amazon NoSQL product?

- a. RDS
- b. DMS
- c. RedShift
- d. DynamoDB



The correct answer is **d**.

DynamoDB is the NoSQL offering from AWS. RDS is its relational database server, DMS is its database migration server, and RedShift is its data warehousing service.

KNOWLEDGE
CHECK

What service would you use to archive data for long-term storage?

- a. Glacier
- b. Snowball
- c. S3
- d. Storage Gateway



KNOWLEDGE
CHECK

What service would you use to archive data for long-term storage?

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- b. Snowball
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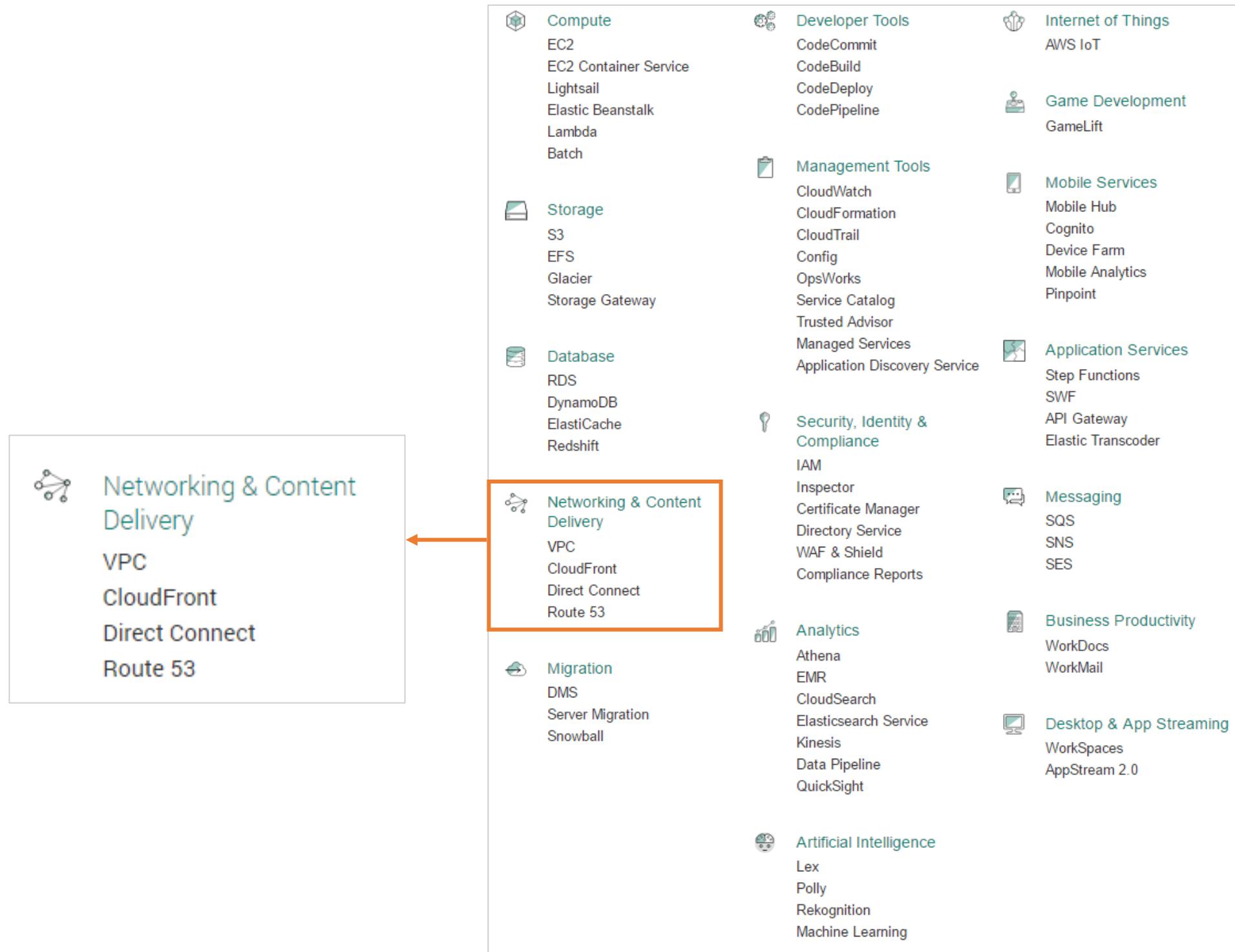


The correct answer is **a.**

Glacier is used to cost-effectively store data for long-term archival. Snowball is used to transfer large amounts of data to AWS without using the Internet, S3 is the storage solution for files that you want to access immediately, and Storage Gateway is a service that allows you to extend your onsite storage into the cloud.

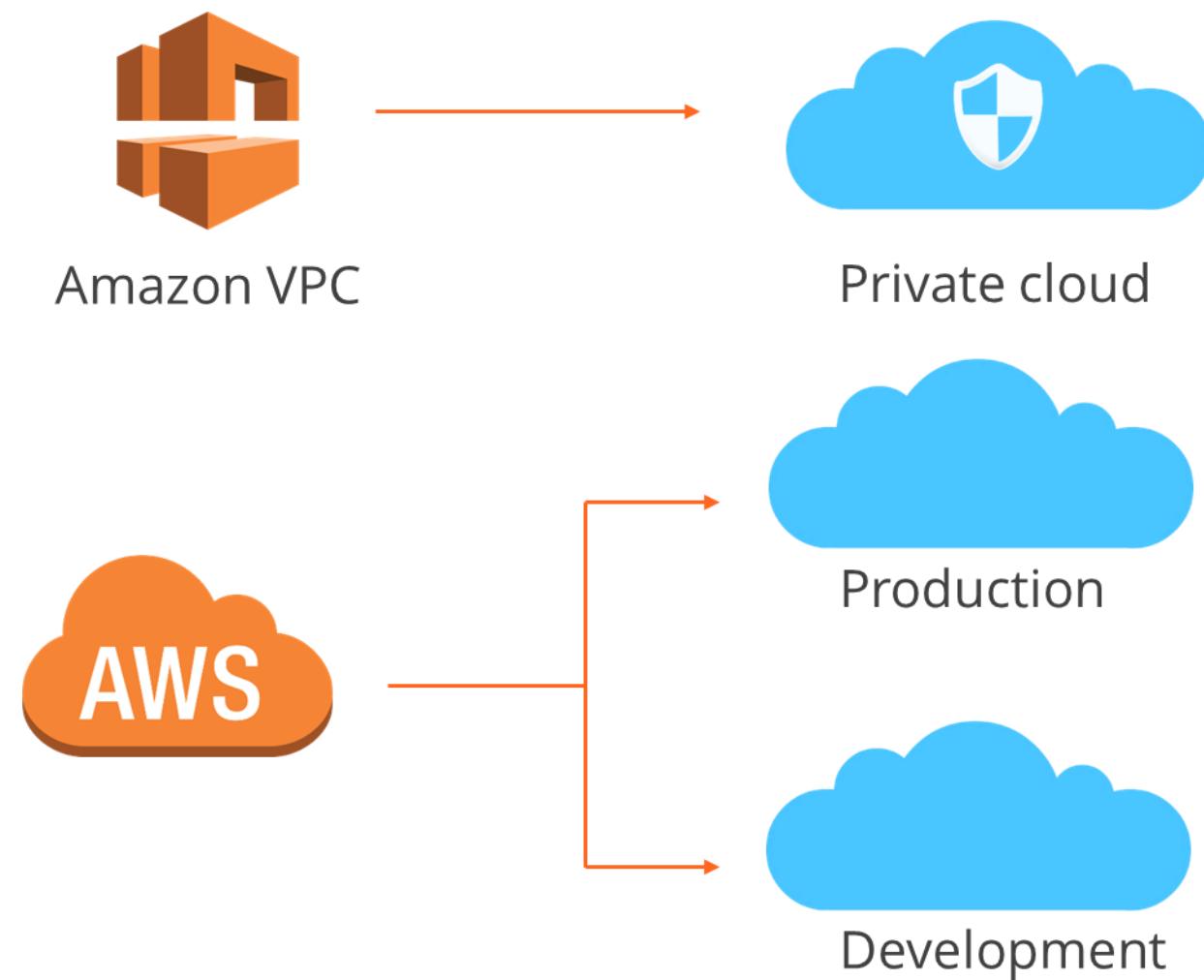
AWS Management Console

Next section is Network.



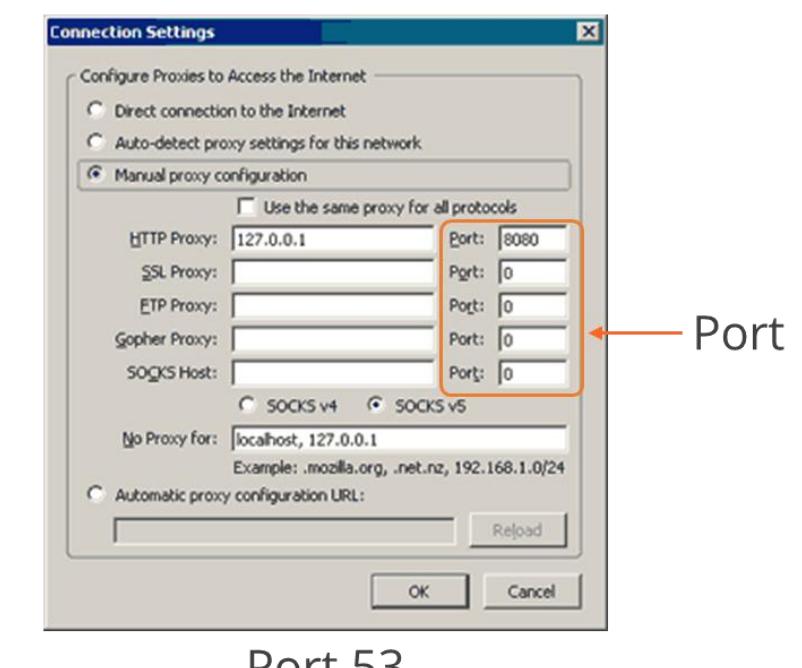
Networking

Virtual Private Cloud (VPC) works as a bridge between a user's existing IT infrastructure and Amazon's cloud.



Networking (contd.)

Route53 is Amazon DNS and Domains service.



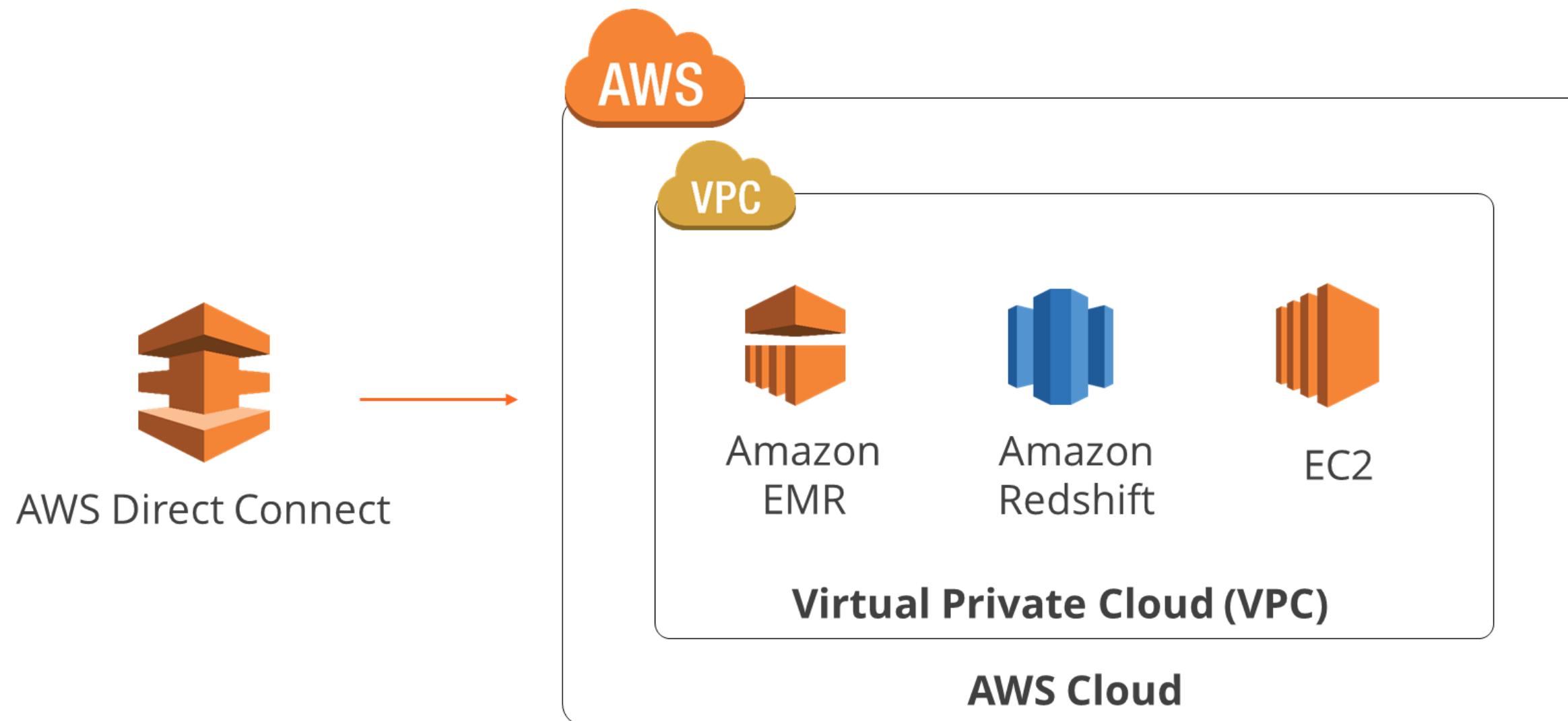
Port 53



Route 66

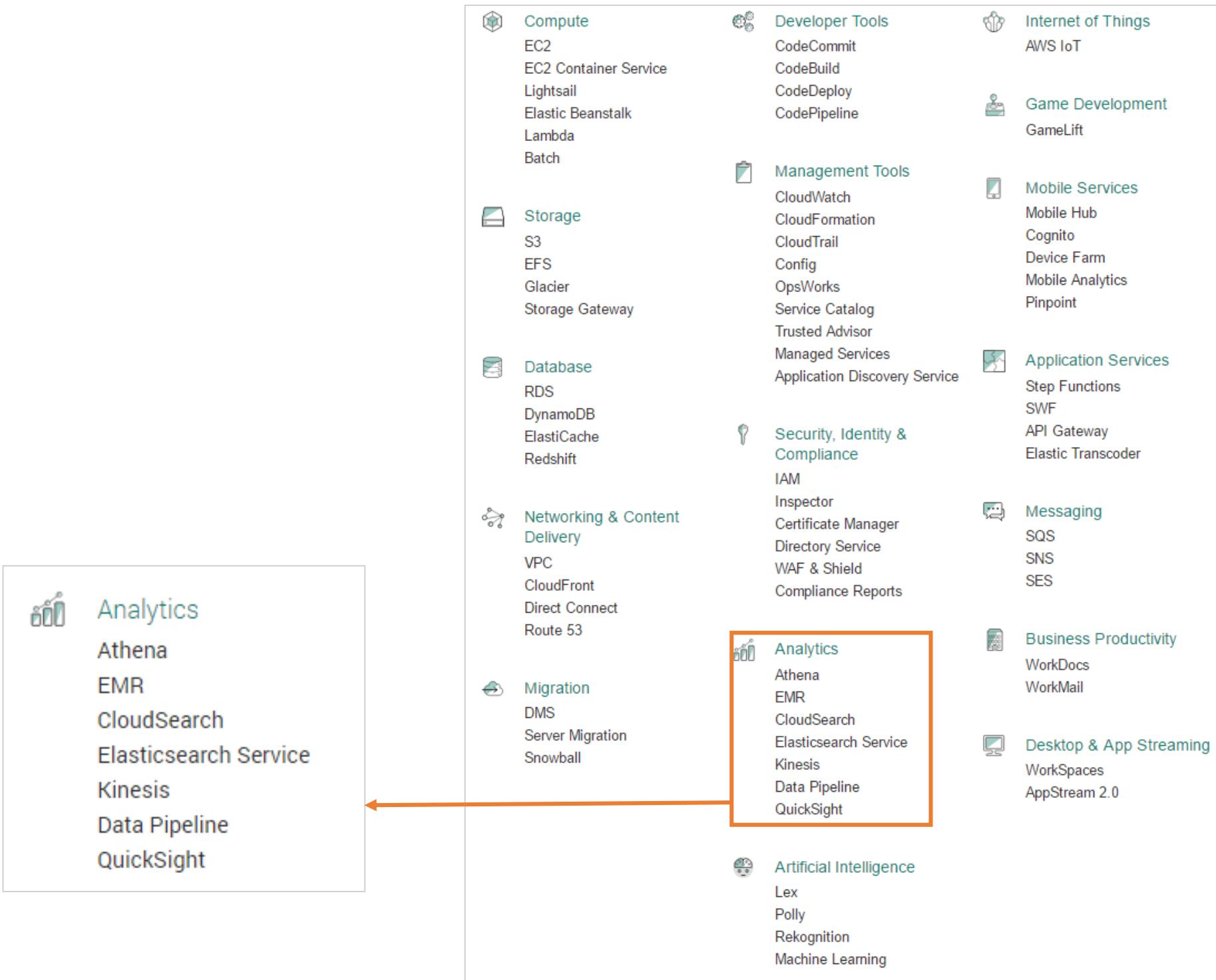
Networking (contd.)

Direct Connect is a way of connecting into the AWS environment without using an Internet connection.



AWS Management Console

Next section is Analytics.



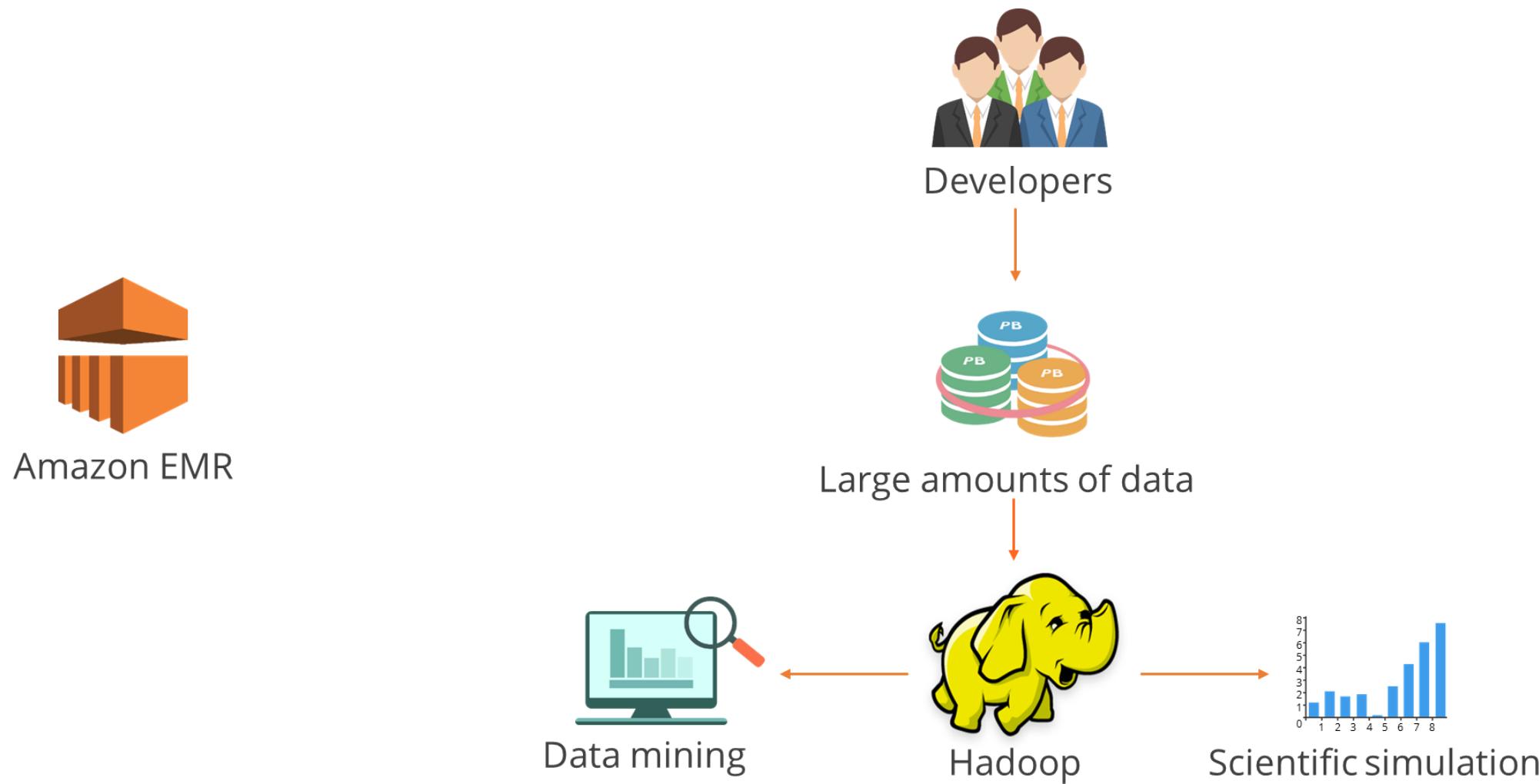
Analytics

Elasticsearch allows you to use the popular open source search and analytics engine as a managed service in AWS.



Analytics (contd.)

Elastic MapReduce allows businesses and developers to process large amounts of data using a Hadoop framework. It's ideal for processes like data mining and scientific simulation.



Analytics (contd.)

Kinesis can ingest lots of data very quickly from mobile apps, sensors, and others.



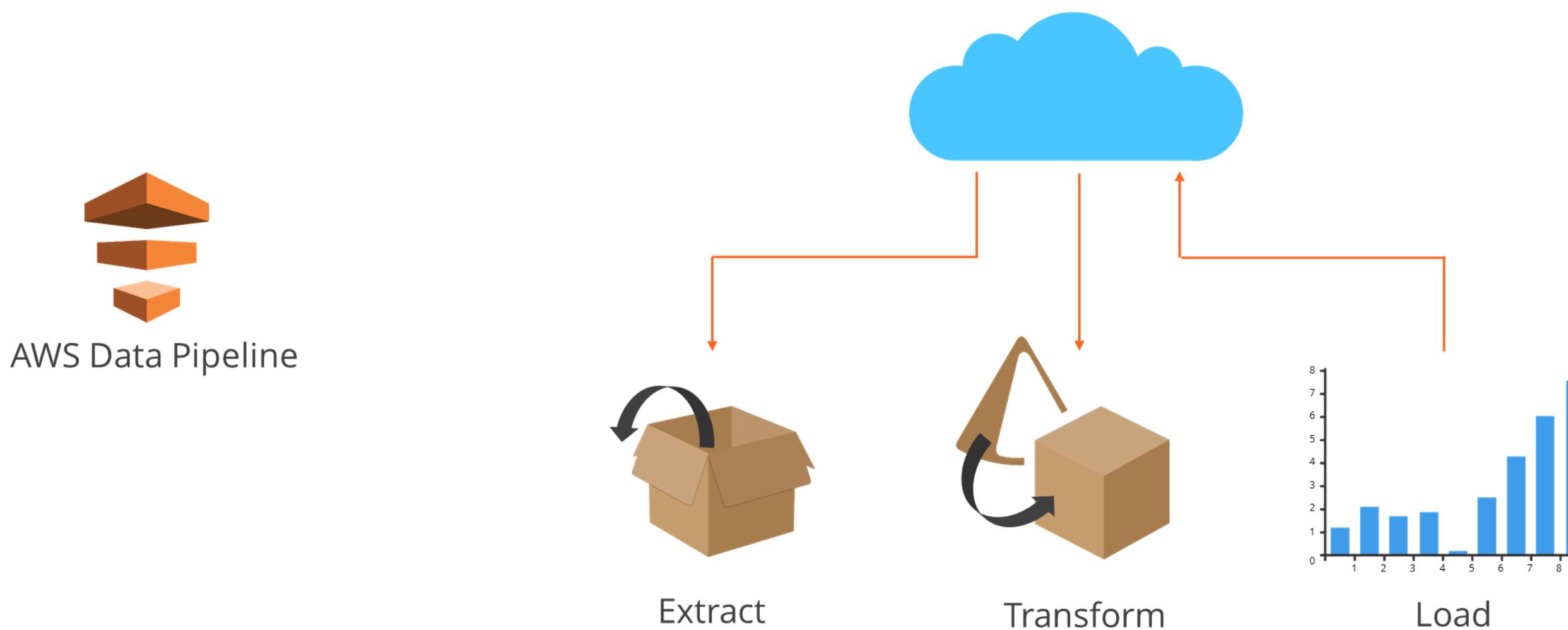
Analytics (contd.)

QuickSight is a fast, cloud-powered business intelligence (BI) service that makes it easy for all employees to build visualizations, perform ad-hoc analysis, and quickly get business insights from their data.



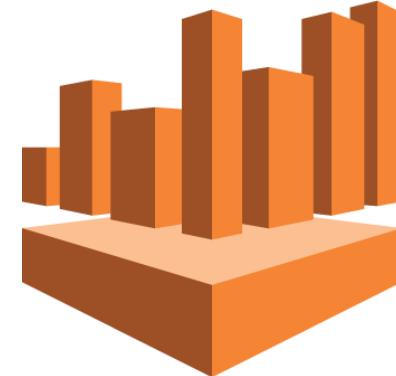
Analytics (contd.)

Data pipeline is used to extract, transform, and load data from other locations in AWS.



Analytics (contd.)

Amazon Athena is an interactive query service that allows you to analyze data in Amazon S3 using standard SQL.



Amazon Athena

Analytics (contd.)

Amazon CloudSearch is a managed service that allows you to easily set up, manage, and scale a search solution for your website or application.



Amazon CloudSearch

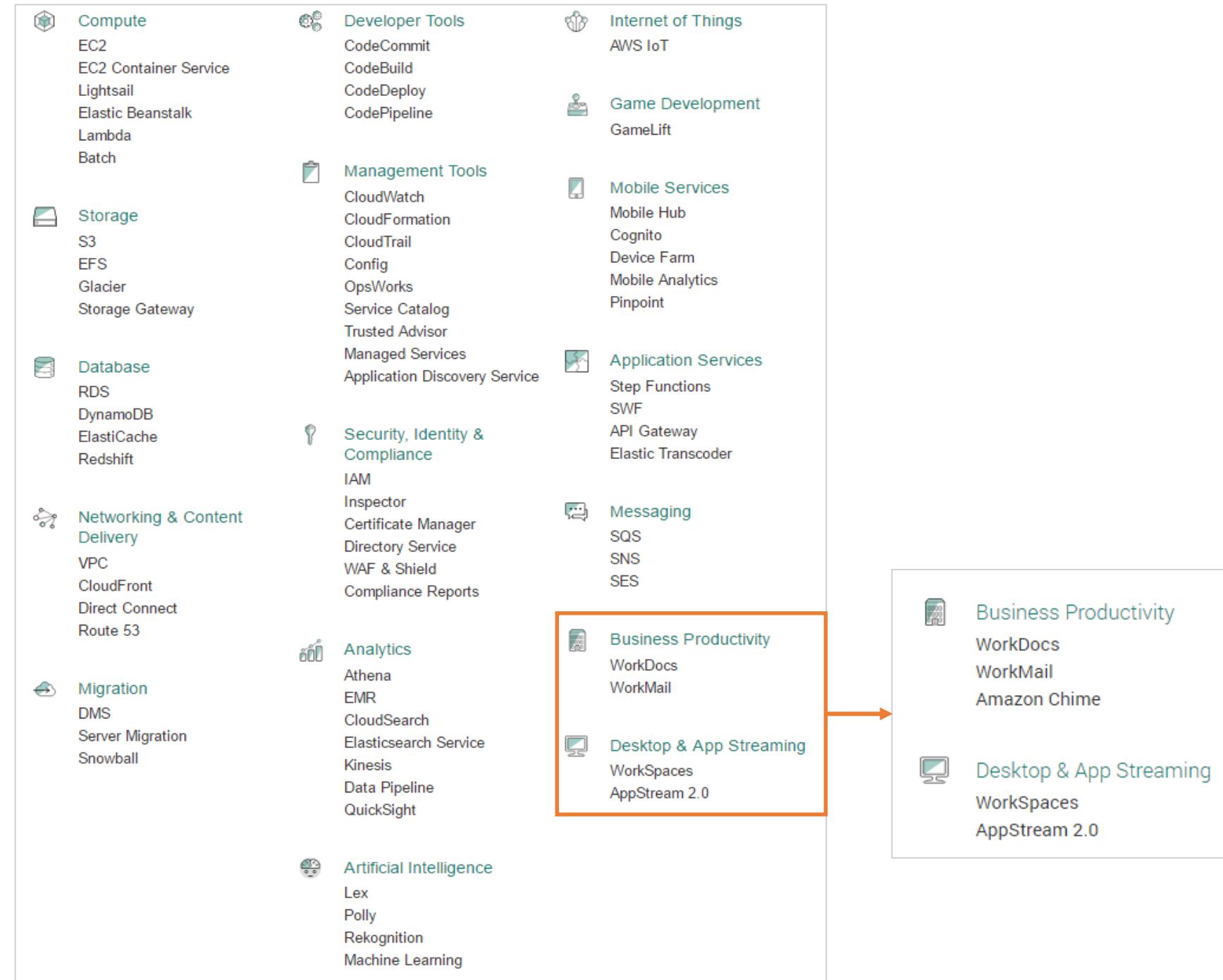
Analytics (contd.)

AWS Glue is fully managed ETL (Extract, transform, load) service that simplifies and automates the difficult and time consuming data discovery, conversion, mapping, and job scheduling tasks.



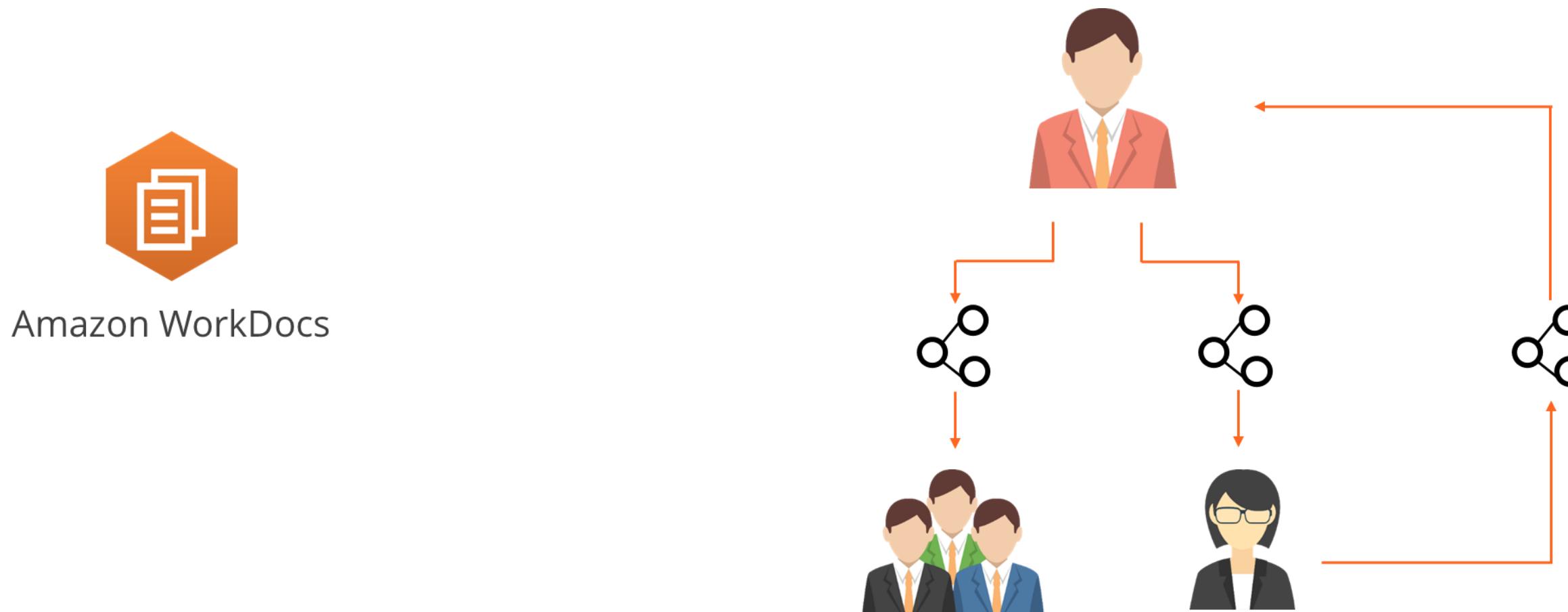
AWS Management Console

Next section is Enterprise Application.



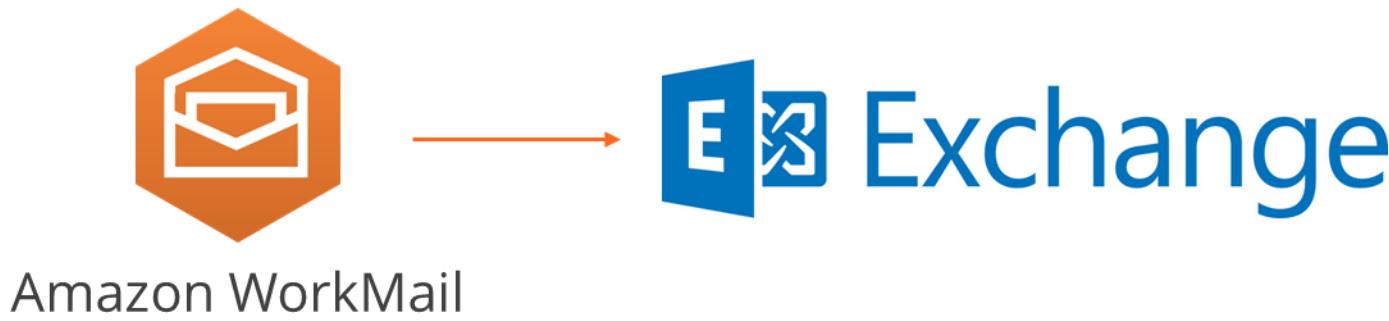
Enterprise Applications

Amazon WorkDocs allows you to share Word Docs with your colleagues.



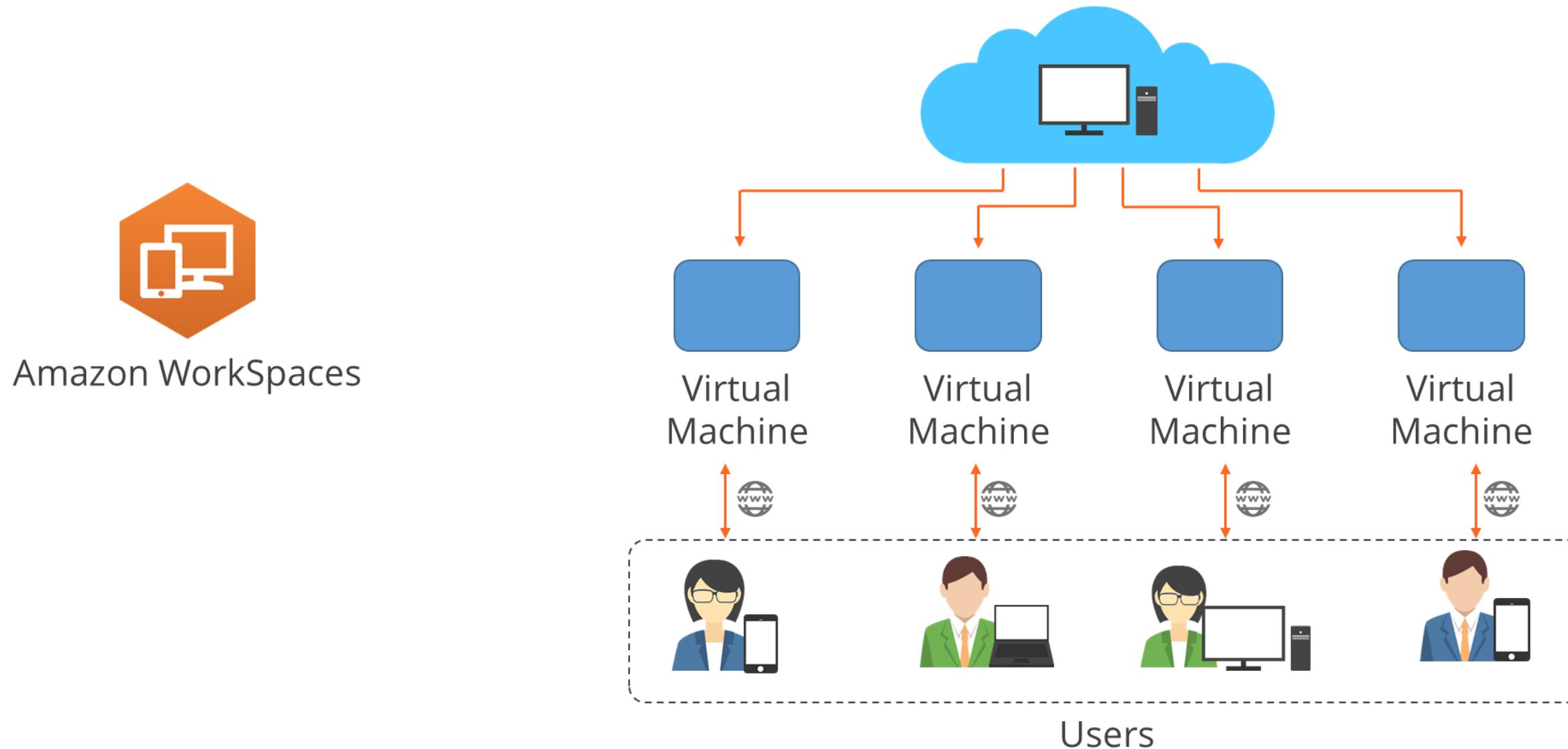
Enterprise Applications (contd.)

Through Amazon WorkMail you can give everyone in your company the same email system and calendar.



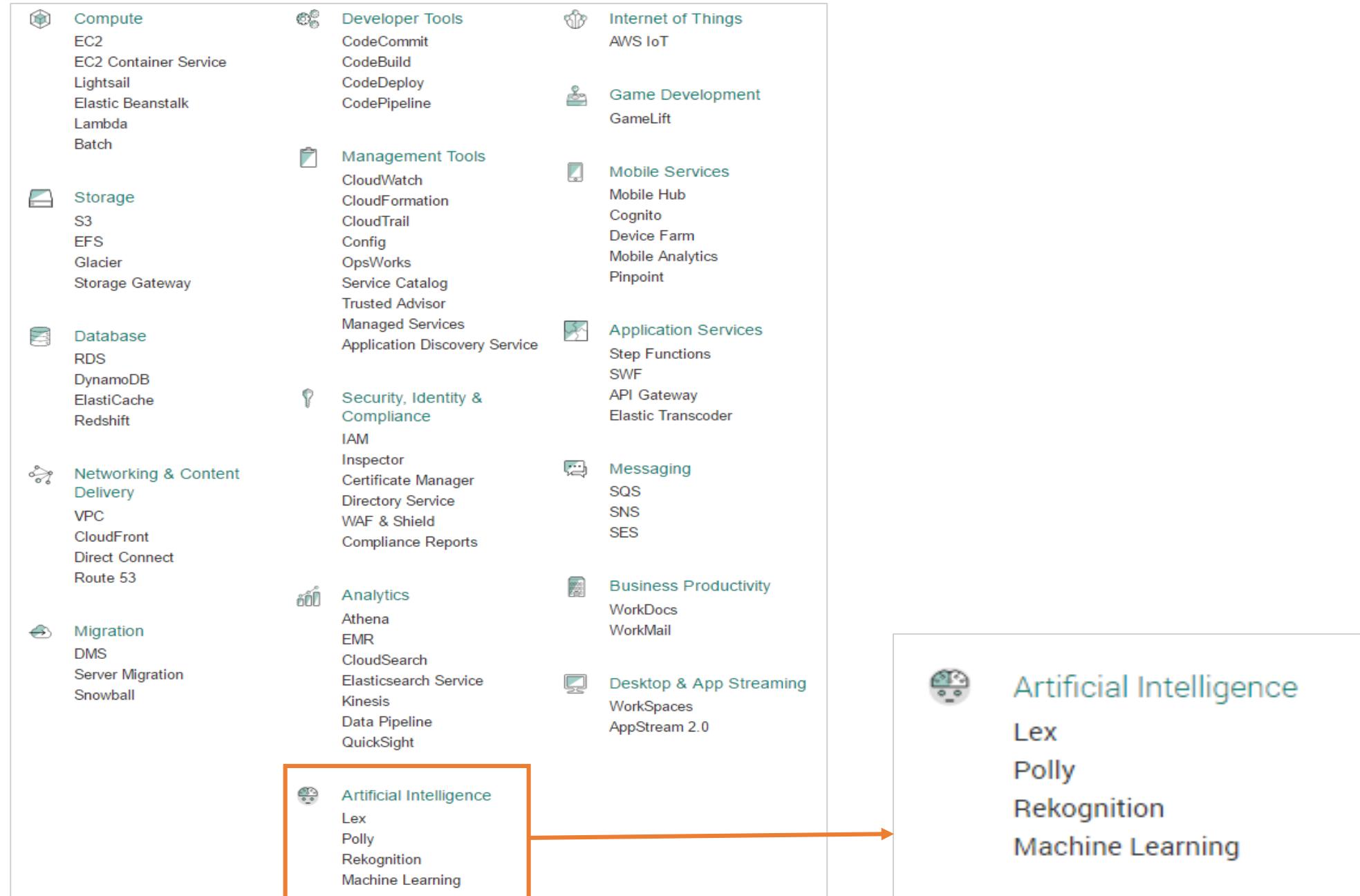
Enterprise Applications (contd.)

WorkSpaces is an enterprise application that gives you a standard Windows desktop that you can control remotely.



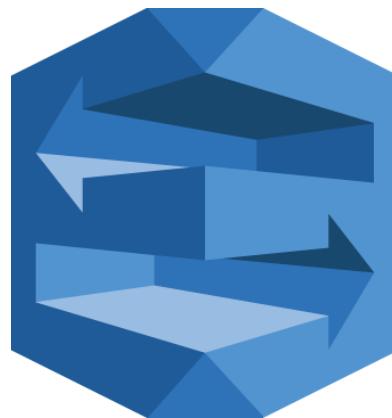
AWS Management Console

Next section is Artificial Intelligence.



Artificial Intelligence (contd.)

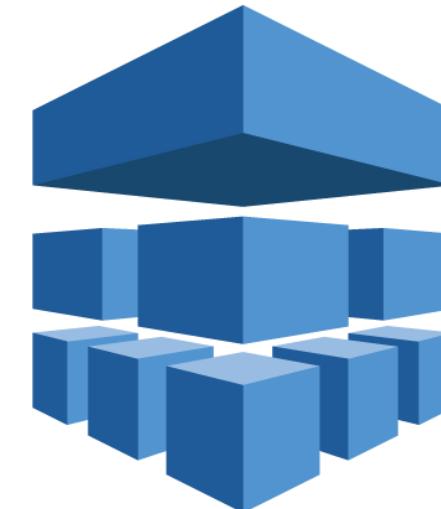
Amazon Lex provides a conversational interface for your applications; it is powered by the same deep learning technologies used in Amazon Echos.



Amazon Lex

Artificial Intelligence (contd.)

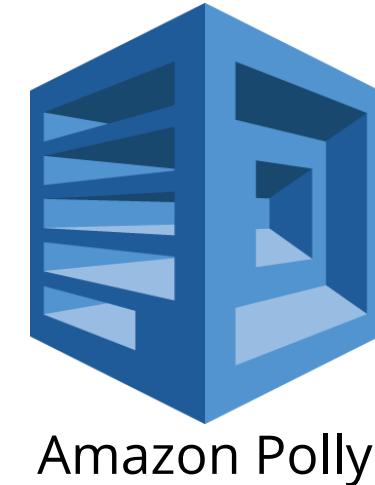
Amazon Machine Learning can predict future behavior from existing data, for example, "people that bought x also bought y." It can also perform functions such as fraud detection.



Amazon Machine
Learning

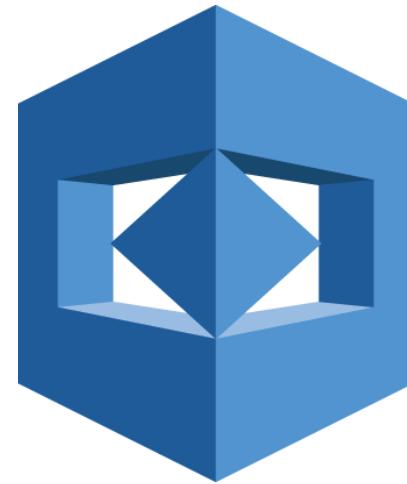
Artificial Intelligence (contd.)

Amazon Polly is a service that turns text into lifelike speech so you can create applications that talk.



Artificial Intelligence (contd.)

Amazon Rekognition is a service that makes it easy to add image analysis to your applications.



Amazon Rekognition



Knowledge Check

KNOWLEDGE
CHECK

Where does Route53 get its name from?

- a. 53 is the port that DNS uses
- b. From the 53 available AWS routes
- c. It doesn't have specific significance
- d. On average, the ping latency between AWS resources is 53 ms



KNOWLEDGE
CHECK

Where does Route53 get its name from?

- a. 53 is the port that DNS uses
- b. From the 53 available AWS routes
- c. It doesn't have specific significance
- d. On average, the ping latency between AWS resources is 53 ms



The correct answer is **a**.

53 is the DNS port and it's a play on words of Route66.

KNOWLEDGE
CHECK

Which service allows you to stream data to AWS?

- a. Elastic MapReduce
- b. QuickSight
- c. Kinesis
- d. Data Pipeline



KNOWLEDGE
CHECK

Which service allows you to stream data to AWS?

- a. Elastic MapReduce
- b. QuickSight
- c. Kinesis
- d. Data Pipeline



The correct answer is **c.**

Kinesis allows you to stream large amounts of data to AWS from mobile apps or sensors. Elastic MapReduce is used for data mining or scientific simulation with Hadoop frameworks running on EC2 instances, QuickSight is a cloud powered BI service, and Data Pipeline is the AWS ETL tool.

KNOWLEDGE
CHECK

Which of these is NOT an AWS Enterprise Application?

- a. WorkDocs
- b. WorkMail
- c. WorkServer
- d. WorkSpaces



KNOWLEDGE
CHECK

Which of these is NOT an AWS Enterprise Application?

- a. WorkDocs
- b. WorkMail
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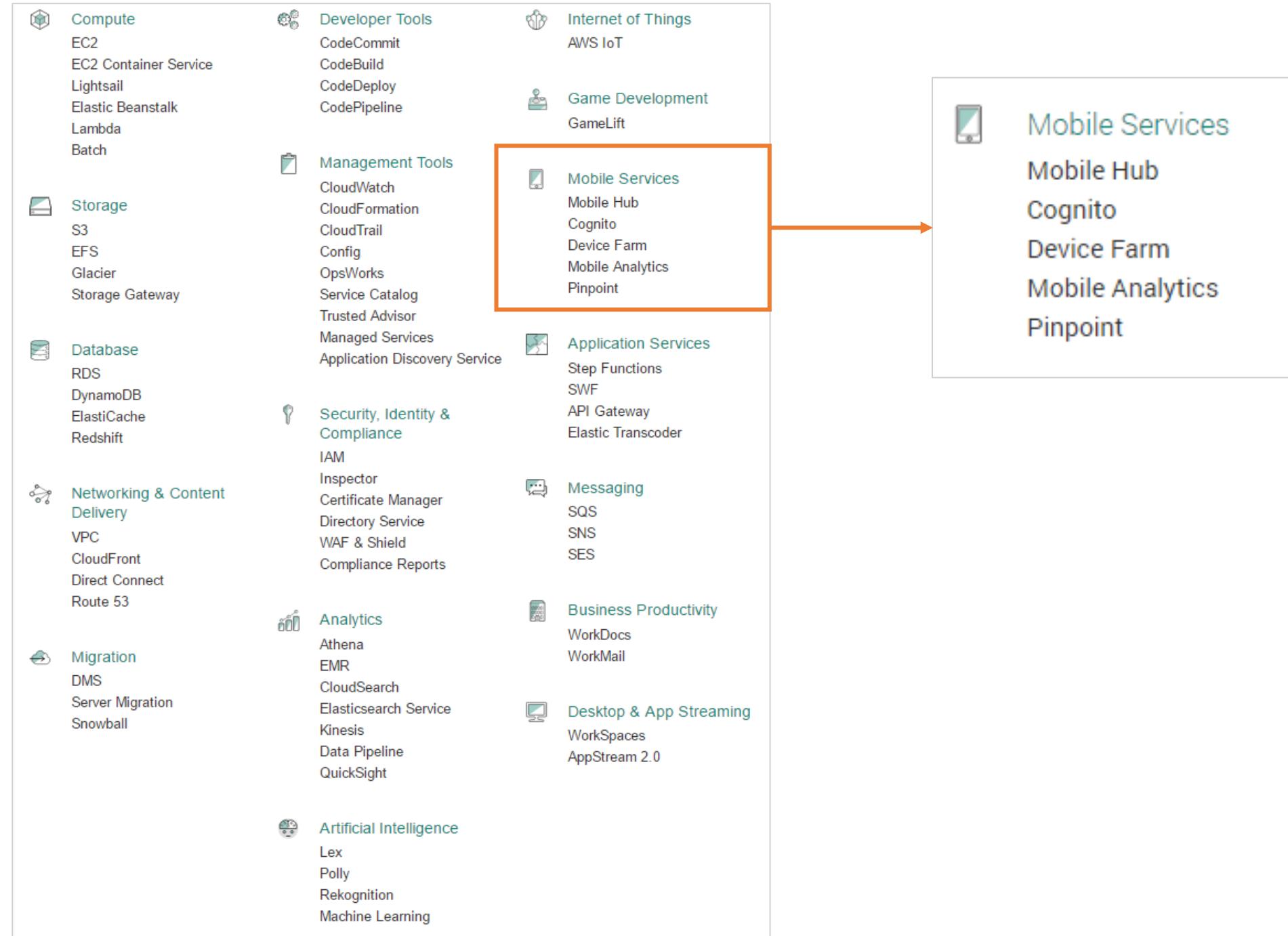


The correct answer is **c.**

WorkDocs allows you to share documents with your colleagues, WorkMail is Amazon's answer to Microsoft Exchange, and WorkSpaces allows you to run Windows desktops in the cloud.

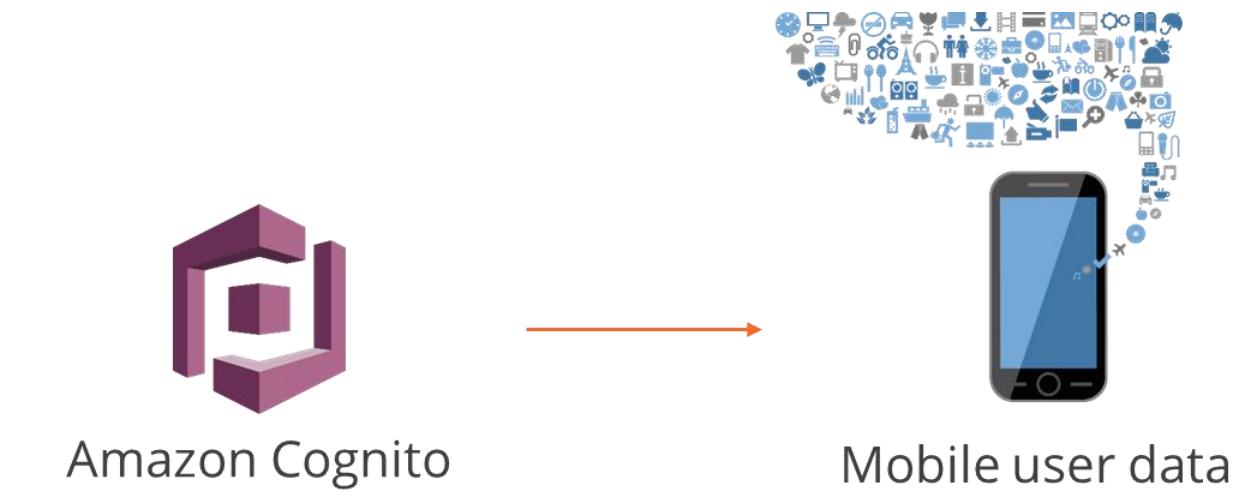
AWS Management Console

Next section is Mobile Services.



Mobile Services

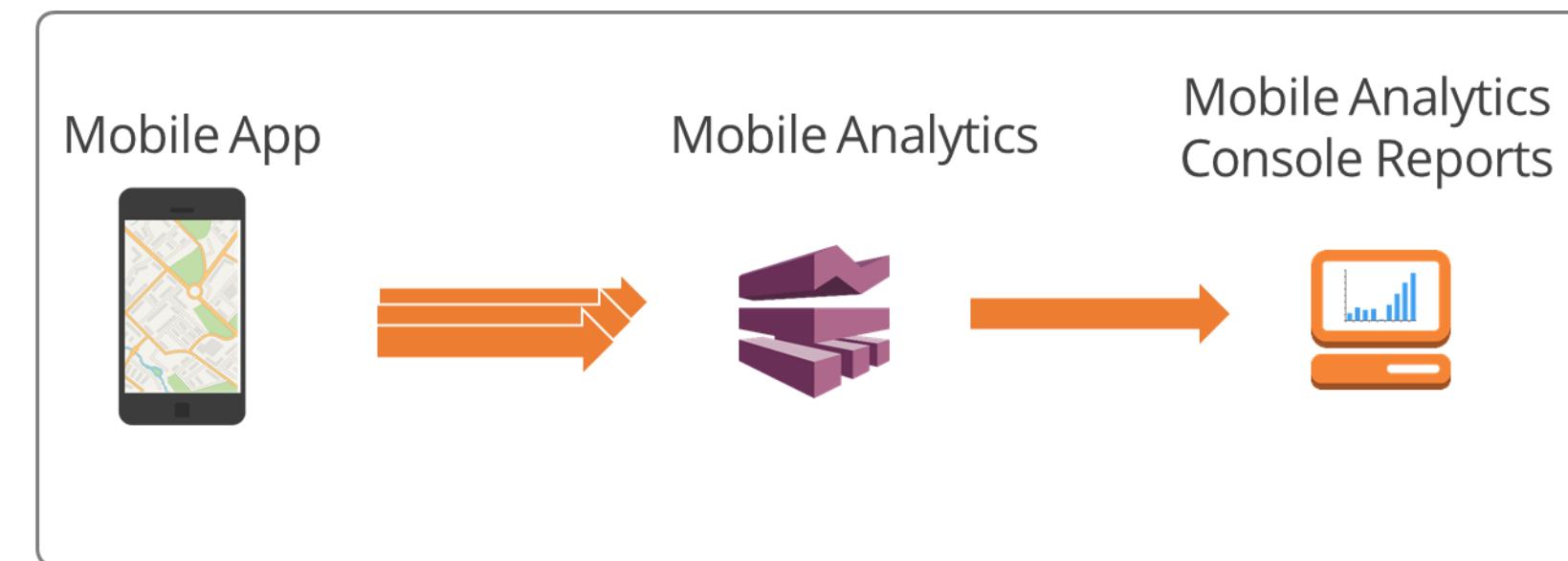
Amazon Cognito saves mobile user data in the AWS cloud.



Existing social

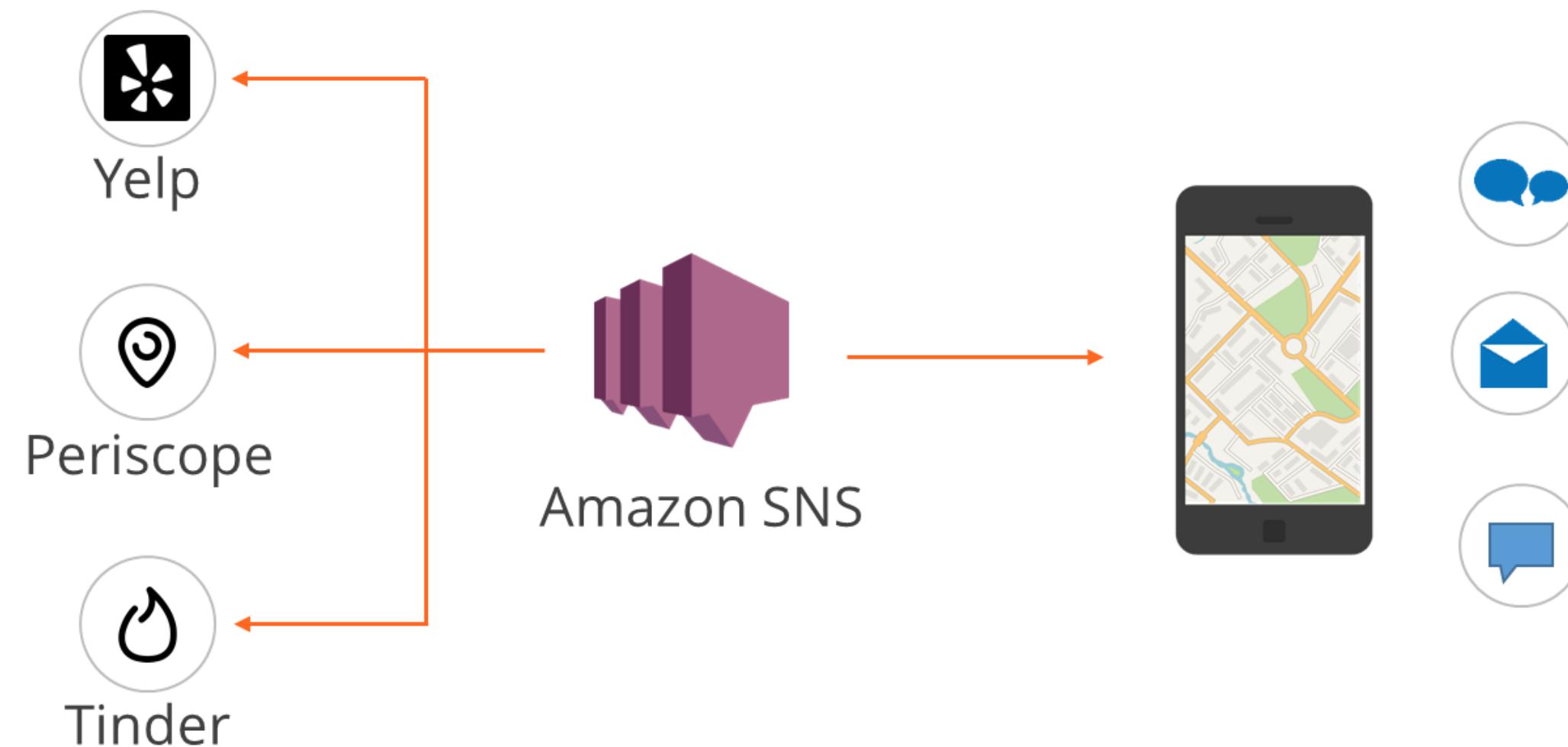
Mobile Services (contd.)

Amazon Mobile Analytics tracks and measures in-app activity.



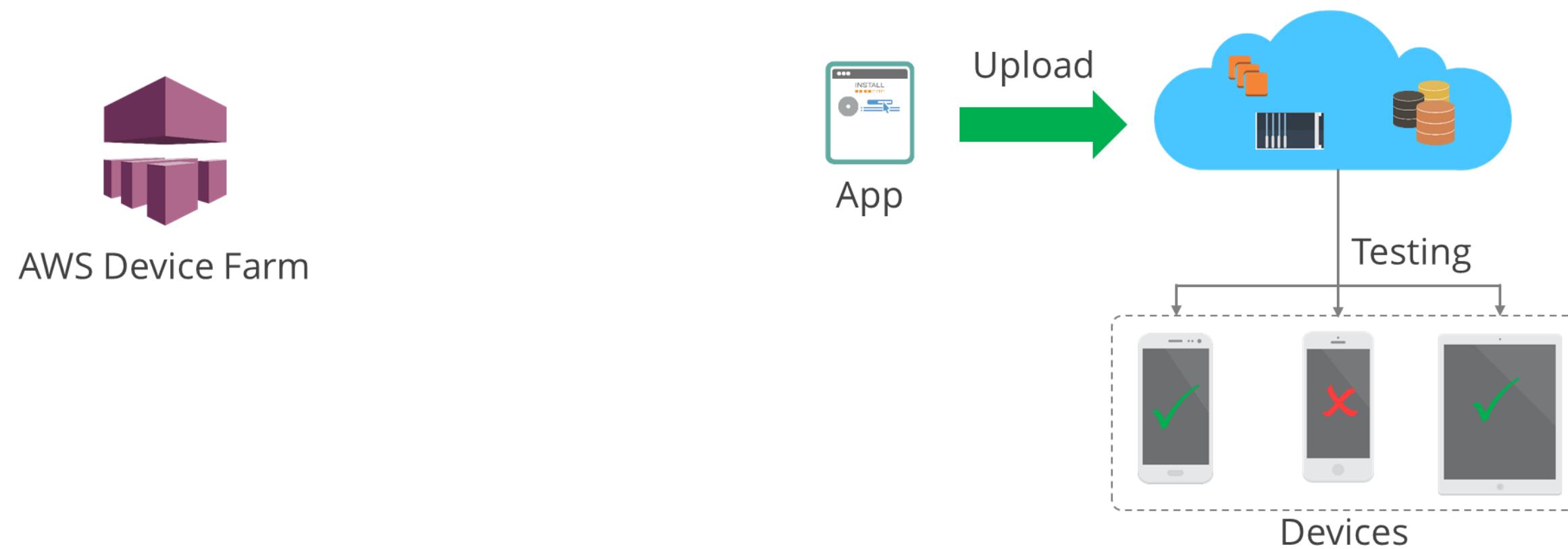
Mobile Services (contd.)

Amazon Simple Notification Service (SNS) sends mobile notifications, emails, and/or SMS messages.



Mobile Services (contd.)

AWS Device Farm tests your app on a bunch of different iOS and Android devices simultaneously.



Mobile Services (contd.)

AWS Mobile Hub builds, tests, and monitors mobile apps.

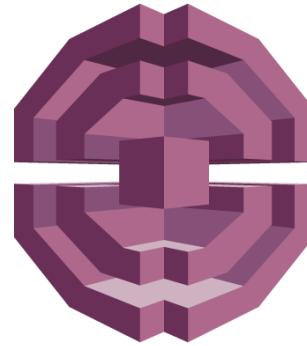


AWS Mobile Hub



Mobile Services (contd.)

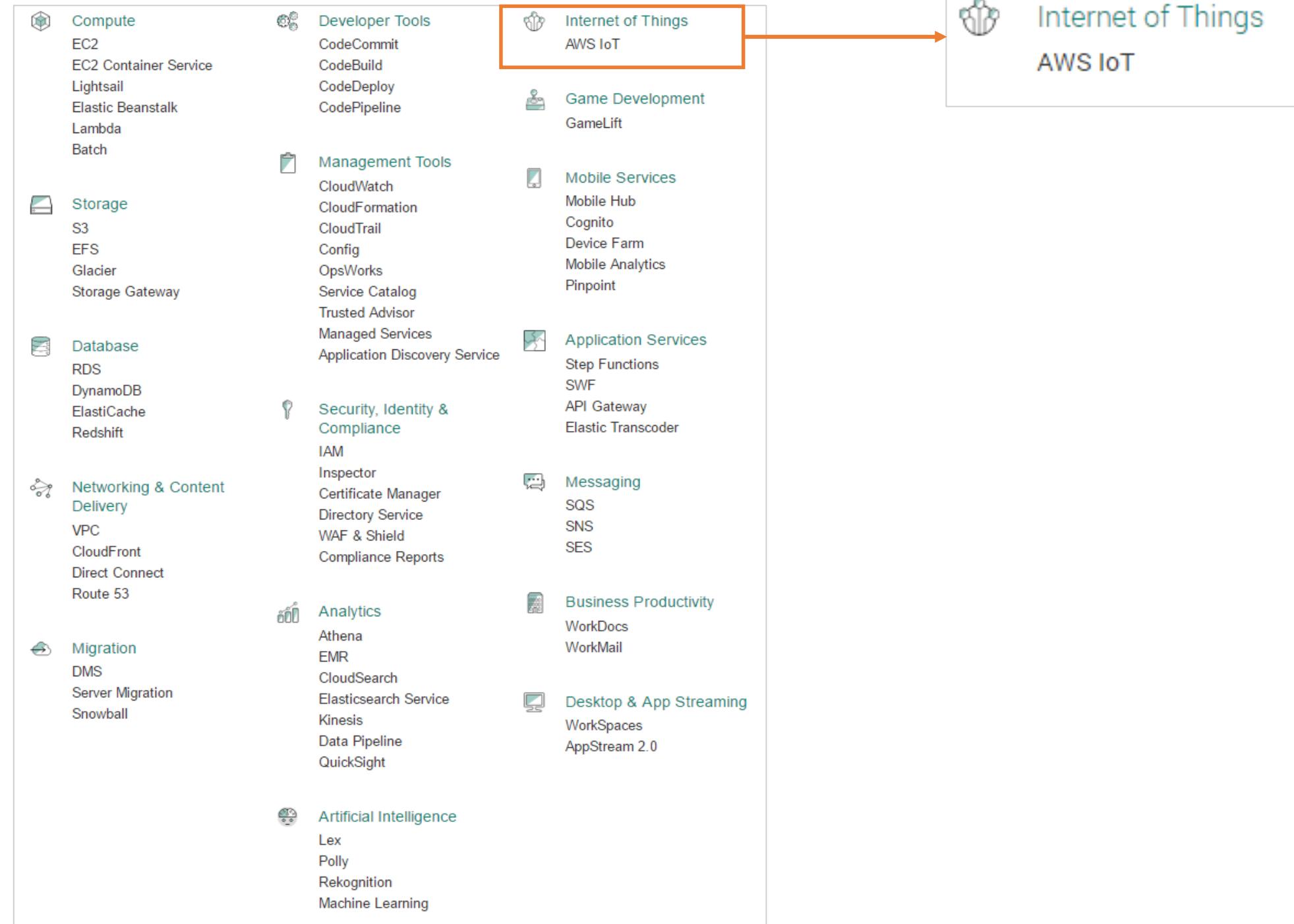
Amazon Pinpoint makes it easy to run targeted campaigns to drive user engagement in mobile apps.



Amazon Pinpoint

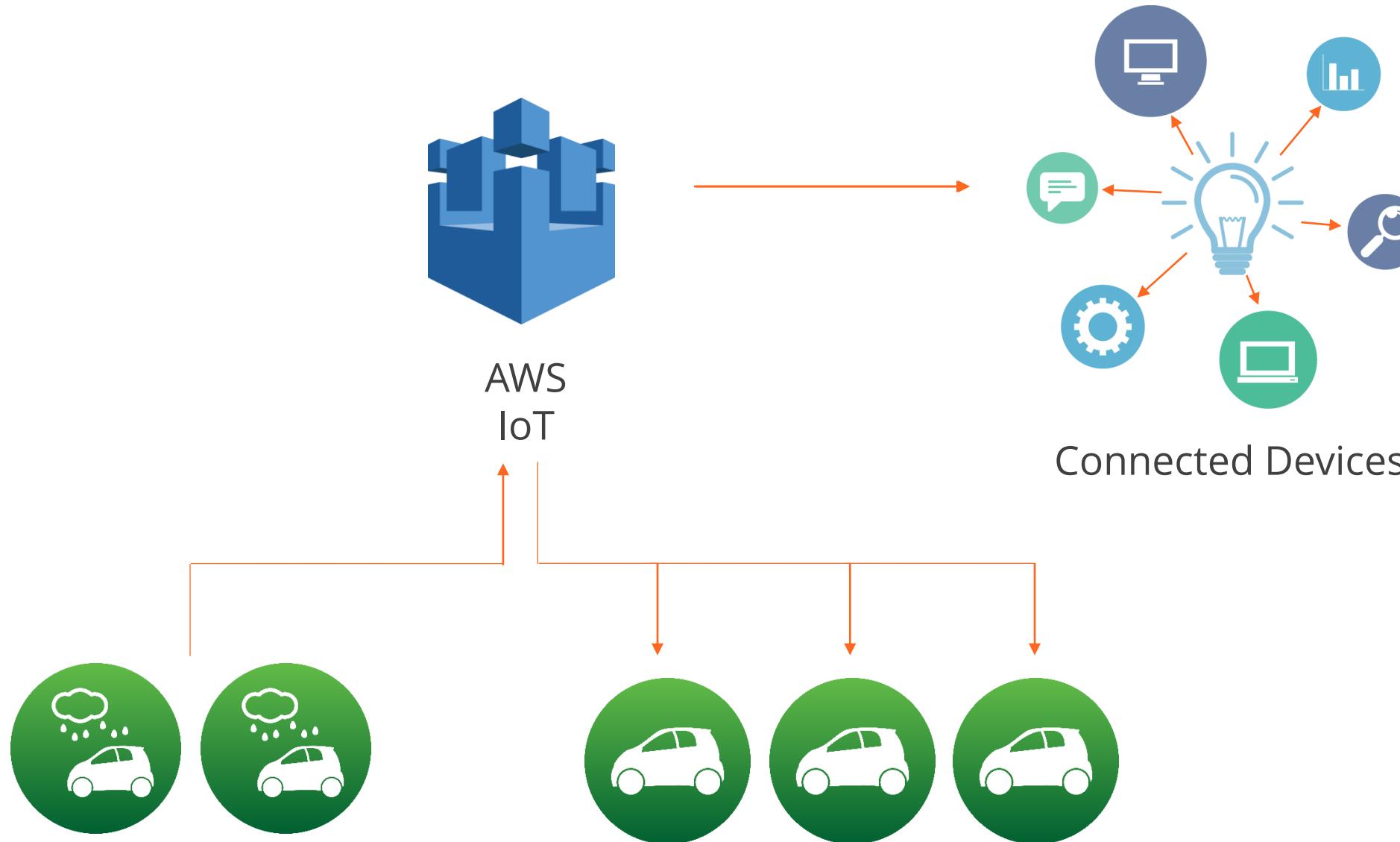
AWS Management Console

Next section is Internet of Things.



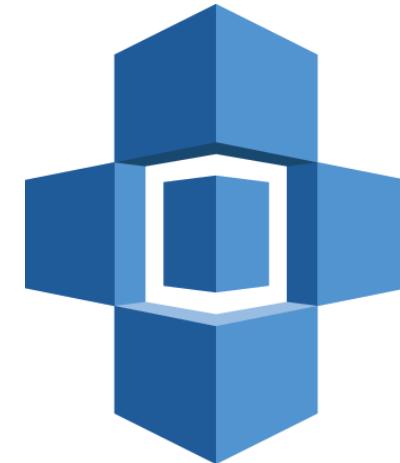
Internet of Things

AWS IoT is a managed cloud platform that lets connected devices interact with cloud applications and other devices easily and securely.



Internet of Things (contd.)

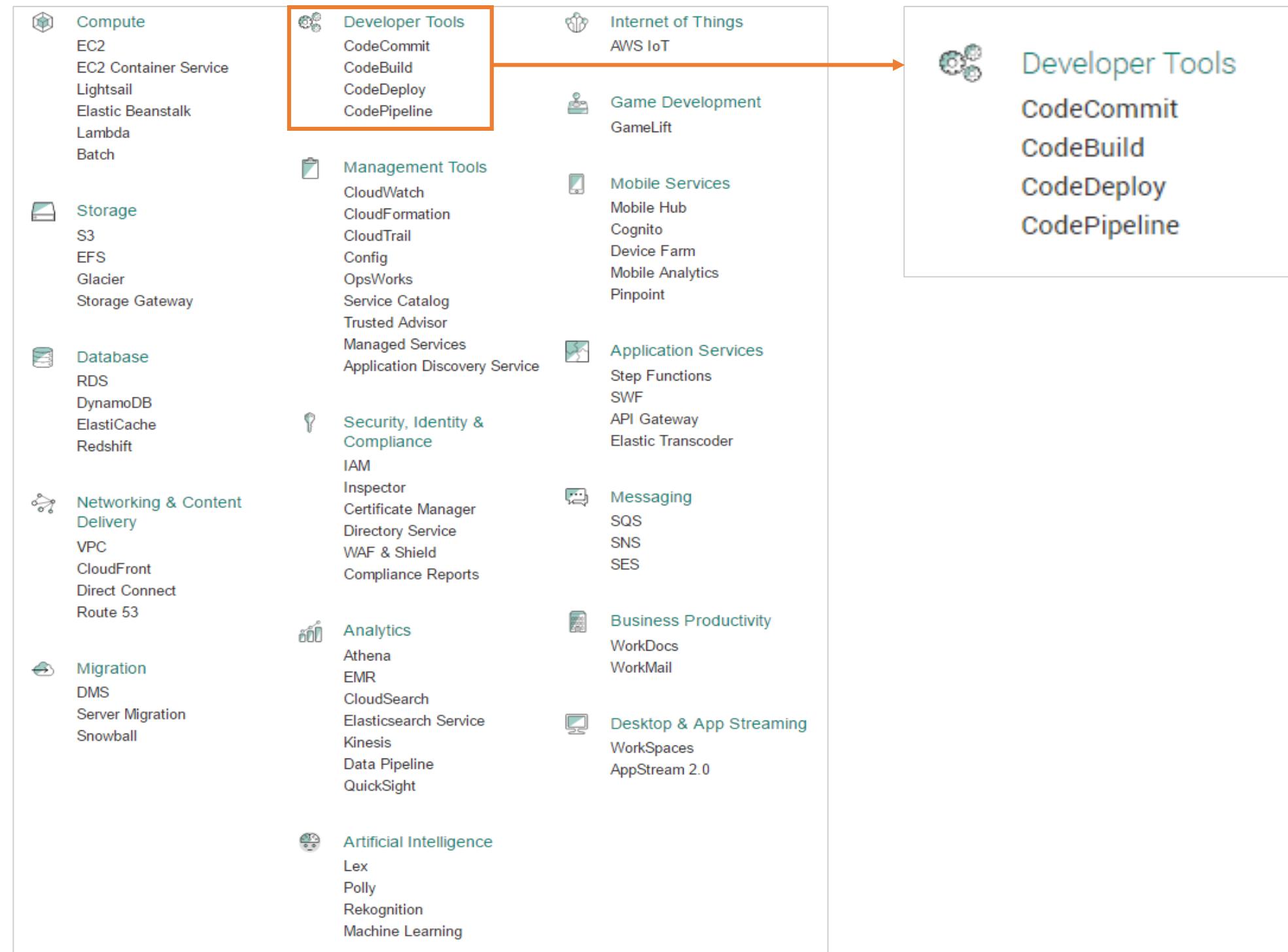
AWS Greengrass is a software that lets you securely run local compute, messaging, and data caching for connected devices.



AWS Greengrass

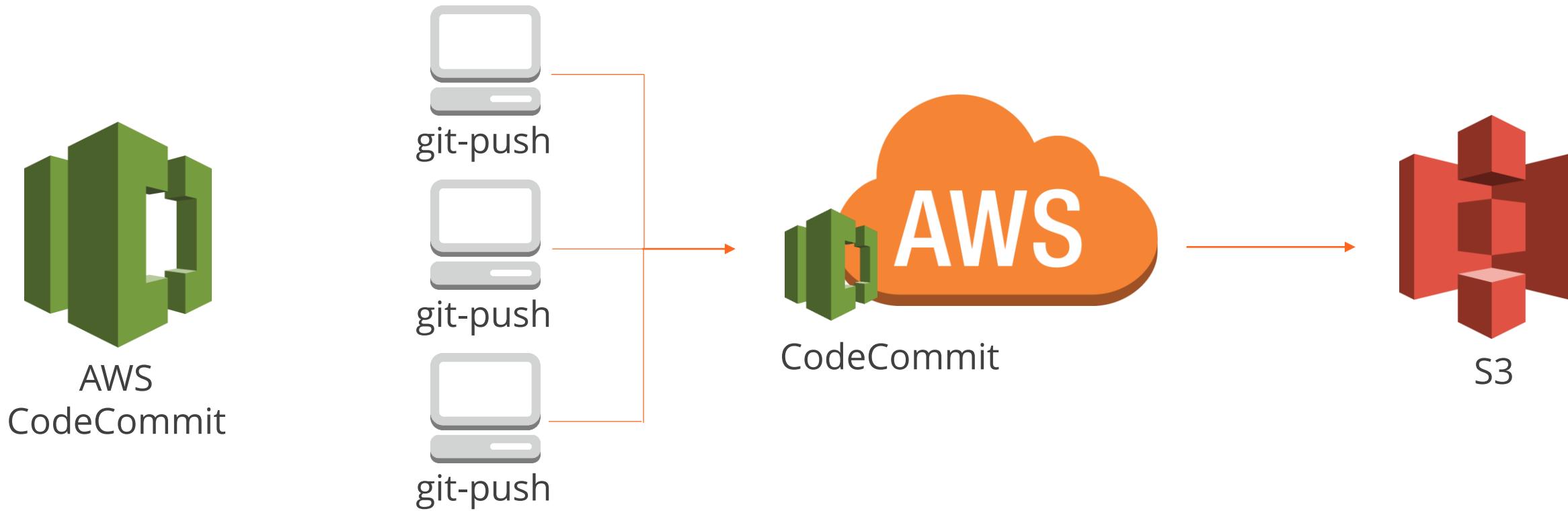
AWS Management Console

Next section is Developer Tools.



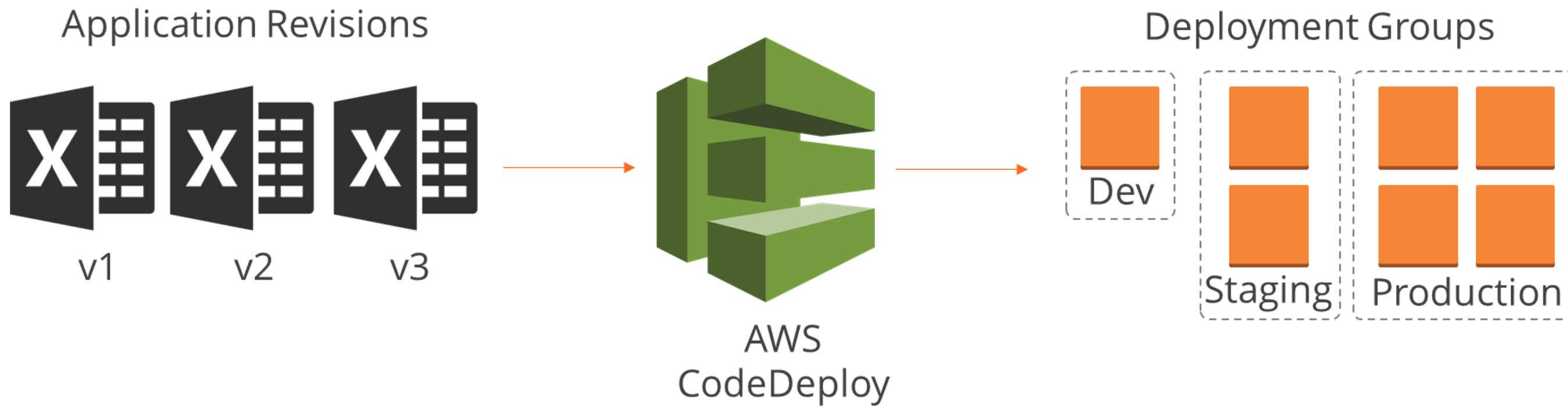
Developer Tools

AWS CodeCommit create AWS hosted version control for your code.



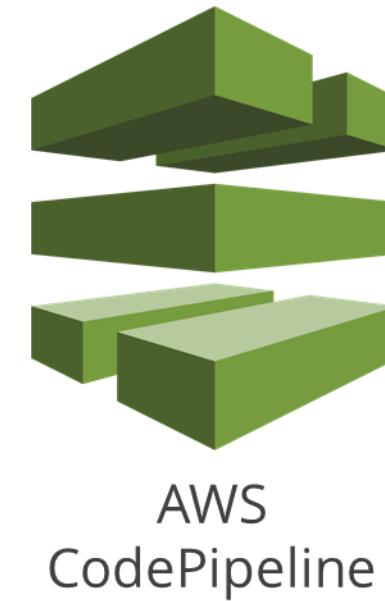
Developer Tools (contd.)

Through AWS CodeDeploy you can get your code from CodeCommit repository and deploy it to your EC2 instances.



Developer Tools (contd.)

AWS CodePipeline is a continuous delivery service for fast and reliable application updates.



Developer Tools (contd.)

AWS X-Ray helps developers analyze and debug production and distributed applications, such as those built using micro services.



AWS X-Ray

Developer Tools (contd.)

AWS CodeBuild is a fully managed build service that compiles source code, runs tests, and produces software packages that are ready to be deployed.



AWS CodeBuild



Knowledge Check

KNOWLEDGE
CHECK

Which service allows you to save mobile user data in the AWS cloud?

- a. Cognito
- b. SNS
- c. Device Farm
- d. Mobile Hub



KNOWLEDGE
CHECK

Which service allows you to save mobile user data in the AWS cloud?

- a. Cognito
- b. SNS
- c. Device Farm
- d. Mobile Hub



The correct answer is **a.**

Cognito allows you to save mobile user data in the cloud. SNS (Simple Notification Service) allows you to send mobile notifications, emails, and SMS; Mobile Hub is the tool to build, test, and monitor your mobile apps.

KNOWLEDGE
CHECK

Which AWS service is used as a code repository?

- a. CodeDeploy
- b. CodeCommit
- c. CodePipeline
- d. Lambda



KNOWLEDGE
CHECK

Which AWS service is used as a code repository?

- a. CodeDeploy
- b. CodeCommit
- c. CodePipeline
- d. Lambda

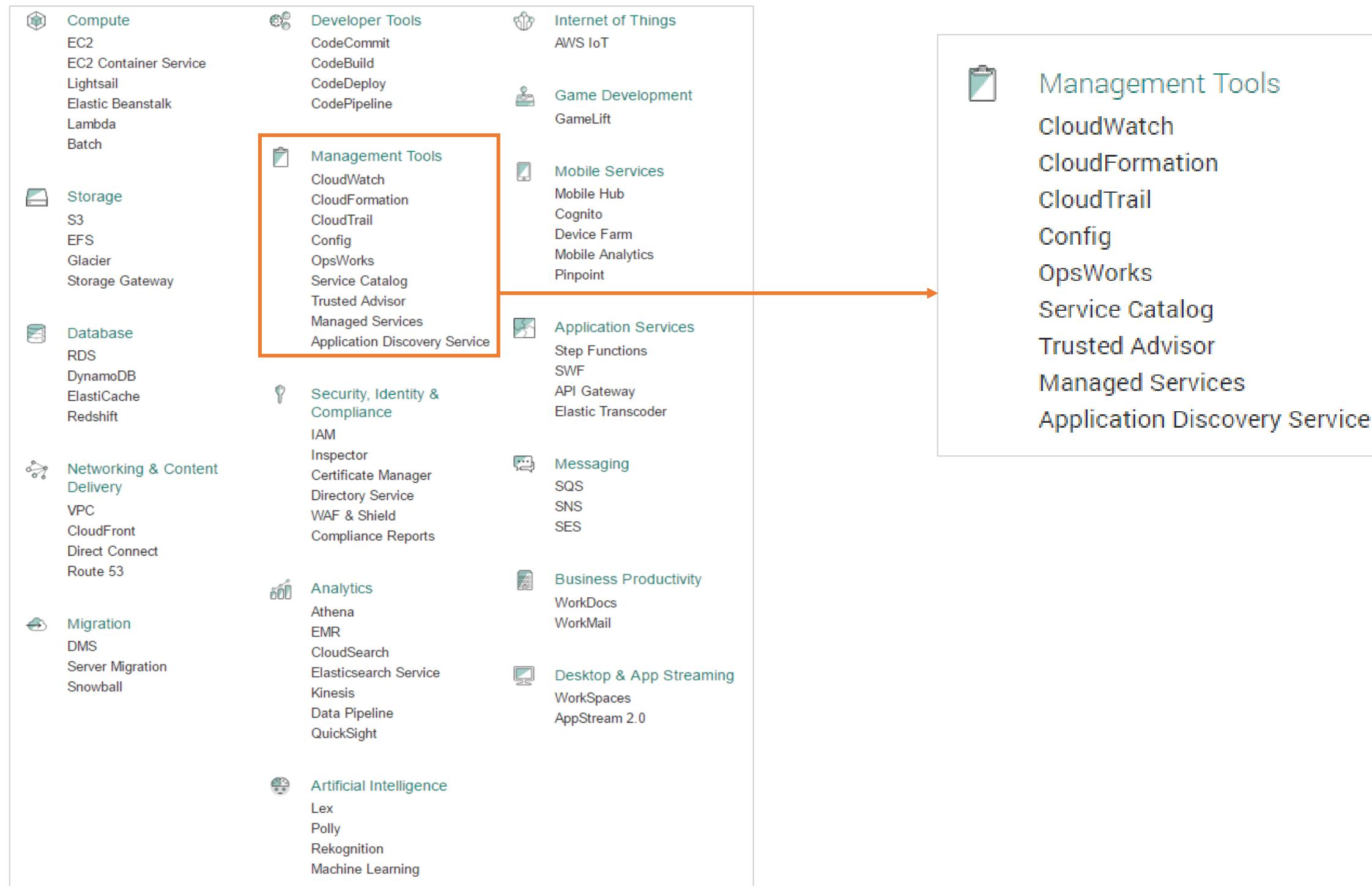


The correct answer is **b**.

CodeCommit allows you to store code repositories in the cloud. CloudDeploy is used to get code from your repository and deploy it to your EC2 instances; CodePipeline builds, tests, and deploys your code every time there is a code change; Lambda allows you to run code without having to provision or manage servers.

AWS Management Console

Next section is Management Tools.



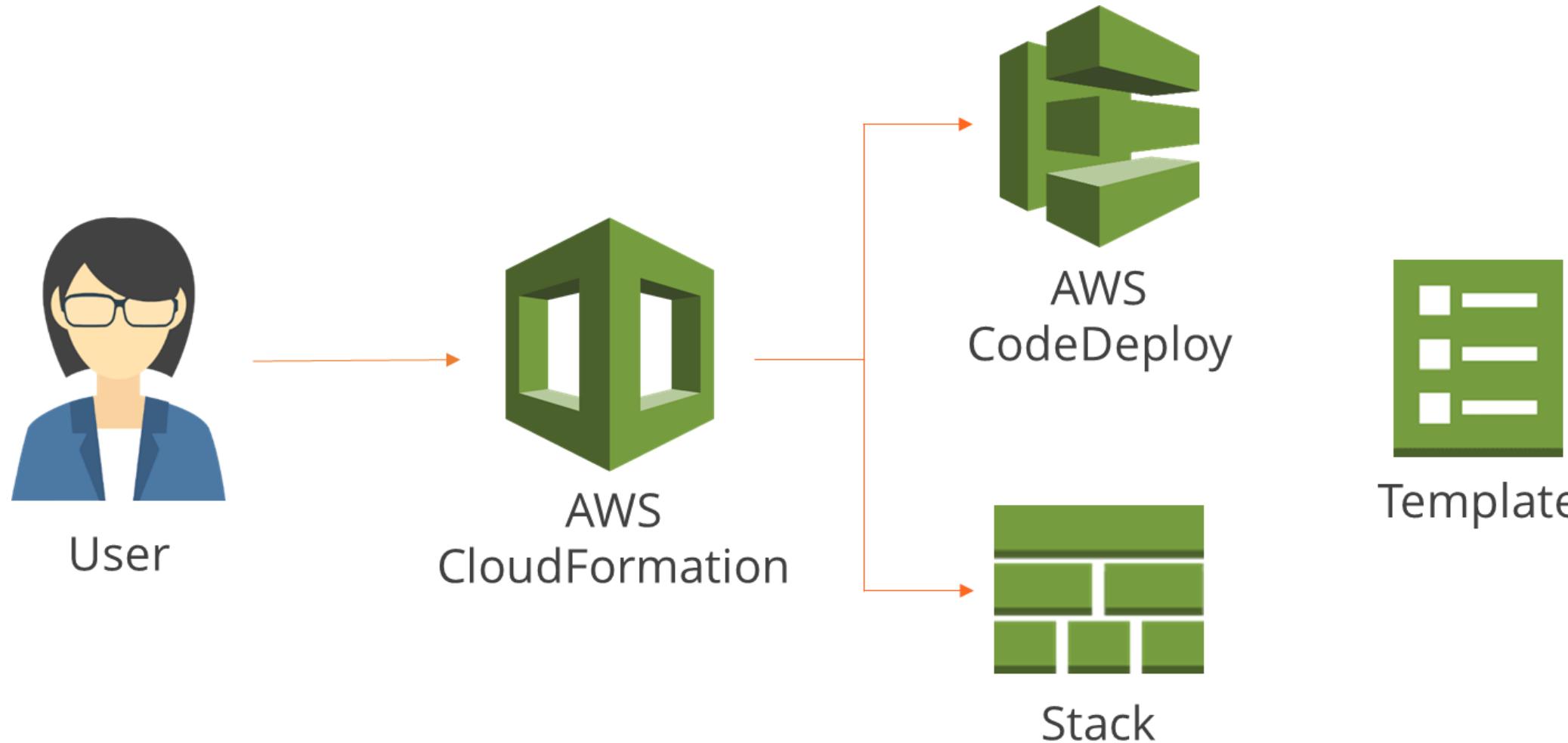
Management Tools

CloudWatch enables monitoring of EC2 and other Amazon cloud services, so you can get alerts when an error occurs or when AWS services are disconnected.



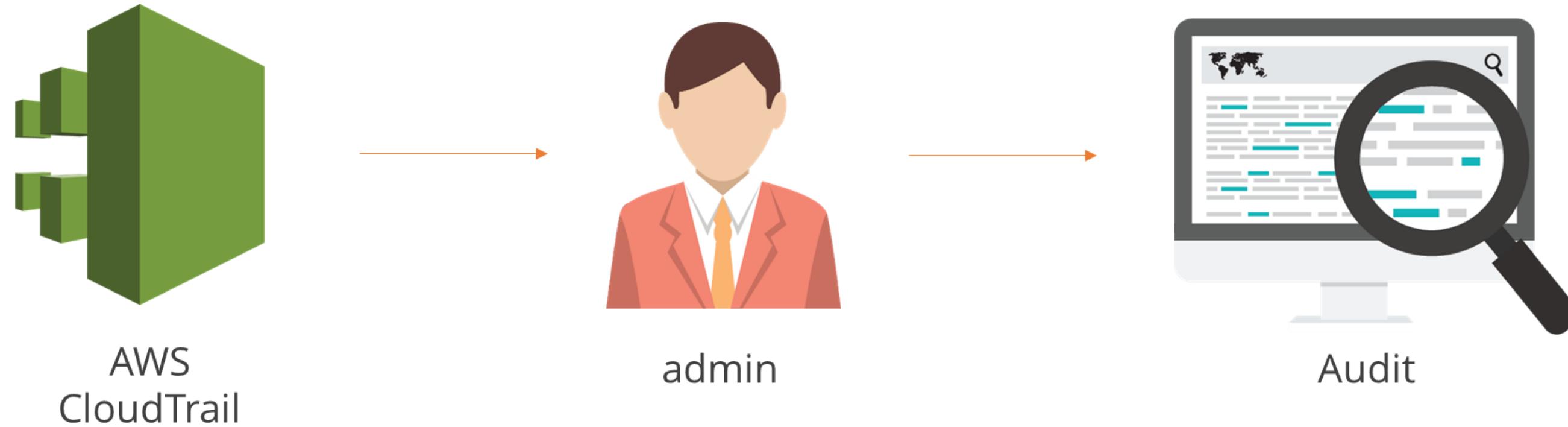
Management Tools (contd.)

CloudFormation allows you to set up a bunch of connected AWS services together.



Management Tools (contd.)

CloudTrail audits user activity on your AWS resources.



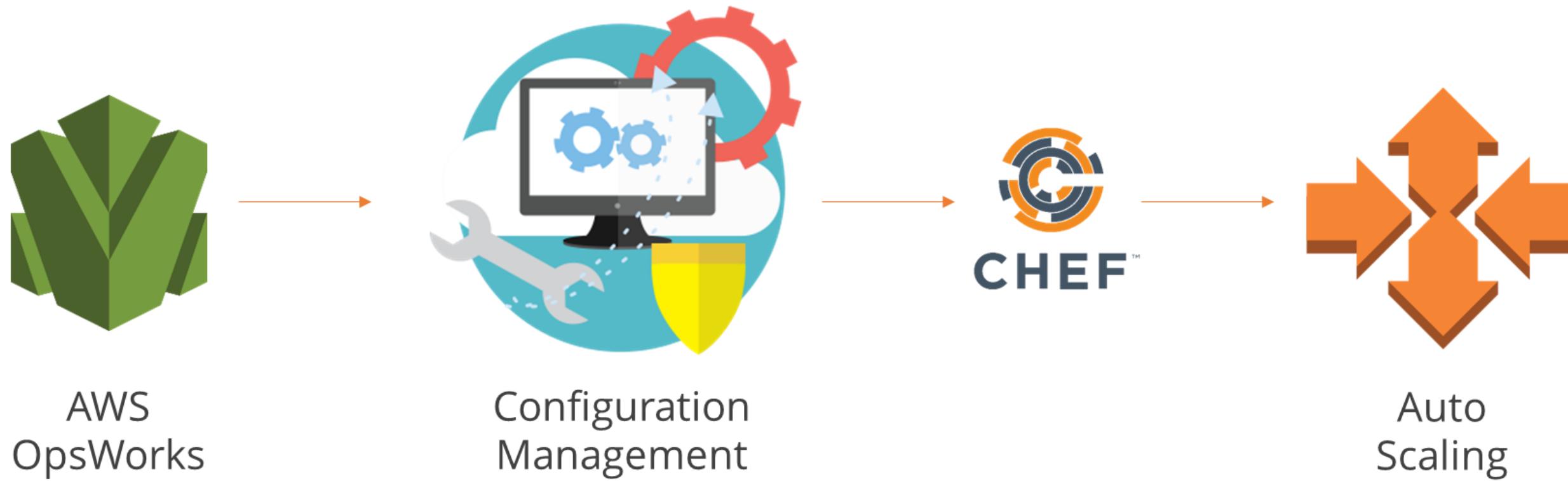
Management Tools (contd.)

AWS Config keeps track of configuration management changes.



Management Tools (contd.)

OpsWorks helps configure and manage operations using Chef.



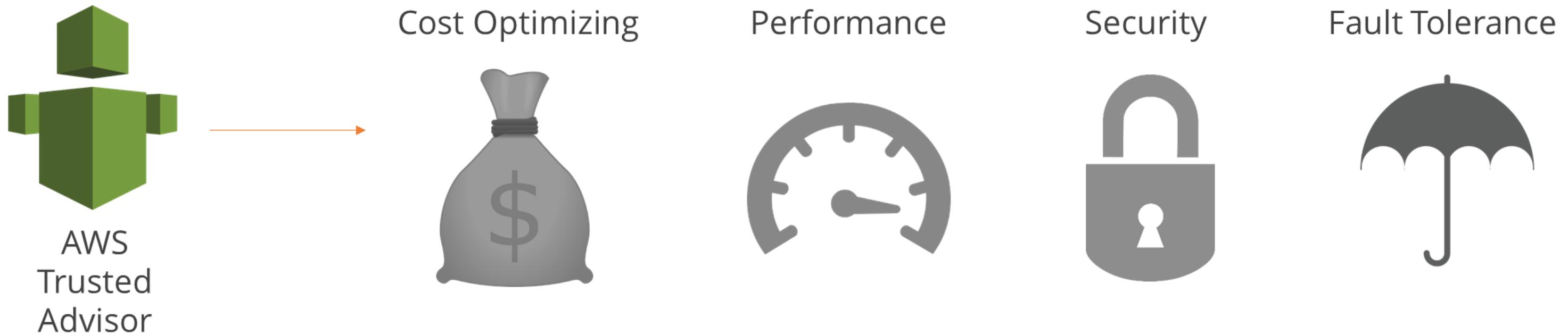
Management Tools (contd.)

Service Catalog gives other AWS users in your group access to preset apps you've built.



Management Tools (contd.)

Trusted Advisor is an automated service which identifies areas where you're paying excess in your AWS setup (for example, unused EC2 instances).



Management Tools (contd.)

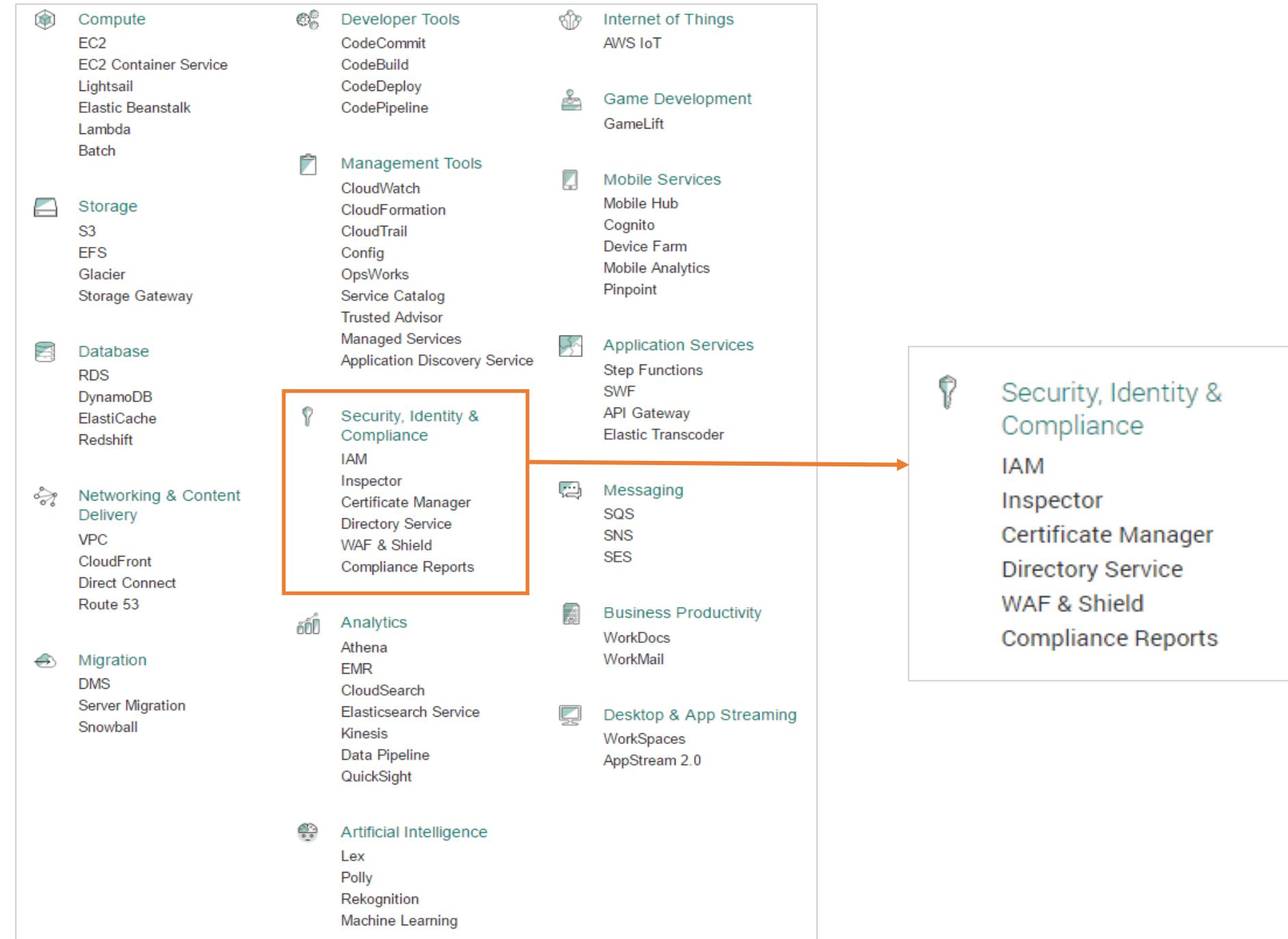
AWS Personal Health Dashboard provides alerts and remediation guidance when AWS is experiencing events that may impact you.



AWS Personal Health Dashboard

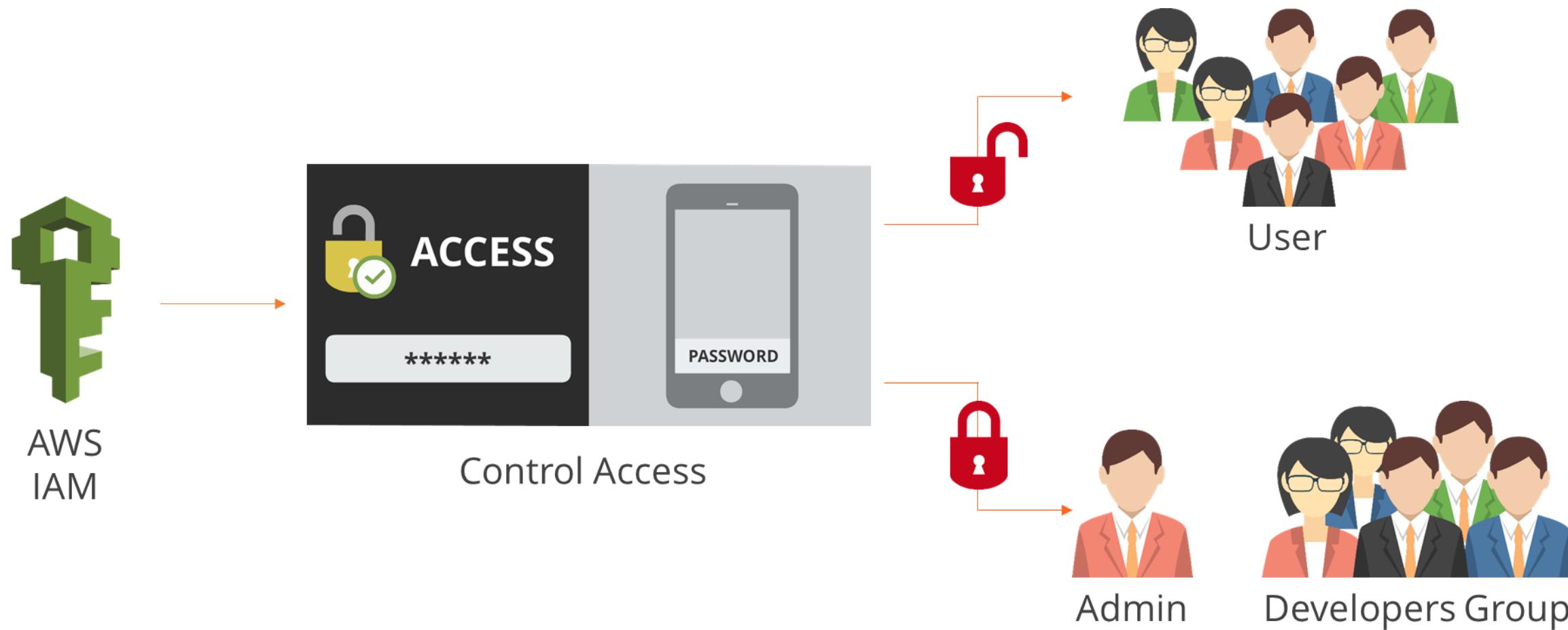
AWS Management Console

Next section is Security and Identity.



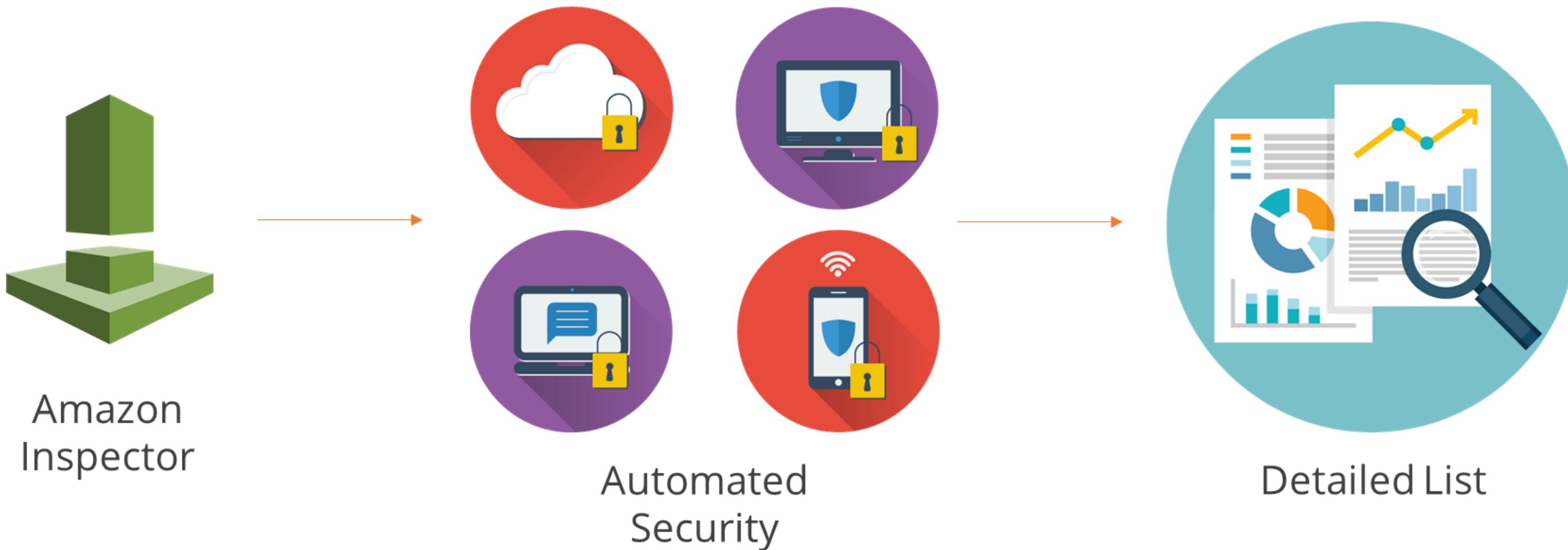
Security and Identity

Identity and Access Management allows you to set up additional users, new AWS Keys, and policies.



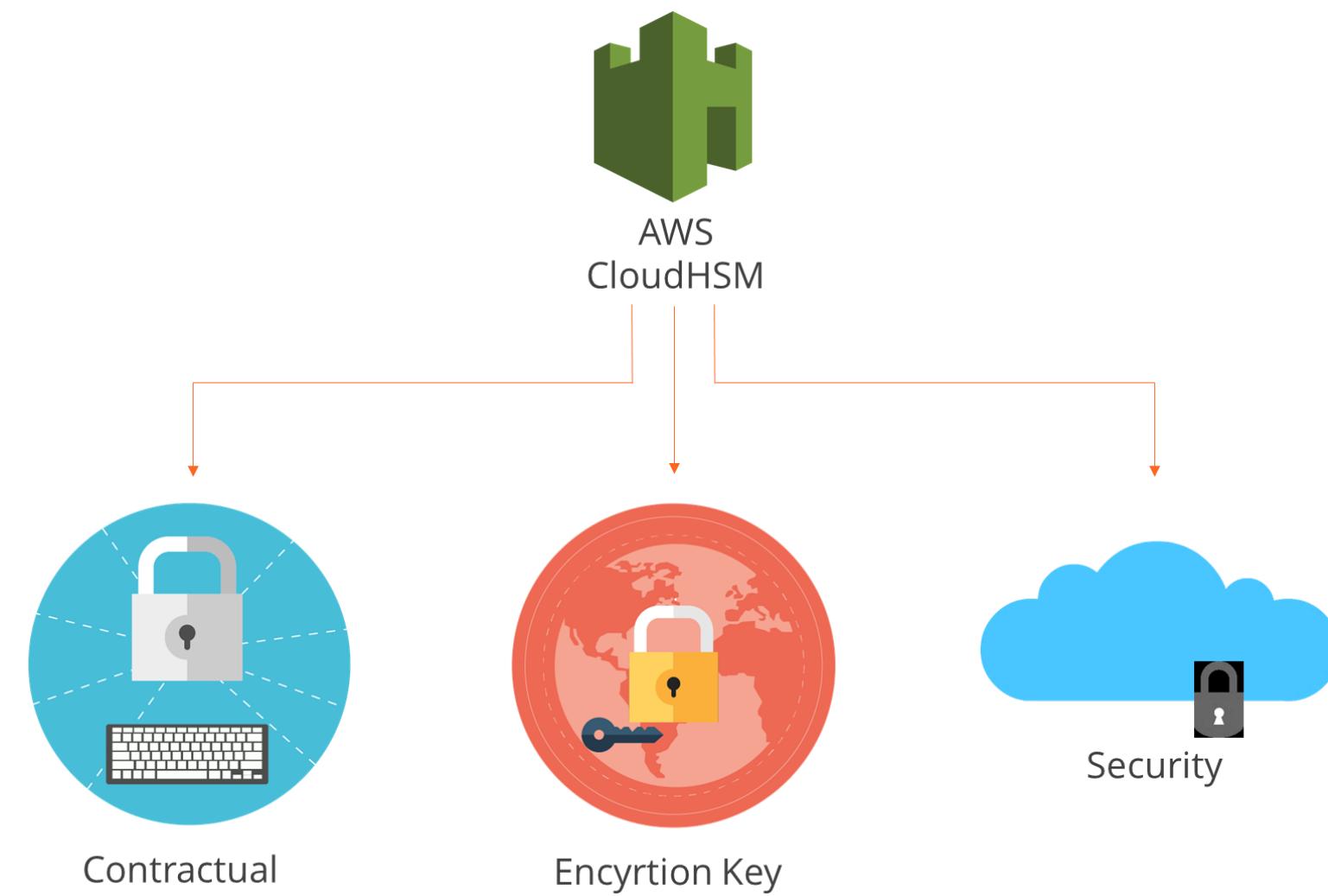
Security and Identity (contd.)

Amazon Inspector installs agents on your EC2 instances to scan AWS setup to determine its security.



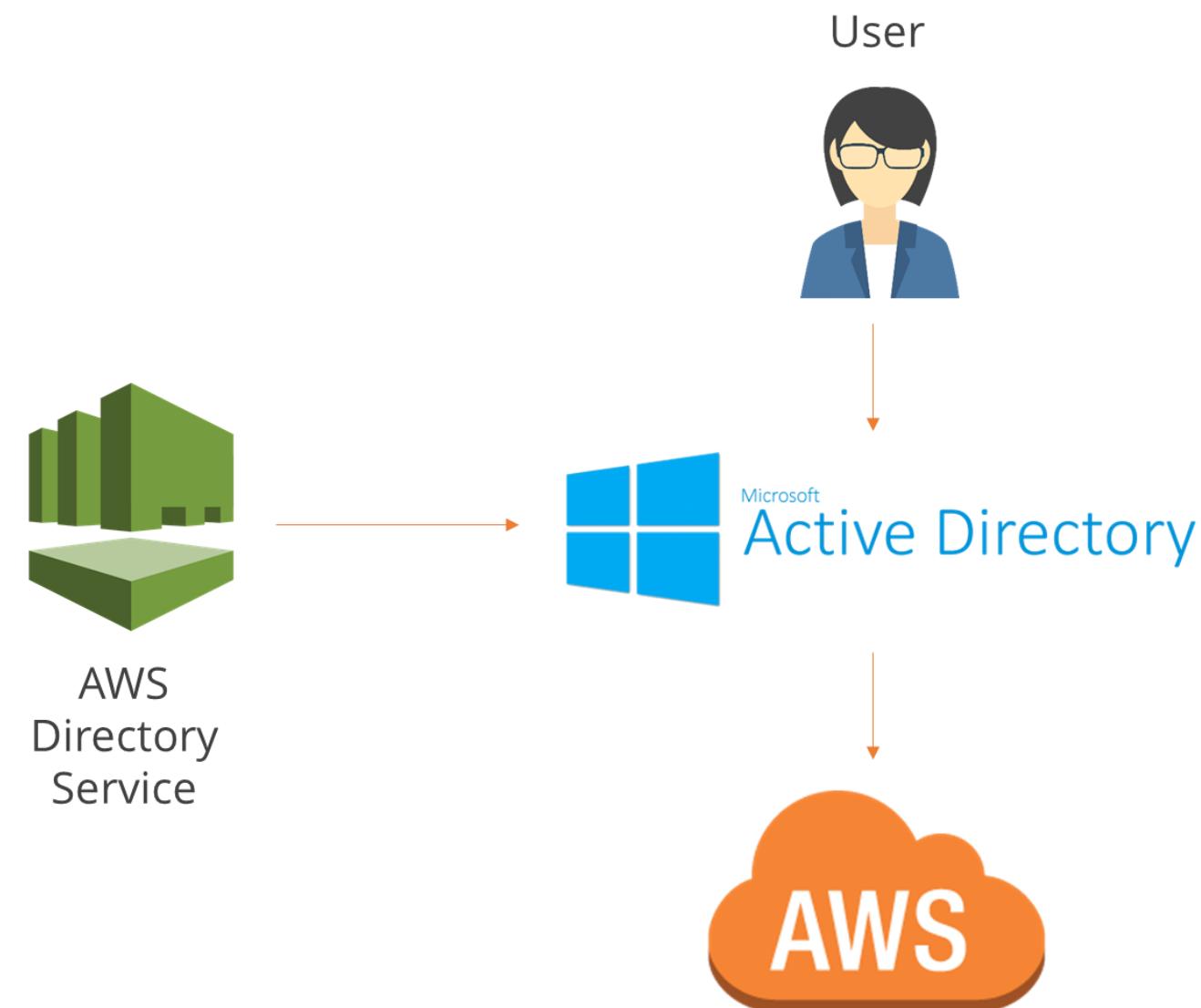
Security and Identity (contd.)

AWS CloudHSM service helps you meet corporate, contractual, and regulatory compliance requirements for data security by using dedicated Hardware Security Module (HSM) appliances within the AWS cloud.



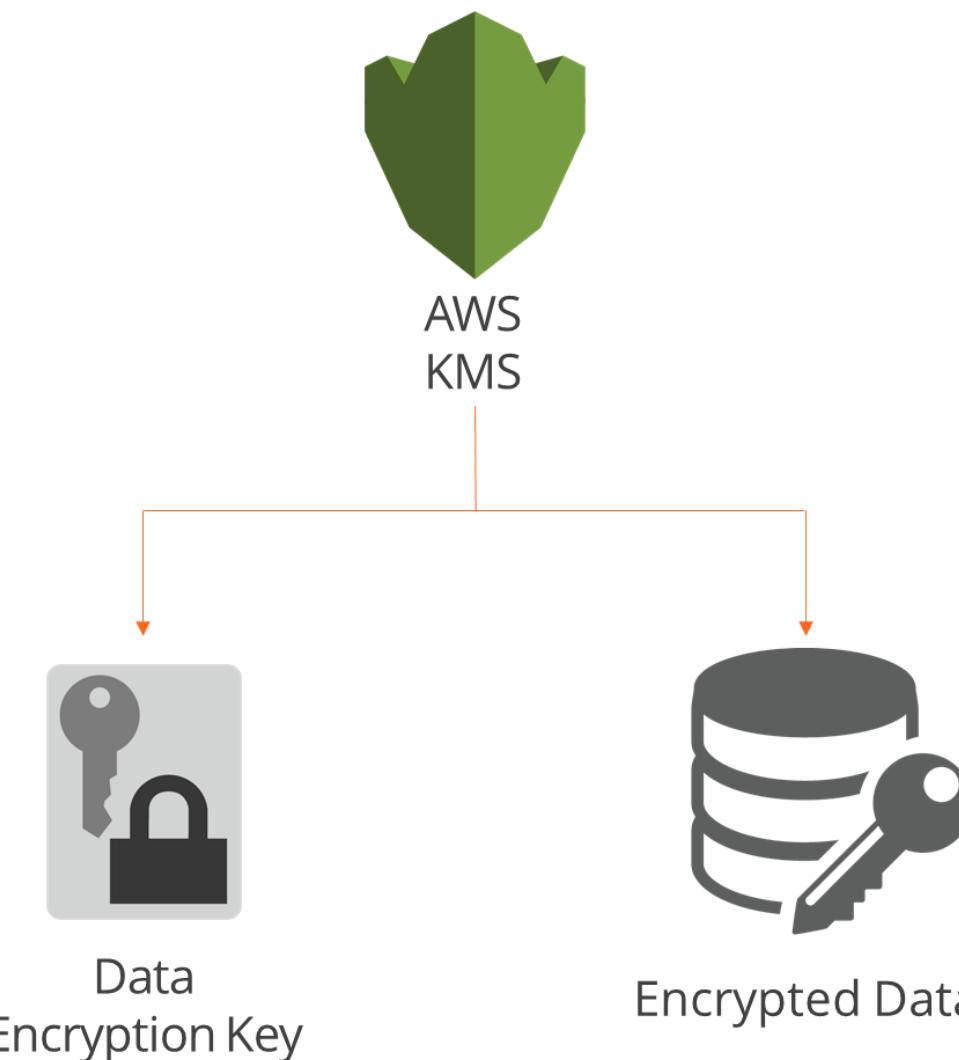
Security and Identity (contd.)

AWS Directory Service makes it easy to set up and run Microsoft Active Directory (AD) in the AWS cloud, or connect your AWS resources with an existing on-premises Microsoft Active Directory.



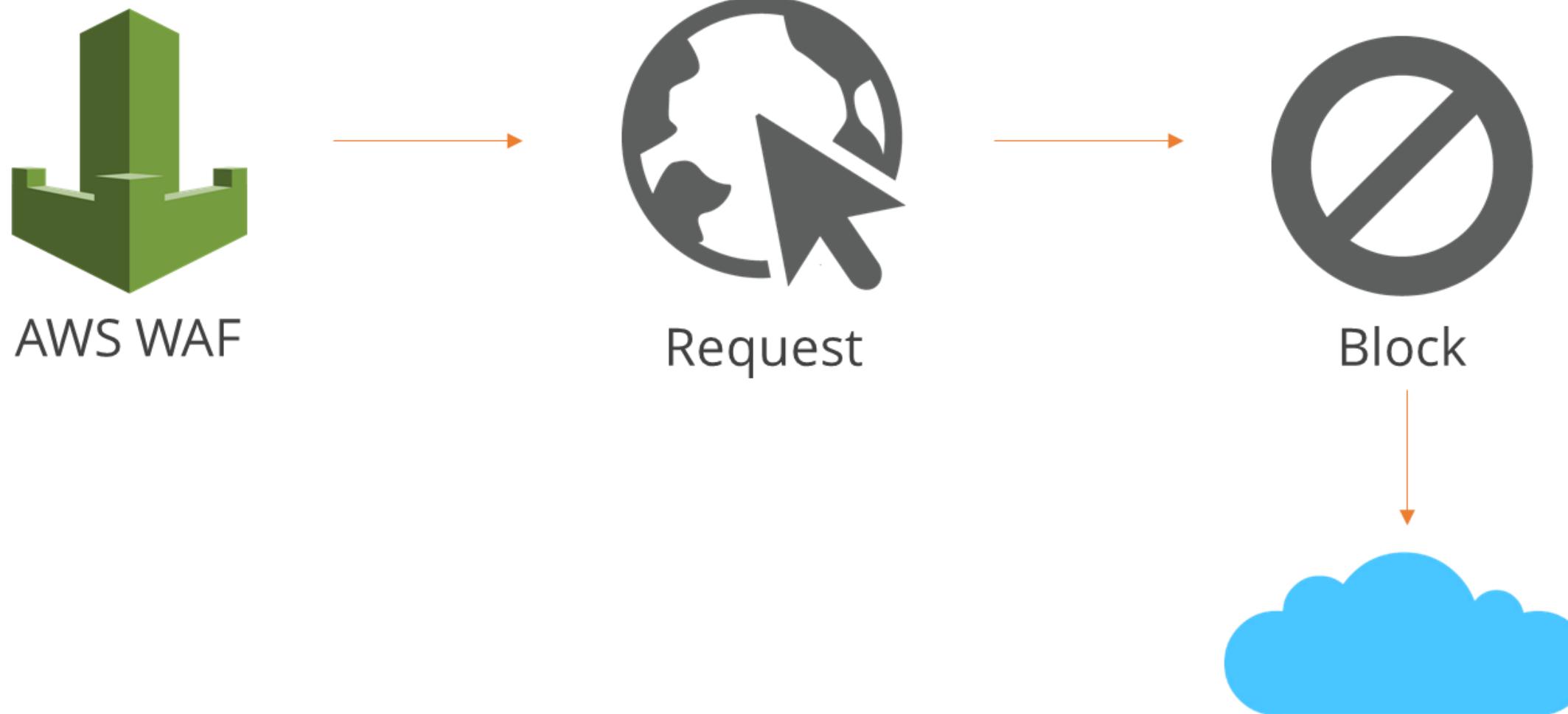
Security and Identity (contd.)

AWS Key Management Service (KMS) is a managed service that makes it easy for you to create and control the encryption keys used to encrypt your data, and uses Hardware Security Modules (HSMs) to protect the security of your keys.



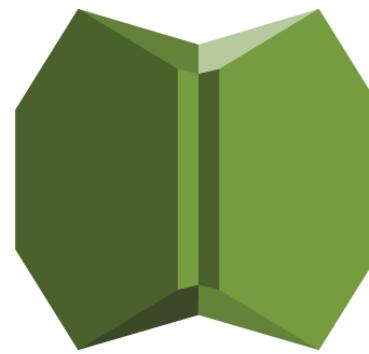
Security and Identity (contd.)

Web application firewall blocks bad requests to CloudFront protected sites.



Security and Identity (contd.)

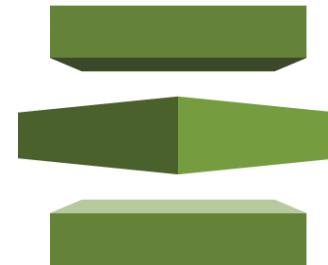
AWS Shield is a managed Distributed Denial of Service (DDoS) protection service that safeguards web applications running on AWS.



AWS Shield

Security and Identity (contd.)

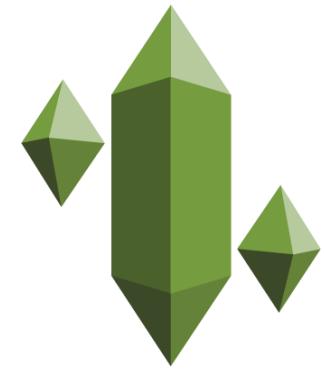
AWS Certificate Manager (ACM) handles the complexity of provisioning, deploying, and managing SSL/TLS certificates for your AWS-based websites and applications.



AWS Certificate Manager

Security and Identity (contd.)

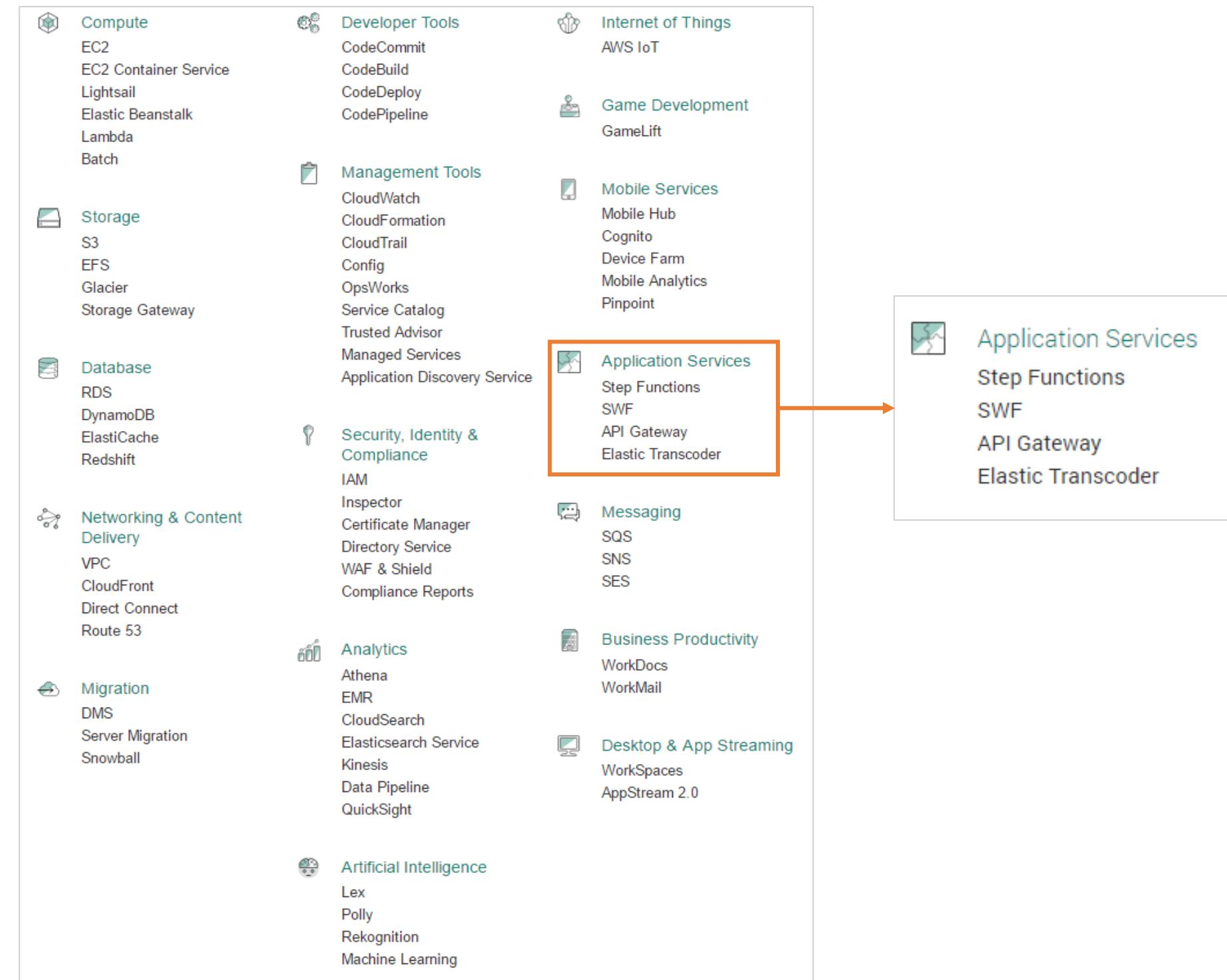
The AWS Artifact portal provides on-demand access to AWS security and compliance documents, also known as audit artifacts.



AWS Artifact

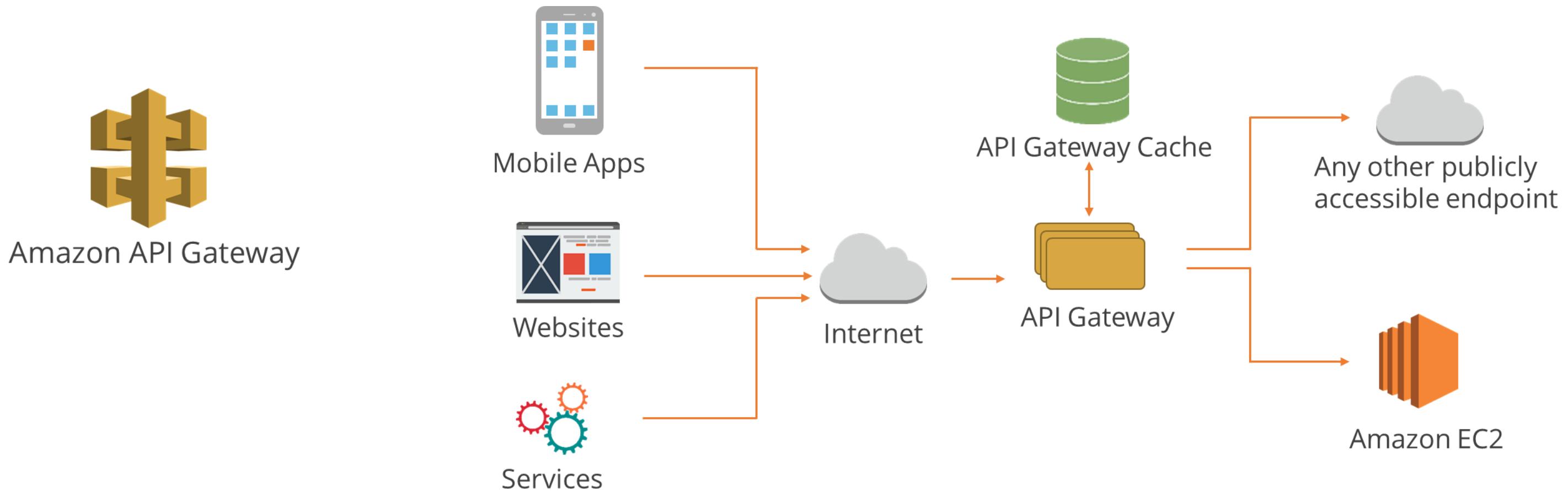
AWS Management Console

Next section is Application Services.



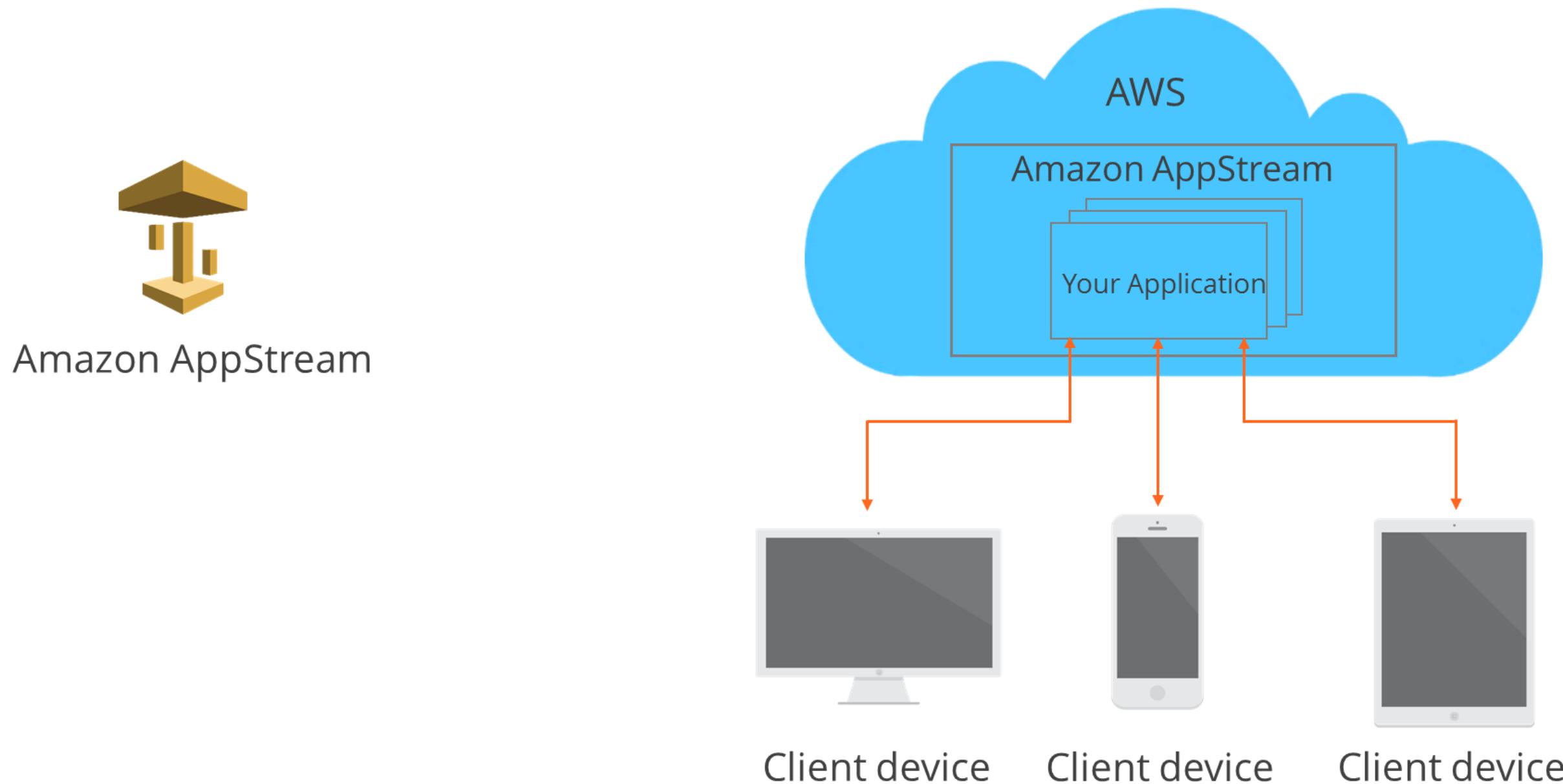
Application Services

API Gateway proxy your apps API, so you can throttle bad client traffic, test new versions, and present methods more cleanly.



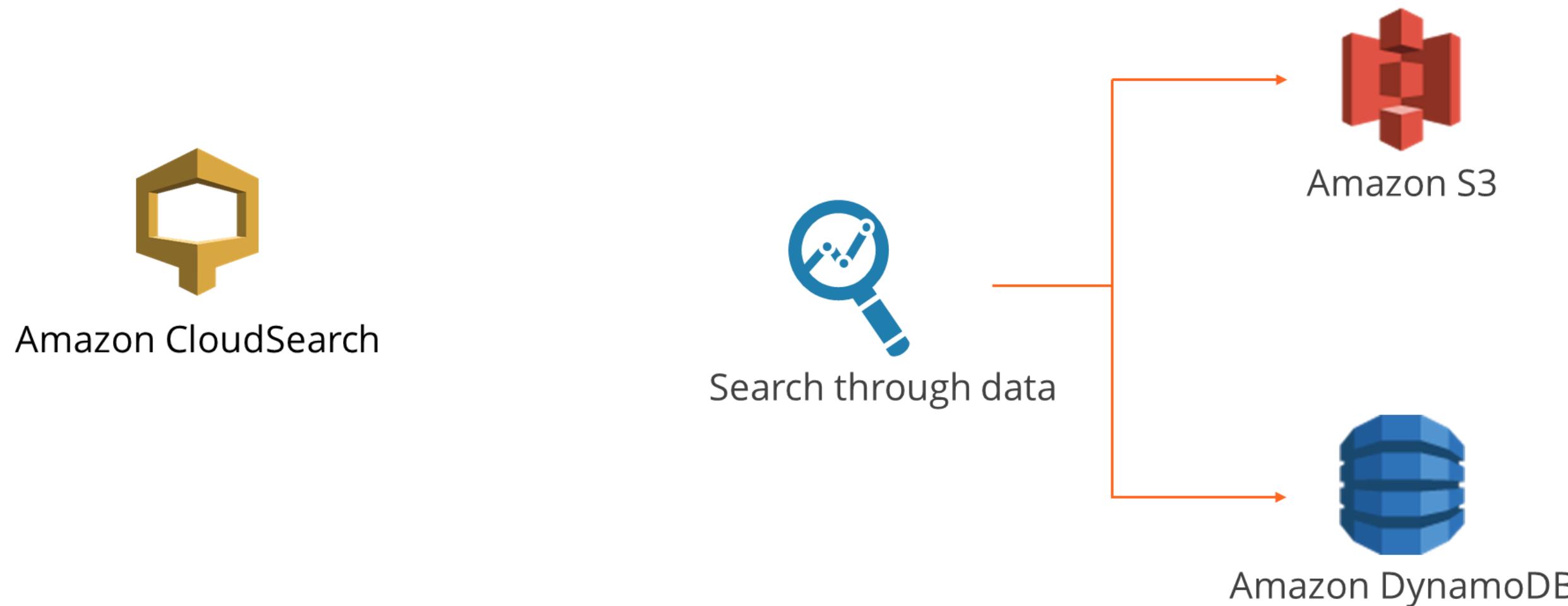
Application Services (contd.)

AppStream lets you deliver your Windows applications to any device.



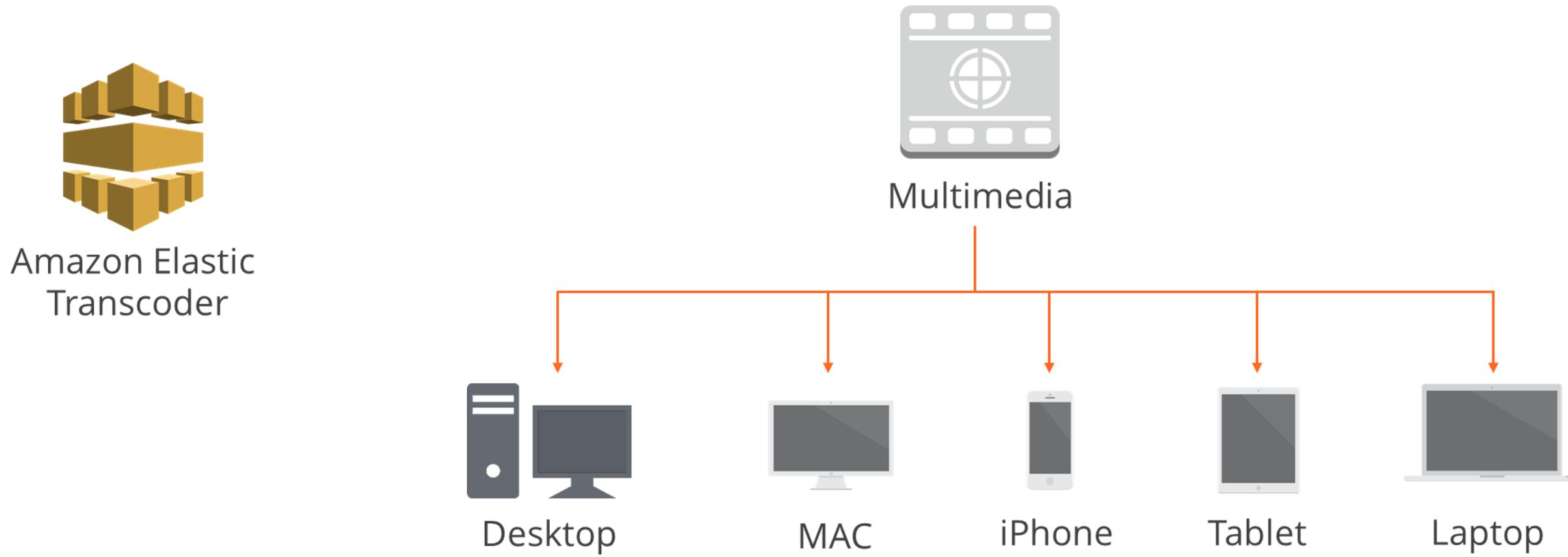
Application Services (contd.)

CloudSearch is Amazon's full-text search.



Application Services (contd.)

Elastic Transcoder is a way of transcoding media files.



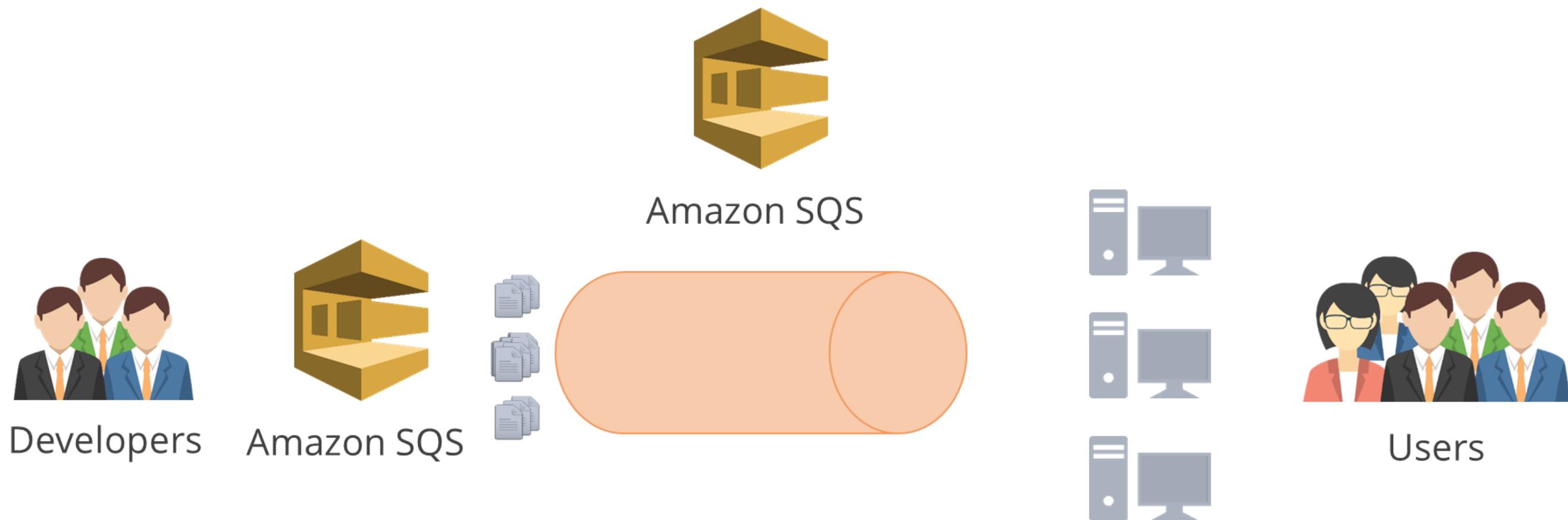
Application Services (contd.)

Simple Email Service or SES allows you to send one-off emails such as transactional marketing emails, password resets, and notifications.



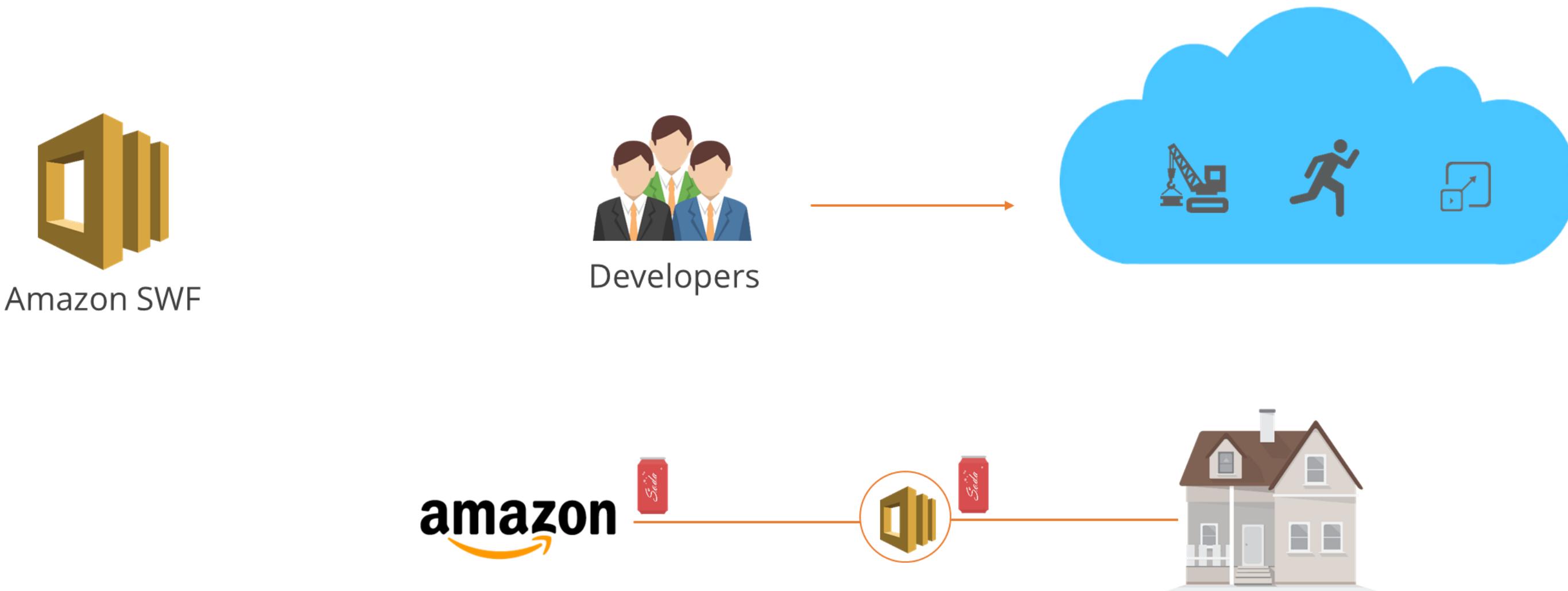
Application Services (contd.)

Simple Queue Service (SQS) is a hosted queue that increases the workflow between distributed components of applications that perform different tasks.



Application Services (contd.)

Amazon uses Simple Workflow Service (SWF) in its warehouses.





Knowledge Check

KNOWLEDGE
CHECK

Which service is designed to assist with workflow?

- a. SQS
- b. SES
- c. SNS
- d. SWF



KNOWLEDGE
CHECK

Which service is designed to assist with workflow?

- a. SQS
- b. SES
- c. SNS
- d. SWF



The correct answer is **d**.

Simple Workflow Service (SWF) is a workflow control process that Amazon uses in its warehouses. **Simple Queue Service (SQS)** is a hosted queue that increases the workflow between distributed components of applications. **Simple Notification Service (SNS)** is used to send mobile notifications, emails, and/or SMS messages. **Simple Email Service (SES)** is used to send one-off emails.

KNOWLEDGE
CHECK

Which AWS service is used to control Active Directory?

- a. Directory Service
- b. Direct Connect
- c. IoT
- d. KMS



KNOWLEDGE
CHECK

Which AWS service is used to control Active Directory?

- a. Directory Service
- b. Direct Connect
- c. IoT
- d. KMS



The correct answer is **a.**

Directory Service allows you to create Microsoft AD services in the cloud or join them to your existing on-site directories. Direct Connect joins your existing site with AWS directly, IoT is the AWS Internet of Things service, and KMS is key management service.

KNOWLEDGE
CHECK

Which AWS tool is used to track, monitor, and log IAM user activity?

- a. CloudFormation
- b. Inspector
- c. CloudWatch
- d. CloudTrail



KNOWLEDGE
CHECK

Which AWS tool is used to track, monitor, and log IAM user activity?

- a. CloudFormation
- b. Inspector
- c. CloudWatch
- d. CloudTrail



The correct answer is **d.**

CloudTrail is used to track user activity. CloudFormation allows you to manage resources with templates, CloudWatch monitors application activity, and Inspector analyzes application security.

1.04: Key Takeaways

Key Takeaways

1. Amazon Web Services (AWS) is a secure cloud services platform that offers cloud-based infrastructure for compute, database storage, content delivery, and other functionalities to help businesses scale and grow.
2. AWS is truly global; it is available all over the world through 16 geographic Regions.
3. A region is a geographic area isolated from other Amazon regions to provide the greatest possible fault tolerance. Availability Zones are located within a region, with at least two per region, and are connected via low-latency links.
4. Edge locations are CDNs and are located all over the world in major cities. It is used to provide content to end users with low latency.
5. AWS has various cloud-based products to help your business grow.



QUIZ

1

What is Amazon's NoSQL product?

- a. RDS
- b. DMS
- c. RedShift
- d. DynamoDB



QUIZ

1

What is Amazon's NoSQL product?

- a. RDS
- b. DMS
- c. RedShift
- d. DynamoDB



The correct answer is **d**

Explanations: DynamoDB is the NoSQL offering from AWS. RDS is their relational database server, DMS is their database migration server and RedShift is their data warehousing service.

QUIZ
2

Which of these services would you use for Data Warehousing?

- a. DynamoDB
- b. Aurora
- c. RedShift
- d. ElastiCache



QUIZ
2

Which of these services would you use for Data Warehousing?

- a. DynamoDB
- b. Aurora
- c. RedShift
- d. Elasticache



The correct answer is **C**

Explanations: RedShift is the AWS Data Warehousing tool. DynamoDB is a NoSQL database, Aurora is Amazon's version of MySQL and ElastiCache is used to cache database queries to reduce load on your database instances.

QUIZ

3

Which AWS service can you use to create Chef recipes?

- a. Elastic Map Reduce
- b. EC2 Container Service
- c. Lambda
- d. OpsWorks



QUIZ

3

Which AWS service can you use to create Chef recipes?

- a. Elastic Map Reduce
- b. EC2 Container Service
- c. Lambda
- d. OpsWorks



The correct answer is **d**

Explanations: OpsWorks helps configure and manage operations using chef. Elastic Map Reduce helps to process large amounts of data using a Hadoop, EC2 Container Service is used to run Docker containers and Lambda lets you run code without provisioning or managing servers.

QUIZ

4

What is an AWS Region?

- a. A distinct location within a geographic area designed to provide high availability to a specific geography
- b. An isolated data center
- c. A collection of RDS instances
- d. A service distributed all over the world to assist with content delivery



QUIZ

4

What is an AWS Region?

- a. A distinct location within a geographic area designed to provide high availability to a specific geography
- b. An isolated data center
- c. A collection of RDS instances
- d. A service distributed all over the world to assist with content delivery



The correct answer is **a**

Explanations: There are multiple AWS Regions around the world, for example on the US east coast or in Germany, and there are more coming online in different countries all the time.

QUIZ

5

What is an Availability Zone?

- a. A networking term used in Route53
- b. A service configured in Elastic Load Balancing
- c. A monitoring metric defined in CloudWatch
- d. An isolated location inside a region



QUIZ
5

What is an Availability Zone?

- a. A networking term used in Route53
- b. A service configured in Elastic Load Balancing
- c. A monitoring metric defined in CloudWatch
- d. An isolated location inside a region



The correct answer is **d**

Explanations: An Availability Zone is effectively a data center or collection of data centers that are located inside a Region.

QUIZ

6

What is the minimum number of Availability Zones in a Region?

- a. One
- b. Two
- c. Three
- d. Five



QUIZ

6

What is the minimum number of Availability Zones in a Region?

- a. One
- b. Two
- c. Three
- d. Five



The correct answer is **b**

Explanations: There are always at least two Availability Zones in a Region to provide fault tolerance.

QUIZ

7

What is the main benefit of using an Edge Location?

- a. Lower cost
- b. Reduced complexity
- c. Lower latency
- d. Workflow control



QUIZ

7

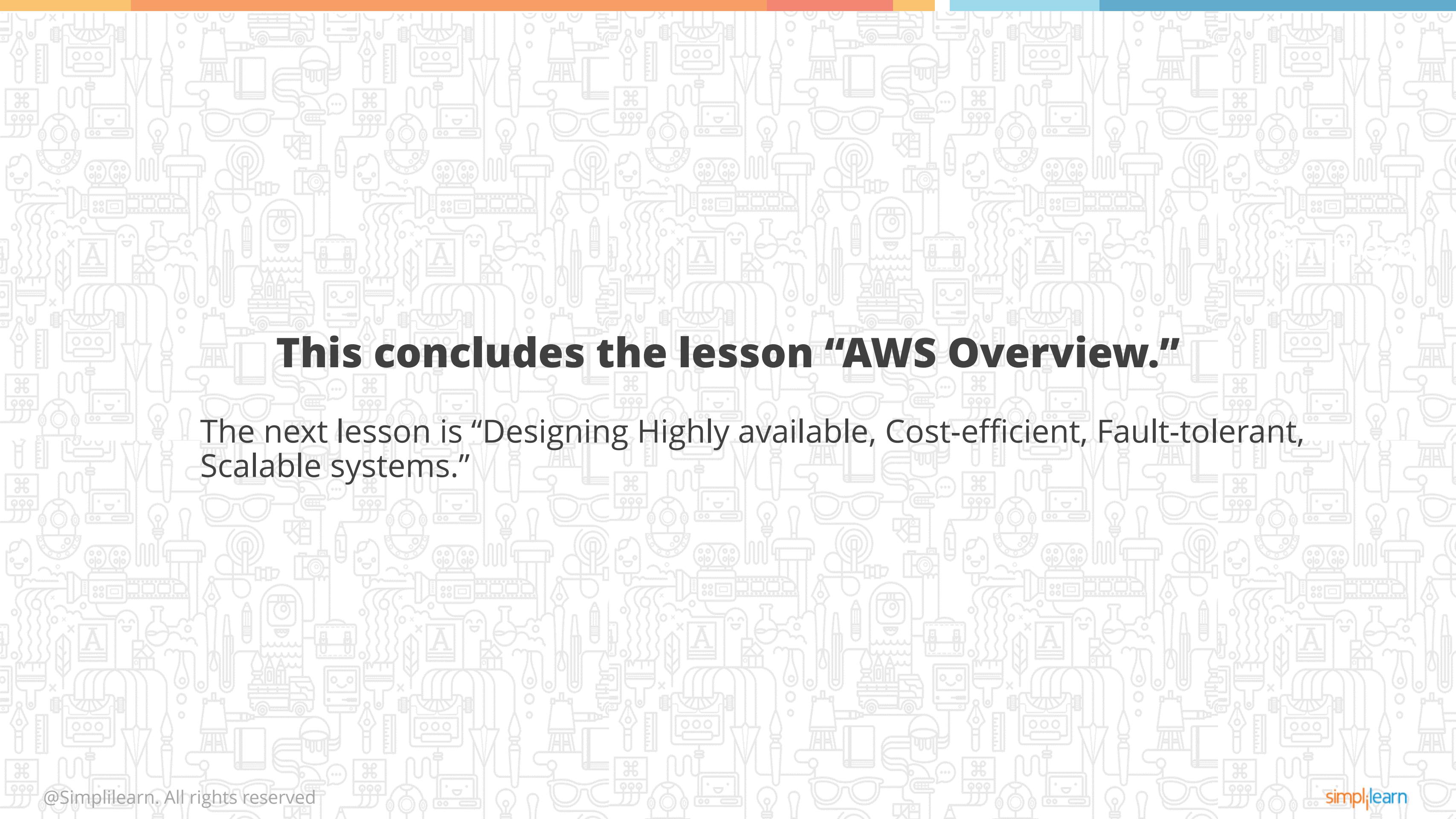
What is the main benefit of using an Edge Location?

- a. Lower cost
- b. Reduced complexity
- c. Lower latency
- d. Workflow control



The correct answer is **C**

Explanations: An edge location is where end users access services located at AWS. They are located in most of the major cities around the world and are specifically used by CloudFront (CDN) to distribute content to end user to reduce latency.



This concludes the lesson “AWS Overview.”

The next lesson is “Designing Highly available, Cost-efficient, Fault-tolerant, Scalable systems.”