aws re/start

# What Is AWS?

Cloud Foundations

# What you will learn

## At the core of the lesson

You will learn how to do the following:

- Explain, in general, what a web service is.
- Explore the main services that Amazon Web Services (AWS) offers.
- Examine ways to access AWS services.
- Navigate the AWS documentation website.

# Web services

# Question

Think about your understanding of the models of cloud computing.

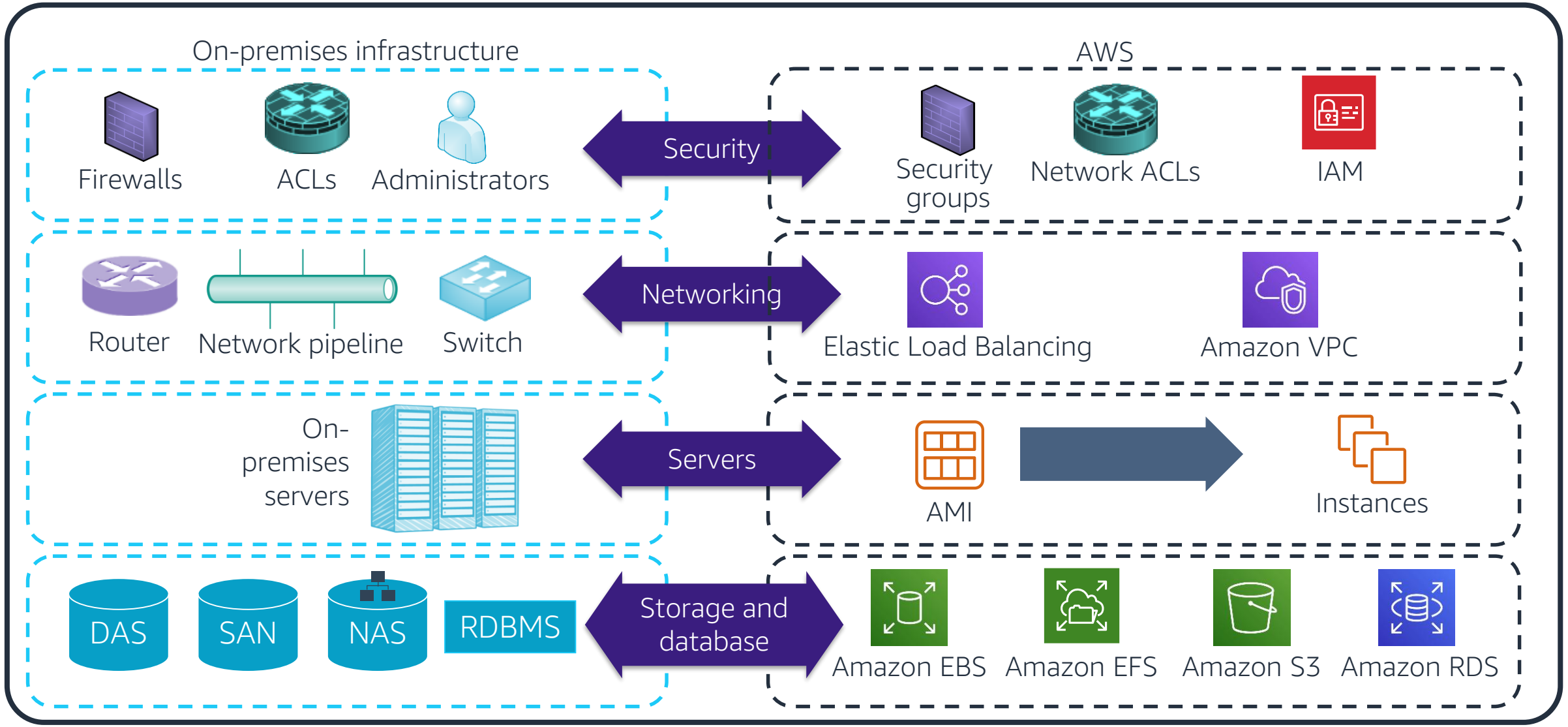
What are the three models of cloud computing?

| | | |
|---|---|---|
| as a service | as a service | as a service |

# Answer

The following are the three models of cloud computing:

# Comparison: On-premises and AWS infrastructure



# What are web services?

A web service is any piece of software that makes itself available over the internet.

It uses a standardized format, either Extensible Markup Language (XML) or JavaScript Object Notation (JSON), for the request and the response of an application programming interface (API) interaction.

# AWS services

# Definition of AWS

AWS is a secure cloud services provider with many different services that include solutions for the following:


Analytics


Application Integration


AR and VR


AWS Cost Management


Blockchain


Business Applications


Compute


Containers


Customer Engagement


Database


Developer Tools


End User Computing


Front End Web and Mobile


Game Tech


Internet of Things


Machine Learning


Management and Governance


Media Services


Migration and Transfer


Networking and Content Delivery


Quantum Technologies


Robotics


Satellite

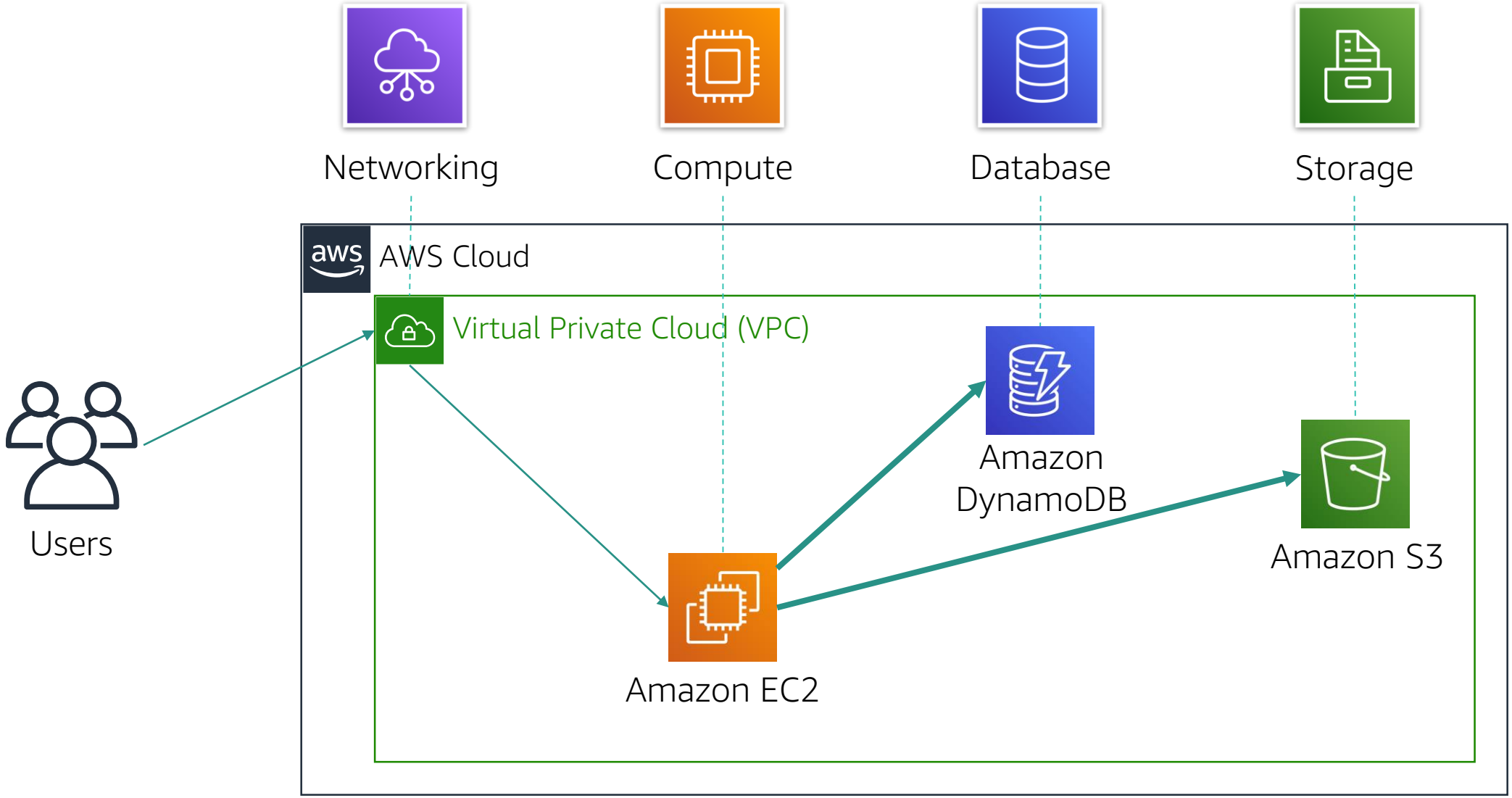

Security, Identity, and Compliance


Storage



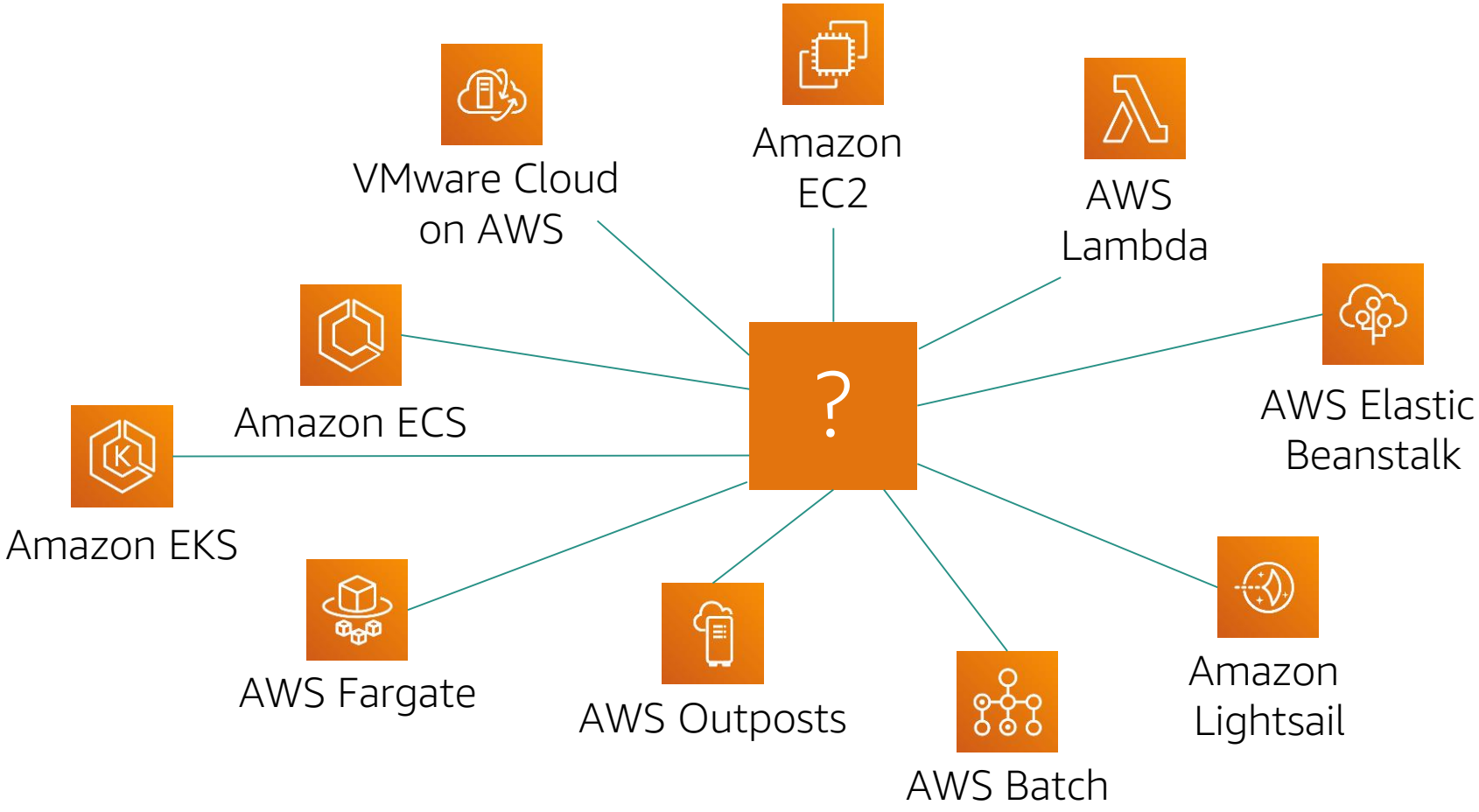

aws re/start

# Easy solution example



# Choosing a service

The service that you select **depends on** your **business goals and technology requirements**.



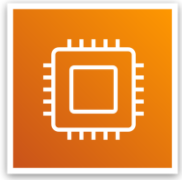




aws re/start

# Commonly used services

**Compute services:**



- Amazon EC2
- AWS Lambda
- AWS Elastic Beanstalk
- Amazon EC2 Auto Scaling
- Amazon ECS
- Amazon EKS
- Amazon ECR
- AWS Fargate

**Storage services:**

- Amazon S3
- Amazon S3 Glacier
- Amazon EFS
- Amazon EBS

**Management and Governance services:**

- Amazon CloudWatch
- AWS Trusted Advisor
- AWS CloudTrail
- AWS Well-Architected Tool
- AWS Auto Scaling
- AWS Command Line Interface
- AWS Config
- AWS Management Console
- AWS Organizations

**Database services:**

- Amazon RDS
- Amazon DynamoDB
- Amazon Redshift
- Amazon Aurora

**Security, Identity, and Compliance services:**

- IAM
- Amazon Cognito
- AWS Shield
- AWS Artifact
- AWS KMS

**Networking and Content Delivery services:**

- Amazon VPC
- Amazon Route 53
- Amazon CloudFront
- Elastic Load Balancing

**AWS Cost Management services:**

- AWS Cost and Usage Report
- AWS Budgets
- AWS Cost Explorer

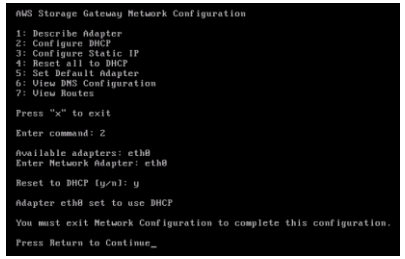



aws re/start

# Three ways to interact with AWS

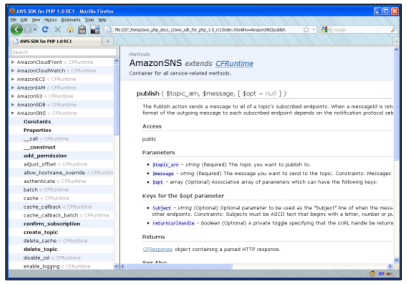
## AWS Management Console

- The console includes an easier-to-use graphical interface.
- You can access the console on a mobile app.




## AWS Command Line Interface (AWS CLI)

With the AWS CLI, you have access to services by discrete commands or scripts.



## AWS Software Development Kits (SDKs)

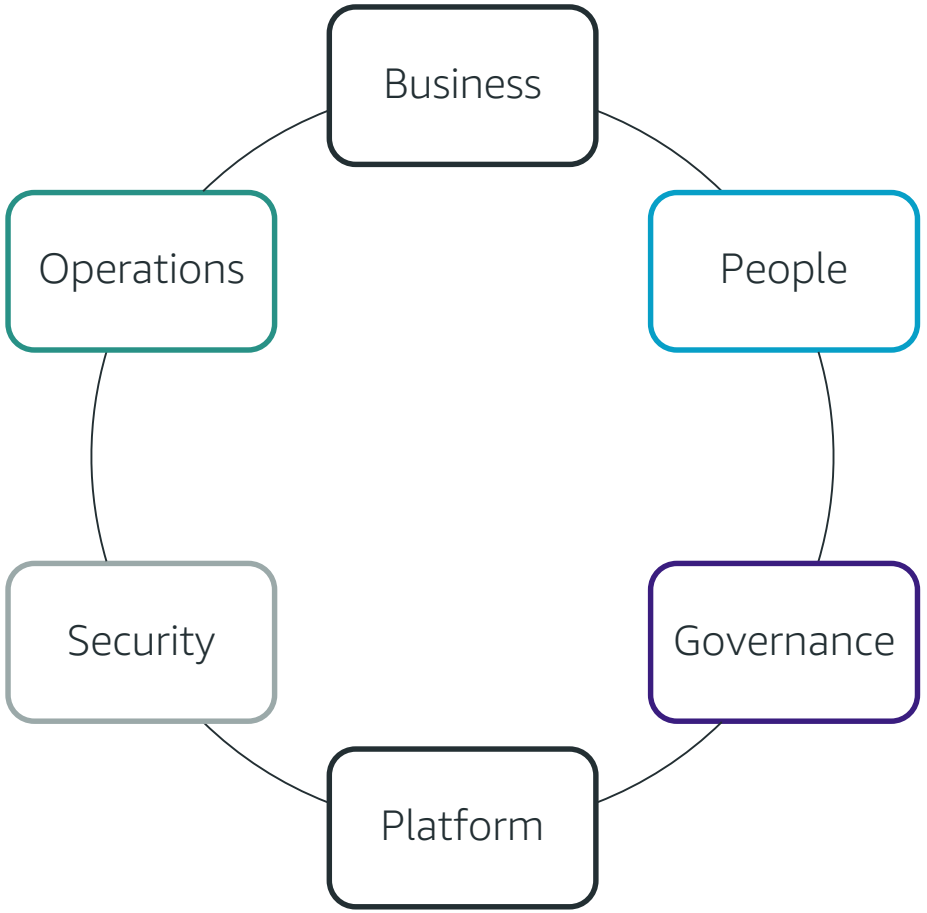
Access services directly from your code (such as Java, Python, and others).

# AWS Cloud Adoption Framework (AWS CAF)

## AWS CAF provides the following:

- Guidelines for establishing, developing, and running AWS environments
- Perspectives in planning, creating, managing, and supporting a modern IT service
- Structure for business and IT teams to work together

## Six core perspectives







aws re/start

# AWS documentation

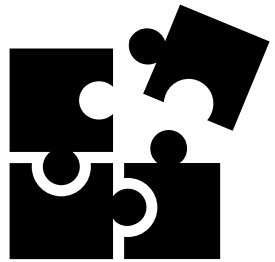
# AWS documentation information

- Find user guides, developer guides, API references, tutorials, and more.
  - For more information, see AWS Documentation.

- Technical papers and guides are also available, including these papers, which are recommended reading for the AWS Cloud Practitioner exam:
  - Overview of Amazon Web Services
  - Overview of Architecting for the Cloud: AWS Best Practices
  - Overview of How AWS Pricing Works
  - Overview of the Total Cost of (Non) Ownership of Web Applications in the Cloud

# Activity: AWS documentation scavenger hunt

- Open the AWS Documentation
- Start from the main page.
- The following slides include five challenge questions for the class.



aws re/start

# AWS documentation scavenger hunt: Question 1

- Question #1: What guides and references exist for the Amazon EC2 service?




aws re/start

# AWS documentation scavenger hunt: Answer 1

- Question #1: What guides and references exist for the Amazon EC2 service?

- Answer
  - User Guides for Linux and Microsoft Windows
  - API Reference
  - AWS CLI Reference
  - Amazon EC2 Instance Connect Reference
  - User Guide for Auto Scaling
  - VM Import/Export User Guide




aws re/start

# AWS documentation scavenger hunt: Question 2

- Question #2: Can you find the documentation that describes how to create an S3 bucket?




aws re/start

# AWS documentation scavenger hunt: Answer 2

- Question #2: Can you find the documentation that describes how to create an S3 bucket?

- Answer
  - From AWS Documentation, choose S3.
  - Choose User Guide (HTML)
  - Choose Getting Started Guide.
  - Choose Create a Bucket.




aws re/start

# AWS documentation scavenger hunt: Question 3

- Question #3: Can you find a one-sentence summary of the AWS CloudShell service?




aws re/start

# AWS documentation scavenger hunt: Answer 3

- Question #3: Can you find a one-sentence summary of the AWS CloudShell service?

- Answer
  - AWS CloudShell is a browser-based, pre-authenticated shell that you can launch directly from the AWS Management Console.




aws re/start

# AWS documentation scavenger hunt: Question 4

- Question #4: Which programming languages does the service API for AWS Lambda support?




aws re/start

# AWS documentation scavenger hunt: Answer 4

- Question #4: Which programming languages does the service API for AWS Lambda support?

- Answer
  - From the main AWS Documentation page, choose the AWS Lambda link.
  - Choose the API Reference link.
  - Choose Getting Started > Tools to find a table that lists the following languages: Node.js, Java, C#, Python, Ruby, Go, and PowerShell.




aws re/start

# AWS documentation scavenger hunt: Question 5

- Question #5: Find the tutorial that describes how to run a serverless Hello World application, and then scroll through the documented steps. Which two AWS services does the tutorial direct you to use?




aws re/start

# AWS documentation scavenger hunt: Answer 5

- Question #5: Find the tutorial that describes how to run a serverless Hello World application, and then scroll through the documented steps. Which two AWS services does the tutorial direct you to use?

- Answer
  - From the main AWS Documentation page, choose Tutorials and Projects.
  - In the Websites & Web Apps area, choose the tutorial.
  - The tutorial directs you to use Lambda and Amazon CloudWatch.




aws re/start

# Key takeaways


- AWS is a cloud services provider. AWS offers a broad set of global cloud-based products—which are also known as *services*—that are designed to work together.
- AWS offers many service categories, and each category has many services to choose from.
- Choose a service that is based on your business goals and technology requirements.
- You can interact with AWS services in three different ways.
- Use the AWS documentation as your main resource for help.




aws re/start

# Thank you