

Containerization with Docker

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Outline

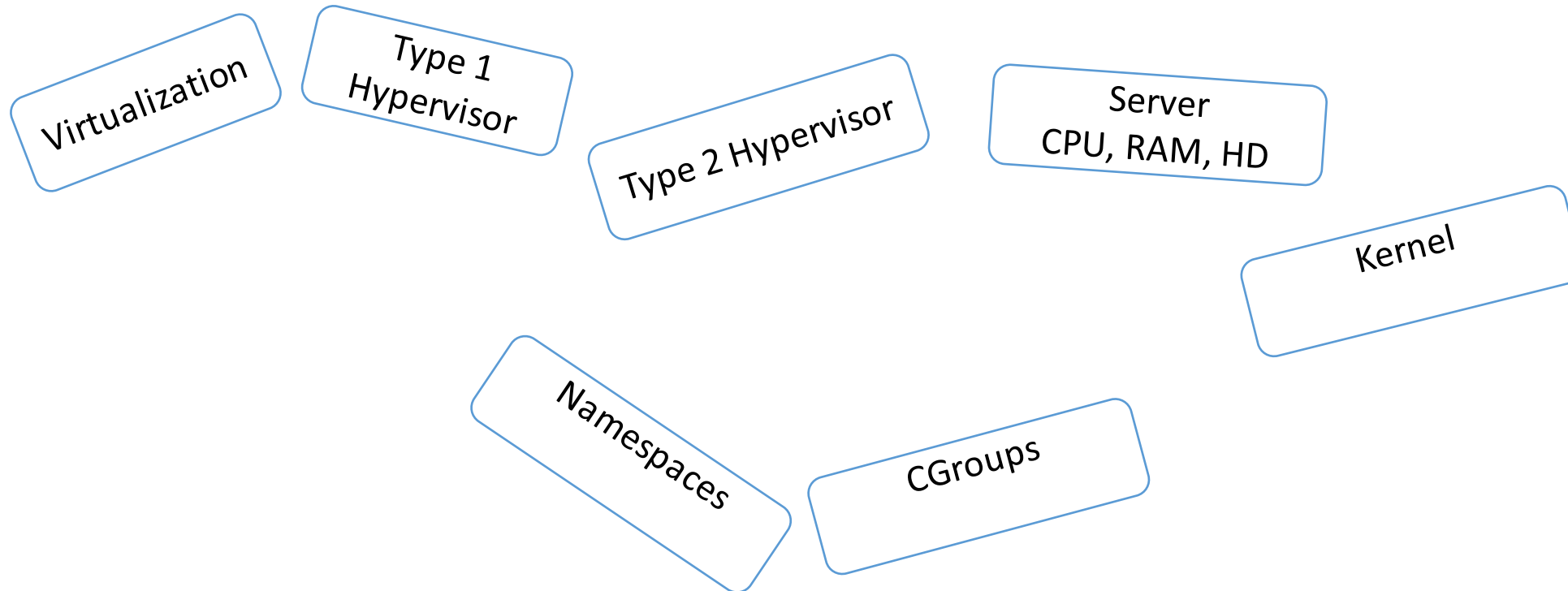
- What is a container
- Container vs VM
- Docker – a type of container
- Docker commands

Container

- Standard unit of software that packages up code and all its dependencies
- **Container image** is a lightweight, standalone, executable package of software that includes everything needed to run an application: code, runtime, system tools, system libraries and settings.
- Portable
- Lightweight
- Secure

Container vs VM

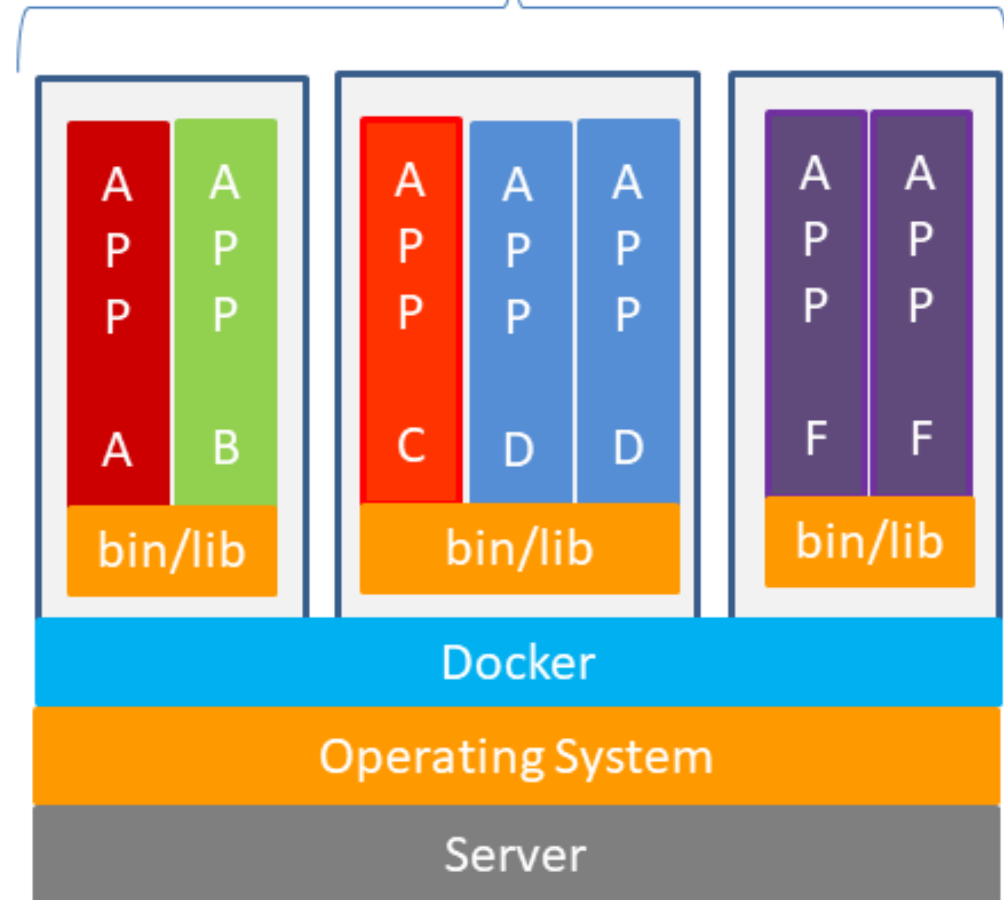
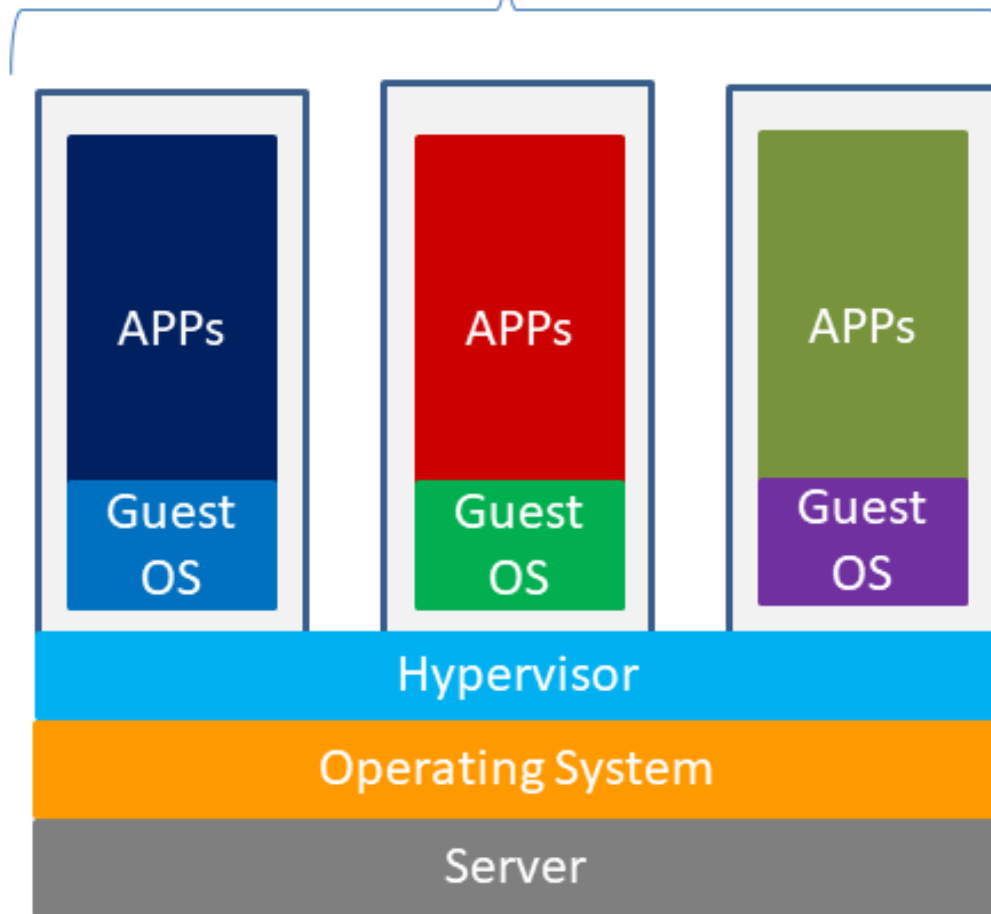
Related Vocabulary



VMs

Vs

Containers



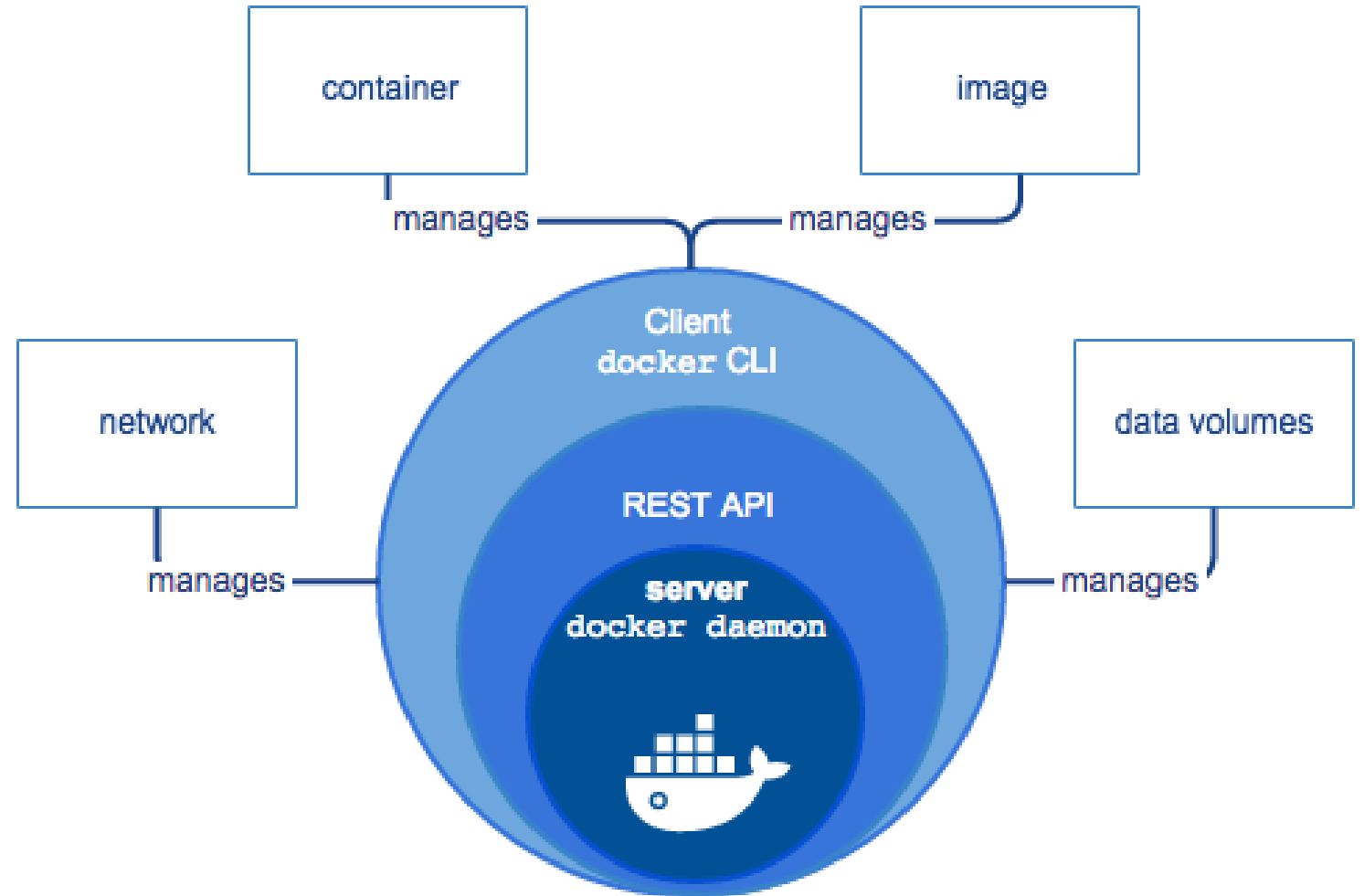
Docker platform

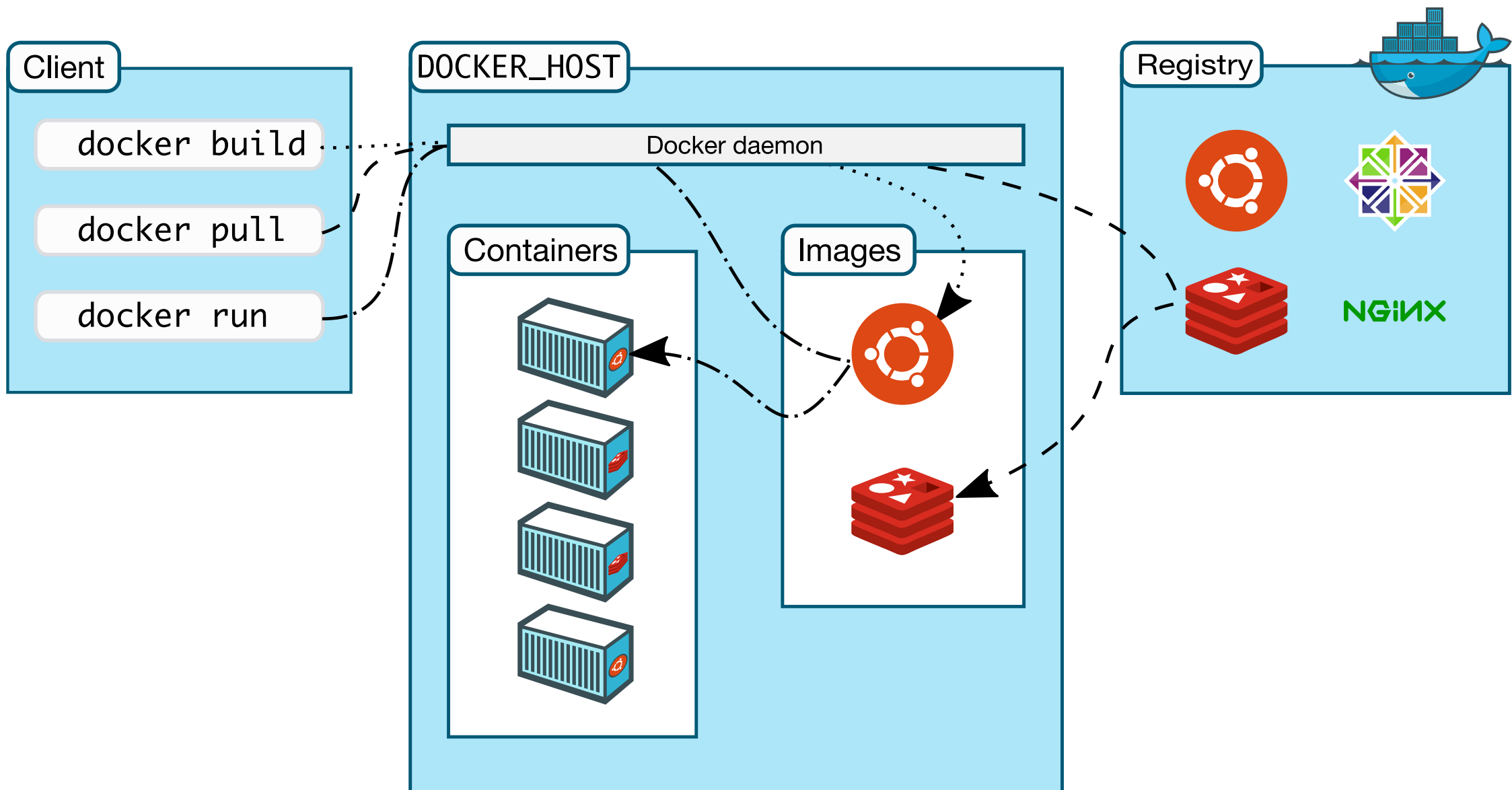
- Open platform for developing, shipping, and running applications
- Manage infrastructure in the same way as application
- Reduce the delay between writing code and running in production
- Container is the unit for distributing and testing

Docker Engine

Client-server application

- Server/Daemon
- REST API
- CLI

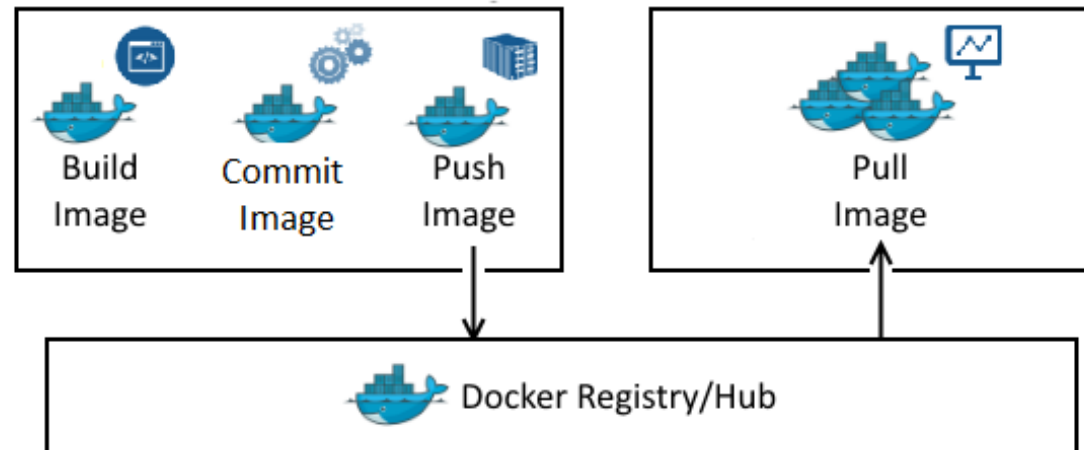




Commands-build, run, push, pull

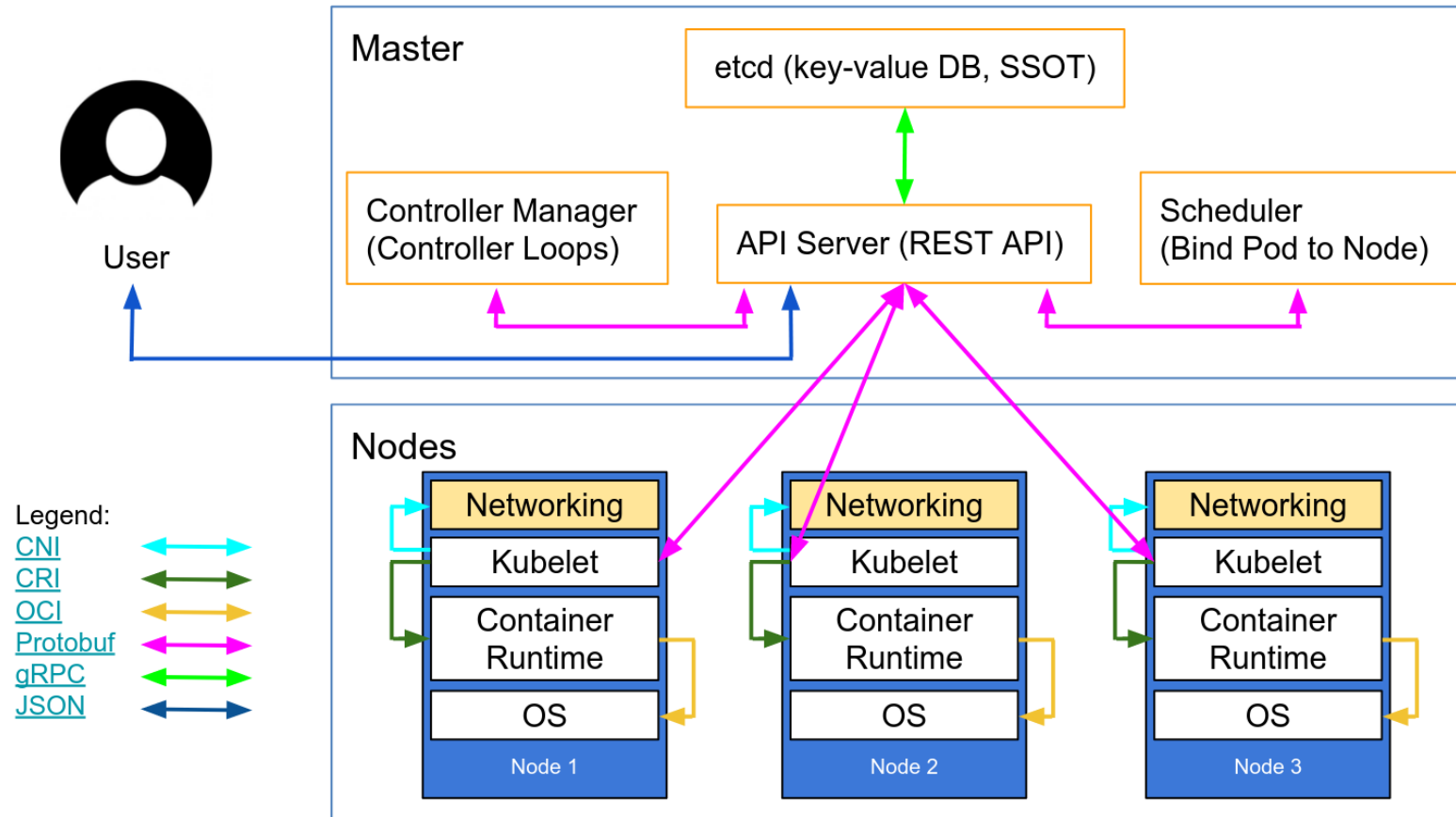
- Build
- Run
- Push
- Pull
- Commit

Development Workflow with Docker



Container Orchestration

Kubernetes Architecture



Summary