umbler
JS
php7

- Formado em Sistemas de Informação
- 12+ trabalhando com infra
- Umbler
- Co-fundador do @mundodocker

(Ops, Devs, Linux, Windows, Cloud, Container, BF e Minecraft)

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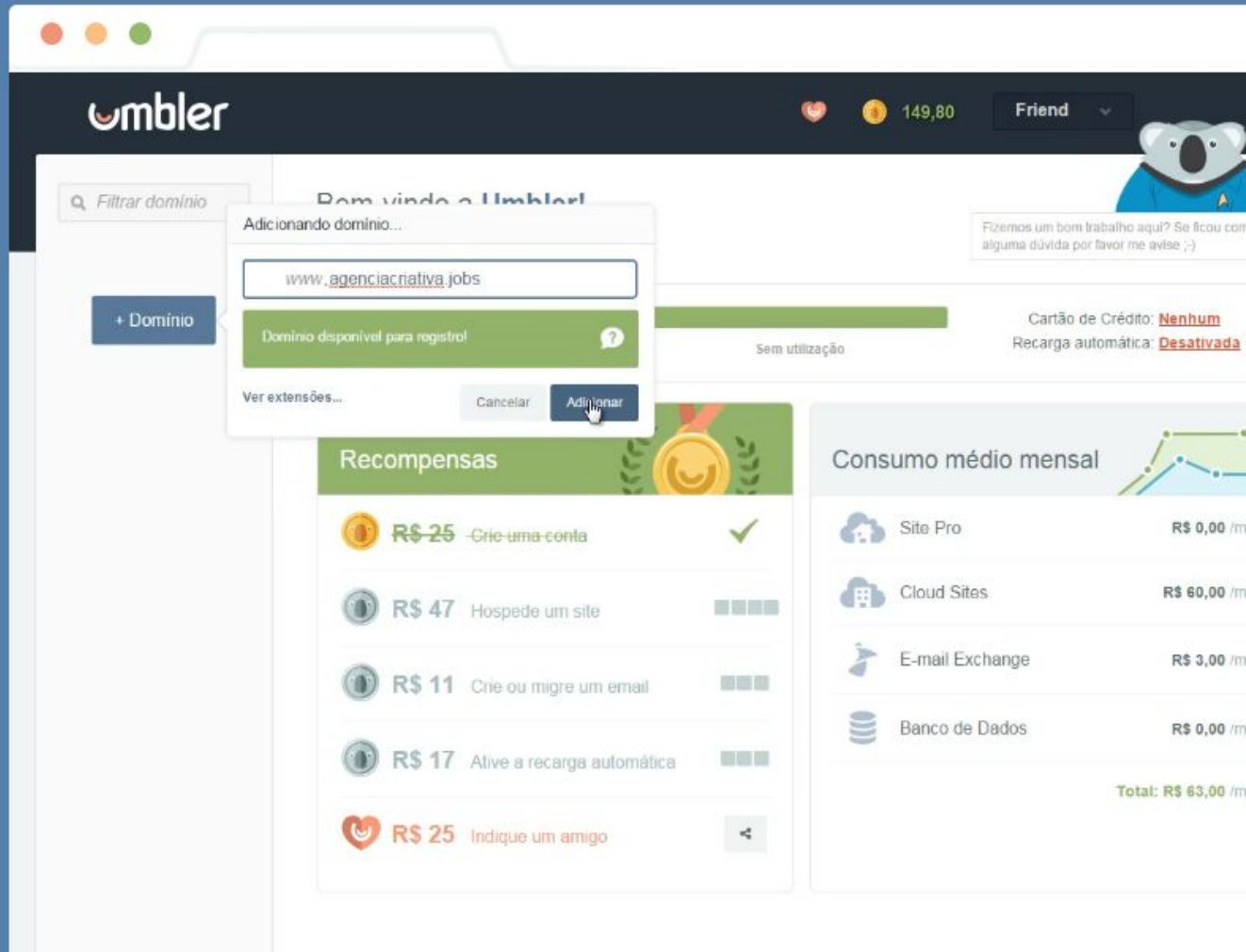
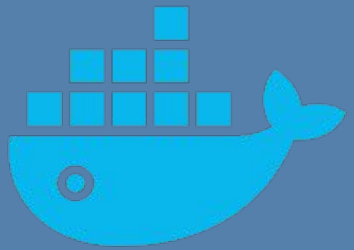
Cloud Hosting para agências e devs

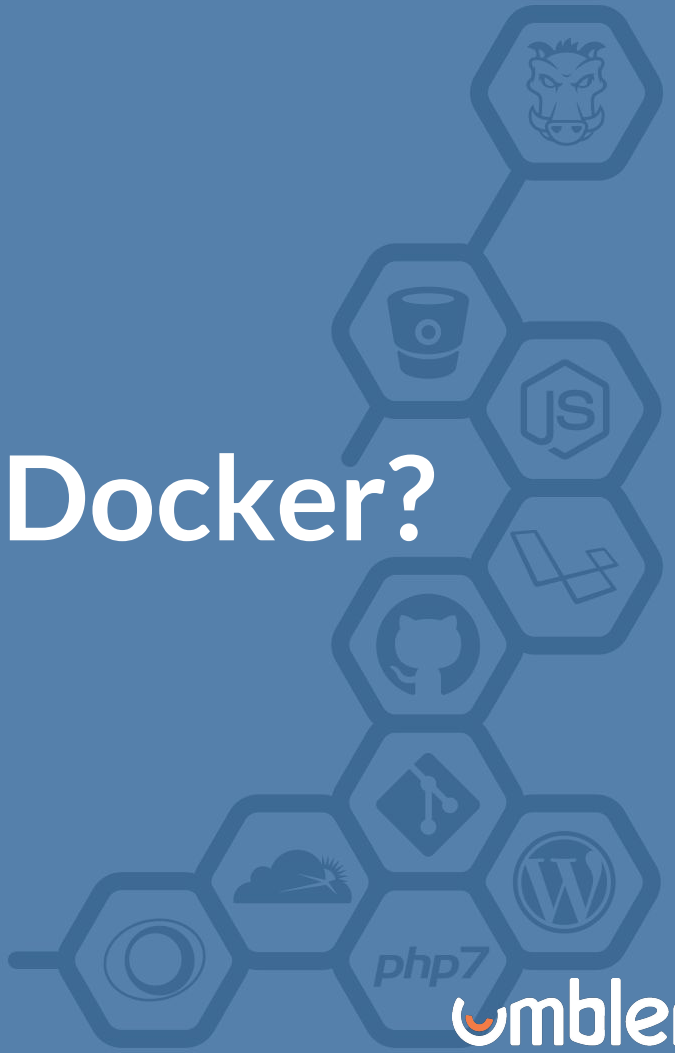
Seu site e emails no ar em 2 minutos.

Experimente grátis!



Vamos Jogar com Docker?





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Cronograma

1. A origem
2. A evolução
3. Orquestração
4. Hand’s on
5. Automação

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A origem

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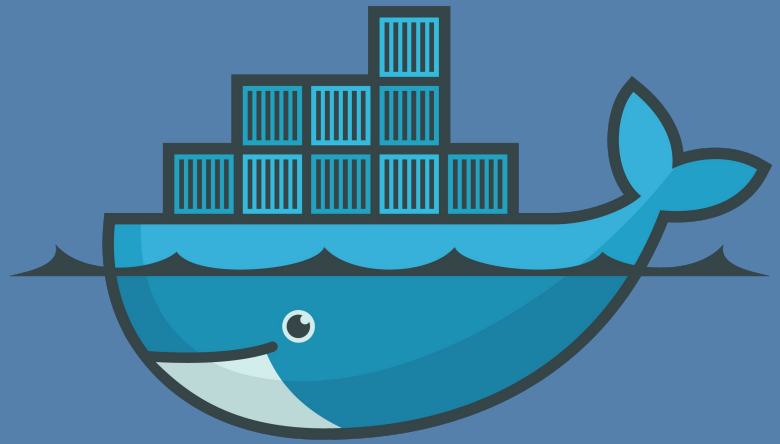

docker

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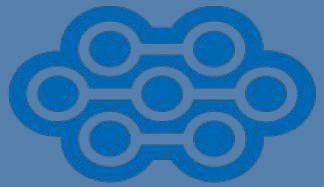

dotCloud

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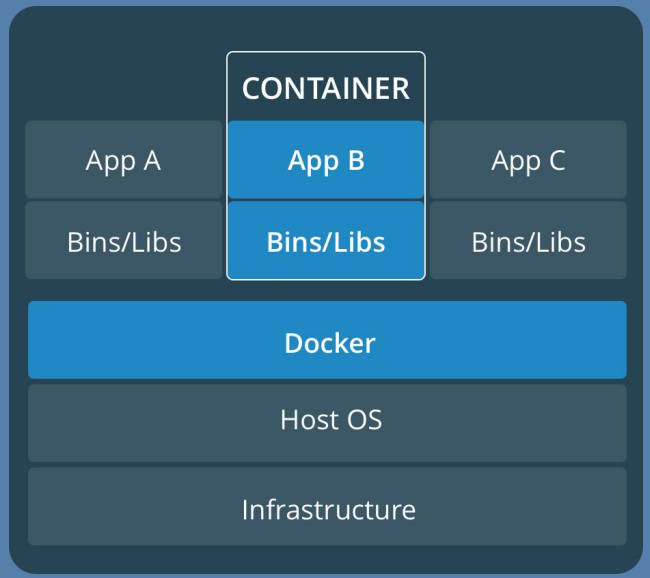
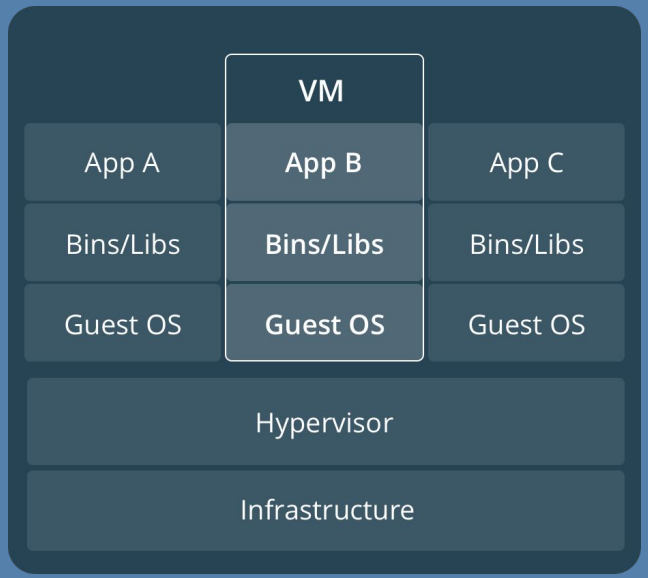

CONTAINER
App A
App B
App C
Bins/Libs
Bins/Libs
Bins/Libs
Docker
Host OS
Infrastructure


VM
App A
App B
App C
Bins/Libs
Bins/Libs
Bins/Libs
Guest OS
Guest OS
Guest OS
Hypervisor
Infrastructure

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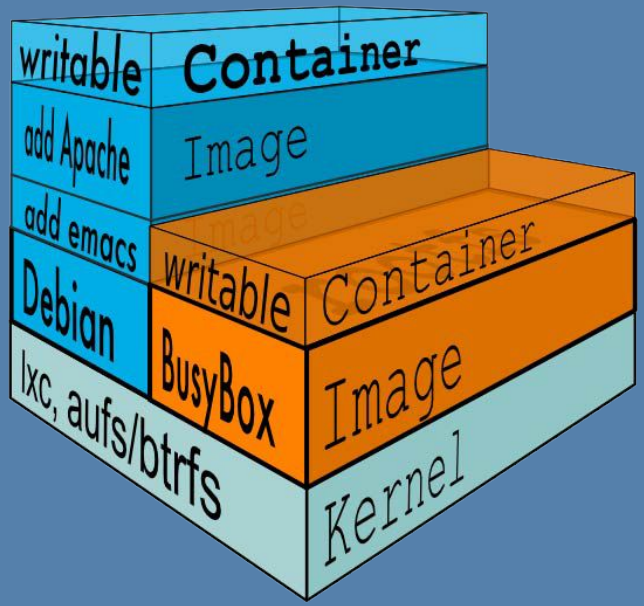
writable
Container
add Apache
Image
add emacs
writable
Container
Debian
BusyBox
Image
lxc, aufs/btrfs
Kernel

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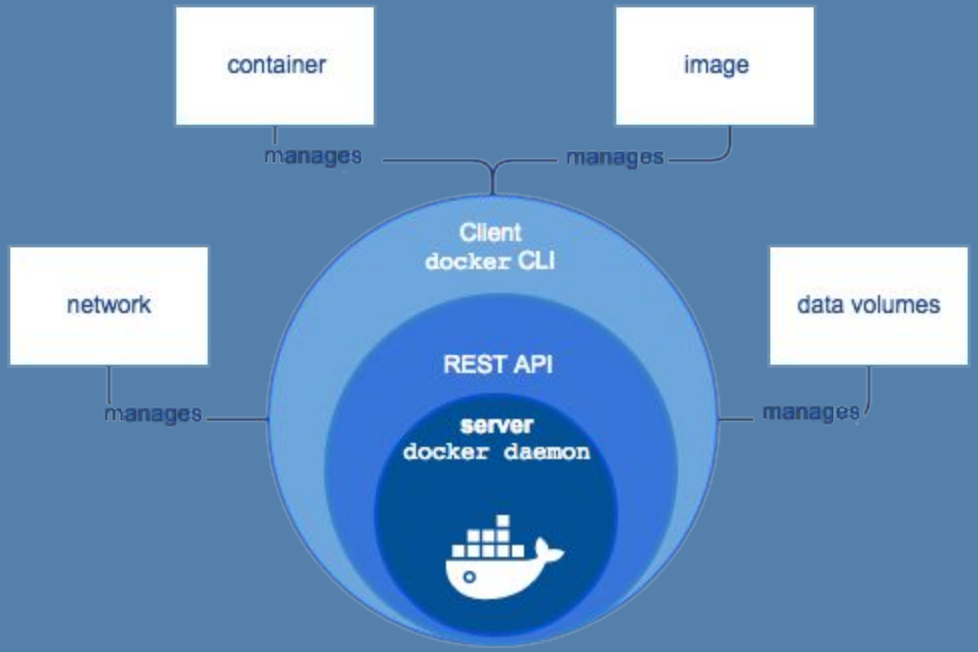
container
image
manages
manages
Client
docker CLI
network
data volumes
REST API
manages
manages
server
docker daemon

A evolução

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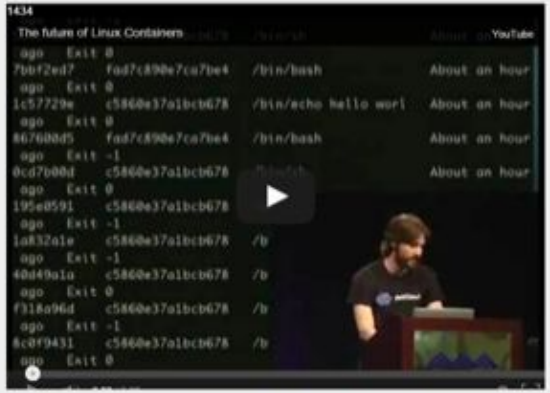
DOCKER

Docker

The Linux container runtime

Docker complements LXC with a high-level API which operates at the process level. It runs unix processes with strong guarantees of isolation and repeatability across servers.

Docker is a great building block for automating distributed systems: large-scale web deployments, database clusters, continuous deployment systems, private PaaS, service-oriented architectures, etc.



Let's get started

Heterogeneous payloads

Any server

Isolation

Repeatability

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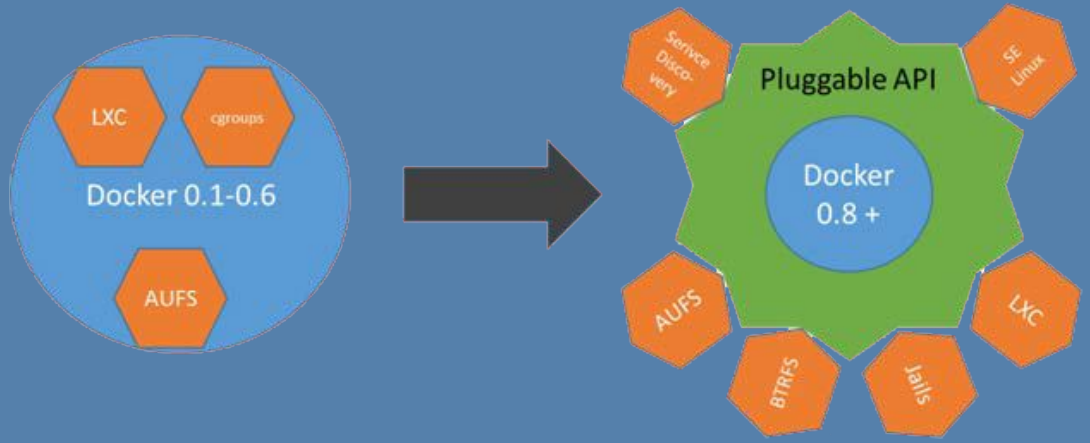
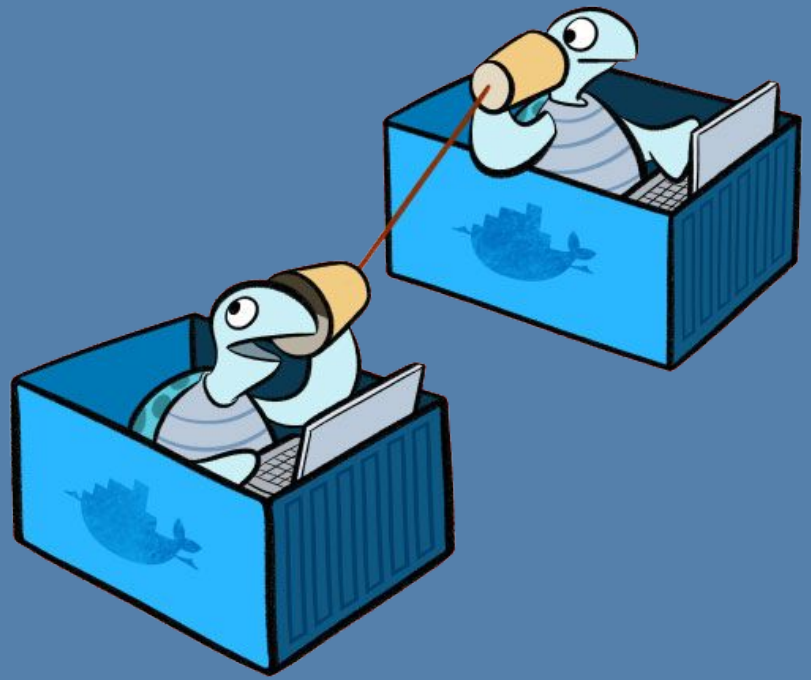

LXC
cgroups
Docker 0.1-0.6
AUFS
Service Disco-very
Pluggable API
SE Linux
Docker 0.8 +
AUFS
LXC
BTRFS
Jails



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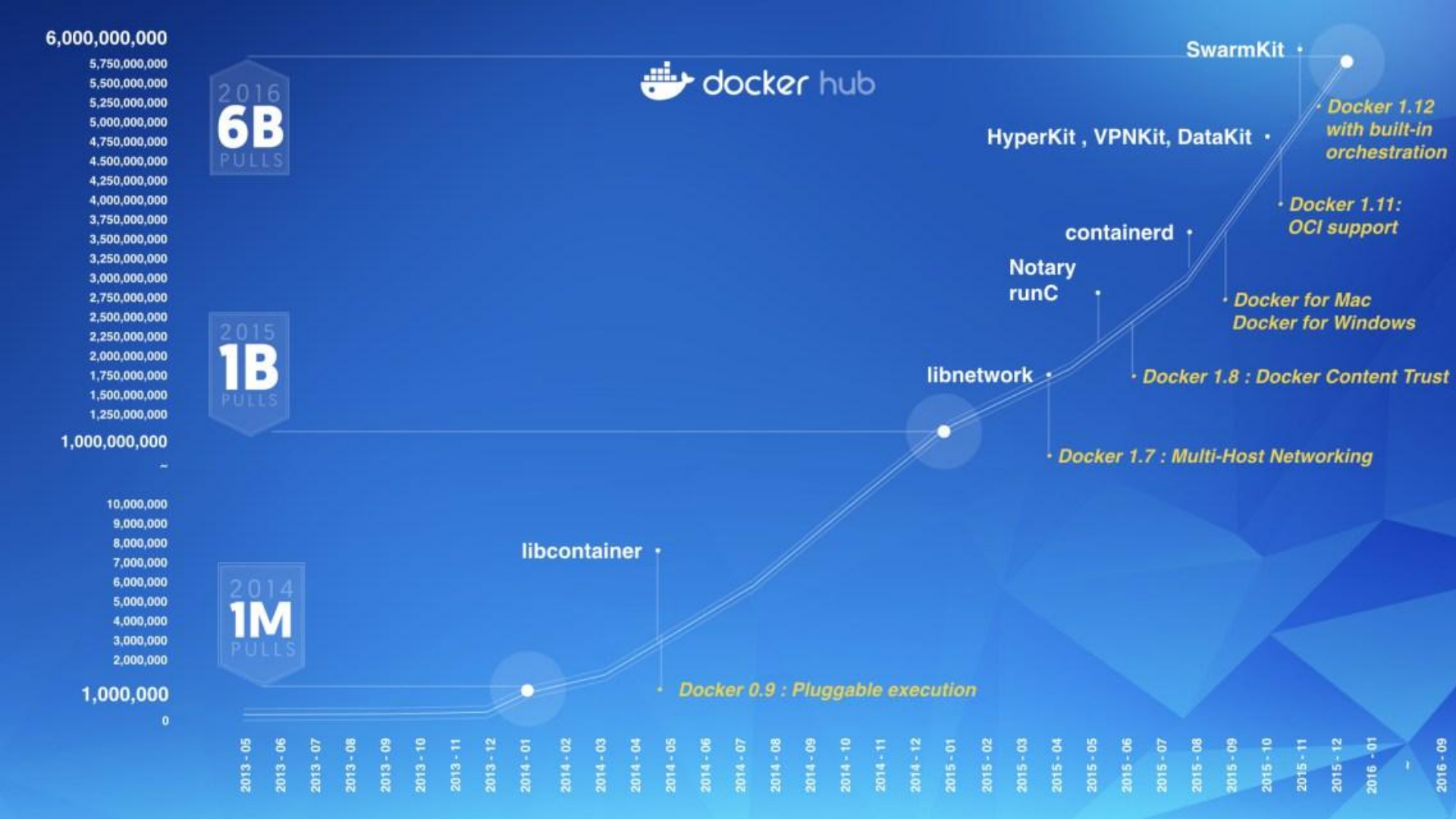
6,000,000,000
5,750,000,000
5,500,000,000
5,250,000,000
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6,000,000
5,000,000
4,000,000
3,000,000
2,000,000
1,000,000
0
2016 6B PULLS
2015 1B PULLS
2014 1M PULLS
docker hub
SwarmKit
Docker 1.12 with built-in orchestration
HyperKit , VPNKit, DataKit
Docker 1.11: OCI support
containerd
Notary
runC
Docker for Mac
Docker for Windows
libnetwork
Docker 1.8 : Docker Content Trust
Docker 1.7 : Multi-Host Networking
libcontainer
Docker 0.9 : Pluggable execution
2013 - 05
2013 - 06
2013 - 07
2013 - 08
2013 - 09
2013 - 10
2013 - 11
2013 - 12
2014 - 01
2014 - 02
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2014 - 09
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2014 - 11
2014 - 12
2015 - 01
2015 - 02
2015 - 03
2015 - 04
2015 - 05
2015 - 06
2015 - 07
2015 - 08
2015 - 09
2015 - 10
2015 - 11
2015 - 12
2016 - 01
2016 - 09

Orquestração

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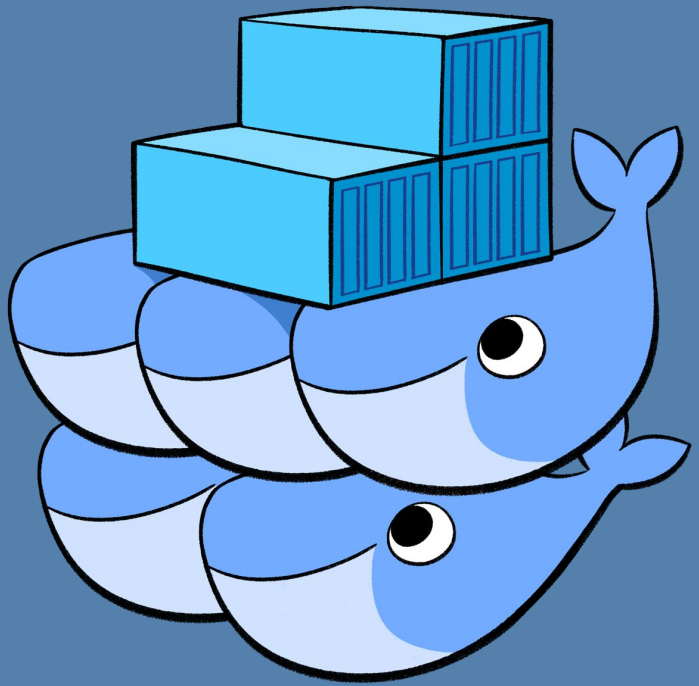

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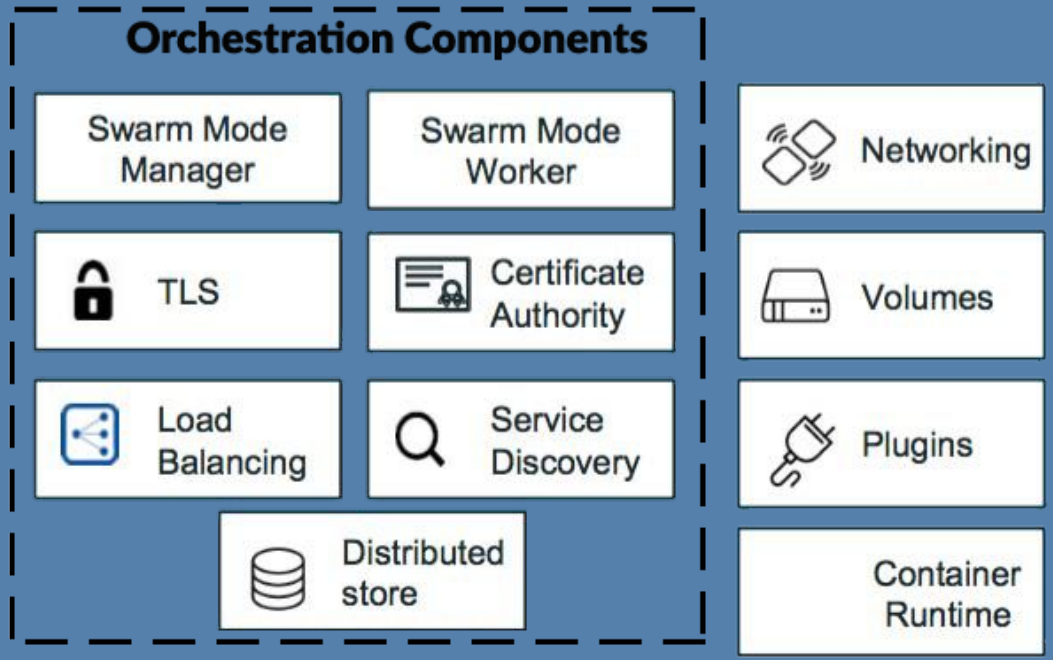
Docker Engine



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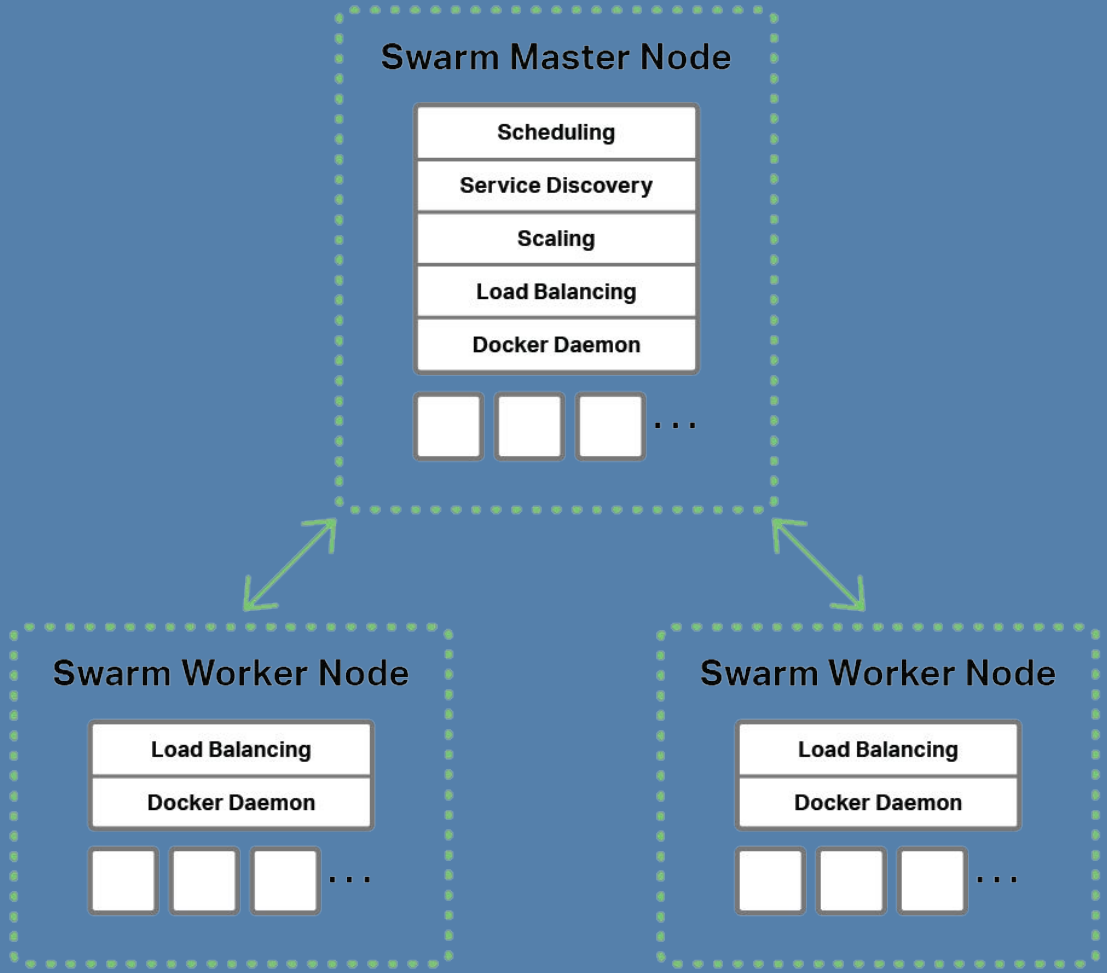
Swarm Master Node
Scheduling
Service Discovery
Scaling
Load Balancing
Docker Daemon
Swarm Worker Node
Load Balancing
Docker Daemon
Swarm Worker Node
Load Balancing
Docker Daemon

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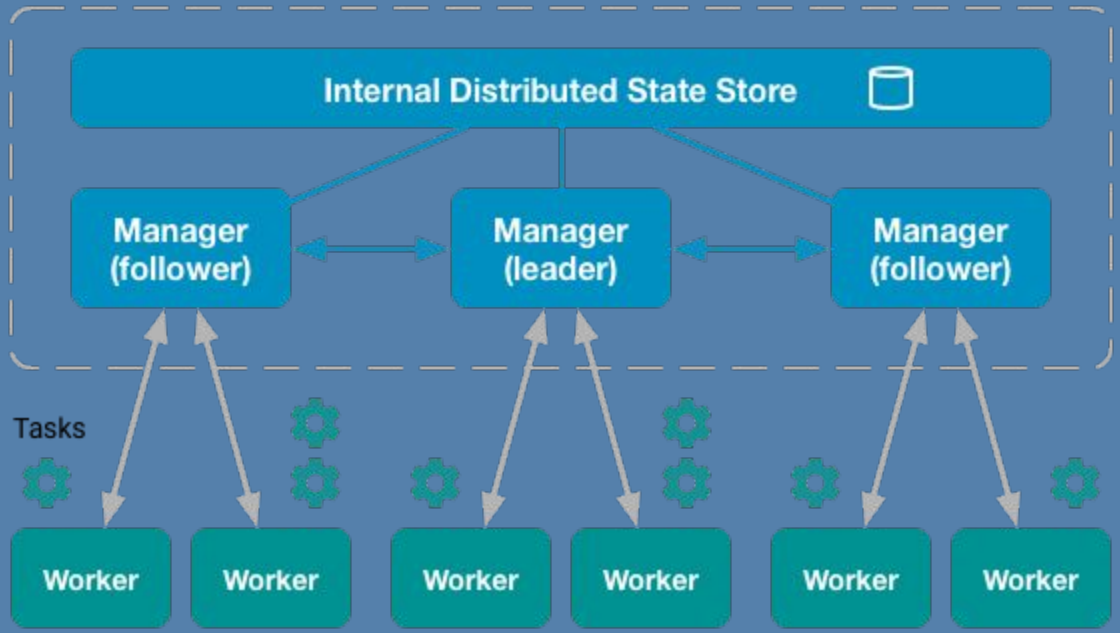
Internal Distributed State Store
Manager (follower)
Manager (leader)
Manager (follower)
Tasks
Worker
Worker
Worker
Worker
Worker
Worker

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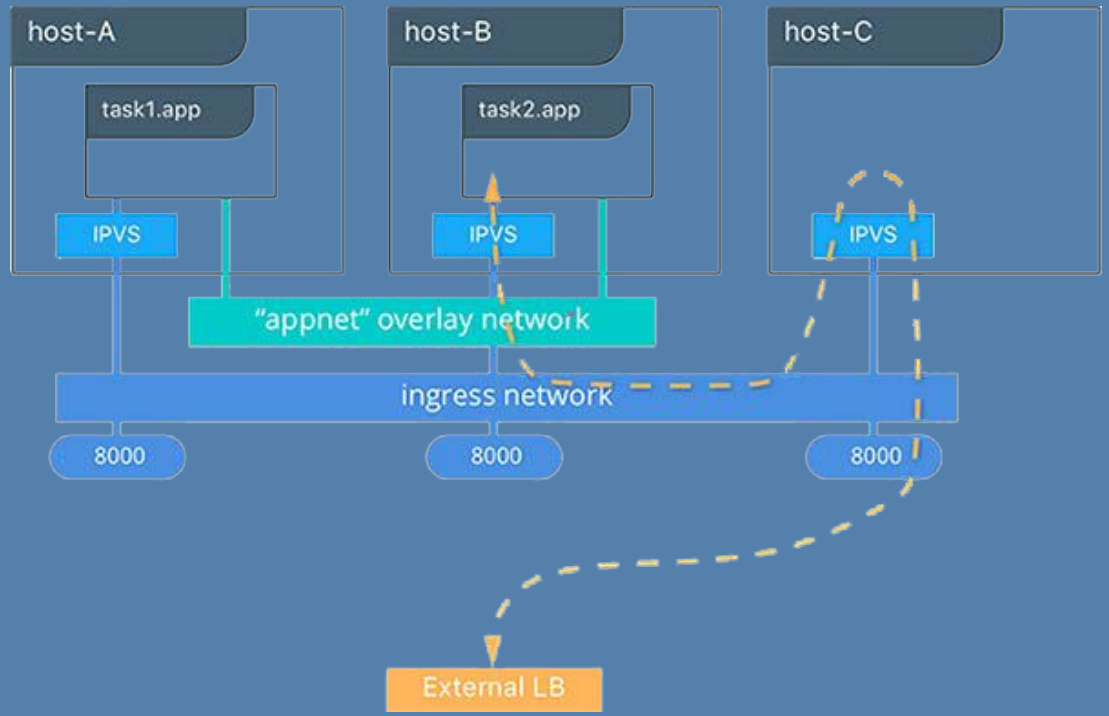
host-A
task1.app
IPVS
host-B
task2.app
IPVS
host-C
IPVS
"appnet" overlay network
ingress network
8000
8000
8000
External LB

Hand’s On

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Automação

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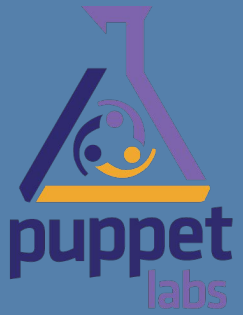

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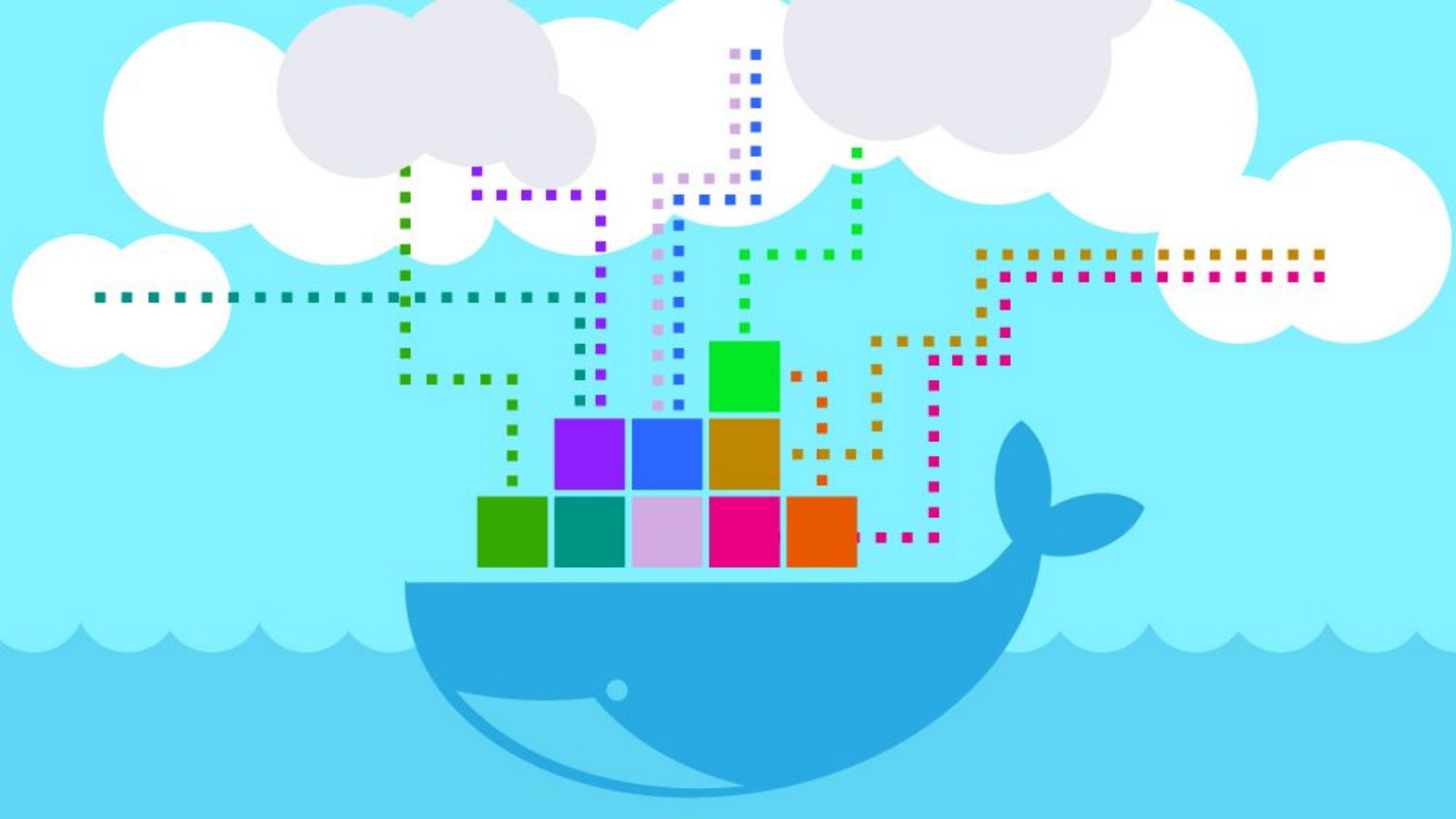

Dúvidas?

Avalie!

https://avalie.se/phprs

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cristiano@umbler.com
@mundodocker nas redes ;)

Obrigado!