**Elastic Container Service** Description

## Service Overview

Amazon **Elastic Container Service** (Amazon **ECS**) is a highly scalable, fast container management service that makes it easy to run, stop, and manage containers on a cluster. Your containers are defined in a task definition that you use to run individual tasks or tasks within a service. In this context, a service is a configuration that enables you to run and maintain a specified number of tasks simultaneously in a cluster. You can run your tasks and services on a serverless infrastructure that is managed by AWS Fargate. Alternatively, for more control over your infrastructure, you can run your tasks and services on a cluster of Amazon EC2 instances that you manage.

## Use cases / Considerations

Amazon Elastic Container Service (Amazon ECS) is a highly scalable, fast container management service that makes it easy to run, stop, and manage containers on a cluster. Your containers are defined in a task definition that you use to run individual tasks or tasks within a service. In this context, a service is a configuration that enables you to run and maintain a specified number of tasks simultaneously in a cluster. You can run your tasks and services on a serverless infrastructure that is managed by AWS Fargate. Alternatively, for more control over your infrastructure, you can run your tasks and services on a cluster of Amazon EC2 instances that you manage.

Amazon ECS enables you to launch and stop your container-based applications by using simple API calls. You can also retrieve the state of your cluster from a centralized service and have access to many familiar Amazon EC2 features.

You can schedule the placement of your containers across your cluster based on your resource needs, isolation policies, and availability requirements. With Amazon ECS, you don't have to operate your own cluster management and configuration management systems or worry about scaling your management infrastructure.

* [*Amazon ECS: Core Concepts*](https://youtu.be/eq4wL2MiNqo)
* [*Writing Task Definitions for Amazon ECS*](https://youtu.be/o_qSS4S1g34)
* [*Task Placement with Amazon ECS*](https://youtu.be/8XwNPX4AV2M)
* [*Amazon ECS: Load Balancing for Containers*](https://youtu.be/hu7SyJHWJZ0)
* [*Amazon ECS: Autoscaling for Containers*](https://youtu.be/YEvU6uIckDc)

[*Common use cases*](https://docs.aws.amazon.com/AmazonECS/latest/developerguide/common_use_cases.html)

## Governance

[*Available CloudWatch metrics*](https://docs.aws.amazon.com/AmazonECS/latest/developerguide/cloudwatch-metrics.html)

## Cautions

[*Relevant quotas*](https://docs.aws.amazon.com/AmazonECS/latest/developerguide/service-quotas.html)

## Pricing considerations

Pricing for EC2 and Fargate launch model is available on [this page](https://aws.amazon.com/ecs/pricing/)

## More details

[*Containers Roadmap*](https://github.com/aws/containers-roadmap)

[*AWS re:Invent 2020: Getting up and running with Amazon ECS*](https://youtu.be/9u_HKS_Lv6o)

[*AWS re:Invent 2019: [NEW LAUNCH!] Enabling application-first thinking with Amazon ECS (CON325-R1)*](https://youtu.be/v9xuKAdShFw)[*AWS re:Invent 2019: [REPEAT 1] AWS Fargate under the hood (CON423-R1)*](https://youtu.be/Hr-zOaBGyEA)

[*Deep Dive into AWS Fargate*](https://youtu.be/IEvLkwdFgnU)

[*Deep Dive on Amazon Amazon Elastic Container Service (Amazon ECS)*](https://youtu.be/qbEPae8YNbs)