



An Introduction and Overview

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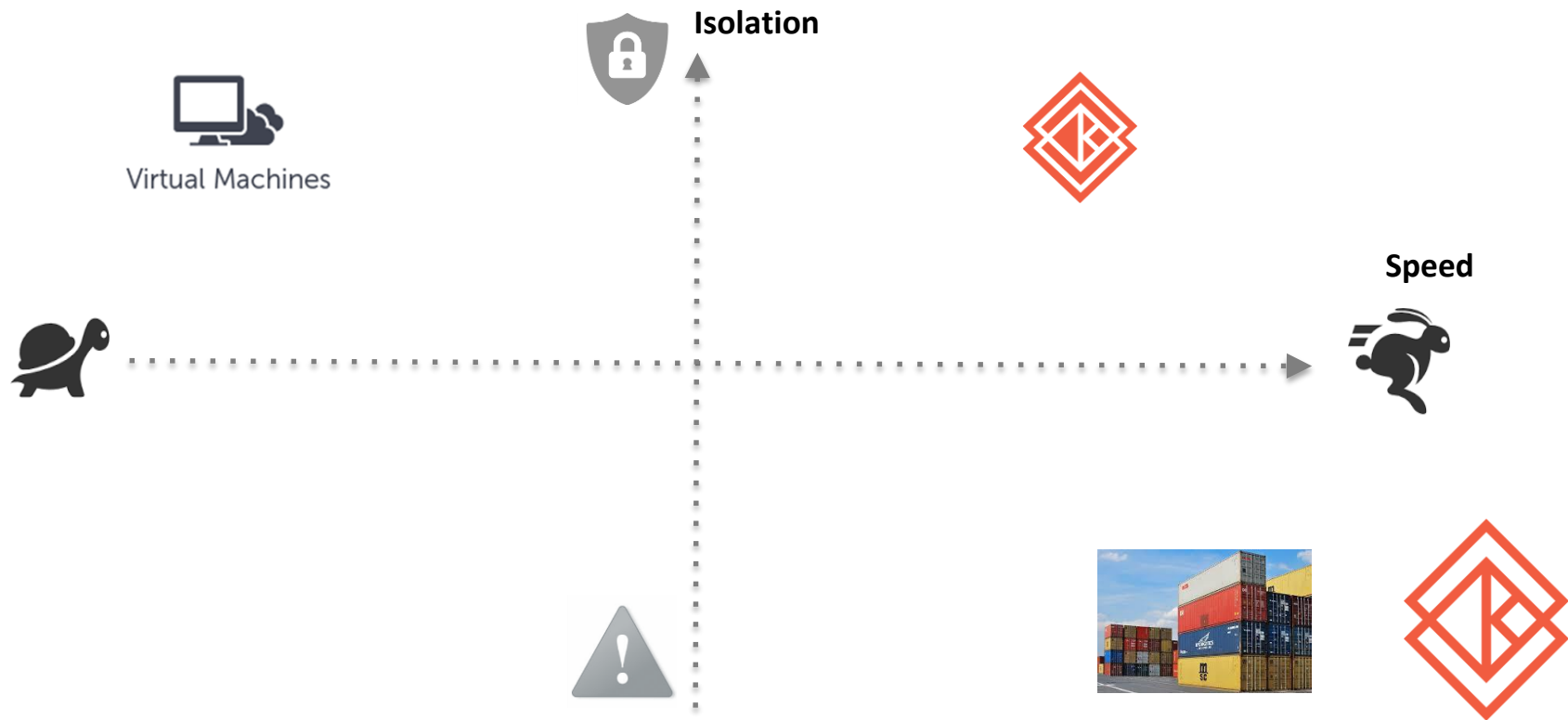
Getting started and Contributing



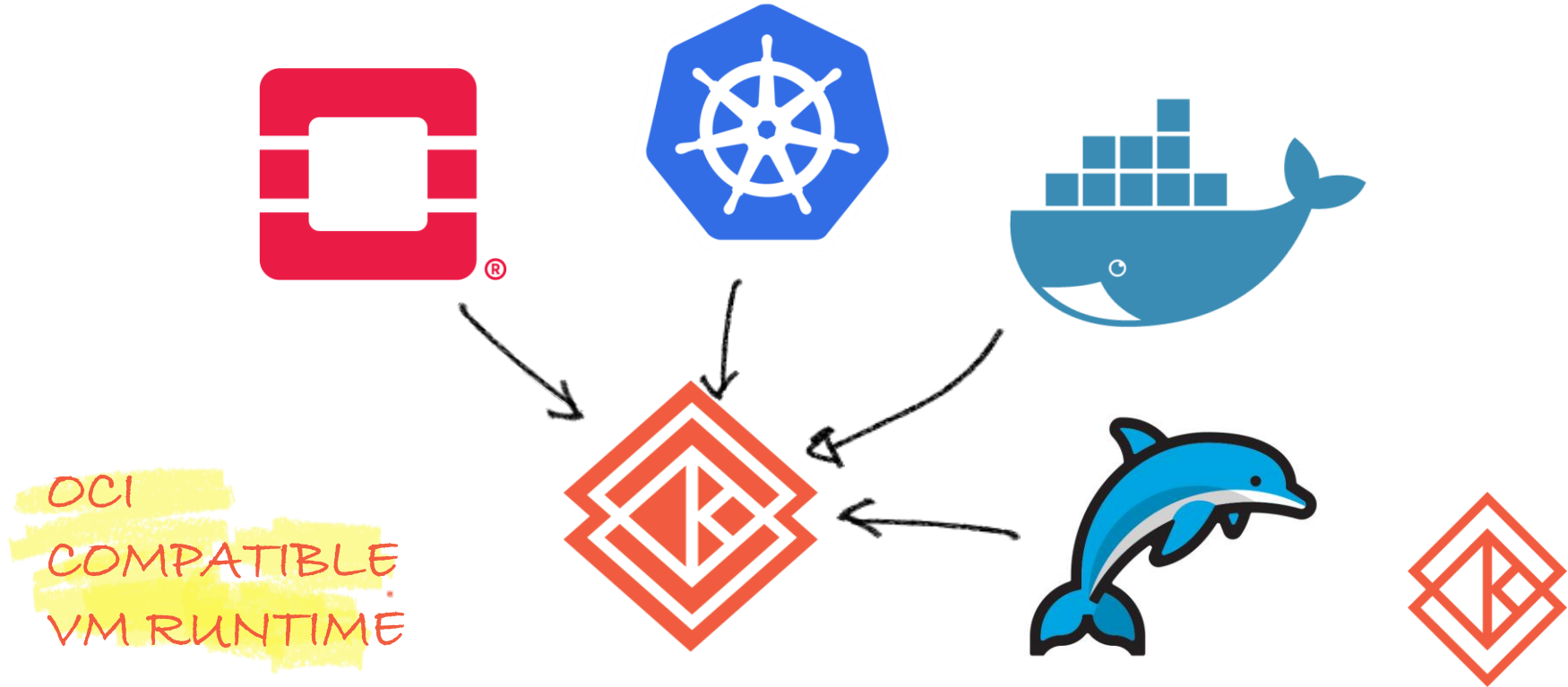
What is Kata Containers?



Speed vs Security



Integrations



A little history

Open source project hosted by the OpenStack Foundation

Merger of two established projects which both started in 2015

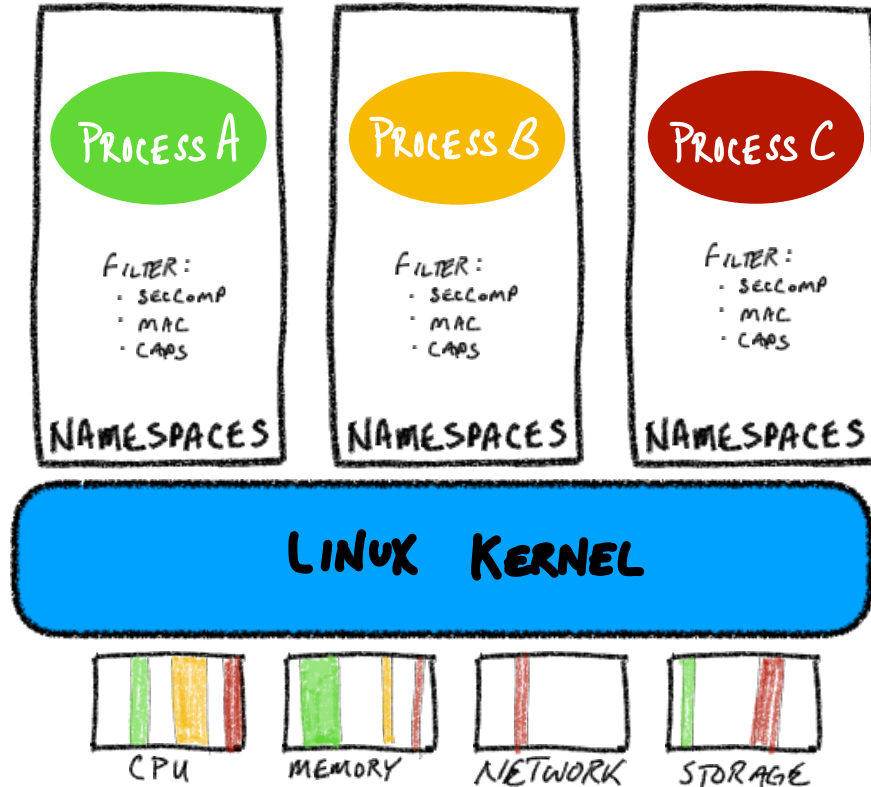
- Hyper.SH runV and Intel® Clear Containers

V1.0 released May 22nd 2018

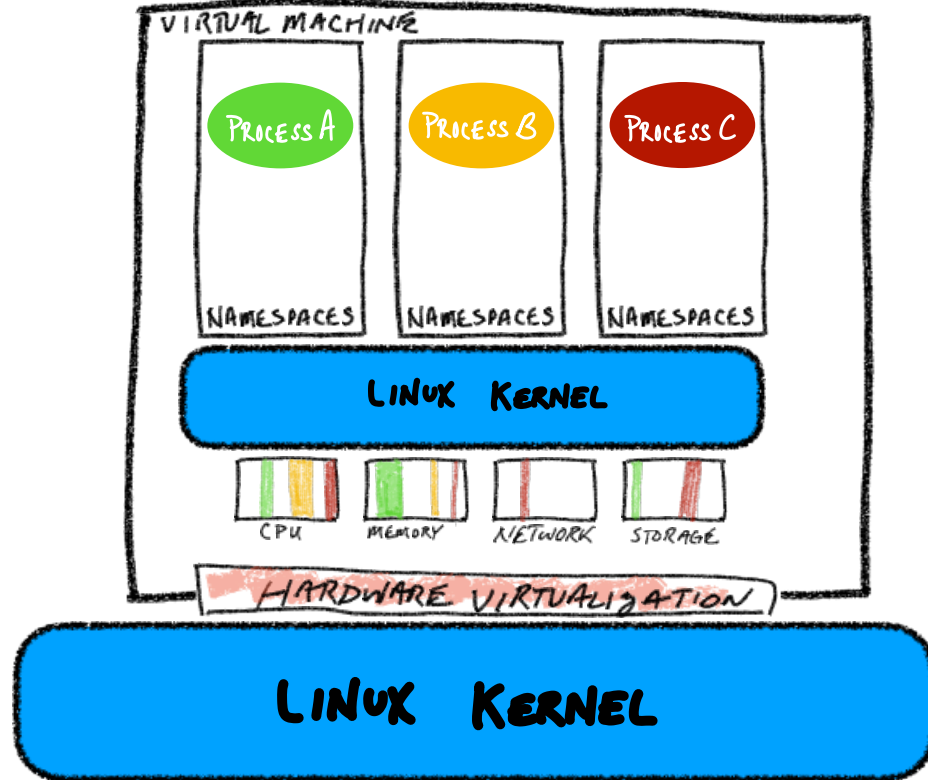
V1.3.1 released October 22nd 2018



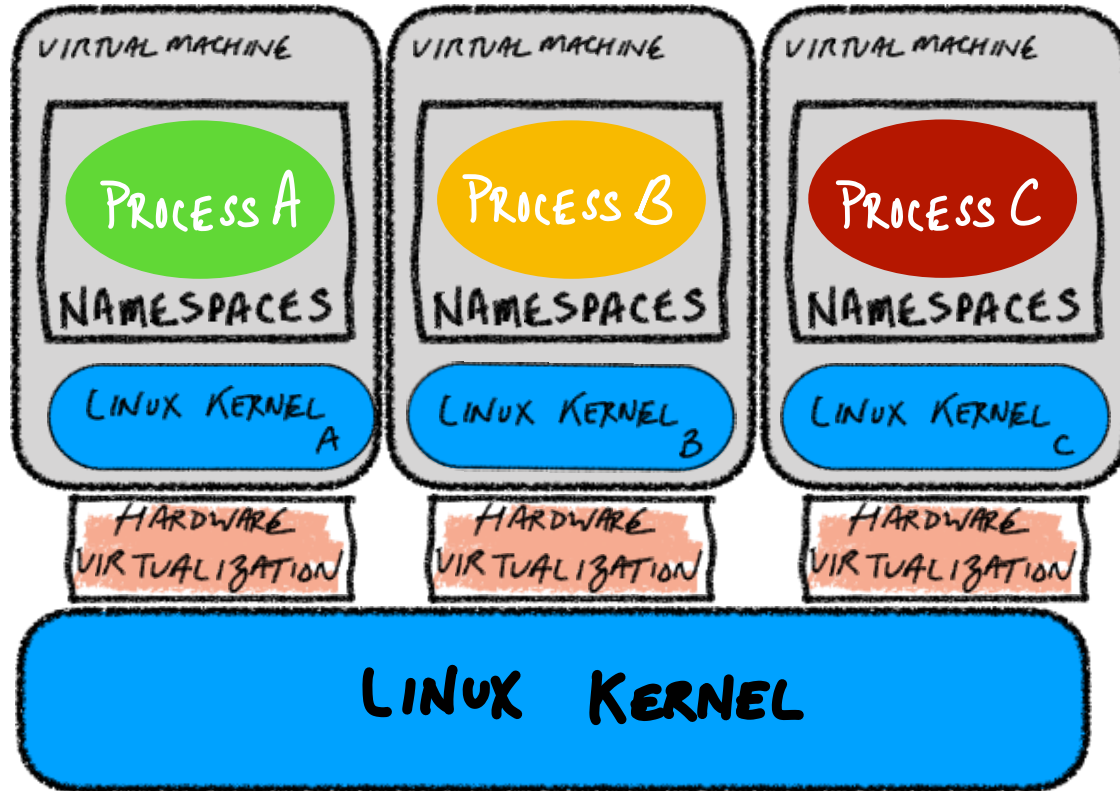
Traditional Containers



Traditional Containers in a VM



Kata Containers



Architecture and Integrations

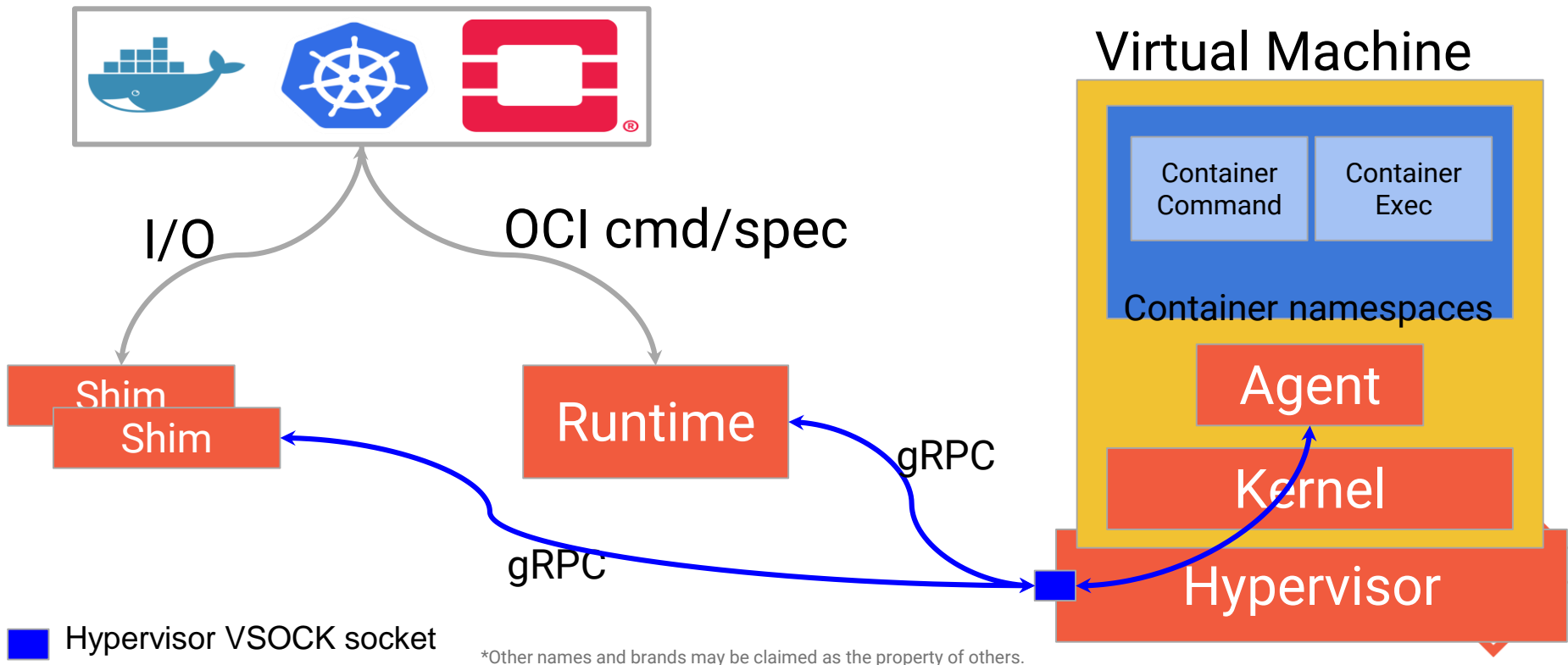


The components

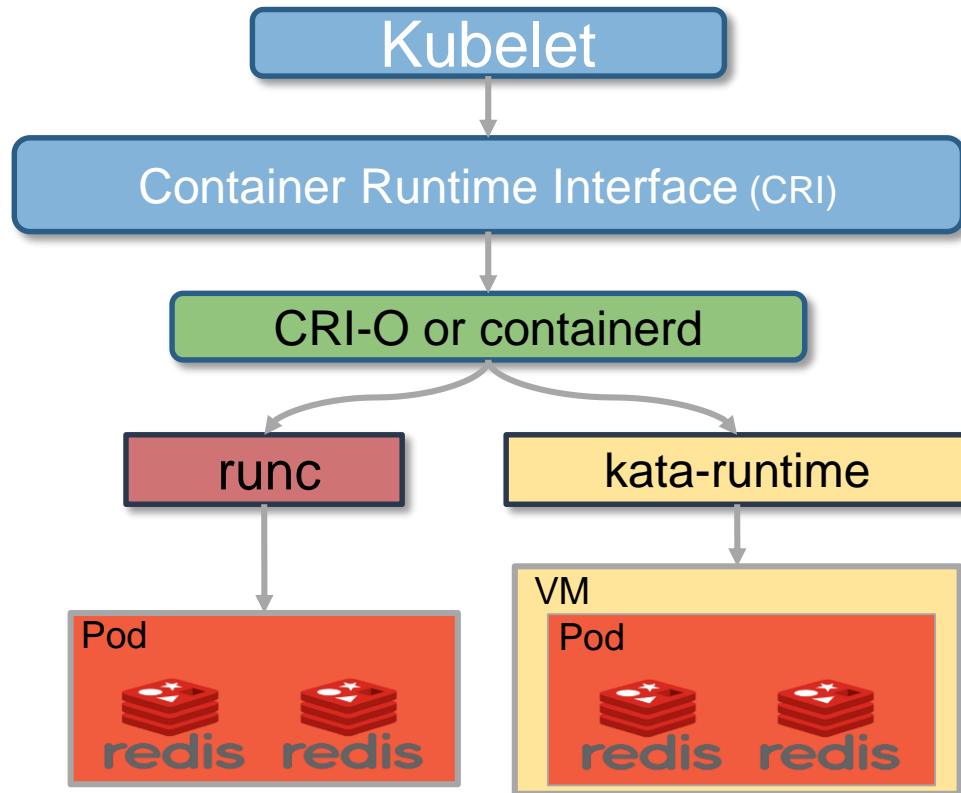
- QEMU package
- Runtime
- Kernel
- Rootfs image
- Agent
- Shim
- Proxy



Kata basic architecture



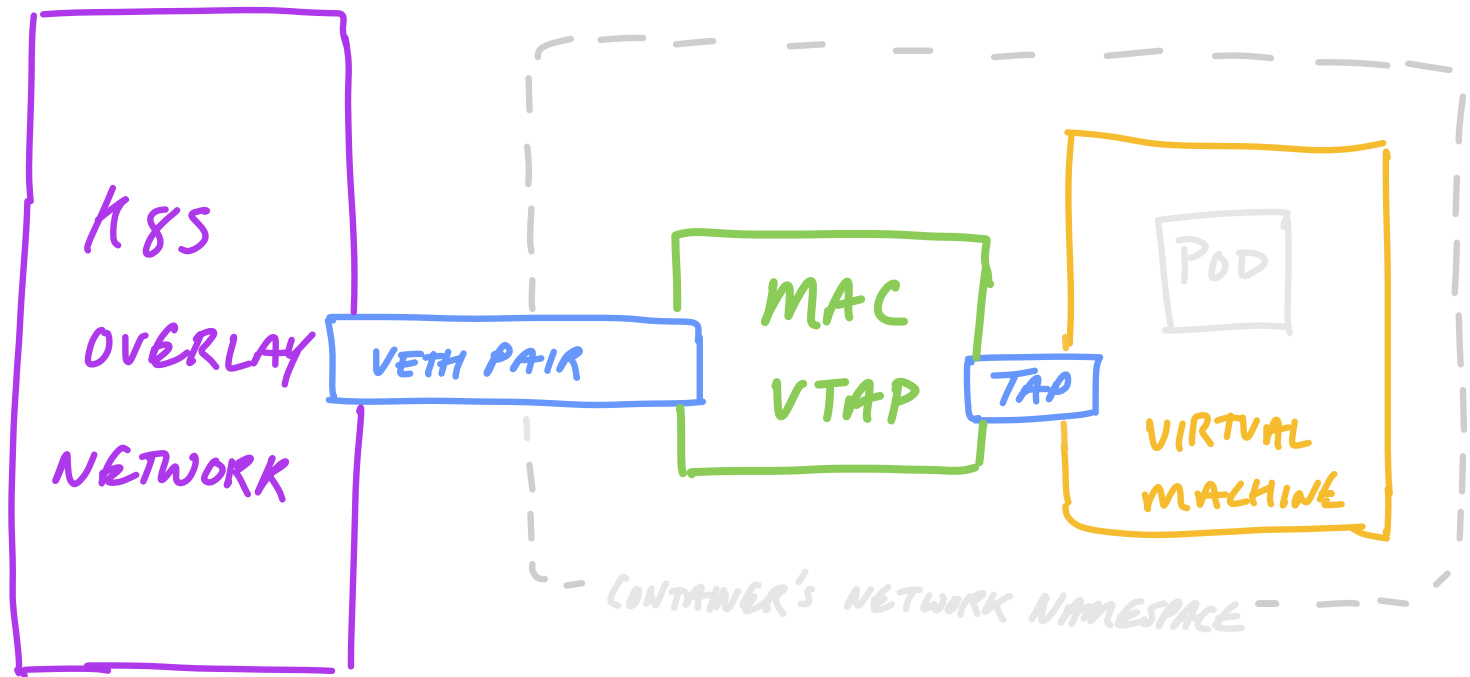
CRI-O and Kata



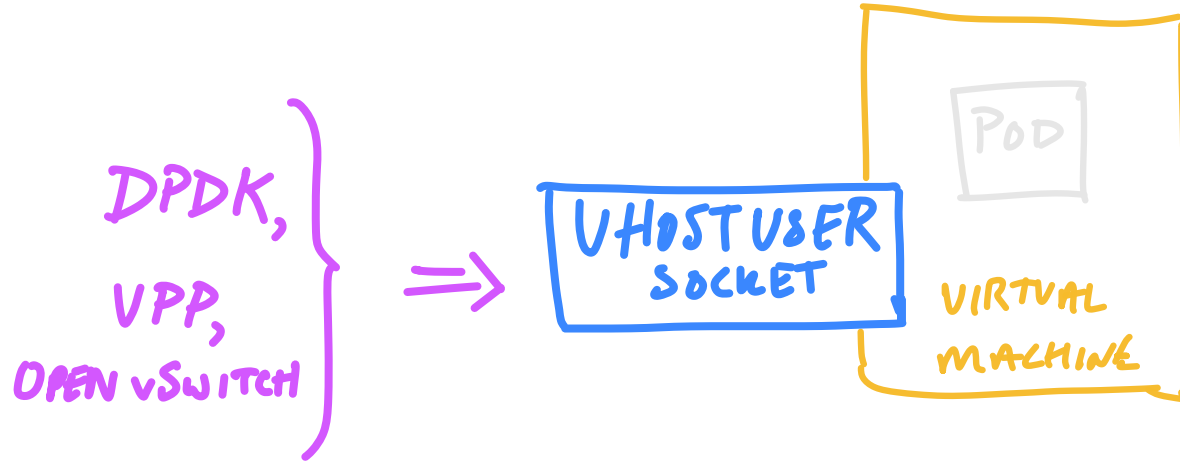
Networking and Storage



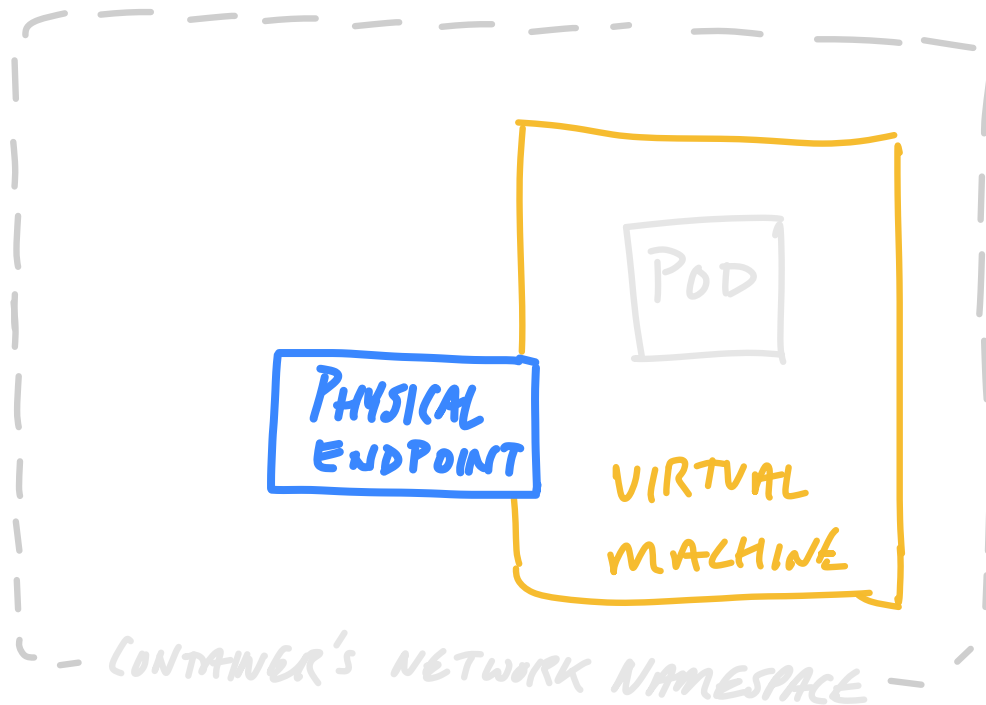
Basic Kata Networking



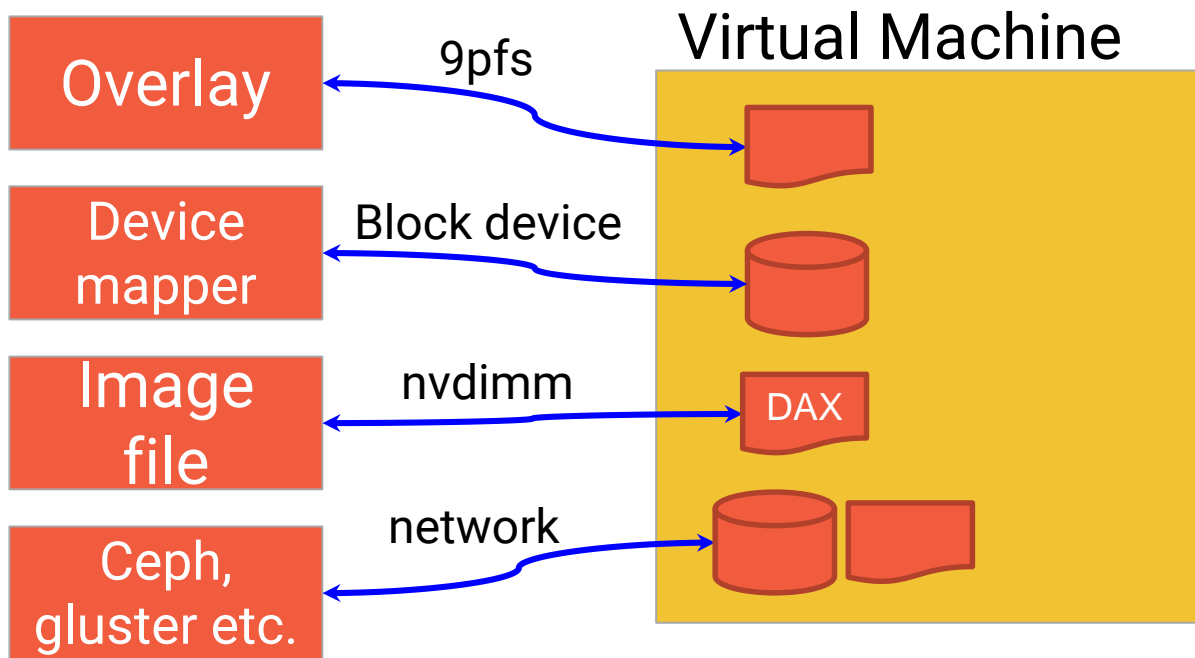
Kata vhost user networking



Kata Physical Networking



Kata Storage



*Other names and brands may be claimed as the property of others.



Roadmap



Security and isolation

- In Container
 - Seccomp
- On Host
 - Cgroup isolation
 - More namespace isolation
 - Root-less QEMU
 - SELinux policy



Networking

TC Mirroring
Optimising default path
Docker swarm DNS
enlightened CNI plugins



Filesystems (volumes)

Virtio-FS (vsock/FUSE)
NFS-vsock
cache enablements



Other features

Live Upgrades
More device mappings
More hypervisors
non-Linux workloads
Always size and speed



It is Open Source!

Getting, Using, Contributing



Links

- Source code:
 - Kata Containers: <https://github.com/kata-containers/>
 - Apache 2 license
 - Packages and instructions: <https://github.com/kata-containers/documentation/>
 - RPM, DEB, apk, snap, Clear Linux
- Community
 - Slack: katacontainers.slack.com
 - IRC: #kata-dev@freenode
 - Mailing-list: kata-dev@lists.katacontainers.io



Q&A

Questions?
Comments?
Experiences?

