

Docker

Containers are not VMs

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Containers

Container technology allows multiple isolated user space instances to be run on a single host.

Containers are less flexible: they can only run the same or a similar guest operating system as the underlying host.

Less secure: recent the security updated.

Namespace

Namespaces are a feature of the **Linux** kernel that isolates and virtualizes system resources of a collection of processes.

Containers are powered by linux namespace.

PID namespace

MNT namespace

IPC namespace

NET namespace

USR namespace

chroot() and cgroups

etc....

https://en.wikipedia.org/wiki/Linux_namespaces

Docker

Open source engine that automates the deployment of applications into containers and simplifies distribution of container images by providing infrastructure tools.

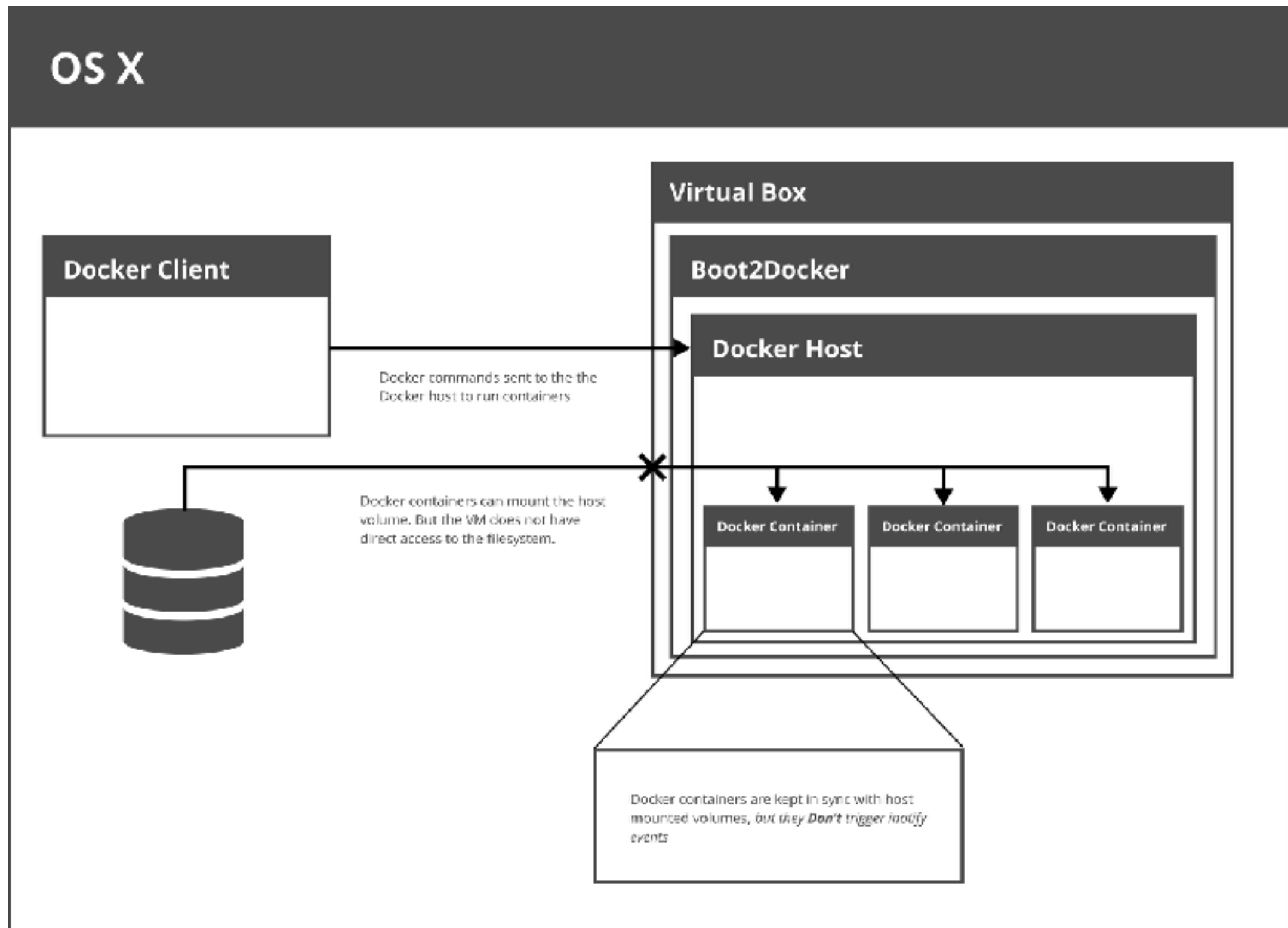
Docker components

- Docker engine (Client and Server)
- Docker Images
- Docker Registries
- Docker Containers

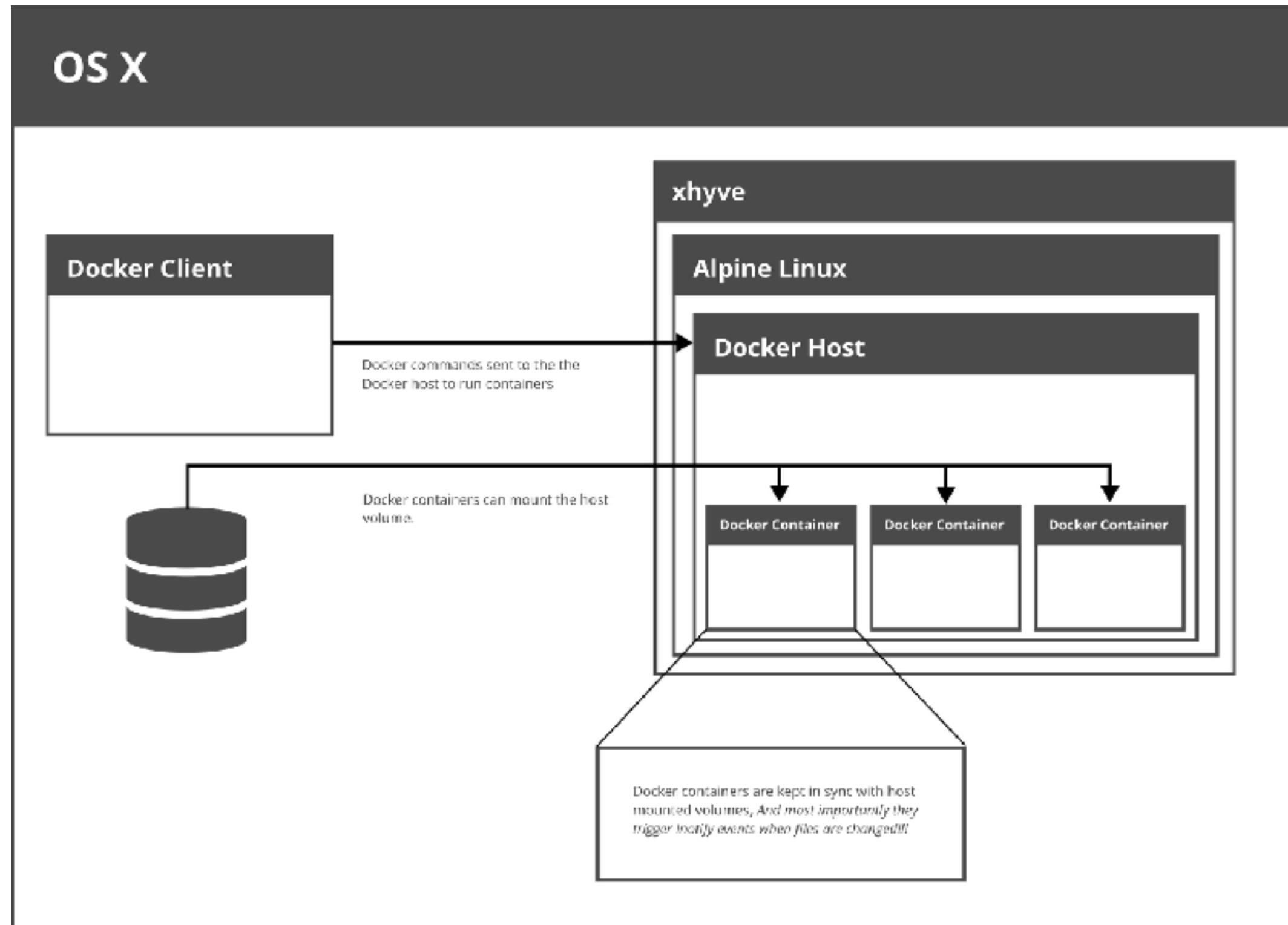
Docker tools

- Compose
- Machine
- Kitematic
- Stack

Docker OSX Virtual Box



Docker OSX xhyve



- <https://hharnisc.github.io/2016/06/16/developing-inside-docker-containers-with-osx-2016.html>
- <https://github.com/mist64/xhyve>
- <https://github.com/moby/hyperkit>