



# Introduction to AWS

*Using Amazon Web Services (AWS)*



Bergen  
**Cloud User Group**





Nerdschool



USER GROUP  
NORWAY



CLOUD NATIVE  
NORDICS



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## ABOUT ME

# Karl Mathias Moberg



Cloud  
Ambassador



- Bergen, Norway 🇳🇴
- Cloud Consultant @ TietoEVRY
- AWS Certified Solutions Architect & Developer
- 30 Years old, 2 Kids
- ❤️ DevOps
- Developer, Photographer, Aviation Geek ✈️

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# What is Cloud Computing?



Source: <https://bit.ly/visiblecloud>



*"Due to less Pollution, the files stored on cloud are now Clearly Visible. 😊"*

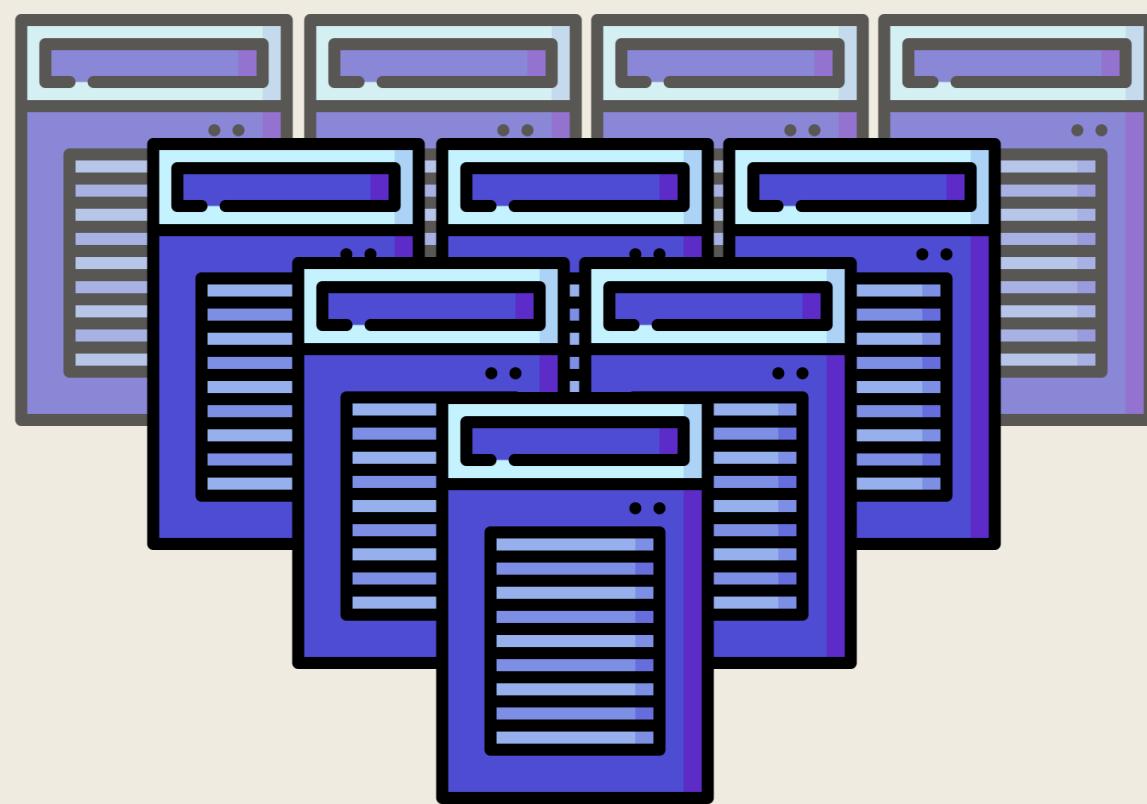
@Shah\_Rizvi97, 2020.05.05

A photograph of two people in a server room. A man in a blue shirt is seated at a white circular table, looking at a laptop screen displaying a terminal window. A woman in a light green polo shirt stands behind him, also looking at the screen. They are surrounded by tall server racks with Dell logos and many blue cables. The room has a purple and blue color palette from the lighting.

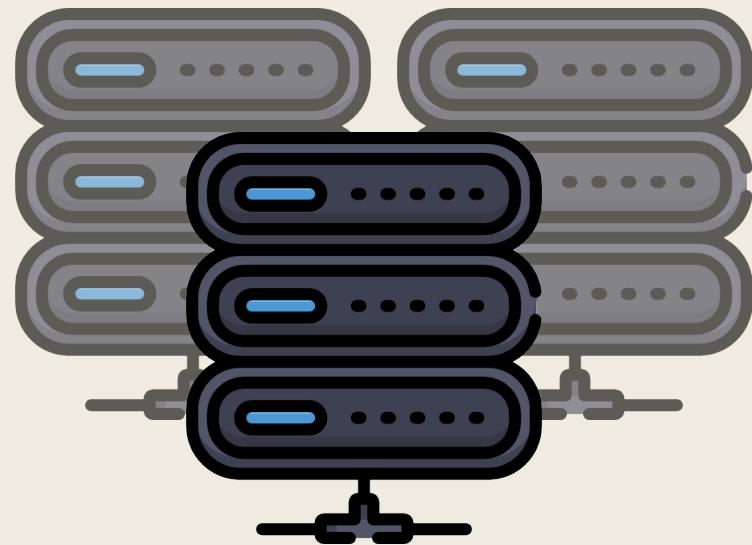
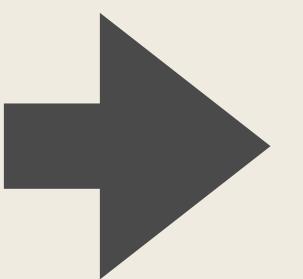
“There is no cloud, it’s just  
someone else’s computer”

*- The internet*

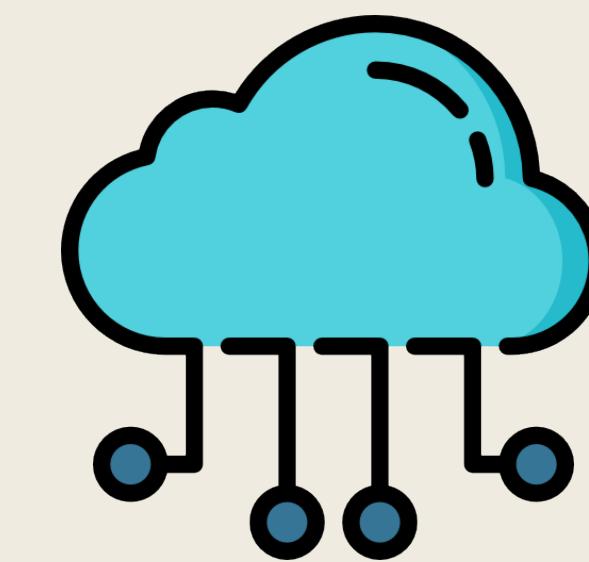
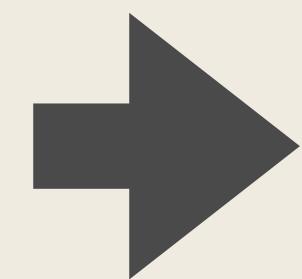
# What?



Traditional Business  
Servers



Virtualized Environment



Cloud



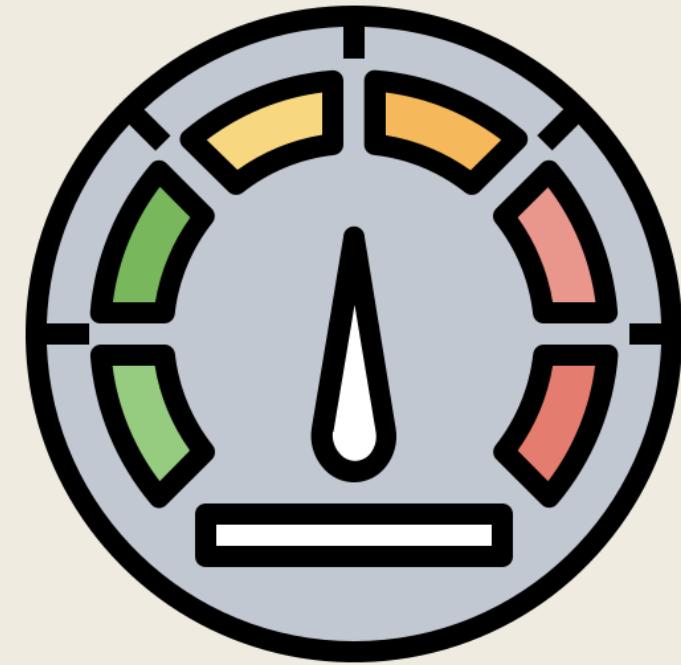
“Our move to the cloud costs *how much per month??*”

*- Executives after they see their cloud bill, a month after lifting 100 servers to the cloud*

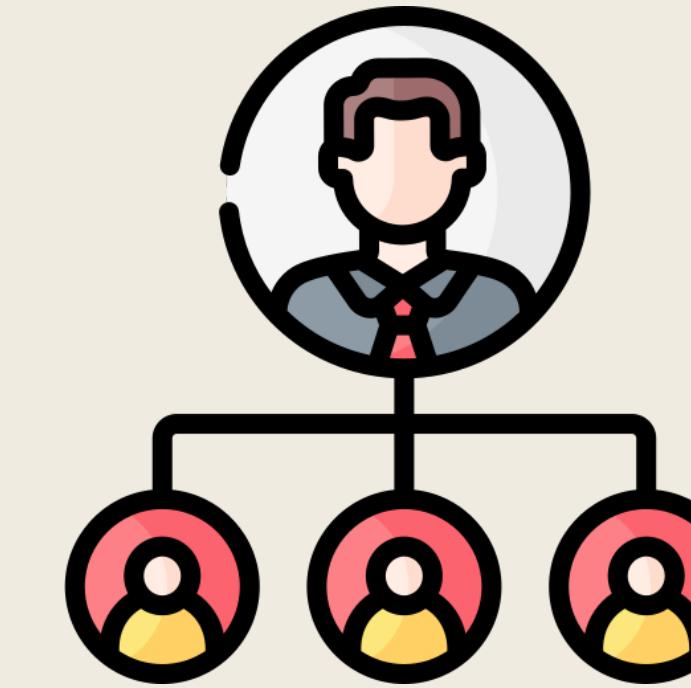
# Why?



Elasticity

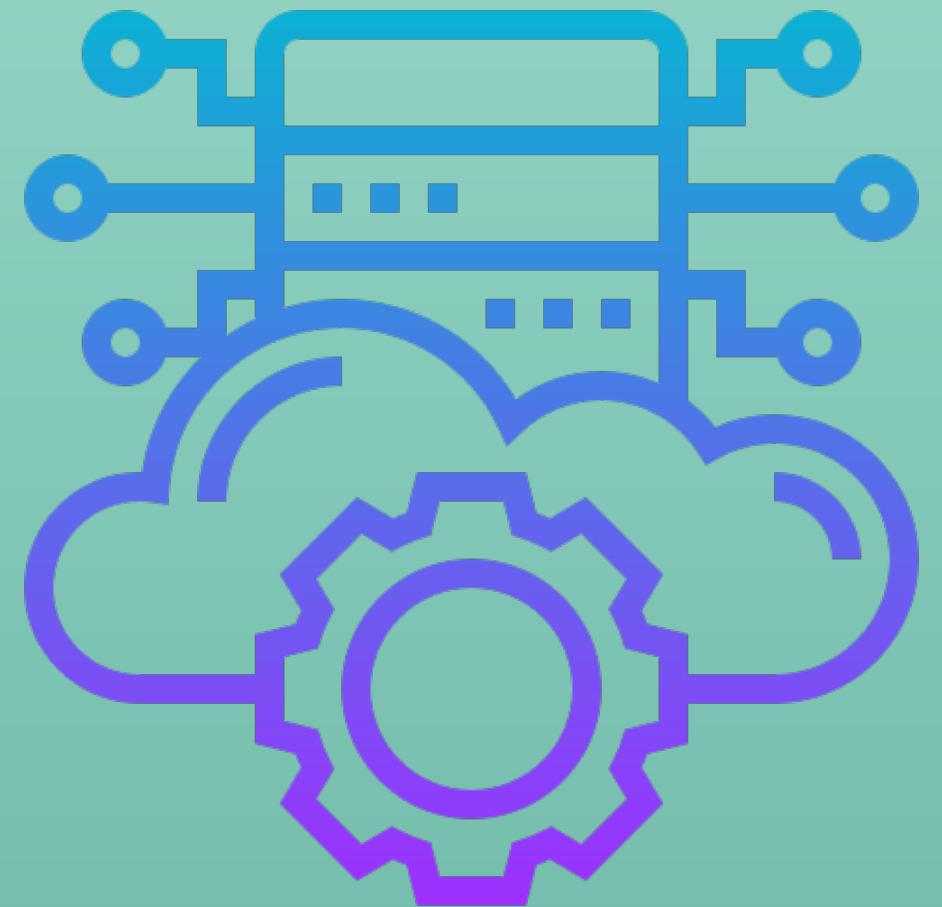


Efficiency



Strategic Value

# What is Cloud Computing?



# Acronym-Extravaganza

## Types of Cloud Services

- IaaS - *Infrastructure as a Service*  
Technical infrastructure maintained by provider, such as Networking, Physical Machines, Power, etc.
- PaaS - *Platform as a Service*  
Focus on the code and not about the server, operating system and storage.
- SaaS - *Software as a Service*  
Complete software packages, run and maintained by provider.
- XaaS - <You Name It> as a Service  
Backup as a service? Sure! 🍕aaS? Why not?



# Deployment



Private Cloud



Hybrid Cloud



Public Cloud

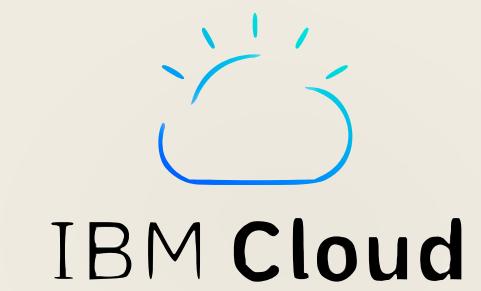


**Amazon Web Services**

# Cloud Providers



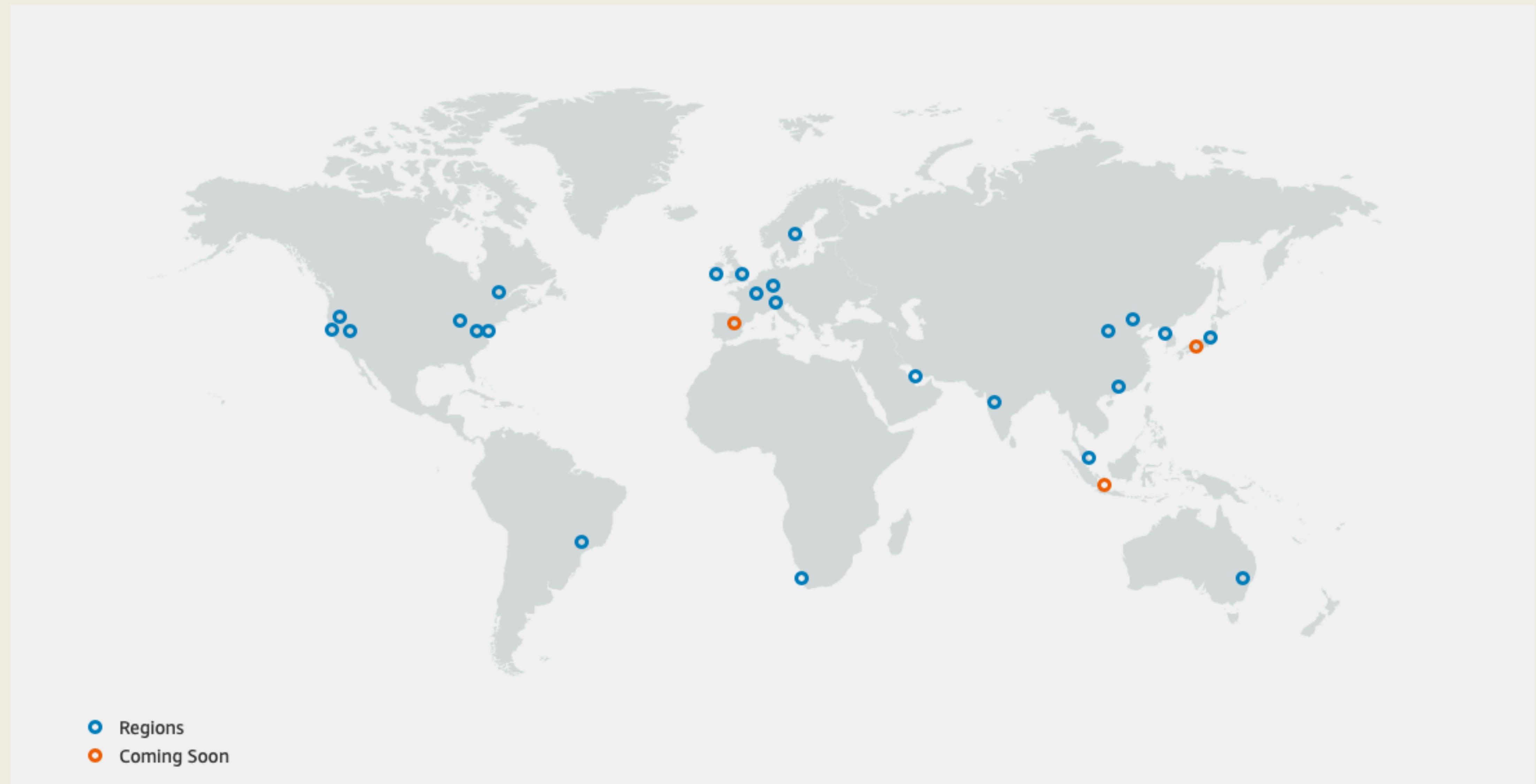
Google Cloud



# 32.4%

AWS Q4 2019 Marketshare

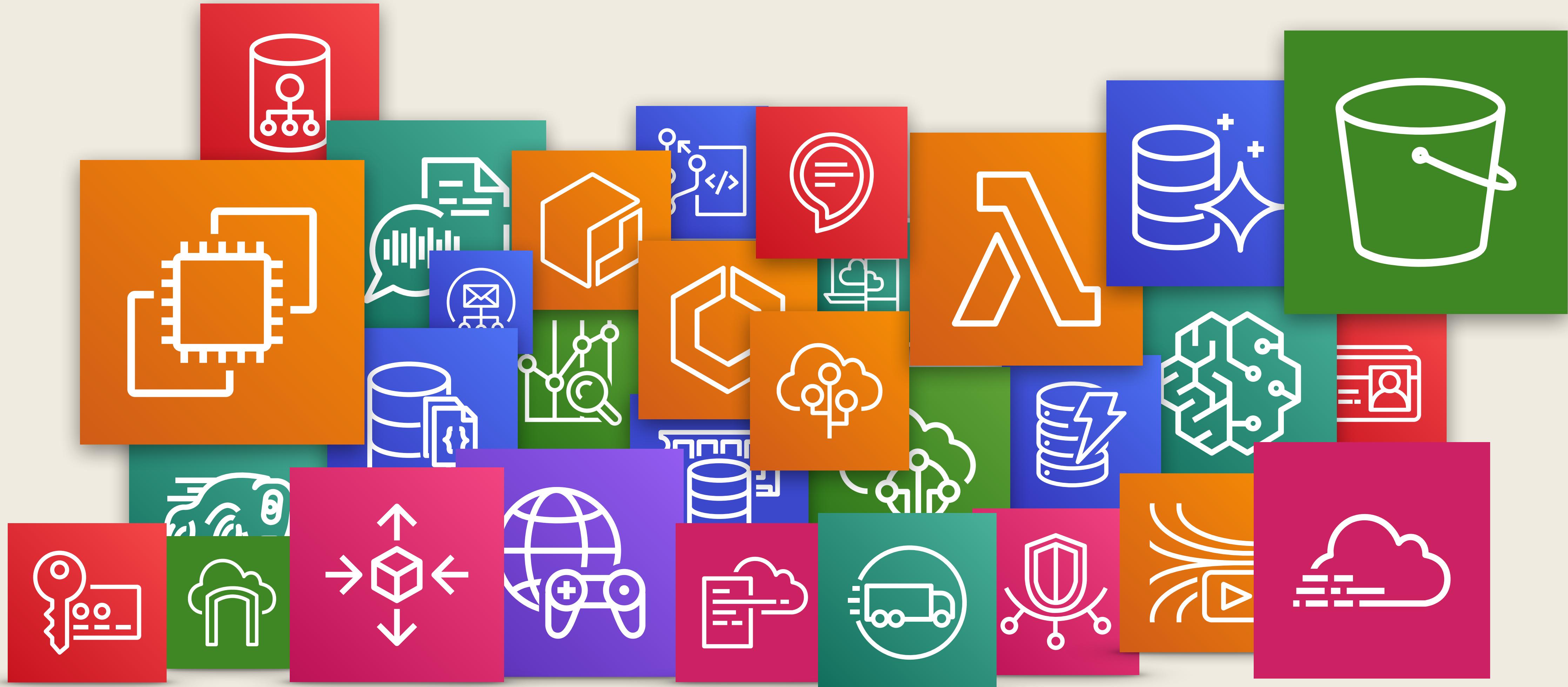
Source: Canalys Cloud Channel Analysis, January 2020



## AWS Regions

Accurate per 2020.05.30

# AWS Services



# Amazon S3

## Simple Storage Service

Object Storage

*Unlimited Storage*

99.99999999% Durability



“Buckets”

3 Storage Classes

S3 Replication

Simple Website Hosting

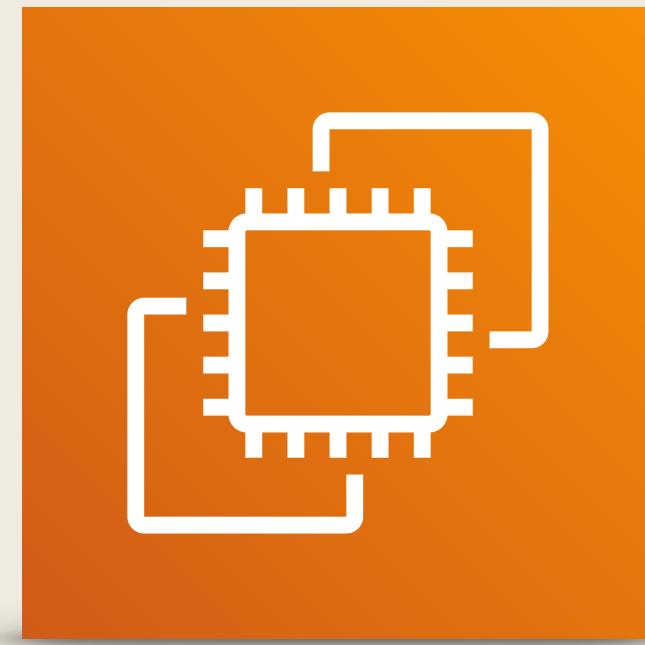
# EC2

## Amazon Elastic Compute Cloud

Virtual Machines

Placed in an AZ

Vertical and Horizontal Scaling



4 Pricing Models

AMIs

Private or publicly available

# Amazon Aurora

## Managed Relational Database

MySQL & Postgres Compatible

Five times faster than MySQL

Distributed, fault-tolerant



Instant Replication across 3-AZs

Up to 15 read replicas

Fully Managed

# AWS Lambda

## Run Code without managing servers

Serverless Compute

Pay only for compute time

Continuous Scaling



Subsecond Metering

Multiple language support

Up to 15 minutes per execution

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# AWS Free Tier



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CLOUD COMPUTING - AMAZON WEB SERVICES

# Free Stuff!

“What’s in it for me?”

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- EC2
- S3
- Elastic Beanstalk
- OpsWorks
- CodeStar
- Auto-Scaling
- Many, many more

# Free AWS Service

Always Free

Free Tier

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# 750 Hours

Amazon EC2, Per Month

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# 750 Hours

Amazon RDS, Per Month

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# 5 GB

Amazon S3, Per Month

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# 1Million

Amazon Lamdba Requests, Per Month



Questions?