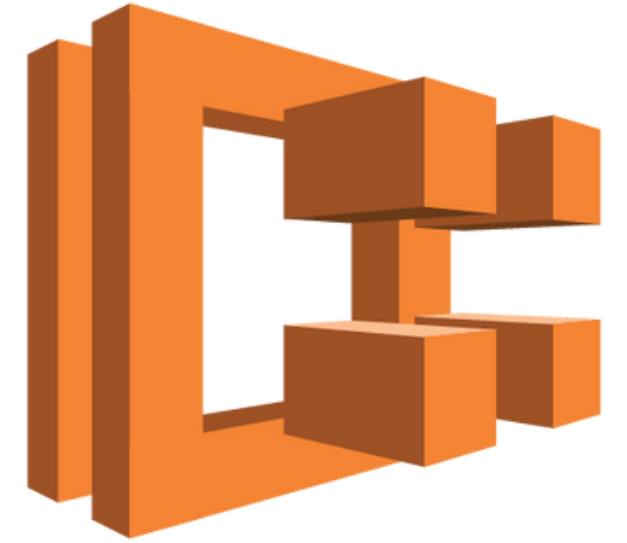# Elastic Container Service

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AWS ECS

Amazon EC2

AWS Fargate

POINTS TO BE DISCUSSED !

What is ECS?

What is EC2?

What is Fargate?

Which is better
EC2 OR Fargate?

Benefits of ECS!

WHAT IS ECS ?

- Amazon Elastic Container Service is a scalable, high-performance container orchestration service that supports Docker containers and allows you to easily run and scale containerized applications on AWS.
- There are two major models for how to run your containers on AWS:
1. EC2 (Deploy and manage your own cluster of EC2 instances for running the containers)
2. AWS Fargate (Run containers directly, without any EC2 instances)

Amazon Elastic
Container Service

WHAT IS EC2 ?

- Among the vast array of services that Amazon offers, EC2 is the core compute component of the technology stack.
- In practice, EC2 makes life easier for developers by providing secure, and resizable compute capacity in the cloud.
- It greatly eases the process of scaling up or down, can be integrated into several other services, and comes with a plan where you only pay for how much you use it.

Amazon
EC2

WHAT IS AWS FARGATE?

- AWS Fargate is a service that provisions serverless compute resources to run AWS ECS and EKS containers.
- AWS states that Fargate allows you to focus on building your applications when you let Fargate provision and manage the infrastructure required.
- You specify the resources your application needs to run and Fargate handles the provisioning of compute resources in an isolated and secure instance.

AWS **Fargate**

WHICH IS BETTER EC2 OR FARGATE?

- EC2 launch type billing is based on the cost of the underlying EC2 instances. This allows you to optimize price by taking advantage of billing models such as spot instances, or reserved instances (get a flat discount for committing to an instance for a certain time period).

- It's generally wasteful to run a tiny test environment on an EC2 instance because the EC2 instance is too powerful.

- AWS Fargate launch type billing is based on how many CPU cores, and gigabytes of memory your task requires, per second. You only ever pay for what your task uses, no more paying for EC2 capacity that goes unused.

- If your workload is small with the occasional burst, such as a website that has traffic during the day but low traffic at night, then AWS Fargate is a fantastic choice.

WHAT IS AWS FARGATE?

- <u>Serverless by default with AWS Fargate:</u> AWS Fargate is built into Amazon ECS, which means you no longer have to worry about managing servers, handling capacity planning, or figuring out how to isolate container workloads for security. Just define your application's requirements, select Fargate as your launch type in the console or Command Line Interface (CLI), and Fargate takes care of all the scaling and infrastructure management required to run your containers.

- <u>Amazon ECS Anywhere:</u> With ECS Anywhere, you can use the same familiar Amazon ECS console and operator tools to manage your on-premises container workloads for a consistent experience across your container-based applications. The AWS Systems Manager (SSM) integration automatically and securely establishes trust between your on-premises hardware and the AWS control plane.

WHAT IS AWS FARGATE?

- Security and isolation by design: Amazon ECS natively integrates with the Security, Identity, and Management and Governance tools you already trust, which helps you get to production quickly and successfully. You can assign granular permissions for each of your containers, giving you a high level of isolation when building your applications. Launch your containers with the security and compliance levels you have come to expect from AWS.

- Autonomous control plane operations: Amazon ECS is a fully-managed container orchestration service, with AWS configuration and operational best practices built-in, and no control plane, nodes, or add-ons for you to manage. It natively integrates with both AWS and third-party tools to make it easier for teams to focus on building the applications, not the environment.

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REACH OUT

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Thank You !!!