



# First Day in AWS

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# Agenda

- What is Cloud Computing
- Popular Cloud Platform
- Introduction to AWS Cloud
- AWS Global Infrastructure
- AWS Service Categories
- Introduction to AWS EC2
- Instance Type
- Purchasing Option
- EC2 Storage Type
- AWS Security Groups
- Launch your First Instance
- EC2 SSH
- Setup a WebServer
- AWS Services Access Method

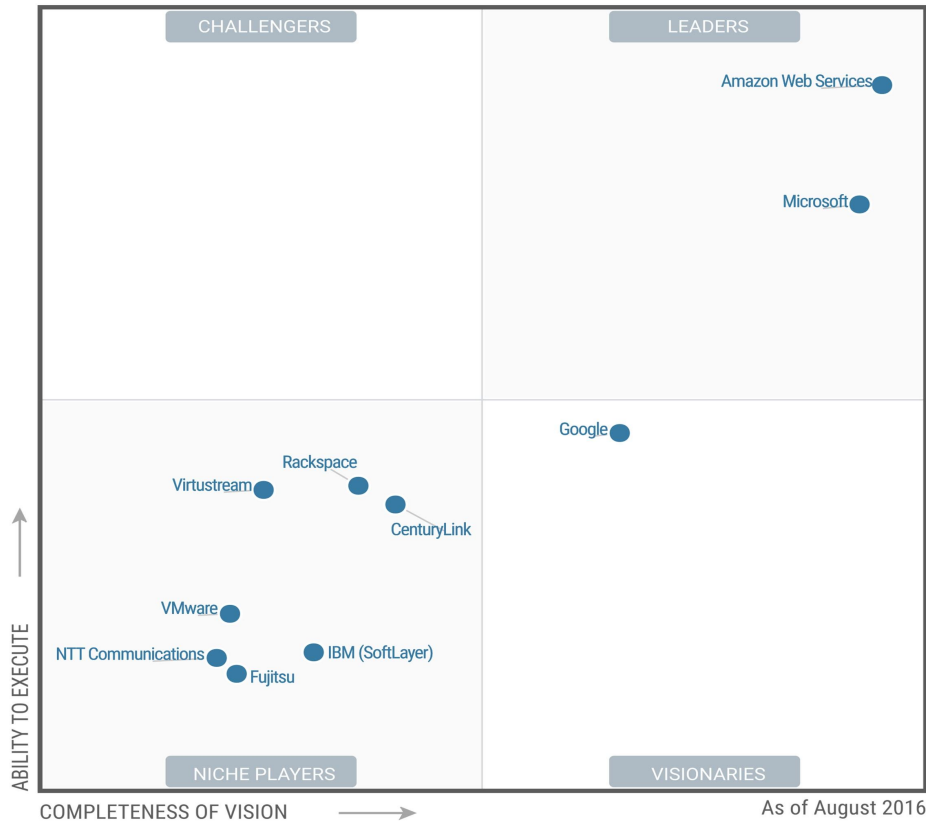
Cloud computing is the on-demand delivery of compute power, database storage, applications, and other IT resources through a cloud services platform via the internet with pay-as-you-go pricing.

## **Characteristics:**

- Cost
- Security
- Scalability and elasticity
- Maintenance
- Performance
- Productivity

# Popular Cloud Provider

Figure 1. Magic Quadrant for Cloud Infrastructure as a Service, Worldwide



Source: Gartner (August 2016)

- In 2006, Amazon Web Services (AWS) began offering IT infrastructure services to businesses in the form of web services -- now commonly known as cloud computing.
- The AWS Cloud operates 42 **Availability Zones** within 16 geographic **Regions** around the world.

## Regions:

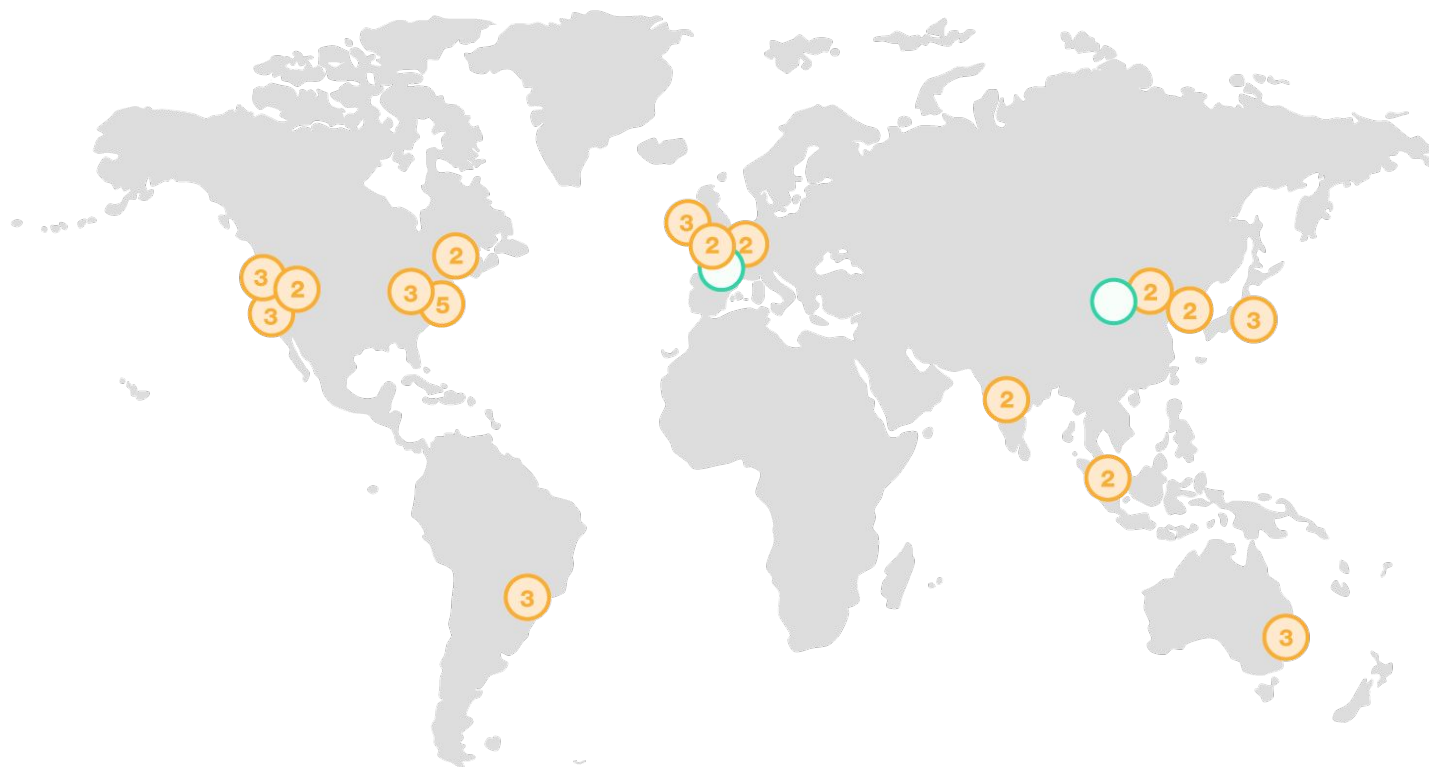
US East (N. Virginia)  
US East (Ohio)  
US West (N. California)  
US West (Oregon)  
Canada (Central)

South America (São Paulo)

Asia Pacific (Singapore)  
Asia Pacific (Sydney)  
Asia Pacific (Seoul)  
Asia Pacific (Tokyo)  
Asia Pacific (Mumbai)  
China (Beijing)

EU (Ireland)  
EU (Frankfurt)  
EU (London)

# AWS Global Infrastructure



# AWS Service Categories



## Compute

EC2  
EC2 Container Service  
Lightsail [↗](#)  
Elastic Beanstalk  
Lambda  
Batch



## Storage

S3  
EFS  
Glacier  
Storage Gateway



## Database

RDS  
DynamoDB  
ElastiCache  
Redshift



## Networking & Content Delivery

VPC  
CloudFront  
Direct Connect  
Route 53



## Migration

DMS  
Server Migration  
Snowball



## Developer Tools

CodeCommit  
CodeBuild  
CodeDeploy  
CodePipeline



## Management Tools

CloudWatch  
CloudFormation  
CloudTrail  
Config  
OpsWorks  
Service Catalog  
Trusted Advisor  
Managed Services  
Application Discovery Service



## Security, Identity & Compliance

IAM  
Inspector  
Certificate Manager  
Directory Service  
WAF & Shield  
Compliance Reports



## Analytics

Athena  
EMR  
CloudSearch  
Elasticsearch Service  
Kinesis  
Data Pipeline  
QuickSight [↗](#)



## Artificial Intelligence

Lex  
Polly  
Rekognition  
Machine Learning



## Internet Of Things

AWS IoT



## Game Development

GameLift



## Mobile Services

Mobile Hub  
Cognito  
Device Farm  
Mobile Analytics  
Pinpoint



## Application Services

Step Functions  
SWF  
API Gateway  
Elastic Transcoder



## Messaging

SQS  
SNS  
SES



## Business Productivity

WorkDocs  
WorkMail



## Desktop & App Streaming

WorkSpaces  
AppStream 2.0

Amazon Elastic Compute Cloud (Amazon EC2) is a web service that provides secure, resizable compute capacity in the cloud.

- Compute Optimized
- General Purpose
- Memory Optimized
- Accelerated Computing Instances
- Storage Optimized

<https://aws.amazon.com/ec2/instance-types/>



Amazon EC2 provides customers four different purchasing models that give you the flexibility to optimize your costs.

- On-Demand
- Reserved Instances
- Spot Instances
- Dedicated Hosts

<https://aws.amazon.com/ec2/pricing/>

# EC2 Storage Type

Amazon EC2 provides you with flexible, cost effective, and easy-to-use data storage options for your instances. These storage options can be used independently or in combination to suit your requirements.

- Amazon Elastic Block Store (Amazon EBS)
- Amazon EC2 Instance Store
- Amazon Simple Storage Service (Amazon S3)

A security group acts as a virtual firewall that controls the traffic for one or more instances. When you launch an instance, you associate one or more security groups with the instance. You add rules to each security group that allow traffic to or from its associated instances.

# Accessing AWS Services

AWS Services can be accessed by three methods:

- Console
- CLI
- SDK

# Exercise

- AWS Business Professional
- AWS Technical Professional

<https://www.apn-portal.com/>