



Certification

Solutions Architect – Associate

Batch-1011 | Moon International Karachi Pakistan

khawarhere@gmail.com

Lesson Plan

1. Introduction & Overview

- 1.1. Group Introduction
- 1.2. Course Introduction
- 1.3. Who is Solution Architect?
- 1.4. About Us
- 1.5. Course Prerequisites
- 1.6. Eligibility Criteria
- 1.7. Passing Criteria
- 1.8. After completing this course
- 1.9. The History Of AWS
- 1.10. AWS General Overview
- 1.11. How To Sign Up To AWS.
- 1.12. Introduction & Overview Quiz

1.1 Group Introduction

1. Name
2. Organization
3. Last Education
4. Why you want to learn this course
5. Your Expectations from us



1.1.1 About Us

1. About Me
2. About Institute
3. Other Courses



1.2 Course Introduction

Total Sessions	:	10
Class Days	:	Saturday / Sunday
Class Time	:	2:00 PM to 5:00 PM
Reference Material	:	https://docs.aws.amazon.com
Outline	:	Attached

1.2.1 Course Prerequisites

AWS Account : Free Trial Account (Credit Card Required)

Computer : PC / MAC / Laptop

Operating System : Linux / Mac / Windows

Ram : Min 2 GB

Internet

Your own domain name (optional, but recommended)

1.2.2 Eligibility Criteria

AWS Absolute Beginners. No prior AWS experience necessary

Existing Solutions Architects

Programmers Interested in Deploying Applications on AWS

People interested in hosting highly scalable, fault tolerant applications (such as Wordpress and Joomla) on the AWS cloud.

Programming Experience : Not required

System Engineer Experience : Not required

1.2.3 Passing Criteria

Final Exam : 75% Marks Min

Quiz : 70% Marks

Attendance : 80%

Lab performance : 50%

1.2.4 After completing this course

- Pass the AWS Certified Solutions Architect - Associate Exam
- Become Intimately Familiar With The AWS Platform
- Become A Cloud Guru
- Design Highly Resilient and Scalable Websites on AWS
- Become Amazon Certified



1.2.5 Who is Solution Architect?

Solution architecture is a practice of defining and describing an architecture of a system delivered in context of a specific solution and as such it may encompass description of an entire system or only its specific parts.

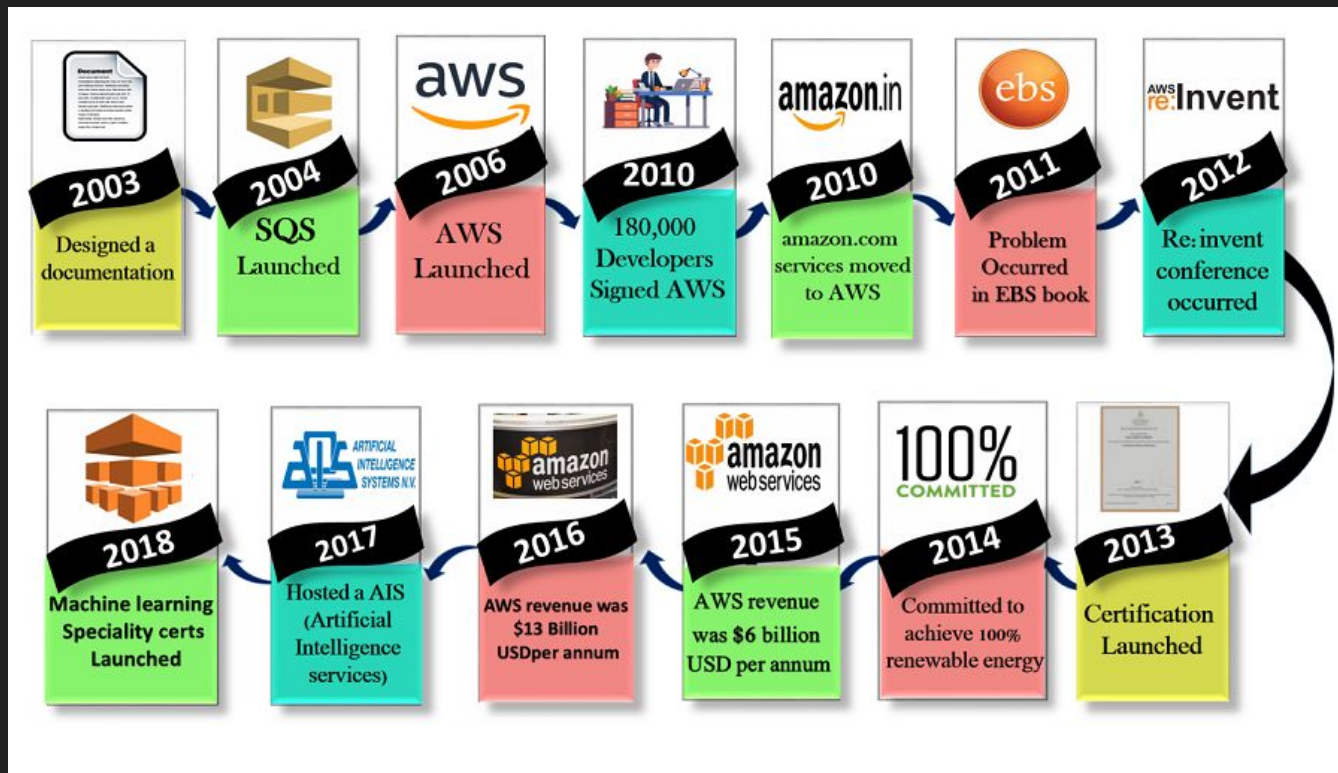
Definition of a solution architecture is typically led by a solution architect

SOLUTION ARCHITECT ROLE

Responsibilities	<ul style="list-style-type: none">✓ Analyzing technology environment✓ Analyzing enterprise specifics✓ Analyzing requirements✓ Setting collaboration framework✓ Creating a solution prototype✓ Participating in technology selection✓ Solution development control✓ Project management support
Experience	<ul style="list-style-type: none">✓ At least eight years of working experience in one or multiple IT areas✓ IT infrastructure and cloud development✓ Engineering and software architecture design✓ Business analysis✓ DevOps✓ Project and product management
Personal Attributes	<ul style="list-style-type: none">✓ Excellent communication skills✓ Deep analytical skills✓ Project and resource management skills✓ Work collaboratively✓ Influence and negotiate

1.3 AWS History

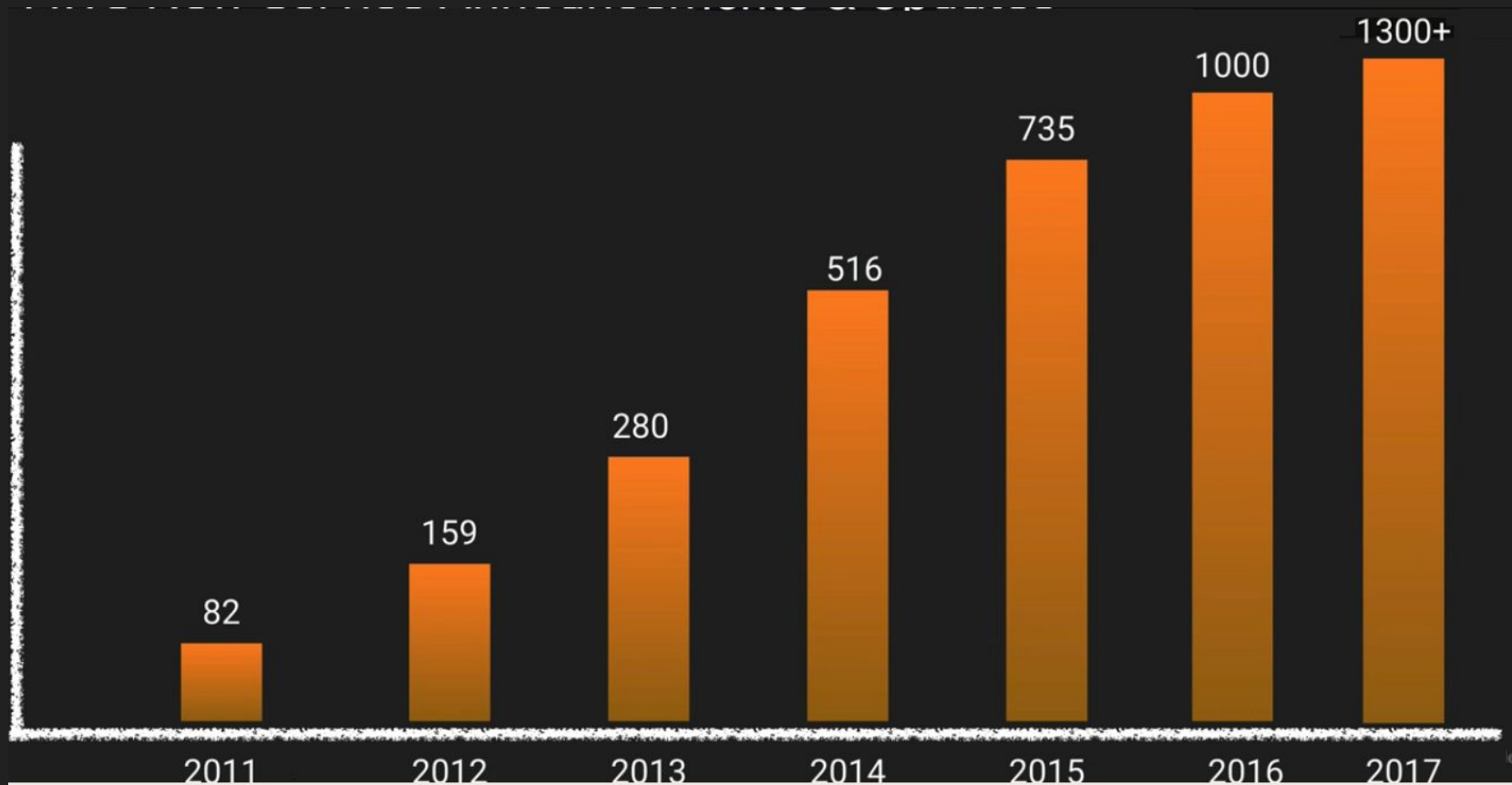
- What is AWS



1.3.1 AWS History | Timeline of AWS

- 2003 - Chris Pinkhan & Benjamin Black present a paper on what Amazon's own internal infrastructure should look like
- Suggested selling it as a service and prepared a business case.
- SQS officially launched in 2004
- AWS Officially launched in 2006
- 2007 over 180,000 developers on the platform
- 2010 all of amazon.com moved over
- 2012 First re:Invent Conference
- 2013 Certifications Launched
- 2014 Committed to achieve 100% renewable energy usage for its global footprint
- 2015 AWS breaks out its revenue: \$6 Billion USD per annum and growing close to 90% year on year
- 2016 Run rate of \$13 billion USD.
- 2017 AWS re:invent releases a host of Artificial Intelligent Services as well as Virtual Reality services.

1.3.2 AWS History | Service Announcements



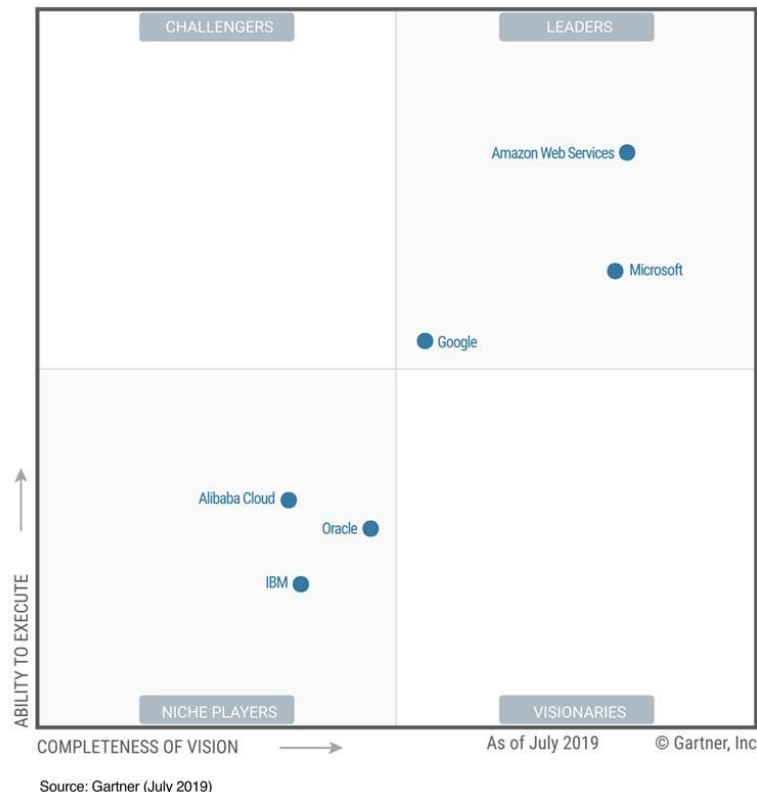
1.3.3 AWS Overview | Gartner Magic Quadrant

Gartner Magic Quadrant 2019

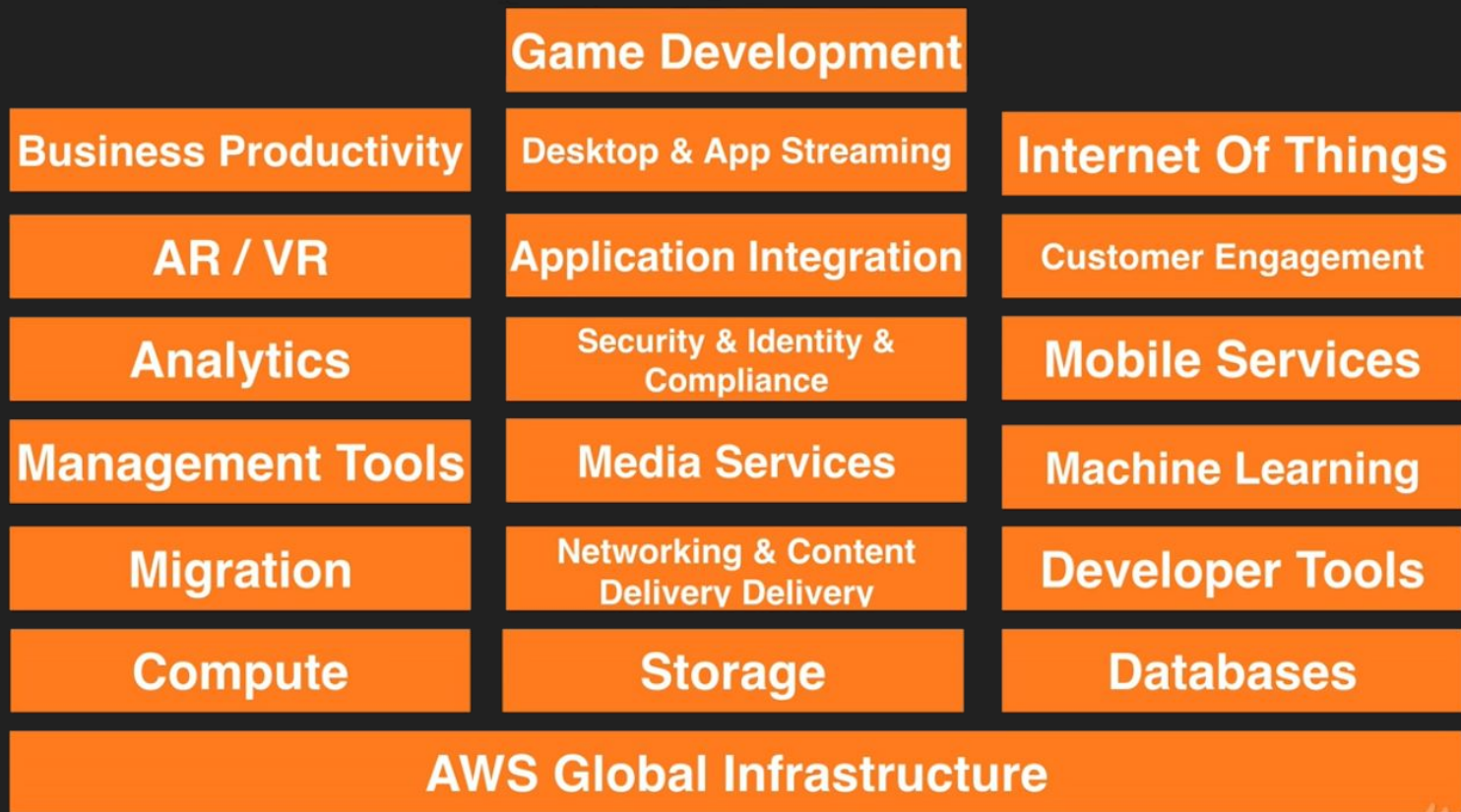
[AWS](#)

[Google Cloud](#)

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



1.4.1 AWS Overview | The Platform



1.4.2 AWS Overview | Global Infrastructure

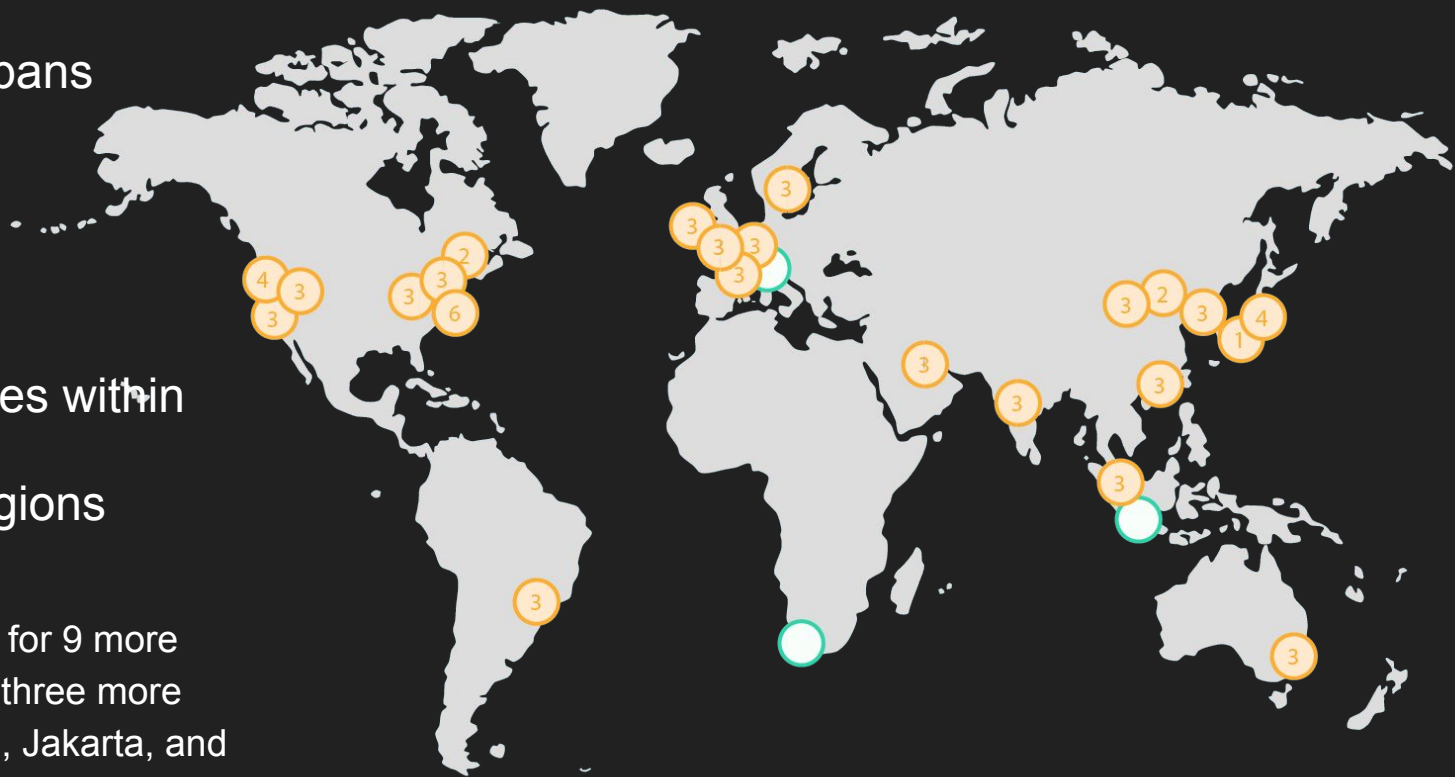
The AWS Cloud spans

(July-2019)

69 Availability Zones within

22 geographic Regions

With announced plans for 9 more Availability Zones and three more Regions in Cape Town, Jakarta, and Milan.



1.4.2.1 AWS Overview | Region & AZ

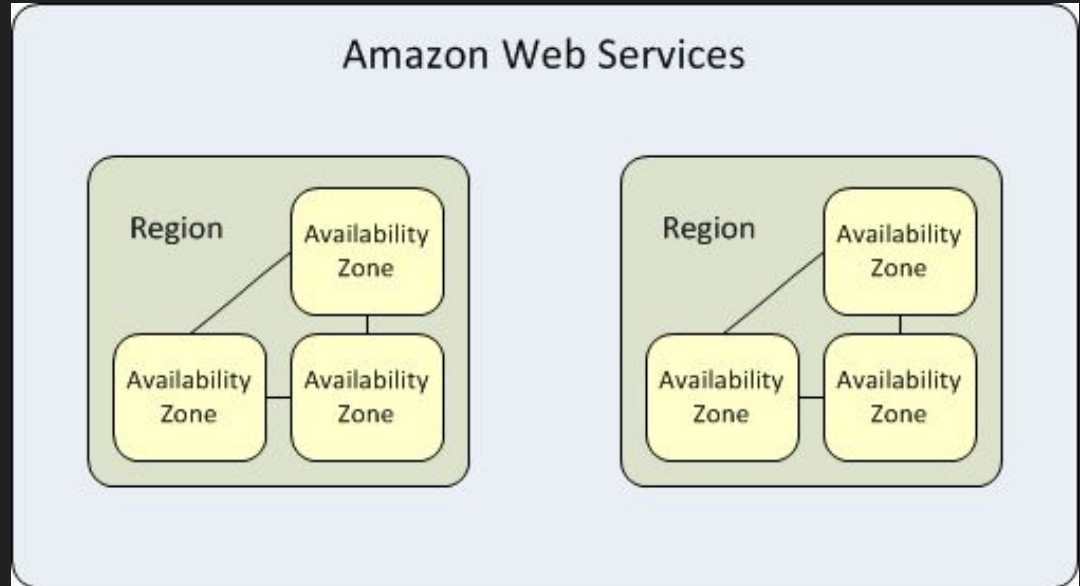
What is [Region and Availability Zone](#)

Region is a geographical area and is completely independent.

Availability Zone is isolated.

Availability Zones in a Region are connected through low-latency links.

Availability Zones is a **Data Center**



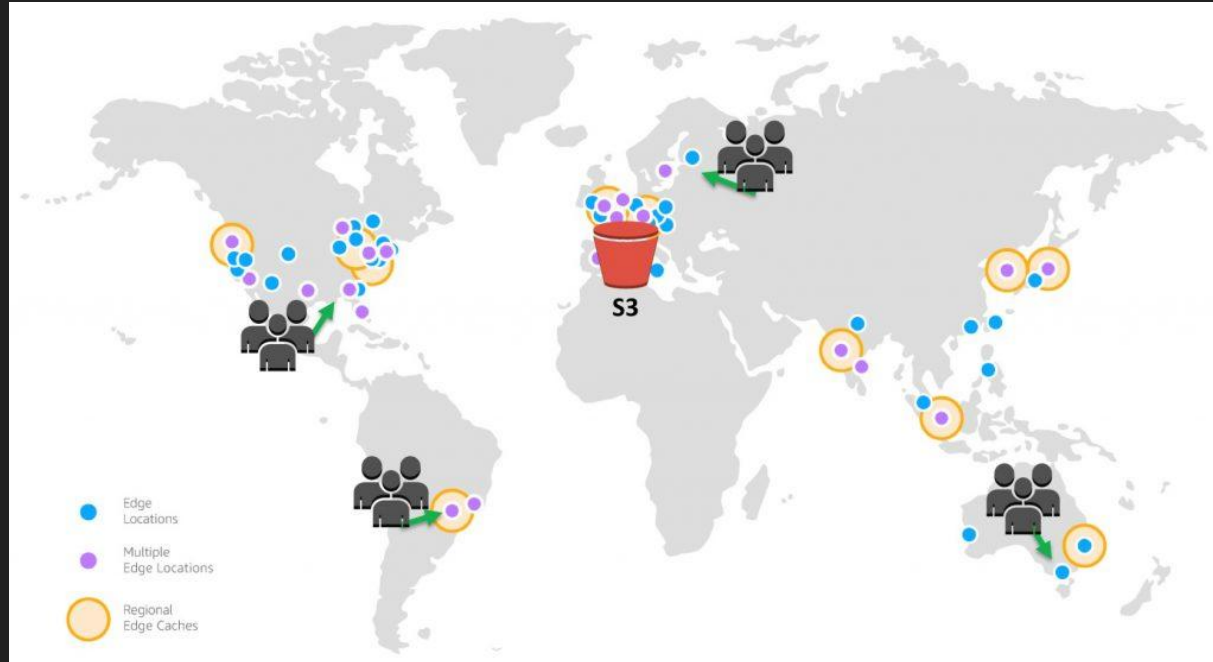
1.4.2.2 AWS Overview | Edge Location

What is Edge Location

Edge Locations are endpoints for AWS which are used for caching content.

A site that CloudFront uses to cache copies of your content for faster delivery to users at any location.

Edge location is where end users access services located at AWS.



1.4.3 AWS Overview | Services

The screenshot displays the AWS Management Console's 'Services' page. The top navigation bar includes the AWS logo, 'Services', 'Resource Groups', and a search icon. The left sidebar shows the 'History' section with links to AWS IoT, CloudFormation, IAM, Console Home, S3, and VPC. The main content area features a search bar and a grid of service categories. The 'Compute' category is expanded, showing services like EC2, Lightsail (highlighted), Elastic Container Service, Lambda, Batch, and Elastic Beanstalk. Other categories include Storage (S3, EFS, Glacier, Storage Gateway), Database (RDS, DynamoDB, ElastiCache, Amazon Redshift), Migration (AWS Migration Hub, Application Discovery Service, Database Migration Service, Server Migration Service, Snowball), Developer Tools (CodeStar, CodeCommit, CodeBuild, CodeDeploy, CodePipeline, Cloud9, X-Ray), Management Tools (CloudWatch, CloudFormation, CloudTrail, Config, OpsWorks, Service Catalog, Systems Manager, Trusted Advisor, Managed Services), Media Services (Elastic Transcoder, MediaConvert, MediaLive, MediaPackage, MediaStore, MediaTailor), Analytics (Athena, EMR, CloudSearch, Elasticsearch Service, Kinesis, Kinesis Video Streams, QuickSight, Data Pipeline, AWS Glue), Security, Identity & Compliance (IAM, Cognito, GuardDuty, Inspector, Amazon Macie, Certificate Manager, CloudHSM, Directory Service, WAF & Shield, Artifact), Mobile Services (Mobile Hub, Pinpoint, AWS AppSync, Device Farm), Customer Engagement (Amazon Connect, Simple Email Service), Business Productivity (Alexa for Business, Amazon Chime, WorkDocs, WorkMail), Desktop & App Streaming (WorkSpaces, AppStream 2.0), Internet Of Things (AWS IoT, IoT Device Management, Amazon FreeRTOS, AWS Greengrass), and Game Development (Amazon GameLift). The bottom of the page shows a 'close' button and a footer with copyright information and links to Privacy Policy and Terms of Use.

aws Services Resource Groups

History

AWS IoT

CloudFormation

IAM

Console Home

S3

VPC

Find a service by name or feature (for example, EC2, S3 or VM, storage).

Group A-Z

Compute

EC2

Lightsail

Elastic Container Service

Lambda

Batch

Elastic Beanstalk

Developer Tools

CodeStar

CodeCommit

CodeBuild

CodeDeploy

CodePipeline

Cloud9

X-Ray

Storage

S3

EFS

Glacier

Storage Gateway

Database

RDS

DynamoDB

ElastiCache

Amazon Redshift

Migration

AWS Migration Hub

Application Discovery Service

Database Migration Service

Server Migration Service

Snowball

Management Tools

CloudWatch

CloudFormation

CloudTrail

Config

OpsWorks

Service Catalog

Systems Manager

Trusted Advisor

Managed Services

Media Services

Elastic Transcoder

MediaConvert

MediaLive

MediaPackage

MediaStore

MediaTailor

Analytics

Athena

EMR

CloudSearch

Elasticsearch Service

Kinesis

Kinesis Video Streams

QuickSight

Data Pipeline

AWS Glue

Security, Identity & Compliance

IAM

Cognito

GuardDuty

Inspector

Amazon Macie

Certificate Manager

CloudHSM

Directory Service

WAF & Shield

Artifact

Mobile Services

Mobile Hub

Pinpoint

AWS AppSync

Device Farm

Customer Engagement

Amazon Connect

Simple Email Service

Business Productivity

Alexa for Business

Amazon Chime

WorkDocs

WorkMail

Desktop & App Streaming

WorkSpaces

AppStream 2.0

Internet Of Things

AWS IoT

IoT Device Management

Amazon FreeRTOS

AWS Greengrass

Game Development

Amazon GameLift

close

© 2016 - 2017, Amazon Web Services, Inc. or its affiliates. All rights reserved. Privacy Policy Terms of Use

1.4.3 .1 Overview | Services | Compute | EC2

What is Amazon Elastic Compute Cloud

Amazon Elastic Compute Cloud (Amazon EC2) is a web service that provides resizable computing capacity

Virtual machine inside the AWS platform

EC2 reduces the time required to obtain and boot new server instances to minutes, allowing you to quickly scale capacity, both up and down



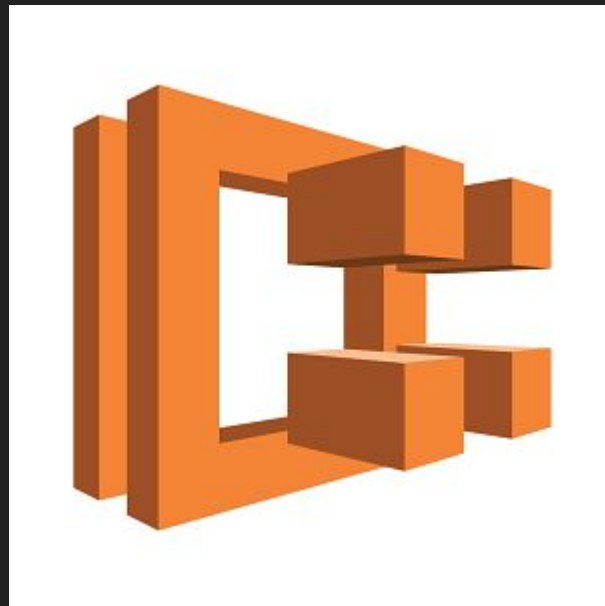
Amazon EC2

1.4.3 .2 Overview | Services | Compute | ECS

What is [Amazon Elastic Container Service](#)

Amazon Elastic Container Service (Amazon ECS) is a highly scalable, high-performance container orchestration service that supports Docker containers and allows you to easily run and scale containerized applications on AWS

Amazon ECS eliminates the need for you to install and operate your own container orchestration software, manage and scale a cluster of virtual machines, or schedule containers on those virtual machines.



1.4.3 .2 Overview | Services | Compute | Beanstalk

What is AWS Elastic [Beanstalk](#)

AWS Elastic Beanstalk is an easy-to-use service for deploying and scaling web applications and services developed with Java, .NET, PHP, Node.js, Python, Ruby, Go, and Docker on familiar servers such as Apache, Nginx, Passenger, and IIS.

Elastic Beanstalk automatically scales your application up and down based on your application's specific need using easily adjustable Auto Scaling settings



1.4.3 .3 Overview | Services | Compute | Lambda

What is AWS [Lambda](#)

AWS Lambda lets you run code without provisioning or managing servers. You pay only for the compute time you consume - there is no charge when your code is not running.

Run code for virtually any type of application or backend service - all with zero administration.

Just upload code and Lambda takes care of everything required to run and scale your code with high availability

