

# INTRODUCTION TO AWS

# Outline

- ▶ What is AWS?
- ▶ AWS Platform and Services
- ▶ AWS Global Infrastructure
- ▶ Regions/Availability Zones
- ▶ Benefits
- ▶ Customers

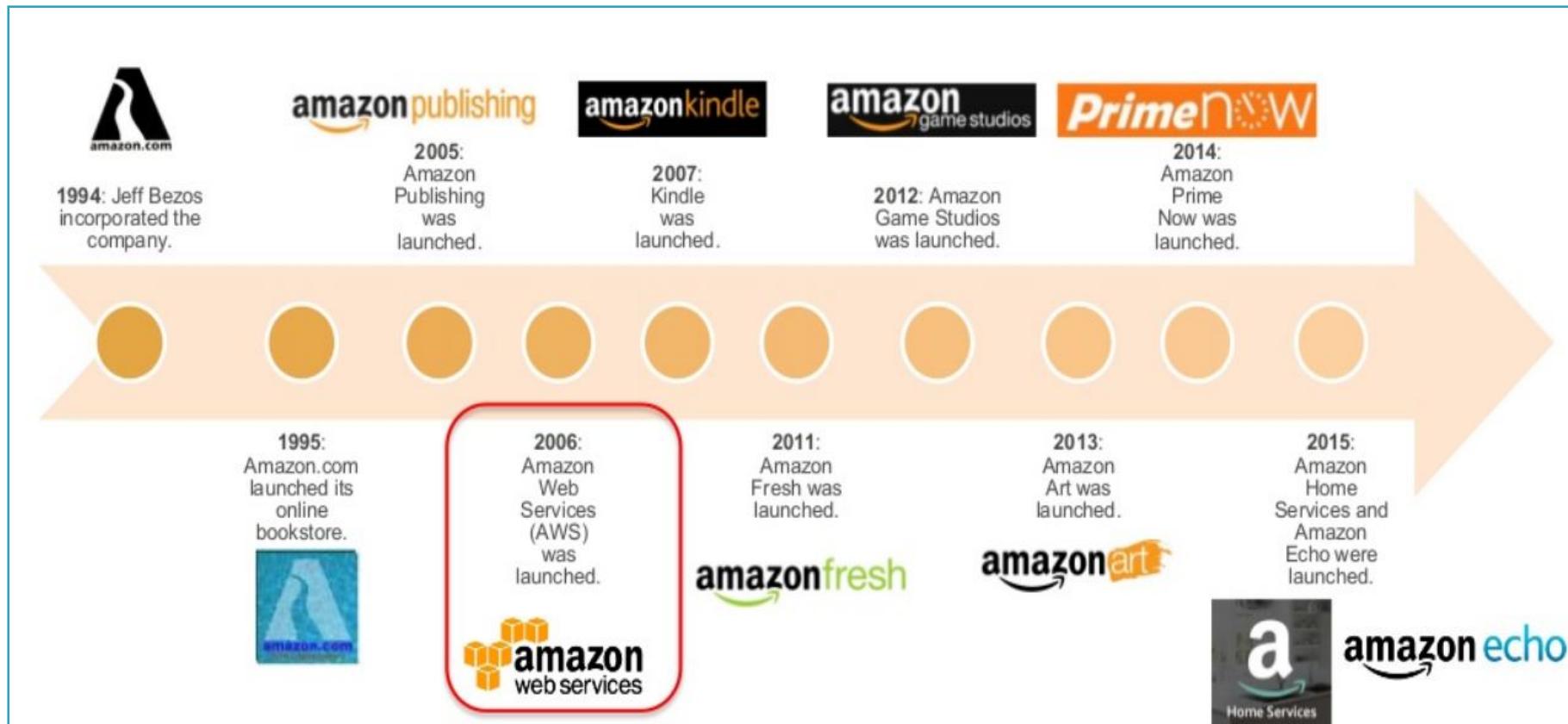
# What is AWS?

**Amazon Web Services (AWS)** is a secure cloud services platform, offering compute power, database storage, networking, content delivery and other functionality to help businesses scale and grow

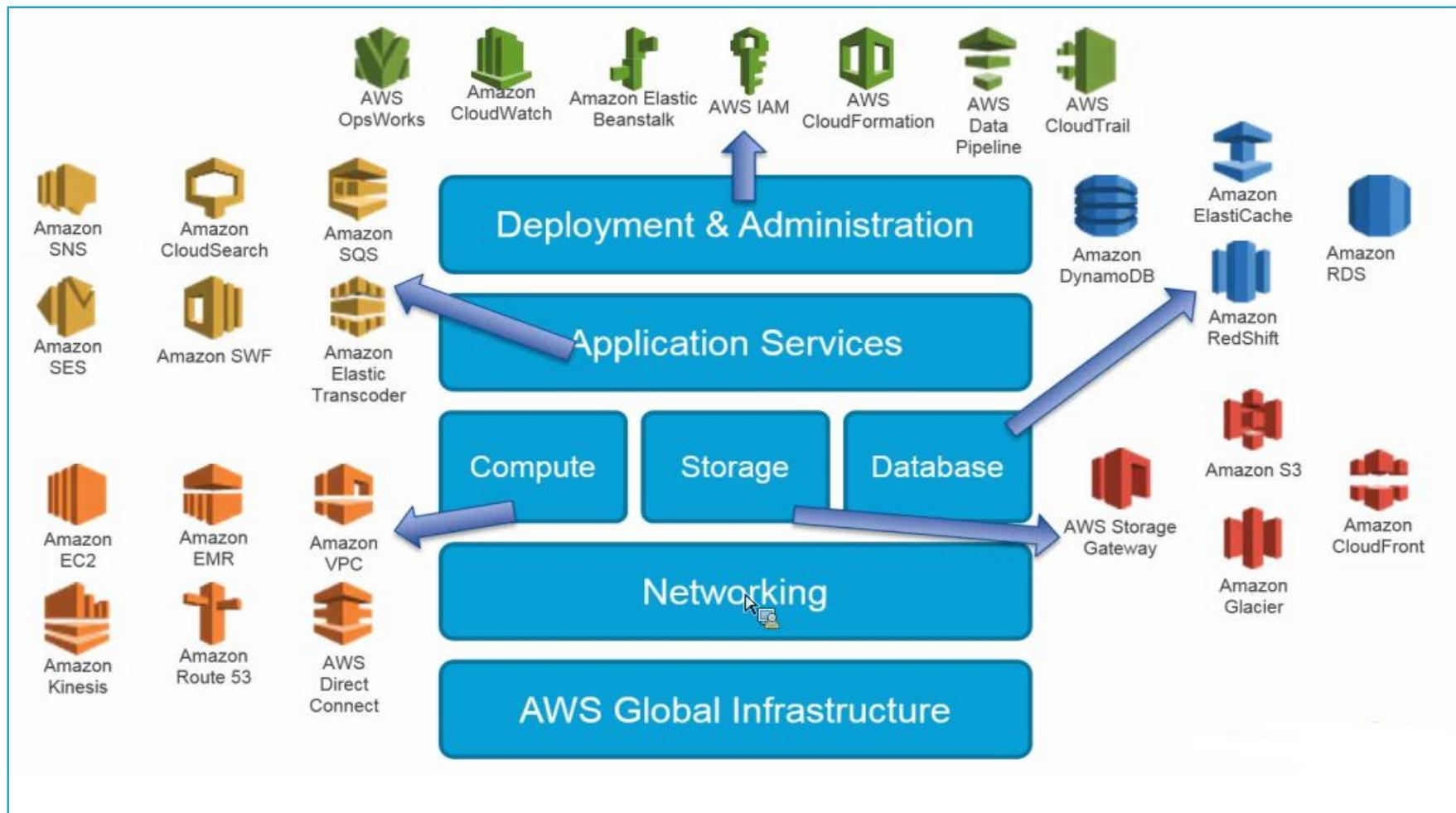
*Enable businesses and developers to use web services to build scalable, sophisticated applications.*



# Amazon History



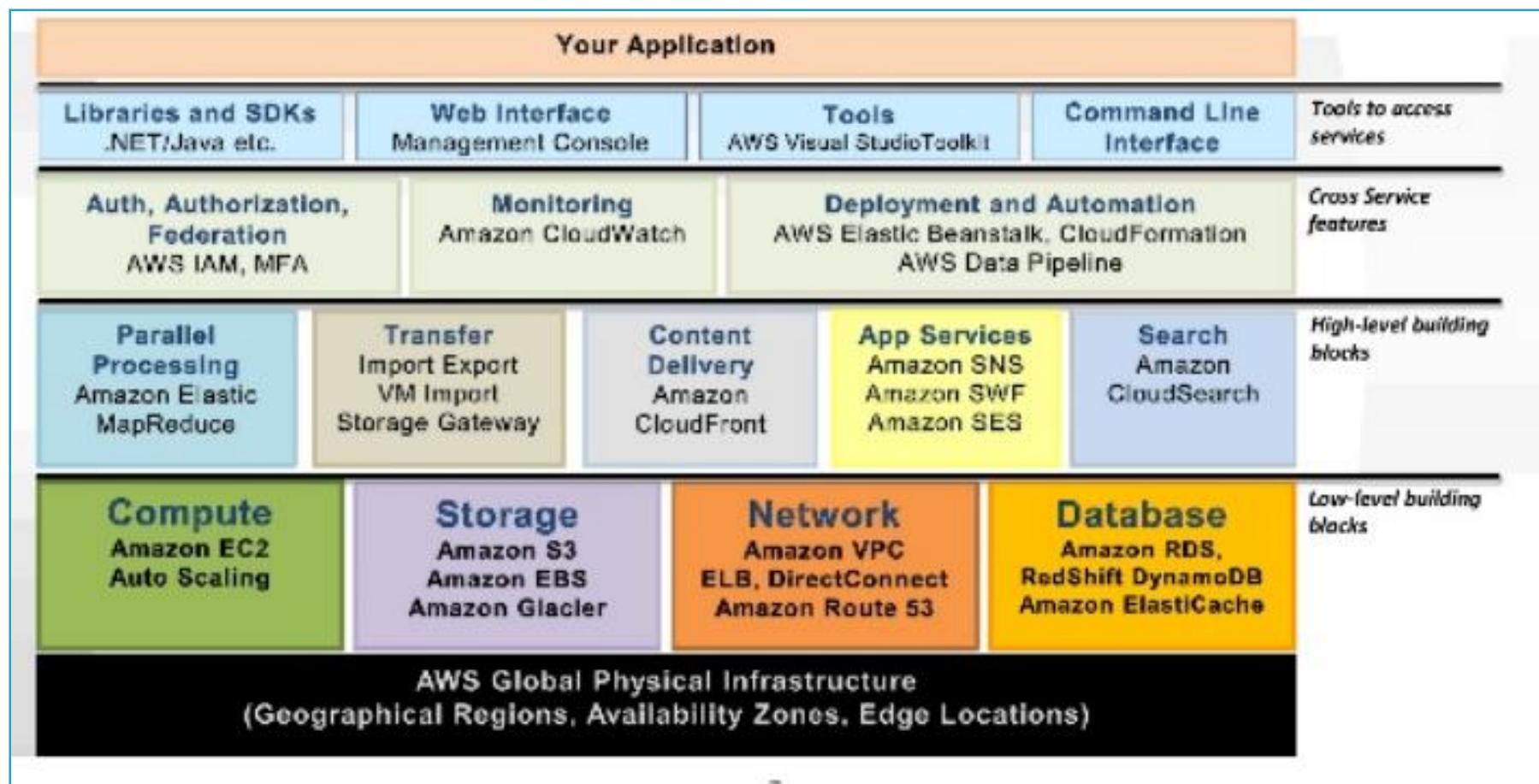
# AWS Platform



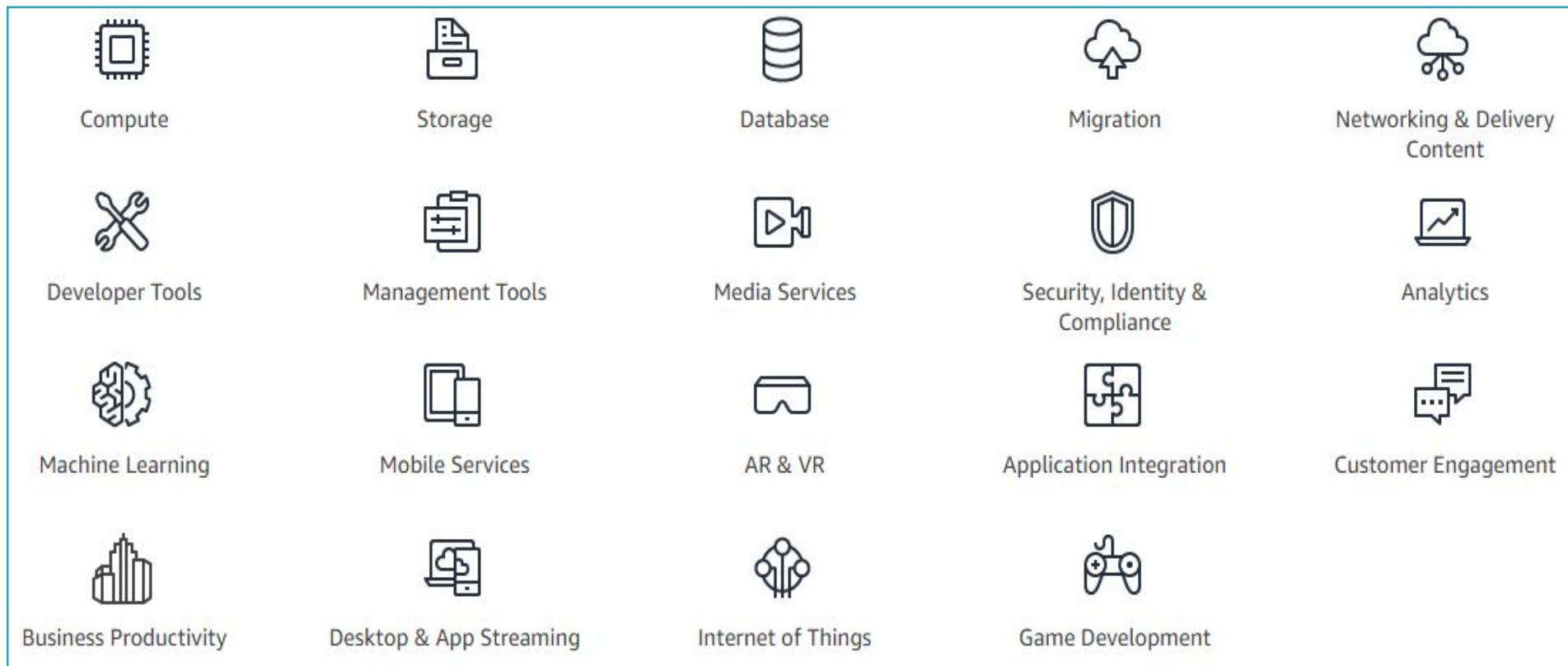
# AWS Platform



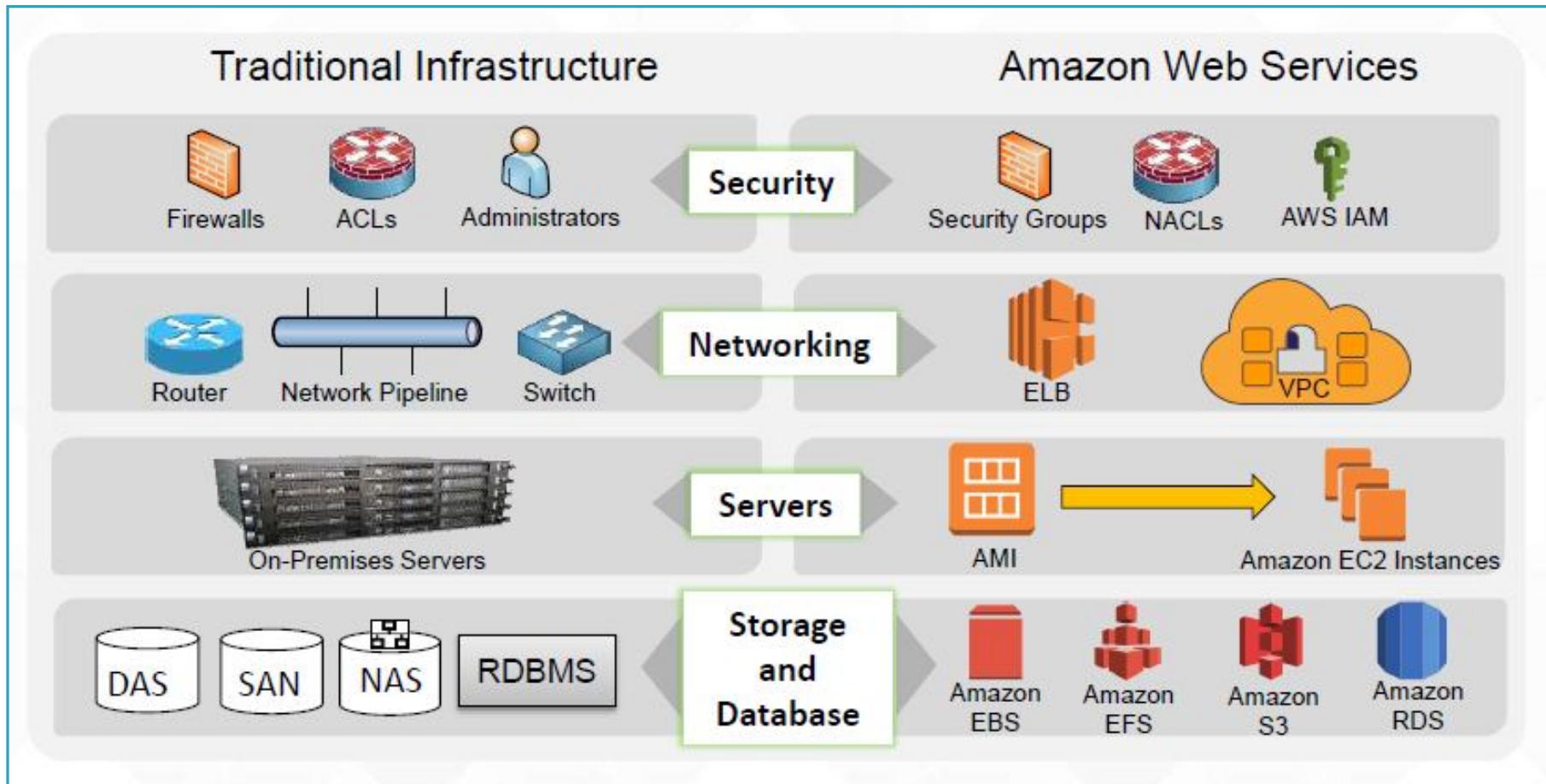
# AWS Cloud Layers



# AWS Services Overview



# AWS Core Infrastructure and Services



# AWS Global Infrastructure

## 24 Launched Regions

Each with multiple Availability Zones (AZ's)

## 77 Availability Zones

## 5 Local Zones

## 13 Wavelength Zones

For ultralow latency applications

## 6 Announced Regions

## 12 Announced Local Zones

## 2x More Regions

With multiple AZ's than the next largest cloud provider

## 245 Countries and Territories Served

## 97 Direct Connect Locations

## 220+ Points of Presence

210+ Edge Locations and 12 Regional Edge Caches

<https://aws.amazon.com/about-aws/global-infrastructure/>

# AWS Global Infrastructure

AWS now spans 77 Availability Zones within 24 geographic regions around the world and has announced plans for 18 more Availability Zones and 6 more AWS Regions in Australia, India, Indonesia, Japan, Spain, and Switzerland.



<https://aws.amazon.com/about-aws/global-infrastructure/>

# AWS Global Infrastructure

To deliver content to end users with lower latency, Amazon CloudFront uses a global network of 225+ Points of Presence (215+ Edge locations and 12 regional mid-tier caches) in 89 cities across 46 countries. Amazon CloudFront Edge locations are located in:



<https://aws.amazon.com/cloudfront/features/>

# AWS Global Infrastructure

## REGIONS:

- 💡 Geographic Locations
- 💡 Consists of at least two Availability Zones (Azs)

## AVAILABILITY ZONES:

- 💡 Clusters of Data Centers
- 💡 Isolated from failures in other Availability Zones

*What about “Data Locality”?*

- 💡 Customer chooses where to place data
- 💡 AWS regions are geographically isolated by design
- 💡 Data is not replicated to other AWS regions and doesn't move unless you choose to move it

# AWS Global Infrastructure

At least 2 AZs per region.

Examples:

US East (N. Virginia)

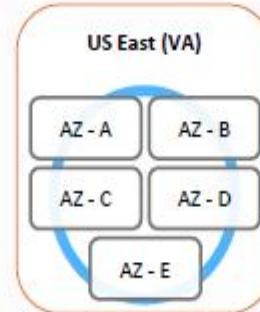
us-east-1a

us-east-1b

us-east-1c

us-east-1d

us-east-1e

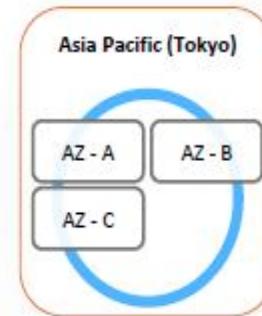


Asia Pacific (Tokyo)

ap-northeast-1a

ap-northeast-1b

ap-northeast-1c



# AWS Global Infrastructure

At least 2 AZs per region.

Examples:

US East (N. Virginia)

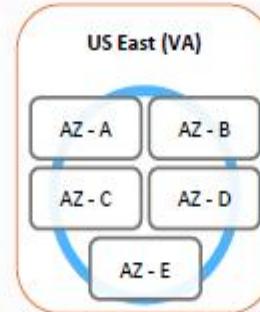
us-east-1a

us-east-1b

us-east-1c

us-east-1d

us-east-1e

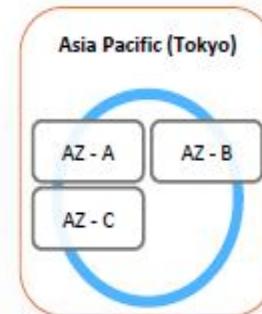


Asia Pacific (Tokyo)

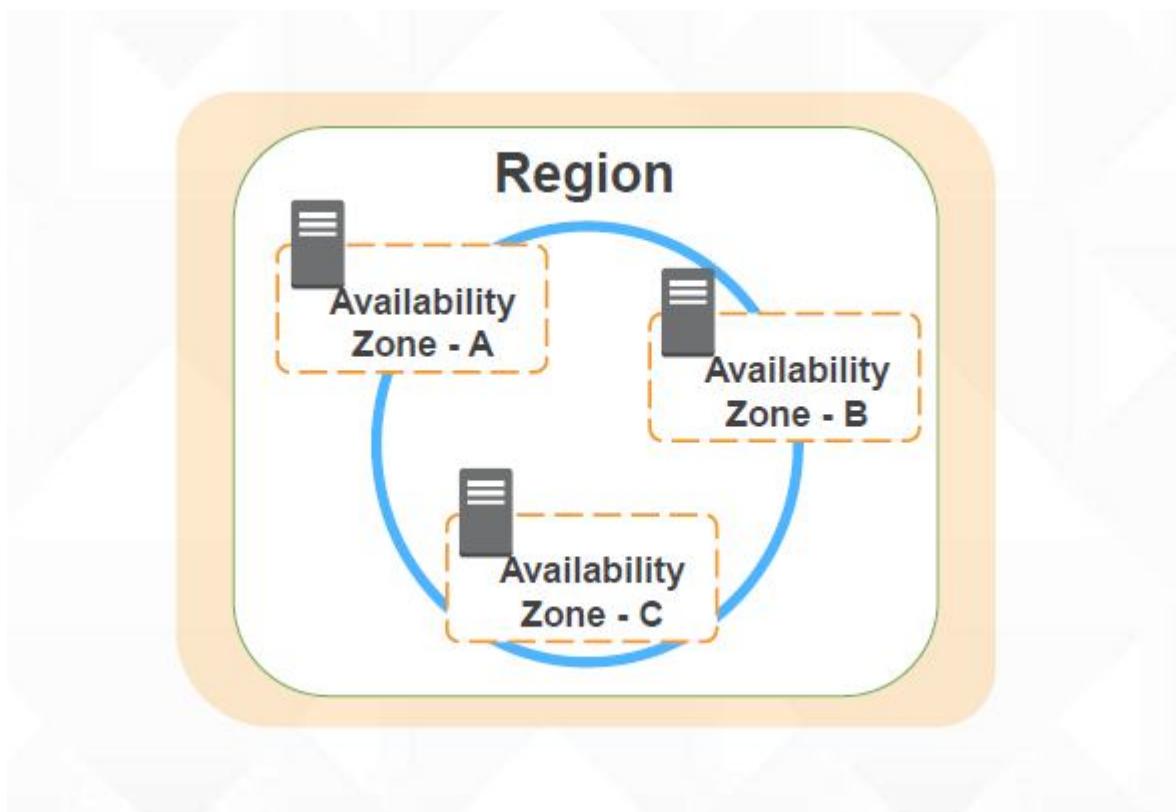
ap-northeast-1a

ap-northeast-1b

ap-northeast-1c



# High Availability with Multi-AZ



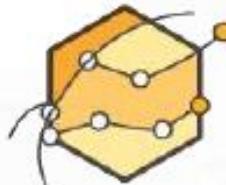
# Benefits of AWS Cloud Computing



Trade capital expense for variable expense.



Benefit from massive economies of scale.



Stop guessing capacity.



Increase speed and agility.



Stop spending money on running and maintaining data centers.



Go global in minutes.

# AWS Customers

Over 1 million **Active** customers in 190 countries

## *Enterprises*



## Startups



Public Sectors



# Create AWS Account

<https://aws.amazon.com/free>

# Thank You!