

# Amazon Elastic Container Registry

A managed AWS Docker registry service.

- Amazon ECR is a regional service.

## Features

- ECR supports Docker Registry HTTP API V2 allowing you to use Docker CLI commands or your preferred Docker tools in maintaining your existing development workflow.
- ECR stores both the containers you create and any container software you buy through AWS Marketplace.
- ECR stores your container images in Amazon S3.
- ECR supports the ability to define and organize repositories in your registry using namespaces.
- You can transfer your container images to and from Amazon ECR via HTTPS.

## Components

- **Registry**
  - A registry is provided to each AWS account; you can create image repositories in your registry and store images in them.
  - The URL for your default registry is `https://aws_account_id.dkr.ecr.region.amazonaws.com`.
  - You must be authenticated before you can use your registry.
- **Authorization token**
  - Your Docker client needs to authenticate to ECR registries as an AWS user before it can push and pull images. The AWS CLI `get-login` command provides you with authentication credentials to pass to Docker.
- **Repository**
  - An image repository contains your Docker images.
  - ECR uses resource-based permissions to let you specify who has access to a repository and what actions they can perform on it.
  - **ECR lifecycle policies** enable you to specify the lifecycle management of images in a repository.
- **Repository policy**

- You can control access to your repositories and the images within them with repository policies.
- **Image**
  - You can push and pull Docker images to your repositories. You can use these images locally on your development system, or you can use them in ECS task definitions.
  - You can replicate images in your private repositories across AWS regions.

## **Amazon Elastic Container Registry Security**

- By default, IAM users don't have permission to create or modify Amazon ECR resources, or perform tasks using the Amazon ECR API.
- Use IAM policies to grant or deny permission to use ECR resources and operations.
- ECR partially supports resource-level permissions.
- ECR supports the use of customer master keys (CMK) managed by AWS Key Management Service (KMS) to encrypt container images stored in your ECR repositories.

## **Amazon Elastic Container Registry Pricing**

- You pay only for the amount of data you store in your repositories and data transferred to the Internet.

## **Amazon Elastic Container Registry**

### **References:**

<https://docs.aws.amazon.com/AmazonECR/latest/userguide/>

<https://aws.amazon.com/ecr/features/>

<https://aws.amazon.com/ecr/pricing/>

<https://aws.amazon.com/ecr/faqs/>