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How To Setup Amazon Web Service (AWS) ECS?

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Amazon ECS is a popular Cloud Computing service that is used for more efficient cloud-based container management. Amazon ECS makes it easier to build apps without being limited by physical hardware resources. In this article, we will guide you through setting up and running the ECS service and show you how it takes advantage of scalability and efficiency.

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What Is Amazon ECS?

Amazon Elastic Container Service ([Amazon ECS](#)) is a cloud-based container [orchestration service](#) provided by [Amazon Web Services \(AWS\)](#). It facilitates in simplifying the deployment and management of containerized applications. It allows users to seamlessly run and scale their applications without having any complexities of traditional infrastructure.

ECS comes up with supporting [Docker containers](#) facilitating an efficient and flexible utilization of computing resources in the AWS cloud. This ECS service allows the users to focus completely on developing and running applications without worrying about the underlying infrastructure. It makes containerized application deployment a seamless and scalable experience.

How To Setup Amazon ECS?

Setting up the Amazon ECS is a optimized process for improving the user's efficiency in managing the containers in the cloud. It acts as a main component in AWS facilitating the deployment of applications without having complex

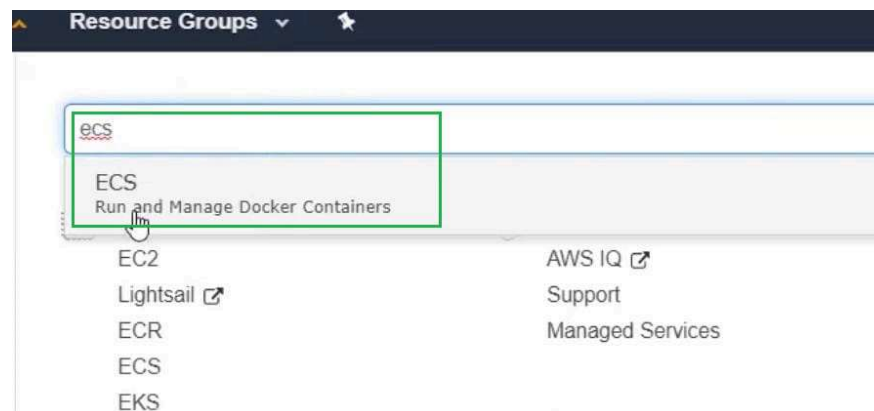
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AWS will manages availability of underlying infrastructure making the user's management easy. The following section guides you in setting up of Amazon ECS.

How Do I Step Up ECS On AWS : A Step-By-Step Guide

Step 1: Login In To AWS Account

- Firstly navigate to AWS console login and login into their [AWS account](#) with your credentials.
- Search for the [ECS](#) in the search Box from the home page.
- Then click on Amazon ECS service to redirect to that service page.



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Step 2: Create A Cluster

- After landing on Amazon ECS service, You can see two options as shown in the screenshot.
- Among those buttons, Click on the **Get Started** Button.



Step 3: Select Container Type

- Now you will find different types of containers presenting here.
- Click on the **Sample-App** container category & the next window will be processed automatically.

Skip to content

Container definition Edit

Choose an image for your container below to get started quickly or define the container image to use.

| | |
|---|---|
| sample-app image : httpd:2.4 memory : 0.5GB (512) cpu : 0.25 vCPU (256) | nginx image : nginx:latest memory : 0.5GB (512) cpu : 0.25 vCPU (256) |
| tomcat-webserver image : tomcat memory : 2GB (2048) cpu : 1 vCPU (1024) | custom Configure image : -- memory : -- cpu : -- |

Step 4: Configuring Task Definition

- Now, the Task Definition window will open. The default name will already be provided there.
- Users can rename the default name by clicking on the **Edit option** in the corner. But users should only make changes to the Name field.
- All other information should be complete and present there. Otherwise, It will raise some errors while creating Amazon ECS.
- After reviewing it click on the **Next** button.

Skip to content

Task definition Edit

A task definition is a blueprint for your application, and describes one or more containers through attributes. Some attributes are configured at the task level but the majority of attributes are configured per container.

| | | |
|----------------------|-----------------|---|
| Task definition name | task-definition | ? |
| Network mode | awsvpc | ? |
| Task execution role | Create new | ? |
| Compatibilities | FARGATE | ? |
| Task memory | 0.5GB (512) | |
| Task CPU | 0.25 vCPU (256) | |

*Required Cancel Next

Step 5: Define Service Parameters

- In the next window, users will get the fields for defining the Service. There will be the default name of the service present.
- If needed, users can change the default name by clicking on the **Edit button**. But users should not make any changes to the other fields.
- After that, users click on the **Next button** & move ahead.

Skip to content

Define your service

Edit

A service allows you to run and maintain a specified number (the "desired count") of simultaneous instances of a task definition in an ECS cluster.

Service name sample

Number of desired tasks 1

Security group Automatically create new

Two security groups are created to secure your service: An Application Load Balancer security group that allows all traffic on the Application Load Balancer port and an Amazon ECS security group that allows all traffic ONLY from the Application Load Balancer security group. You can further configure security groups and network access outside of this wizard.

Load balancer type ☐ None☒ Application Load Balancer

Load balancer listener port 80

Load balancer listener protocol HTTP

*Required

Cancel

Previous

Next

Step 6: Name Your Cluster

- At the end, users have to **provide** the name of the Cluster.
- After providing the name, click on the **Next button** to finish the task.

Configure your cluster

The infrastructure in a Fargate cluster is fully managed by AWS. Your containers run without you managing and configuring individual Amazon EC2 instances.

To see key differences between Fargate and standard ECS clusters, see the Amazon ECS documentation.

Cluster name

Cluster names are unique per account per region. Up to 255 letters (uppercase and lowercase), numbers, and hyphens are allowed.

VPC ID Automatically create new

i

Subnets Automatically create new

i

*Required

Skip to content

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Step 7: Wait For Completion

- The process of completion will take some time.
You need to wait till the process is completed.

Preparing service : 3 of 10 complete

| | |
|---|----------|
| ECS resource creation | pending |
| Cluster ECSDemo | complete |
| Task definition first-run-task-definition:1 | complete |
| Service | pending |
| Additional AWS service integrations | pending |
| Log group /ecs/first-run-task-definition | complete |
| CloudFormation stack | pending |
| VPC | pending |
| Subnet 1 | pending |
| Subnet 2 | pending |
| Security group | pending |
| Load balancer | pending |

Step 8: Verifying Cluster Creation

- After completion of the process, it will redirect the Cluster Home page from where the journey started.
- Users will find their newly created ECS cluster is now present.

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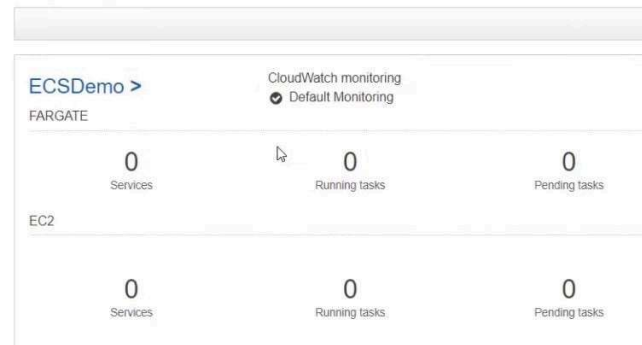
Clusters

An Amazon ECS cluster is a regional grouping of one or more container instances on which you can run task requests. You can run more than one Amazon EC2 instance type.

For more information, see the [ECS documentation](#).

[Create Cluster](#) [Get Started](#)

View [list](#) [card](#)



Hence, we have successfully set up the ECS cluster in Amazon Web Service.

AWS ECS CLI Commands

AWS ECS CLI facilitates in streamlining the ECS Cluster Management. It helps the users to deploy, scale and monitoring the containerized applications efficiently. The commands with arguments such as 'up' for resource provisioning and 'logs' helps in real time log retrivalling. ECS CLI simplifies the docker container orchestration on AWS ECS with integrating with Docker Compose enhances in seamless deployment of multi-container applications. AWS ECS CLI [Skip to content](#)

convenient development experience. The following are some of the common needed ECS CLI commands with effective explanation.

- **ecs-cli configure profile:**

This command is useful in creating and updating the profiles of ECS CLI. This profiles store the configuration settings such as AWS access key, secret key and default region.

Example

```
ecs-cli configure profile --profile-name  
myprofile --access-key <access-key> --  
secret-key <secret-key> --region <region>
```

- **ecs-cli up**

It useful for creating and updating the ECS Resources that are defined in the ECS CLI Project. This command provisions the ECS clusters, services and the task definitions based on the configuration specified in the ECS CLI Project.

Example

[Skip to content](#)

```
ecs-cli up --capability-iam --keypair  
<keypair-name>
```

- **ecs-cli compose up**

It is used in creating and updating ECS services and task definitions specially for the projects that use the Docker Compose files.

Example

```
ecs-cli compose up
```

- **ecs-cli ps**

It lists the ECS container instances that are running in the specified ECS Cluster. It facilitates with providing the information like Instance ID, ARN, status and running tasks.

Example

```
ecs-cli ps --cluster mycluster
```

- **ecs-cli service list**

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This command helps in listing the ECS services that are running in the specified ECS cluster. It facilitates with showing the details such as service name, desired count, running count and deployment status.

Example

```
ecs-cli service list --cluster mycluster
```

- **ecs-cli logs**

This command helps in retrieving the logs from the specified ECS cluster for a particular service. It supports in streaming the logs in real-time or fetching logs for a specific range of time.

Example

```
ecs-cli logs --task-id <task-id> --follow
```

- **ecs-cli compose service scale**

This commands helps in scaling the number of containers (tasks) associated with a particular service that defines the Docker compose file.

Example

[Skip to content](#)

```
ecs-cli compose service scale 3
```

- **ecs-cli compose service ps**

This command helps in listing the tasks that are associated with the defined service in the Docker compose file. It supports with showing the details such as task ID, health status and running containers with task.

Example

```
ecs-cli compose service ps
```

- **ecs-cli down**

This command helps in deleting the ECS resources that are provisioned by the ECS CLI project. It removes the ECS clusters, services task definitions and other related resources.

Example

```
ecs-cli down --force
```

[Skip to content](#)

- **ecs-cli configure logging**

This command helps in configuring the logging for the ECS CLI. It facilitates in specifying the logging options such as log driver and options for logging behaviour.

Example

```
ecs-cli configure logging --log-driver  
awslogs --region <region> --awslogs-group  
<log-group-name>
```

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Conclusion

In conclusion, In this article we went on discussing the utilization of Amazon ECS it container orchestration service functionality. we guided on setting up Amazon ECS effectively detailing about step by step. ECS helps users in streamlining their application's deployment and maintenance seamlessly. Try on implementing the setup and deploying your applications in Amazon ECS for better understanding. Happy Containerizing!

Amazon ECS – FAQs

How Do I Create An ECS In AWS?

Firstly navigate to [AWS console](#), login with your credentials, search for ECS and Clicking on the ECS Service you can create an ECS service.

What Is ECS Setup?

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ECS is a Container container orchestrating cloud-based service from AWS Cloud. Its setup involves with configuring the Amazon ECS to facilitate the deployment and management of containerized applications.

How Do I Setup An ECS Task?

By defining the task definition and specifying the container configurations and resource requirements you can set up the ECS Task.

How Do I Deploy AWS ECS?

Deploying an AWS ECS involves creating a cluster, defining a tasks with requirements and launching a service to run the specified tasks. For this AWS itself take care about underlying infrastructure for this ECS service.

[Skip to content](#)

What Is Amazon ECS Used For?

Amazon ECS is used for orchestration and management of [Docker](#) containers in the AWS cloud. It facilitates in simplifying the deployment and scalability of containerized applications. It allows users to focus on application development rather than infrastructure management.

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