

Introduction to AWS

Region

- Group of Availability Zones (typically 3, minimum 2, maximum 6) located within a specific geographical region.
- Ex: us-east-1, ap-south-1.
- Factors to think about when choosing a region.
 - i. Adherence to regulations (certain countries mandate data storage within their borders, as per legal requirements).
 - ii. Closeness to customers: minimized data transfer delay (latency).
 - iii. Services Accessibility in a Region: Not all Regions have access to new services and features immediately; availability may vary.
 - iv. Cost Consideration: Prices differ across regions and are clearly displayed on the service pricing page for transparency.

Availability Zone (AZ)

- Each Availability Zone (AZ) comprises one or more distinct data centers equipped with backup power, redundant networking, and connectivity infrastructure.
- Ex: us-east-1a, us-east-1b & us-east-1c
- Availability Zones are geographically isolated from one another, ensuring they remain independent and protected from disasters.
- These Availability Zones are interconnected using high-bandwidth, ultra-low latency networking infrastructure, ensuring swift and reliable communication between them.

The name of an Availability Zone (e.g., us-east-1a) is specific to an AWS account. However, the same AZ name in two different AWS accounts might not represent the same physical AZ. To accurately coordinate Availability Zones across accounts, AWS employs unique AZ IDs, ensuring precise identification and coordination between different accounts.

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