## **Regions**

* AWS has the concept of a Region, which is a physical location around the world where we cluster data centers.
* We call each group of logical data centers an Availability Zone.
* Each AWS Region consists of multiple, isolated, and physically separate AZs within a geographic area.
* Unlike other cloud providers, who often define a region as a single data center, the multiple AZ design of every AWS Region offers advantages for customers.
* Each AZ has independent power, cooling, and physical security and is connected via redundant, ultra-low-latency networks.

## **Availability Zones**

* An Availability Zone (AZ) is one or more discrete data centers with redundant power, networking, and connectivity in an AWS Region.
* AZs give customers the ability to operate production applications and databases that are more highly available, fault tolerant, and scalable than would be possible from a single data center.
* All AZs in an AWS Region are interconnected with high-bandwidth, low-latency networking, over fully redundant, dedicated metro fiber providing high-throughput, low-latency networking between AZs.

## 

## **AWS Local Zones**

[AWS Local Zones](https://aws.amazon.com/about-aws/global-infrastructure/localzones/) place compute, storage, database, and other select AWS services closer to end-users. With AWS Local Zones, you can easily run highly-demanding applications that require single-digit millisecond latencies to your end-users such as media & entertainment content creation, real-time gaming, reservoir simulations, electronic design automation, and machine learning.

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