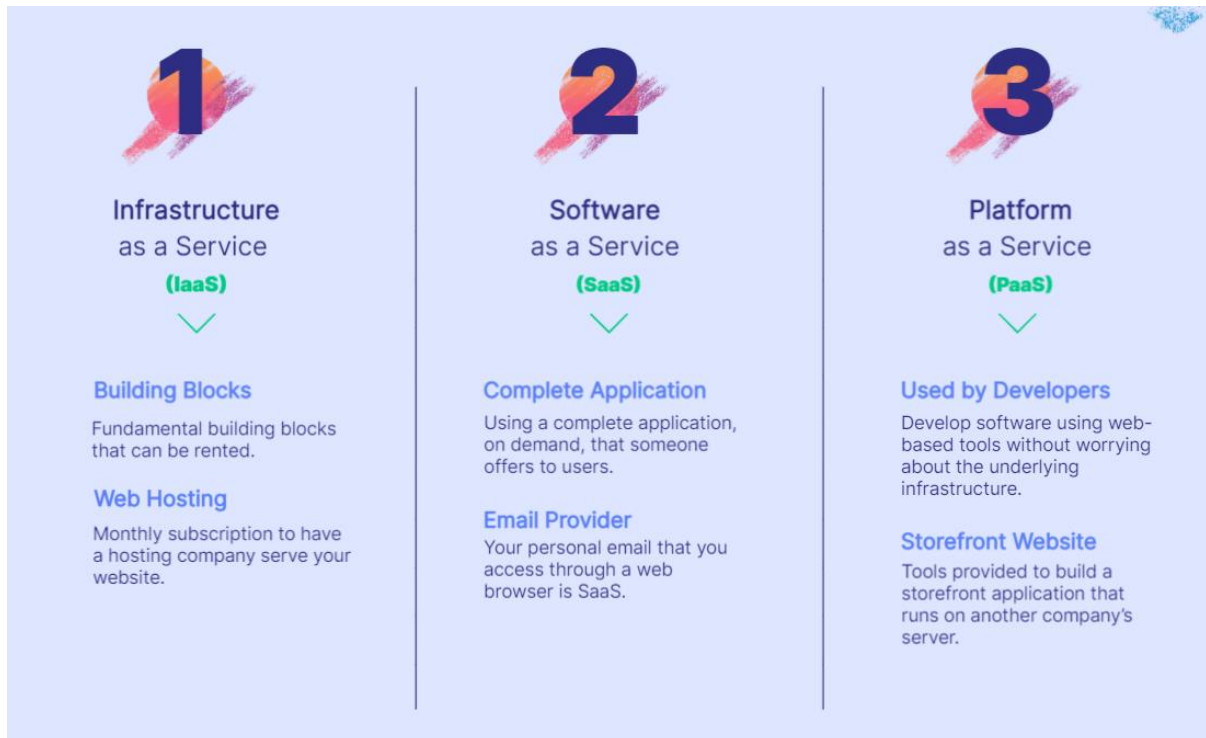
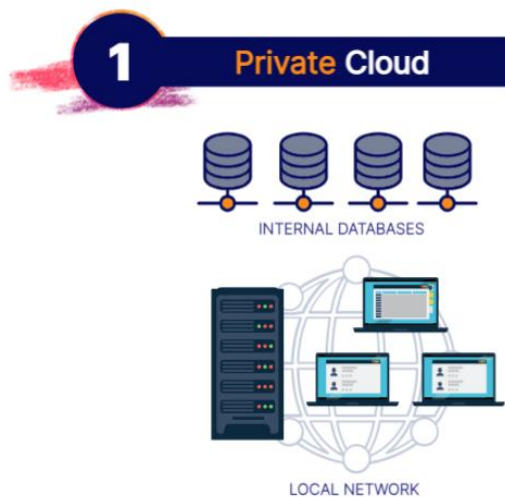


Reviewing Cloud Computing and Deployment Models:

Cloud Computing Models:



Cloud Deployment Models:



+ Key Takeaways:
<ul style="list-style-type: none">1 Also called "on-premises"2 Exists in your internal data center3 Doesn't offer the advantages of cloud computing

2

Public Cloud



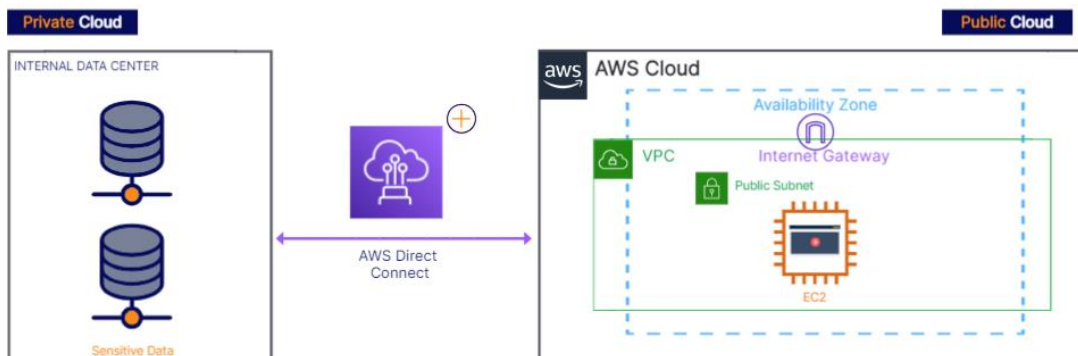
Key Takeaways:

- 1 Offered by AWS
- 2 You aren't responsible for the physical hardware
- 3 Provides all the advantages of cloud computing

3

Hybrid Cloud

A hybrid cloud is a combination of public and private clouds.



Key Takeaways:

- 1 Sample architecture for a hybrid solution
- 2 Highly sensitive data stored locally
- 3 Web application runs on AWS infrastructure
- 4 AWS provides tools so they talk to each other



Leveraging the AWS Global Infrastructure:

1. Regions:
 - A Region is a physical location.
 - AWS logically groups its Regions into geographic locations.

Region Characteristics

Regions have **several** characteristics.



Fully Independent and Isolated

If one Region is impacted, the others will not be.

Resource and Service Specific

Regions are isolated, and resources aren't automatically replicated across them.

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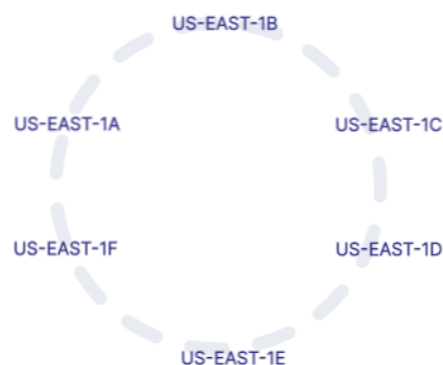
2. Availability zones:

- Availability Zones (AZs) consist of one or more physically separated data centers, each with redundant power, networking, and connectivity, housed in separate facilities.

Characteristics of AZs

Did you know AZs are connected among themselves in a single Region?

- Physically separated
- Connected through low-latency links
- Fault tolerant
- Allows for high availability



3. Edge locations:

- Edge locations cache content for fast delivery to your users.
- Latency: Latency is the time that passes between a user request and the resulting response.

Edge Location

An edge location is used to cache content for speedy delivery.

- 1 Content delivery network (CDN) and Amazon CloudFront
- 2 Reduced latency
- 3 An edge location is like a mini data center, but it doesn't run your main infrastructure like EC2 instances.





Multi-AZ deployments provide high availability.

Systems that are highly available are dependable enough to operate continuously without failure.



A Region is global and has 2 or more AZs.

Regions are geographically isolated locations around the globe.



An AZ has multiple data centers.

You can think of an AZ as a collection of data centers.



Edge locations ensure low latency by placing content closer to users.

There are more edge locations than Regions and AZs.