



1 Definition ECS Amazon Elastic Container Service (Amazon ECS) is a fully managed container orchestration service

- 2 What is a Container ?
- 1 A container is a standard unit of software that packages up code and all its dependencies so the application runs quickly and reliably from one computing environment to another.
 - 2 Container is One Type Of Light Weight Virtual Machine
 - 3 OS Based Virtual Machine

3 What is Docker

- 1 Docker is a set of platform as a service (PaaS) products that use OS-level virtualization to deliver software in packages called containers

History [\[edit \]](#)

Docker Inc. was founded by Solomon Hykes and Sebastien Pahl during the Y Combinator Summer 2010 startup incubator group and launched in 2011.^[10] Hykes started the Docker project in France as an internal project within dotCloud, a platform-as-a-service company.^[11]

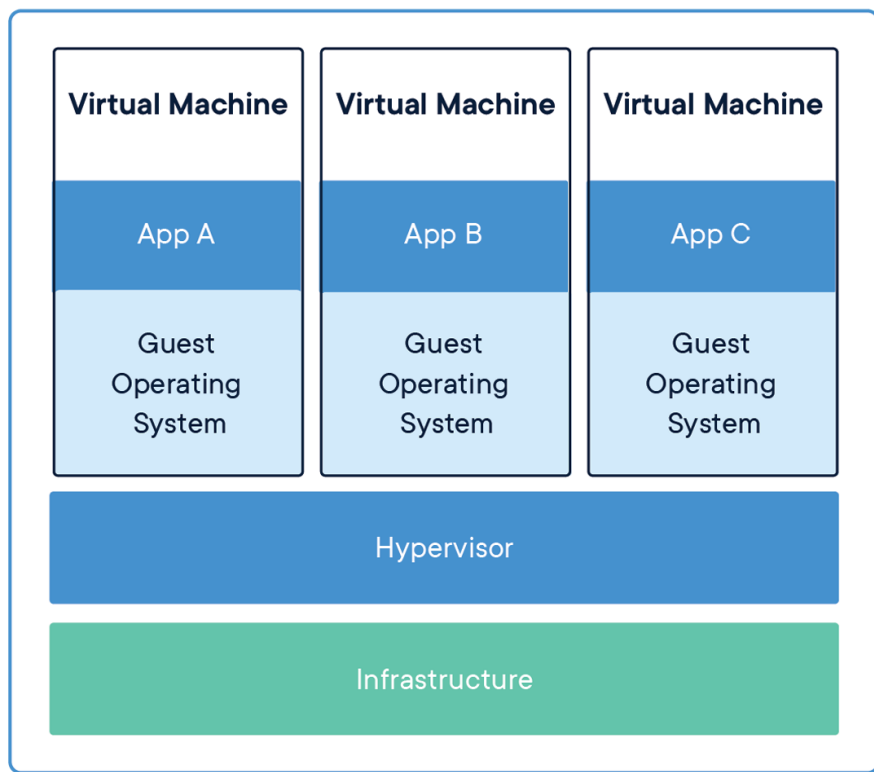
Docker debuted to the public in Santa Clara at PyCon in 2013.^[12] It was released as open-source in March 2013.^[13] At the time, it used LXC as its default execution environment. One year later, with the release of version 0.9, Docker replaced LXC with its own component, which was written in the Go programming language.^{[14][15]}

In 2017, Docker created the Moby project for open research and development.^[16]

Subtopic

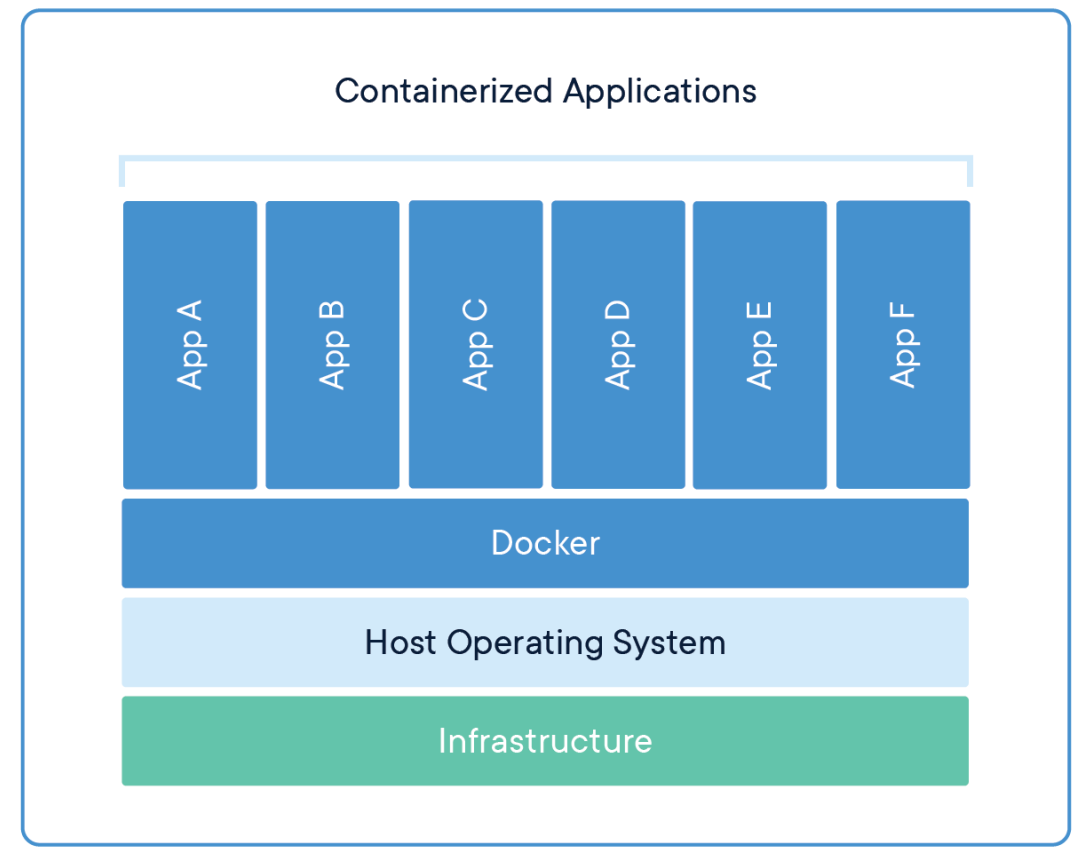
4 Virtual Machine V/S Container

1 Virtual Machine

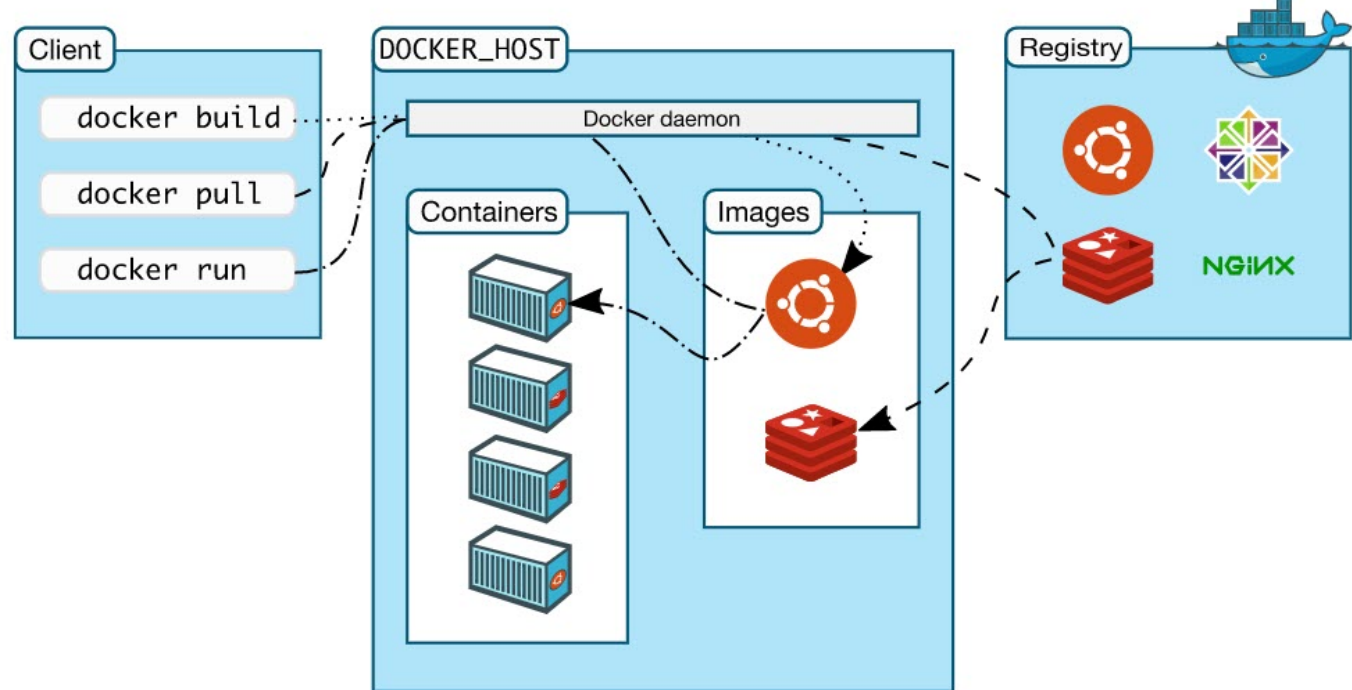


Subtopic

2 Container



5 Docker Characteristics



1 Docker Host A Docker host is a physical computer system or virtual machine running Host OS. This can be your laptop, server or virtual machine in your data center, or computing resource provided by a cloud provider.

- 2 Docker Engine / Daemon
- 1 A server which is a type of long-running program called a daemon process (the dockerd command).
 - 2 A REST API which specifies interfaces that programs can use to talk to the daemon and instruct it what to do.

3 Docker Client A command line interface (CLI) client (the docker command).

- 4 Docker registries A Docker registry stores Docker images
- 1 Public
 - Docker Hub is a public registry that anyone can use,
 - Its Default
 - 2 Private
 - For Enterprise Users
 - Limited Use Of Own Enterprise

5 Docker Container Vs Image

- Container
 - 1 A container is a runnable instance of an image.
 - 2 You can create, start, stop, move, or delete a container using the Docker API or CLI.
 - 3 You can connect a container to one or more networks, attach storage to it, or even create a new image based on its current state.
 - 4 By default, a container is relatively well isolated from other containers and its host machine.
- Images
 - 1 An image is a read-only template with instructions for creating a Docker container.
 - 2 Often, an image is based on another image, with some additional customization.
 - 3 You might create your own images or you might only use those created by others and published in a registry.
 - 4 To build your own image, you create a Dockerfile with a simple syntax for defining the steps needed to create the image and run it.

6 Advantage Vs Disadvantage

- Advantage
 - Light Weight / Better RAM Utilization Than Virtual Machine / Virtual run on any Platform / speed
- Disadvantage
 - Cross Platform is Biggest Problem/Supports command line Application only