

Lesson: Docker

July 21, 2021



Docker/Container

- Simply another process on your machine
- Completely isolated from other processes
- Container-isolated file system
- Image contains container file system that is required to run application

Why Docker

- Isolation
- Lightweight
- Simplicity
- Community

Docker CLI

- Docker build
- Docker images
- Docker run
- Docker ps
- Docker stop
- Docker rm
- Docker rmi

Docker Hub

- <https://hub.docker.com/>
- Singup, you will be creating an image and pushing to docker hub

Multiplicity of
methods for
transporting/storing

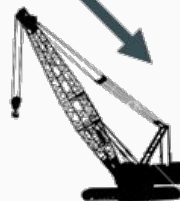
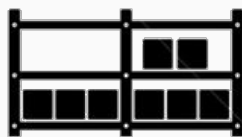
Multiplicity of Goods



A standard container that is loaded with virtually any goods, and stays sealed until it reaches final delivery.

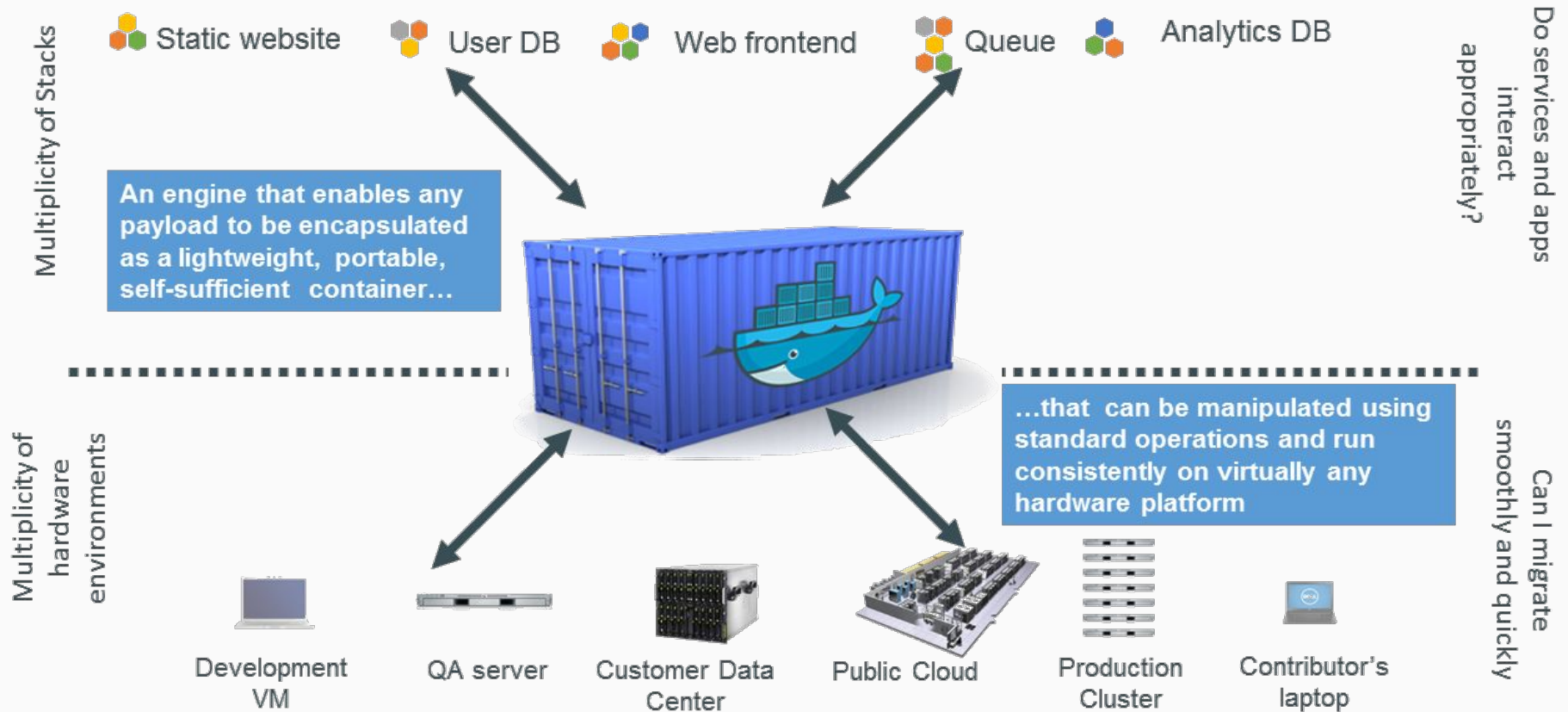


...in between, can be loaded and unloaded, stacked, transported efficiently over long distances, and transferred from one mode of transport to another



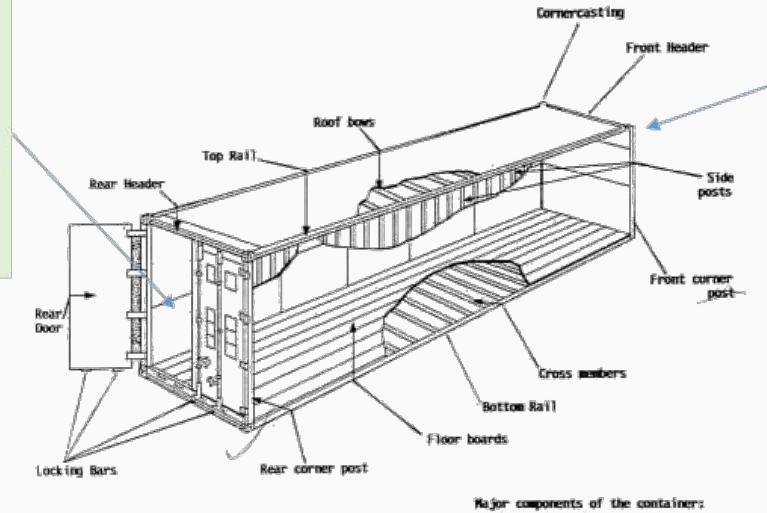
Can I transport
quickly and smoothly
(e.g. from boat to
train to truck)

Do I worry about
how goods interact
(e.g. coffee beans
next to spices)



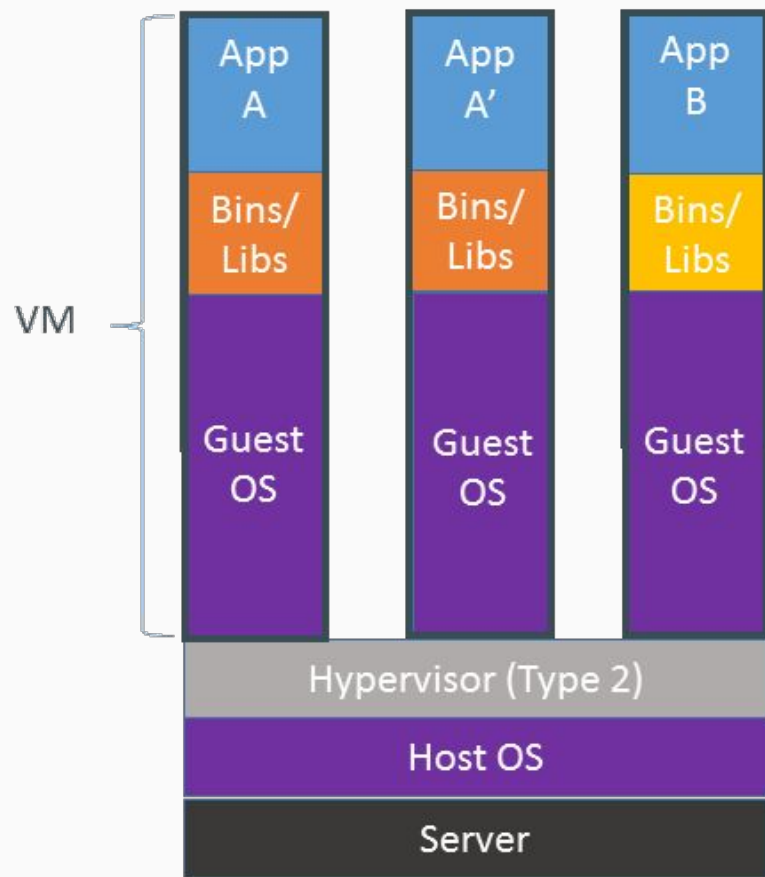
- **Dan the Developer**

- Worries about what's "inside" the container
 - His code
 - His Libraries
 - His Package Manager
 - His Apps
 - His Data
- All Linux servers look the same



- **Oscar the Ops Guy**

- Worries about what's "outside" the container
 - Logging
 - Remote access
 - Monitoring
 - Network config
- All containers start, stop, copy, attach, migrate, etc. the same way



Containers are isolated,
but share OS and, where
appropriate, bins/libraries

...result is significantly faster deployment,
much less overhead, easier migration,
faster restart

