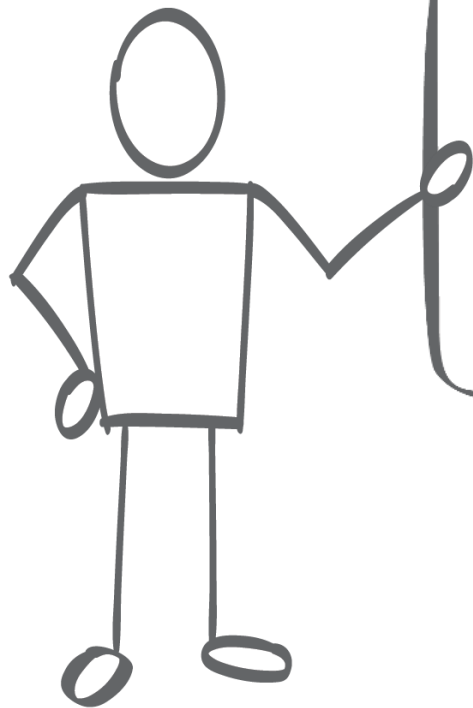




AWSome Day

ONLINE CONFERENCE



Module 1

Introduction and History of AWS

Amazon History



1994: Jeff Bezos Incorporated the Company

amazon publishing

2005:
Amazon Publishing Launched

amazon kindle

2007:
Kindle Launched

amazon game studios

2012: Amazon Game Studios Launched

Prime NOW

2014:
Amazon Prime Now Launched

1995:
Amazon.com Launched Online Bookstore



2006:
Amazon Web Services (AWS) Launched



2011:
Amazon Fresh Launched

amazon fresh

2013:
Amazon Art Launched

amazon art

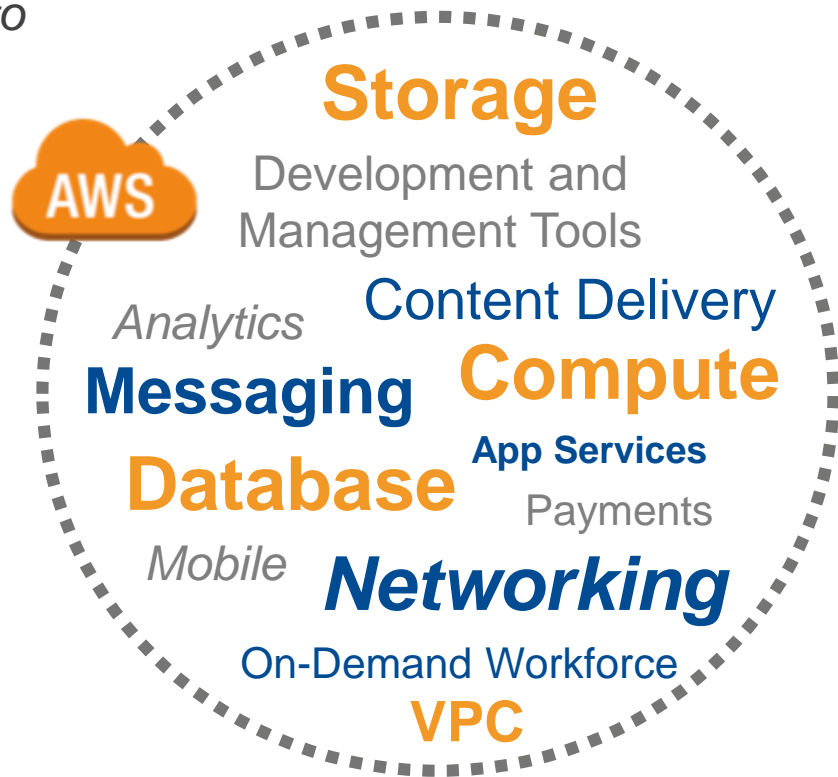
2015:
Amazon Home Services & Amazon Echo Launched



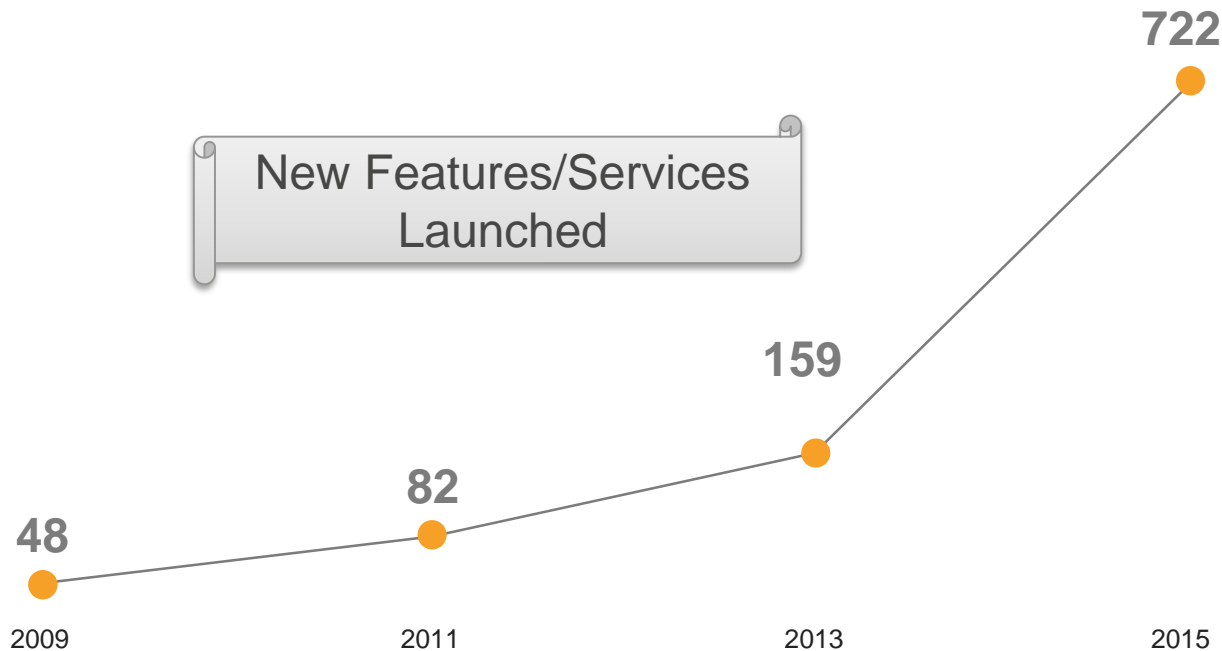
amazon echo

Amazon Web Services (AWS)

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



AWS Rapid Pace of Innovation



1,950
Services and Features

**Amazon EC2
Container Service**

**Amazon EC2 Container
Registry**

Amazon EFS

AWS Lambda

Amazon QuickSight

RDS for MariaDB

AWS IoT

**Amazon Machine
Learning**

**Amazon API
Gateway**

AWS KMS

Amazon Inspector

AWS Mobile Hub

**Amazon
Mobile
Analytics**

AWS Import/Export Snowball

AWS Storage Gateway

Amazon Cognito

AWS OpsWorks

AWS CodeCommit

AWS CodeDeploy

**Amazon
ElastiCache**

Amazon Config

Amazon CloudTrail

Amazon SES

AWS Elastic Transcoder

Amazon Kinesis

Amazon S3

Amazon Elasticsearch Service

AWS Elastic Beanstalk

Amazon WorkMail

Trusted Advisor

AWS CodePipeline

Amazon Route 53

Amazon Redshift

AWS IAM

**Amazon
AppStream**

**AWS
CloudFormation**

Amazon Dynamo DB

AWS Device Farm

**AWS Data
Pipeline**

**AWS
Directory
Service**

**Amazon RDS
for Aurora**

AWS Web App Firewall

Amazon SWF

Amazon SNS

Amazon WorkSpaces

Amazon CloudSearch

**AWS Direct
Connect**

Amazon WorkDocs

Amazon CloudWatch Logs

AWS Service Catalog

* As of 1 February 2016

Glacier

AWS Customers

Enterprise Customers



Startup Customers



Public Sector Customers



Six Advantages & Benefits of AWS Cloud Computing



Trade capital expense
for variable expense.



Increase speed and
agility.



Benefit from massive
economies of scale.



Stop spending money on
running and maintaining
data centers.



Stop guessing
capacity.



Go global in minutes.

Gartner Magic Quadrant for Cloud Infrastructure as a Service, Worldwide



Source: Gartner (May 2015)

Gartner "Magic Quadrant for Cloud Infrastructure as a Service, Worldwide," Lydia Leong, Douglas Toombs, Bob Gill, May 18, 2015. This Magic Quadrant graphic was published by Gartner, Inc. as part of a larger research note and should be evaluated in the context of the entire report. The Gartner report is available at <http://aws.amazon.com/resources/analyst-reports/>. Gartner does not endorse any vendor, product or service depicted in its research publications, and does not advise technology users to select only those vendors with the highest ratings or other designation. Gartner research publications consist of the opinions of Gartner's research organization and should not be construed as statements of fact. Gartner disclaims all warranties, expressed or implied, with respect to this research, including any warranties of merchantability or fitness for a particular purpose.

AWS Core Infrastructure and Services

Traditional Infrastructure



Firewalls



ACLs



Administrators

Security

Amazon Web Services



Security Groups



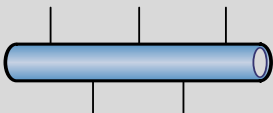
NACLs



AWS IAM



Router



Network Pipeline

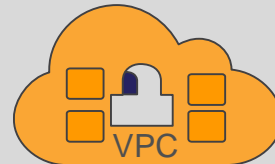


Switch

Networking



ELB



VPC



On-Premises Servers

Servers



AMI



Amazon EC2 Instances

Storage and Database



DAS



SAN



NAS



RDBMS



Amazon EBS



Amazon EFS



Amazon S3



Amazon RDS

AWS Cloud Computing

Applications



Virtual
Desktops



Collaboration and Sharing

Platform Services

Databases

Relational

No SQL

Caching

Analytics

Cluster
Computing

Real-time

Data
Warehouse

Data
Workflows

App Services

Queuing

Orchestration

App Streaming

Transcoding

Email

Search

Deployment and Management

Containers

Dev/ops Tools

Resource Templates

Usage Tracking

Monitoring and Logs

Mobile Services

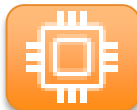
Identity

Sync

Mobile Analytics

Notifications

Foundation Services



Compute
(Virtual, Auto-scaling and
Load Balancing)



Networking



Storage
(Object, Block and Archive)

Infrastructure

Regions

Availability Zones



Edge Locations

AWS Foundation Services

Compute

Amazon EC2



AWS Lambda



Amazon EC2 Container Service



Elastic Load Balancing



AWS Elastic Beanstalk



Auto Scaling



Network

Amazon VPC



Amazon Route 53



AWS Direct Connect



Storage

Amazon S3



Amazon CloudFront



Amazon Glacier



Amazon Elastic File System



AWS Storage Gateway



AWS Import/Export Snowball



Security & Identity

AWS Identity and Access Management



AWS KMS



AWS Directory Service



AWS Cloud HSM



AWS WAF



Applications

Amazon WorkDocs



Amazon WorkSpaces



Amazon WorkMail



AWS Platform Services

Databases

Amazon
RDS



Amazon
DynamoDB



Amazon
ElastiCache



Amazon
Redshift



AWS Database
Migration
Service



Analytics

Amazon
EMR



AWS
Data Pipeline



Amazon
Elasticsearch
Service



Amazon
Machine
Learning



Amazon
Kinesis



App Services

Amazon
SES



Amazon
AppStream



Amazon
SWF



Amazon
Elastic
Transcoder



Amazon
CloudSearch



Amazon
SQS



Amazon
API Gateway



Management Tools

AWS
CloudFormation



AWS
Config



AWS
CloudTrail



AWS
Service
Catalog



AWS
OpsWorks



Amazon
CloudWatch



Trusted
Advisor



AWS
Certificate
Manager



Developer Tools

AWS
CodeCommit



AWS
CodeDeploy



AWS
CodePipeline



Mobile Services

Amazon
Cognito



AWS
Device Farm



Amazon
SNS



Amazon
Mobile
Analytics



Mobile Hub



Internet of Things

AWS IoT



AWS Global Infrastructure

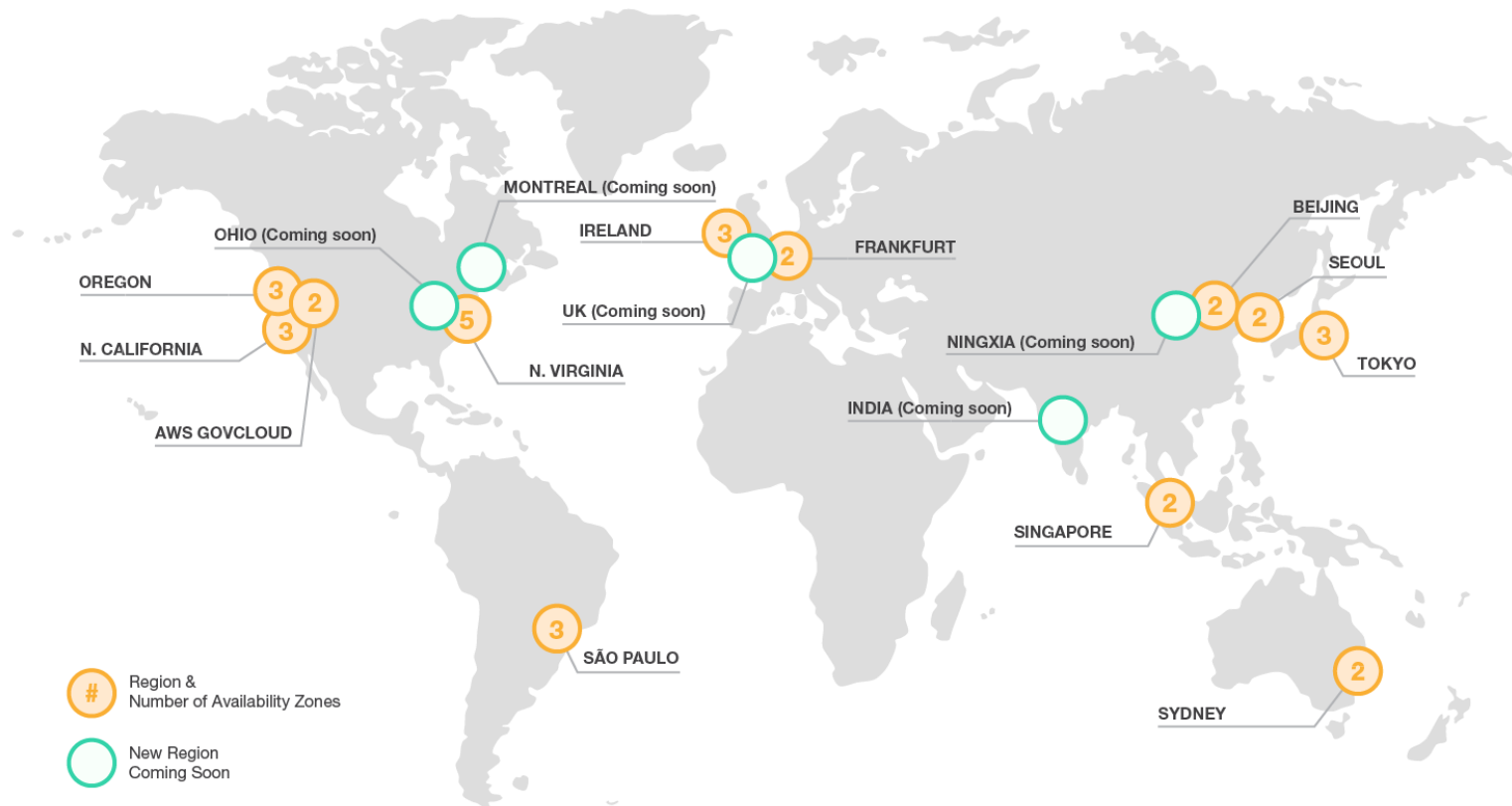
Regions

- Geographic locations
- Consists of at least two Availability Zones(AZs)

Availability Zones

- Clusters of data centers
- Isolated from failures in other Availability Zones

AWS Global Infrastructure



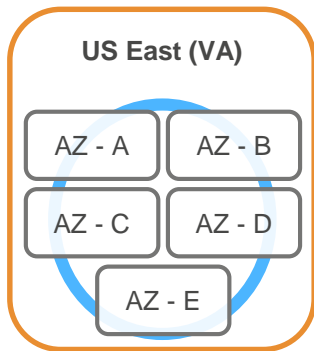
AWS Global Infrastructure

At least 2 AZs per region.

Examples:

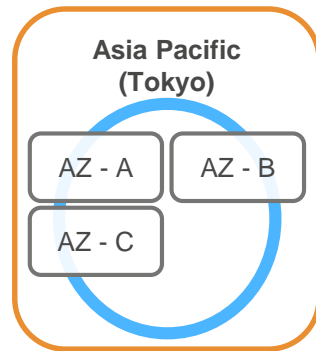
➤ US East (N. Virginia)

- us-east-1a
- us-east-1b
- us-east-1c
- us-east-1d
- us-east-1e



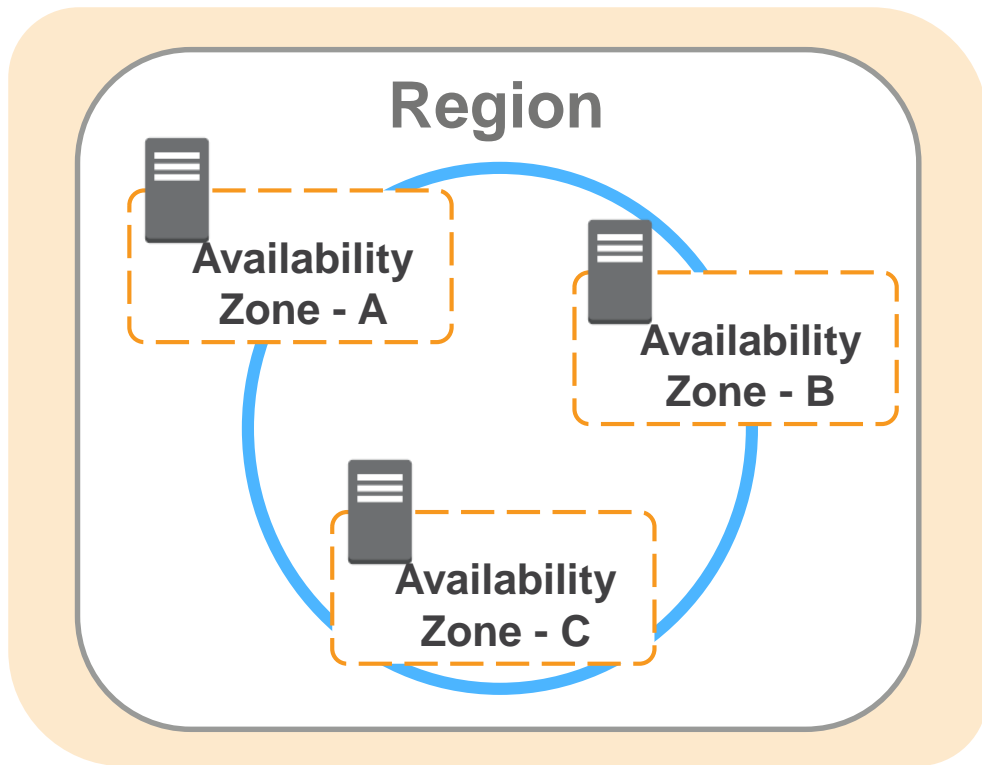
➤ Asia Pacific (Tokyo)

- ap-northeast-1a
- ap-northeast-1b
- ap-northeast-1c



Note: Conceptual drawing only. The number of Availability Zones (AZ) may vary.

Achieving High Availability Using Multi-AZ



AWS Global Infrastructure

50+ AWS Edge Locations:

📦 Local points-of-presence commonly supporting AWS services like:

➤ Amazon Route 53



➤ Amazon CloudFront



AWS Management Console Demonstration



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