

What's an Availability Zone?

Think of an Availability Zone as a **data center**.



What's a Data Center?

A data center is just a building filled with **servers**.



Multiple Data Centers

An Availability Zone may be several data centers, but because they are close together, they are counted as **1 Availability Zone**.

What's a Region?

A Region is a geographical area. Each Region consists of **2 (or more) Availability Zones**.





Edge Locations

Edge locations are endpoints for AWS that are used for caching content.

Typically, this consists of **CloudFront**, Amazon's content delivery network (CDN).

There are **many more edge locations** than Regions.

Currently, there are **over 215 edge locations**.

AWS Service Types

A CLOUD GURU

End User Computing	Quantum Technologies	Containers
IOT	Customer Enablement	Game Development
Customer Engagement	Business Applications	Desktop & App Streaming
AR & VR	Application Integration	AWS Cost Management
Analytics	Security, Identity & Compliance	Mobile
Management & Governance	Media Services	Machine Learning
Robotics	Blockchain	Satellite
Migration & Transfer	Network & Content Delivery	Developer Tools
Compute	Storage	Databases
AWS Global Infrastructure		

3 Tips for AWS Building Blocks



A Region is a physical location in the world that consists of two or more Availability Zones (AZs).



An AZ is one or more discrete data centers — each with redundant power, networking, and connectivity — housed in separate facilities.



Edge locations are endpoints for AWS that are used for caching content. Typically, this consists of CloudFront, Amazon's CDN.

The Shared Responsibility Model

A CLOUD GURU



Can you do this yourself in the AWS Management Console?

- **If yes, you are likely responsible.**
Security groups, IAM users, patching EC2 operating systems, patching databases running on EC2, etc.
- **If not, AWS is likely responsible.**
Management of data centers, security cameras, cabling, patching RDS operating systems, etc.
- **Encryption is a shared responsibility.**

5 Pillars of the Well-Architected Framework



Operational Excellence

Focuses on running and monitoring systems to deliver business value, and continually improving processes and procedures.



Security

Focuses on protecting information and systems.



Reliability

Focuses on ensuring a workload performs its intended function correctly and consistently when it's expected to.



Performance Efficiency

Focuses on using IT and computing resources efficiently.



Cost Optimization

Focuses on avoiding unnecessary costs.

Key Services to Know for the Exam

- ✓ **Compute:** EC2, Lambda, Elastic Beanstalk
- ✓ **Storage:** S3, EBS, EFS, FSx, Storage Gateway
- ✓ **Databases:** RDS, DynamoDB, Redshift
- ✓ **Networking:** VPCs, Direct Connect, Route 53, API Gateway, AWS Global Accelerator