AWS Certified Developer Associate

Lesson 1: AWS Overview

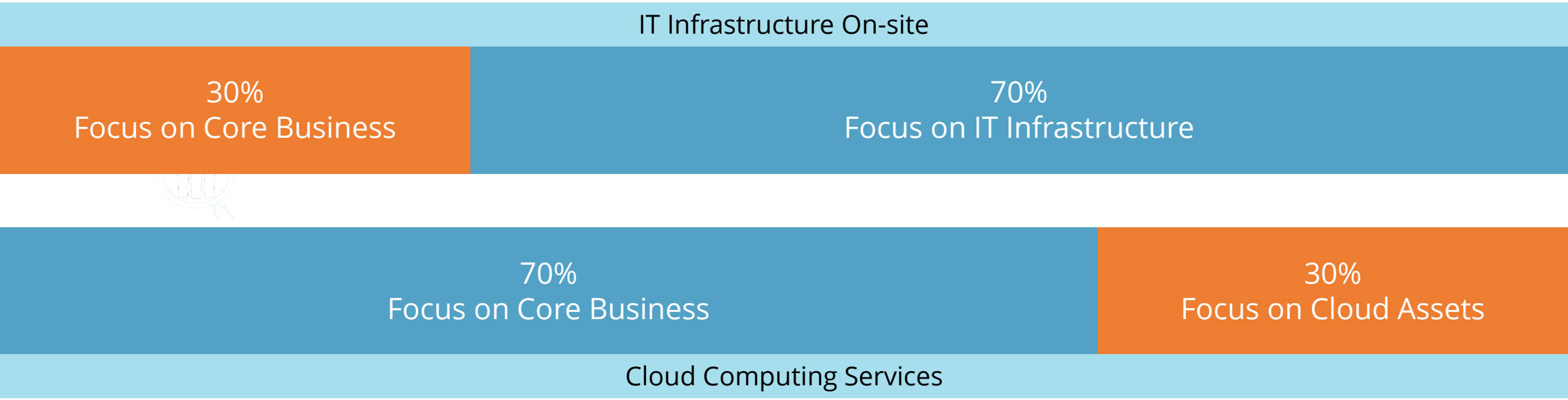
What You'll Learn

- Define cloud computing
- Deployment Models of Cloud
- Service Models of Cloud
- Identify the main events in the history of AWS
- Describe the AWS platform
- Understand AWS Global Infrastructure and Security
- Describe different AWS Services

Basic Concepts of Cloud Computing

Overview of Cloud Computing

Benefits	Easy to access On-demand Focus on your core business Providers ensure maintenance



Characteristics of Cloud Computing

- Self-Service
- Network Access
- Resource Pooling
- Rapid Elasticity
- Measured Service

Characteristics of Cloud Computing

- Self-Service
- Network Access
- Resource Pooling
- Rapid Elasticity
- Measured Service

- Any type of cloud computing capabilities
- At any time
- Without any manual intervention

Characteristics of Cloud Computing

- Self-Service
- Network Access
- Resource Pooling
- Rapid Elasticity
- Measured Service

- Access over the network using standard mechanisms
- Access using laptops, desktops, mobile devices, and tablets

Characteristics of Cloud Computing

- Self-Service
- Network Access
- Resource Pooling
- Rapid Elasticity
- Measured Service

- Resources serve more than one consumer
- Provider assigns or reassigns virtual and physical resources
- Consumer has no control over physical location of resources

Characteristics of Cloud Computing

- Self-Service
- Network Access
- Resource Pooling
- Rapid Elasticity
- Measured Service

- Describes how the service providers release resources
- Enables scale out during high demand
- Enables scale in during low demand

Characteristics of Cloud Computing

- Self-Service
- Network Access
- Resource Pooling
- Rapid Elasticity
- Measured Service

- Customers measure the use of each component
- Services and pricing are transparent
- Customers can monitor and manage their resources at any time

Benefits of Cloud Computing

Cloud Benefits

- Speed and Agility
- Reduced Expenses
- Reduced Costs
- No Upfront Decisions
- Go Global in Minutes
- Lower Maintenance

Benefits of Cloud Computing

Cloud Benefits

- Speed and Agility
- Reduced Expenses
- Reduced Costs
- No Upfront Decisions
- Go Global in Minutes
- Lower Maintenance

"We choose cloud computing because resources are available in seconds.
In the non-cloud computing world, the same procedure could take weeks, or even months. Cloud computing has greatly increased our company's speed and agility.
We now have the flexibility of experimenting and exploring better solutions to our needs."

Benefits of Cloud Computing

Cloud Benefits

- Speed and Agility
- Reduced Expenses
- Reduced Costs
- No Upfront Decisions
- Go Global in Minutes
- Lower Maintenance

"With cloud computing, heavy expenditure on data centers, servers, and hardware has been cut down. We use only needed services, and only pay for how much we use, optimizing costs. It works like on-demand IT services, with pay-as-you-go pricing!"

Benefits of Cloud Computing

Cloud Benefits

- Speed and Agility
- Reduced Expenses
- **Reduced Costs**
- No Upfront Decisions
- Go Global in Minutes
- Lower Maintenance

"Ever since we implemented cloud computing, we've seen an increase in users and a decrease in the cost of our services. The cost incurred is a lot lower as compared to what we paid when we owned all hardware, which we ourselves had to maintain."

Benefits of Cloud Computing

Cloud Benefits

- Speed and Agility
- Reduced Expenses
- Reduced Costs
- No Upfront Decisions
- Go Global in Minutes
- Lower Maintenance

"It had become quite stressful to plan hardware requirement and configuration well in advance. Thanks to cloud services, advance estimation of infrastructure is not required, which has reduced the storing of surplus expensive resources or having to deal with limited capacity when in need."

Benefits of Cloud Computing

Cloud Benefits

- Speed and Agility
- Reduced Expenses
- Reduced Costs
- No Upfront Decisions
- Go Global in Minutes
- Lower Maintenance

"Thanks to cloud computing, it's now possible to deploy an application in multiple regions worldwide in just few minutes without complications. This reduces costs significantly, providing lower latency and higher customer satisfaction experiences."

Benefits of Cloud Computing

Cloud Benefits

- Speed and Agility
- Reduced Expenses
- Reduced Costs
- No Upfront Decisions
- Go Global in Minutes
- Lower Maintenance

"Since we implemented cloud services, we don't have to maintain our data centers and hardware.
Cloud computing has eliminated the cost of setup and, as on-premises infrastructure is not needed anymore, we don't need to spend on maintenance."

Knowledge Check

KNOWLEDGE CHECK

What are the characteristics of cloud computing?

a. On-Demand Self-Service

b. Rapid Elasticity

c. Measured Service

d. All of the above

KNOWLEDGE CHECK

What are the characteristics of cloud computing?

a. On-Demand Self-Service

b. Rapid Elasticity

c. Measured Service

d. All of the above

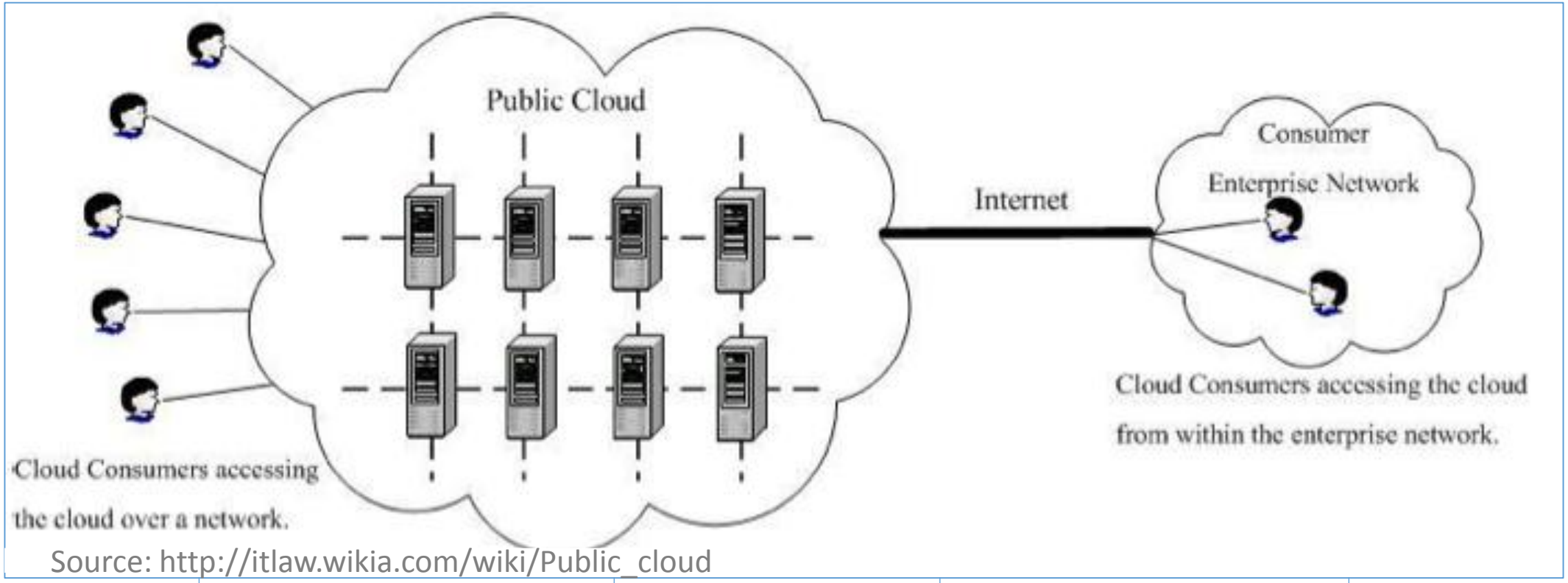
The correct answer is **All of the above**

Explanation: National Institute of Standards and Technology describes five essential characteristics of cloud computing: On-Demand Self-Service, Broad Network Access, Resource Pooling, Rapid Elasticity, and Measured Service.

Deployment Models of Cloud Computing

Deployment Models of Cloud Computing

Public Cloud



Source: http://itlaw.wikia.com/wiki/Public_cloud

- **Shared with general public**
- **Efficient way to share resources and cut down cost**
- **Free and paid models; register yourself at Cloud Service Provider's website**
- **Shared Data Center—Security is a big concern**

Reasons to Choose Public Cloud

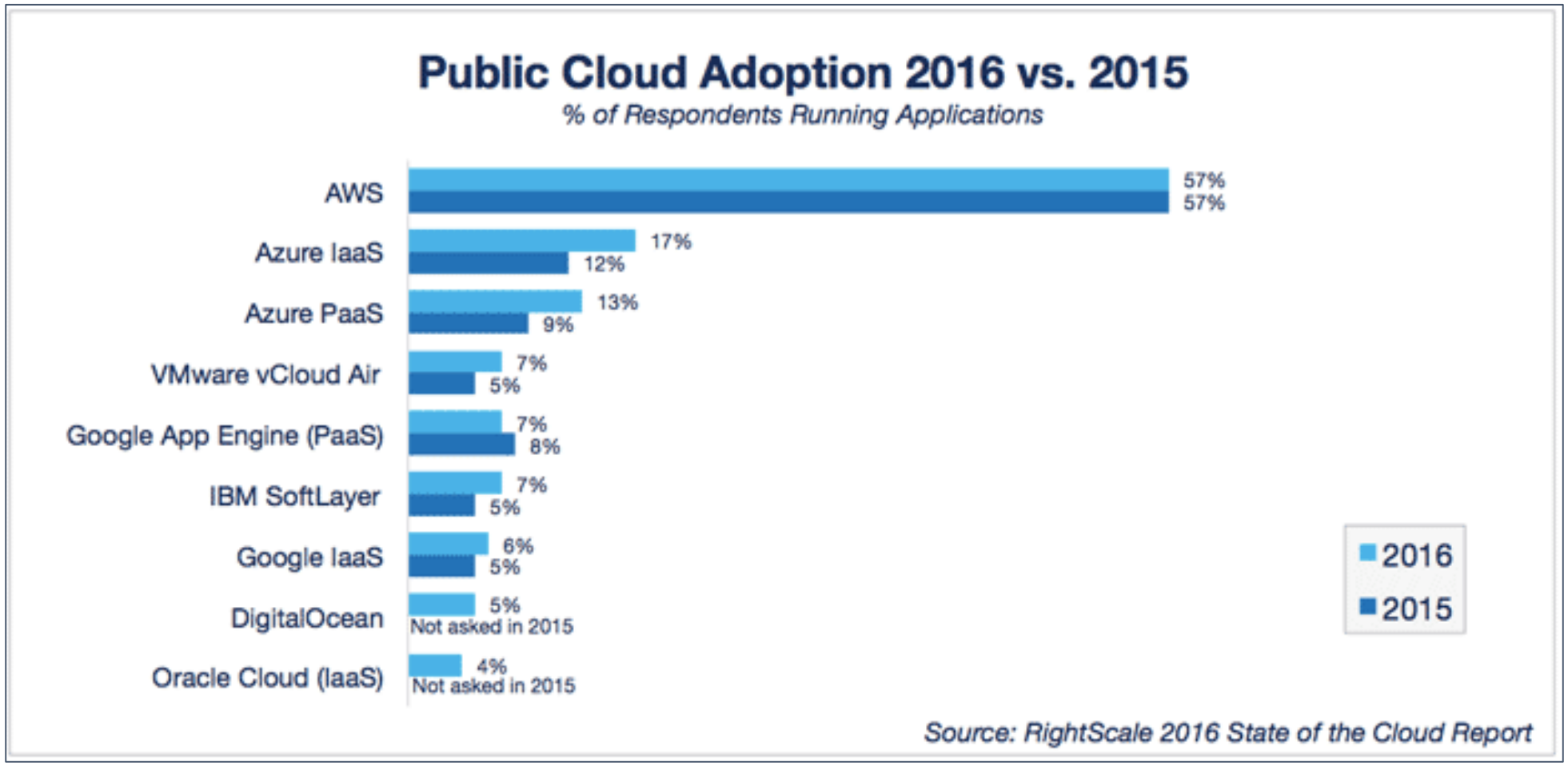
For startups to scale up fast

For periodic processing

For unpredictable utilizations by users

For predefined burst events which demand high utilization

Public Cloud Service Providers



Public Cloud Issues

Security/Compliance

Networking/Latency

Compatibility with current data center infrastructure

Storage infrastructure compatibility issues

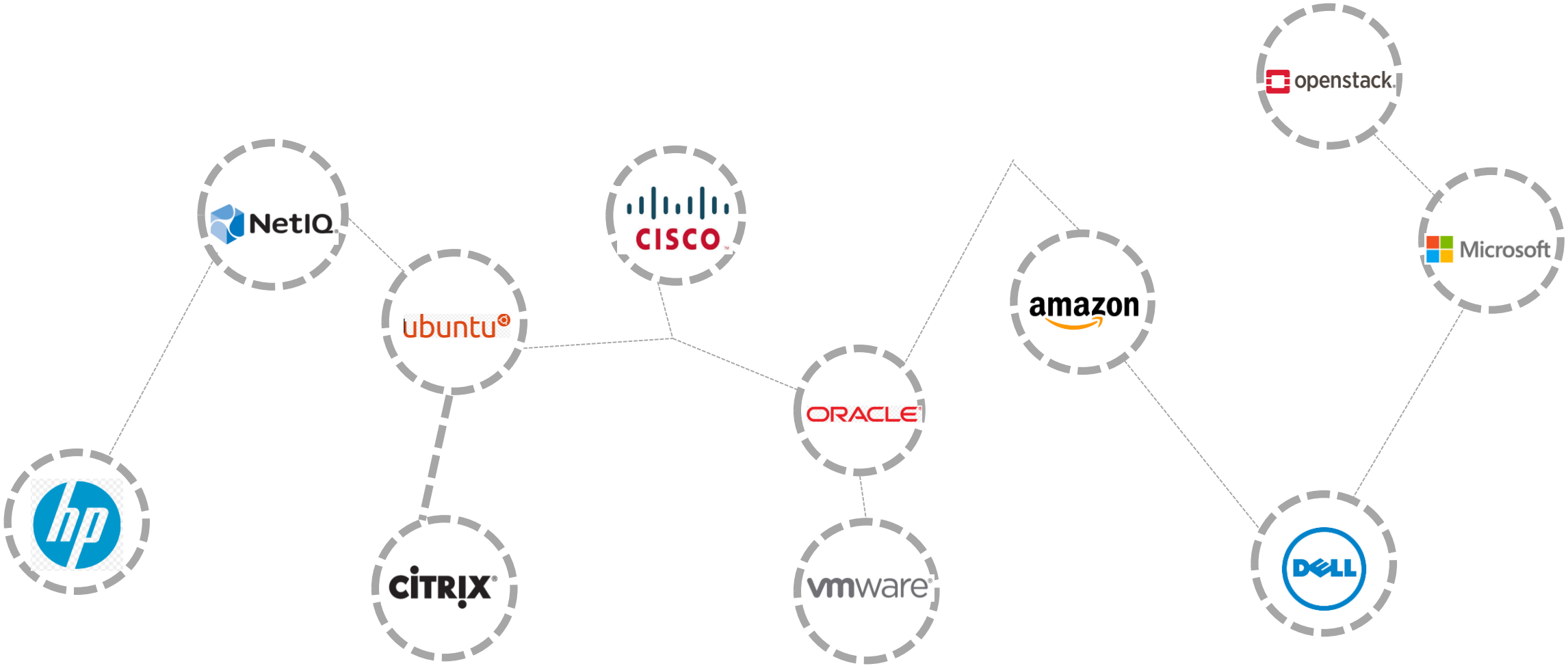
Migration challenges from in-house to public cloud

Cloud vendor’s reputation

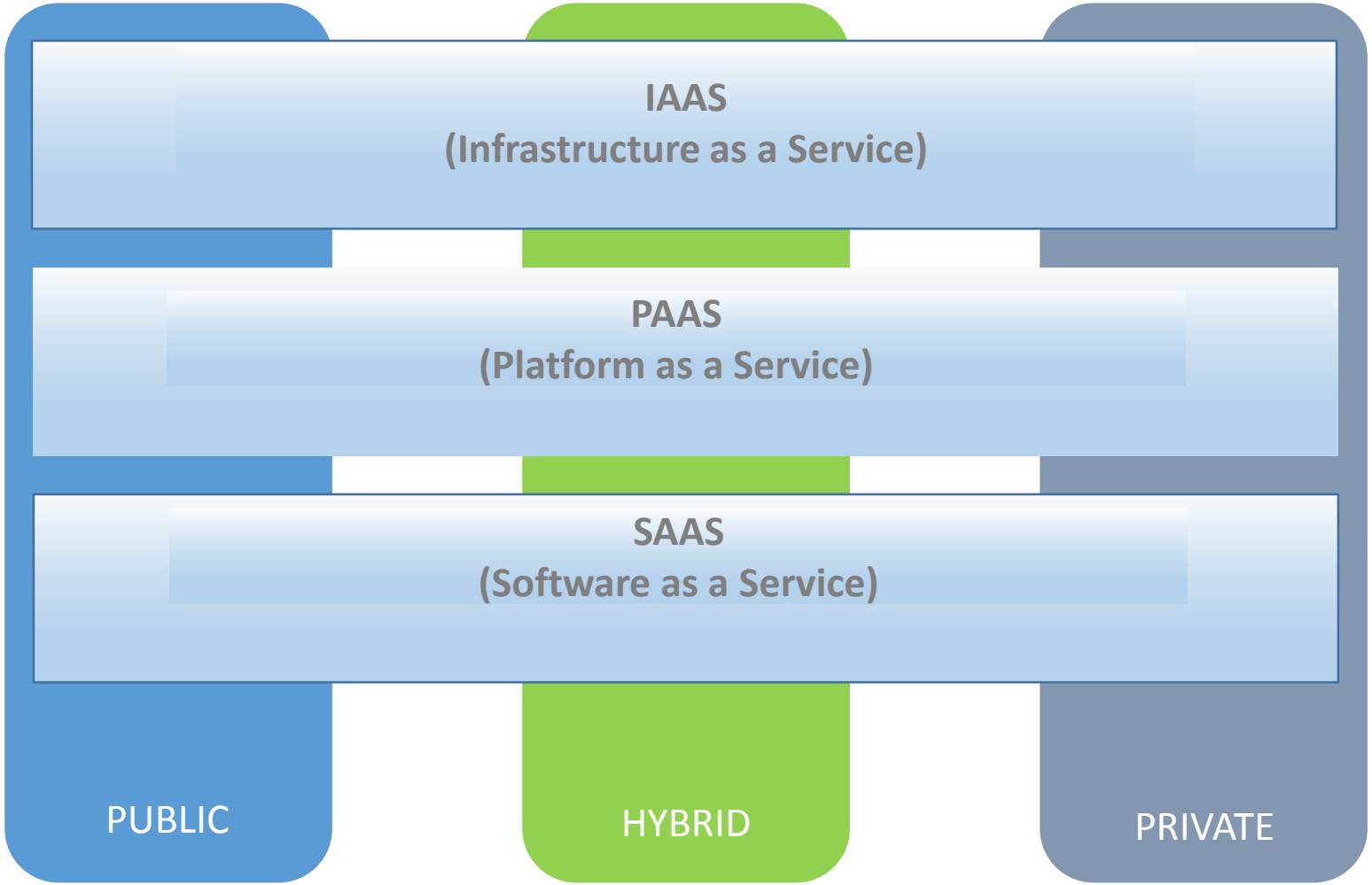
Private Cloud

- Secure model where data stays in data center
- Ideal for organizations having large computing or storage requirements with very strict control, security, and compliance needs
- Exclusive use by a single organization
- Exists on or off premises
- Owned, managed, and operated by the organization, a third party

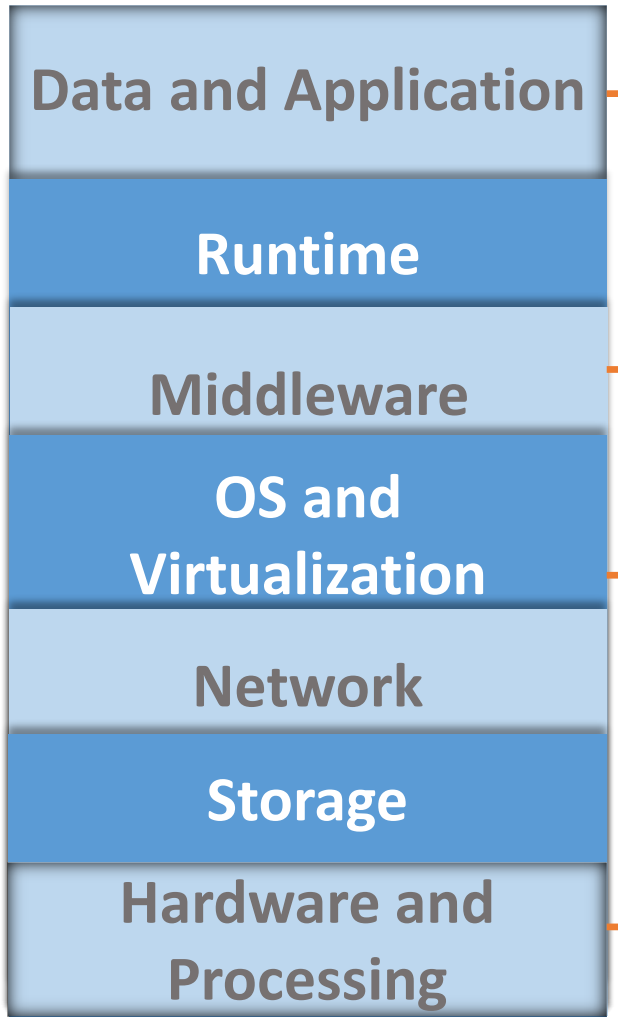
Private Cloud Vendors



Cloud Computing Service Models



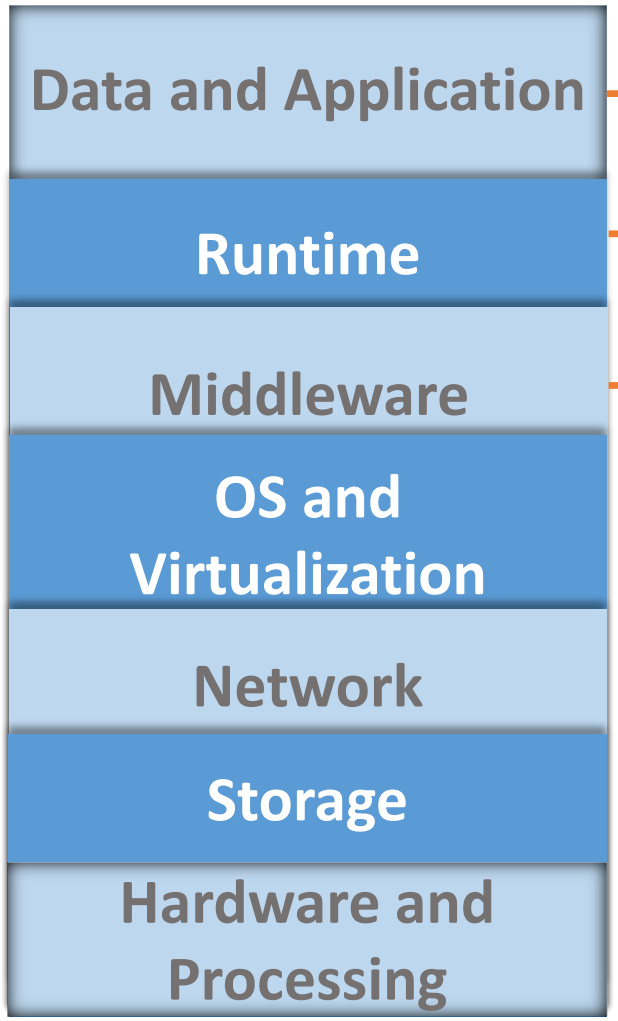
Infrastructure as a Service



- You manage data, application, runtime, and middleware environments
- You might require additional staff to manage your applications

- CSP controls compute, network, and storage
- CSP does maintenance and reliability

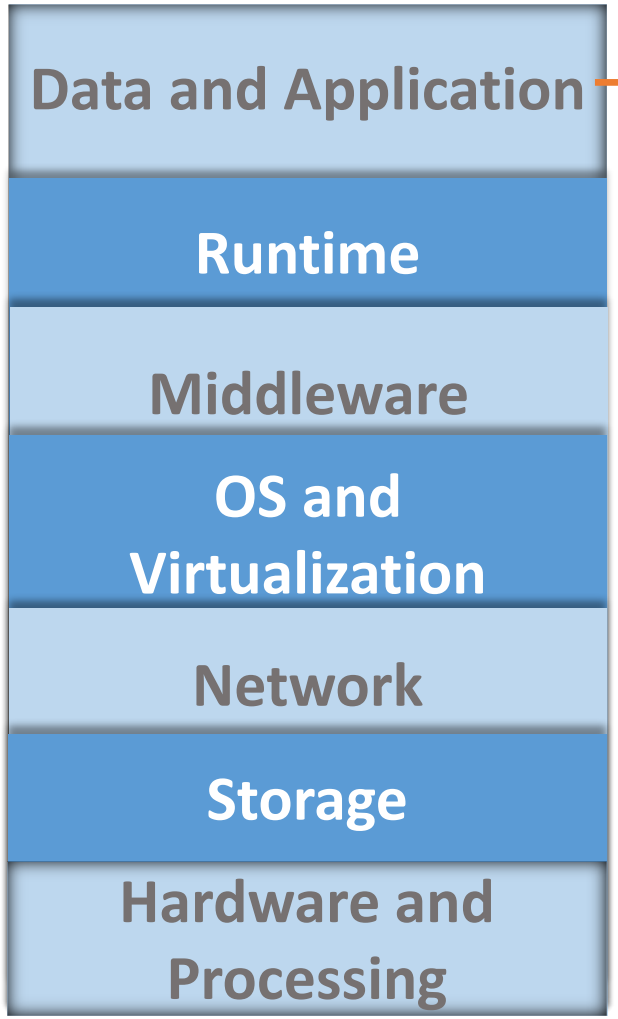
Platform as a Service



- You manage the data and application alone

- PaaS provides middleware, programming languages, runtime environments, or various tools to the user

Software as a Service



- CSP hosts the Data and Application
- The consumers have no control on the underlying cloud infrastructure
- There is some control for limited user-specific application configuration settings

Knowledge Check

KNOWLEDGE CHECK

Which of the following are the benefits of Platform as a Service (PaaS) delivery model?

a. Reduced complexity in hardware and software compatibility issues

b. Natural choice for development, testing, and production environments

c. Dynamic provisioning and scalable services

d. All of the above

KNOWLEDGE CHECK

Which of the following are the benefits of Platform as a Service (PaaS) delivery model?

a. Reduced complexity in hardware and software compatibility issues

b. Natural choice for development, testing, and production environments

c. Dynamic provisioning and scalable services

d. All of the above

The correct answer is **D.**

Explanation: All of the given options are benefits of PaaS. With PaaS, system setup and maintenance are done by CSP.

KNOWLEDGE CHECK

In which case(s), Public Cloud should be used?

a. For small startups to grow fast

b. Periodic processing

c. Dynamic provisioning and scalable services

d. All of the above

KNOWLEDGE CHECK

In which case(s), Public Cloud should be used?

a. For small startups to grow fast

b. Periodic Processing

c. Predictable and Unpredictable Burst

d. All of the above

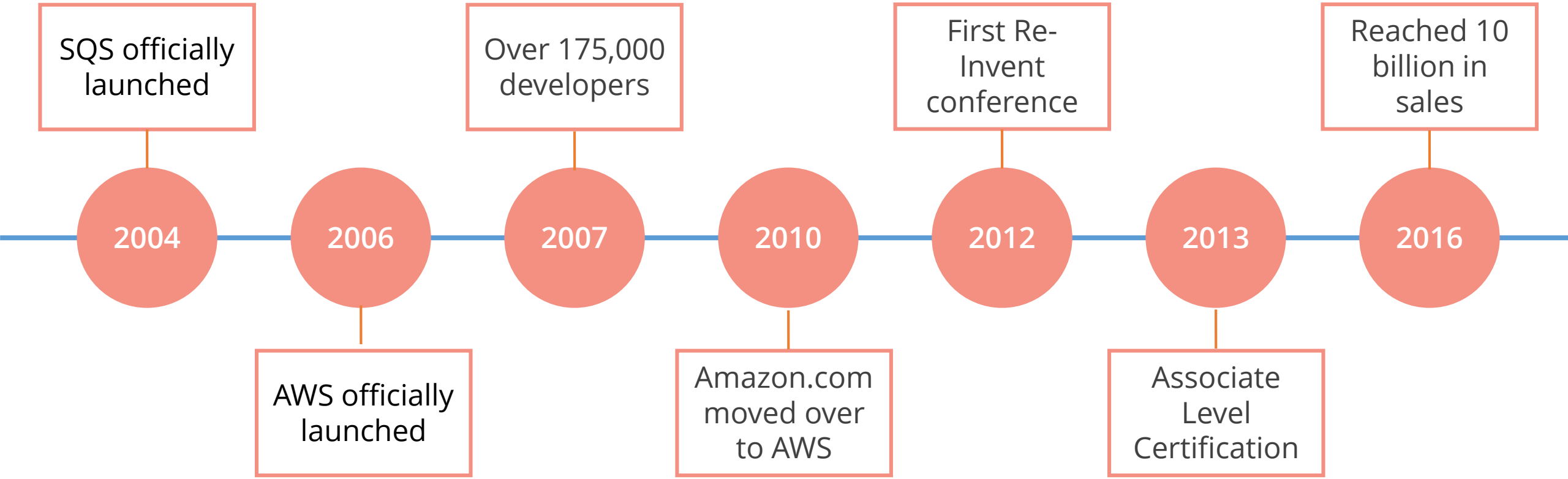
The correct answer is **D.**

Explanation: Public cloud should be used in all of the given options.

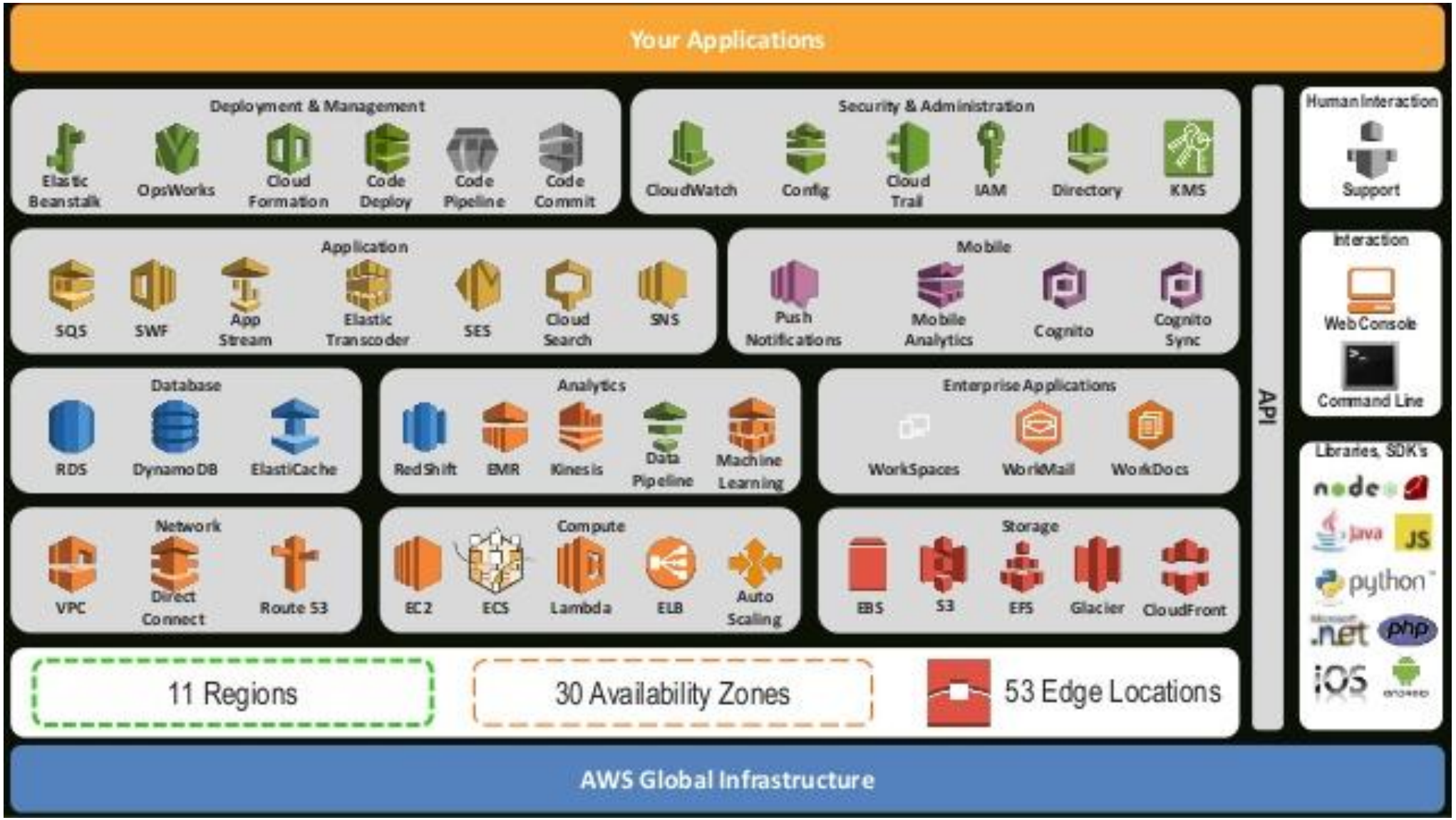
AWS Overview

History of AWS

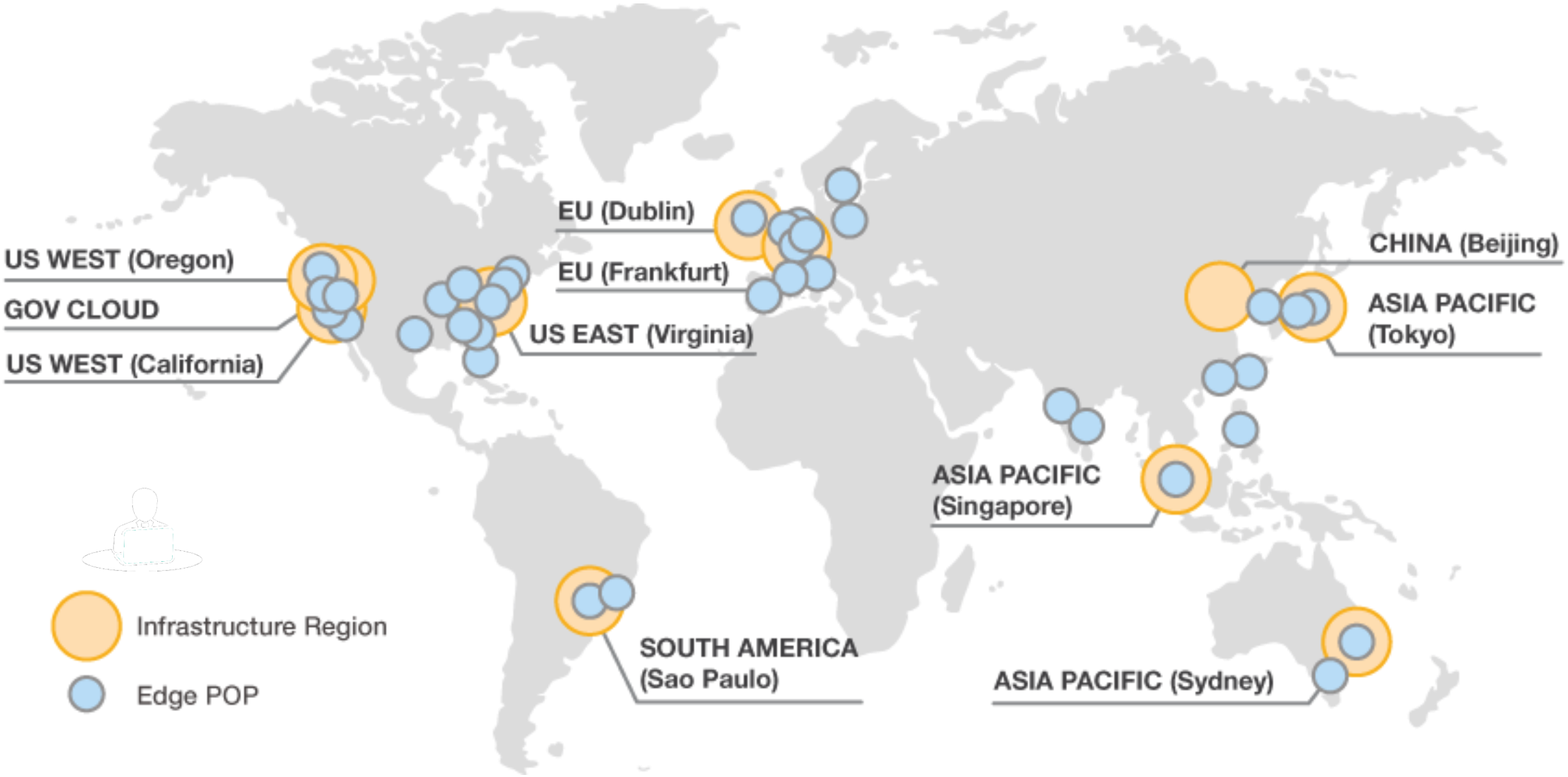
Amazon Web Services (AWS) offers a large set of cloud-computing services in a reliable, scalable, and inexpensive cloud platform.



AWS Platform



AWS Global Infrastructure



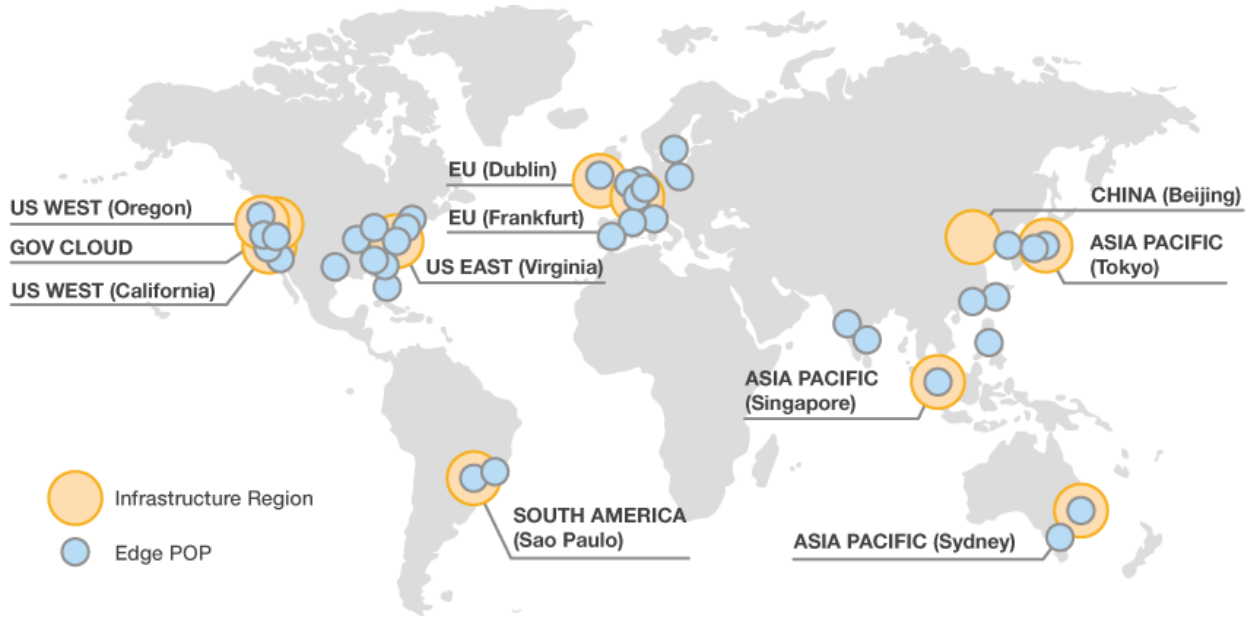
Regions, Zones, Locations, and End Points

Regions

Availability Zones

Edge Locations

End Points



Regions, Zones, Locations, and End Points

Regions

Availability Zones

Edge Locations

End Points

- Completely independent geographic areas
- Composed of two or more availability zones
- Contain a set of AWS resources tied to a specific region

Regions and Availability Zones

Regions

Availability Zones

Edge Locations

End Points

- More than one data center inside a region
- Availability zones are connected through low-latency links
- Provide high fault tolerance or business continuity
- Deploy your application in multiple availability zones

Regions and Availability Zones

Regions

Availability Zones

Edge Locations

End Points

- Edge locations deliver content to the end user with low latency
- Cloud front uses edge locations for content delivery

Regions and Availability Zones

Regions

Availability Zones

Edge Locations

End Points

- End point is the entry point of a web service
- Referred as “URLs acting as entry point for a web service”
- Example: https://dynamodb.us-west-2.amazonaws.com

Benefits of Global Infrastructure

Multiple global locations for deployment

Choice to maintain and ensure data locality

Low-latency content delivery

Reliable domain name resolution

Terminology

Scalability:
Ability to handle increased workload by expanding according to the load

Fault Tolerance:
Ability to continuously operate without interruption in the event of service failures

Elasticity:
Capability of infrastructure to scale up or down automatically.

Durability:
Ability to stay strong and in a good condition over a long period of time

Availability:
Continue to operate and provide the same services as it originally did

Knowledge Check

KNOWLEDGE CHECK

Define an availability zone

a. One or more data center inside a region

b. One per AWS region

c. Provides high fault tolerance or business continuity

d. All of the above

KNOWLEDGE CHECK

Define an availability zone.

a. One or more data center inside a region

b. One per AWS region

c. Provides high fault tolerance or business continuity

d. All of the above

The correct answer is **A and C are correct.**

Explanation: Availability zones are physically separated data centers within a typical metropolitan region, located in different sections of the metropolitan. We already know that availability zones are isolated and are independent of each other to provide high fault tolerance or business continuity.

AWS Services

Networking Services

Virtual Private Cloud

Amazon Route 53

AWS Direct Connect

VPN

Elastic Load Balancing

Auto-Scaling

Networking Services

Virtual Private Cloud

Amazon Route 53

AWS Direct Connect

VPN

Elastic Load Balancing

Auto-Scaling

Virtual Private Cloud (Amazon VPC)

- A virtual network that closely resembles a traditional network
- Launches AWS resources in a virtual network
- Provides an isolated virtual private network in AWS cloud

Networking Services

Virtual Private Cloud

Amazon Route 53

AWS Direct Connect

VPN

Elastic Load Balancing

Auto-Scaling

Amazon Route 53

- Highly scalable and available cloud Domain Name System (DNS) web service
- Routes requests to AWS infrastructure components
- Migrates or transfers existing domain to Route 53

Networking Services

Virtual Private Cloud

Amazon Route 53

AWS Direct Connect

VPN

Elastic Load Balancing

Auto-Scaling

AWS Direct Connect

- Establishes a dedicated network connection from your organization's network
- Bypasses the public internet
- Receives high bandwidth and predictable latency

Networking Services

Virtual Private Cloud

Amazon Route 53

AWS Direct Connect

VPN

Elastic Load Balancing

Auto-Scaling

VPN

- Provides secure connection between your VPC and remote network
- Creates a secure connection to another network over the Internet

Networking Services

Virtual Private Cloud

Amazon Route 53

AWS Direct Connect

VPN

Elastic Load Balancing

Auto-Scaling

Elastic Load Balancing (ELB)

- Helps to create a highly scalable application by automatically distributing incoming traffic
- Supports EC2 instances in the same zone or across multiple availability zones
- Includes two types of load balancers: Classic Load Balancer and Application Load Balancer

Networking Services

Virtual Private Cloud

Amazon Route 53

AWS Direct Connect

VPN

Elastic Load Balancing

Auto-Scaling

Auto-scaling

- Automatically re-sizes the computer cluster based on demand
- Increases and decreases the capacity of EC2 instances
- Detects unhealthy instances and replaces them with new ones

Computing Services

EC2

Elastic Beanstalk

Lambda

Container Service

Computing Services

EC2

Elastic Beanstalk

Lambda

Container Service

Elastic Compute Cloud (EC2)

- Provides scalable computing capacity in the AWS cloud
- Provisions and manages compute resources or virtual servers in the cloud
- Scales up or scales down your capacity as your demand changes

Computing Services

EC2

Elastic Beanstalk

Lambda

Container Service

Beanstalk

- Easy-to-use service for deploying and scaling web applications and services
- Supports applications in various programming languages
- Analyzes uploaded code, creates required stack

Computing Services

EC2

Elastic Beanstalk

Lambda

Container Service

Lambda

- Runs code without any provisioning or managing infrastructure components
- Enables cost reduction since you only pay for compute time when code is running
- Runs code for virtually any type of application without any administration

Computing Services

EC2

Elastic Beanstalk

Lambda

Container Service

Amazon EC2 Container Service

- Highly scalable, high performance container management service
- Runs your application on a cluster of EC2 instances
- No need to create, manage, or scale infrastructure-related clusters
- Supports Docker-based applications

Storage and Content Delivery Services

S3

EBS

Cloud Front

Glacier

Import/Export Snowball

Storage Gateway

Storage and Content Delivery Services

S3

EBS

Cloud Front

Glacier

Import/Export Snowball

Storage Gateway

Simple Storage Service (S3)

- Provides highly secure, durable, scalable, and economic storage
- Offers different storage classes to support various business cases
- Allows unlimited storage for any type of data using object-based storage

Storage and Content Delivery Services

S3

EBS

Cloud Front

Glacier

Import/Export Snowball

Storage Gateway

Elastic Block Store (EBS)

- Persistent block-level storage, can be attached to EC2
- Replicated for high availability and durability
- Offers durable snapshot and is designed for 99.999% availability

Storage and Content Delivery Services

S3

EBS

Cloud Front

Glacier

Import/Export Snowball

Storage Gateway

Cloud Front

- Global content delivery network service
- Delivers your web assets to customers in an accelerated fashion
- Connects origin server or AWS services to the edge locations

Storage and Content Delivery Services

S3

EBS

Cloud Front

Glacier

Import/Export Snowball

Storage Gateway

Glacier

- Digital preservation, low cost, but durable data archive
- Serves as an offsite storage for as little as $0.007 per gigabyte
- Integrates with S3 to move data between these services

Storage and Content Delivery Services

S3

EBS

Cloud Front

Glacier

Import/Export Snowball

Storage Gateway

Import Export Snowball

- A data transportation solution between the AWS and your organization
- Eliminates high network costs and long transfer times
- Ideal for disaster recovery and offsite backup solutions

Storage and Content Delivery Services

S3

EBS

Cloud Front

Glacier

Import/Export Snowball

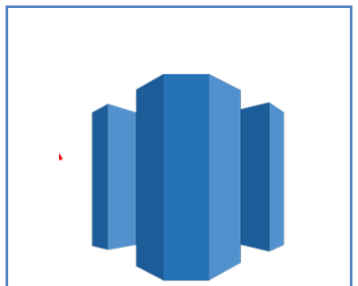
Storage Gateway

Storage Gateway

- Connects on-premises software appliance with cloud
- Creates up to 32 terabytes of data in a single volume
- Supports three different volume types

Database Services

Relational Database Service

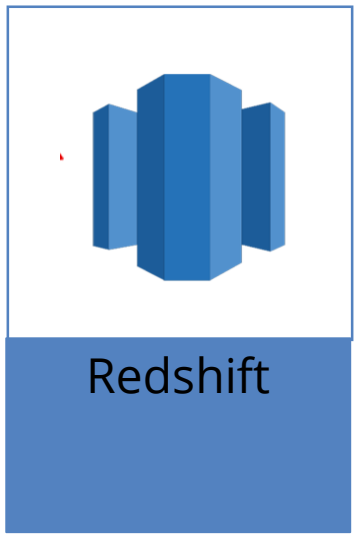


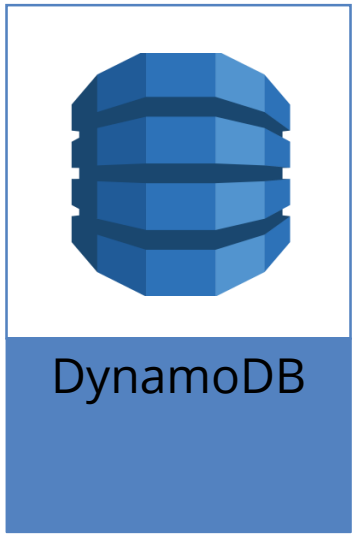
Redshift

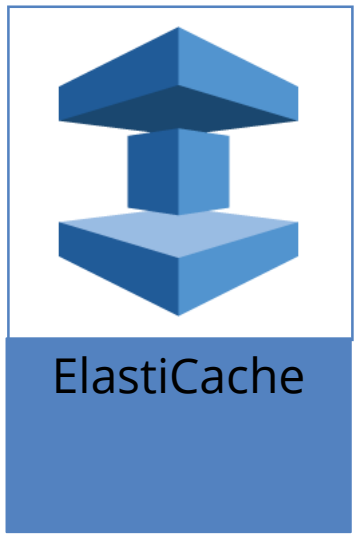
DynamoDB

ElastiCache

Database Services



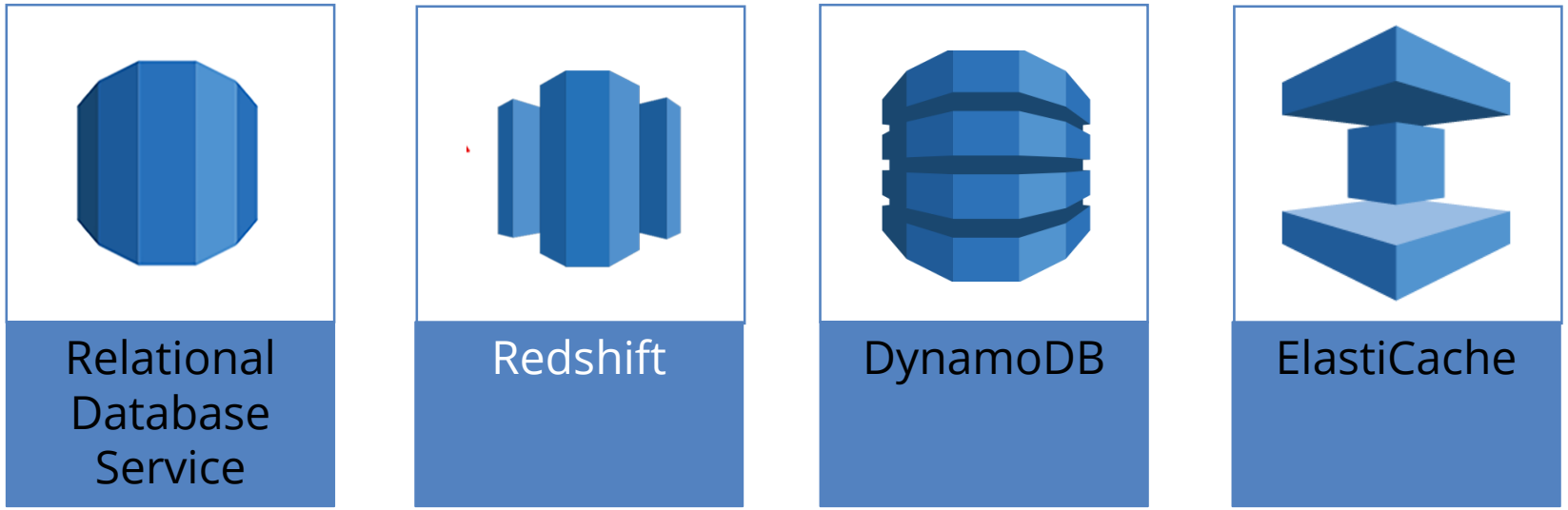




Relational Database Service

- Helps to setup, operate, and scale relational databases at ease
- Doesn’t require traditional database administration tasks
- Supports six database engines including ORACLE and MSSQL

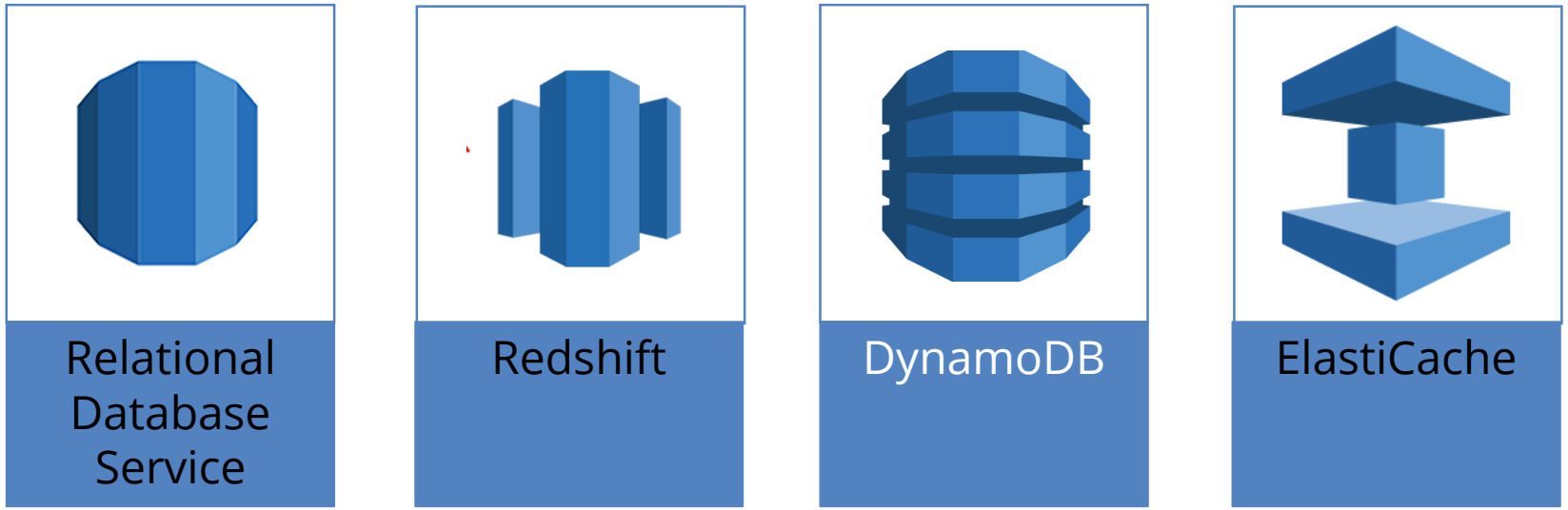
Database Services



Redshift

- It's a fully managed, petabyte-scale data warehouse solution
- Doesn't require upfront investment
- Doesn't require traditional data warehouse administration tasks

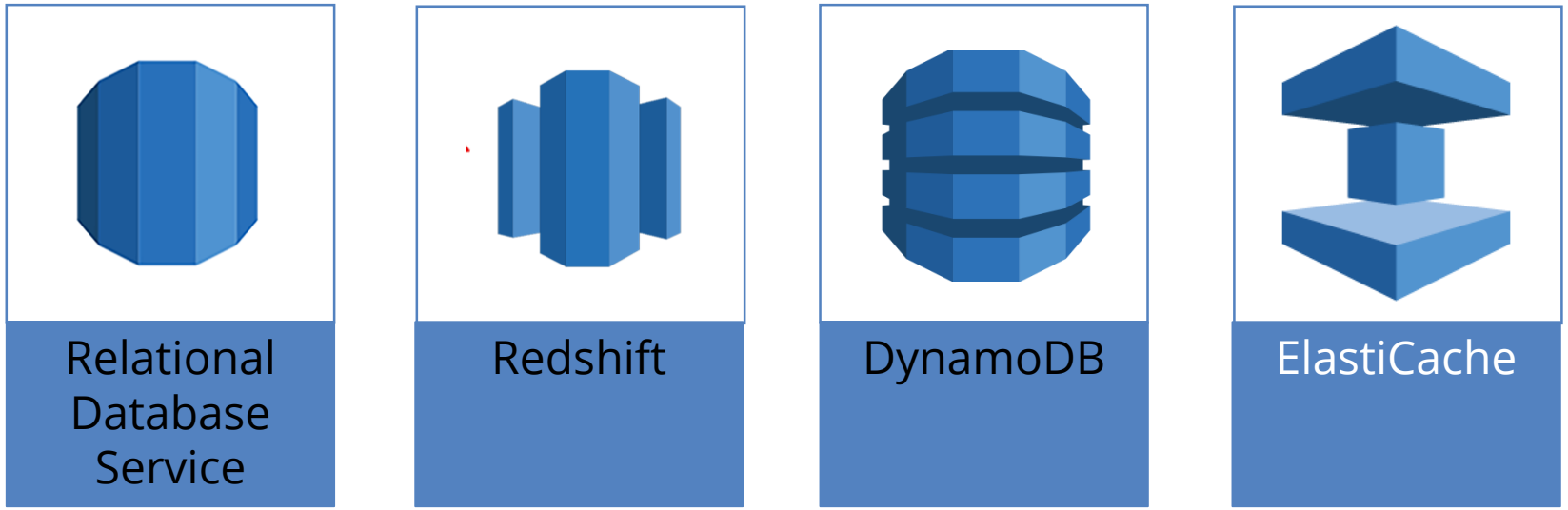
Database Services



DynamoDB

- NoSQL Database Service supports consistent and single-digit millisecond latency
- Provides thousands of concurrent writes and reads per second
- Schema less

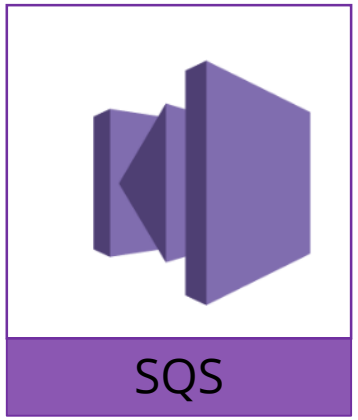
Database Services



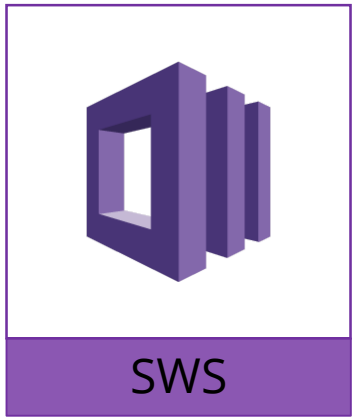
ElastiCache

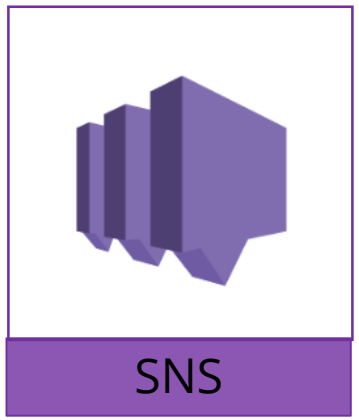
- It is an in-memory cache or data store in the cloud
- Improves the performance of web applications
- Supports two open-source in-memory engines: Redis and Memcached

Application Services

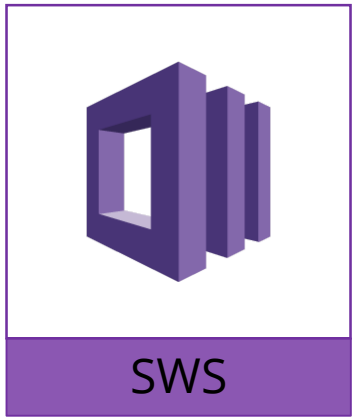

SQS

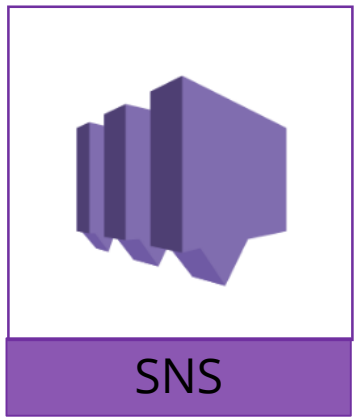

SES


SWS


SNS

Application Services

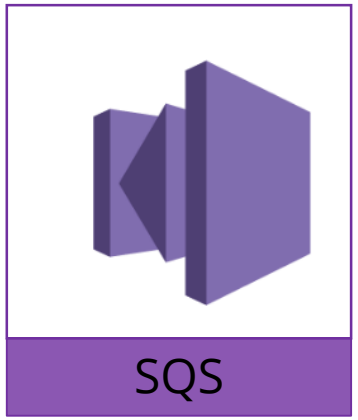


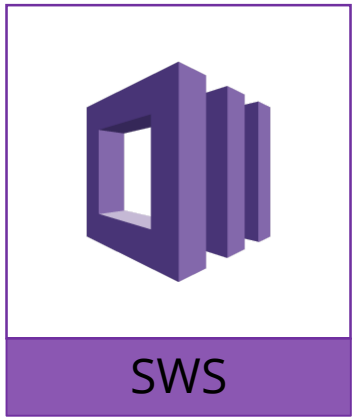


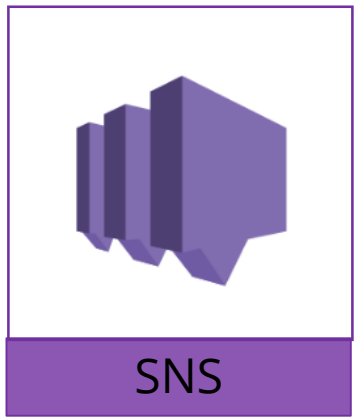
Simple Queue Service (SQS)

- Reliable, fast, and fully-managed message queue service
- Enables application decoupling
- Stores and passes messages or data between application components
- It is highly-scalable, and you pay only for what you use

Application Services



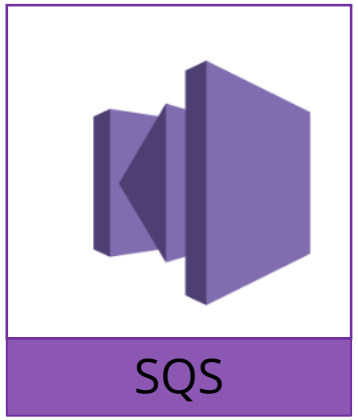


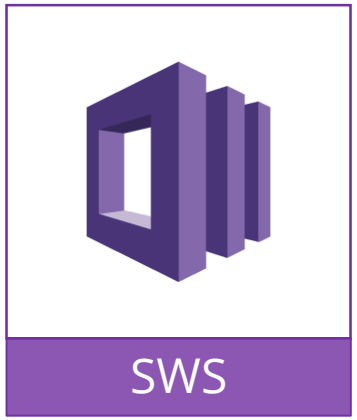


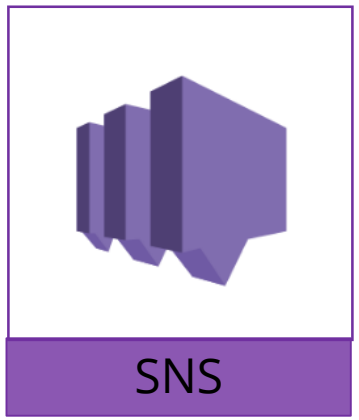
Simple Email Service (SES)

- Cost effective, scalable email service
- Eliminates traditional email system pain points
- Built by Amazon.com to serve its own customers
- Supports both inbound and outbound email messages

Application Services



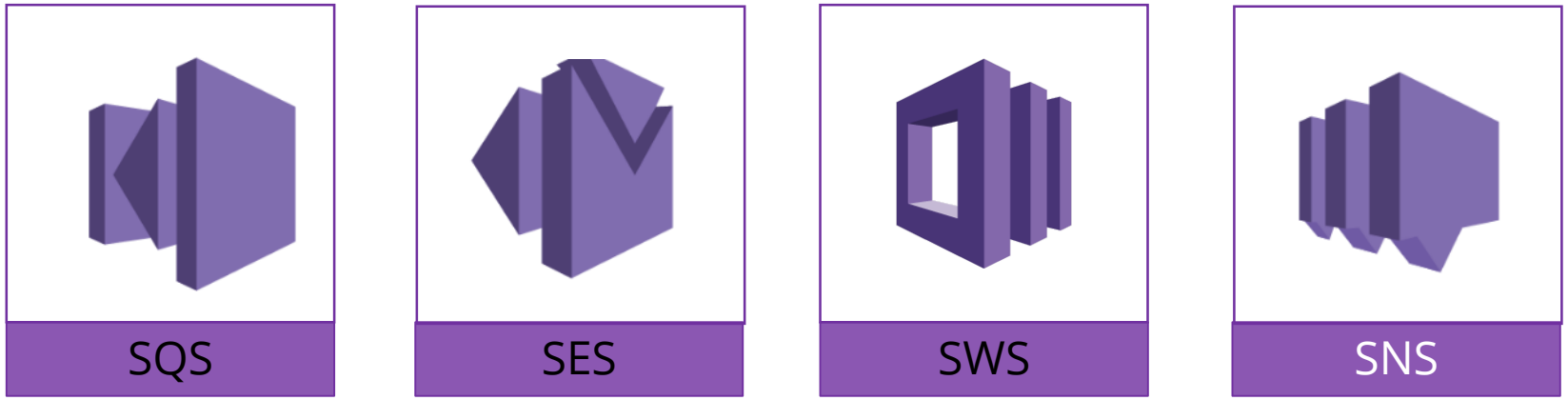




Simple Workflow Service (SWS)

- Task coordination and state tracking system
- Helps to build and run batch jobs in parallel or sequential steps
- Manages workflow execution, and tracks the progress
- Executes any programming language

Application Services



Simple Notification Services (SNS)

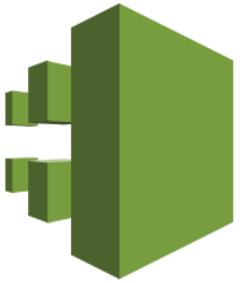
- Fully managed push notification service
- Sends messages to large numbers of recipients
- Supports multiple protocols including SMS and email, and to any HTTP end point
- Pushes message to mobile device

Management Tools

Cloud Formation

OpsWorks

CloudWatch



CloudTrail

Management Tools

Cloud Formation

OpsWorks

CloudWatch

CloudTrail

Cloud Formation

- Automated infrastructure provisioning tool
- Creates and manages a collection of AWS resources
- Uses declarative programming language from a template
- It is free and you pay only for the provisioned resources

Management Tools

Cloud Formation

OpsWorks

CloudWatch

CloudTrail

OpsWorks

- It is an infrastructure configuration management tool that uses Chef
- Defines the infrastructure configuration as application code
- Recreates new environment or validates the existing configuration
- It is free and you pay only for the provisioned resources

Management Tools

Cloud Formation

OpsWorks

CloudWatch

CloudTrail

CloudWatch

- It is an integral part of AWS and is used by multiple services
- Monitors service for your infrastructure and application
- Collects and tracks metrics and log files, and sets alarms
- Automatically reacts to changes in AWS resources

Management Tools

Cloud Formation

OpsWorks

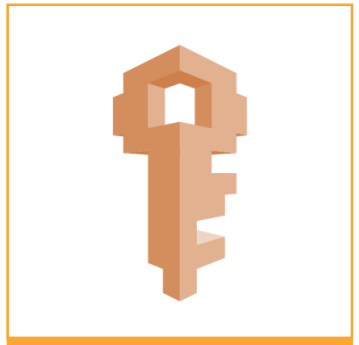
CloudWatch

CloudTrail

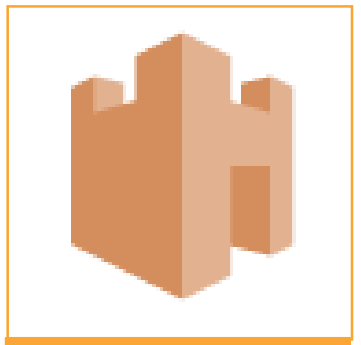
CloudTrail

- Records all AWS API calls made to AWS account and delivers log files
- Provides auditing and compliance support

Security and Identity Services

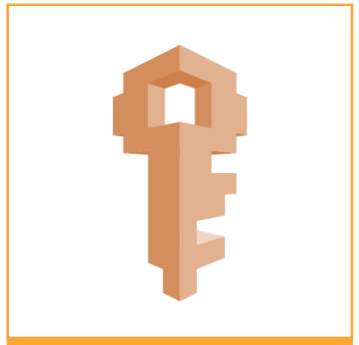


Identity and Access Management

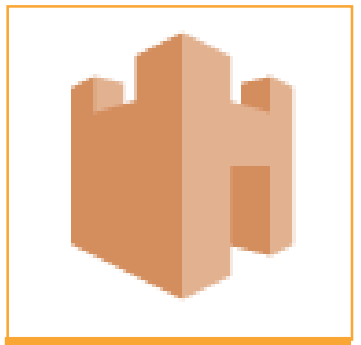


CloudHSM

Security and Identity Services



Identity and Access Management

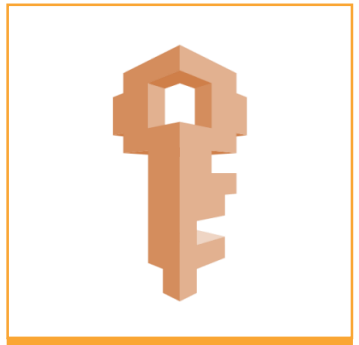


CloudHSM

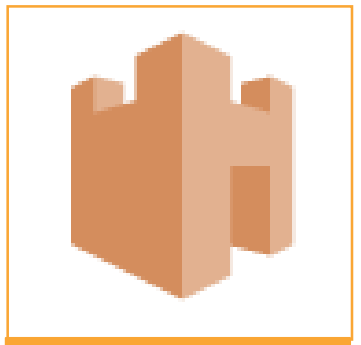
Identity and Access Management

- Allows centrally controlled access to all AWS resources
- Authentication: Who can use the AWS resources
- Authorization: What can they do with the AWS resources
- Policies are granular API-level permissions

Security and Identity Services



Identity and Access Management



CloudHSM

CloudHSM is a hardware security appliance

- Stores encryption and cryptographic keys
- Meets contractual and regulatory compliance requirements
- Key Management Service creates and controls encryption keys
- Uses Hardware Security Modules to protect

Knowledge Check

KNOWLEDGE CHECK

Which are the valid AWS services?

a. Virtual Public Cloud

b. Elastic Compute Cloud

c. Simple Storage Service

d. Simple Data Service

KNOWLEDGE CHECK

Which are the valid AWS services?

a. Virtual Public Cloud

b. Elastic Compute Cloud

c. Simple Storage Service

d. Simple Data Service

The correct answers are **Elastic Compute Cloud & Simple Storage Service**

Explanation: There is no service called Virtual Public Cloud or Simple Data Service. EC2 provides scalable computing capacity and S3 provides scalable object-based storage in the AWS cloud.

Other AWS Services and Security

Other AWS Services

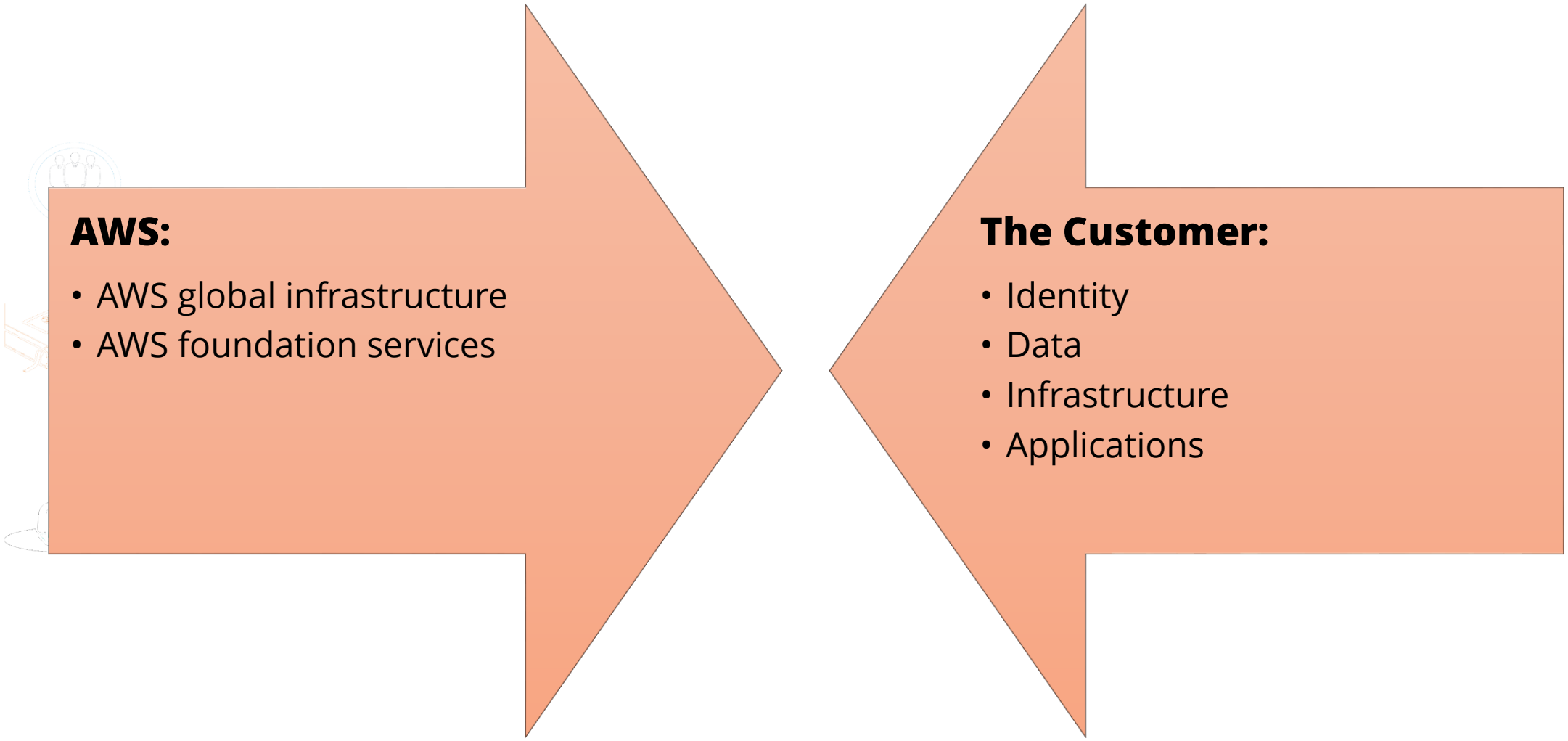
AWS mobile services provide tools and services to build and manage mobile applications.

AWS enterprise applications provide tools and services to manage and operate your enterprise IT environment.

AWS Developer Tools enable developers and IT operations professionals to code, build, and deploy applications using the DevOps model.

The AWS analytics group provides tools and services to develop and manage the analytics process chain.

Security Overview



Security Overview

Standards and Best Practices:	SOC 1, SOC 2, and SOC 3
	FISMA, DIACAP, and Fed RAMP
	ISO 9001 / ISO 27001 and ITAR
	PCI DSS Level 1
Industry Specific Standards:	Criminal Justice Information Services
	Cloud Security Alliance
	Family Educational Rights and Privacy Act
	Health Insurance Portability and Accountability Act

Knowledge Check

KNOWLEDGE CHECK

What is AWS in charge of from a security standpoint?

a. Data Center

b. EC2 Backups

c. Networking

d. Operating Systems

KNOWLEDGE CHECK

What is AWS in charge of from a security standpoint?

a. Data Center

b. EC2 Backups

c. Networking

d. Operating Systems

The correct answers are **Data Center & Networking**

Explanation: AWS manages the physical security of its data center. AWS manages and monitors all security controls for AWS Global Infrastructure including availability zones, regions, and edge locations. It is also responsible for AWS foundation services including compute, storage, database, and networking.

Practice Assignment: AWS Fundamental Overview

To navigate and perform operations inside the AWS console

Navigate and perform operations inside AWS console

You have to perform AWS console operations after you log into your AWS console account. First, start by selecting a service from the available sections such as database, networking, and so on.
Create a shortcut for the task you do often, it will help you speedup your work.
After using the shortcut you should delete or remove the shortcut.
Now check on how you can select a region or change the current region.
These operations will help you navigate better in the AWS console

Prerequisites:
AWS Account

Task:

Perform working operations in AWS account, such as choosing a service to work with and changing a region.

Quiz

QUIZ 1	What is the advantage of resource pooling?

a. It minimizes security issues

b. It supports a single-customer model

c. It supports a multi-tenant model

d. Its applications run faster

QUIZ 1	What is the advantage of resource pooling?

a. It minimizes security issues

b. It supports a single-customer model

c. It supports a multi-tenant model

d. Its applications run faster

The correct answer is **It supports a multi-tenant model**

Explanation: Resource Pooling allows a consumer to use a multi-tenant model where the provider's computing resources are pooled together to serve more than one customer.

QUIZ 2	Which of the following is false about compute service in an Infrastructure as a Service (IaaS) model?

a. The compute capacity is offered as Virtual Machines with complete control of the virtual machines

b. The compute capacity is offered as Virtual Machines with no control of the virtual machines

c. The virtual machines can be provisioned on-demand, and the users pay only for what they use

d. None of the above

QUIZ 2	Which of the following is false about compute service in an Infrastructure as a Service (IaaS) model?

a. The compute capacity is offered as Virtual Machines with complete control of the virtual machines

b. The compute capacity is offered as Virtual Machines with no control of the virtual machines

c. The virtual machines can be provisioned on-demand, and the users pay only for what they use

d. None of the above

The correct answer is **The compute capacity is offered as Virtual Machines with complete control of the virtual machines**

Explanation: In IaaS model, you have complete control on infrastructure, and you are the admin of that machine.

QUIZ 3	Which of the following is/are true about network service in an Infrastructure as a Service (IaaS) model?

a. It offers bulk and transactional email services for businesses

b. It provides a mechanism to queue and store messages between applications

c. It provides the network infrastructure to access other resources such as Compute, Storage etc. over the internet

d. None of the above

QUIZ 3	Which of the following is/are true about network service in an Infrastructure as a Service (IaaS) model?

a. It offers bulk and transactional email services for businesses

b. It provides a mechanism to queue and store messages between applications

c. It provides the network infrastructure to access other resources such as Compute, Storage etc. over the internet

d. None of the above

The correct answer is **It provides the network infrastructure to access other resources such as Compute, Storage etc. over the internet**

Explanation: Network service provides the network infrastructure to access other resources such as Compute, Storage, etc. over the internet.

QUIZ 4	What is an AWS region?

a. A geographical region that contains at least 5 availability zones

b. A cost calculation model

c. A data center based on AWS offices

d. A set of AWS resources in a separate geographic area

QUIZ 4	What is an AWS region?

a. A geographical region that contains at least 5 availability zones

b. A cost calculation model

c. A data center based on AWS offices

d. A set of AWS resources in a separate geographic area

The correct answer is **A set of AWS resources in a separate geographic area**

Explanation: AWS regions contain a set of AWS resources in a separate geographic area that is completely isolated from other regions. Each region is made of two or more availability zones.

QUIZ 5	Which of the following services is NOT a networking service?

a. Direct Connect

b. VPN

c. Route 53

d. DynamoDB

QUIZ 5	Which of the following services is NOT a networking service?

a. Direct Connect

b. VPN

c. Route 53

d. DynamoDB

The correct answer is **DynamoDB**

Explanation: DynamoDB belongs to Database Services.

QUIZ 6	Which of the following AWS services support block level storage?

a. S3

b. EBS

c. ETS

d. DynamoDB

QUIZ 6

Which of the following AWS services support block level storage?

a. S3

b. EBS

c. ETS

d. DynamoDB

The correct answer is **EBS**

Explanation: Elastic Block Store is a persistent block level storage volume that can be attached to EC2 instances.

QUIZ 7	You get a hardware device from AWS when you are using this service. Which service is it?

a. S3

b. Snowball

c. EFS

d. EBS

QUIZ 7	You get a hardware device from AWS when you are using this service. Which service is it?

a. S3

b. Snowball

c. EFS

d. EBS

The correct answer is **Snowball**

Explanation: Import Export Snowball is a data transportation solution between the AWS and your organization. You don't need to buy any third party hardware to ship the data, you can rent the Snowball devise from AWS.

QUIZ 8	Which of the following security components comes under client responsibility?

a. Server hardware

b. EC2

c. Data center

d. Hypervisor

QUIZ

8

Which of the following security components comes under client responsibility?

a. Server hardware

b. EC2

c. Data center

d. Hypervisor

The correct answer is **EC2**

Explanation: As a customer, you are responsible for the security of EC2 instances.

Key Takeaways

- Cloud computing services are available on-demand with pay-as-you-go pricing, so users do not need to make a long-term commitment
- AWS Global Infrastructure has 13 regions, 35 availability zones, and 59 edge locations all around the world
- AWS regions contain a set of resources in a separate geographic area that is completely isolated from other regions
- Availability zones are physically separated data centers within a region
- AWS Global Infrastructure is a base. Other services are grouped by networking, compute, storage, database, and others
- AWS manages and monitors all security controls for AWS Global Infrastructure, and is also responsible for AWS Foundation Services

This concludes “AWS Overview.”

The next lesson is “IAM”