Deploying a Containerized App

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Author & Trainer

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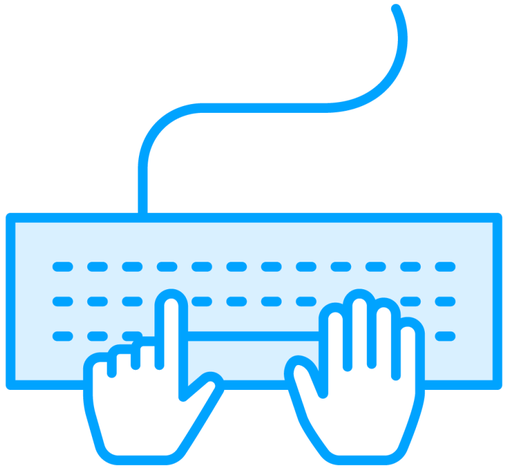
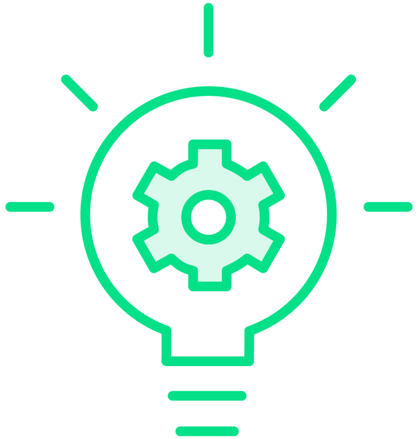
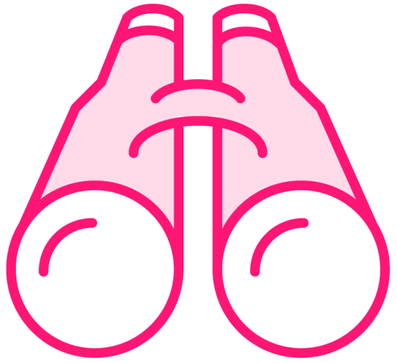


Hands-on



Lightbulb Moment



Holistic View

Follow Along

OR

Just Watch

Developers

AND

Operations

The best developers understand ops

&

The best ops understand developers

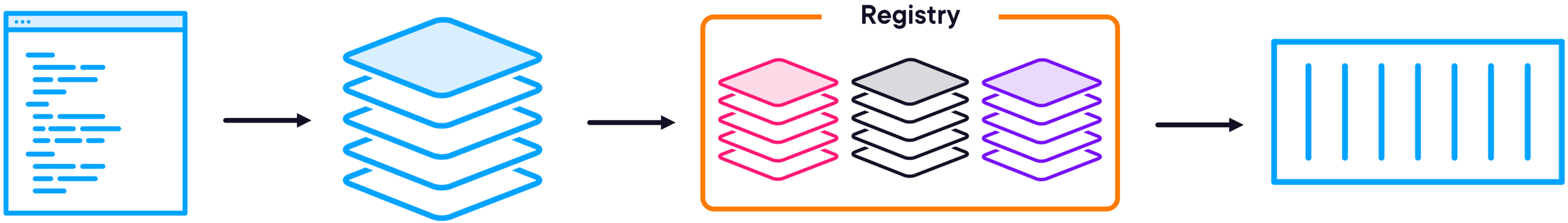
Overview/ Summary

Warp Speed Overview

Detailed Look

- Containerizing an App
- Hosting on a Registry
- Running a Containerized App
- Managing a Containerized App

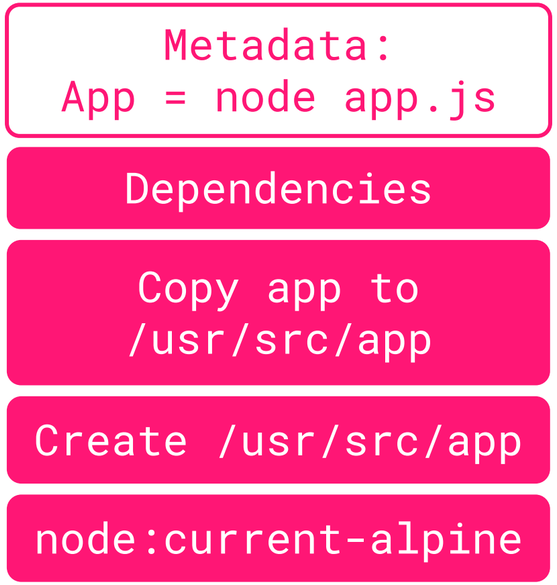
Warp Speed Overview


Registry

Up Next:

Containerizing an App

Containerizing an App


Metadata:
App = node app.js
Dependencies
Copy app to
/usr/src/app
Create /usr/src/app
node:current-alpine

Next Steps with Docker...

Docker Deep Dive

Nigel Poulton

Up Next:

Hosting on a Registry

Hosting on a Registry

Lots of Registries Exist

Used to Share Container Images

Open Container Initiative (OCI)

- Image spec
- Runtime spec
- Distribution spec (registries)

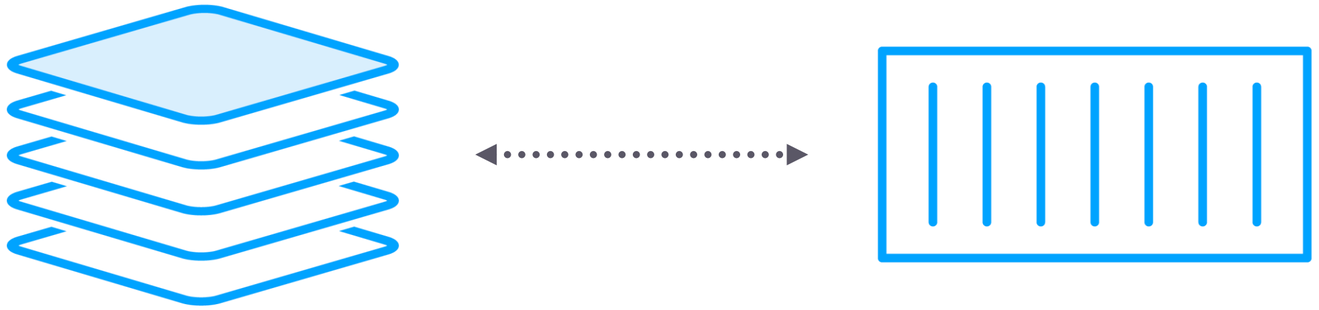
https://opencontainers.org/

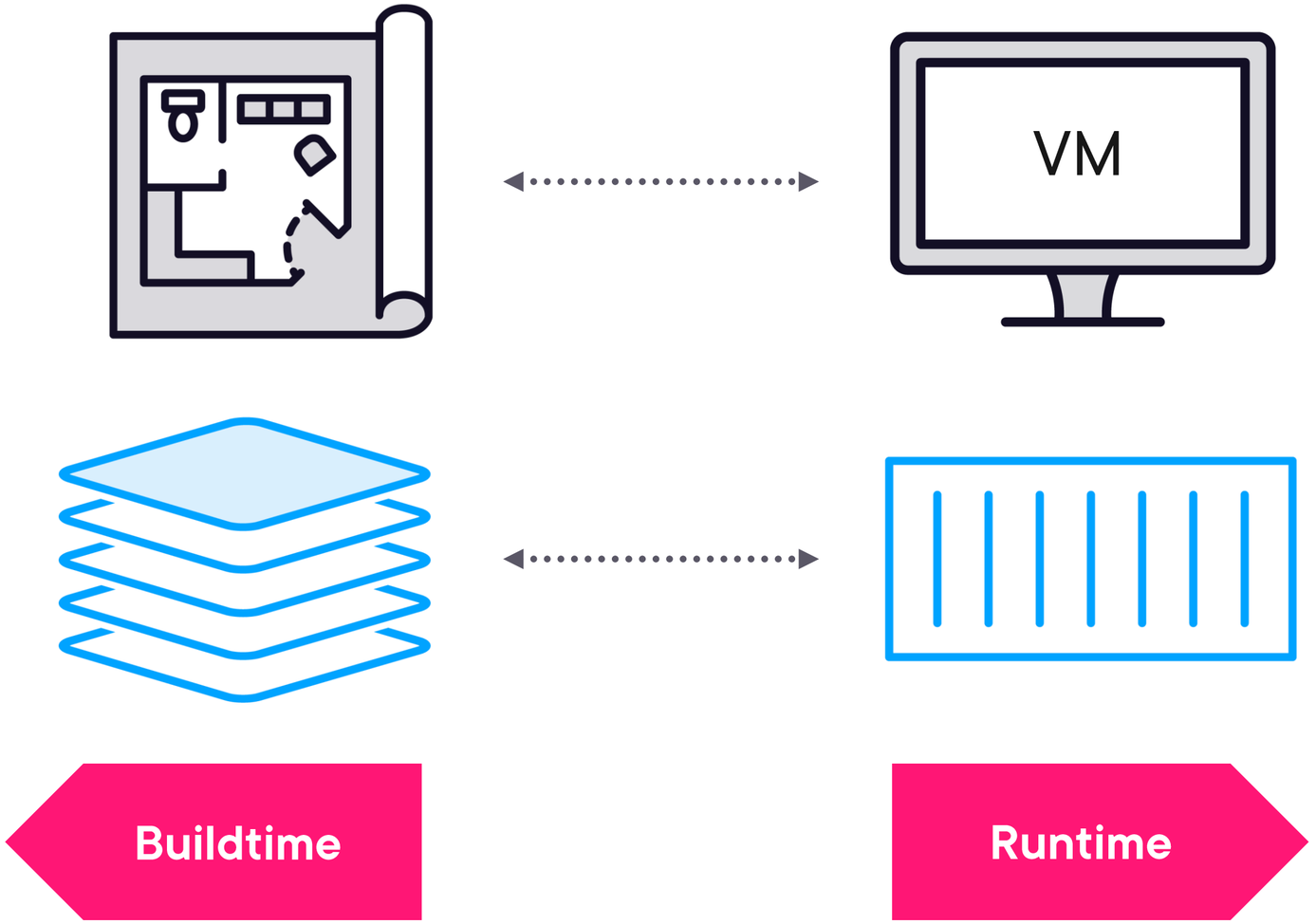

Repo
Image
nigelpoulton/gsd:2023
Docker Hub ID

Up Next:

Running a Containerized App

Running a Containerized App




VM
Buildtime
Runtime

Up Next:

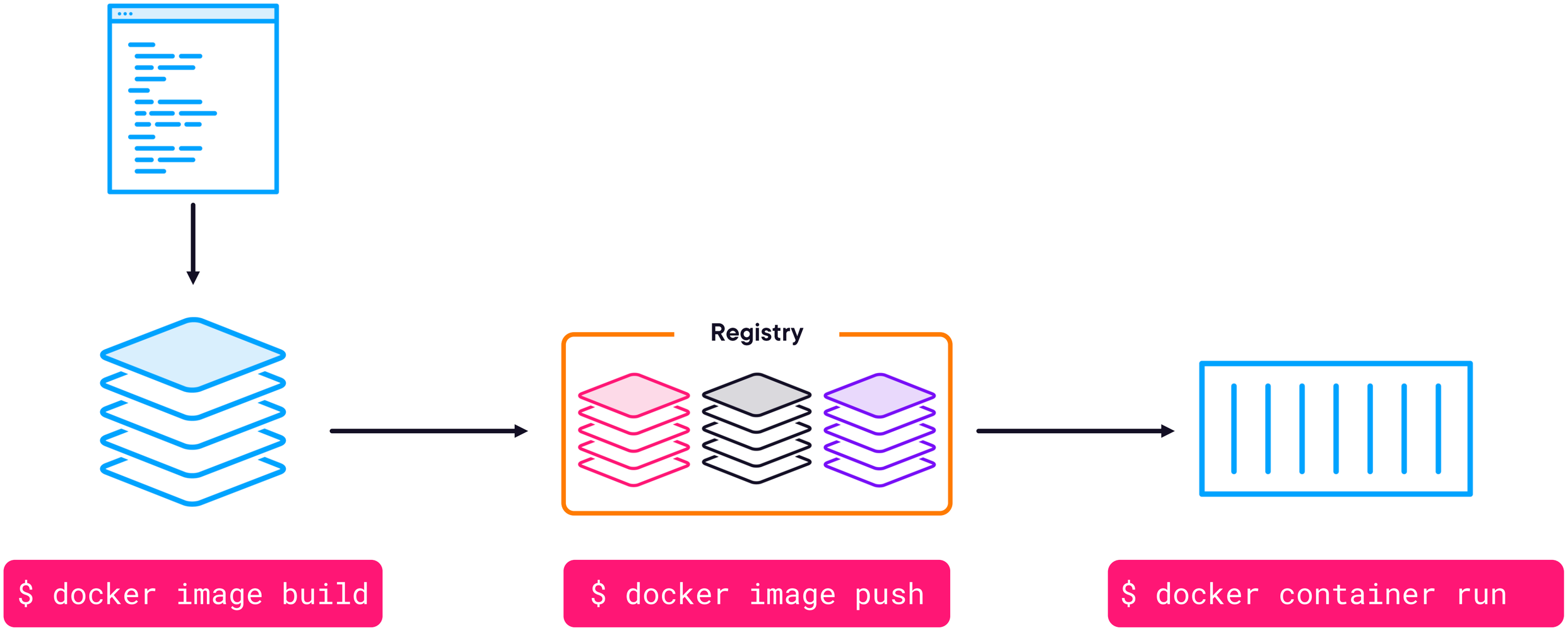
Managing a Containerized App

Managing a Containerized App

Containerized

An application running inside a container.

Recap

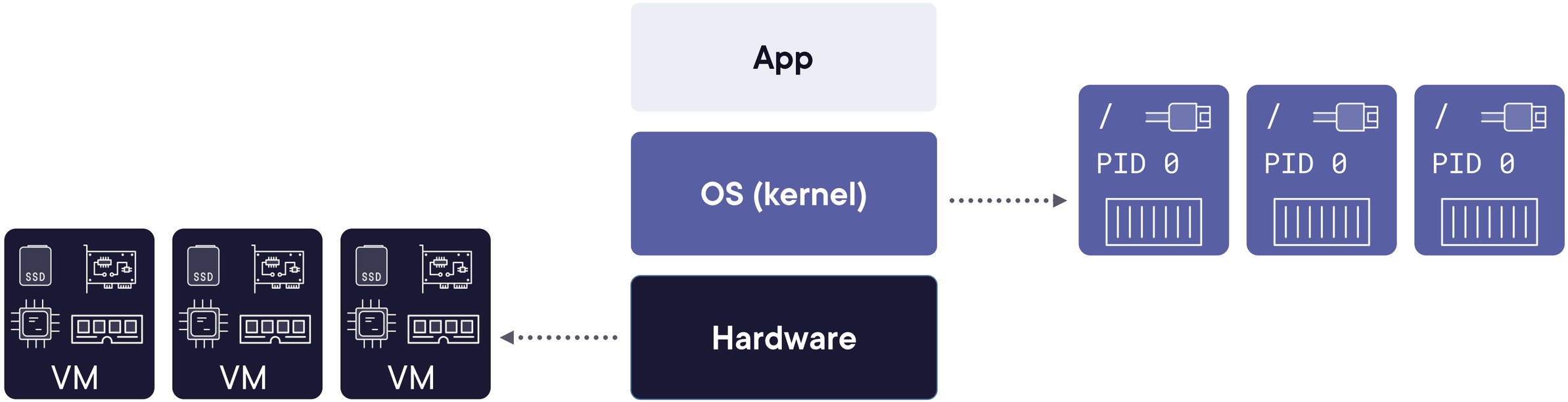

Registry
$ docker image build
$ docker image push
$ docker container run

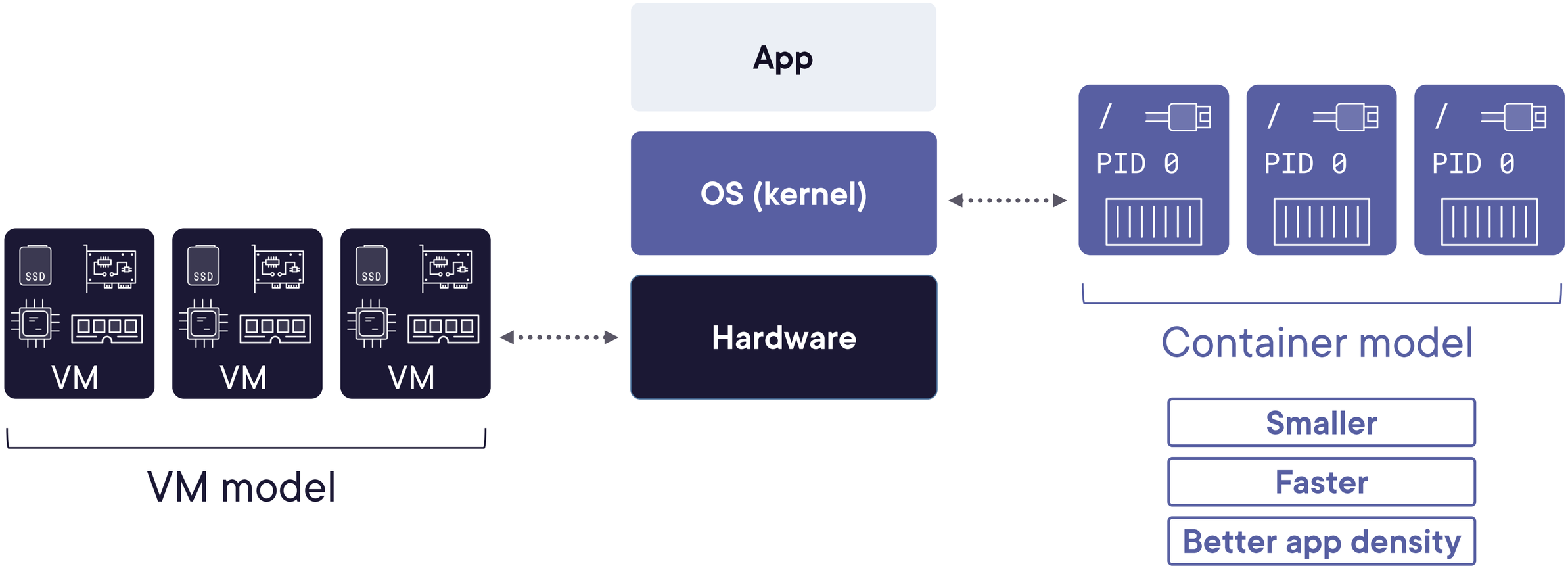

```
$ docker image build
```

```
$ docker image push
```

```
$ docker container run
$ docker container stop
$ docker container start
$ docker container rm
```

Containers are the future.


App
OS (kernel)
Hardware
/
PID 0
/
PID 0
/
PID 0
SSD
VM
SSD
VM
SSD
VM

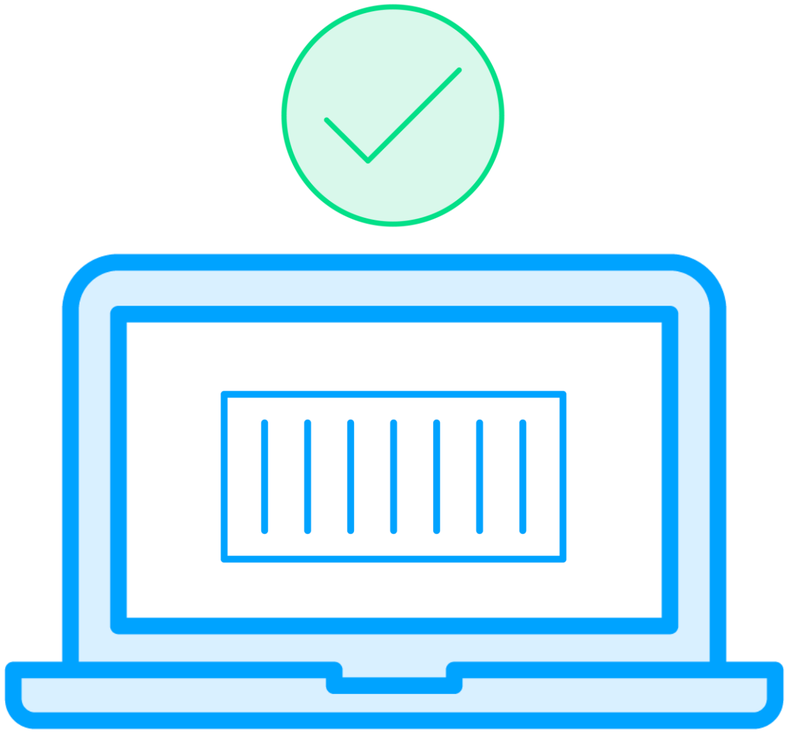

App
OS (kernel)
Hardware
SSD
SSD
SSD
VM
VM
VM
VM model
/
PID 0
/
PID 0
/
PID 0
Container model
Smaller
Faster
Better app density

New Tools to Manage Containers

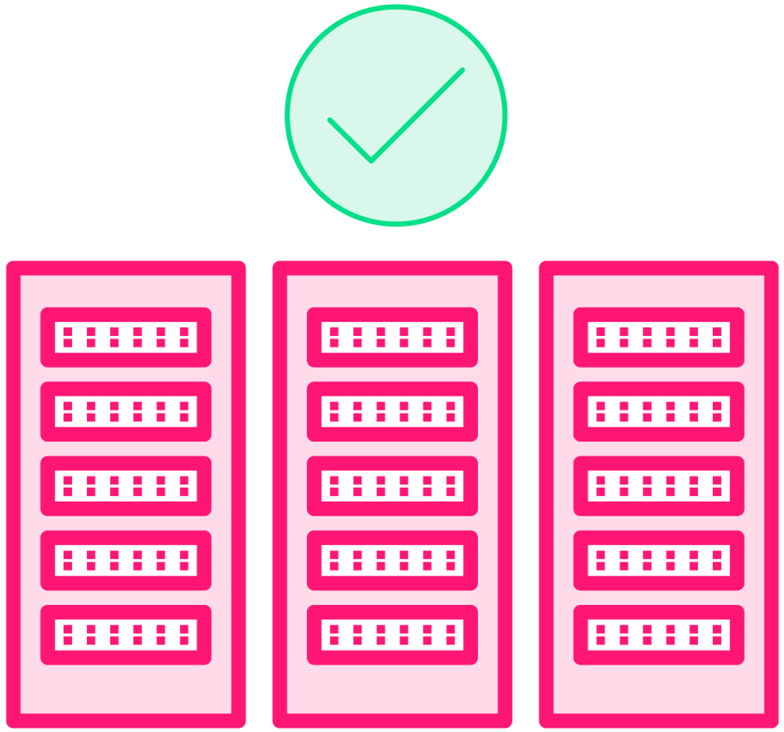
Docker Swarm

Kubernetes

Lots of others...



Works on Laptop



Works in Production

Up Next:

Microservices and the Real World