



# AWS Partner: Cloud Practitioner Essentials



# AWS Partner: Cloud Practitioner Essentials

## Course Overview

# Agenda



- **Introduction:** Course Overview
- **Module 1:** Introduction to Amazon Web Services
- **Module 2:** Compute in the Cloud
- **Module 3:** Global Infrastructure and Reliability
- **Module 4:** Networking
- **Module 5:** Storage and Databases
- **Module 6:** Security
- **Module 7:** Monitoring and Analytics
- **Module 8:** Pricing and Support
- **Module 9:** Migration and Innovation
- **Module 10:** AWS Certified Cloud Practitioner Basics



# Questions?

**Thank you for attending  
this session**

Corrections, feedback, or other questions?

Contact us at <https://support.aws.amazon.com/#/contacts/aws-training>.

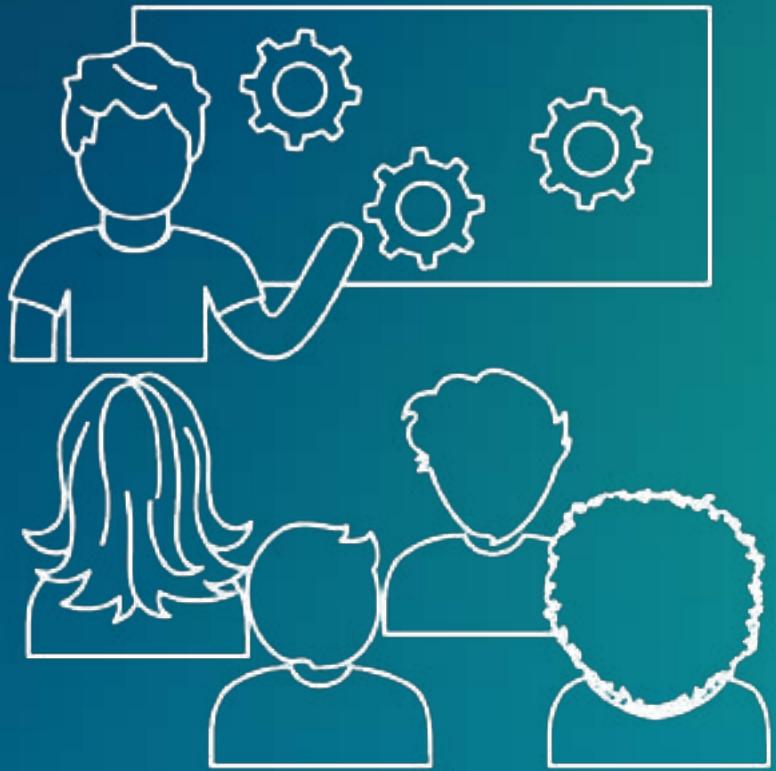
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# AWS Partner: Cloud Practitioner Essentials

Module 1: Introduction to Amazon Web Services

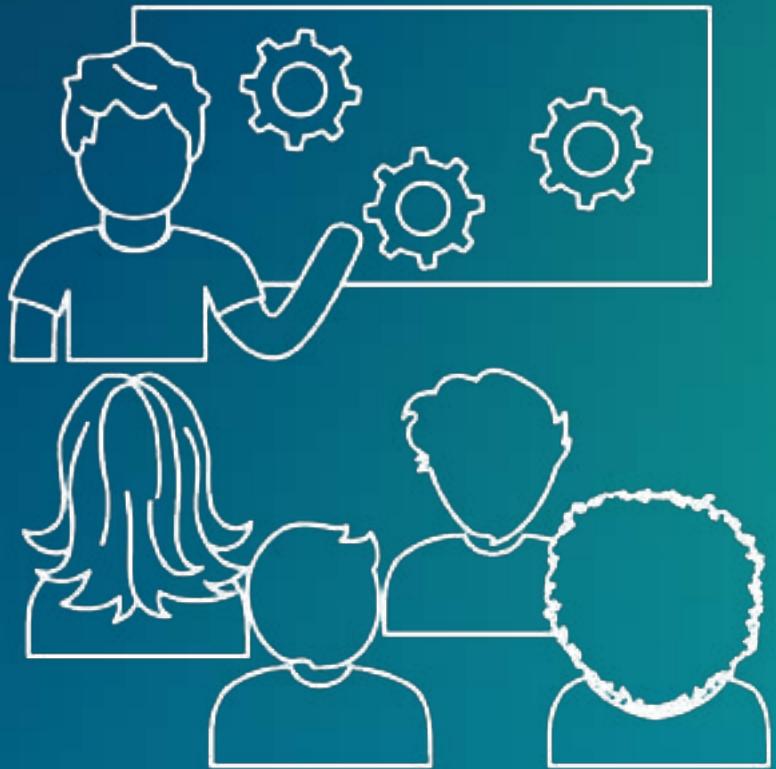
# Module Objectives



On completion, you will be able to:

- Describe three cloud computing deployment models
- Describe six benefits of cloud computing

# Module Topics



## Topics:

- Topic A: Cloud computing deployment models
- Topic B: Benefits of cloud computing
- Knowledge Check



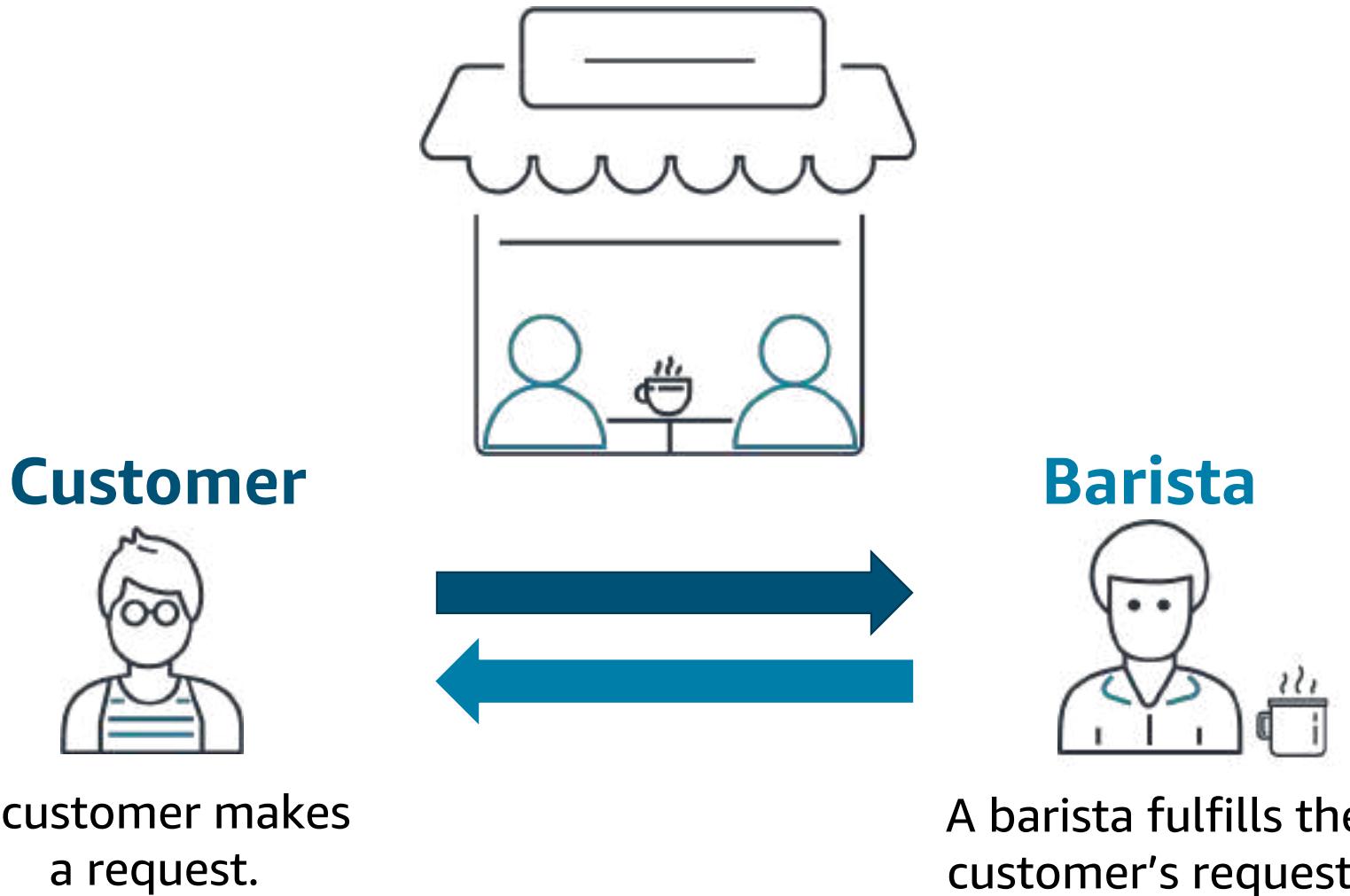
## Topic A: Cloud computing deployment models

→ Topic A: Cloud computing deployment models

Topic B: Benefits of cloud computing  
Knowledge Check

# Welcome to the coffee shop

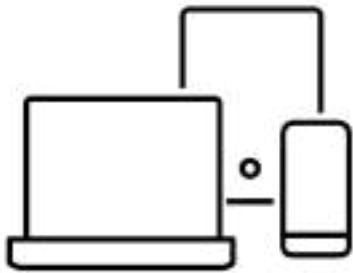
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# Client and server model

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## Client



A client makes  
a request.

## Server

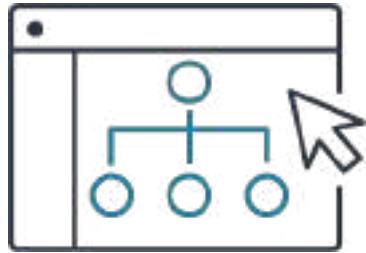


A server fulfills the  
client's request.

# Cloud computing

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What is cloud computing?



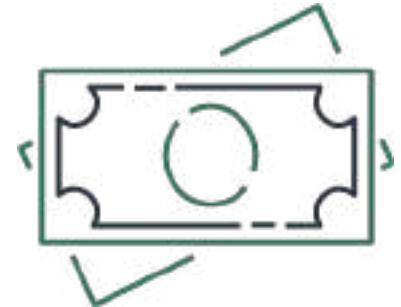
Access services on demand



Avoid large upfront investments



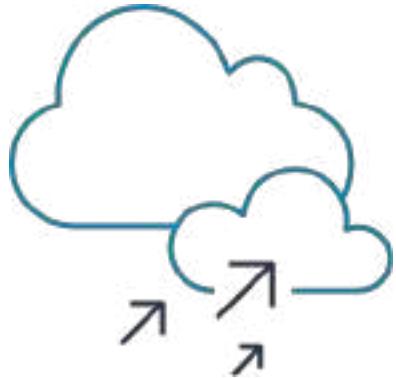
Provision computing resources as needed



Pay only for what you use

# Cloud computing deployment models

---



**Cloud**



**On premises**

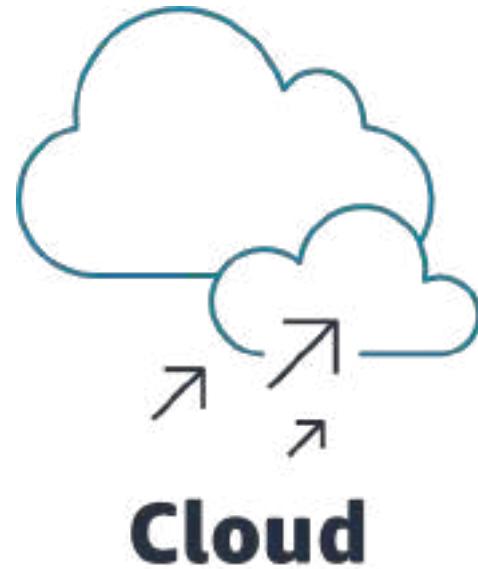


**Hybrid**

# Cloud-based deployment

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- Run all parts of the application in the cloud
- Migrate existing applications to the cloud
- Design and build new application in the cloud



# On-premises deployment

---

- Use virtualization and resource management tools to deploy resources
- Use application management and virtualization technologies to increase resource usage



**On premises**

# Hybrid deployment

---

- Connect cloud-based resources to on-premises infrastructure
- Integrate cloud-based resources with legacy IT applications



# AWS Cloud

The screenshot shows the AWS Console Home page. At the top, there is a navigation bar with the AWS logo, a 'Services' dropdown, a search bar containing 'Search' with a keyboard shortcut '[Alt+S]', and account information for 'N. Virginia' and 'Sampleuser'. Below the navigation bar is a secondary navigation bar with links to CloudFront, IAM, Route 53, RDS, EC2, Console Home, CloudWatch, S3, and Lambda.

The main content area is titled 'Console Home' with an 'Info' link. It features two buttons: 'Reset to default layout' and '+ Add widgets'. A sidebar on the left is titled 'Recently visited' with an 'Info' link. It lists the following services:

Service	Description
S3	
EC2	
Route 53	
CloudFront	
RDS	
IAM	
CloudWatch	
CloudShell	
CloudSearch	
AWS Well-Architected Tool	
Trusted Advisor	
Lambda	
Amazon AppFlow	
AWS Cost Explorer	

At the bottom of the page are links for 'Privacy', 'Terms', and 'Cookie preferences'.



AWS Cloud Practitioner Essentials

## Topic B: Benefits of cloud computing

- Topic A: Cloud computing deployment models
  - Topic B: Benefits of cloud computing
- Knowledge Check

# Variable expenses

Upfront expenses

Variable expenses



Invest in technology resources  
before using them

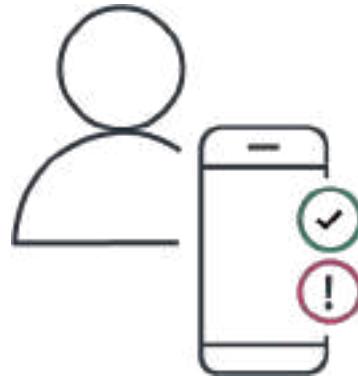


Pay only for what you use

# Cost optimization

More time building

Less time managing cost



Focus on applications and customers

Run data centers

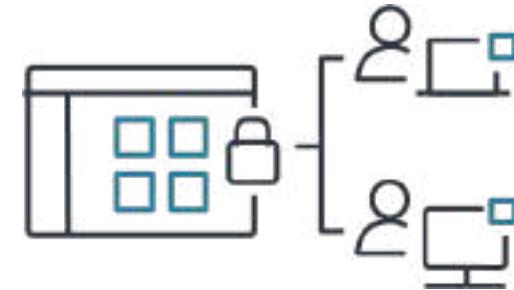
# Capacity

Access only the capacity necessary

Scalability



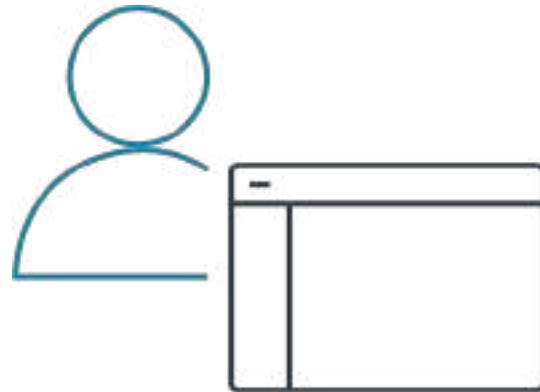
Stop guessing on your  
infrastructure capacity needs



Scale in and scale out as needed

# Economies of scale

Smaller scale



Economies of scale

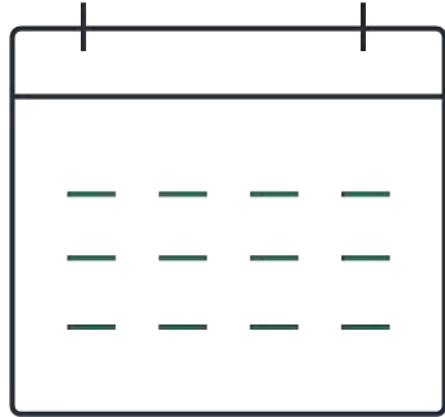


Pay higher prices based on only  
your own usage

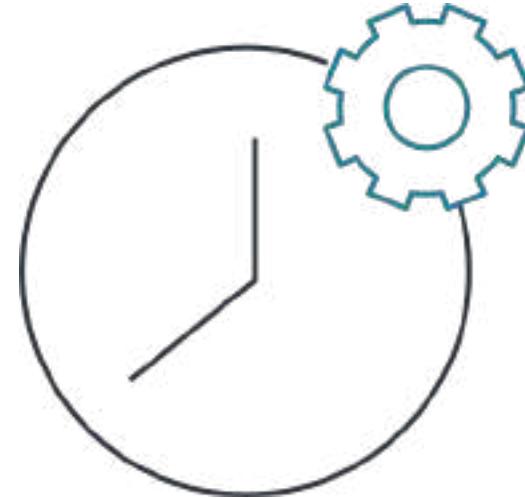
Benefit from customers'  
aggregated usage

# Speed and agility

Data centers



Cloud computing



**Weeks** between wanting  
resources and having resources

**Minutes** between wanting  
resources and having resources

# Global in minutes

Low latency



Quickly deploy applications  
worldwide

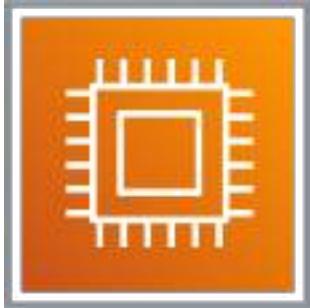
Global infrastructure



Use the AWS global infrastructure

# AWS core service categories

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Compute



Network & Content  
Deliver



Storage



Database



Security, Identity, &  
Compliance



Management &  
Governance



AWS Cloud Practitioner Essentials

## Knowledge Check

Topic A: Cloud computing deployment models

Topic B: Benefits of cloud computing

→ Knowledge Check

# Knowledge check 1 - question

What is cloud computing?

Choice	Response
A	Backing up files that are stored on desktop and mobile devices to prevent data loss
B	Deploying applications that are connected to an on-premises infrastructure
C	Using on-demand delivery of IT resources and applications through the internet
D	Running code without needing to manage or provision servers

# Knowledge check 1 – answer

What is cloud computing?

The correct response is C.

- A Backing up files that are stored on desktop and mobile devices to prevent data loss
- B Deploying applications that are connected to an on-premises infrastructure
- C Using on-demand delivery of IT resources and applications through the internet**
- D Running code without needing to manage or provision servers

# Knowledge check 2 - question

What is another name for on-premises deployment?

Choice	Response
A	Cloud-based application
B	Hybrid deployment
C	Private cloud deployment
D	AWS Cloud

# Knowledge check 2 – answer

What is another name for on-premises deployment?

The correct response is C.

- A Cloud-based application
- B Hybrid deployment
- C **Private cloud deployment**
- D AWS Cloud

# Knowledge check question - 3

How does the scale of cloud computing help to save costs?

Choice	Response
A	Practitioners do not have to invest in technology resources before using them.
B	The aggregated cloud usage from a large number of customers results in lower pay-as-you-go prices.
C	Accessing services on-demand helps prevent excess or limited capacity.
D	Practitioners can quickly deploy applications to customers and provide low latency.

# Knowledge check 3 – answer

How does the scale to cloud computing help to save costs?

The correct response is B.

- A Practitioners do not have to invest in technology resources before using them.
- B The aggregated cloud usage from a large number of customers results in lower pay-as-you-go prices.**
- C Accessing services on-demand helps prevent excess or limited capacity.
- D Practitioners can quickly deploy applications to customers and provide low latency.

# Module summary



## Covered in this module:

- Three cloud computing deployment models
- Six benefits of cloud computing



# Questions?

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this session**

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# AWS Partner: Cloud Practitioner Essentials

## Module 2: Compute in the Cloud

# Module Objectives



**On completion, you will be able to:**

- Describe Amazon EC2 benefits
- Identify the Amazon EC2 instance types
- Differentiate among Amazon EC2 billing options
- Summarize Amazon EC2 Auto Scaling benefits
- Summarize Elastic Load Balancing benefits
- Provide examples of Elastic Load Balancing uses
- Describe differences between Amazon SNS and Amazon SQS
- Summarize additional AWS compute options

# Module Topics

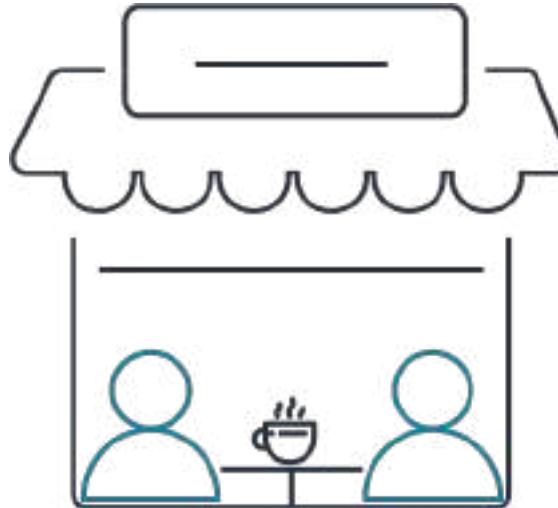


## Topics:

- Topic A: Amazon Elastic Compute Cloud (Amazon EC2)
- Topic B: Amazon EC2 instance types
- Topic C: Amazon EC2 pricing
- Topic D: Amazon EC2 Auto Scaling
- Topic E: Elastic Load Balancing
- Topic F: AWS messaging services
- Topic G: Serverless compute services
- Topic H: AWS container services
- Knowledge check

# Client and server model

---



**Customer**



A customer makes  
a request.

**Barista**



A barista fulfills the  
customer's request.



AWS Cloud Practitioner Essentials

# Topic A: Amazon Elastic Compute Cloud (Amazon EC2)

→ Topic A: Amazon Elastic Compute Cloud (Amazon EC2)

Topic B: Amazon EC2 instance types

Topic C: Amazon EC2 pricing

Topic D: Amazon EC2 Auto Scaling

Topic E: Elastic Load Balancing

Topic F: AWS messaging services

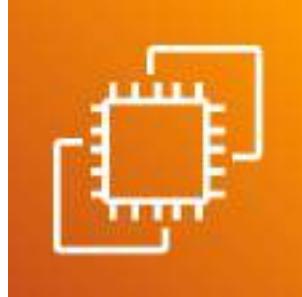
Topic G: Serverless compute services

Topic H: AWS container services

Knowledge check

# Amazon EC2

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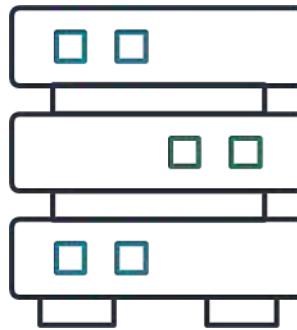
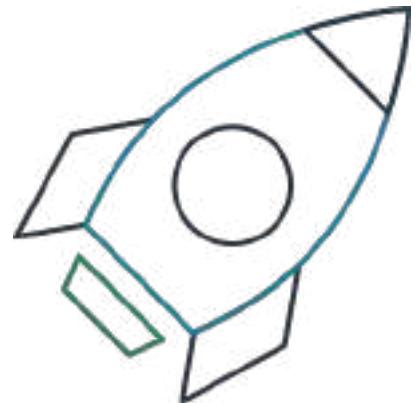


Amazon Elastic Compute  
Cloud (Amazon EC2)

- Use secure, sizable compute capacity
- Boot server instances in minutes
- Pay only for what you use

# How Amazon EC2 works

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Launch an instance → Connect to the instance → Use the instance



## Topic B: Amazon EC2 instance types

Topic A: Amazon Elastic Compute Cloud (Amazon EC2)

→ Topic B: Amazon EC2 instance types

Topic C: Amazon EC2 pricing

Topic D: Amazon EC2 Auto Scaling

Topic E: Elastic Load Balancing

Topic F: AWS messaging services

Topic G: Serverless compute services

Topic H: AWS container services

Knowledge check

# Coffee shop tasks

Employee 1



Employee 2



Employee 3



# Coffee shop tasks specialization

Employee 1



Make coffee

Employee 2



Process transactions

Employee 3



Order supplies

# Amazon EC2 instance types (1 of 2)

## General purpose

- Balances compute, memory, and networking resources
- Suitable for a broad range of workloads

## Compute optimized

- Offers high-performance processors
- Ideal for compute-intensive applications and batch processing workloads

## Memory optimized

- Delivers fast performance for memory-intensive workloads
- Well suited for high-performance databases

# Amazon EC2 instance types (2 of 2)

## Accelerated computing

- Uses hardware accelerators to expedite data processing
- Ideal for application streaming and graphics workloads

## Storage optimized

- Offers low latency and high input/output operations per second (IOPS)
- Suitable for workloads such as distributed file systems and data warehousing applications

# Match: Amazon EC2 instance types (1 of 5)

---

1. Ideal for high-performance databases

2. Suitable for data warehousing applications

3. Balances compute, memory, and networking resources

4. Offers high-performance processors

A. General purpose

B. Compute optimized

C. Memory optimized

D. Storage optimized

# Match: Amazon EC2 instance types (2 of 5)

---

1. Ideal for high-performance databases

2. Suitable for data warehousing applications

3. Balances compute, memory, and networking resources

4. Offers high-performance processors

A. General purpose

B. Compute optimized

C. Memory optimized

D. Storage optimized

# Match: Amazon EC2 instance types (3 of 5)

1. Ideal for high-performance databases

2. Suitable for data warehousing applications

3. Balances compute, memory, and networking resources

4. Offers high-performance processors

A. General purpose

B. Compute optimized

C. Memory optimized

D. Storage optimized

# Match: Amazon EC2 instance types (4 of 5)

1. Ideal for high-performance databases

2. Suitable for data warehousing applications

3. Balances compute, memory, and networking resources

4. Offers high-performance processors

A. General purpose

B. Compute optimized

C. Memory optimized

D. Storage optimized

# Match: Amazon EC2 instance types (5 of 5)

1. Ideal for high-performance databases

2. Suitable for data warehousing applications

3. Balances compute, memory, and networking resources

4. Offers high-performance processors

A. General purpose

B. Compute optimized

C. Memory optimized

D. Storage optimized



## Topic C: Amazon EC2 pricing

Topic A: Amazon Elastic Compute Cloud (Amazon EC2)

Topic B: Amazon EC2 instance types

→ Topic C: Amazon EC2 pricing

Topic D: Amazon EC2 Auto Scaling

Topic E: Elastic Load Balancing

Topic F: AWS messaging services

Topic G: Serverless compute services

Topic H: AWS container services

Knowledge check

# Amazon EC2 instance pricing options (1 of 2)

## On-demand

- No upfront costs or minimum contracts
- Ideal for short-term, irregular workloads

## Spot

- Ideal for workloads with flexible start and end times
- Offers savings over On-Demand prices

## Reserved

- Provides a billing discount over On-Demand pricing
- Requires a 1-year or 3-year term commitment

# Amazon EC2 instance pricing options (2 of 2)

## Compute Savings Plan

- Offer up to 66% savings over On-Demand costs for a consistent amount of compute usage
- Require a 1-year or 3-year term commitment

## Dedicated Instance

- An EC2 *instance* that runs in a VPC on hardware for a single customer
- Higher cost compared to standard Amazon EC2 instances

## Dedicated Host

- A *physical server* with EC2 instance capacity for a single customer
- Most expensive Amazon EC2 option

# Discussion

---

What is the difference between  
Compute Savings Plans and  
Reserved Instances?



## Topic D: Amazon EC2 Auto Scaling

Topic A: Amazon Elastic Compute Cloud (Amazon EC2)

Topic B: Amazon EC2 instance types

Topic C: Amazon EC2 pricing

→ Topic D: Amazon EC2 Auto Scaling

Topic E: Elastic Load Balancing

Topic F: AWS messaging services

Topic G: Serverless compute services

Topic H: AWS container services

Knowledge check

# Manual scaling

Low demand



Two Customers

High demand



Four Customers



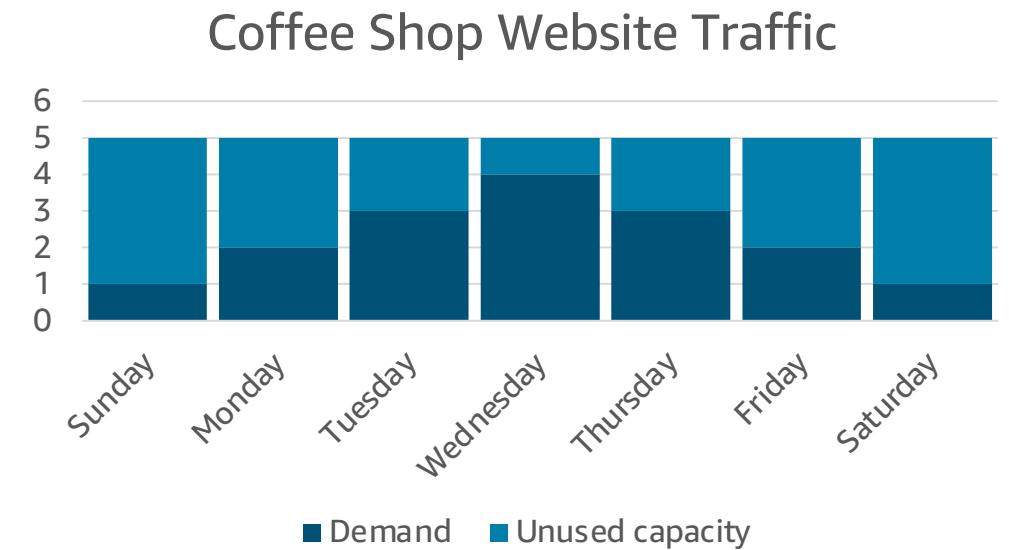
Barista



Baristas

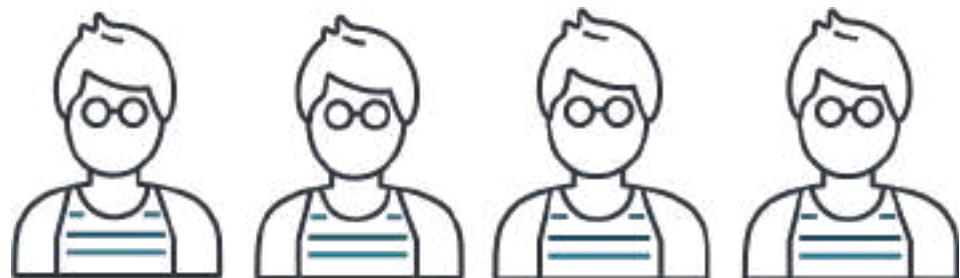
# Amazon EC2 Auto Scaling (1 of 2)

- Scale capacity as computing requirements change
- Use dynamic scaling and predictive scaling



# Amazon EC2 Auto Scaling (2 of 2)

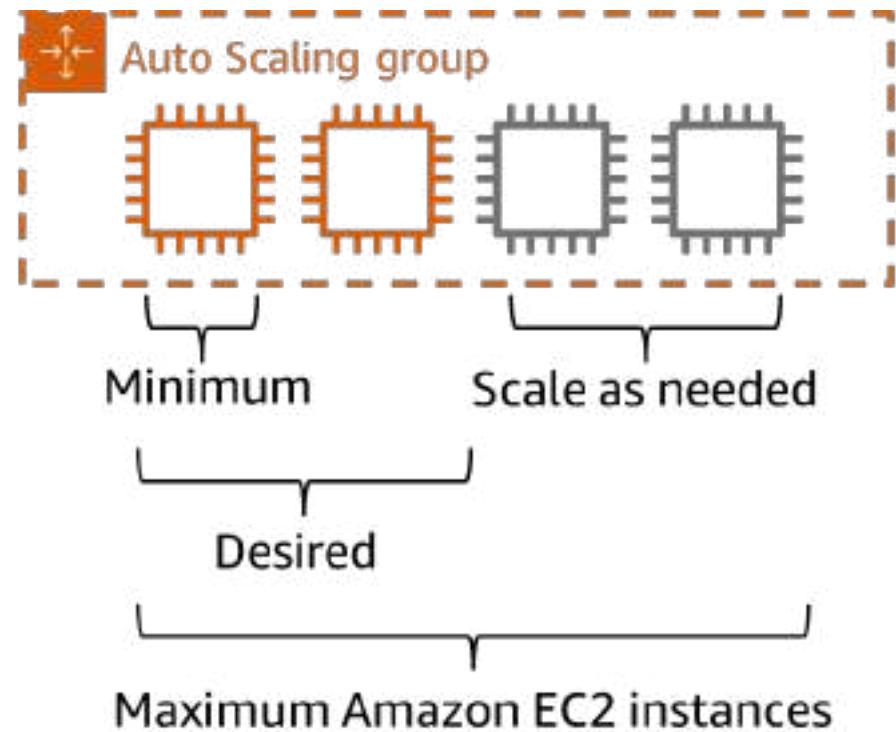
High demand



Four Customers



Barista





## Topic E: Elastic Load Balancing

Topic A: Amazon Elastic Compute Cloud (Amazon EC2)

Topic B: Amazon EC2 instance types

Topic C: Amazon EC2 pricing

Topic D: Amazon EC2 Auto Scaling

→ Topic E: Elastic Load Balancing

Topic F: AWS messaging services

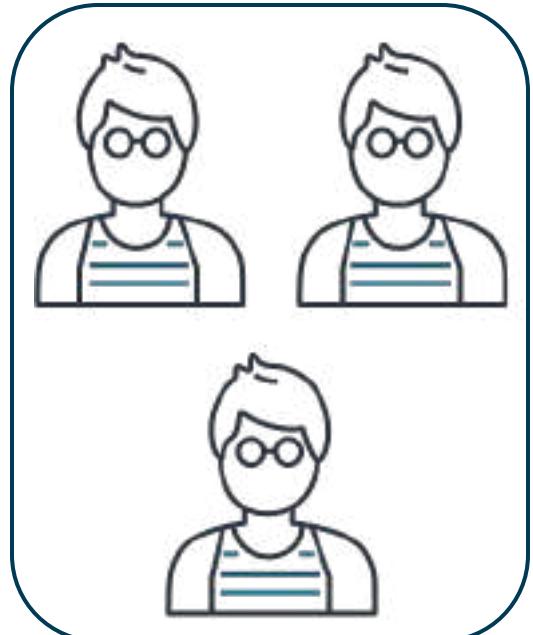
Topic G: Serverless compute services

Topic H: AWS container services

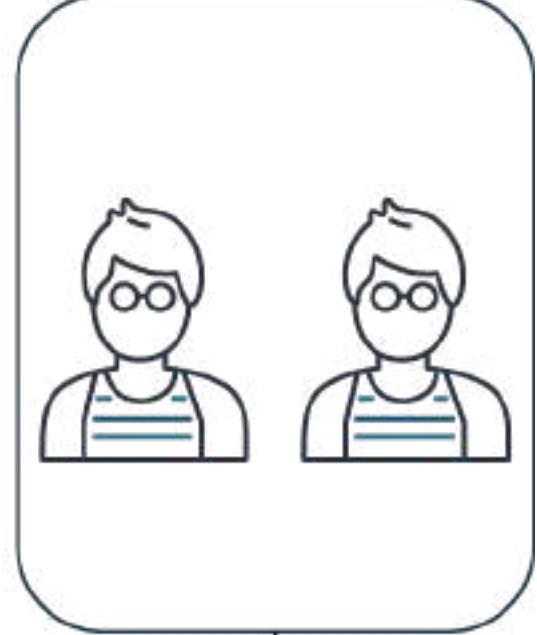
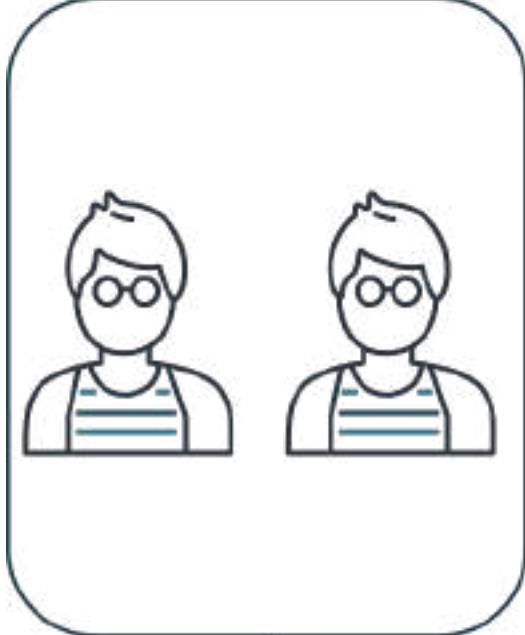
Knowledge check

# Load balancing

Unbalanced workload



Balanced workload



# Elastic Load Balancing

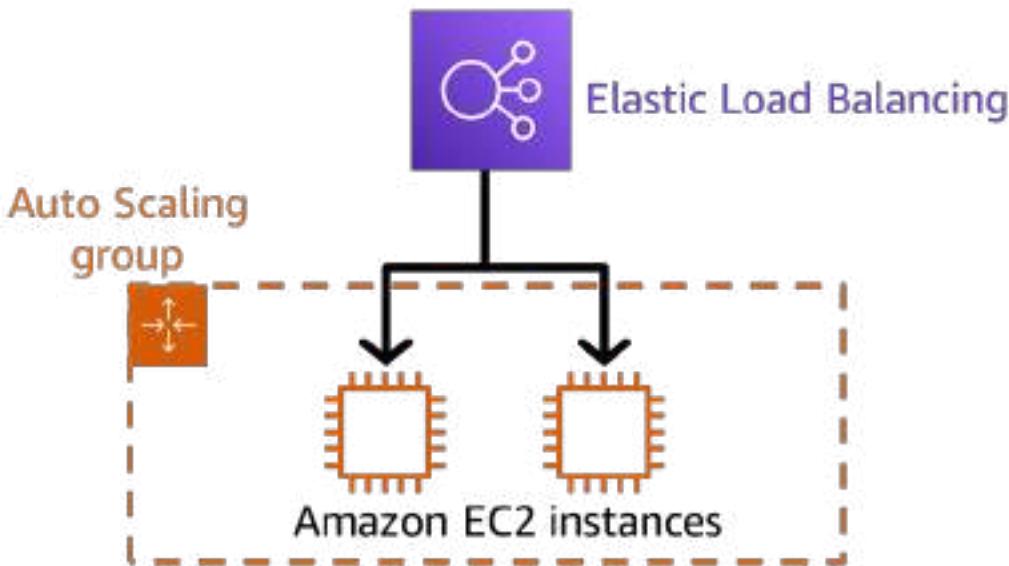


Elastic Load Balancing

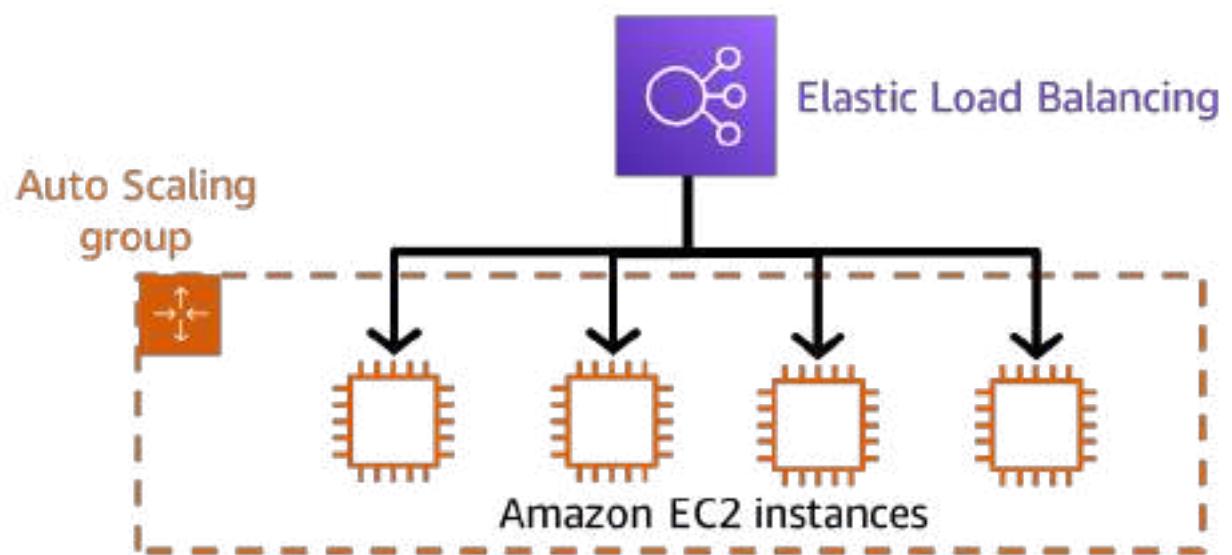
- Automatically distributes traffic across multiple resources
- Provides a single point of contact for your Auto Scaling group

# Scalability and load balancing

Low-demand period



High-demand period



# Auto Scaling and Elastic Load Balancing

---

Are these examples of Auto Scaling or Elastic Load Balancing?

1. Removed unneeded Amazon EC2 instances when demand is low

2. Adds a second Amazon EC2 instance during an online store's popular sale

3. Distributes a workload across several Amazon EC2 instances

4. Ensure that no single EC2 instance has to carry the full workload on its own

5. Automatically adjusts the number of EC2 instances to match demand

6. Provides a single point of contact for traffic into an Auto Scaling group

# Auto Scaling and Elastic Load Balancing

Are these examples of **Auto Scaling** or **Elastic Load Balancing**?

Auto Scaling

1. Removed unneeded Amazon EC2 instances when demand is low

Auto Scaling

2. Adds a second Amazon EC2 instance during an online store's popular sale

Elastic Load Balancing

3. Distributes a workload across several Amazon EC2 instances

Elastic Load Balancing

4. Ensure that no single EC2 instance has to carry the full workload on its own

Auto Scaling

5. Automatically adjusts the number of EC2 instances to match demand

Elastic Load Balancing

6. Provides a single point of contact for traffic into an Auto Scaling group



## Topic F: AWS messaging services

Topic A: Amazon Elastic Compute Cloud (Amazon EC2)

Topic B: Amazon EC2 instance types

Topic C: Amazon EC2 pricing

Topic D: Amazon EC2 Auto Scaling

Topic E: Elastic Load Balancing

→ Topic F: AWS messaging services

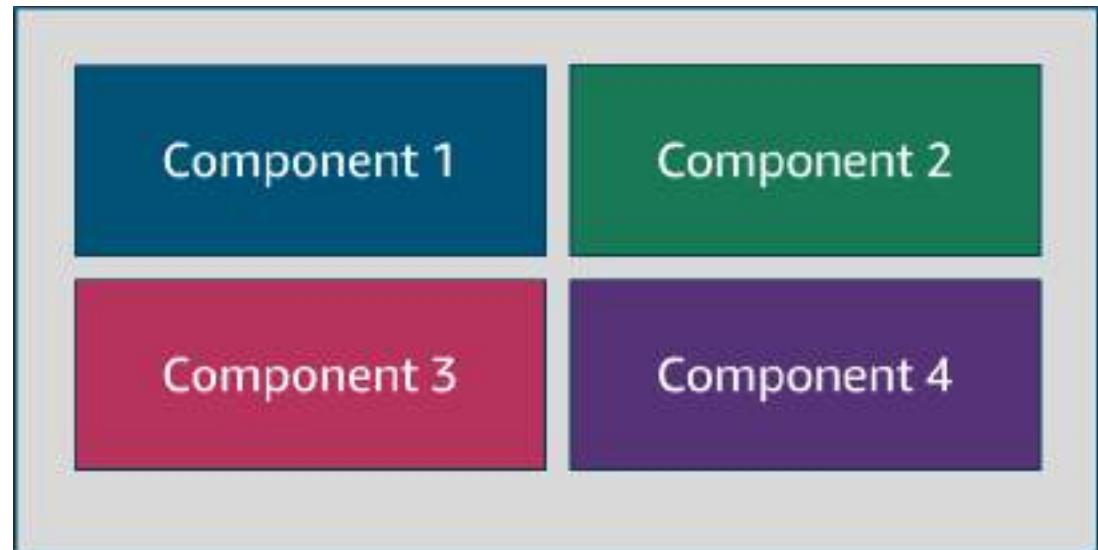
Topic G: Serverless compute services

Topic H: AWS container services

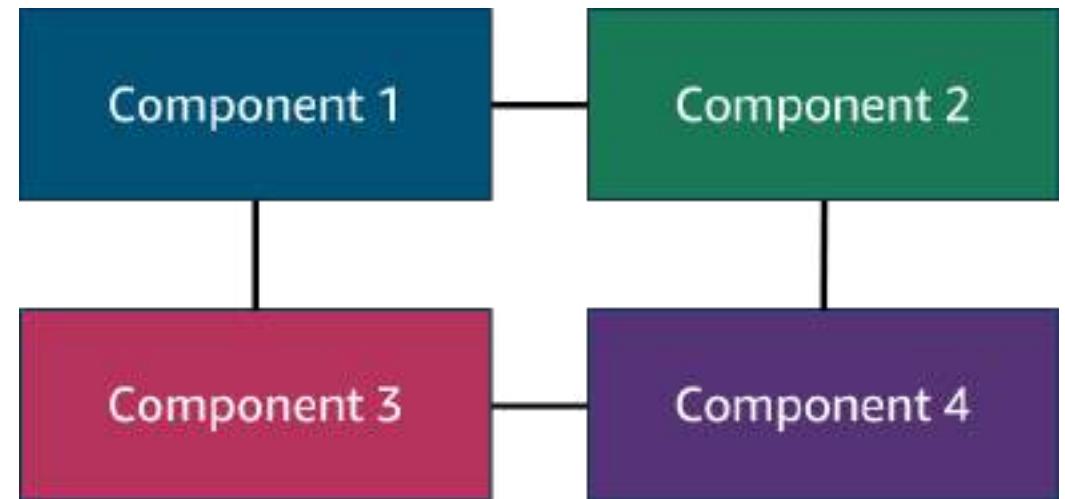
Knowledge check

# Application architecture

Monolithic application



Microservices



# Amazon Simple Notification Service

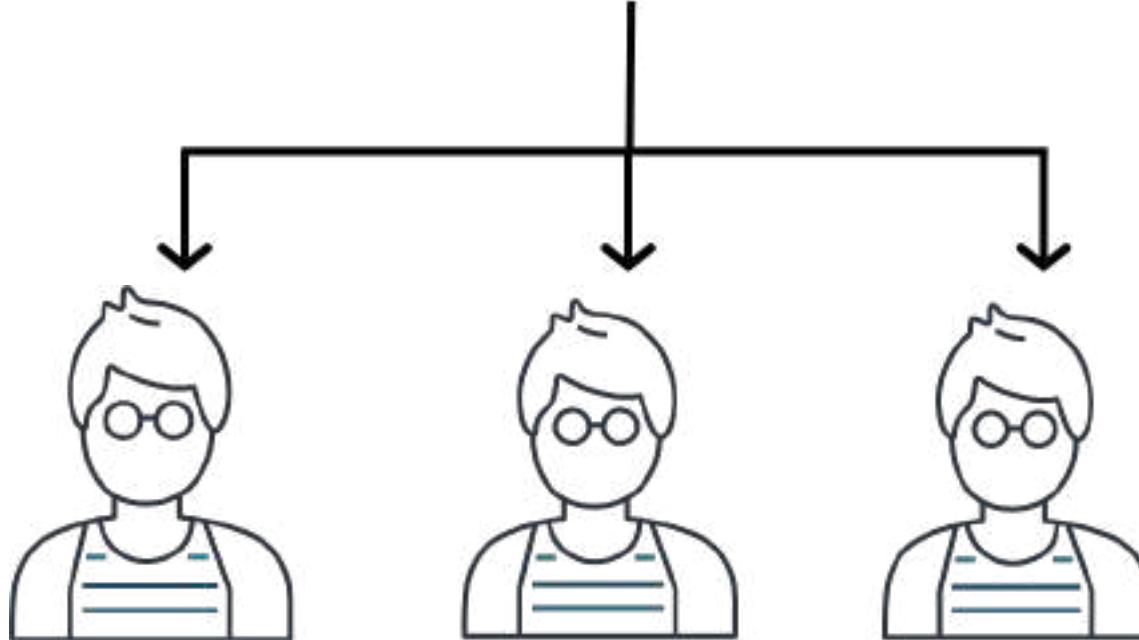


Amazon Simple Notification  
Service (Amazon SNS)

- Messages are published to topics.
- Subscribers immediately receive messages for their topics.

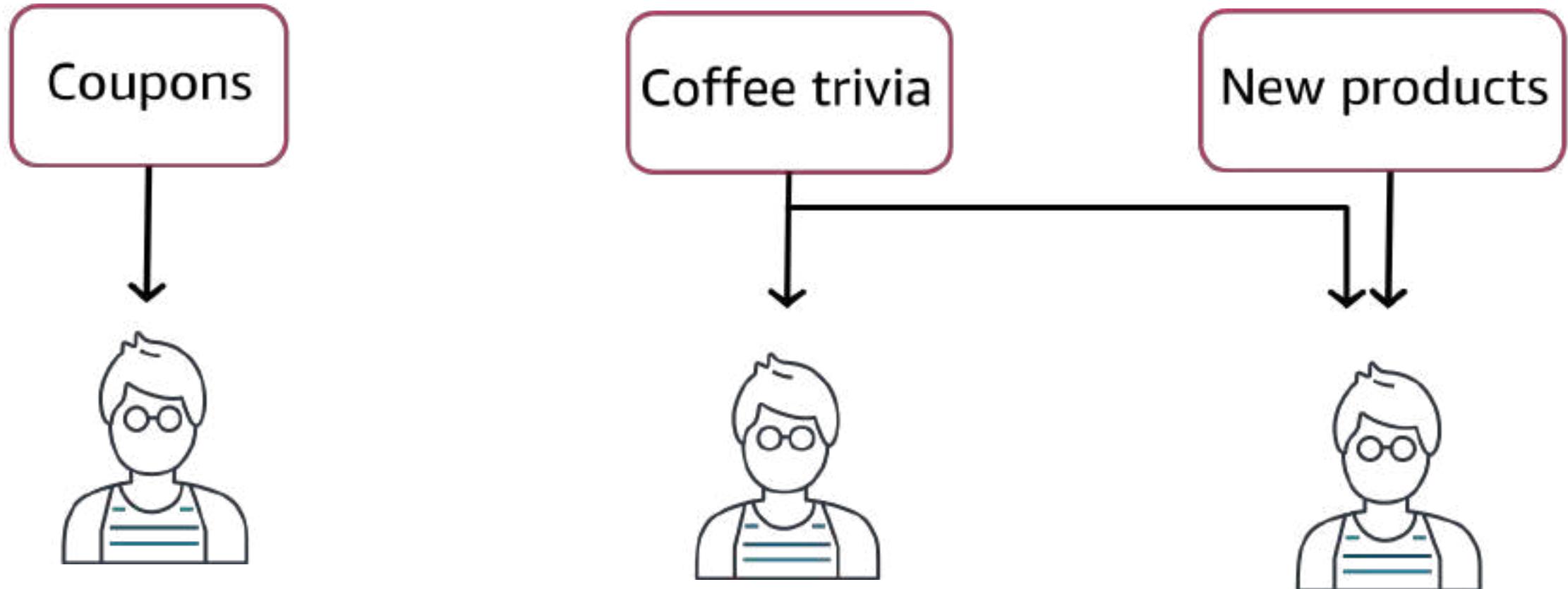
# Publish updates from a single topic

Coupons, coffee trivia, and new products



# Publish updates from multiple topics

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# Amazon Simple Queue Service

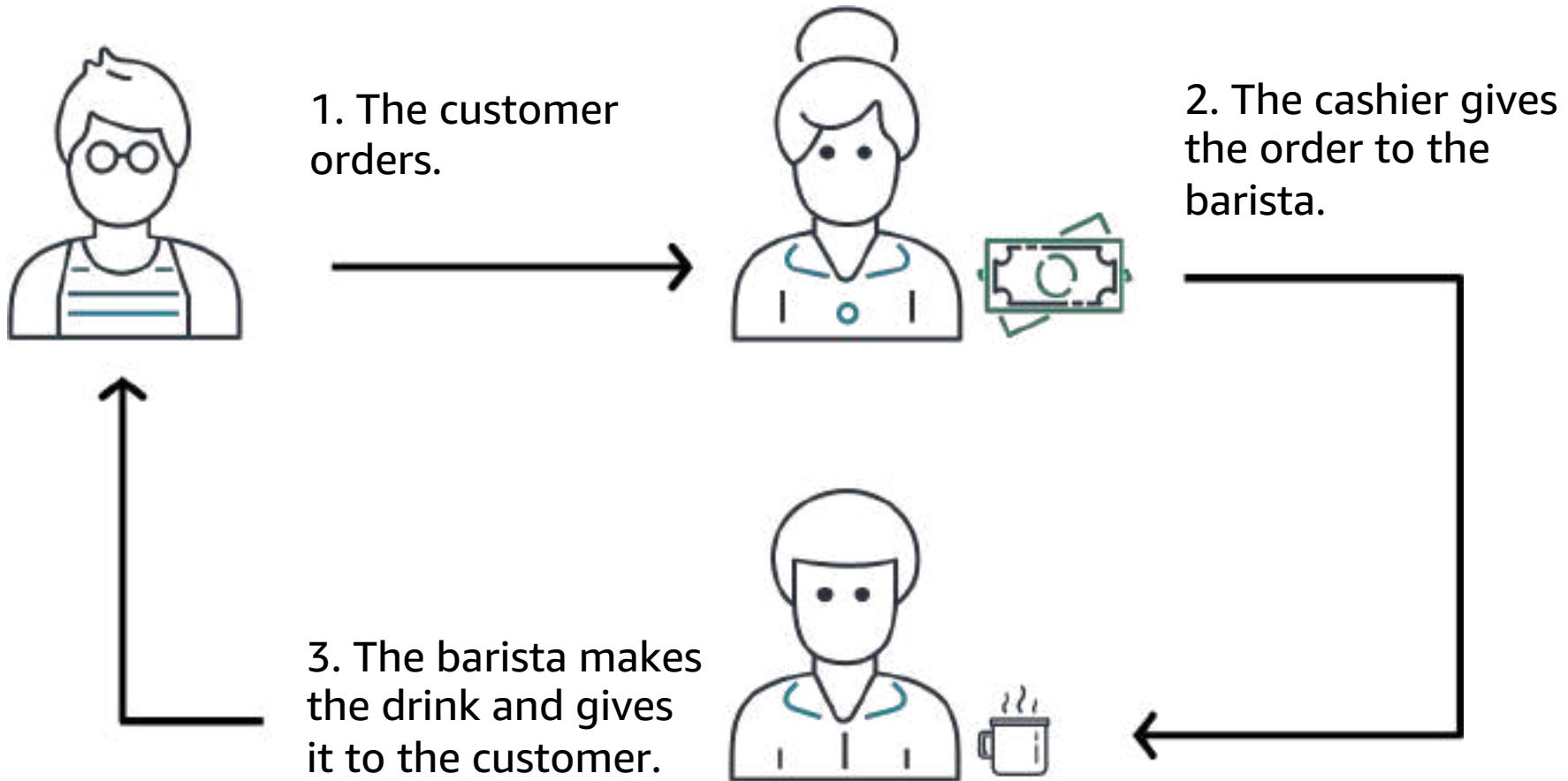


Amazon Simple Queue  
Service (Amazon SQS)

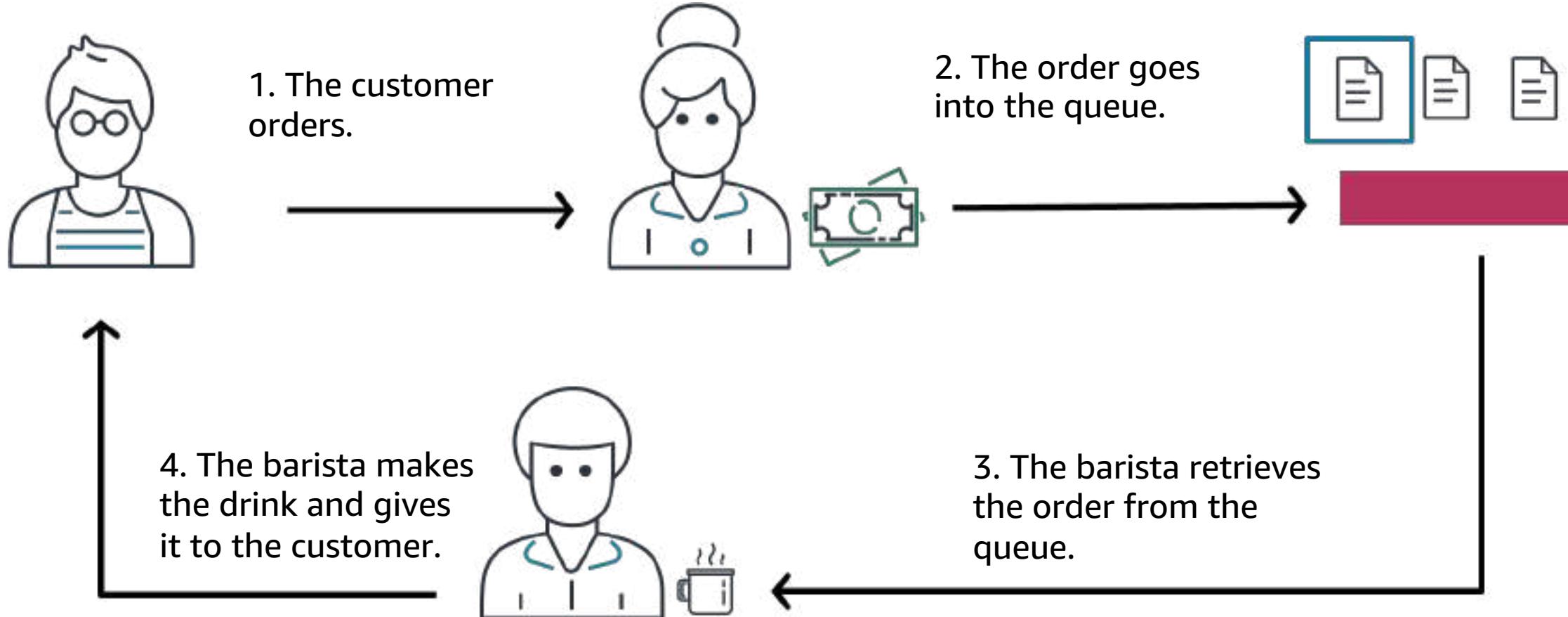
- Send, store, and receive messages between software components
- Queue messages without requiring other services to be available

# Example: Fulfill an order

---



# Example: Orders in a queue





## Topic G: Serverless compute services

Topic A: Amazon Elastic Compute Cloud (Amazon EC2)

Topic B: Amazon EC2 instance types

Topic C: Amazon EC2 pricing

Topic D: Amazon EC2 Auto Scaling

Topic E: Elastic Load Balancing

Topic F: AWS messaging services

→ Topic G: Serverless compute services

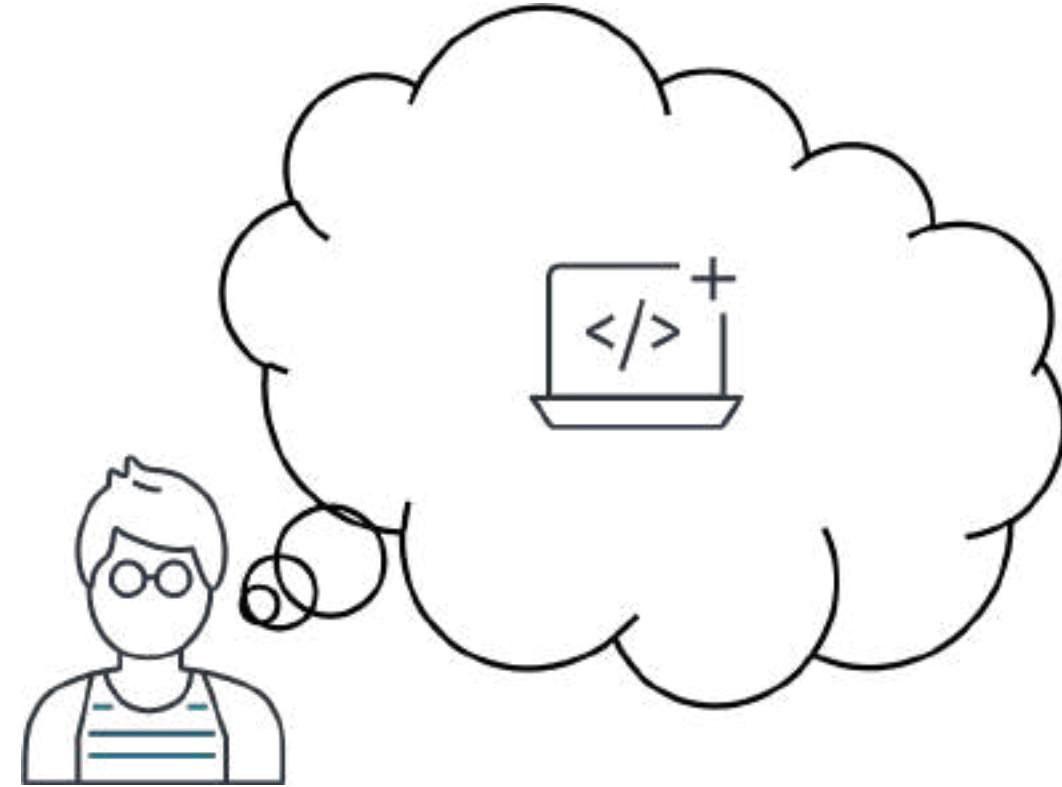
Topic H: AWS container services

Knowledge check

# Serverless computing

Computing with virtual servers

Serverless computing



# AWS Lambda



AWS Lambda

- Run code without provisioning or managing servers
- Pay only for compute time while code is running
- Use other AWS services to automatically trigger code

# How AWS Lambda works

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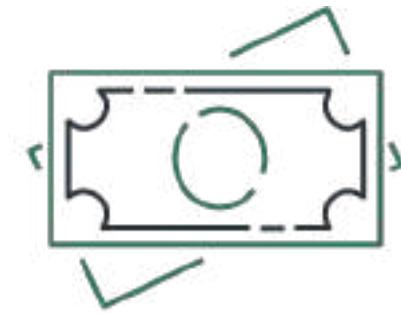
Upload code  
to Lambda



Set code to  
trigger from an  
event source



Code runs only  
when triggered



Pay only for the  
compute time  
you use



## Topic H: AWS container services

Topic A: Amazon Elastic Compute Cloud (Amazon EC2)

Topic B: Amazon EC2 instance types

Topic C: Amazon EC2 pricing

Topic D: Amazon EC2 Auto Scaling

Topic E: Elastic Load Balancing

Topic F: AWS messaging services

Topic G: Serverless compute services

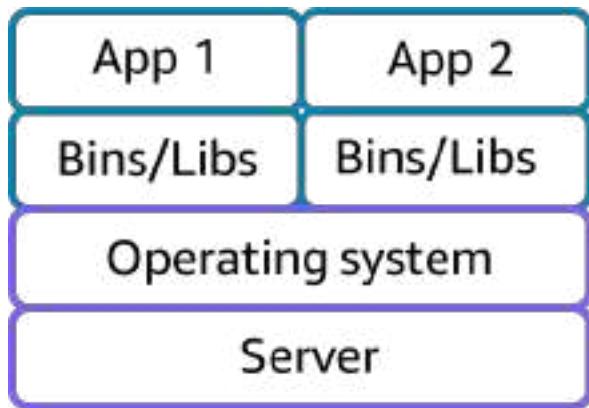
→ Topic H: AWS container services

Knowledge check

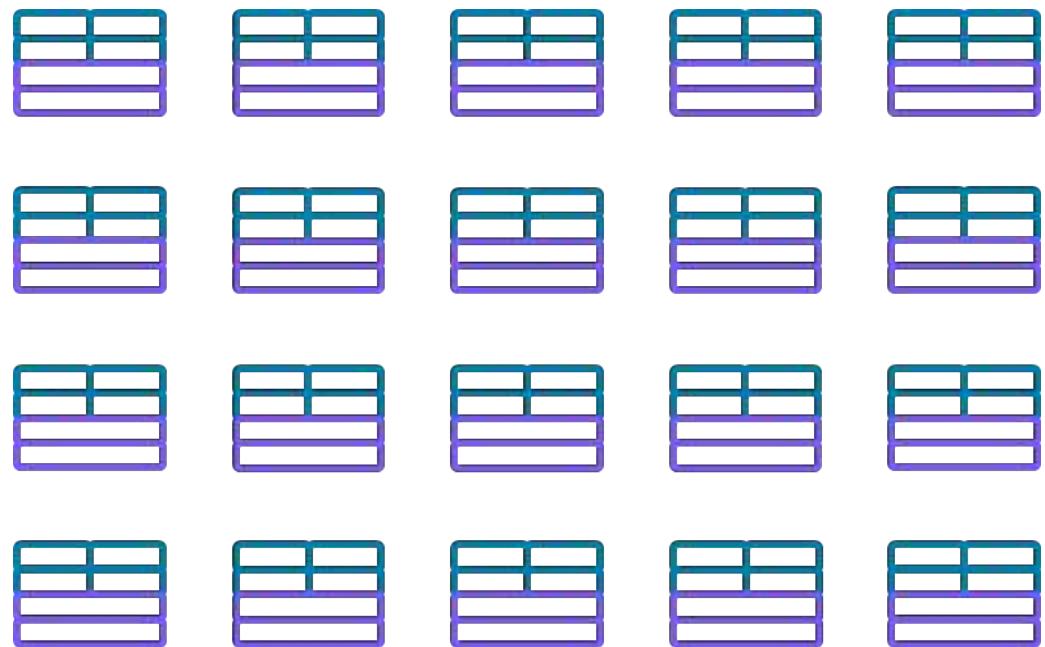
# Containers

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One host with multiple containers



Tens of hosts with hundreds of containers



# Amazon Elastic Container Service (Amazon ECS)



Amazon Elastic  
Container Service  
(Amazon ECS)

- Run and scale containerized applications
- Use simple API calls to control Docker-enabled applications

# Amazon Elastic Kubernetes Service (Amazon EKS)



Amazon Elastic  
Kubernetes Service  
(Amazon EKS)

- Run and scale Kubernetes applications
- Readily update applications with new features

# AWS Fargate

---



AWS Fargate

- Run serverless containers with Amazon ECS or Amazon EKS
- Pay only for the resources you use



# Knowledge check

Topic A: Amazon Elastic Compute Cloud (Amazon EC2)

Topic B: Amazon EC2 instance types

Topic C: Amazon EC2 pricing

Topic D: Amazon EC2 Auto Scaling

Topic E: Elastic Load Balancing

Topic F: AWS messaging services

Topic G: Serverless compute services

Topic H: AWS container services

→ Knowledge check

# Knowledge check 1 - question

A customer wants to use an Amazon EC2 instance for a batch processing workload. Which Amazon EC2 instance type should they use?

Choice	Response
A	General purpose
B	Compute optimized
C	Memory optimized
D	Storage optimized

# Knowledge check 1 – answer

A customer wants to use an Amazon EC2 instance for a batch processing workload. Which Amazon EC2 instance type should they use?

The correct response is B.

- A General purpose
- B **Compute optimized**
- C Memory optimized
- D Storage optimized

# Knowledge check 2 - question

What are the contract length options for Amazon EC2 Reserved Instances?

Choice	Response
A	1 year
B	2 years
C	3 years
D	4 years

# Knowledge check 2 – answer

What are the contract length options for Amazon EC2 Reserved Instances?

The correct responses are A and C.

A **1 year**

B 2 years

C **3 years**

D 4 years

# Knowledge check 3 - question

A customer has a workload that will run for a total of 6 months and can withstand interruptions. What would be the most cost-efficient Amazon EC2 instance purchasing option?

Choice	Response
A	Reserved Instance
B	Dedicated Instance
C	On-Demand Instance
D	Spot Instance

# Knowledge check 3 – answer

A customer has a workload that will run for a total of 6 months and can withstand interruptions. What would be the most cost-efficient Amazon EC2 instance purchasing option?

The correct response is D.

- A Reserved Instance
- B On-Demand Instance
- C Dedicated Instance
- D Spot Instance

# Knowledge check 4 - question

A customer wants to give users messages for the specific topics to which they have subscribed. Which service should they use?

Choice	Response
A	Amazon Simple Notification Service (Amazon SNS)
B	AWS Lambda
C	Amazon Simple Queue Service (Amazon SQS)
D	Amazon Elastic Kubernetes Service (Amazon EKS)

# Knowledge check 4 – answer

A customer wants to give users messages for the specific topics to which they have subscribed. Which service should they use?

The correct response is A.

- A **Amazon Simple Notification Service (Amazon SNS)**
- B AWS Lambda
- C Amazon Simple Queue Service (Amazon SQS)
- D Amazon Elastic Kubernetes Service (Amazon EKS)

# Module summary



## Covered in this module:

- Amazon EC2 benefits
- Amazon EC2 instance types
- EC2 billing options
- EC2 Auto Scaling benefits
- Elastic Load Balancing benefits
- Amazon SNS vs. Amazon SQS
- Additional compute options



# Questions?

**Thank you for attending  
this session**

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# AWS Partner: Cloud Practitioner Essentials

## Module 3: Global Infrastructure and Reliability

# Module Objectives



On completion, you will be able to:

- Summarize the AWS Global Infrastructure benefits
- Describe Availability Zones
- Describe the benefits of Amazon CloudFront and edge locations.
- Compare methods for provisioning AWS services.

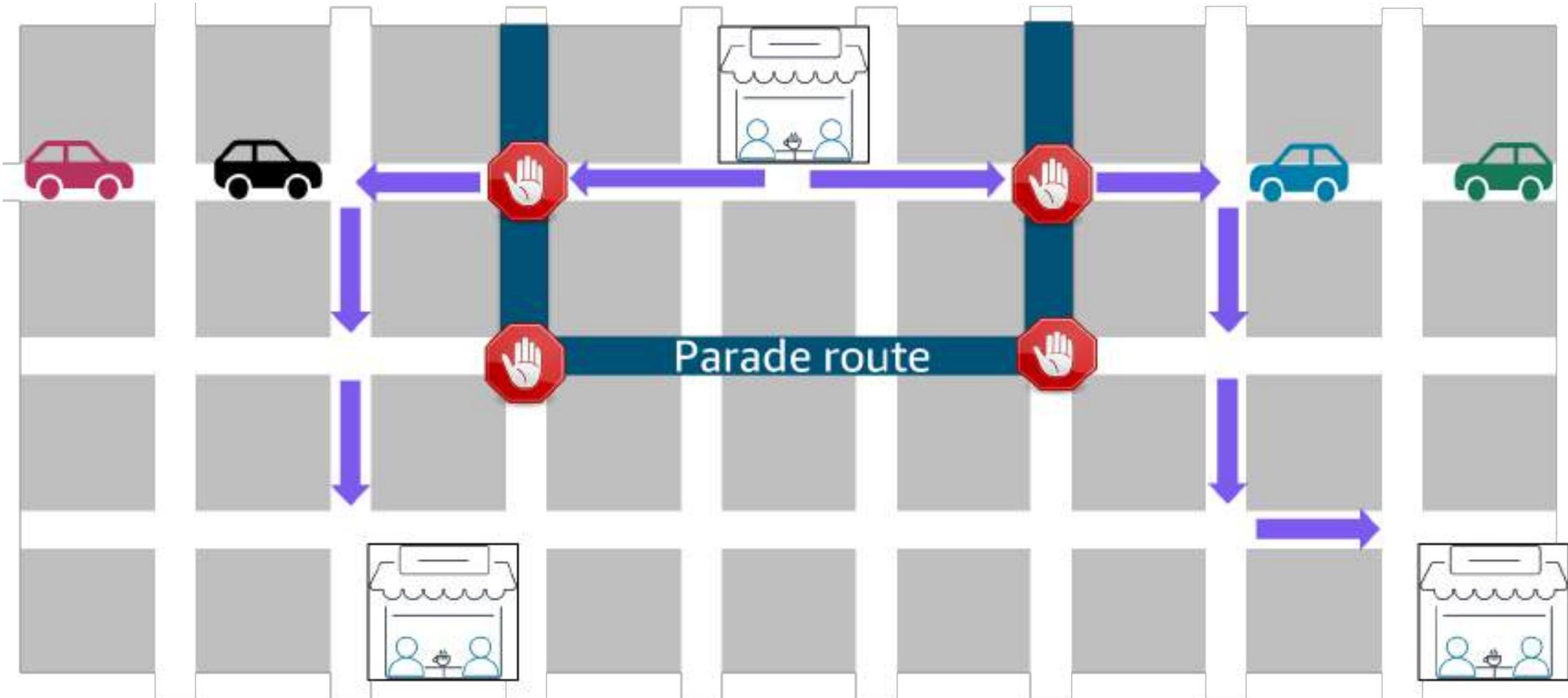
# Module Topics



## Topics:

- Demonstration: Explore the AWS Global Infrastructure
- Topic A: AWS Global Infrastructure
- Topic B: Get closer to your customers
- Topic C: AWS Outposts
- Topic D: Interact with AWS services
- Knowledge check

# Build a global footprint





AWS Cloud Practitioner Essentials

## Demonstration: Explore the AWS Global Infrastructure

→ Demonstration: Explore the AWS Global Infrastructure

Topic B: Get closer to your customers

Topic C: AWS Outposts

Topic D: Interact with AWS services

Demonstration: AWS Management Console  
Knowledge check

# Demonstration



## Explore the AWS Global Infrastructure

In this demo, your instructor will show you the following things:

- Regions
- Availability zones



AWS Cloud Practitioner Essentials

## Topic A: AWS Global Infrastructure

Demonstration: Explore the AWS Global Infrastructure

→ Topic A: AWS Global Infrastructure

Topic B: Get closer to your customers

Topic C: AWS Outposts

Topic D: Interact with AWS services

Demonstration: AWS Management Console

Knowledge check

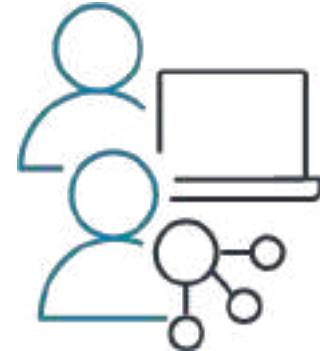
# Select a Region

---

Determine the right Region for your services, data, and applications based on:



Compliance with  
data governance  
and legal  
requirements



Proximity to your  
customers

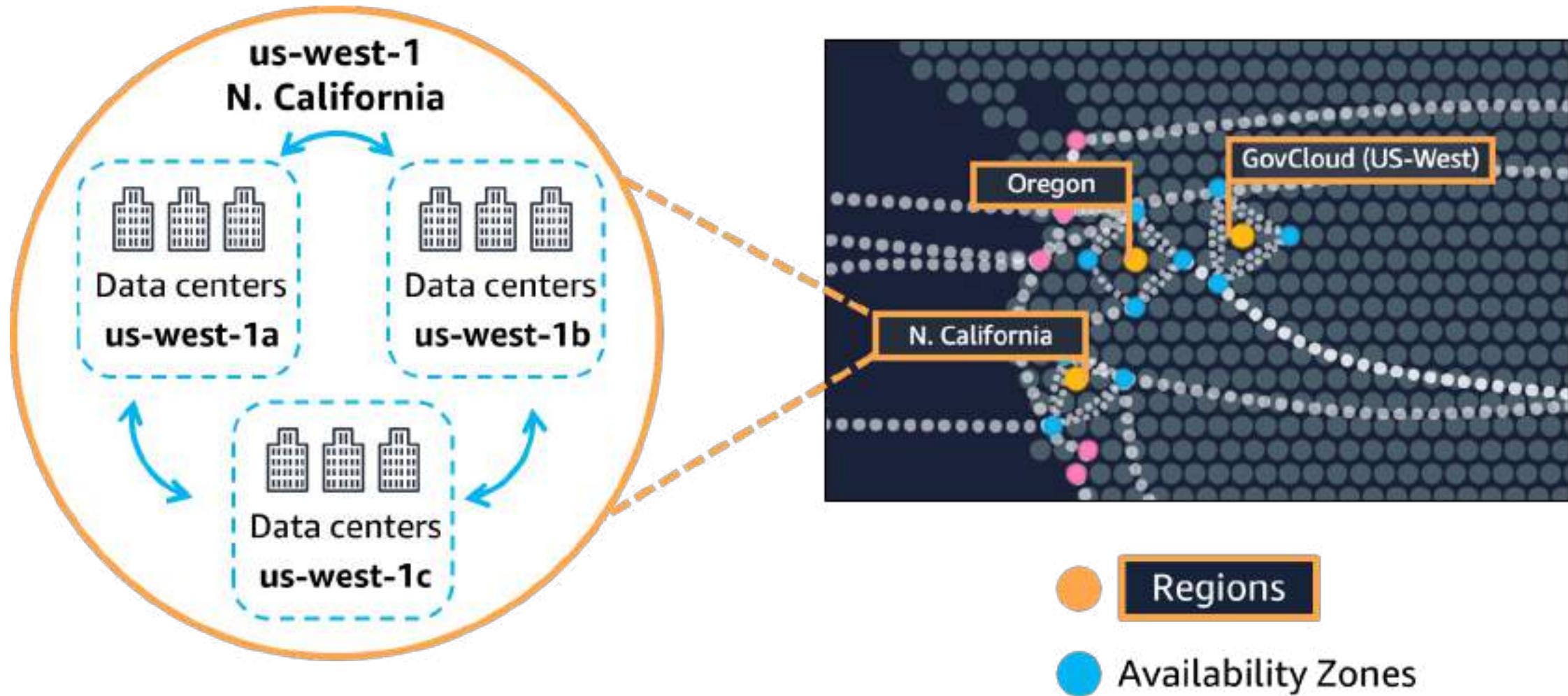


Pricing

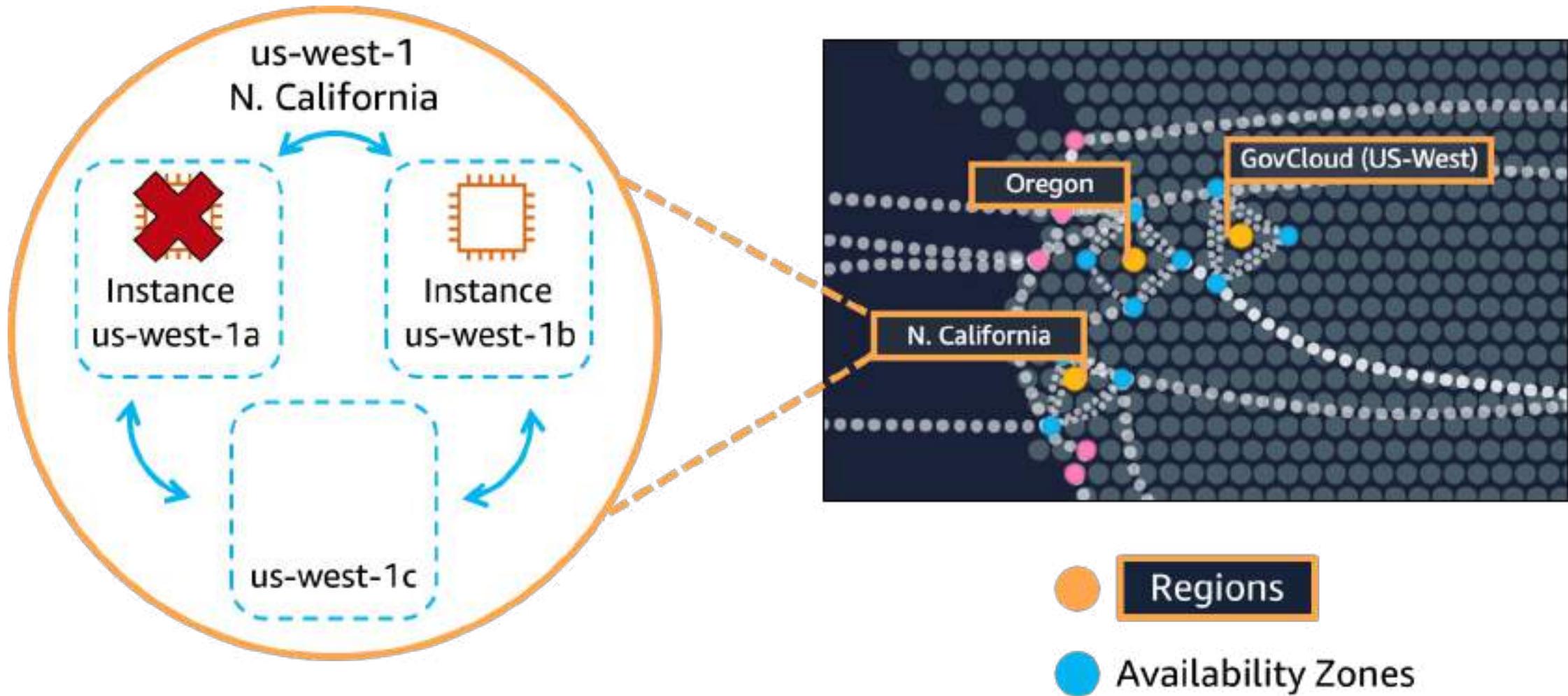


Available services  
within a Region

# Availability Zones



# Amazon EC2 instances in multiple AZs



# Discussion

---

What is the relationship between Regions and Availability Zones?



## Topic B: Get closer to your customers

Demonstration: Explore the AWS Global Infrastructure

Topic A: AWS Global Infrastructure

→ Topic B: Get closer to your customers

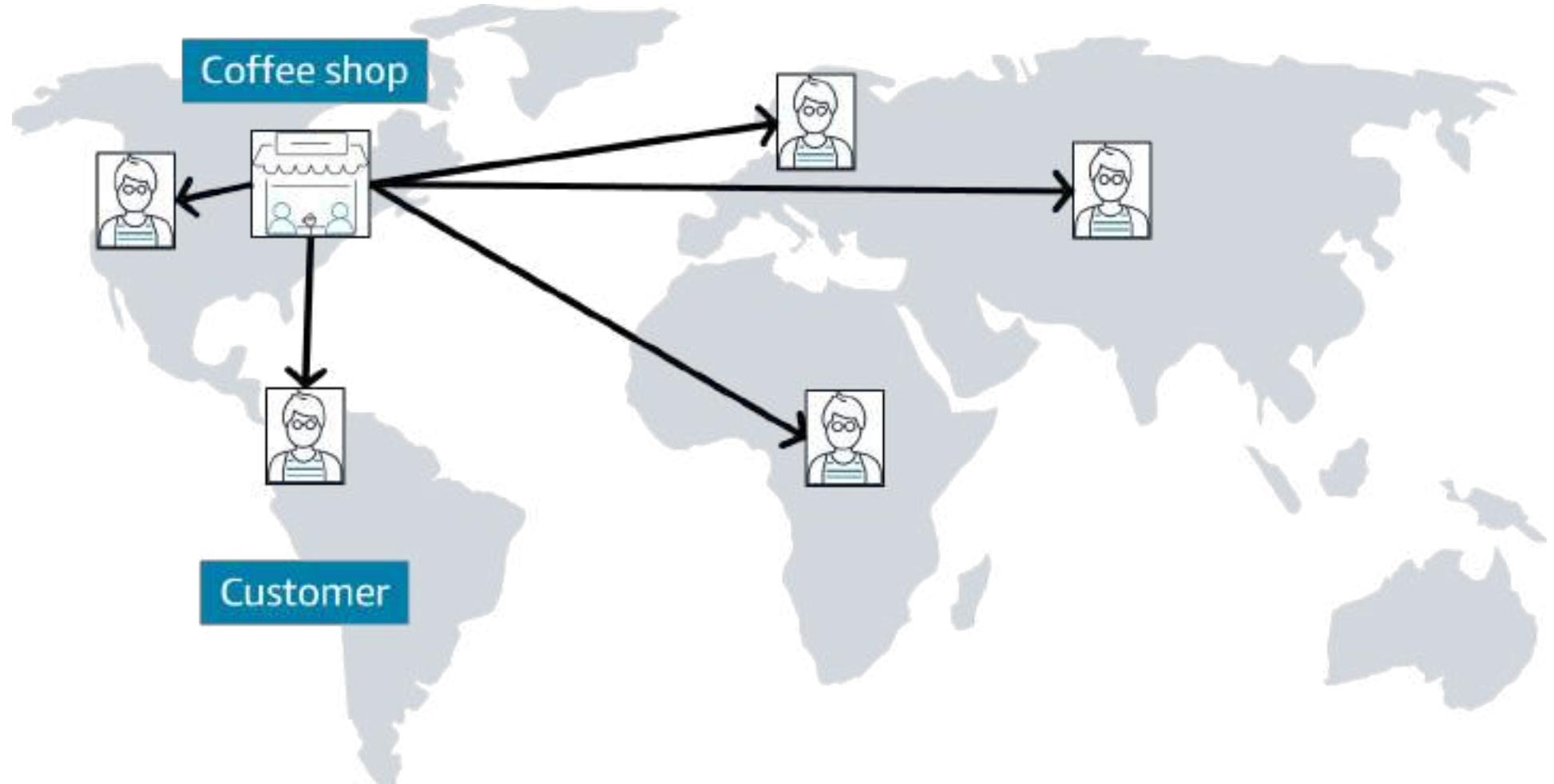
Topic C: AWS Outposts

Topic D: Interact with AWS services

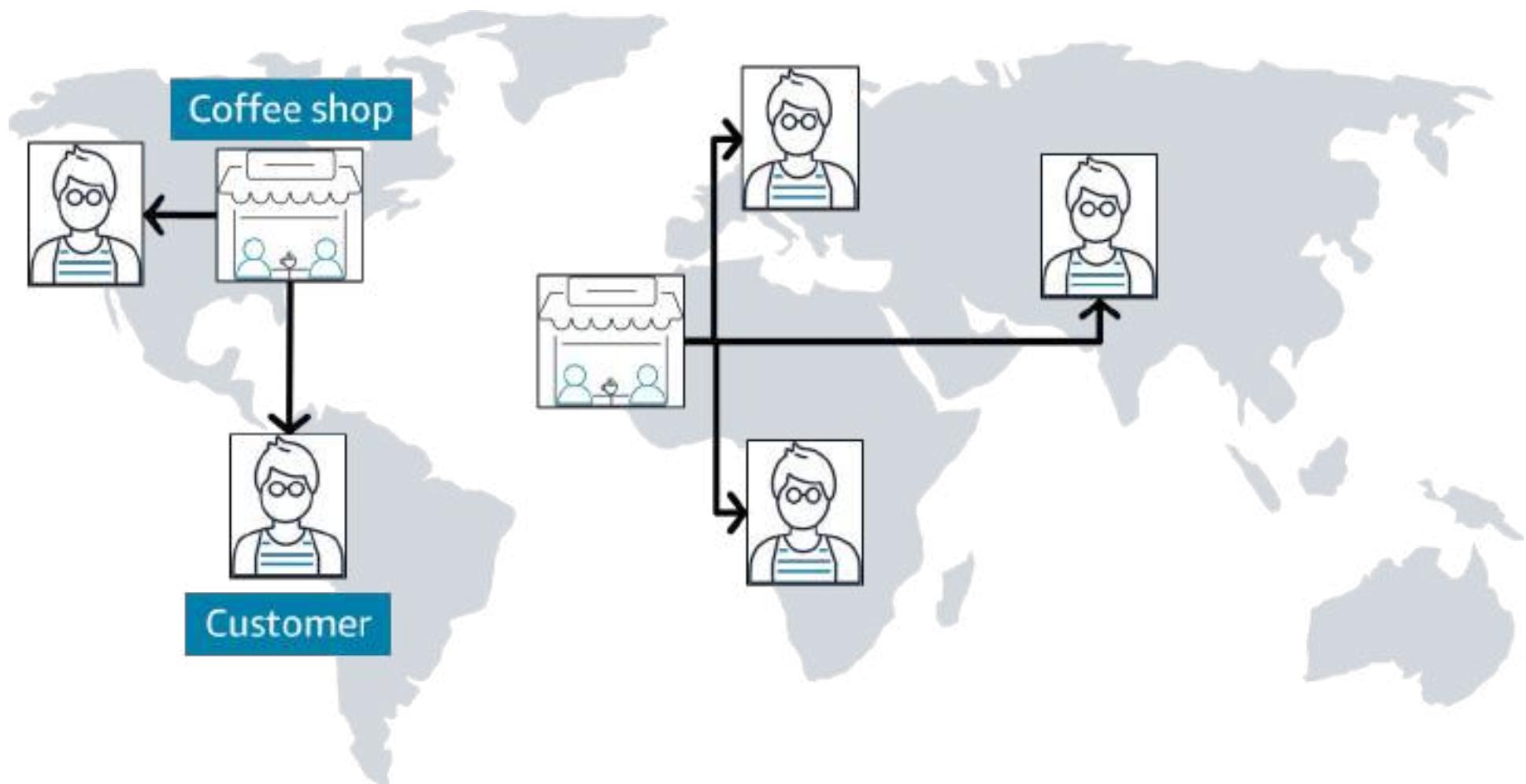
Demonstration: AWS Management Console

Knowledge check

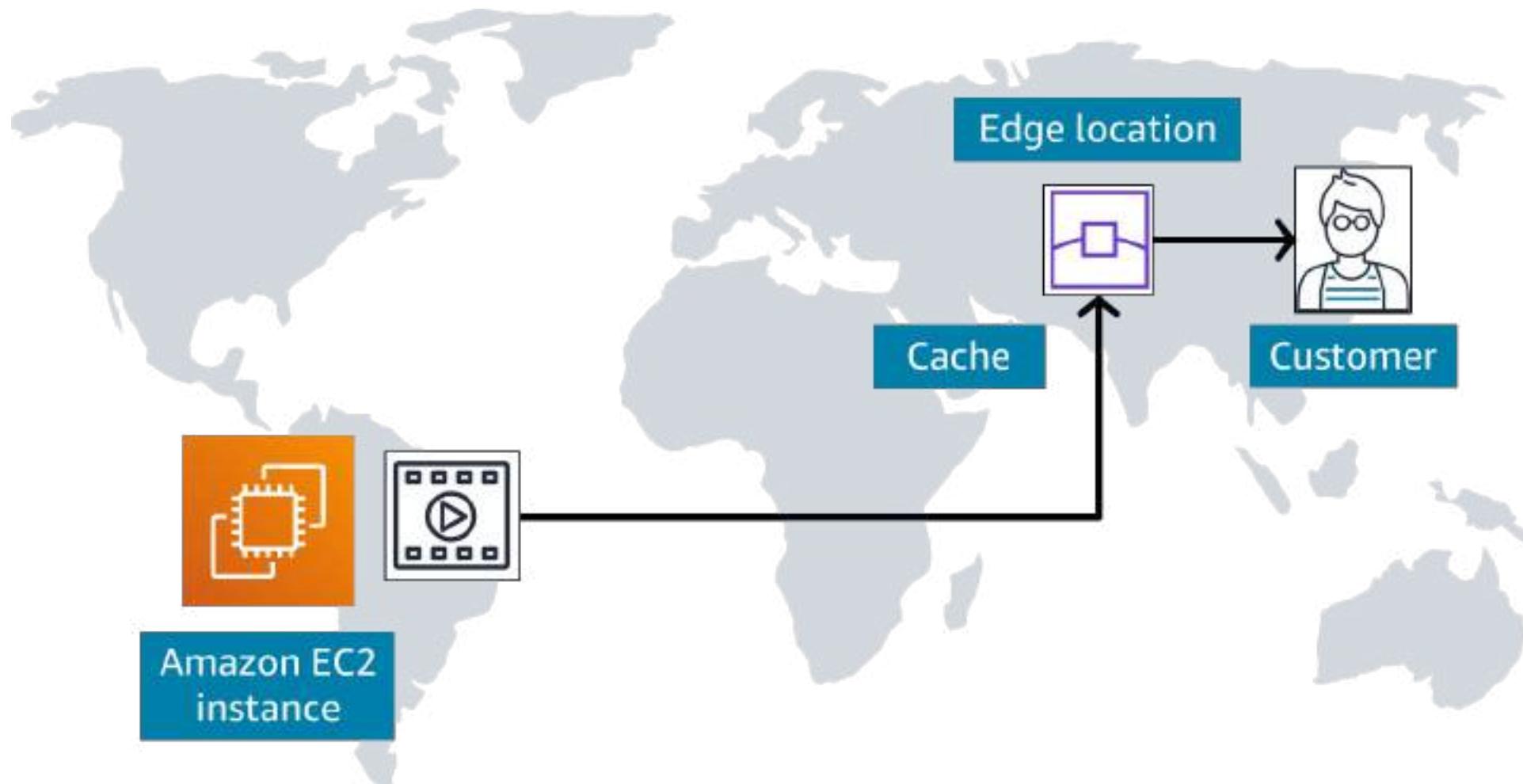
# Global content delivery (1 of 2)



# Global content delivery (2 of 2)



# Amazon CloudFront delivers content





## Topic C: AWS Outposts

Demonstration: Explore the AWS Global Infrastructure

Topic A: AWS Global Infrastructure

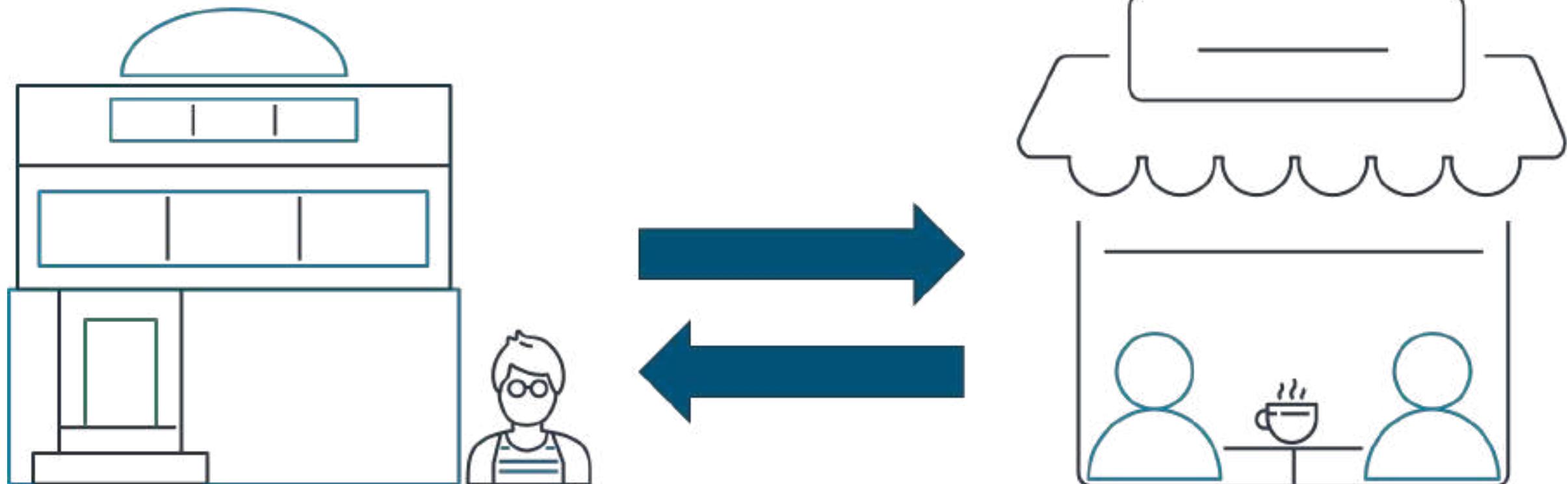
Topic B: Get closer to your customers

→ Topic C: AWS Outposts

Topic D: Interact with AWS services

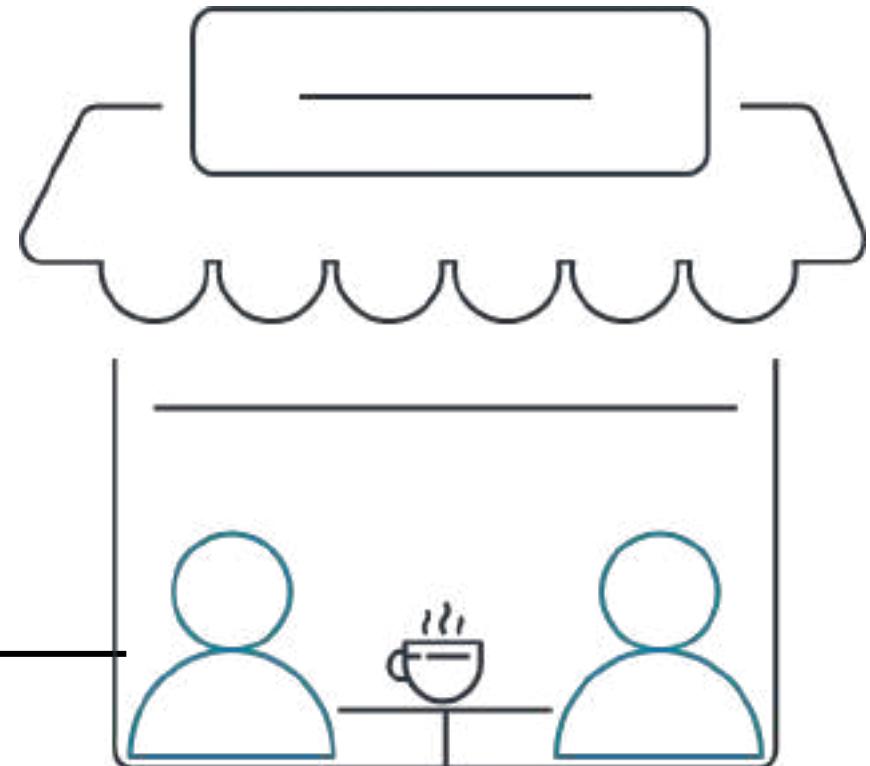
Demonstration: AWS Management Console  
Knowledge check

# Get products from the coffee shop (1 of 2)



# Get products from the coffee shop (2 of 2)

---



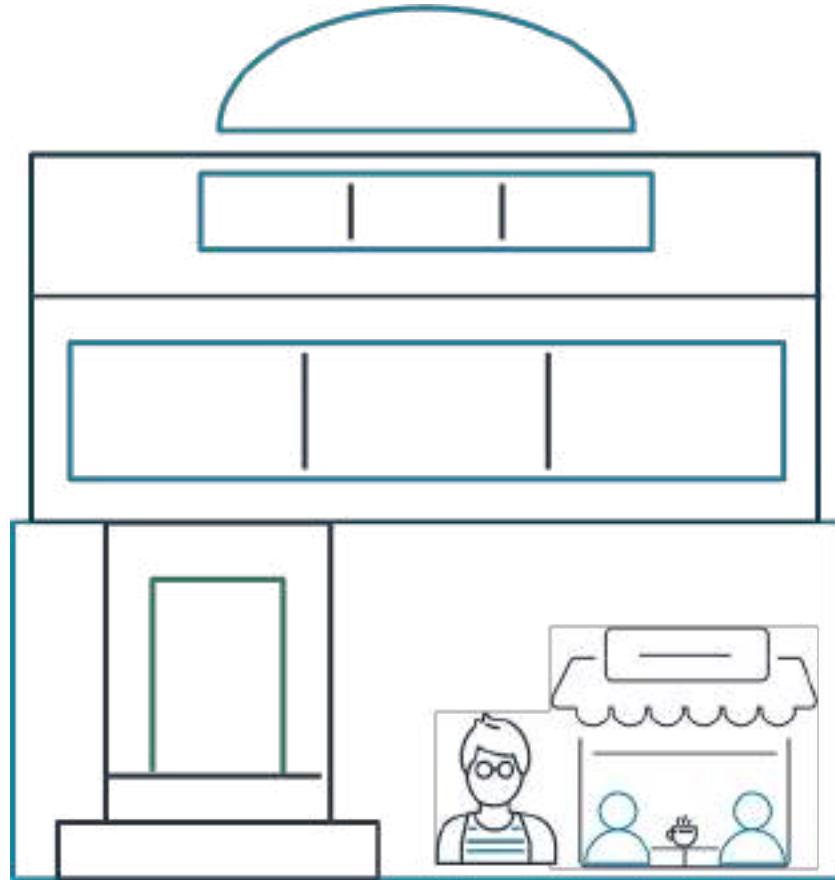
# AWS Outposts

---



AWS Outposts family

Extend AWS infrastructure and services to different locations, including your on-premises data center.

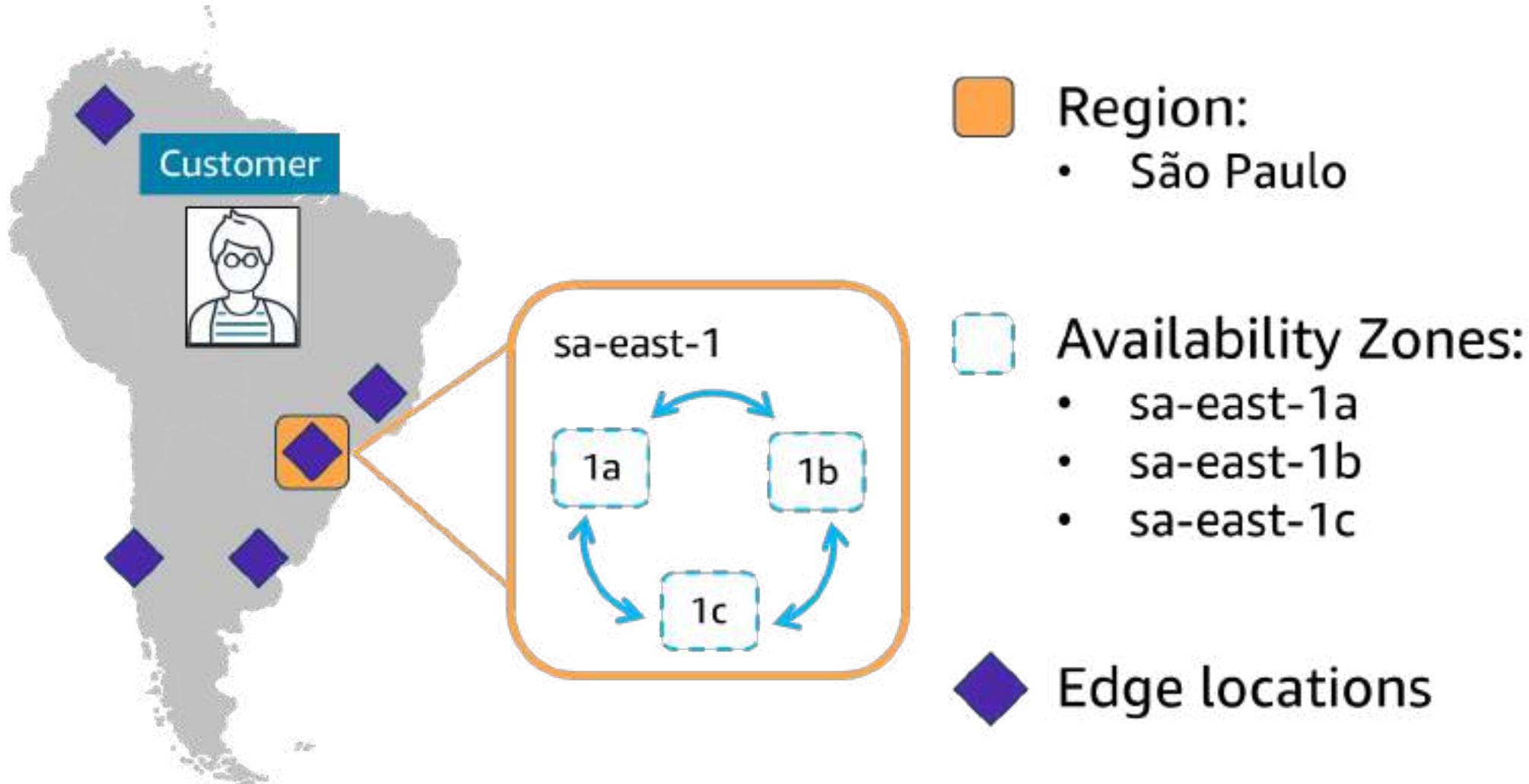


# Discussion

---

When choosing an AWS Region for your services, data, and applications, why should you consider a Region's proximity to your customers?

# Review: AWS Global Infrastructure





## Topic D: Interact with AWS services

Demonstration: Explore the AWS Global Infrastructure

Topic A: AWS Global Infrastructure

Topic B: Get closer to your customers

Topic C: AWS Outposts

→ Topic D: Interact with AWS services

Demonstration: AWS Management Console  
Knowledge check

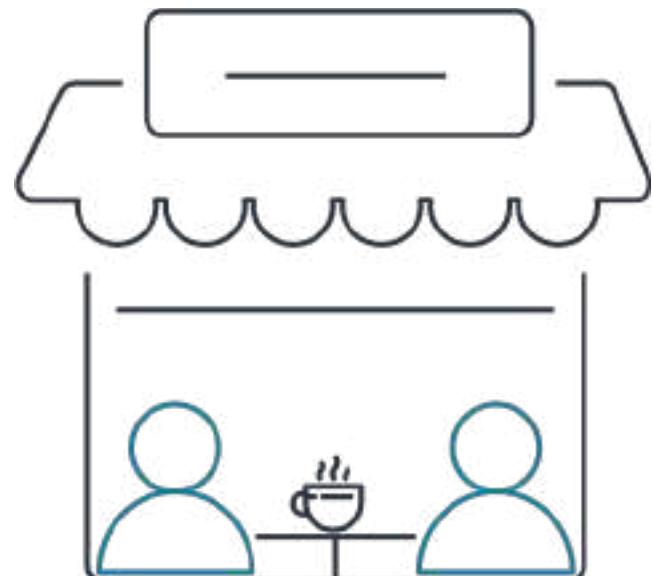
# Perform actions through API requests

Coffee shop

Order a cup of coffee

Ask for a refill

Check your rewards balance



AWS Cloud

Launch an Amazon EC2 instance

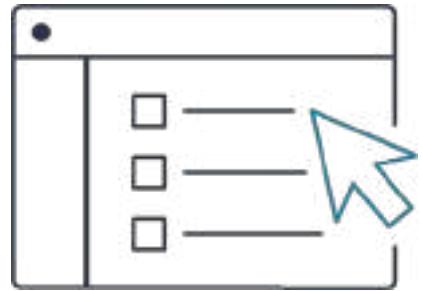
Create a load balancer

Invoke an AWS Lambda function



# Interact with AWS services

---



aws> \_

</>

AWS Management  
Console

AWS Command Line  
Interface (AWS CLI)

Software  
Development Kits  
(SDK)



## Demonstration check

Demonstration: Explore the AWS Global Infrastructure

Topic A: AWS Global Infrastructure

Topic B: Get closer to your customers

Topic C: AWS Outposts

Topic D: Interact with AWS services

➡ Demonstration: AWS Management Console Knowledge check

# Demonstration



## AWS Management Console

In this demo, your instructor will show you the following things:

- Opening the list of all services
- Accessing recently visited services
- Finding a service by name, keyword, or acronym
- Browsing through the “Build a solution” and “Learn to build” sections at the bottom of the AWS Management Console home page
- Creating service shortcuts in the Console toolbar



## Knowledge Check

Demonstration: Explore the AWS Global Infrastructure

Topic A: AWS Global Infrastructure

Topic B: Get closer to your customers

Topic C: AWS Outposts

Topic D: Interact with AWS services

Demonstration: AWS Management Console

→ Knowledge check

# Knowledge check 1 - question

Which of the following is TRUE for the AWS Global Infrastructure?

Choice	Response
A	An Availability Zone consists of a single Region.
B	An Availability Zone consists of two or more Regions.
C	A Region consists of a single Availability Zone.
D	A Region consists of three or more Availability Zones.

# Knowledge check 1 – answer

Which of the following is TRUE for the AWS Global Infrastructure?

The correct response is D.

- A An Availability Zone consists of a single Region.
- B An Availability Zone consists of two or more Regions.
- C A Region consists of a single Availability Zone.
- D A Region consists of three or more Availability Zones.

# Knowledge check 2 - question

Which factors should be considered when selecting a Region? (Select TWO.)

Choice	Response
A	Compliance with data governance and legal requirements
B	Proximity to your customers
C	Access to 24/7 technical support
D	Ability to assign custom permissions to different users
E	Access to the AWS Command Line Interface (AWS CLI)

# Knowledge check 2 – answer

Which factors should be considered when selecting a Region? (Select TWO.)

The correct responses are A and B.

- A **Compliance with data governance and legal requirements**
- B **Proximity to your customers**
- C Access to 24/7 technical support
- D Ability to assign custom permissions to different users
- E Access to the AWS Command Line Interface (AWS CLI)

# Knowledge check 3 - question

Which statement best describes Amazon CloudFront?

Choice	Response
A	A service that can be used to run infrastructure in a hybrid cloud approach
B	A serverless compute engine for containers
C	A service that can be used to send and receive messages between software components through a queue
D	A global content delivery service

# Knowledge check 3 – answer

Which statement best describes Amazon CloudFront?

The correct response is D.

- A A service that can be used to run infrastructure in a hybrid cloud approach
- B A serverless compute engine for containers
- C A service that can be used to send and receive messages between software components through a queue
- D A global content delivery service

# Knowledge check 4 - question

Which site does Amazon CloudFront use to cache copies of content for faster delivery to users at any location?

Choice	Response
A	Edge location
B	Region
C	Availability Zone
D	Origin

# Knowledge check 4 – answer

Which site does Amazon CloudFront use to cache copies of content for faster delivery to users at any location?

The correct response is A.

- A Edge location
- B Region
- C Availability Zone
- D Origin

# Knowledge check 5 - question

Which actions can a cloud practitioner perform with AWS Outposts?

Choice	Response
A	Automate actions for AWS services and applications through scripts.
B	Access wizards and automated workflows to perform tasks in AWS services.
C	Extend AWS infrastructure and services to different locations including an on-premises data center.
D	Develop AWS applications in supported programming languages.

# Knowledge check 5 – answer

Which actions can a cloud practitioner perform with AWS Outposts?

The correct response is C.

- A Automate actions for AWS services and applications through scripts.
- B Access wizards and automated workflows to perform tasks in AWS services.
- C Extend AWS infrastructure and services to different locations including an on-premises data center.**
- D Develop AWS applications in supported programming languages.

# Module summary



## Covered in this module:

- Three aspects of the AWS Global Infrastructure
- Four factors to consider when selecting an AWS Region
- Three ways to interact with AWS services



# Questions?

## Thank you for attending this session

Corrections, feedback, or other questions?  
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# AWS Partner: Cloud Practitioner Essentials

## Module 4: Networking

# Module Objectives



On completion, you will be able to:

- Describe basic networking concepts
- Describe the differences between public and private networking resources
- Explain a virtual private gateway using a real-life scenario
- Explain a VPN using a real-life scenario
- Describe AWS Direct Connect benefits
- Describe hybrid deployment benefits
- Describe the layers of security in an IT strategy
- Describe the services customers use to interact with the AWS global network

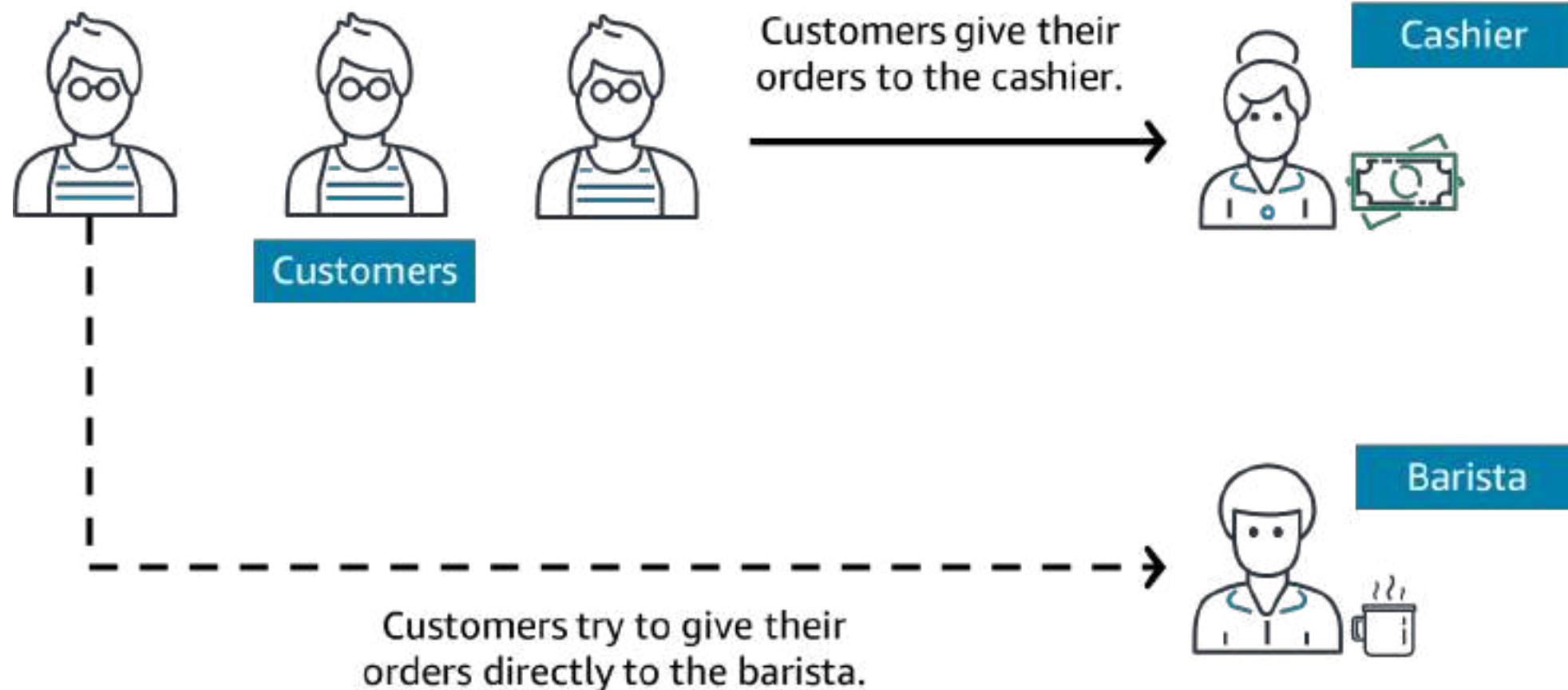
# Module Topics



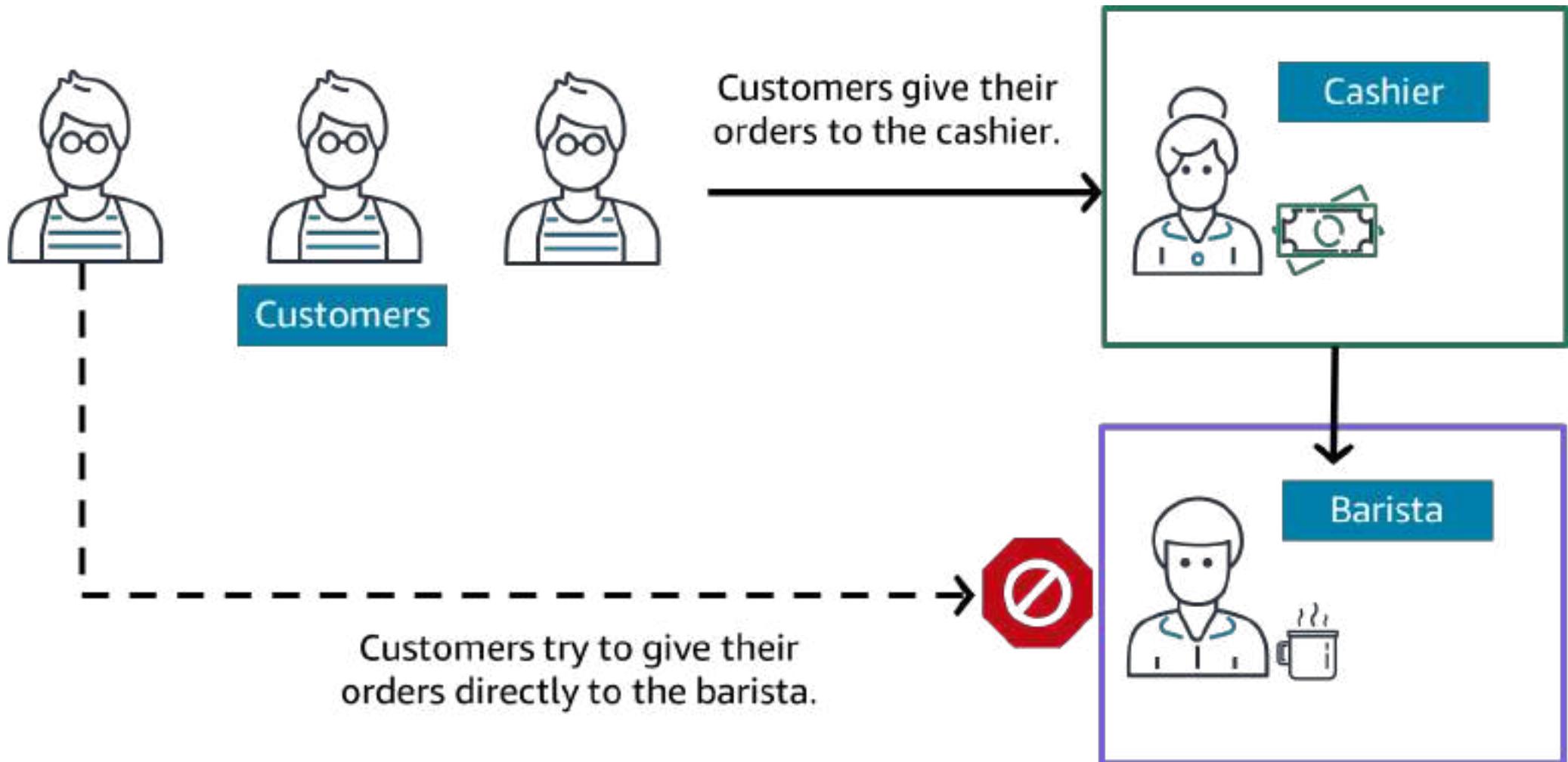
## Topics:

- Topic A: Amazon Virtual Private Cloud (Amazon VPC)
- Topic B: Network access control lists and security groups
- Topic C: Interact with the AWS global network
- Knowledge check

# Traffic in the coffee shop (1 or 2)



# Traffic in the coffee shop (2 of 2)





## **Topic A: Amazon Virtual Private Cloud (Amazon VPC)**

→ Topic A: Amazon Virtual Private Cloud  
(Amazon VPC)

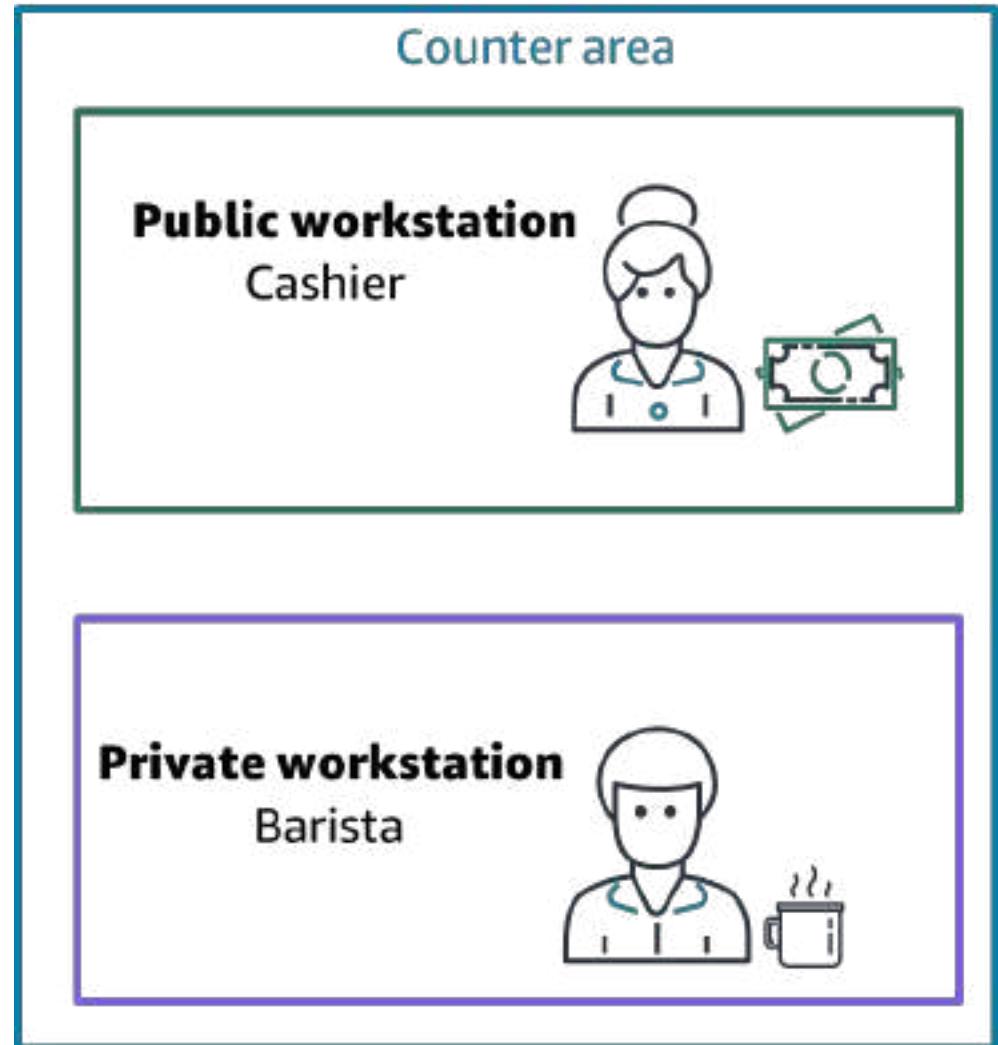
Topic B: Network access control lists and  
security groups

Topic C: Interact with the AWS global network  
Knowledge check

# Amazon VPC



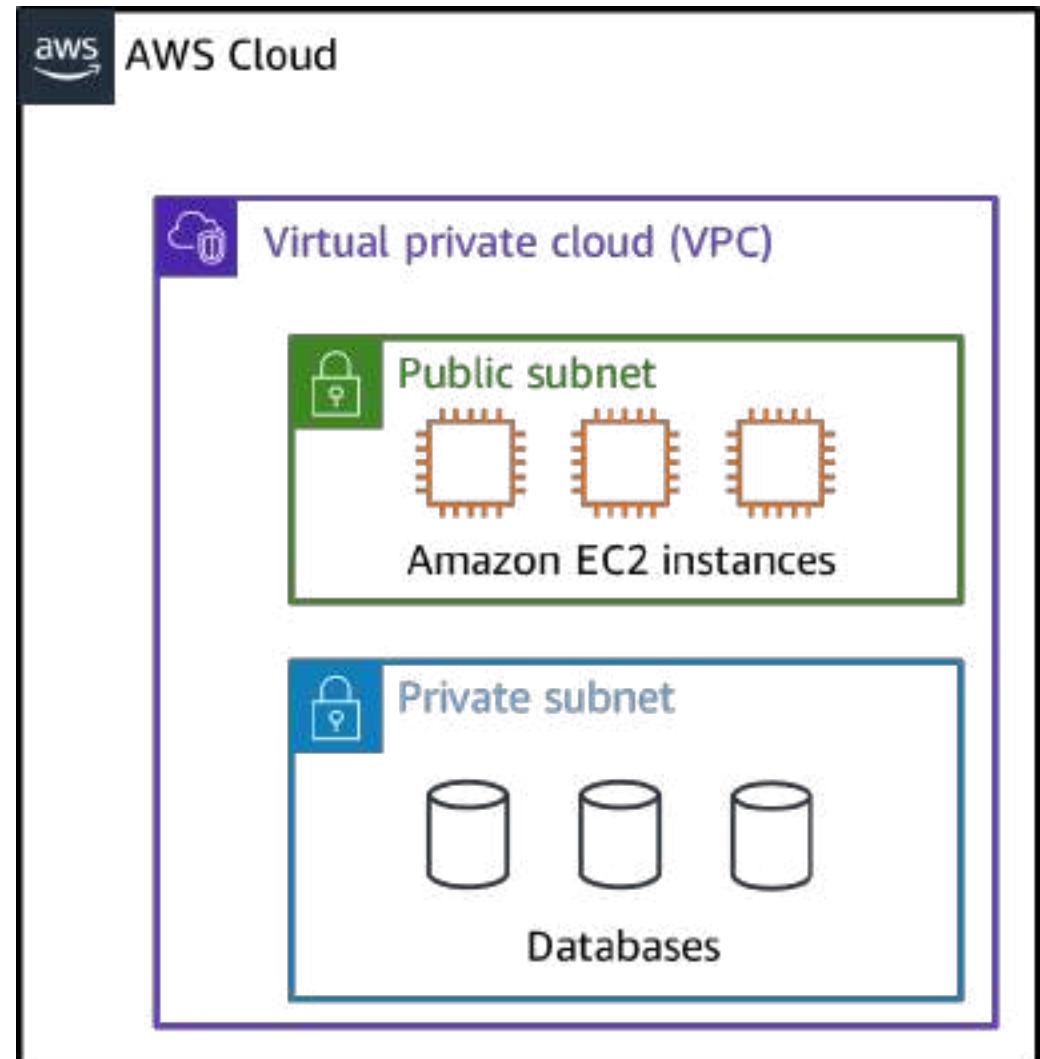
**Amazon Virtual Private Cloud (Amazon VPC)** enables you to launch resources in a virtual network that you define.



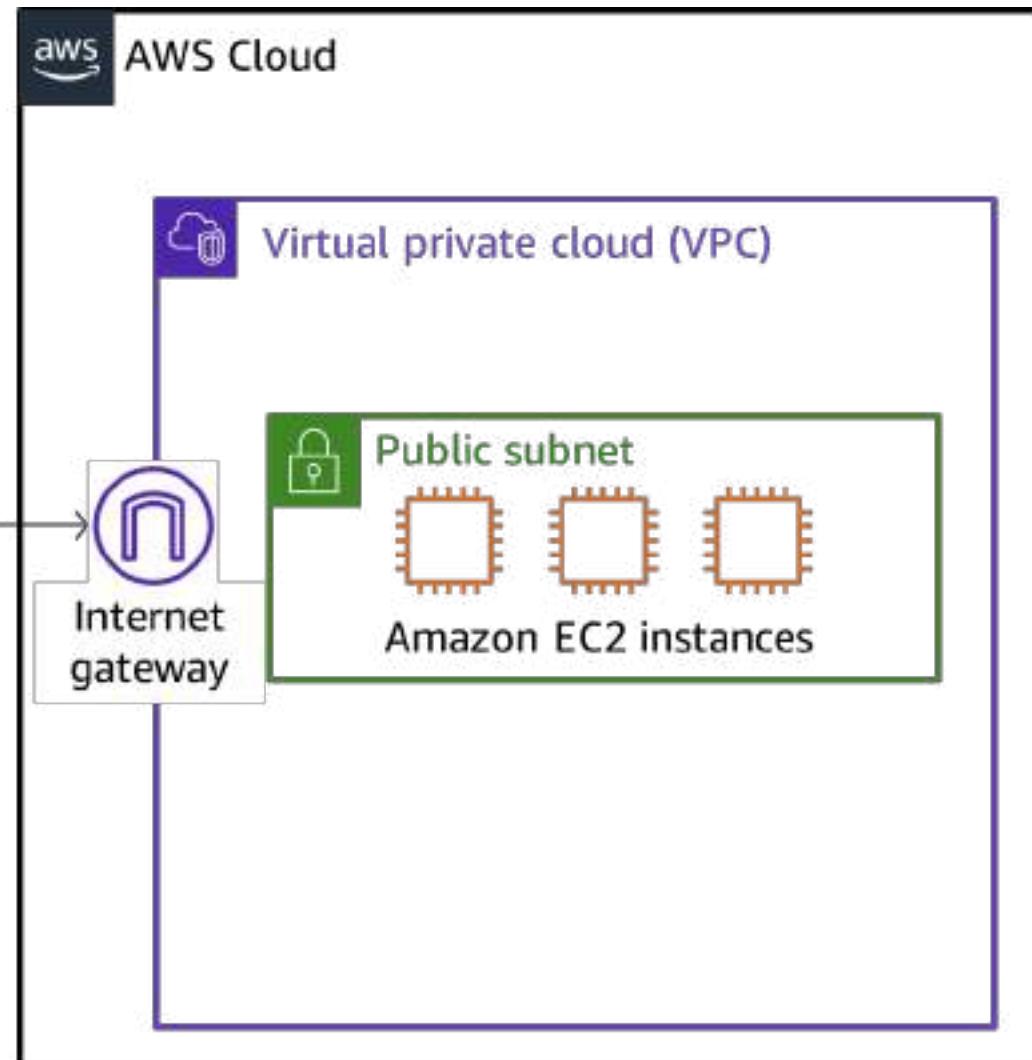
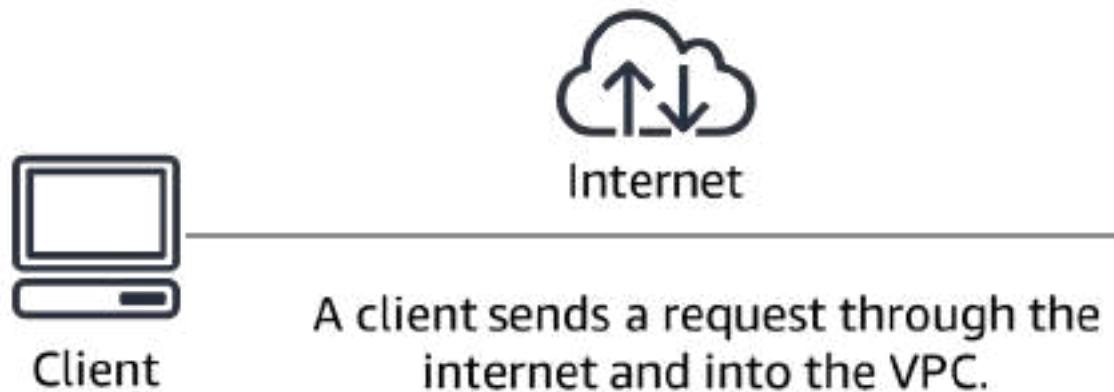
# Subnets

A subnet is a section in a VPC in which you can place groups of isolated resources.

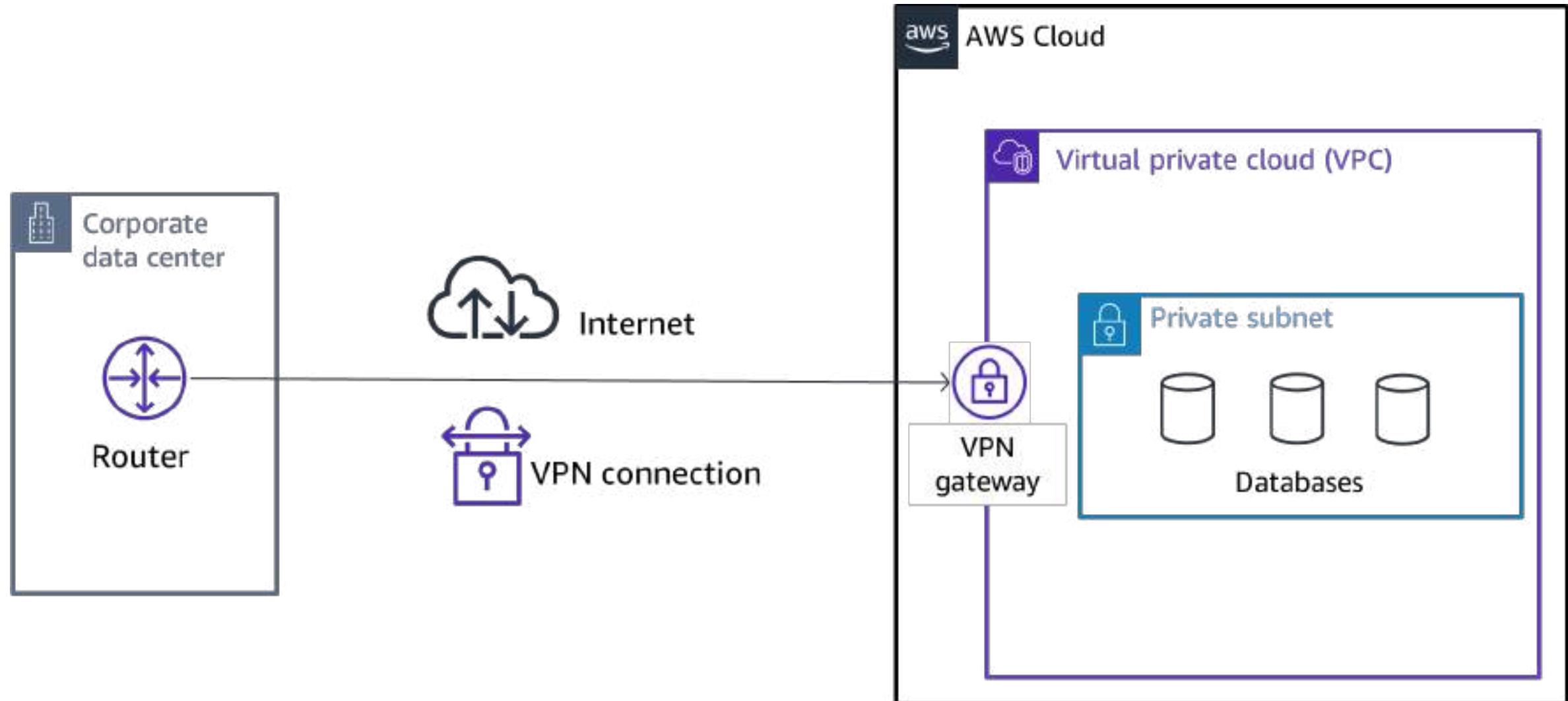
A subnet can be public or private.



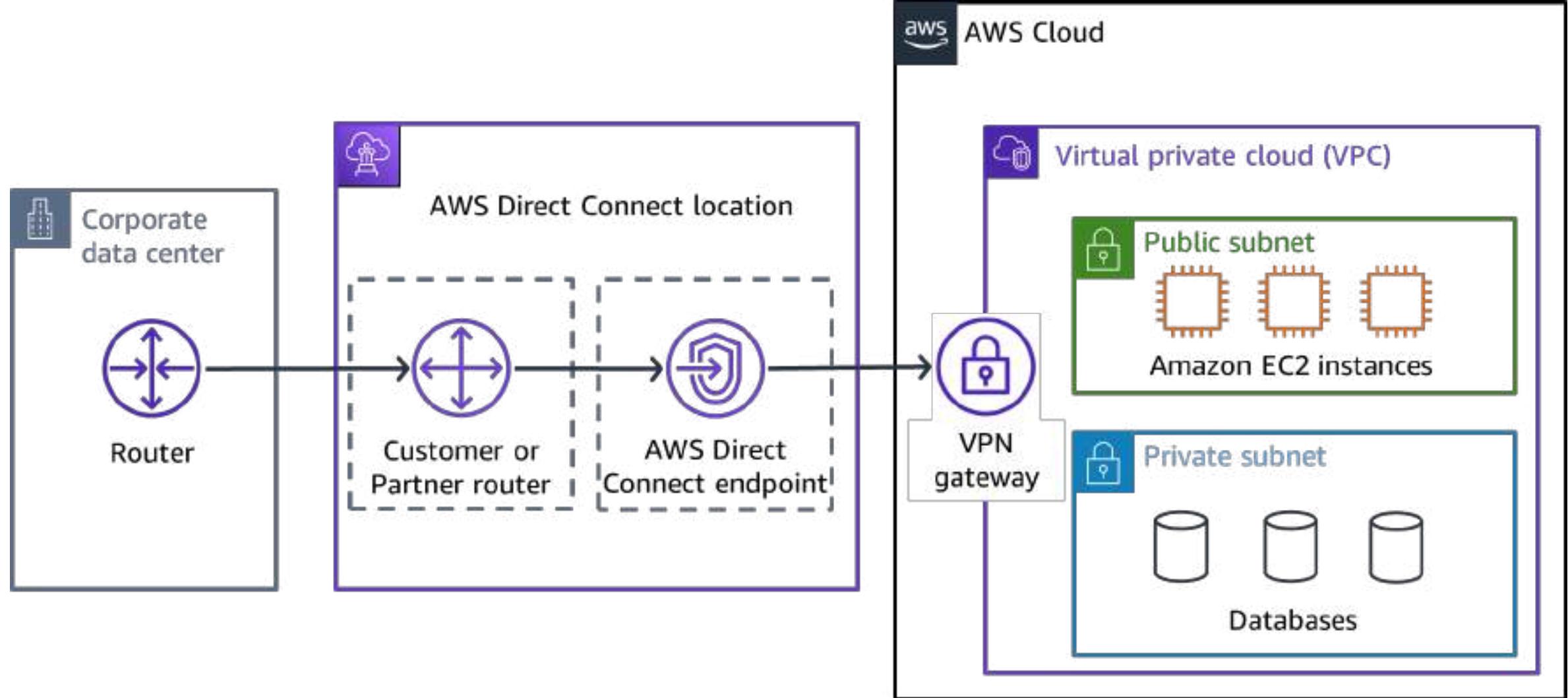
# Internet gateway



# Virtual private gateway



# AWS Direct Connect



# Match: VPC components (1 of 5)

---

1. Isolate databases containing customers' personal information

2. Create a VPN connection between the VPC and the internal corporate network

3. Support customer-facing website

4. Establish a dedicated connection between an on-premises data center and the VPC

A. Public subnet

B. Private subnet

C. Virtual Private Gateway

D. AWS Direct Connect

# Match: VPC components (2 of 5)

1. Isolate databases containing customers' personal information

A. Public subnet

2. Create a VPN connection between the VPC and the internal corporate network

B. Private subnet

3. Support customer-facing website

C. Virtual Private Gateway

4. Establish a dedicated connection between an on-premises data center and the VPC

D. AWS Direct Connect

# Match: VPC components (3 of 5)

1. Isolate databases containing customers' personal information

2. Create a VPN connection between the VPC and the internal corporate network

3. Support customer-facing website

4. Establish a dedicated connection between an on-premises data center and the VPC

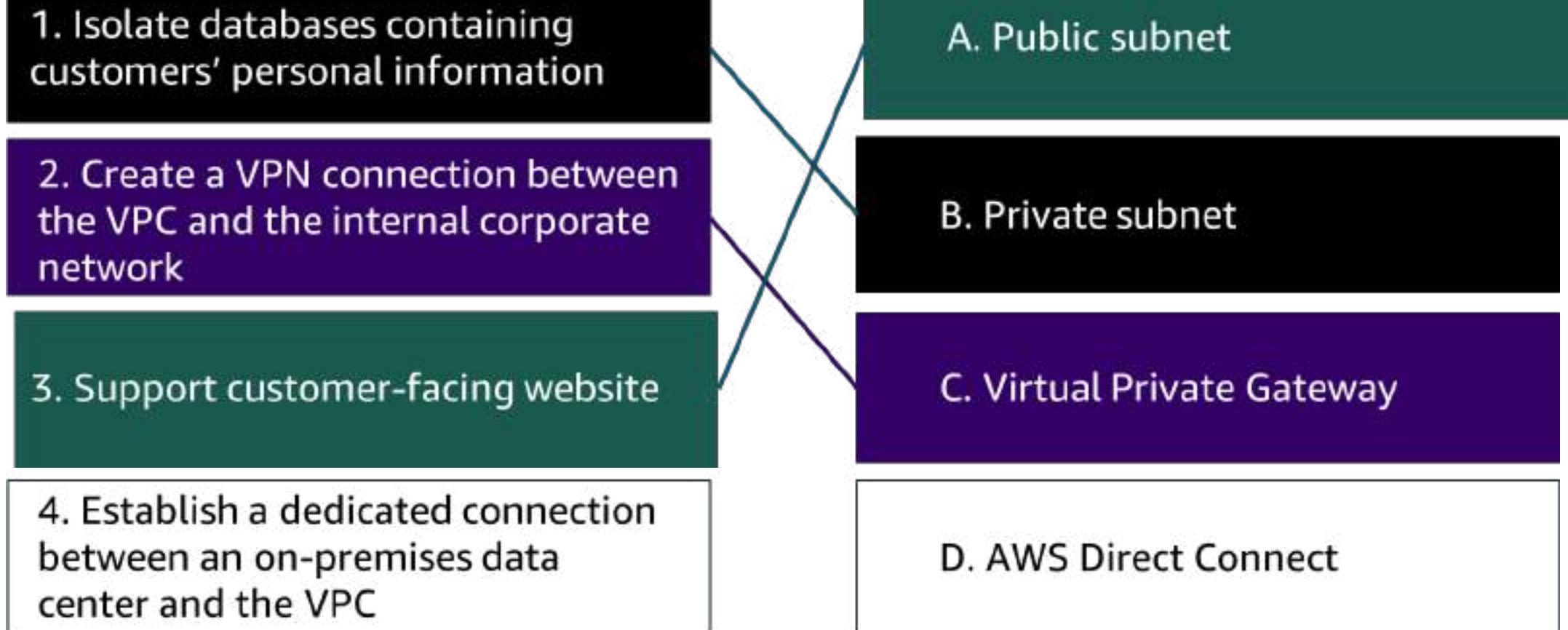
A. Public subnet

B. Private subnet

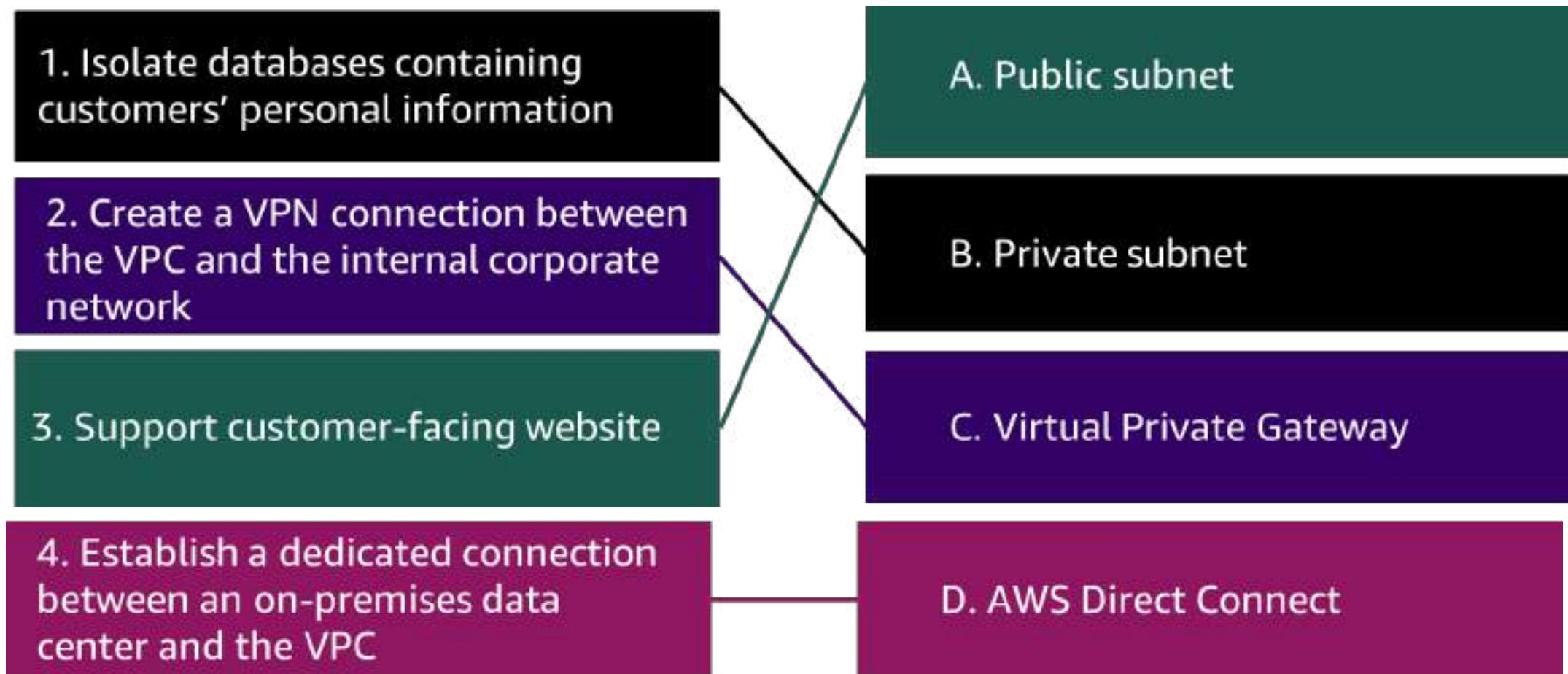
C. Virtual Private Gateway

D. AWS Direct Connect

# Match: VPC components (4 of 5)



# Match: VPC components (5 of 5)





AWS Cloud Practitioner Essentials

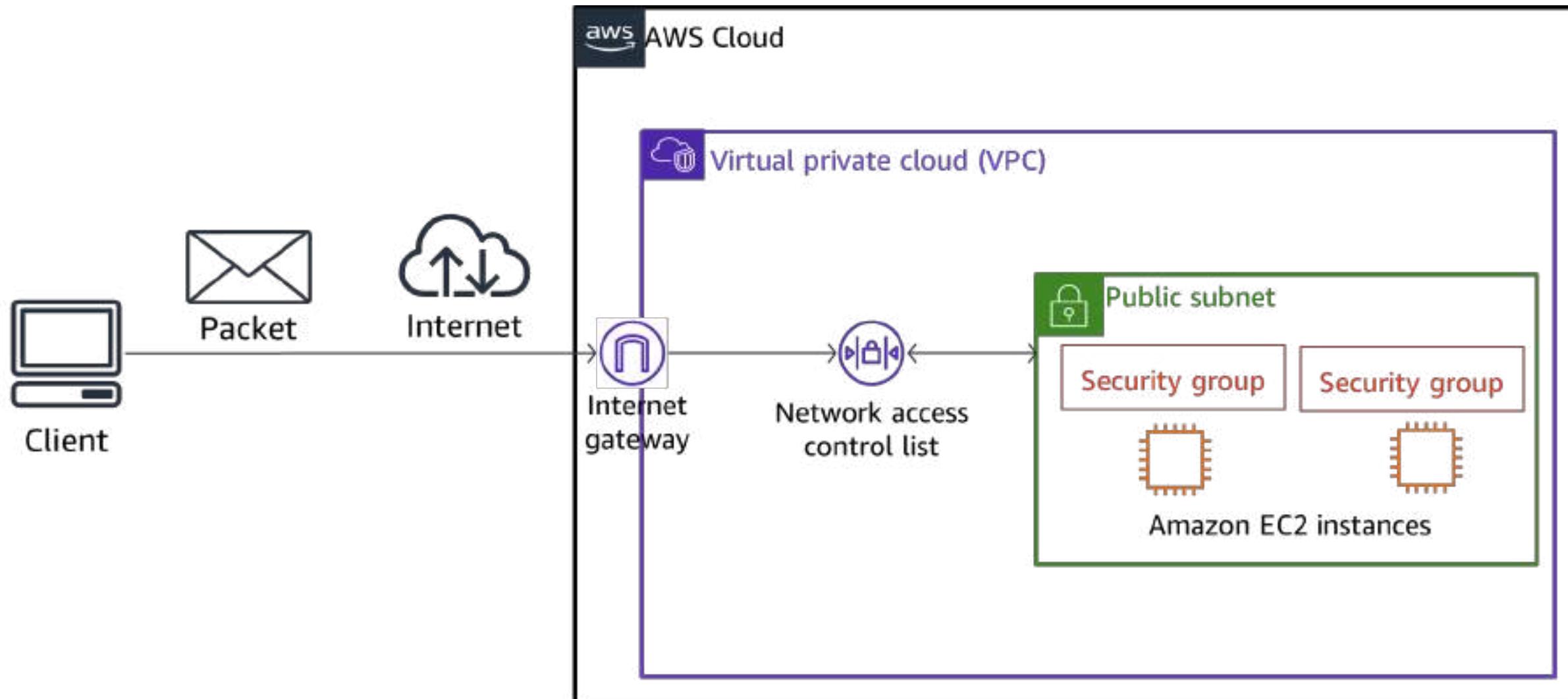
## **Topic B: Network access control lists and security groups**

Topic A: Amazon Virtual Private Cloud  
(Amazon VPC)

→ Topic B: Network access control lists and security groups

Topic C: Interact with the AWS global network  
Knowledge check

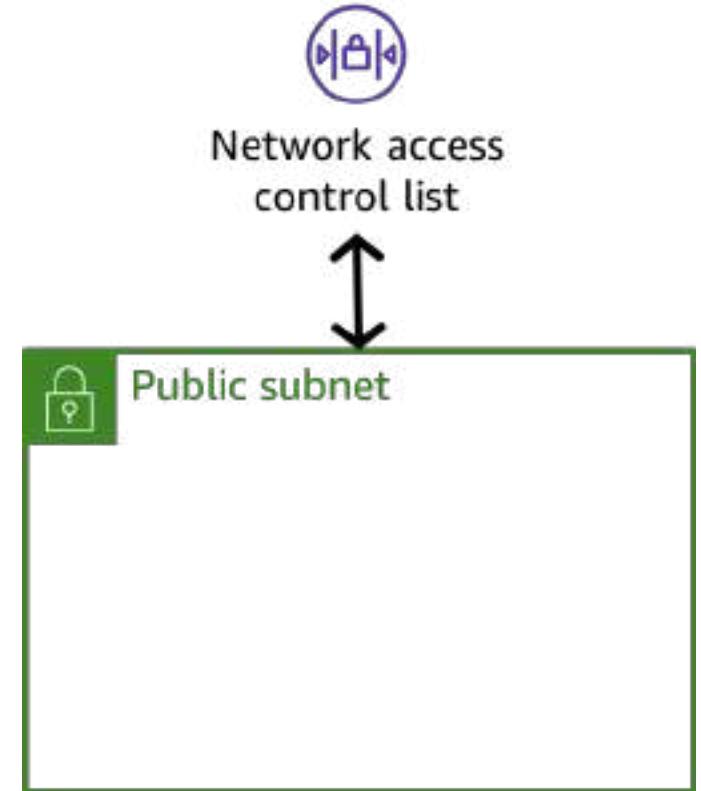
# Network traffic in a VPC



# Network access control lists

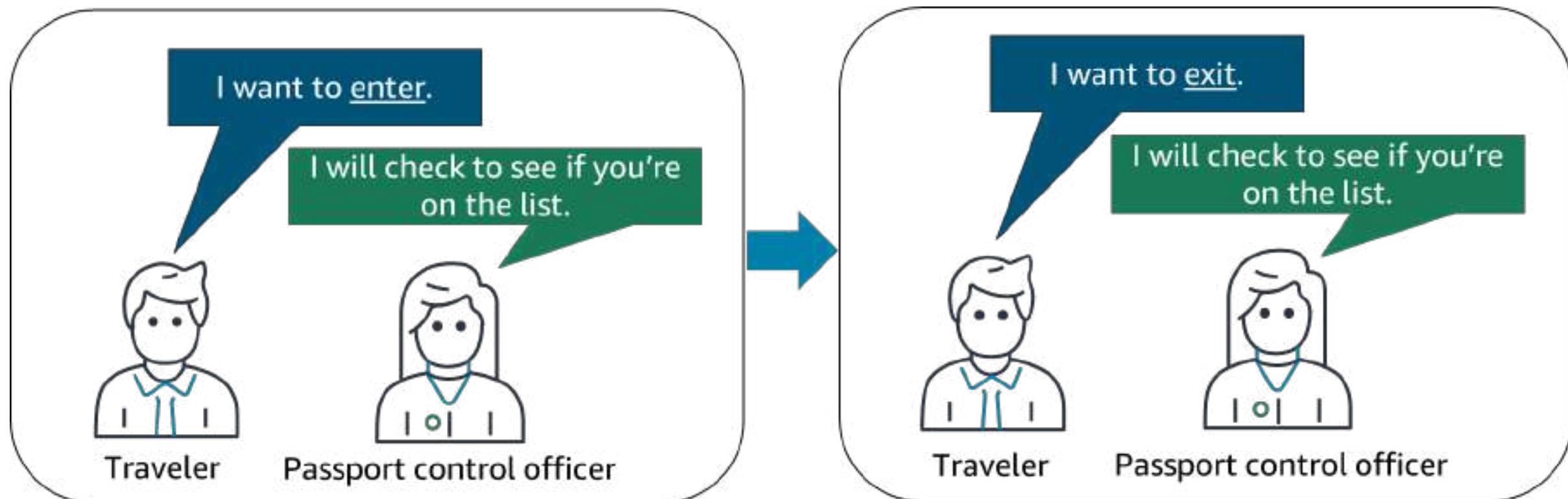
A **network access control list (network ACL)** is a virtual firewall for a subnet. By default:

- The default network ACL allows all inbound and outbound traffic.
- Customer network ACLs deny all inbound and outbound traffic



# Stateless packet filtering

- Network ACLs perform stateless packet filtering.
- Before a packet can exit a subnet, it must be checked against the outbound rules.



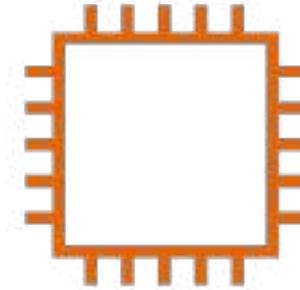
# Security groups

---

A security group is a virtual firewall for an Amazon EC2 instance.

By default, a security group denies all inbound traffic and allows all outbound traffic.

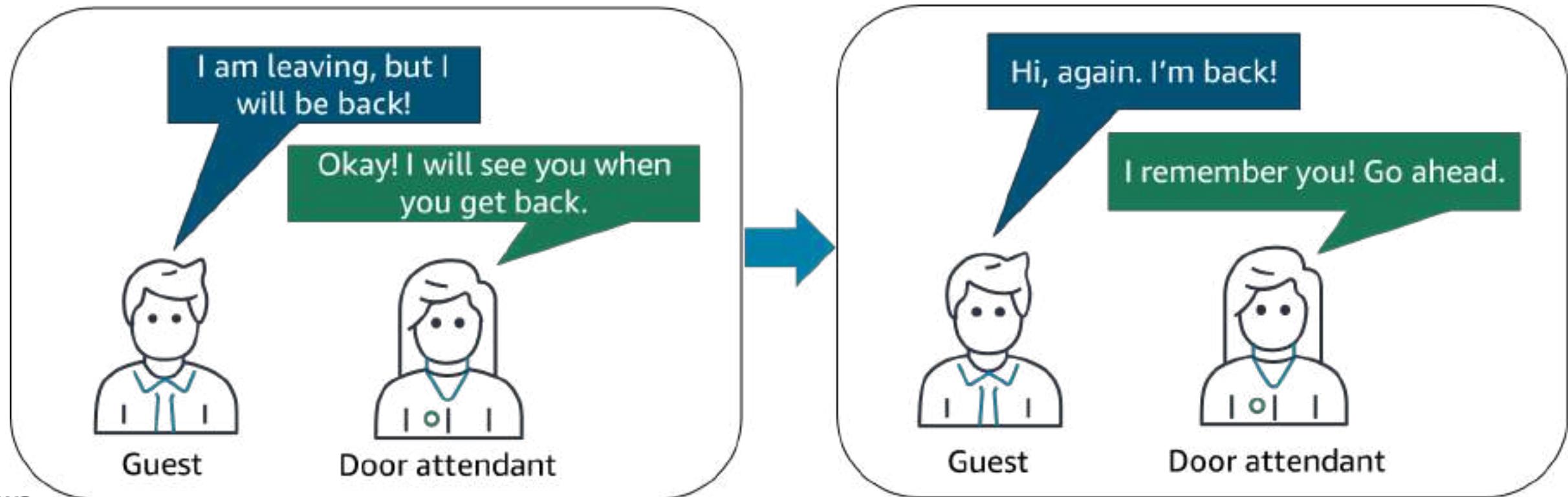
Security group



Amazon EC2 instance

# Stateful packet filtering

- Security groups perform stateful packet filtering.
- They remember previous decisions that were made for incoming packets.



# Discussion

---

What are the differences between network access control lists and security groups?



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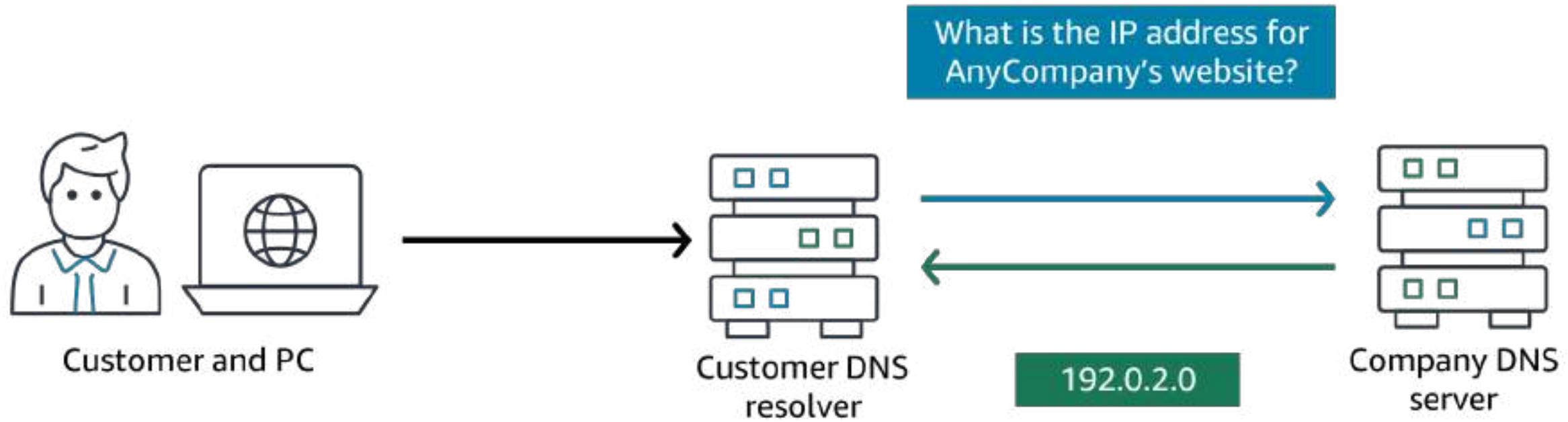
## **Topic C: Interact with the AWS global network**

Topic A: Amazon Virtual Private Cloud  
(Amazon VPC)

Topic B: Network access control lists and  
security groups

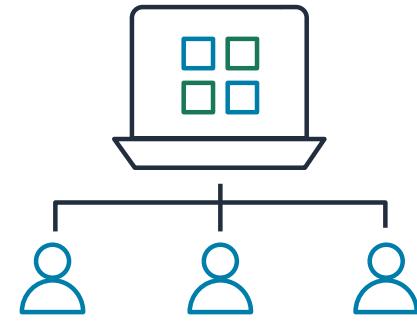
→ Topic C: Interact with the AWS global network  
Knowledge check

# Domain Name System (DNS)



# Amazon Route 53

---

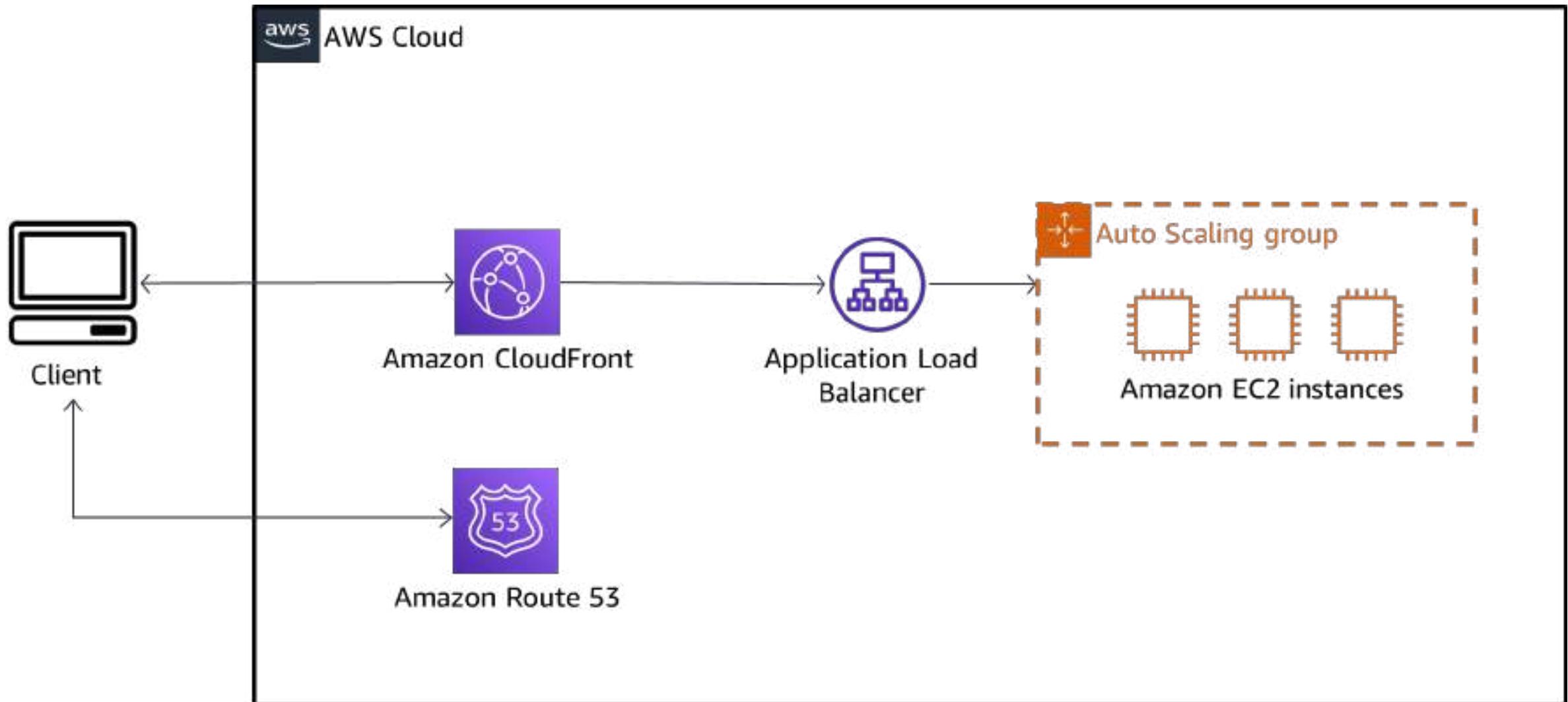


Route users to  
internet applications

Connect user requests  
to infrastructure in  
AWS and outside of  
AWS

Manage DNS records  
for domain names

# Amazon Route 53 and CloudFront





## Knowledge check

Topic A: Amazon Virtual Private Cloud  
(Amazon VPC)

Topic B: Network access control lists and  
security groups

Topic C: Interact with the AWS global network

→ Knowledge check

# Knowledge check 1 – question

Which component or service can be used to establish a private dedicated connection between a company's data center and AWS?

Choice	Response
A	Private subnet
B	DNS
C	AWS Direct Connect
D	Amazon CloudFront

# Knowledge check 1 – answer

Which component or service can be used to establish a private dedicated connection between a company's data center and AWS?

The correct response is C.

- A Private subnet
- B DNS
- C **AWS Direct Connect**
- D Amazon CloudFront

# Knowledge check 2 – question

Which statement describes security groups?

Choice	Response
A	They are stateful and allow all inbound traffic by default.
B	They are stateful and deny all inbound traffic by default.
C	They are stateless and allow all inbound traffic by default.
D	They are stateless and deny all inbound traffic by default.

# Knowledge check 2 – answer

Which statement describes security groups?

The correct response is B.

- A They are stateful and allow all inbound traffic by default.
- B They are stateful and deny all inbound traffic by default.**
- C They are stateless and allow all inbound traffic by default.
- D They are stateless and deny all inbound traffic by default.

# Knowledge check 3 – question

Which component is used to connect a VPC to the internet?

## Choice Response

- A Internet gateway
- B Public subnet
- C Edge location
- D Security group

# Knowledge check 3 – answer

Which component is used to connect a VPC to the internet?

The correct response is A.

- A Internet gateway
- B Public subnet
- C Edge location
- D Security group

# Knowledge check 4 – question

Which service is used to manage the DNS records for domain names?

## Choice Response

- A Amazon Virtual Private Cloud
- B AWS Direct Connect
- C Amazon CloudFront
- D Amazon Route 53

# Knowledge check 4 – answer

Which service is used to manage the DNS records for domain names?

The correct response is D.

- A Amazon Virtual Private Cloud
- B AWS Direct Connect
- C Amazon CloudFront
- D **Amazon Route 53**

# Knowledge check 5 – question

Which statement describes DNS resolution?

Choice	Response
A	Launching resources in a customer-defined virtual network
B	Storing local copies of content at edge locations around the world
C	Connecting a VPC to the internet
D	Translating a domain name to an IP address

# Knowledge check 5 – answer

Which statement describes DNS resolution?

The correct response is D.

- A Launching resources in a customer-defined virtual network
- B Storing local copies of content at edge locations around the world
- C Connecting a VPC to the internet
- D Translating a domain name to an IP address

# Module summary



## Covered in this module:

- Structuring and connecting to a VPC
- Securing VPC resources with network access control lists and security groups
- Using Amazon Route 53 and Amazon CloudFront to deliver content



# Questions?

## Thank you for attending this session

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# AWS Partner: Cloud Practitioner Essentials

## Module 5: Storage and Databases

# Module Objectives



On completion, you will be able to:

- Summarize the basic concept of storage and databases
- Describe Amazon Elastic Block Store (Amazon EBS) benefits
- Describe Amazon Simple Storage Service (Amazon S3) benefits
- Describe Amazon Elastic File System (Amazon EFS) benefits
- Summarize various storage solutions
- Describe Amazon Relational Database Service (Amazon RDS) benefits
- Describe Amazon DynamoDB benefits
- Summarize various database services

# Module Topics



## Topics:

- Topic A: AWS storage
- Topic B: AWS databases
- Topic C: Additional database services
- Knowledge check

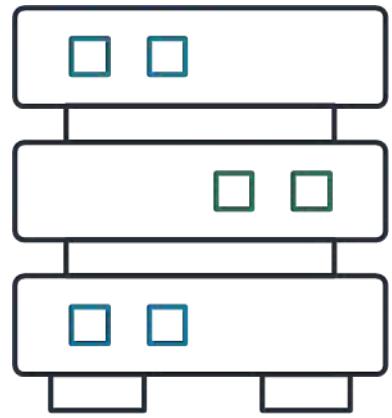


## Topic A: AWS storage

- ➡ Topic A: AWS storage
- Topic B: AWS databases
- Topic C: Additional database services
- Knowledge check

# AWS storage types

---



Block storage



Object storage

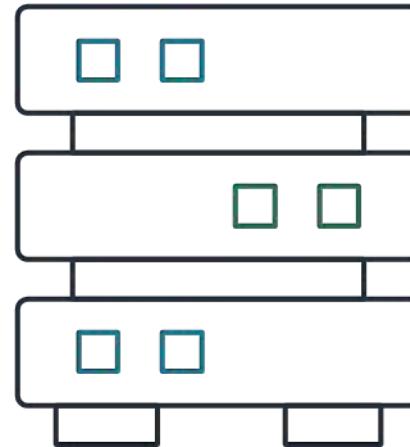


File storage

# Block storage

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- In **block storage**, files are separated into equal-sized pieces (blocks) of data.
- Block storage is used for applications that run on Amazon EC2 instances.



# Instance store

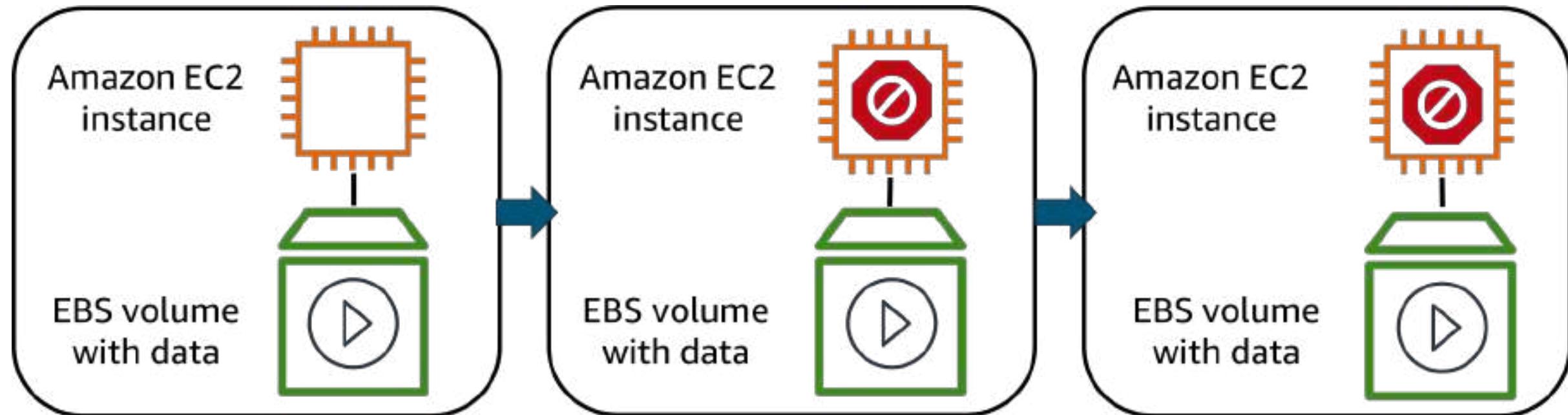


An Amazon EC2 instance with an attached instance store is running.

The instance is stopped or terminated.

All data on the attached instance store is deleted.

# Amazon EBS volumes

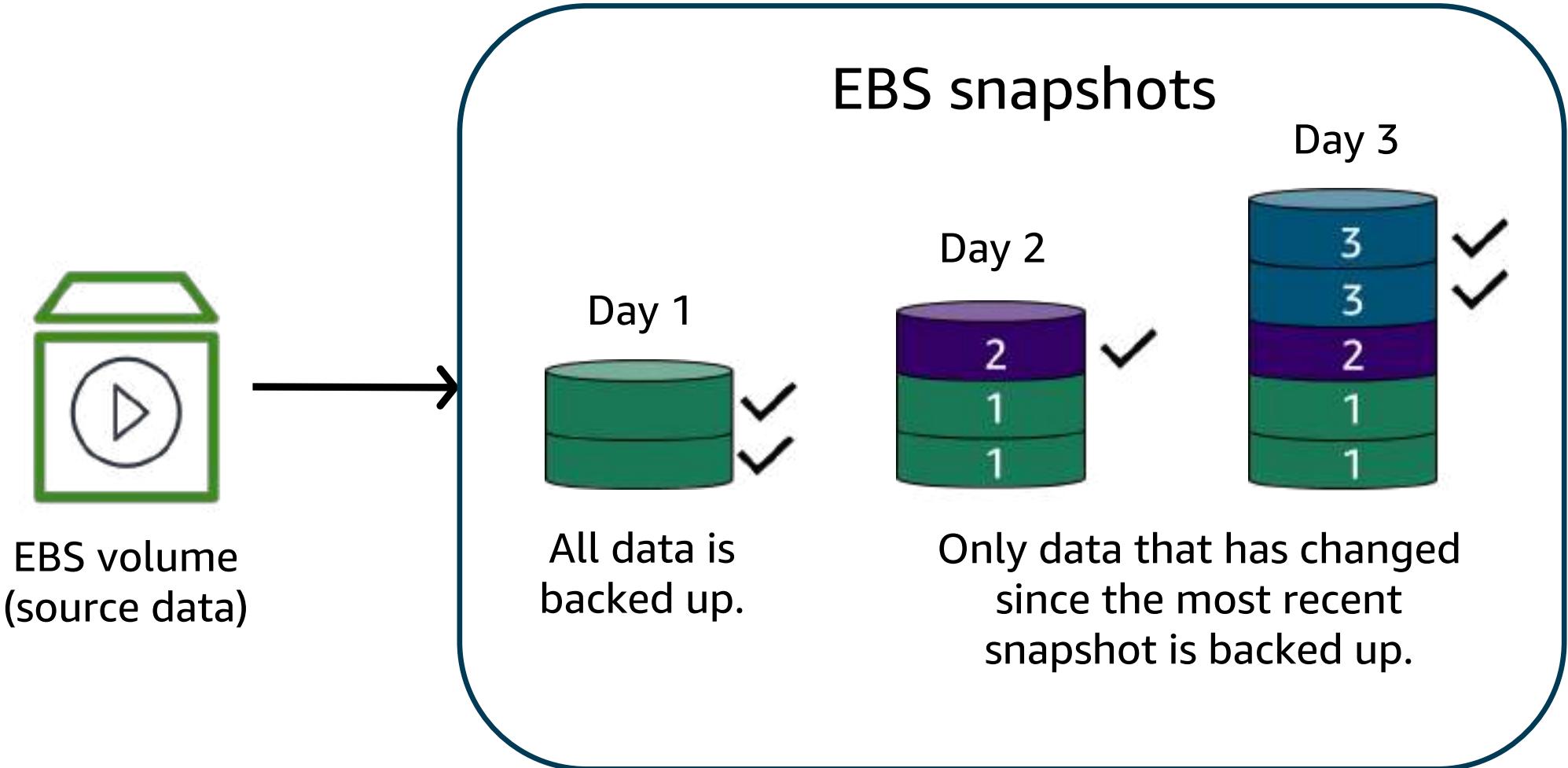


An Amazon EC2 instance with an attached EBS volume is running

The instance is stopped or terminated. (If terminated, the EBS volume is removed by default.)

All data on the attached EBS volume remains available.

# Amazon EBS snapshots



# Discussion

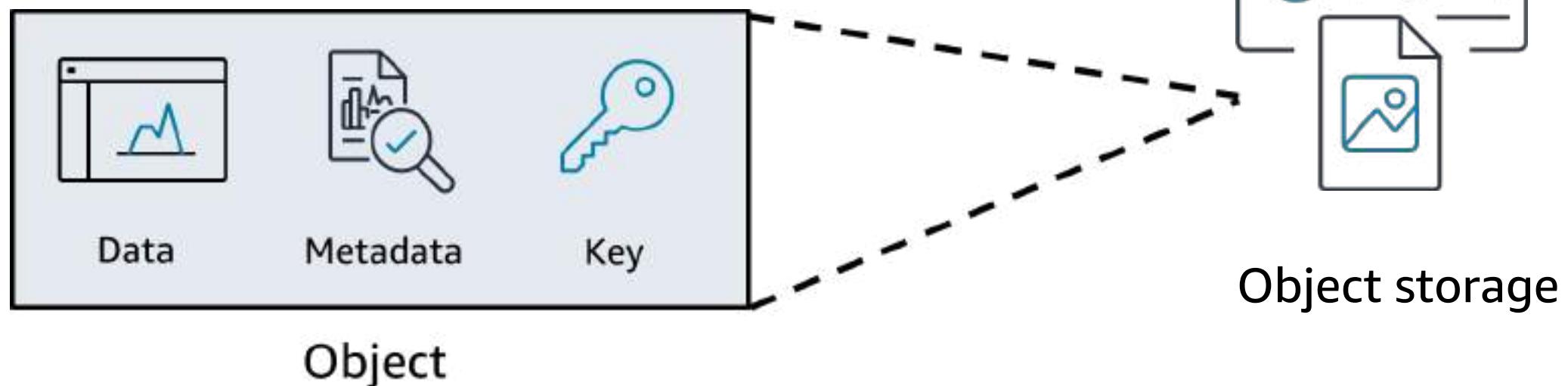
---

What are the differences between instance stores and Amazon EBS volumes?

# Object storage

---

In **object store**, each object consists of data, metadata, and a key.



# Amazon Simple Storage Service

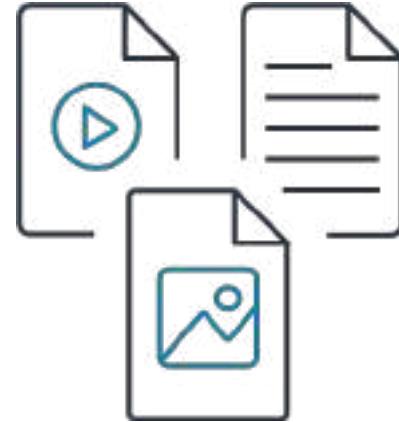
---



Store objects in buckets



Set permissions to control  
access to objects



Choose from a range of  
storage classes for  
different use cases

# Amazon S3 storage classes (1 of 2)

## S3 storage

- Designed for frequently accessed data
- Stores data in a minimum of three Availability Zones

## S3 Standard-IA

- Ideal for infrequently accessed data
- Similar to S3 Standard but has a lower storage price and higher retrieval price

## S3 One Zone-IA

- Stores data in a single Availability Zone
- Has a lower storage price than S3 Standard-IA

# Amazon S3 storage classes (2 of 2)

## S3 Intelligent-Tiering

- Ideal for data with unknown or changing access patterns
- Requires a small monthly monitoring and automation fee per object

## S3 Glacier Instance Retrieval

- Low-cost storage designed for data archiving
- Able to retrieve objects in milliseconds

## S3 Glacier Flexible Retrieval

- Lowest-cost object storage class
- Configurable retrieval time from minutes to hours

## S3 Glacier Deep Archive

- Lowest-cost object storage class
- Able to retrieve objects within 12 hours

# Knowledge Check

You want to store data that is infrequently accessed but must be immediately available when needed. Which Amazon S3 storage class should you use?

Choice	Response
A	S3 Intelligent-Tiering
B	S3 Glacier Deep Archive
C	S3 Standard-IA
D	S3 Glacier Flexible Retrieval

# Knowledge Check Answer

You want to store data that is infrequently accessed but must be immediately available when needed. Which Amazon S3 storage class should you use?

The correct response is C.

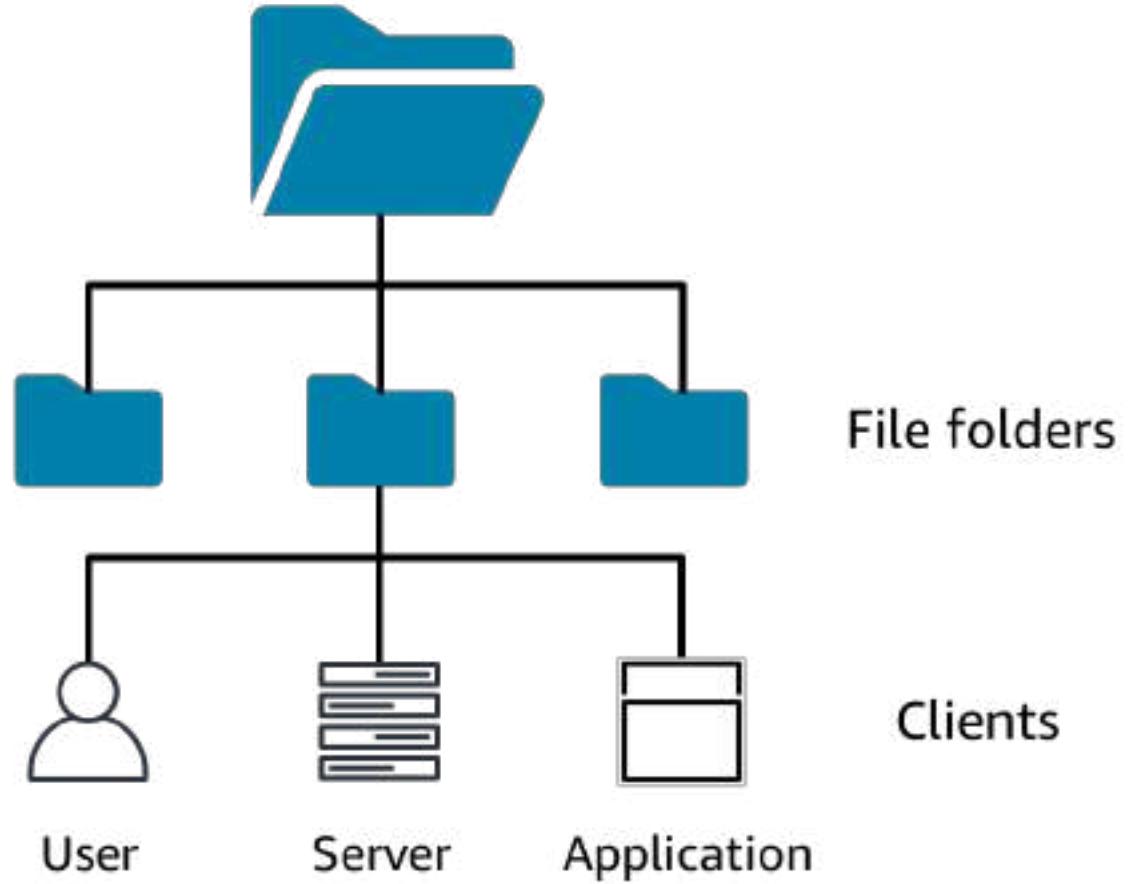
The correct response option is **C. S3 Standard-IA**.

The S3 Standard-IA storage class is ideal for data that is infrequently accessed but requires high availability when needed. Both S3 Standard and S3 Standard-IA store data in a minimum of three Availability Zones. S3 Standard-IA provides the same level of availability as S3 Standard but at a lower storage price.

# File storage

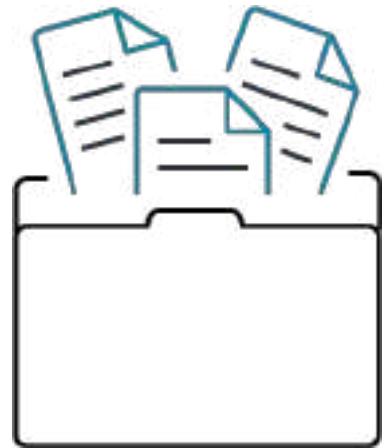
---

In **file storage**, multiple clients can access data that is stored in shared file folders



# Amazon Elastic File System

---



Store data in a scalable  
file system



Provide data to thousands  
of Amazon EC2 instance  
concurrently



Store data in and across  
multiple Availability  
Zones by default



## Topic B: AWS databases

- Topic A: AWS storage
- Topic B: AWS databases
- Topic C: Additional database services
- Knowledge check

# Database types

Relational database

ID	Product name	Size	Price
1	Medium roast ground coffee	12 oz.	\$5.30
2	Dark roast ground coffee	20 oz.	\$9.27

Nonrelational database

Key	Value
Name: Address: Favorite drink:	John Doe 123 Any Street Medium latte
Name: Address: Birthday:	Mary Major 100 Main Street July 5, 1994

# Relational databases

---

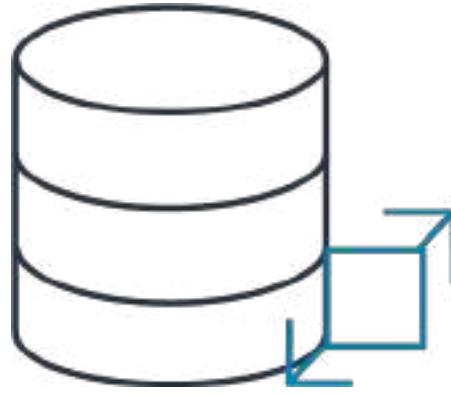
- In a **relational database**, data is stored in a way that relates it to other pieces of data.
- Relational databases use **structured query language (SQL)** to store and query data.

Example of data in a relational database

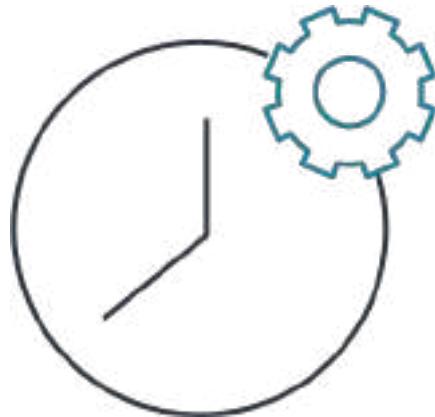
ID	Product name	Size	Price
1	Medium roast ground coffee	12 oz.	\$5.30
2	Dark roast ground coffee	20 oz.	\$9.27

# Amazon Relational Database Service

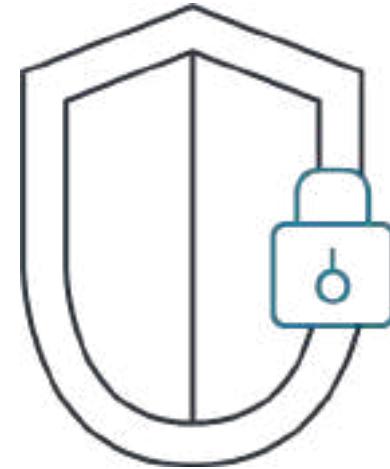
---



Operate and scale a relational database in the AWS Cloud



Automate time-consuming administrative tasks



Store and transmit data securely

# Amazon RDS database engines



Amazon Relational  
Database Service  
(Amazon RDS)

- Amazon Aurora
- PostgreSQL
- MySQL
- MariaDB
- Oracle Database
- Microsoft SQL Server

# Amazon Aurora

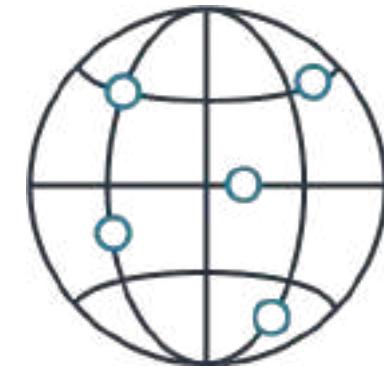
---



Store data in an enterprise-class relational database



Reduce database costs by eliminating unnecessary input/output (I/O) operations



Replicate six copies of data across three Availability Zones

# Discussion

---

One of the employees at the coffee shop has an idea for the new inventory management system.

They believe they should maintain data in a text file in Amazon S3.

Do you agree with their suggestion?  
Why or why not?

# Nonrelational databases

---

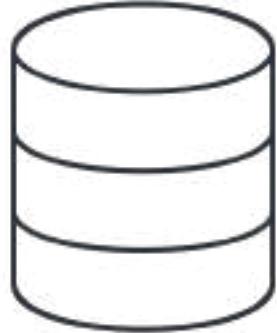
- A **nonrelational database** uses structures other than rows and columns to organize data.
- For example, with **key-value** pairs, data is organized into items (keys), and items have attributes (values).

Example of data in a nonrelational database

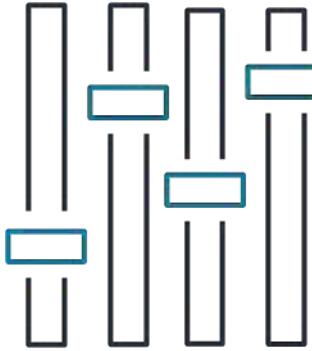
Key	Value
1	Name: John Doe Address: 123 Any Street Favorite drink: Medium latte
2	Name: Mary Major Address: 100 Main Street Birthday: July 5, 1994

# Amazon DynamoDB

---



**Amazon DynamoDB** is a serverless key-value database.



It automatically scales to adjust for capacity changes and maintain consistent performance.

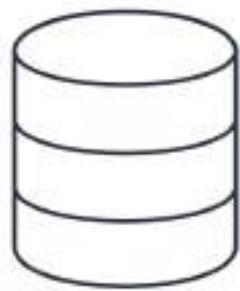


It is designed to handle over 10 trillion requests per day.

# AWS Database Migration Service

Migrate relational databases, nonrelational databases, and other types of datastores

Example:



MySQL database  
**(Source)**



AWS Database  
Migration Service  
**(AWS DMS)**



Amazon Aurora  
**(Target)**

# Amazon RDS and Amazon DynamoDB

---

For each scenario, should you use **Amazon RDS** or **Amazon DynamoDB**?

1. Storing data in a relational database

2. Running a serverless database

3. Storing data in a key-value database

4. Using SQL to organize data

5. Scaling up to 10 trillion requests per day

6. Storing data in an Amazon Aurora database

# Amazon RDS and Amazon DynamoDB

For each scenario, should you use **Amazon RDS** or **Amazon DynamoDB**?

Amazon RDS

1. Storing data in a relational database

DynamoDB

DynamoDB

3. Storing data in a key-value database

Amazon RDS

DynamoDB

5. Scaling up to 10 trillion requests per day

Amazon RDS

2. Running a serverless database

4. Using SQL to organize data

6. Storing data in an Amazon Aurora database



## Topic C: Additional database services

Topic A: AWS storage

Topic B: AWS databases

→ Topic C: Additional database services

Knowledge check

# Additional database services (1 of 2)



Amazon Redshift

- Query and analyze data across a data warehouse



Amazon DocumentDB

- Run MongoDB workloads in a document database service



Amazon Neptune

- Run applications that use highly connected datasets



Amazon QLDB

- Review a complete history of changes to your application data

# Additional database services (2 of 2)



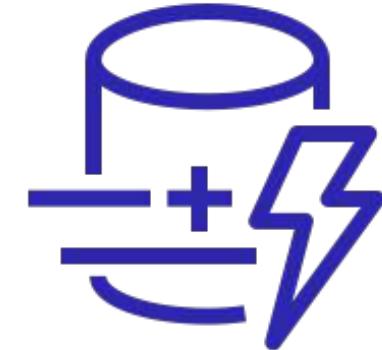
Amazon Managed Blockchain

- Run a decentralized ledger database



Amazon ElastiCache

- Add caching layers to improve database read times



Amazon DynamoDB Accelerator

- Improve DynamoDB response times from single-digit milliseconds to microseconds



## Knowledge check

Topic A: AWS storage

Topic B: AWS databases

Topic C: Additional database services

➡ Knowledge check

# Knowledge check 1 – question

Which Amazon S3 storage classes are optimized for archival data? (Select TWO.)

Choice	Response
A	S3 Standard
B	S3 Glacier Flexible Retrieval
C	S3 Intelligent-Tiering
D	S3 Glacier Deep Archive
E	S3 Standard-IA

# Knowledge check 1 – answer

Which Amazon S3 storage classes are optimized for archival data? (Select TWO.)

The correct responses are B and D.

- A S3 Standard
- B **S3 Glacier Flexible Retrieval**
- C S3 Intelligent-Tiering
- D **S3 Glacier Deep Archive**
- E S3 Standard-IA

# Knowledge check 2 – question

Which statement is *true* about Amazon EBS volumes and Amazon EFS file systems?

Choice	Response
A	EBS volumes store data within a single Availability Zone. Amazon EFS file systems store data across multiple Availability Zones by default.
B	EBS volumes store data across multiple Availability Zones. Amazon EFS file systems store data within a single Availability Zone by default.
C	EBS volumes and Amazon EFS file systems both store data within a single Availability Zone.
D	EBS volumes and Amazon EFS file systems both store data across multiple Availability Zones.

# Knowledge check 2 – answer

Which statement is *true* about Amazon EBS volumes and Amazon EFS file systems?

The correct response is A.

- A **EBS volumes store data within a single Availability Zone. Amazon EFS file systems store data across multiple Availability Zones by default.**
- B EBS volumes store data across multiple Availability Zones. Amazon EFS file systems store data within a single Availability Zone by default.
- C EBS volumes and Amazon EFS file systems both store data within a single Availability Zone.
- D EBS volumes and Amazon EFS file systems both store data across multiple Availability Zones.

# Knowledge check 3 – question

A customer wants to store data in an object storage service. Which AWS service should the customer use for this type of storage?

Choice	Response
A	Amazon Managed Blockchain
B	Amazon Elastic File System (Amazon EFS)
C	Amazon Elastic Block Store (Amazon EBS)
D	Amazon Simple Storage Service (Amazon S3)

# Knowledge check 3 – answer

A customer wants to store data in an object storage service. Which AWS service should the customer use for this type of storage?

The correct response is D.

- A Amazon Managed Blockchain
- B Amazon Elastic File System (Amazon EFS)
- C Amazon Elastic Block Store (Amazon EBS)
- D **Amazon Simple Storage Service (Amazon S3)**

# Knowledge check 4 – question

Which statement best describes Amazon DynamoDB?

Choice	Response
A	A service that allows customers to run relational databases in the AWS Cloud
B	A serverless key-value database service
C	A service that customers can use to migrate relational databases, nonrelational databases, and other types of data stores
D	An enterprise-class relational database

# Knowledge check 4 – answer

Which statement best describes Amazon DynamoDB?

The correct response is B.

- A A service that allows customers to run relational databases in the AWS Cloud
- B A serverless key-value database service**
- C A service that customers can use to migrate relational databases, nonrelational databases, and other types of data stores
- D An enterprise-class relational database

# Knowledge check 5 – question

Which service is used to query and analyze data across a data warehouse?

Choice	Response
A	Amazon Neptune
B	Amazon DocumentDB
C	Amazon ElastiCache
D	Amazon Redshift

# Knowledge check 5 – answer

Which service is used to query and analyze data across a data warehouse?

The correct response is D.

- A Amazon Neptune
- B Amazon DocumentDB
- C Amazon ElastiCache
- D **Amazon Redshift**

# Module summary



## Covered in this module:

- AWS storage services and resources
- Amazon S3 storage classes
- AWS database services



# Questions?

## Thank you for attending this session

Corrections, feedback, or other questions?  
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# AWS Partner: Cloud Practitioner Essentials

## Module 6: Security

# Module Objectives



On completion, you will be able to:

- Explain the benefits of the shared responsibility model
- Describe multi-factor authentication (MFA)
- Differentiate among the AWS Identity and Access Management (IAM) security levels
- Explain AWS Organizations benefits
- Describe security policies
- Summarize the benefits of compliance with AWS
- Explain additional AWS security services

# Module Topics



## Topics:

- Topic A: Shared responsibility model
- Topic B: AWS Identity and Access Management (IAM)
- Topic C: AWS Organizations
- Topic D: Compliance
- Topic E: Application security
- Topic F: Additional security services
- Knowledge check



## Topic A: Shared responsibility model

- ➡ Topic A: Shared responsibility model
- Topic B: AWS Identity and Access Management (IAM)
- Topic C: AWS Organizations
- Topic D: Compliance
- Topic E: Application security
- Topic F: Additional security services
- Knowledge check

# Shared responsibility model

Customers	Customer Data		
	Platform, Applications, Identity and Access Management		
	Operating Systems, Network and Firewall Configuration		
	Client-side Data Encryption	Server-side Encryption	Network Traffic Protection

AWS	Software			
	Compute	Storage	Database	Networking
	Hardware/AWS Global Infrastructure			
	Regions		Availability Zones	Edge Locations

# Customers: Security in the cloud

Customers	Customer Data		
	Platform, Applications, Identity and Access Management		
	Operating Systems, Network and Firewall Configuration		
	Client-side Data Encryption	Server-side Encryption	Network Traffic Protection

Examples of customer responsibilities include:

- Instance operating system
- Applications
- Security groups
- Host-based firewalls
- Account management

# AWS: Security of the cloud

---



Examples of AWS responsibilities include:

- Physical security of data centers
- Network infrastructure
- Hardware and software infrastructure
- Virtualization infrastructure

# Review: Shared responsibility model

---

Are these tasks the responsibilities of **customers** or **AWS**?

1. Configuring security groups  
on Amazon EC2 instances

2. Maintaining network  
infrastructure

3. Implementing physical  
security controls at data  
centers

4. Patching software on  
Amazon EC2 instances

5. Maintaining servers that  
run Amazon EC2 instances

6. Setting permissions for  
Amazon S3 objects

# Review: Shared responsibility model

Are these tasks the responsibilities of **customers** or **AWS**?

Customers

1. Configuring security groups  
on Amazon EC2 instances

AWS

3. Implementing physical  
security controls at data  
centers

AWS

5. Maintaining servers that  
run Amazon EC2 instances

AWS

2. Maintaining network  
infrastructure

Customers

4. Patching software on  
Amazon EC2 instances

Customers

6. Setting permissions for  
Amazon S3 objects



AWS Cloud Practitioner Essentials

## Topic B: AWS Identity and Access Management (IAM)

- Topic B: Shared responsibility model
- ➡ Topic B: AWS Identity and Access Management (IAM)
- Topic C: AWS Organizations
- Topic D: Compliance
- Topic E: Application security
- Topic F: Additional security services
- Knowledge check

# Security in the coffee shop

---



A new cashier begins working in the coffee shop.

The cashier is given an account that has permission to access the point of sale system.

The cashier uses their account to access the point of sale system.



**AWS Identity and Access Management (IAM) allows you to manage access to AWS services and resources.**

## IAM features



IAM user



IAM policy



IAM group

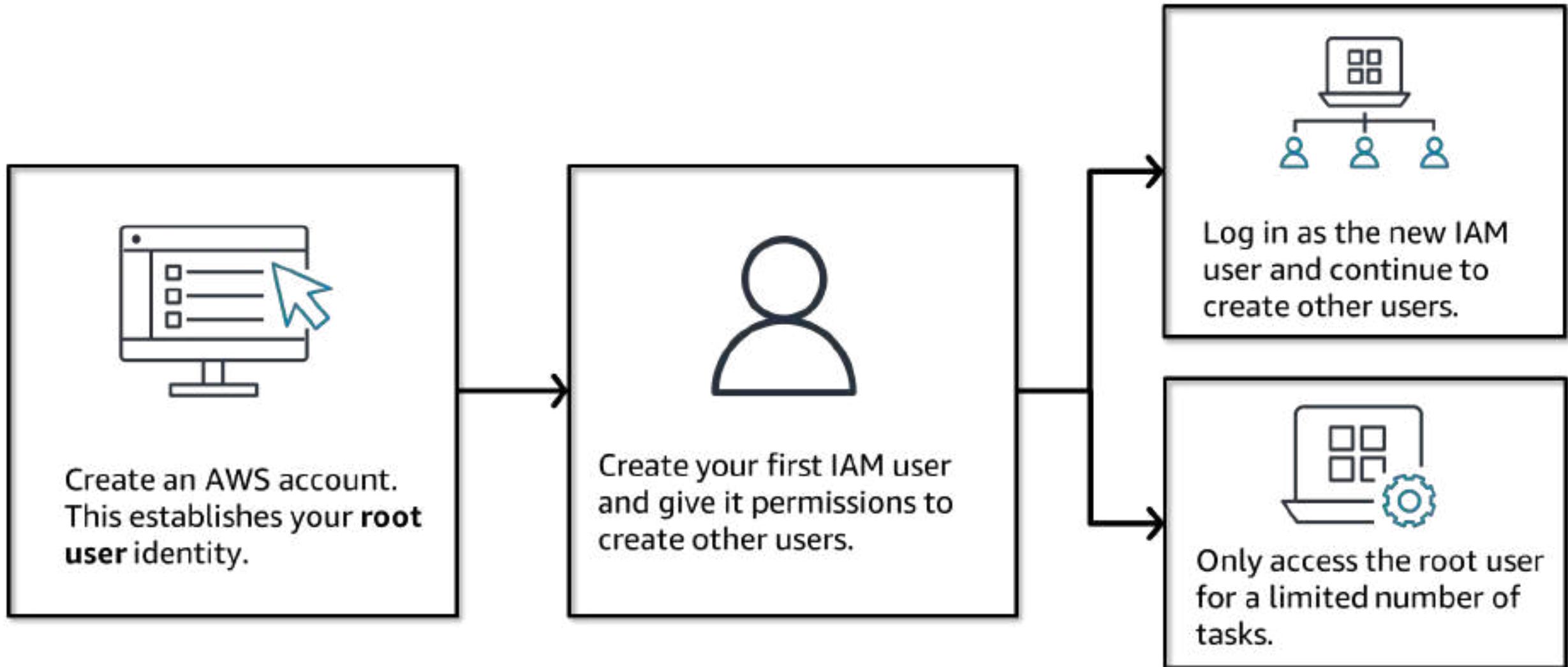


IAM role



Multi-factor authentication

# AWS account root user



# IAM users

---

An **IAM user** is an identity that represents a person or application that interacts with AWS services and resources.



IAM user

**Best practice:** Create individual IAM users for each person who needs to access AWS.

# IAM policies

---

An **IAM policy** is a document that grants or denies permissions to AWS services and resources.



IAM Policy

**Best practice:** Follow the security principle of least privilege.

# Example: IAM policy

---

This sample IAM policy allows permission to view a list of objects in the Amazon S3 bucket with ID **awsdoc-example-bucket**, and to access the objects.

```
{  
    "version": "2012-10-17",  
    "statement": {  
        "Effect": "Allow",  
        "Action": ["s3>ListObject", "s3:GetObject"],  
        "Resource": ["arn:aws:s3::: awsdoc-example-bucket",  
                    "arn:aws:s3::: awsdoc-example-bucket/*"]  
    }  
}
```

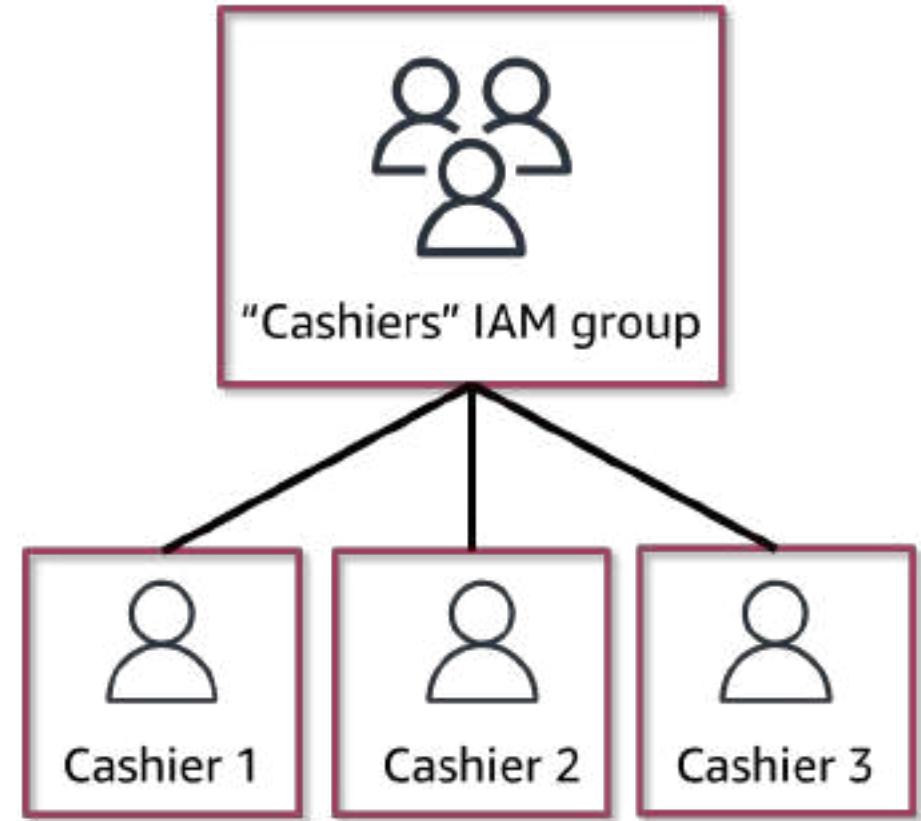
# IAM groups

---

An **IAM group** is a collection of IAM users.

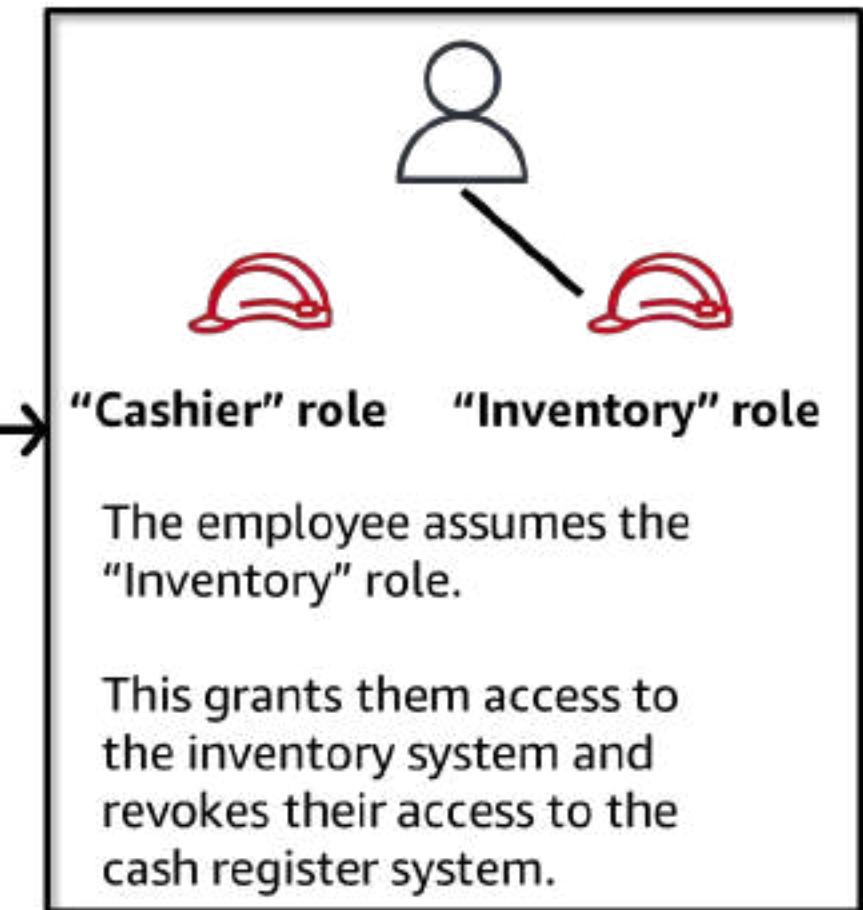
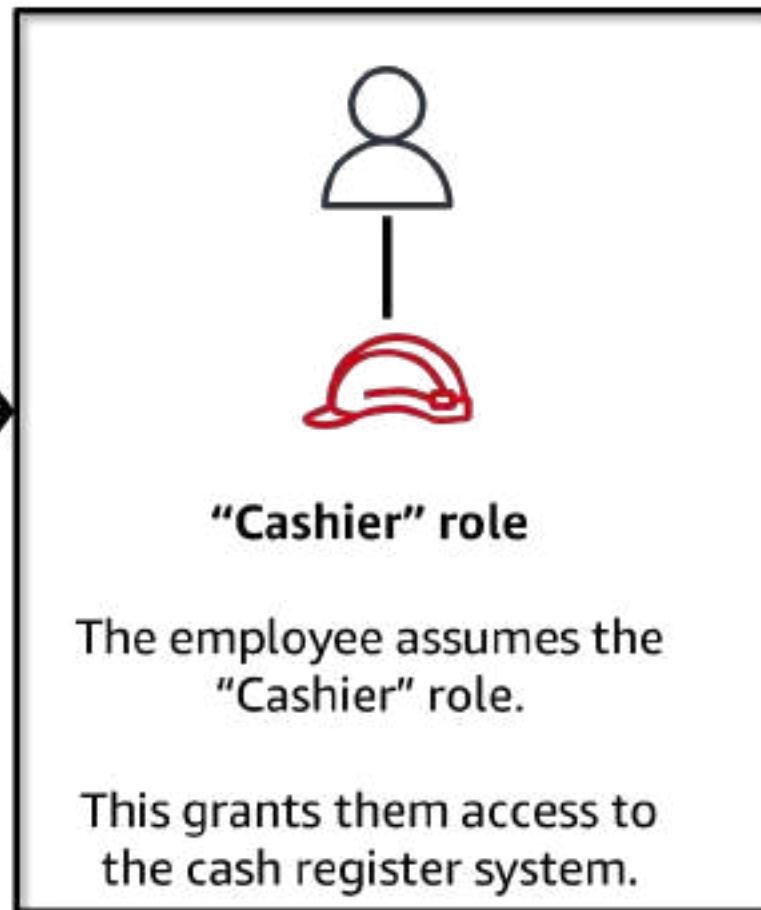
**Best practice:** Attach IAM policies to IAM groups, rather than to individual IAM users.

Members inherit the policies assigned to the group.



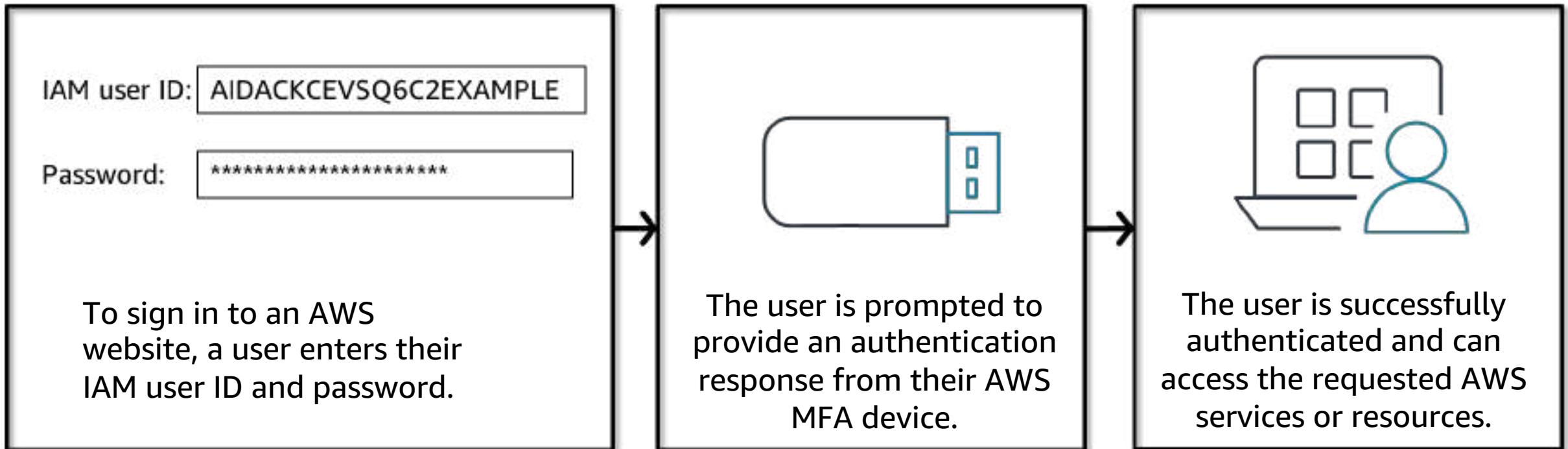
# IAM roles

An **IAM role** is an identity that you can assume to gain temporary access to permissions.



# Multi-factor authentication

**Multi-factor authentication** provides an extra layer of protection for your AWS account.





AWS Cloud Practitioner Essentials

## Topic C: AWS Organizations

Topic A: Shared responsibility model

Topic B: AWS Identity and Access Management (IAM)

→ Topic C: AWS Organizations

Topic D: Compliance

Topic E: Application security

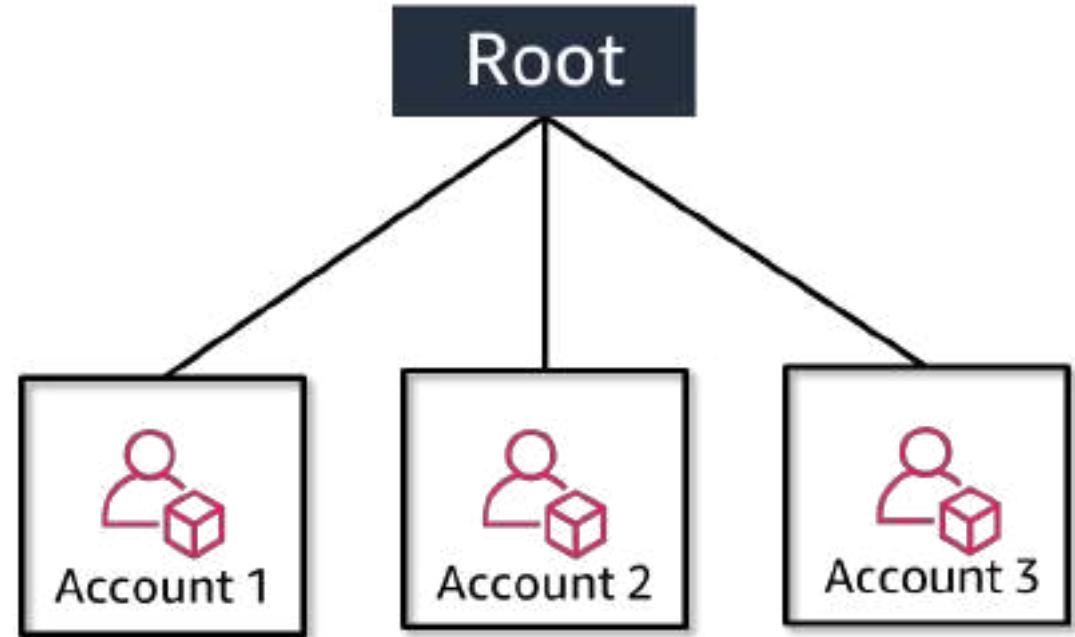
Topic F: Additional security services

Knowledge check

# AWS Organizations

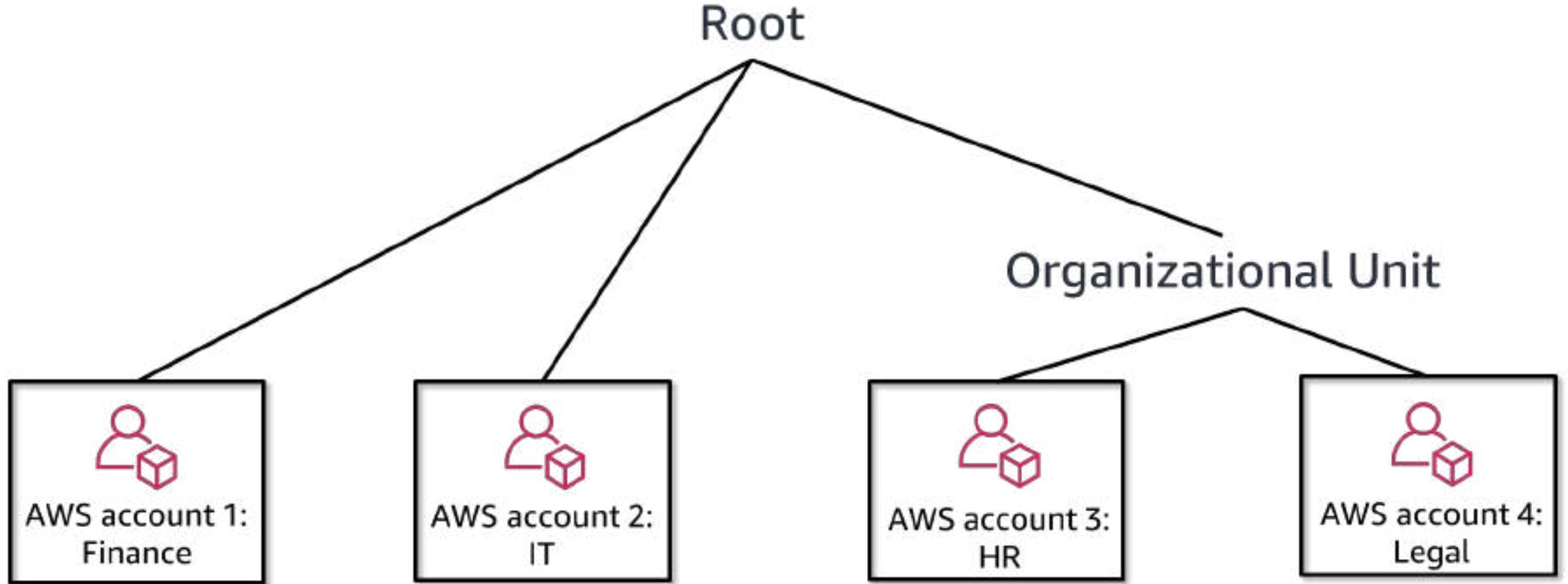
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- AWS Organizations helps customers consolidate and manage multiple AWS accounts in a central location.
- Use service control policies (SCPs) to centrally control permissions for the accounts in your organization.



# Example: Organizational units

---



# Knowledge check – question

A practitioner is configuring service control policies (SCPs) in AWS Organizations. Which identities and resources can SCPs be applied to? (Select TWO.)

Choice	Response
A	AWS Identity and Access Management (IAM) users
B	AWS Identity and Access Management (IAM) groups
C	An individual member account
D	AWS Identity and Access Management (IAM) roles
E	An organizational unit (OU)

# Knowledge check – answer

A practitioner is configuring service control policies (SCPs) in AWS Organizations. Which identities and resources can SCPs be applied to? (Select TWO.)

The correct responses are C and E.

- A AWS Identity and Access Management (IAM) users
- B AWS Identity and Access Management (IAM) groups
- C **An individual member account**
- D AWS Identity and Access Management (IAM) roles
- E **An organizational unit (OU)**



## Topic D: Compliance

Topic A: Shared responsibility model

Topic B: AWS Identity and Access Management (IAM)

Topic C: AWS Organizations

→ Topic D: Compliance

Topic E: Application security

Topic F: Additional security services

Knowledge check

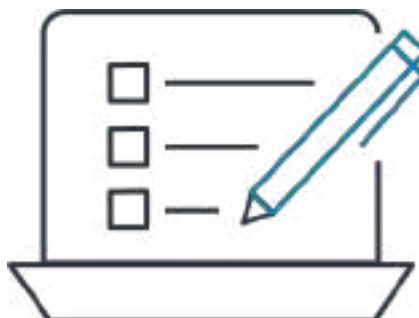
# AWS Artifact

---

**AWS Artifact** provides on-demand access to security and compliance reports and select online agreements.



Access AWS compliance reports  
on demand



Review, accept, and manage  
agreements with AWS



Access compliance reports from  
third-party auditors

# Assurance programs

## Global



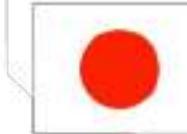
## USA



## Europe



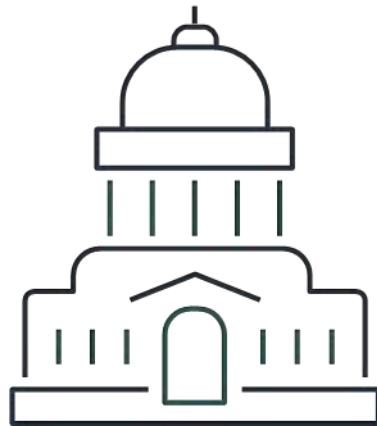
## Asia Pacific



# Customer Compliance Center

---

The Customer Compliance Center contains resources to help you learn more about AWS compliance.



Discover compliance stories from companies in regulated industries

Access compliance technical papers and documentation

Complete the auditor learning path

# Knowledge check – question

Which tasks can be completed in AWS Artifact?  
(Select TWO.)

Choice	Response
A	Access AWS compliance reports on-demand.
B	Consolidate and manage multiple AWS accounts within a central location.
C	Create users to allow people and applications to interact with AWS services and resources.
D	Set permissions for accounts by configuring service control policies (SCPs).
E	Review, accept, and manage agreements with AWS.

# Knowledge check – answer

Which tasks can be completed in AWS Artifact?  
(Select TWO.)

The correct responses are A and E.

- A **Access AWS compliance reports on-demand.**
- B Consolidate and manage multiple AWS accounts within a central location.
- C Create users to allow people and applications to interact with AWS services and resources.
- D Set permissions for accounts by configuring service control policies (SCPs).
- E **Review, accept, and manage agreements with AWS.**



AWS Cloud Practitioner Essentials

## Topic E: Application security

Topic A: Shared responsibility model

Topic B: AWS Identity and Access Management (IAM)

Topic C: AWS Organizations

Topic D: Compliance

→ Topic E: Application security

Topic F: Additional security services

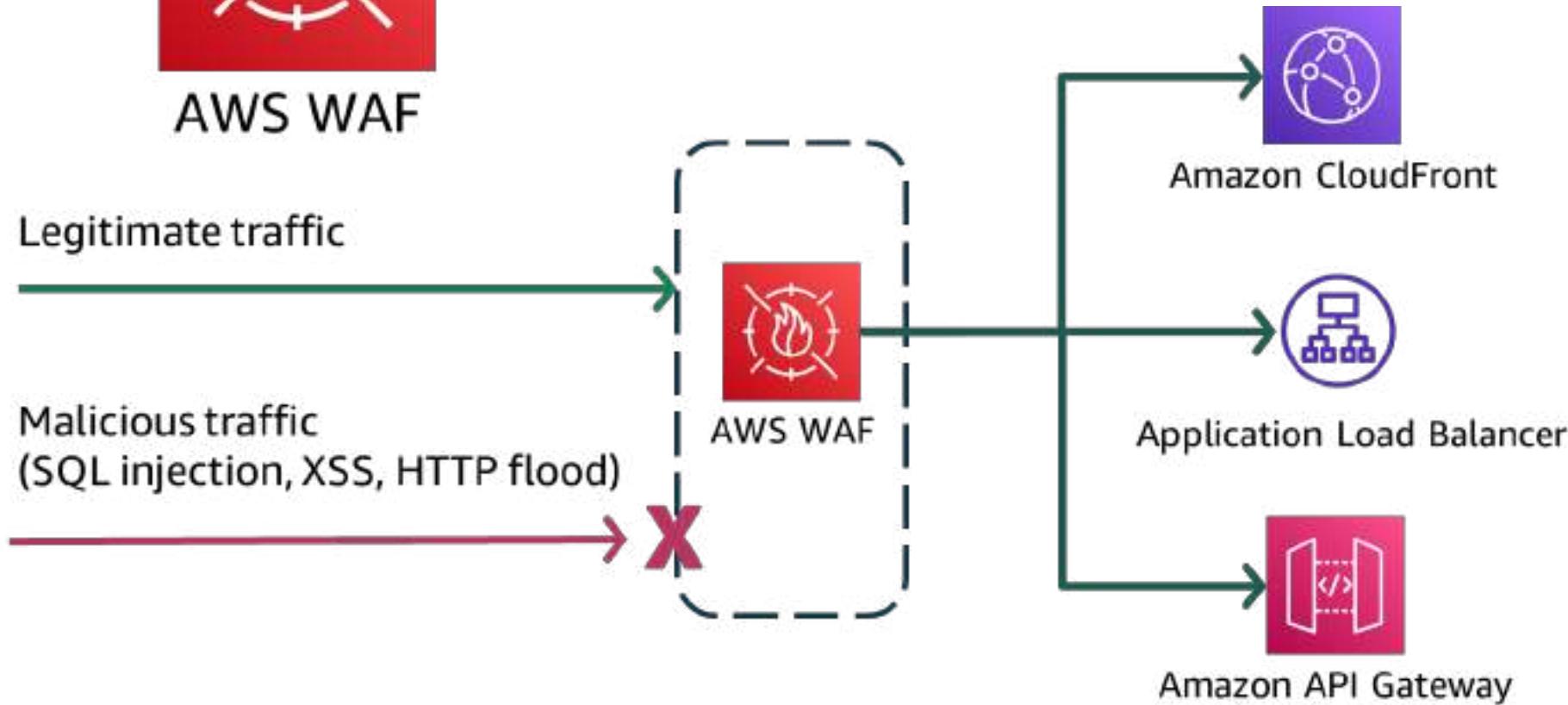
Knowledge check

# AWS WAF

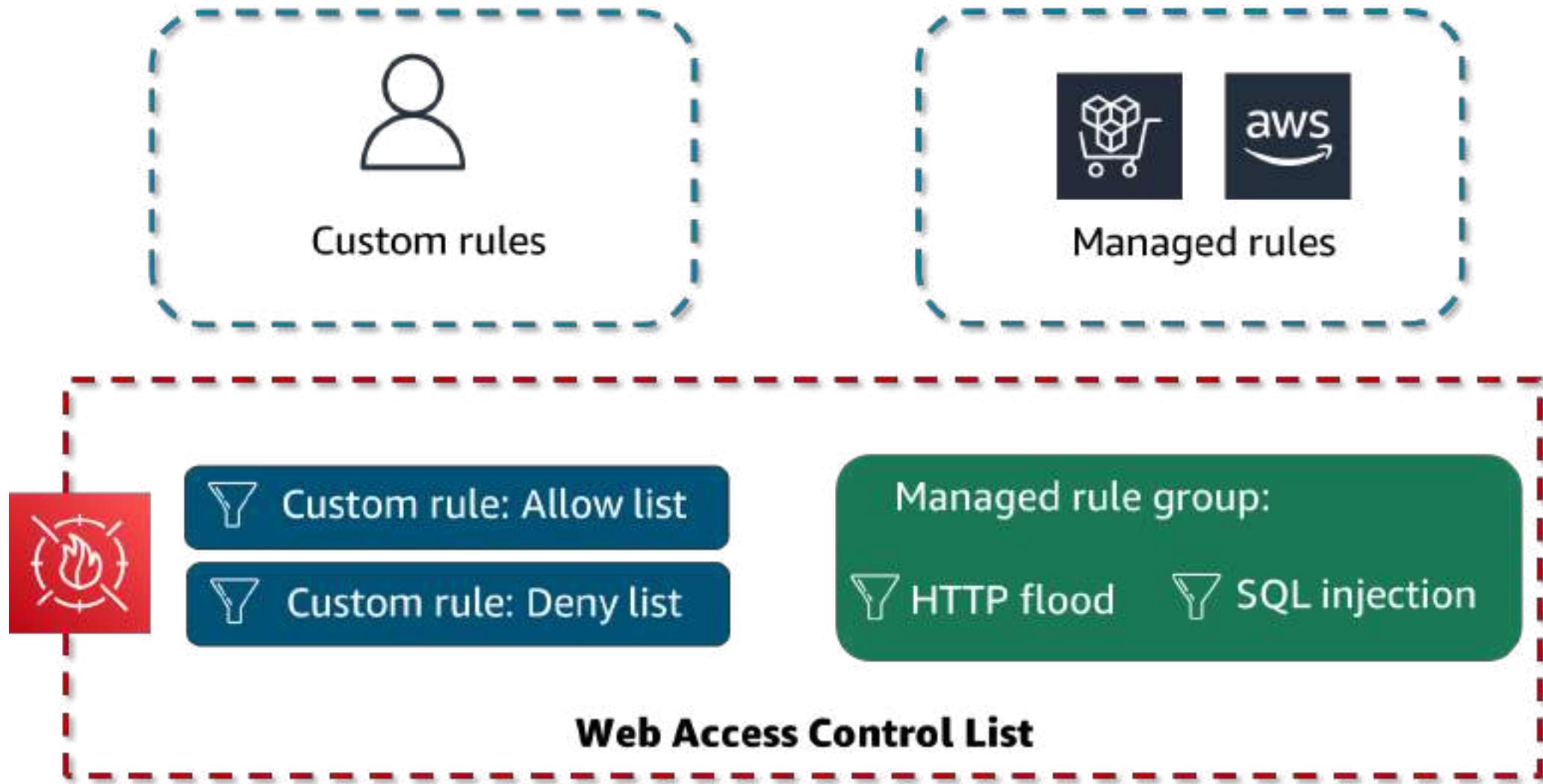


AWS WAF

Helps protect your web applications and APIs against common web exploits

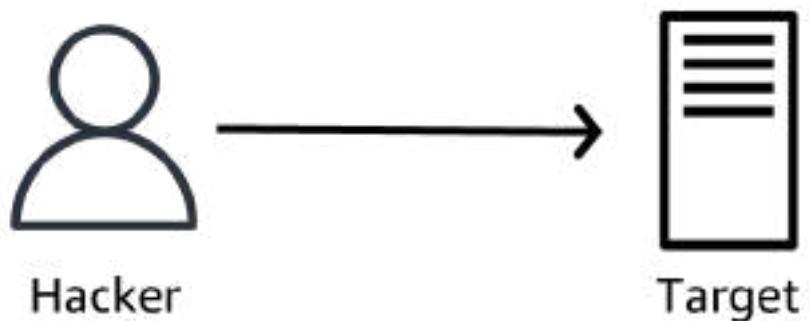


# AWS WAF rules



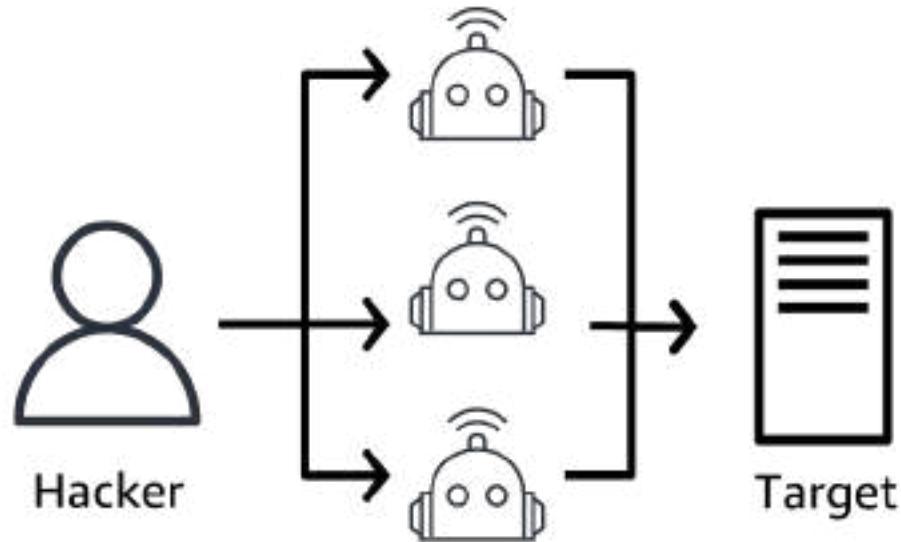
# DoS and DDoS attacks

Denial of service attack



The attack originates from a **single** source.

Distributed denial of service attack



The attack originates from **multiple** sources.

# AWS Shield

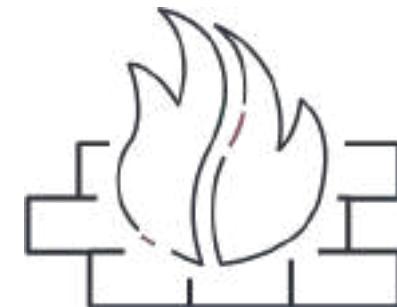
**AWS Shield** provides protection against distributed denial of service (DDoS) attacks.



Protect applications  
against DDoS attacks



Integrate AWS Shield  
Advanced with other  
AWS services

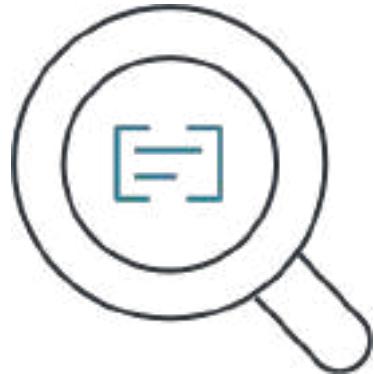


Write custom web ACL  
rules with AWS WAF to  
mitigate complex DDoS  
attacks

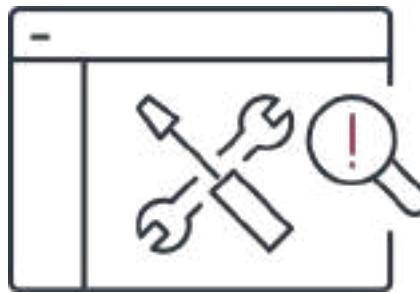
# Amazon Inspector

---

**Amazon Inspector** allows you to perform automated security assessments on your applications.



Automatically conduct application security assessments



Identify security vulnerabilities and deviations from best practices



Receive recommendations for how to fix security issues



## Topic F: Additional security services

Topic A: Shared responsibility model

Topic B: AWS Identity and Access Management (IAM)

Topic C: AWS Organizations

Topic D: Compliance

Topic E: Application security

→ Topic F: Additional security services  
Knowledge check

# AWS Key Management Service



AWS Key Management  
Service (AWS KMS)

- **AWS Key Management Service (AWS KMS)** helps customers perform encryption operations through the use of cryptographic keys.
- You can choose the specific levels of access control that you need for your keys.

# Amazon GuardDuty

**Amazon GuardDuty** provides intelligent threat detection for AWS products and services.



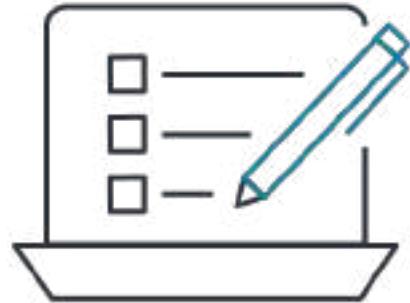
Enable Amazon  
GuardDuty



GuardDuty  
continuously analyzes  
network and account  
activity



GuardDuty intelligently  
detects threats



Review detailed  
findings and take  
actions



AWS Cloud Practitioner Essentials

## Knowledge check

Topic A: Shared responsibility model

Topic B: AWS Identity and Access Management (IAM)

Topic C: AWS Organizations

Topic D: Compliance

Topic E: Application security

Topic F: Additional security services

→ Knowledge check

# Knowledge check 1 – question

Which option describes an AWS Identity and Access Management (IAM) policy?

Choice	Response
A	An authentication process that provides an extra layer of protection for an AWS account
B	A document that grants or denies permissions to AWS services and resources
C	An identity that a user can assume to gain temporary access to permissions
D	The identity that is established when a user first creates an AWS account

# Knowledge check 1 – answer

Which option describes an AWS Identity and Access Management (IAM) policy?

The correct response is B.

- A An authentication process that provides an extra layer of protection for an AWS account
- B A document that grants or denies permissions to AWS services and resources**
- C An identity that a user can assume to gain temporary access to permissions
- D The identity that is established when a user first creates an AWS account

# Knowledge check 2 – question

An employee requires temporary access to create several Amazon S3 buckets.

Which option should be used for this task?

Choice	Response
A	AWS account root user
B	AWS Identity and Access Management (IAM) group
C	AWS Identity and Access Management (IAM) role
D	Service control policy (SCP)

# Knowledge check 2 – answer

An employee requires temporary access to create several Amazon S3 buckets.

Which option should be used for this task?

The correct response is C.

- A AWS account root user
- B Identity and Access Management (IAM) group
- C AWS Identity and Access Management (IAM) role**
- D Service control policy

# Knowledge check 3 – question

Which of the following descriptions best describes the concept of least privilege?

Choice	Response
A	Adding an AWS Identity and Access Management (IAM) user into at least one IAM group
B	Granting only the permissions that are needed to perform specific job tasks
C	Checking a packet's permissions against an access control list
D	Performing a denial of service attack that originates from at least one device

# Knowledge check 3 – answer

Which of the following descriptions best describes the concept of least privilege?

The correct response is B.

- A Adding an AWS Identity and Access Management (IAM) user into at least one IAM group
- B Granting only the permissions that are needed to perform specific job tasks**
- C Checking a packet's permissions against an access control list
- D Performing a denial of service attack that originates from at least one device

# Knowledge check 4 – question

Which service helps protect your applications against distributed denial of service (DDoS) attacks?

Choice	Response
A	Amazon GuardDuty
B	Amazon Inspector
C	AWS Artifact
D	AWS Shield

# Knowledge check 4 – answer

Which service helps protect your applications against distributed denial of service (DDoS) attacks?

The correct response is D.

- A Amazon GuardDuty
- B Amazon Inspector
- C AWS Artifact
- D AWS Shield

# Knowledge check 5 – question

Which task can AWS Key Management Service (AWS KMS) perform?

Choice	Response
A	Configure multi-factor authentication (MFA)
B	Update the AWS account root user password
C	Create cryptographic keys
D	Assign permissions to users and groups

# Knowledge check 5 – answer

Which task can AWS Key Management Service (AWS KMS) perform?

The correct response is C.

- A Configure multi-factor authentication (MFA)
- B Update the AWS account root user password
- C **Create cryptographic keys**
- D Assign permissions to users and groups

# Module summary



## Covered in this module:

- Shared responsibility model
- AWS Identity and Access Management features
- Methods of managing multiple accounts in AWS Organizations
- AWS services for application security and encryption
- AWS compliance resources



# Questions?

## Thank you for attending this session

Corrections, feedback, or other questions?  
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# AWS Partner: Cloud Practitioner Essentials

## Module 7: Monitoring and Analytics

# Module Objectives



On completion, you will be able to:

- Summarize approaches to monitoring in AWS
- Describe Amazon CloudWatch benefits
- Describe AWS CloudTrail benefits
- Describe AWS Trusted Advisor benefits

# Module Topics



## Topics:

- Topic A: Amazon CloudWatch
- Topic B: AWS CloudTrail
- Topic C: AWS Trusted Advisor
- Knowledge check



## Topic A: Amazon CloudWatch

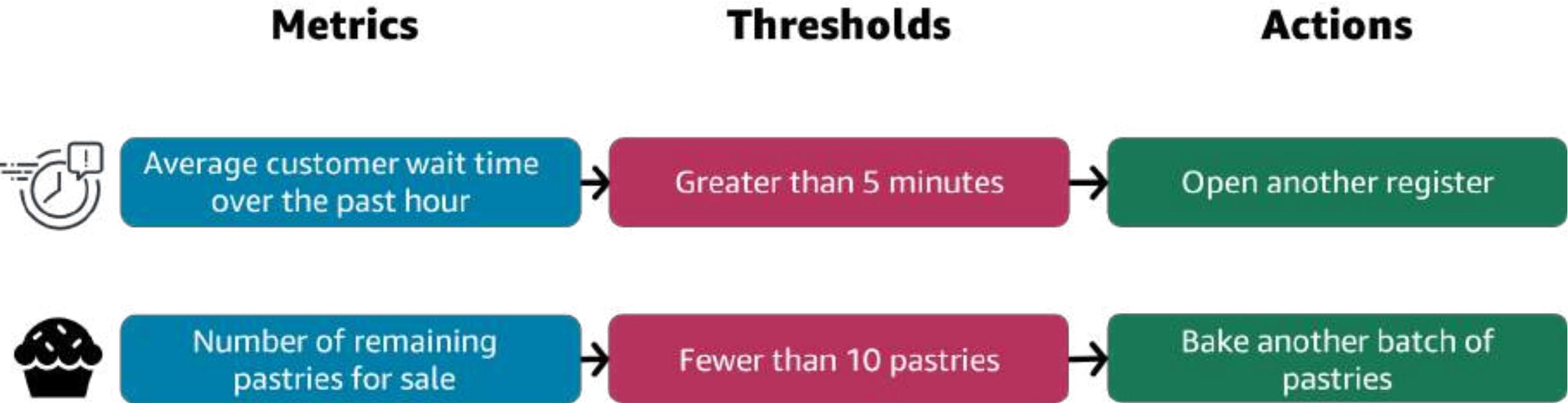
→ Topic A: Amazon CloudWatch

Topic B: AWS CloudTrail

Topic C: AWS Trusted Advisor

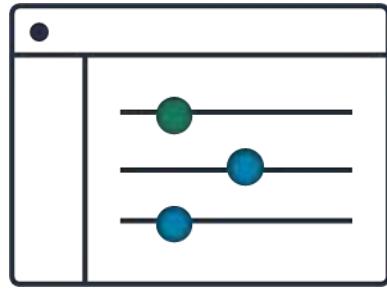
Knowledge check

# Coffee shop metrics



# Amazon CloudWatch

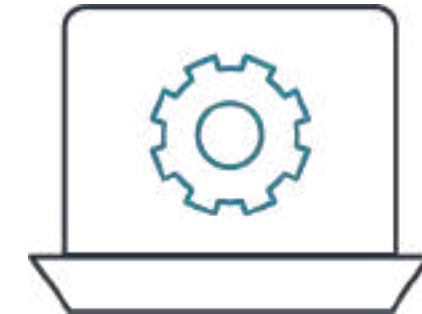
---



Monitor your AWS and on-premises infrastructure and resources in real time



Access all of your metrics from a single location



Configure automatic alerts and actions in response to metrics

# Amazon CloudWatch dashboard

## Amazon RDS metrics

2.06 %    20.1 GB    0.38 /s    0.23 /s

CPUUtilization

FreeStorageSpace

WriteIOPS

ReadIOPS

## Amazon EC2 metrics

Bytes



NetworkIn    NetworkOut

## Amazon EBS metrics

Bytes



VolumeWriteBytes



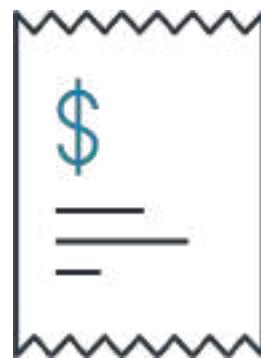
## Topic B: Amazon CloudTrail

- Topic A: Amazon CloudWatch
- Topic B: AWS CloudTrail
- Topic C: AWS Trusted Advisor
- Knowledge check

# Coffee shop events

3 days ago

The cashiers process a large number of transactions.



2 days ago

To avoid running out of supplies, the inventory specialist places and extra order.



Today

A shipment of coffee beans is delivered to the coffee shop.



# AWS CloudTrail

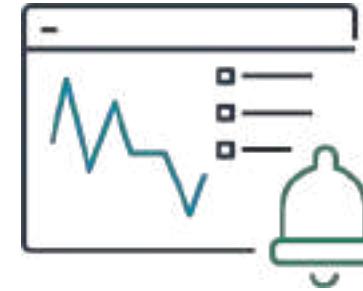
---



Track user activities and API requests throughout your AWS infrastructure



Filter logs generated by API calls to assist with operational analysis and troubleshooting



Automatically detect unusual account activity

# AWS CloudTrail event

*What happened?*

New IAM user (Mary) created



*Who made the request?*

IAM user John



*When did this occur?*

January 1, 2023 at 9:00 AM



*How was the request made?*

Through the AWS Management Console



# Knowledge check – question

Which tasks can be performed by using AWS CloudTrail? (Select TWO)

Choice	Response
A	Monitor the AWS infrastructure and resources in real time
B	Track user activities and API requests throughout the AWS infrastructure
C	View metrics and graphs to monitor the performance of resources
D	Filter logs to assist with operational analysis and troubleshooting
E	Configure automatic actions and alerts in response to metrics

# Knowledge check – answer

Which tasks can be performed by using AWS CloudTrail? (Select TWO)

The correct responses are B and D.

A

Monitor the AWS infrastructure and resources in real time

B

**Track user activities and API requests throughout the AWS infrastructure**

C

View metrics and graphs to monitor the performance of resources

D

**Filter logs to assist with operational analysis and troubleshooting**

E

Configure automatic actions and alerts in response to metrics



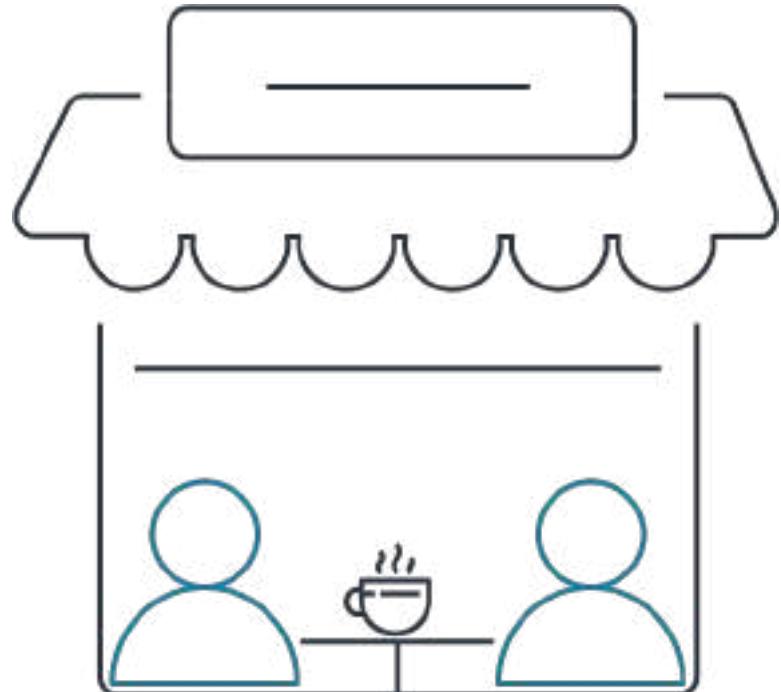
## Topic C: AWS Trusted Advisor

Topic A: Amazon CloudWatch

Topic B: AWS CloudTrail

➡ Topic C: AWS Trusted Advisor  
Knowledge check

# Coffee shop improvements



The consultant observes the coffee shop.

The owners implement the suggested changes.

The consultant makes recommendations for improvement.

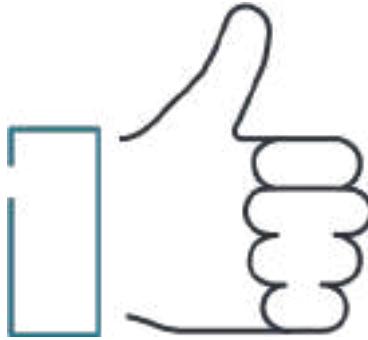


# AWS Trusted Advisor

---



Receive real-time  
guidance for improving  
your AWS environment



Compare your infrastructure  
to AWS best practices in five  
categories



Evaluate and implement  
guidance at all stages of  
deployment

# AWS Trusted Advisor dashboard



Number of items for which no problems have been detected

Number of recommended investigations

Number of recommended actions

## Cost Optimization



0 ✓ 9 ▲ 0 !

\$7,516.85

Potential monthly savings

## Performance



3 ✓ 7 ▲ 0 !

## Security



2 ✓ 4 ▲ 11 !

## Fault Tolerance



0 ✓ 15 ▲ 5 !

## Service Limits



37 ✓ 0 ▲ 1 !



AWS Cloud Practitioner Essentials

## Knowledge check

Topic A: Amazon CloudWatch

Topic B: AWS CloudTrail

Topic C: AWS Trusted Advisor

→ Knowledge check

# Knowledge check 1 – question

Which actions can you perform using Amazon CloudWatch? (Select TWO.)

Choice	Response
A	Monitor the resources' usage and performance.
B	Receive real-time guidance for improving the AWS environment.
C	Compare the infrastructure to AWS best practices in five categories.
D	Access metrics from a single dashboard.
E	Automatically detect unusual account activity using AWS GuardDuty.

# Knowledge check 1 – answer

Which actions can you perform using Amazon CloudWatch? (Select TWO.)

The correct responses are A and D.

- A **Monitor the resources' usage and performance.**
- B Receive real-time guidance for improving the AWS environment.
- C Compare the infrastructure to AWS best practices in five categories.
- D **Access metrics from a single dashboard.**
- E Automatically detect unusual account activity using AWS GuardDuty.

# Knowledge check 2 – question

Which service can be used to review the security of your Amazon S3 buckets by checking for open access permissions?

Choice	Response
A	Amazon CloudWatch
B	AWS CloudTrail
C	AWS Trusted Advisor
D	Amazon GuardDuty

# Knowledge check 2 – answer

Which service can be used to review the security of your Amazon S3 buckets by checking for open access permissions?

The correct response is C.

- A Amazon CloudWatch
- B AWS CloudTrail
- C **AWS Trusted Advisor**
- D Amazon GuardDuty

# Knowledge check 3 – question

Which categories are included in the AWS Trusted Advisor dashboard? (Select TWO.)

Choice	Response
A	Reliability
B	Performance
C	Scalability
D	Elasticity
E	Fault tolerance

# Knowledge check 3 – answer

Which categories are included in the AWS Trusted Advisor dashboard? (Select TWO.)

The correct responses are B and E.

- A Reliability
- B Performance
- C Scalability
- D Elasticity
- E Fault tolerance

# Module summary



Covered in this module:

- Amazon CloudWatch
- AWS CloudTrail
- AWS Trusted Advisor



# Questions?

**Thank you for attending  
this session**

Corrections, feedback, or other questions?

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# AWS Partner: Cloud Practitioner Essentials

Module 8: Pricing and Support

# Module Objectives



On completion, you will be able to:

- Describe AWS pricing and support models
- Describe the AWS Free Tier
- Describe key benefits of AWS Organizations and consolidated billing
- Explain AWS Budgets benefits
- Explain AWS Cost Explorer benefits
- Explain AWS Pricing Calculator benefits
- Distinguish among the AWS Support plans
- Describe AWS Marketplace benefits

# Module Topics

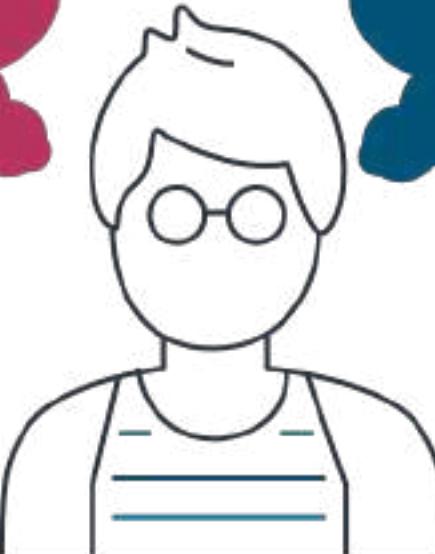


## Topics:

- Topic A: AWS Pricing
- Demonstration: Explore AWS billing tools
- Topic B: Consolidated billing
- Topic C: AWS pricing tools
- Topic D: AWS Support plans
- Topic E: AWS Marketplace
- Knowledge check

# AWS Pricing and support

---



How can I budget  
and pay for AWS  
services?

Where can I find  
and support  
third-party  
software?



AWS Cloud Practitioner Essentials

## Topic A: AWS Pricing

→ Topic A: AWS Pricing

Demonstration: Explore AWS billing tools

Topic B: Consolidated billing

Topic C: AWS pricing tools

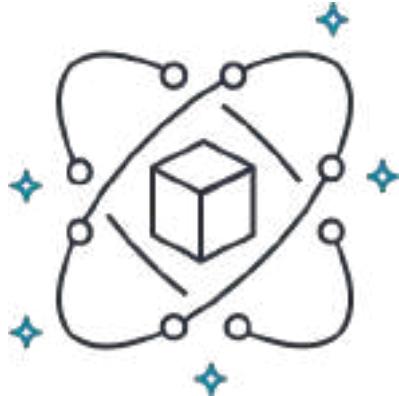
Topic D: AWS Support plans

Topic E: AWS Marketplace

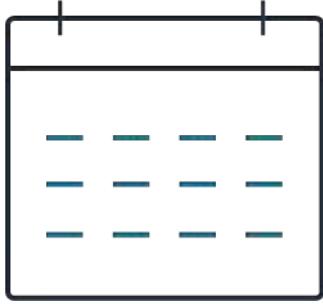
Knowledge check

# AWS Free Tier categories

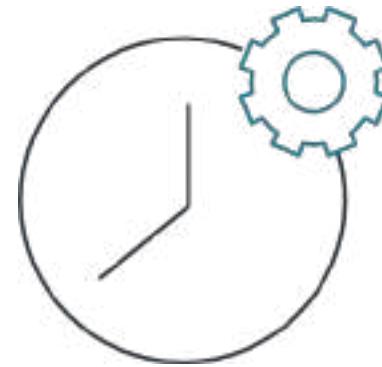
---



Always free



12 months free



Trials

# AWS pricing concepts

---

## Pay as you go

Pay only for the resources that you use without provisioning capacity in advance

## Pay less when you reserve

Reduce costs by reserving capacity in services such as Amazon Elastic Compute Cloud (Amazon EC2) and Amazon Relational Database Service (Amazon RDS)

## Pay less with volume-based discounts

Receive savings through volume-based discounts as your usage increases

# AWS Pricing Calculator

The screenshot shows the AWS Pricing Calculator interface. At the top, there's a navigation bar with the AWS logo, "aws pricing calculator", "Feedback", "English", and "Contact Sales". Below the navigation bar, the breadcrumb trail reads "AWS Pricing Calculator > My Estimate > Add Amazon EC2".  
  
The main content area is titled "Configure Amazon EC2" with an "Info" link. It's divided into two sections:

- Step 1: Select service**: This section has a "Region" dropdown set to "US East (Ohio)". Below it are two options:
  - Quick estimate** (selected): "Choose this option for fast and easy route to a ballpark estimate based on minimum requirements or a specific instance search. The estimate assumes consistent utilization."
  - Advanced estimate**: "Choose this option for a more detailed estimate that accounts for workload, data transfer costs, additional storage options, and other, less common instance requirements. For example, you know that you get a lot of traffic on Mondays but not much traffic throughout the rest of the week, and you want an estimate that takes this workload into account."
- Step 2: Configure Amazon EC2**: This section includes an "EC2 instance specifications" section with an "Info" link, an "Operating system" section with a dropdown menu showing "Linux", and a "Storage" section which is currently collapsed.

# AWS Lambda pricing

---



AWS Lambda

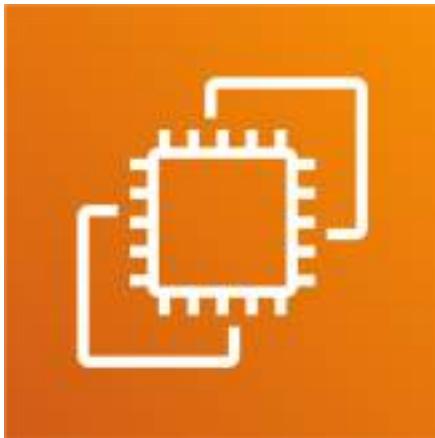
- Pay only for the compute time you use
- Pay for the number of requests for your functions
- Save by signing up for Compute Savings Plans

# Example: AWS Lambda service charges

---

▼ Lambda		\$0.00
▼ US East (N. Virginia)		\$0.00
AWS Lambda Lambda-GB-Second		\$0.00
AWS Lambda - Compute Free Tier - 400,000 GB-Seconds - US East (Northern Virginia)	254.575 seconds	\$0.00
AWS Lambda Request		\$0.00
AWS Lambda - Requests Free Tier - 1,000,000 Requests - US East (Northern Virginia)	680.000 Requests	\$0.00

# Amazon EC2 pricing



Amazon Elastic Compute  
Cloud (Amazon EC2)

- Pay only for the time that your On-Demand Instances run
- Reduce costs by using Spot Instances for recommended use cases
- Save by signing up for Compute Savings Plans
- Amazon EC2 pricing:  
<https://aws.amazon.com/ec2/pricing>

# Example: Amazon EC2 service charges

▼ Elastic Compute Cloud		\$0.00
▼ US East (N. Virginia)		\$0.00
Amazon Elastic Compute Cloud running Linux/UNIX		\$0.00
\$0.00 per Linux t2.micro instance-hour (or partial hour) under monthly free tier	106.512 Hrs	\$0.00
EBS		\$0.00
\$0.00 per GB-month of General Purpose (SSD) provisioned storage under monthly free tier	11.294 GB-Mo	\$0.00
Elastic Load Balancing - Application		\$0.00
\$0.00 per Application LoadBalancer-hour (or partial hour) under monthly free tier	268.000 Hrs	\$0.00

# Amazon S3 pricing

---



Amazon Simple  
Storage Service  
(Amazon S3)

Amazon S3 pricing is based on four factors:

- Storage
- Requests and data retrievals
- Data transfer
- Management and replication

# Example: Amazon S3 service charges

▼ Simple Storage Service		\$0.00
▼ US East (N. Virginia)		\$0.00
Amazon Simple Storage Service Requests-Tier1		\$0.00
\$0.00 per request - PUT, COPY, POST, or LIST requests under the monthly global free tier	185.000 Requests	\$0.00
Amazon Simple Storage Service Requests-Tier2		\$0.00
\$0.00 per request - GET and all other requests under the monthly global free tier	923.000 Requests	\$0.00
Amazon Simple Storage Service TimedStorage-ByteHrs		\$0.00
\$0.000 per GB - storage under the monthly global free tier	0.159 GB-Mo	\$0.00
▼ US East (Ohio)		\$0.00
Amazon Simple Storage Service USE2-Requests-Tier2		\$0.00
\$0.00 per request - GET and all other requests under the monthly global free tier	4.000 Requests	\$0.00
Amazon Simple Storage Service USE2-TimedStorage-ByteHrs		\$0.00
\$0.000 per GB - storage under the monthly global free tier	0.000001 GB-Mo	\$0.00

# Knowledge check – question

The AWS Free Tier includes offers that are available to new AWS customers for a certain period of time following their AWS sign-up date. What is the duration of this period?

Choice	Response
A	3 months
B	6 months
C	9 months
D	12 months

# Knowledge check 2 – answer

The AWS Free Tier includes offers that are available to new AWS customers for a certain period of time following their AWS sign-up date. What is the duration of this period?

**The correct response is D.**

- A 3 months
- B 6 months
- C 9 months
- D **12 months**



AWS Cloud Practitioner Essentials

## Demonstration: Explore AWS billing tools

Topic A: AWS Pricing

→ Demonstration: Explore AWS billing tools

Topic B: Consolidated billing

Topic C: AWS pricing tools

Topic D: AWS Support plans

Topic E: AWS Marketplace

Knowledge check

# Demonstration



## Explore AWS Billing Tools

In this demo, your instruction will show you the following things.

- Search for “Billing” in the Services menu
- Review your AWS bill, including:
  - Service costs by Region
  - Month to date spend
  - Top services being used
  - Current and forecasted amounts
  - Top Free Tier services by usage
- Accessing other billing tools, such as Cost Explorer, Budgets, and Budgets Reports.



AWS Cloud Practitioner Essentials

## Topic B: Consolidated billing

Topic A: AWS Pricing

Demonstration: Explore AWS billing tools

→ Topic B: Consolidated billing

Topic C: AWS pricing tools

Topic D: AWS Support plans

Topic E: AWS Marketplace

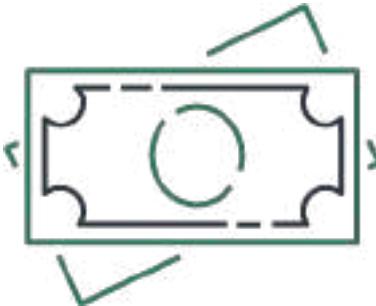
Knowledge check

# Consolidated billing

---



Receive a single bill  
for all the AWS  
accounts in your  
organization

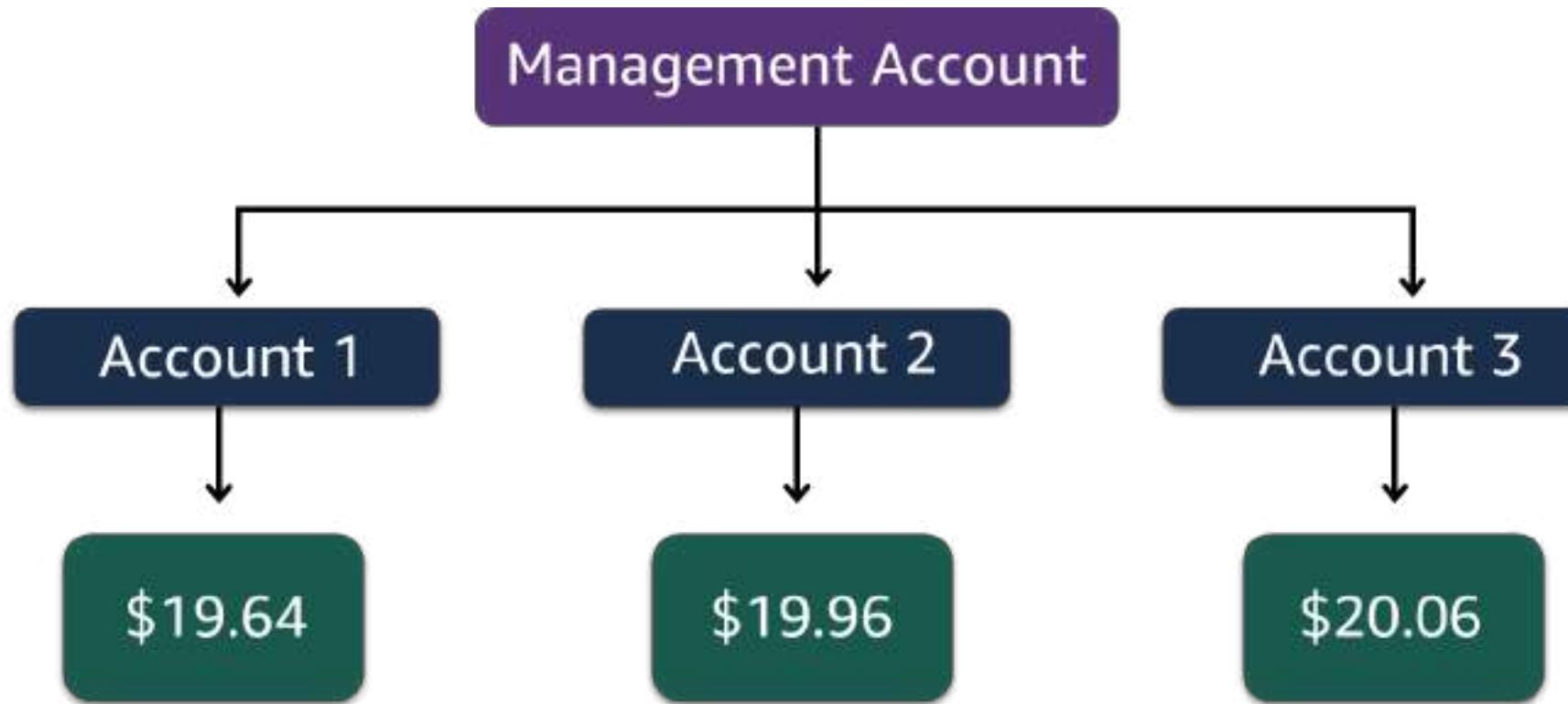


Review itemized  
charges that have been  
incurred by each  
account



Share savings across  
the accounts in your  
organization

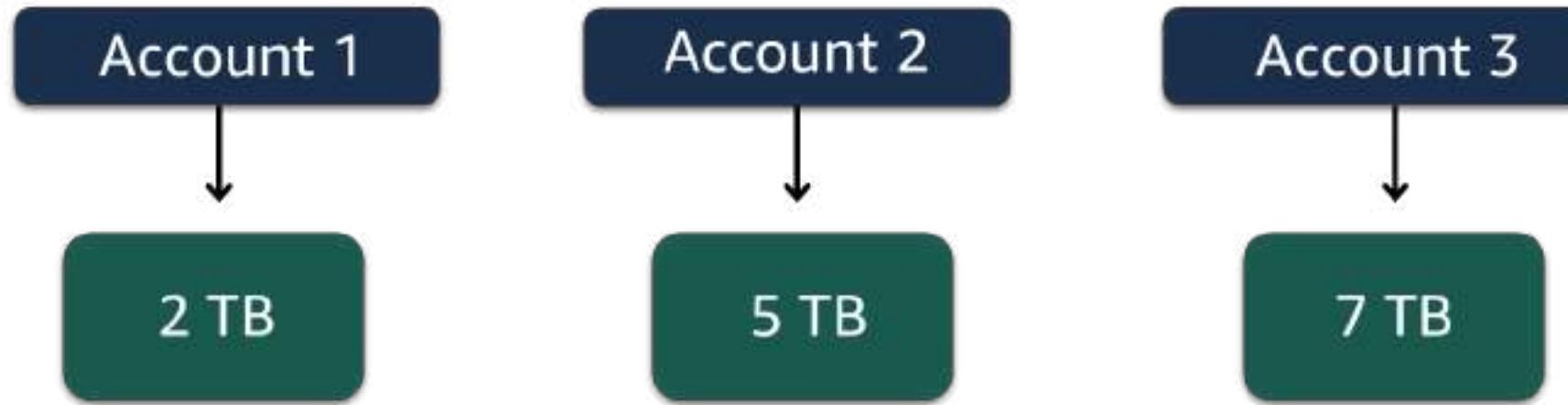
# Example: Consolidated billing



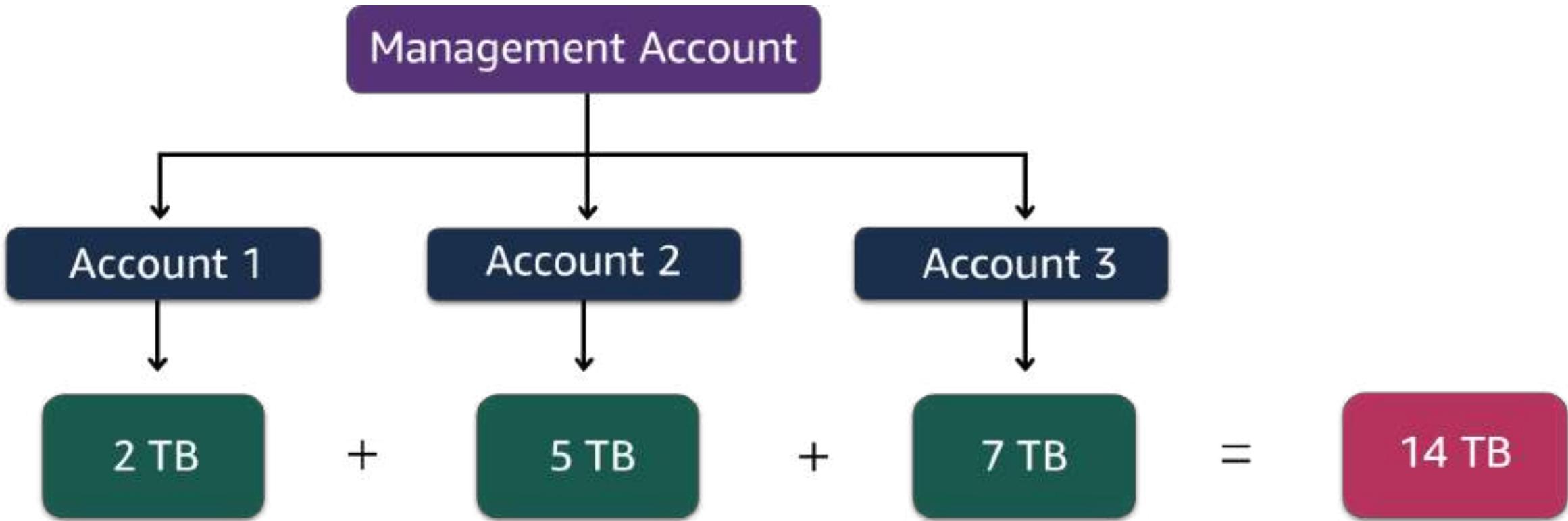
Monthly Consolidated Bill	
Management Account	\$14.14
Account 1	\$19.64
Account 2	\$19.96
Account 3	\$20.06
Total charged to paying account:	\$73.80

# Example: Volume pricing in Amazon S3 (1 of 2)

---



# Example: Volume pricing in Amazon S3 (2 of 2)





AWS Cloud Practitioner Essentials

## Topic C: AWS pricing tools

Topic A: AWS Pricing

Demonstration: Explore AWS billing tools

Topic B: Consolidated billing

→ Topic C: AWS pricing tools

Topic D: AWS Support plans

Topic E: AWS Marketplace

Knowledge check

# AWS Budgets

AWS Budgets is a tool that you can use to set thresholds for your AWS service usage and costs.

AWS Budgets							
All budgets (7)				Cost budgets (5)			
Budget name	Budget type	Current	Budgeted	Forecasted	Current vs. budgeted	Forecasted vs. budgeted	
Project Nemo Cost Budget	Cost	\$43.90	\$45.00	\$56.33	97.55%	125.17%	...
Eastern US Regional Budget	Cost	\$85.21	\$100.00	\$125.28	85.21%	125.28%	...
Total Monthly Cost Budget	Cost	\$141.50	\$175.00	\$187.00	80.86%	106.86%	...
Total EC2 Cost Budget	Cost	\$136.90	\$200.00	\$195.21	68.45%	97.61%	...
S3 Usage Budget	Usage	3,601 Requests	5,500 Requests	4,675.75 Requests	65.47%	85.01%	...

# AWS Cost Explorer

**AWS Cost Explorer** is a tool that you can use to visualize, understand, and manage your AWS costs and usage over time.





AWS Cloud Practitioner Essentials

## Topic D: AWS Support plans

Topic A: AWS Pricing

Demonstration: Explore AWS billing tools

Topic B: Consolidated billing

Topic C: AWS pricing tools

→ Topic D: AWS Support plans

Topic E: AWS Marketplace

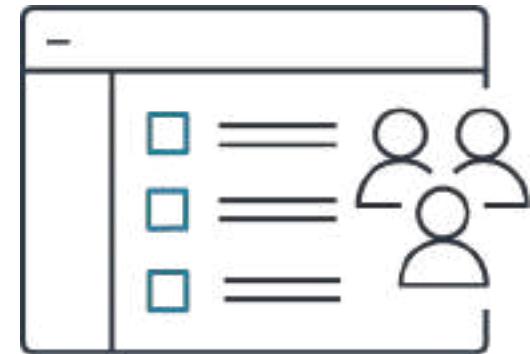
Knowledge check

# Basic Support

---

**Basic Support** is free for all AWS customers and includes access to:

- Technical papers, documentation, and support communities
- AWS Personal Health Dashboard
- A limited selection of AWS Trusted Advisor checks



# AWS Support plans

## Developer

- Best-practice guidance
- Client-side diagnostic tools
- Building-block architecture support

## Business

- Use-case guidance
- All AWS Trusted Advisor checks
- Limited support for third-party software

## Enterprise On-Ramp

- Application architecture guidance
- Infrastructure event management
- A pool of Technical Account Managers (TAM)

## Enterprise

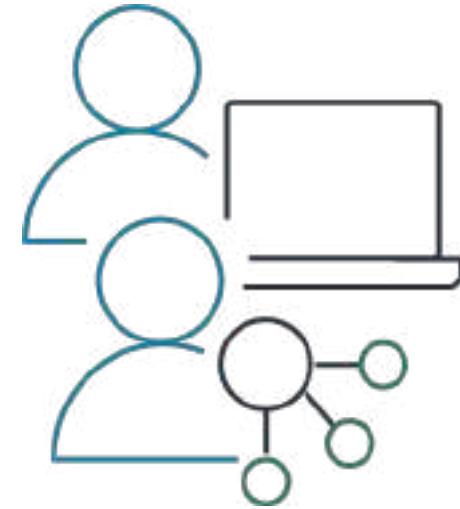
- Application architecture guidance
- Infrastructure event management
- A designated TAM

# Technical Account Manager (TAM)

---

The Technical Account Manager is your primary point of contact at AWS.

- Technical Account Managers are included only with the Enterprise On-Ramp or Enterprise Support plans.
- They provide guidance, technical expertise, and best practices.



# Knowledge check – question

Which of the following is the lowest-cost AWS Support plan that includes all AWS Trusted Advisor checks?

Choice	Response
A	Business
B	Developer
C	Enterprise
D	Basic

# Knowledge check – answer

Which of the following is the lowest-cost AWS Support plan that includes all AWS Trusted Advisor checks?

The correct response is A.

- A Business
- B Developer
- C Enterprise
- D Basic



AWS Cloud Practitioner Essentials

## Topic E: AWS Marketplace

Topic A: AWS Pricing

Demonstration: Explore AWS billing tools

Topic B: Consolidated billing

Topic C: AWS pricing tools

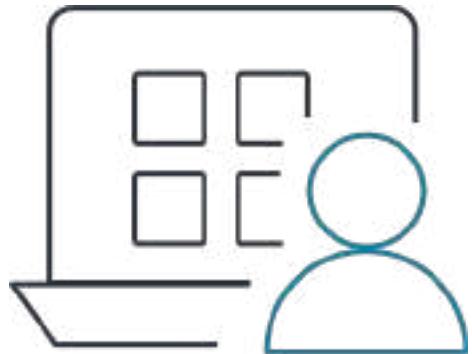
Topic D: AWS Support plans

→ Topic E: AWS Marketplace

Knowledge check

# AWS Marketplace

**AWS Marketplace** is a digital catalog that provides listings of third-party software that runs on AWS.



Discover thousands of software products that run on AWS



Access detailed information and reviews for each product listing



Explore software solutions by industry and use case

# AWS Marketplace categories

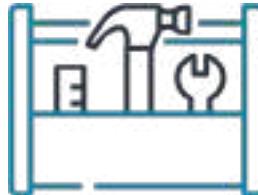
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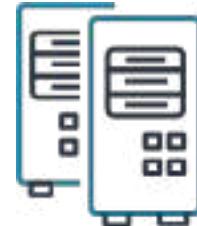
Business applications



Data and analytics



DevOps



Infrastructure Software



Internet of Things



Machine Learning



Migration



Security



AWS Cloud Practitioner Essentials

## Knowledge check

Topic A: AWS Pricing

Demonstration: Explore AWS billing tools

Topic B: Consolidated billing

Topic C: AWS pricing tools

Topic D: AWS Support plans

Topic E: AWS Marketplace

→ Knowledge check

# Knowledge check 1 – question

Which action can a customer perform with consolidated billing?

Choice	Response
A	Review how much cost predicted AWS usage will incur by the end of the month
B	Create an estimate for the cost of use cases on AWS
C	Combine usage across accounts to receive volume pricing discounts
D	Visualized and manage AWS costs and usage over time

# Knowledge check 1 – answer

Which action can a customer perform with consolidated billing?

The correct response is C.

- A Review how much cost predicted AWS usage will incur by the end of the month
- B Create an estimate for the cost of use cases on AWS
- C **Combine usage across accounts to receive volume pricing discounts**
- D Visualized and manage AWS costs and usage over time

# Knowledge check 2 – question

Which pricing tool is used to visualize, understand, and manage AWS costs and usage over time?

Choice	Response
A	AWS Pricing Calculator
B	AWS Budgets
C	AWS Cost Explorer
D	AWS Free Tier

# Knowledge check 2 – answer

Which pricing tool is used to visualize, understand, and manage AWS costs and usage over time?

The correct response is C.

- A AWS Pricing Calculator
- B AWS Budgets
- C AWS Cost Explorer
- D AWS Free Tier

# Knowledge check 3 – question

Which pricing tool can a customer use to receive alerts when their service usage exceeds a customer-defined threshold?

Choice	Response
A	Billing dashboard in the AWS Management Console
B	AWS Budgets
C	AWS Free Tier
D	AWS Cost Explorer

# Knowledge check 3 – answer

Which pricing tool can a customer use to receive alerts when their service usage exceeds a customer-defined threshold?

The correct response is B.

- A Billing dashboard in the AWS Management Console
- B AWS Budgets**
- C AWS Free Tier
- D AWS Cost Explorer

# Knowledge check 4 – question

A company wants to receive support from an AWS Technical Account Manager (TAM). Which support plan should they choose?

Choice	Response
A	Developer
B	Basic
C	Enterprise
D	Business

# Knowledge check 4 – answer

A company wants to receive support from an AWS Technical Account Manager (TAM). Which support plan should they choose?

The correct response is C.

- A Developer
- B Basic
- C Enterprise
- D Business

# Knowledge check 5 – question

Which service or resource is used to find third-party software that runs on AWS?

Choice	Response
A	AWS Marketplace
B	AWS Free Tier
C	AWS Support
D	Billing dashboard in the AWS Management Console

# Knowledge check 5 – answer

Which service or resource is used to find third-party software that runs on AWS?

The correct response is A.

- A **AWS Marketplace**
- B AWS Free Tier
- C AWS Support
- D Billing dashboard in the AWS Management Console

# Module summary



## Covered in this module:

- AWS Free Tier
- Consolidated billing
- Tools for planning, estimating, and reviewing AWS costs
- AWS Support plans
- AWS Marketplace benefits



# Questions?

**Thank you for attending  
this session**

Corrections, feedback, or other questions?

Contact us at <https://support.aws.amazon.com/#/contacts/aws-training>.

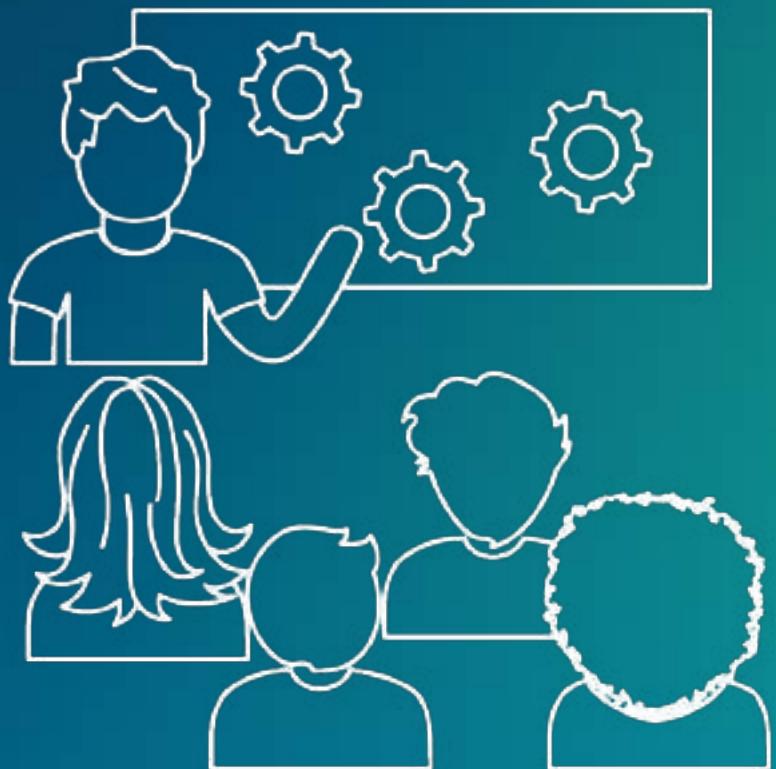
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# AWS Partner: Cloud Practitioner Essentials

## Module 9: Migration and Innovation

# Module Objectives



On completion, you will be able to:

- Describe migration and innovation in the AWS Cloud
- Summarize the AWS Cloud Adoption Framework (AWS CAF)
- Summarize the seven key factors of a cloud migration strategy
- Describe the benefits of AWS data migration solutions
- Summarize the broad scope of innovative solutions that AWS offers
- Summarize the six pillars of the AWS Well-Architected Framework

# Module Topics



## Topics:

- Topic A: AWS Cloud Adoption Framework
- Topic B: Migration strategies
- Topic C: AWS Snow Family
- Topic D: Innovation with AWS
- Topic E: AWS Well-Architected Framework
- Knowledge check



AWS Cloud Practitioner Essentials

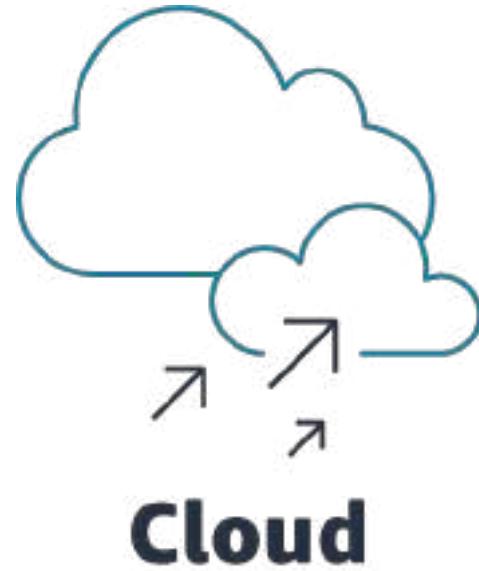
## Topic A: AWS Cloud Adoption Framework

- Topic A: AWS Cloud Adoption Framework
- Topic B: Migration strategies
- Topic C: AWS Snow Family
- Topic D: Innovation with AWS
- Topic E: AWS Well-Architected Framework
- Knowledge check

# AWS Cloud Adoption Framework

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- Provides advice to a company to enable a quick and smooth migration to AWS
- Organizes guidance into six areas of focus, called **perspectives**



# Perspectives

---

Business



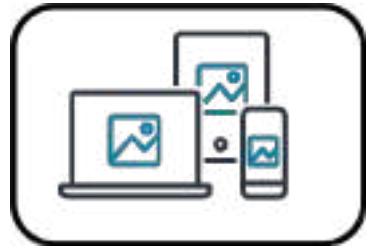
People



Governance



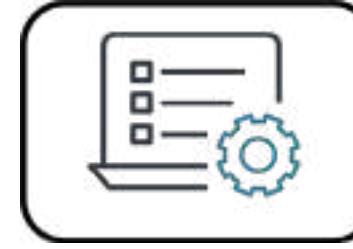
Platform



Security



Operations



Business  
capabilities



Technical  
capabilities

# Business perspective

## Business



### Goal:

Ensures that IT aligns with business needs and IT investments link to key business results

### Common roles:

- Business managers
- Finance managers
- Budget owners
- Strategy stakeholders

# People perspective

Business



People



Governance



Platform



Security



Operations

## Goal:

Supports development of an organization-wide change management strategy for successful cloud adoption

## Common roles:

- Human resources
- Staffing
- People managers

# Governance perspective

Business



People



Governance



Platform



Security



Operations

## Goal:

Focuses on the skills and processes to align IT strategy with business strategy

## Common roles:

- Chief information officer (CIO)
- Program managers
- Enterprise architects
- Business analysts
- Portfolio managers

# Platform perspective

Business



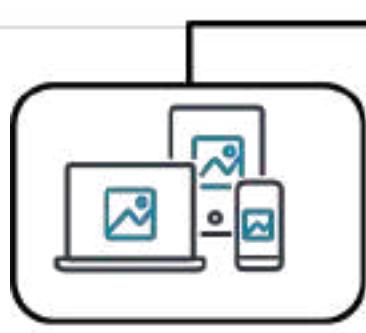
People



Governance



Platform



Security



Operations



## Goal:

Includes principles and patterns for implementing new solutions in the cloud, and migrating on-premises workloads to the cloud

## Common roles:

- Chief technology officer (CTO)
- IT managers
- Solutions architects

# Security perspective



## Goal:

Ensures that the organization meets security objectives for visibility, auditability, control, and agility

## Common roles:

- Chief information security officer (CISO)
- IT security managers
- IT security analysts

# Operations perspective

Business



People



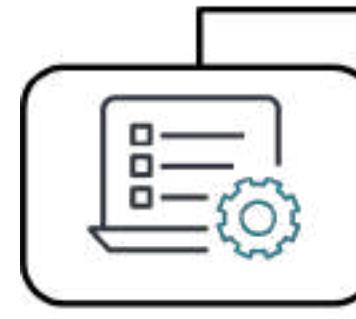
Governance



Platform



Security



Operations

## Goal:

Helps you to enable, run, use, operate, and recover IT workloads to the level agreed on with your business stakeholders

## Common roles:

- IT operations managers
- IT support managers

# Knowledge check – question

Which AWS Cloud Adoption Framework perspective helps customers design, implement, and optimize their AWS solution based on their business goals and perspectives?

Choice	Response
A	Business perspective
B	Platform perspective
C	Operations perspective
D	People perspective

# Knowledge check – answer

Which AWS Cloud Adoption Framework perspective helps customers design, implement, and optimize their AWS solution based on their business goals and perspectives?

The correct response is B.

- A Business perspective
- B Platform perspective**
- C Operations perspective
- D People perspective

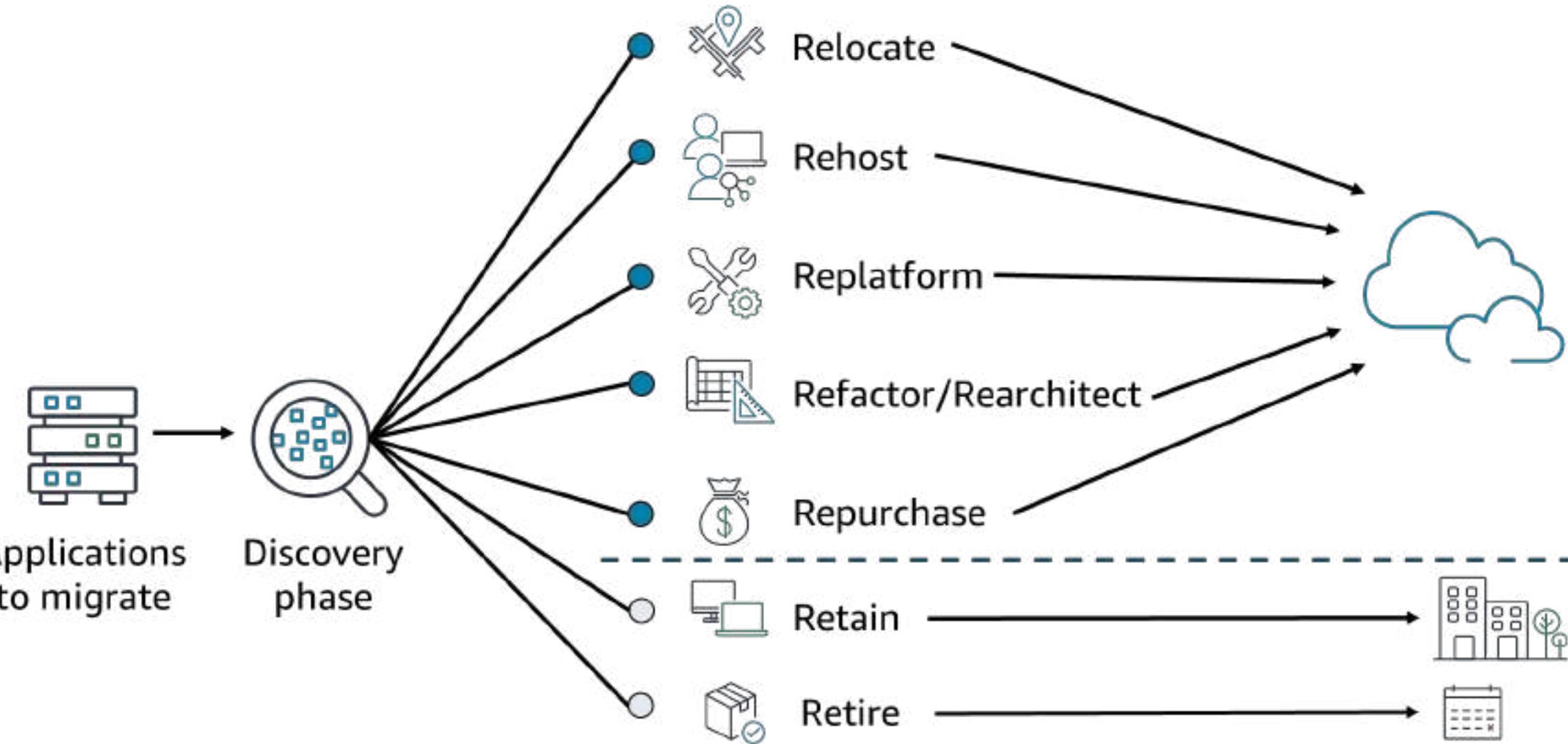


AWS Cloud Practitioner Essentials

## Topic B: Migration strategies

- Topic A: AWS Cloud Adoption Framework
- Topic B: Migration strategies
- Topic C: AWS Snow Family
- Topic D: Innovation with AWS
- Topic E: AWS Well-Architected Framework
- Knowledge check

# Seven migration strategies



# Knowledge check – question

Which migration strategy involves moving from a traditional license to a software as a service model?

Choice	Response
A	Refactoring
B	Retiring
C	Replatforming
D	Repurchasing

# Knowledge check 2 – answer

Which migration strategy involves moving from a traditional license to a software as a service model?

The correct response is D.

- A Refactoring
- B Retiring
- C Replatforming
- D Repurchasing



AWS Cloud Practitioner Essentials

## Topic C: AWS Snow Family

Topic A: AWS Cloud Adoption Framework

Topic B: Migration strategies

→ Topic C: AWS Snow Family

Topic D: Innovation with AWS

Topic E: AWS Well-Architected Framework

Knowledge check

# AWS Snow Family

---

## AWS Snowcone

- Small, rugged, and secure edge computing and data transfer device
- Features up to 14 TB of usable storage

## AWS Snowball

- AWS Snowball Edge Storage Optimized
- AWS Snowball Edge Compute Optimized

## AWS Snowmobile

- Exabyte-scale data transfer service for moving large amounts of data to AWS
- Transfers up to 100 PB of data



AWS Cloud Practitioner Essentials

## Topic D: Innovation with AWS

Topic A: AWS Cloud Adoption Framework

Topic B: Migration strategies

Topic C: AWS Snow Family

→ Topic D: Innovation with AWS

Topic E: AWS Well-Architected Framework

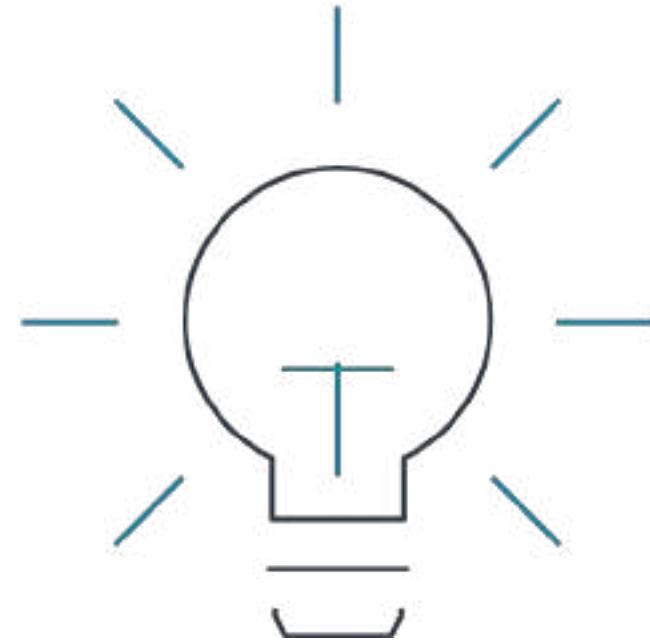
Knowledge check

# Innovation with AWS

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Driving innovation in the cloud involves clearly articulating the following conditions:

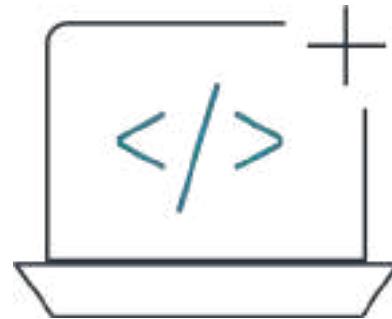
- Current state
- Desired state
- Problems you are trying to solve



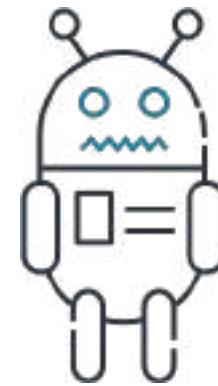
# Innovation paths

---

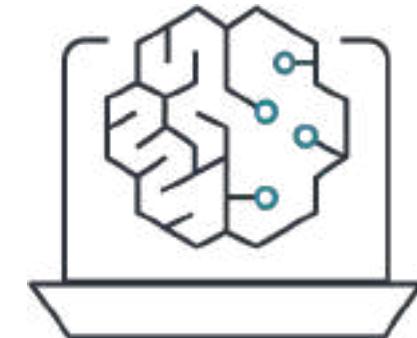
Consider some of the following innovation paths as you continue on your cloud journey.



Serverless applications



Artificial intelligence (AI)



Machine learning (ML)



AWS Cloud Practitioner Essentials

## Topic E: AWS Well-Architected Framework

Topic A: AWS Cloud Adoption Framework

Topic B: Migration strategies

Topic C: AWS Snow Family

Topic D: Innovation with AWS

→ Topic E: AWS Well-Architected Framework  
Knowledge check

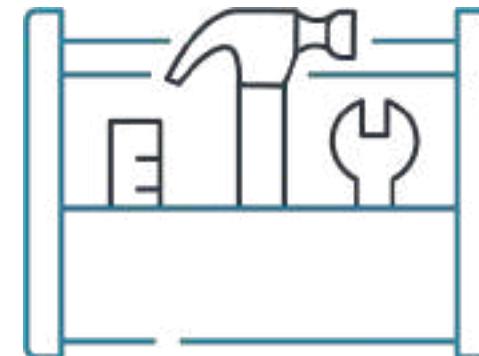
# Well-Architected Framework

---

The **Well-Architected Framework** helps you understand how to design and operate reliable, secure, efficient, and cost-effective systems in the AWS Cloud.

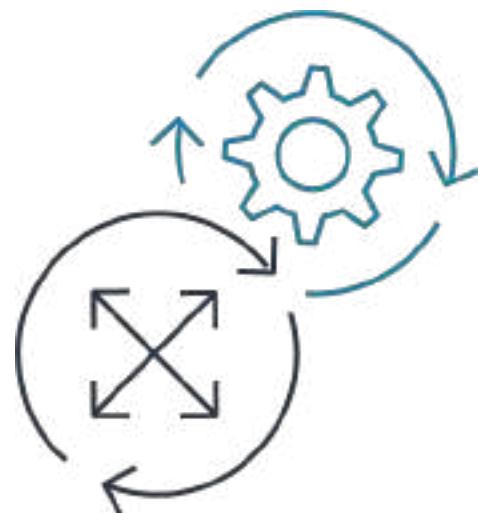
It is based on six pillars:

- Operational excellence
- Security
- Reliability
- Performance efficiency
- Cost optimization
- Sustainability



# Operational excellence

Run and monitor systems to deliver business value and to continually improve supporting processes and procedures



- Perform operations as code
- Annotate documentation
- Anticipate failure
- Refine operations procedures frequently
- Make frequent, small, reversible changes

# Security

Protect information, systems, and assets while delivering business value through risk assessments and mitigation strategies



- Automate security best practices
- Apply security at all layers
- Protect data in transit and at rest

# Reliability

Test recovery procedures, scale horizontally to increase aggregate system availability, and automatically recover from failure



- Recover from infrastructure or service disruptions
- Dynamically acquire computing resources to meet demand
- Mitigate disruptions such as misconfigurations or transient network issues

# Performance efficiency

Use computing resources efficiently to meet system requirements and maintain that efficiency as demand changes and technologies evolve



- Experiment more often
- Use serverless architectures
- Go global in minutes

# Cost optimization

Run systems to deliver business value at the lowest price point



- Adopt a consumption model
- Analyze and attribute expenditure
- Use managed services to reduce cost of ownership

# Sustainability

Minimize the environmental impacts of running cloud workloads



- Understand your impact
- Establish sustainability goals
- Maximize utilization
- Reduce the downstream impact of workload



AWS Cloud Practitioner Essentials

## Knowledge Check

Topic A: AWS Cloud Adoption Framework

Topic B: Migration strategies

Topic C: AWS Snow Family

Topic D: Innovation with AWS

Topic E: AWS Well-Architected Framework

→ Knowledge check

# Knowledge check 1 – question

Which AWS Cloud Adoption Framework perspective helps you structure the selection and implementation of permissions?

Choice	Response
A	Governance perspective
B	Security perspective
C	Operations perspective
D	Business perspective

# Knowledge check 1 – answer

Which AWS Cloud Adoption Framework perspective helps you structure the selection and implementation of permissions?

The correct response is B.

- A Governance perspective
- B Security perspective**
- C Operations perspective
- D Business perspective

# Knowledge check 2 – question

Which strategies are included in the seven strategies for application migration? (Select TWO.)

Choice	Response
A	Revisiting
B	Retaining
C	Remembering
D	Redeveloping
E	Rehosting

# Knowledge check 2 – answer

Which strategies are included in the seven strategies for application migration? (Select TWO.)

The correct responses are B and E.

- A Revisiting
- B Retaining
- C Remembering
- D Redeveloping
- E Rehosting

# Knowledge check 3 – question

What is the storage capacity of AWS Snowmobile?

Choice	Response
A	40 PB
B	60 PB
C	80 PB
D	100 PB

# Knowledge check 3 – answer

What is the storage capacity of AWS Snowmobile?

The correct response is D.

- A 40 PB
- B 60 PB
- C 80 PB
- D 100 PB

# Knowledge check 4 – question

What is the storage capacity of Snowball Edge Storage Optimized?

Choice	Response
A	40 TB
B	60 TB
C	80 TB
D	100 TB

# Knowledge check 4 – answer

What is the storage capacity of Snowball Edge Storage Optimized?

The correct response is C.

- A 40 TB
- B 60 TB
- C 80 TB
- D 100 TB

# Knowledge check 5 – question

Which AWS Well-Architected Framework pillar includes the ability to recover from infrastructure or service disruptions?

Choice	Response
A	Cost optimization
B	Operational excellence
C	Performance efficiency
D	Reliability

# Knowledge check 5 – answer

Which AWS Well-Architected Framework pillar includes the ability to recover from infrastructure or service disruptions?

The correct response is D.

- A Cost optimization
- B Operational excellence
- C Performance efficiency
- D Reliability

# Module summary



## Covered in this module:

- AWS Cloud Adoption Framework
- Seven strategies for migration
- AWS Snow Family
- Innovation with AWS services
- Six pillars of the AWS Well-Architected Framework



# Questions?

**Thank you for attending  
this session**

Corrections, feedback, or other questions?

Contact us at <https://support.aws.amazon.com/#/contacts/aws-training>.

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# AWS Partner: Cloud Practitioner Essentials

Module 10: AWS Certified  
Cloud Practitioner Basics

# Module Objectives



On completion, you will be able to:

- Determine resources for preparing for the AWS Certified Cloud Practitioner exam
- Evaluate types of questions that are included on the AWS Certified Cloud Practitioner exam

# Module Topics



## Topics:

- Topic A: Exam details
- Topic B: Exam strategies
- Topic C: Continue your learning
- Topic D: Register for your exam



## Topic A: Exam details

- ➡ Topic A: Exam details
- Topic B: Exam strategies
- Topic C: Continue your learning
- Topic D: Register for your exam

# Exam domains

---

Domain	% of Exam
Domain 1: Cloud Concepts	26%
Domain 2: Security and Compliance	25%
Domain 3: Technology	33%
Domain 4: Billing and Pricing	16%
Total	100%

# Recommended experience

---

For this exam, you should have:

- Basic understanding of IT services
- At least 6 months experience with the AWS Cloud



# Exam details (1 of 2)

---

- You must complete the exam within 90 minutes.
- The minimum passing score is 700 (the maximum score is 1,000).
- The exam consists of multiple choice and multiple response questions.
- A 30-minute time extension is available upon request to non-native English speakers who are taking an exam in English.



# Exam details (2 of 2)

---

- There is no penalty for guessing.
- Unanswered questions are scored as incorrect.
- You can flag questions to review before submitting the exam.

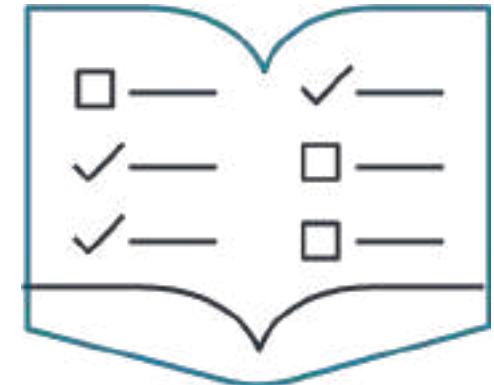


# Technical papers and resources

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We recommend that you review the following technical papers and resources:

- Overview of Amazon Web Services:
- Compare AWS Support Plans
- How AWS Pricing Works





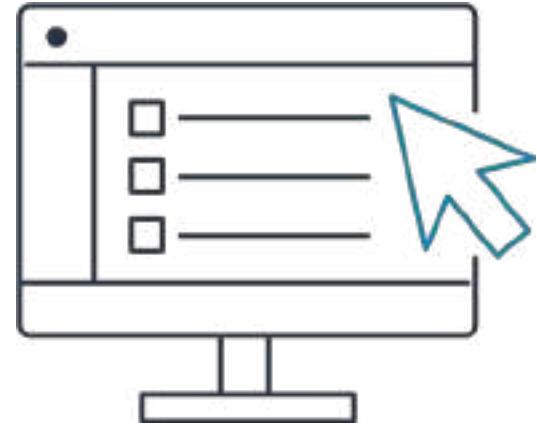
## Topic B: Exam strategies

- Topic A: Exam details
- Topic B: Exam strategies
- Topic C: Continue your learning
- Topic D: Register for your exam

# Exam strategies

---

1. Read the full question.
2. Predict the answer before looking at the response options.
3. Exclude incorrect response options.



# Sample question 1 multiple choice

AWS Certified Cloud Practitioner exam results are reported as a score from 100–1,000. What is the minimum passing score?

Choice	Response
A	650
B	700
C	850
D	900

# Sample question 1 multiple choice strategy

AWS Certified Cloud Practitioner exam results are reported as a score from 100–1,000. What is the minimum passing score?

Choice	Response
A	650
B	700
C	850
D	900

# Sample question 1 multiple choice answer

AWS Certified Cloud Practitioner exam results are reported as a score from 100–1,000. What is the minimum passing score?

Choice	Response
A	650
B	700 (correct)
C	850
D	900

# Sample question 2 multiple response

Which domains are included on the AWS Certified Cloud Practitioner exam? (Select TWO.)

Choice	Response
A	Security and compliance
B	Automation and Optimization
C	Monitoring and reporting
D	Billing and pricing
E	Deployment and provisioning

# Sample question 2 multiple response strategy

Which domains are included on the AWS Certified Cloud Practitioner exam? (Select TWO.)

Choice	Response
A	Security and compliance
B	Automation and Optimization
C	Monitoring and reporting
D	Billing and pricing
E	Deployment and provisioning

# Sample question 2 multiple response answer

Which domains are included on the AWS Certified Cloud Practitioner exam? (Select TWO.)

Choice	Response
A	Security and compliance (correct)
B	Automation and Optimization
C	Monitoring and reporting
D	Billing and pricing (correct)
E	Deployment and provisioning



## Topic C: Continue your learning

Topic A: Exam details

Topic B: Exam strategies

→ Topic C: Continue your learning

Topic D: Register for your exam

# AWS Certification levels

## Foundational

Knowledge-based certification for foundational understanding of AWS Cloud. No prior experience necessary.



## Associate

Role-based certifications that showcase your knowledge and skills and build your credibility as an AWS Cloud professional. Prior AWS Cloud or strong on-premises IT experience recommended.



## Professional

Role-based certifications that validate advanced skills and knowledge. At least two years of AWS Cloud experience recommended.



## Specialty

Certifications focused on specific topics. Recommended level of experience varies.



# Core 4 – Steps to prepare for an AWS Certification exam

Approach exam day with confidence



Step 1

Get to know the exam and exam-style questions



Step 2

Learn about exam topics in AWS Skill Builder



Step 3

Take exam preparation training in AWS Skill Builder



Step 4

Validate your exam readiness with Official Practice Exams



Explore all AWS Certification Exams

# Prepare for AWS Certification – step 1

Get to know the exam and exam-style questions



- 1 Review the exam guide.
- 2 Sign up for access to AWS Skill Builder, the AWS online learning center.
- 3 Enroll and take an AWS Certification Official Practice Question Set.

A solutions architect is designing a solution to run a containerized web application by using Amazon Elastic Container Service (Amazon ECS). The solutions architect wants to minimize cost by running multiple copies of a task on each container instance. The number of task copies must scale as the load increases and decreases.

Which routing solution distributes the load to the multiple tasks?

Report Content Errors

**A Configure an Application Load Balancer to distribute the requests by using path-based routing.**

Incorrect. With path-based routing, multiple services can use the same listener port on a single Application Load Balancer (ALB). The ALB forwards requests to specific target groups based on the URL path. However, this solution does not help with load distribution between different tasks of the same service.

For more information about load balancing, see Service load balancers.

**B Configure an Application Load Balancer to distribute the requests by using dynamic host port mapping.**

Correct. With dynamic host port mapping, multiple tasks from the same service are listened for each container instance.

For more information about load balancing, see Service load balancers.

X Incorrect A Correct B Continue

# Prepare for AWS Certification – step 2

## Learn about exam topics in Skill Builder



- 1 Identify gaps in your exam topic knowledge.
- 2 Enroll in self-paced digital courses you need to learn about.
- 3 Access AWS Builder Labs to get hands-on; apply your skills in the AWS Console.

The screenshot shows the AWS Training and Certification website. At the top, there's a navigation bar with links for Contact Us, Support, English, My Account, and Sign In to the Console. Below the navigation, a main heading reads "Training and Certification" with sub-links for Get Trained, Get Certified, Develop Your Team, AWS Partner Training, Education Programs, and Blog. The central focus is the "AWS Builder Labs" section, which features a sub-headline "Learn cloud skills in a live AWS environment" and a prominent orange "Subscribe for self-paced labs" button. To the right of this section is a white box containing the "About AWS Builder Labs" text and a small icon of a flask containing a cube.

AWS Builder Labs

Learn cloud skills in a live AWS environment

Subscribe for self-paced labs

About AWS Builder Labs

AWS Builder Labs help you learn cloud skills, hands-on with practice in the AWS Management Console. Learn at your own pace with 100+ Builder Labs, available with an AWS Skill Builder [Individual subscription](#) and [Team subscription](#).

# Prepare for AWS Certification – step 3

Take exam prep training in AWS Skill Builder



- 1 AWS Skill Builder offers courses across all domains.
- 2 AWS Builder Labs contain more than 500 self-paced labs.
- 3 Use gaming to prepare for your AWS Certification with AWS Cloud Quest.

A thumbnail for an AWS Skill Builder course. It features a light blue header with a document icon containing a checkmark. Below the header, the course title "Exam Prep: AWS Certified Solutions Architect - Associate" is displayed in bold black text. Underneath the title, the word "FREE" is shown in bold. To the right of "FREE", there is a small star icon followed by the number "5.0". At the bottom of the thumbnail, there is a "Digital training" button with a video camera icon.

Exam Prep: AWS Certified Solutions Architect - Associate

FREE

ENROLLED

Digital training

A thumbnail for another version of the same AWS Skill Builder course. It has a similar light blue header with a document icon containing a checkmark. The title "Exam Prep: AWS Certified Solutions Architect - Associate (with Practice Material...)" is partially visible. Below the title, the word "ENROLLED" is shown in bold. To the right of "ENROLLED", there is a small star icon followed by the number "5.0". At the bottom of the thumbnail, there is a "Digital training" button with a video camera icon.

Exam Prep: AWS Certified Solutions Architect - Associate (with Practice Material...)

ENROLLED

Digital training

# Prepare for AWS Certification – step 4

Validate your exam readiness



Take an AWS Certification Official Practice Exam with exam-style scoring.

AWS Certified Solutions Architect - Associate Official Practice Exam (SAA-C03)

Dashboard Notes Flags Go to AWS Skill Builder

Back AWS Certified Solutions Architect - Associate Official Practice Exam (SAA-C03)

100.0% Complete

1000 PAIS Predicted Score 65 of 65 Questions Taken 00:00:10 Avg. Answer Time 00:11:20 Time Elapsed

Overall Scaled Score 12/30/2022 Attempt Date

Product Sections Domain Scores

Domain Name	Complete	Outcome
1.0 Design Secure Architectures	20 of 20	Meets Requirements
1.1 Design secure access to AWS resources.	7 of 7	—
1.2 Design secure workloads and applications.	8 of 8	—
1.3 Determine appropriate data security controls.	7 of 7	—



AWS Cloud Practitioner Essentials

## **Topic D: Register for your exam**

Topic A: Exam details

Topic B: Exam strategies

Topic C: Continue your learning

→ Topic D: Register for your exam



# Register for your exam

Learn about options for taking the exam.



# AWS Skill Builder online learning center



Game-based learning



Self-paced labs



Use case challenges



Exam preparation

Continue to deepen the skills you need, your way, with more than 500 courses and interactive training developed by the experts at AWS.



Get started

<https://aws.amazon.com/training/digital>

# Don't miss these learning opportunities

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## Free Digital Training

Learn with hundreds of free, self-paced digital courses on AWS fundamentals.



## Classroom Training

Deepen your technical skills and learn from an accredited AWS instructor.



## AWS Certification

Validate your expertise with an industry-recognized credential.



# Thanks for participating!

Corrections, feedback, or other questions?

Contact us at <https://support.aws.amazon.com/#/contacts/aws-training>.

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