



Introduction To **AWS**



Expected Learning Outcomes

Introduction To AWS



- Understand What Cloud Computing Is
- Discover Why Companies Are Adopting AWS
- Understand How AWS Can Help Your
- Explore AWS Services
- Apply And Begin Using AWS Services



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What Is Cloud Computing?



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What Is Cloud Computing?



Benefits Of Cloud Computing





>\$
**Avoid
Upfront Costs**

imgix



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Rapid
Pace





**Green
Energy**



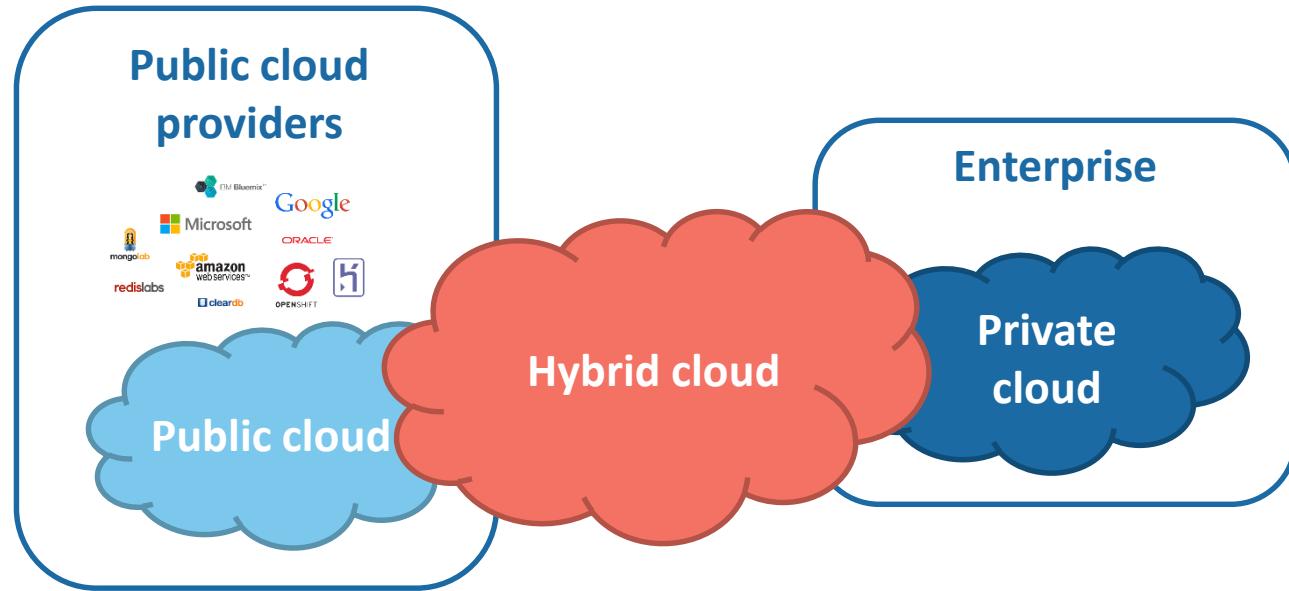


Growth



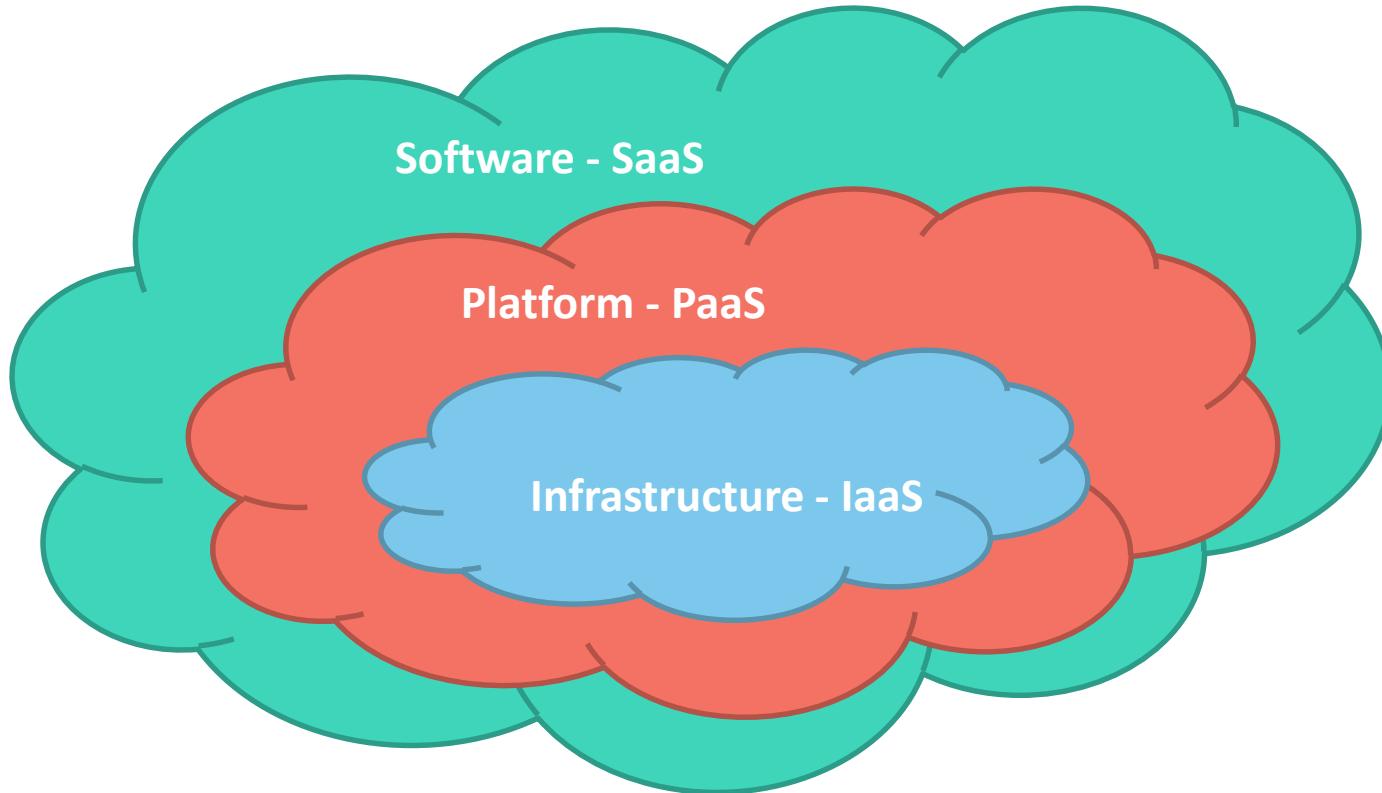


€
Savings



Using Cloud





Using Cloud



Why AWS?



Why are companies adopting cloud computing and AWS, so quickly?





Why AWS?

#Agility

The primary reason
businesses are
moving quickly to
AWS and the cloud.



Why AWS?

Amazon Web Services



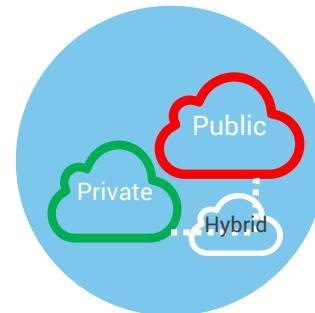
Secure

It provides complete security capabilities to satisfy the most demanding information security requirements.



Compliant

It is backed by rich controls, auditing and broad security accreditations.

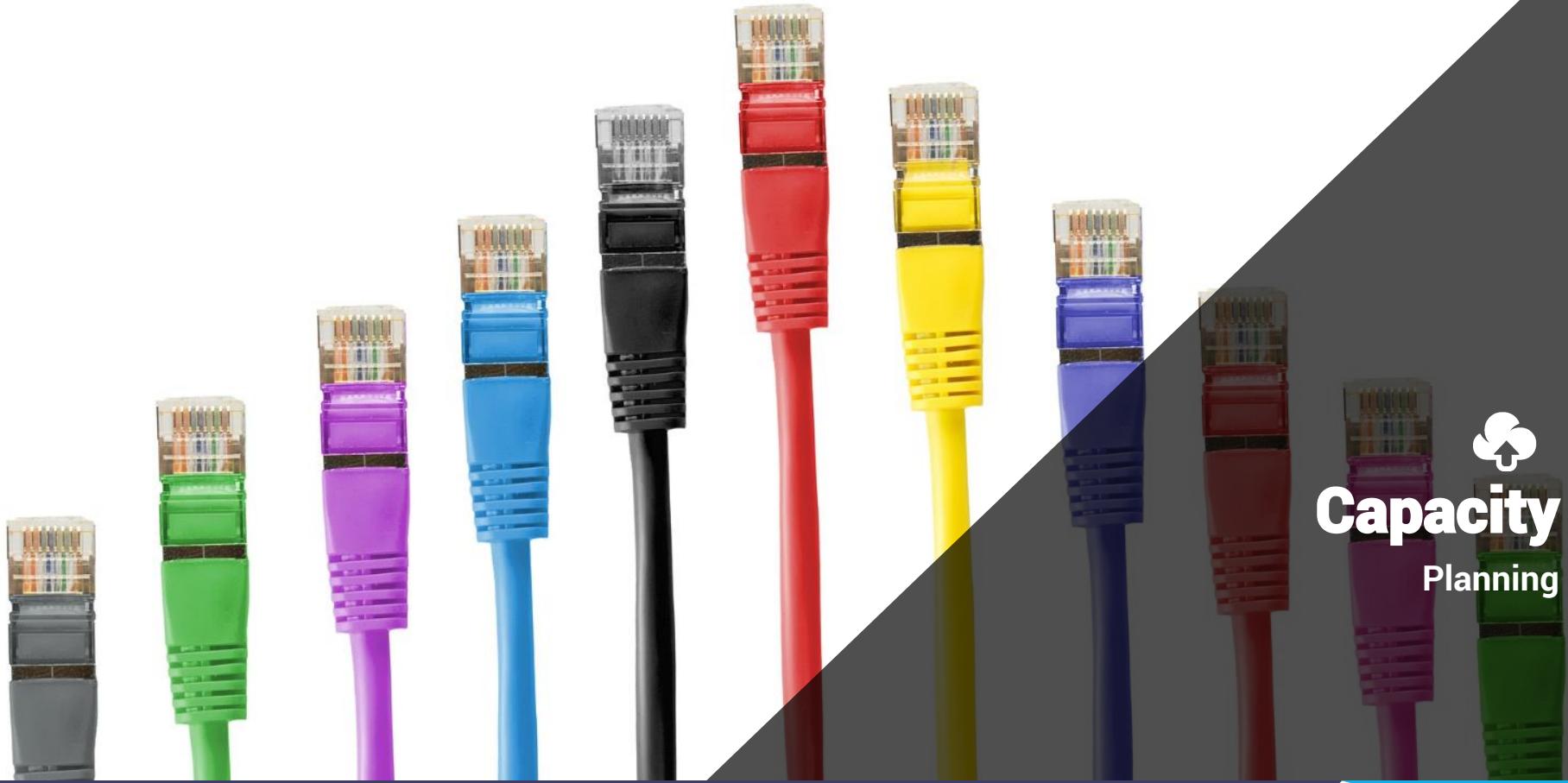


Hybrid

It helps you build hybrid IT architectures that extend your on-premises infrastructure to the Cloud.

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Convert
CAPEX to OPEX





Capacity Planning





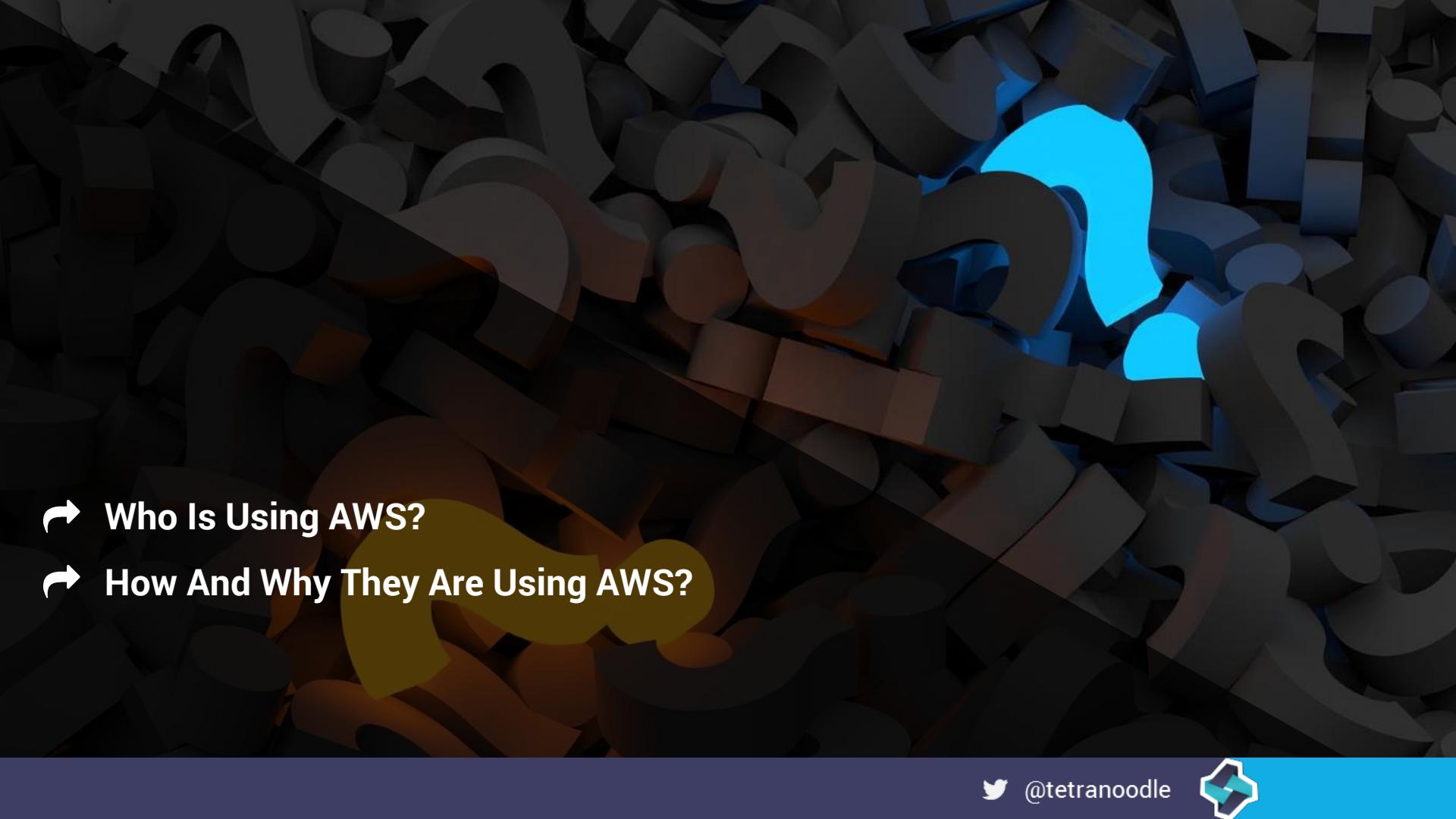
Global

Footprint





Innovation

- 
- Who Is Using AWS?
 - How And Why They Are Using AWS?

workday LinkedIn Pinterest Instagram *airbnb* Dropbox foursquare tumblr.

SmugMug *TinyCo* Etsy yelp Spotify shazam F Flipboard heroku AdRoll

reddit this moment MAILBOX ROMIO SUPERCOR ELL SONOS EVE  viddy twilio DIST

 Startups  dropcam Parse ANIMOTO FUNPLUS AVERAIL oyala STITCHER SMARTRADIO chule The Motley Fool

has offers HAIL diffbot BrightRoll THUGOLF ART SY Swipely  banjo





Bristol-Myers Squibb



comcast



TICKETMASTER

NASDAQ



Gillette



NOKIA

The Weather Channel

Newsweek



Mc
Graw
Hill

MISAWA

me Bank
BANK TAIFU



dow jones



ZIFF
DAVIS News

UK

Expedia

LIONSGATE

gettyimages



TATA MOTORS



HAVEN



SCHRODINGER



SUNPOWER The Washington Post



Commonwealth

The New York Times

bankinter

Discovery

Enterprises

ERICSSON



TRADEWORX

COLDWELL
BANKER

OUTBACK

HITACHI

SEGA

Dole

TOSHIBA

MERCK

P&G
Procter & Gamble

KANTAR MEDIA





Test And Development

LIONSGATE

Sharepoint and SAP

Do more dev and test work, faster



Oracle

Reduced dev and test environment costs



SAP

70% reduction in operational costs





New Workloads



Global deals engine



Product prototyping & design



Hotel booking engine



Video streaming



App streaming



Firmware upgrades



Mobile music discovery



Audience management & creative design



Biological data research



SIM card credit



News distribution



Mobile games



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Digital Transformation



DOW JONES





Analytics



4 PB Amazon
Redshift data
warehouse



Analytics on 450k
subscribers using
Amazon Redshift



Financial
market
analytics



Financial Simulations
Platform



Large scale clinical
data analytic platform

Improved drug quality through
big data



Trading history analytics



Ad campaign effectiveness
analysis platform





Mobile



Enterprise video creation and sharing app



Mobile services and analytics



Web and mobile site



Apps for cabin crew staff



Cloud-connected trucks



App Store



Streaming video



Mobile services & streaming





Supplement Existing Workloads



**Operational
applications**

Export data to AWS for
analytics processing



**Equipment
leasing app**

Disaster recovery SSAE 16-
compliant to restore all
data within 2 hours



Analytics

Export operational data to
Amazon Redshift
for analysis

2X faster queries at 1/2
the cost





Migrate Existing Applications



Unilever

Migrated 500 web properties in 5 months

1,700 web properties

New product websites in 2 days vs. 2 weeks



Bristol-Myers Squibb

Migrated clinical trials simulations platform

Simulations in 1.2hrs vs. 60hrs

64% reduction in costs



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All In - 100% Cloud Adoption



"We have to be great at a number of things... operating data centers is not one of those things"



"We are a hospitality management organization, not an IT services company"



2000 applications migrating to AWS in 18 months





AWS Services

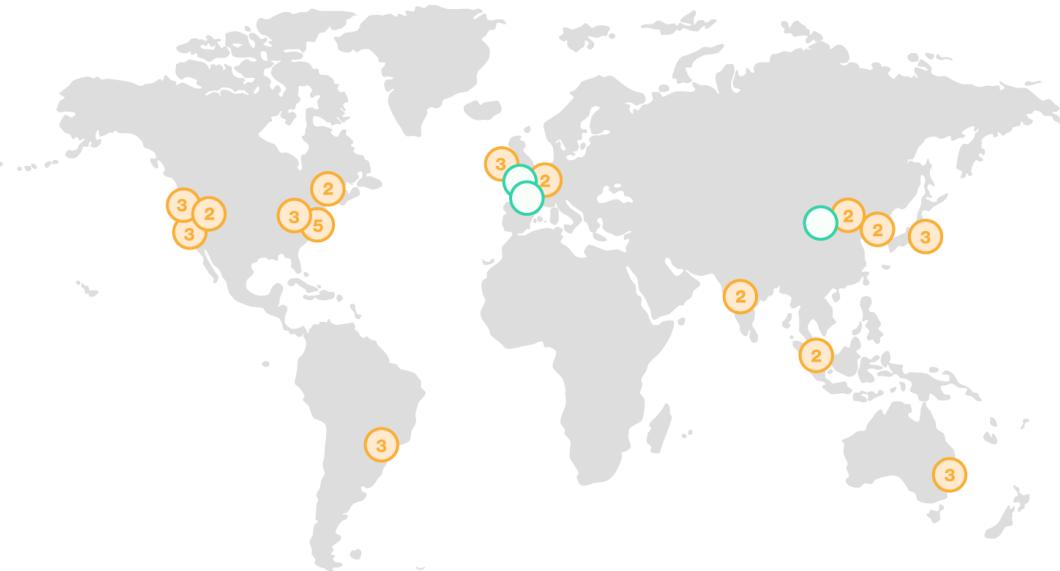


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AWS Global Infrastructure



The AWS Cloud operates 42 Availability Zones within 16 geographic Regions around the world, with more Availability Zones and more Regions coming online throughout the next year..

Region & Number of Availability Zones

AWS GovCloud (2)

US West

Oregon (3), Northern California (3)

US East

Northern Virginia (5), Ohio (3)

Canada

Central (2)

South America
São Paulo (3)

Asia Pacific

Singapore (2), Sydney (3), Tokyo (3), Seoul (2), Mumbai (2)

China
Beijing (2)

EU

Ireland (3), Frankfurt (2)

New Region (coming soon)

London

Paris

Ningxia



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Critical Certifications And Compliance Programs



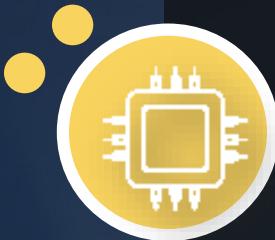
Data Privacy



PARTICIPATING ORGANIZATION™



AWS Compute Services



- **Amazon EC2**
Virtual Servers in the Cloud
- **Amazon Lightsail**
Virtual private servers made easy
- **AWS Elastic Beanstalk**
Run and Manage Web Apps
- **Amazon EC2 Container Registry**
Store and Retrieve Docker Images
- **Amazon EC2 Container Service**
Run and Manage Docker Containers
- **Amazon VPC**
Isolated Cloud Resources
- **AWS Lambda**
Run Your Code in Response to Events
- **Auto Scaling**
Automatic Elasticity





AWS EC2 Instance Types

General purpose

M3



Compute optimized

C4



Storage and IO optimized

I2



HS1



GPU enabled

G2



Memory optimized

R3



M1



C1



CC2



C3



HI1



CG1



M2



CR1



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AWS Storage Services



→ **Amazon S3**
Scalable Storage

→ **Amazon EBS**
Scalable Storage

→ **AWS Elastic File System**
Managed File Storage For EC2

→ **Amazon Glacier**
Low Cost Archive Storage

→ **Amazon Storage Gateway**
Hybrid Storage Integration

→ **Amazon Snowball Petabyte Scale**
Data Transport

AWS Database Services



→ **Amazon RDS**

Managed Relational Database

→ **Amazon Dynamo**

Managed NoSQL Database

→ **AWS ElasticCache**

In-memory Caching System

→ **Amazon RedShift**

Fast, Simple, Cost-Effective Data Warehousing

→ **Amazon Database Migration**

Database Migration With Minimal Downtime



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AWS Networking And Content Delivery Services



→ **Amazon VPC**
Isolated Cloud Resources

→ **Amazon CloudFront**
Global Content Delivery Network

→ **AWS Route53**
Scalable Domain Name System

→ **Amazon Load Balancing**
High-Scale Load Balancing



AWS Development And DevOps Tools



→ **Amazon CodeDeploy**
Automated Code Deployment

→ **Amazon CodePipeline**
Continuous Delivery

→ **AWS CodeCommit**
Private Git Repositories

→ **Amazon CLI**
Unified Command Line Tool For AWS



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AWS Management Tools



→ **Amazon CloudWatch**

Monitor Resources And Applications

→ **Amazon CloudFormation**

Create And Manage Cloud Resources With Templates

→ **Amazon CLI**

Unified Command Line Tool For AWS



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AWS Security



- **Amazon Identity And Access Management**
User Access, Roles And Encryption Keys
- **Amazon Certificate Manager**
Provision, Manage And Deploy SSL/TLS Certificates
- **Amazon Inspector**
Monitor Resources And Applications



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AWS Mobile Services



→ **Amazon Mobile Hub**
Build, Test And Monitor Apps

→ **Amazon Cognito**
Identity And App Data Synchronization

→ **Amazon Mobile SDK**
Mobile Software Development Kit

AWS AI Services



- **Amazon Lex Build**
Voice And Text Chatbots
- **Amazon Polly**
Text To Likelike Speech
- **Amazon Rekognition**
Search And Analyze Images

AWS Messaging Services



→ **Amazon SQS**
Message Queue Service

→ **Amazon SNS**
Push Notification Service

→ **Amazon PinPoint**
Push Notifications For Mobile Apps

→ **Amazon SES**
Email Service

AWS Productivity Services



- **Amazon WorkDocs**
Enterprise Storage and Sharing Service
- **Amazon WorkMail**
Secure and Managed Business Email and Calendaring
- **Amazon WorkSpaces**
Desktop Computing Service



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AWS IoT Services



↗ **Amazon GreenGrass**
Computing Platform For IoT Devices

↗ **Amazon IoT Button**
Cloud Programmable Dash Button



Rapid Pace Of Innovation

2008

+24 Services

2010

+61 Services

2012

+159 Services

2016

+500 Services



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PRICE
REDUCTIONS



Get Started With AWS



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Pick Your Platform





AWS Free Tier



Amazon EC2

Resizable compute capacity in the Cloud.



Amazon S3

Simple, durable and
hugely scalable object
storage infrastructure



Amazon RDS

Managed Relational Database
Service for MySQL, PostgreSQL,
MariaDB, Oracle BYOL, or SQL
Server.



Amazon Lambda

Compute service that
runs your code in
response to events and
automatically manages
the compute resources



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