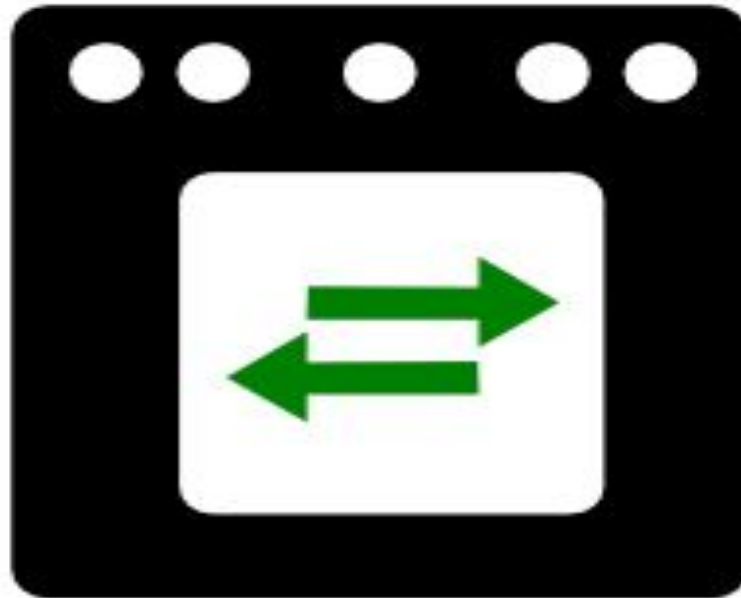


# Containers in OVN

Hot yet?

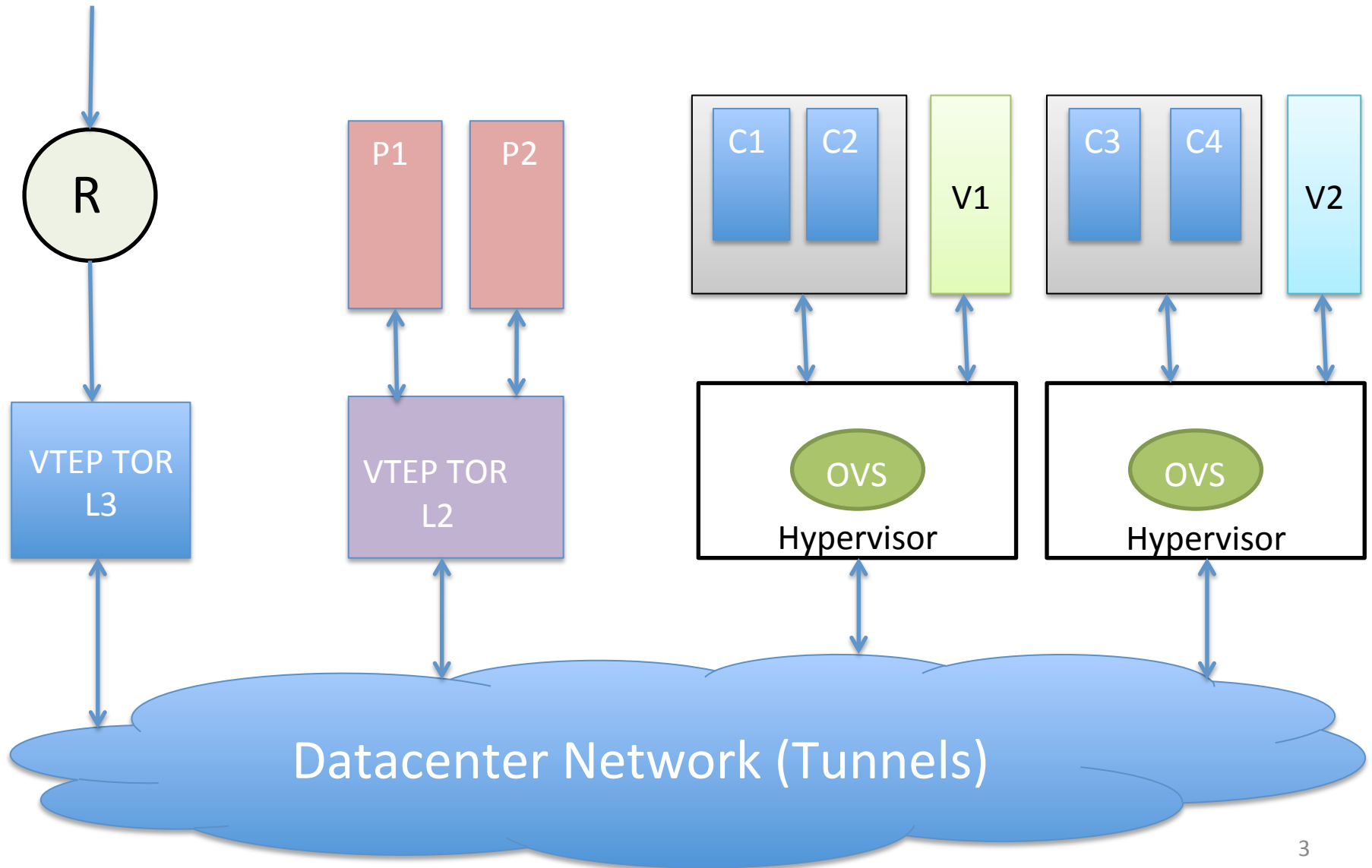


Guru Shetty (shettyg@vmware.com)

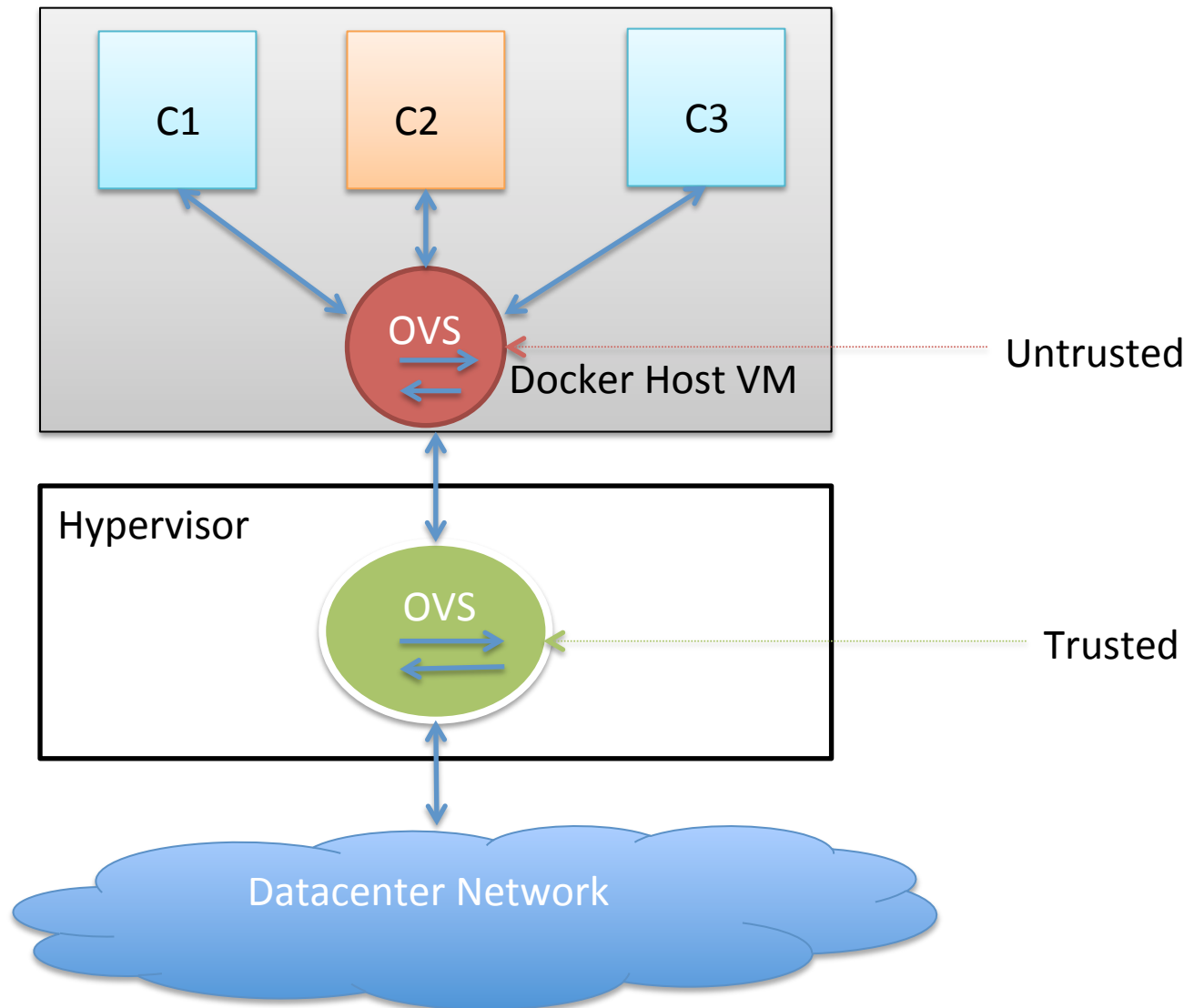
# OVN objects

- Logical Switch
- Logical Port
- Firewall rule (ACL)
- Logical Router
- Logical Router Port

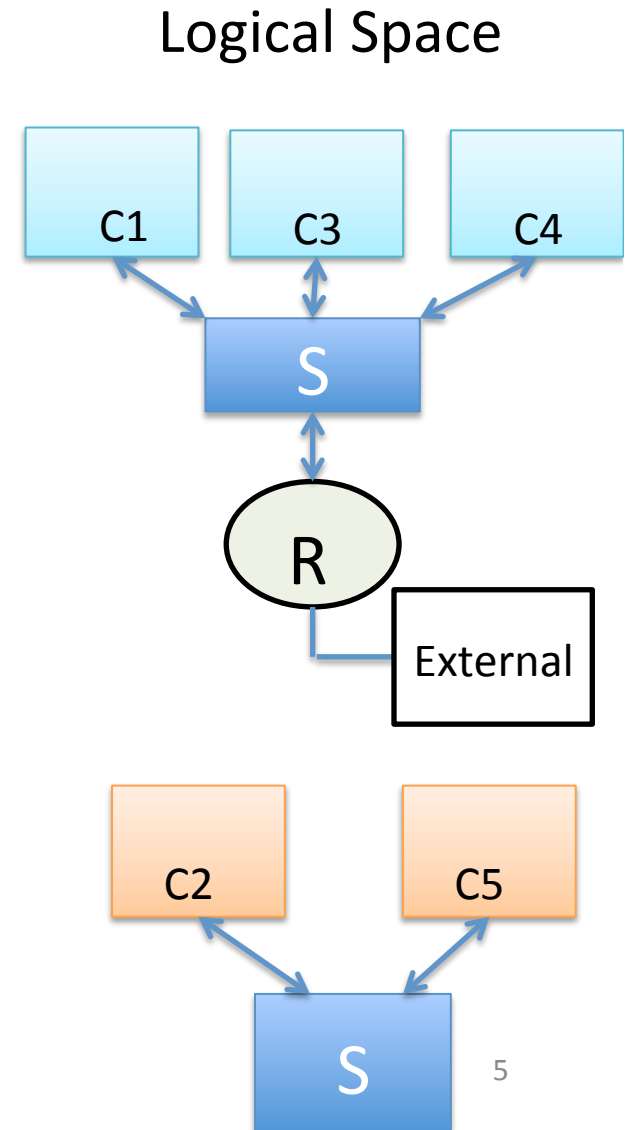
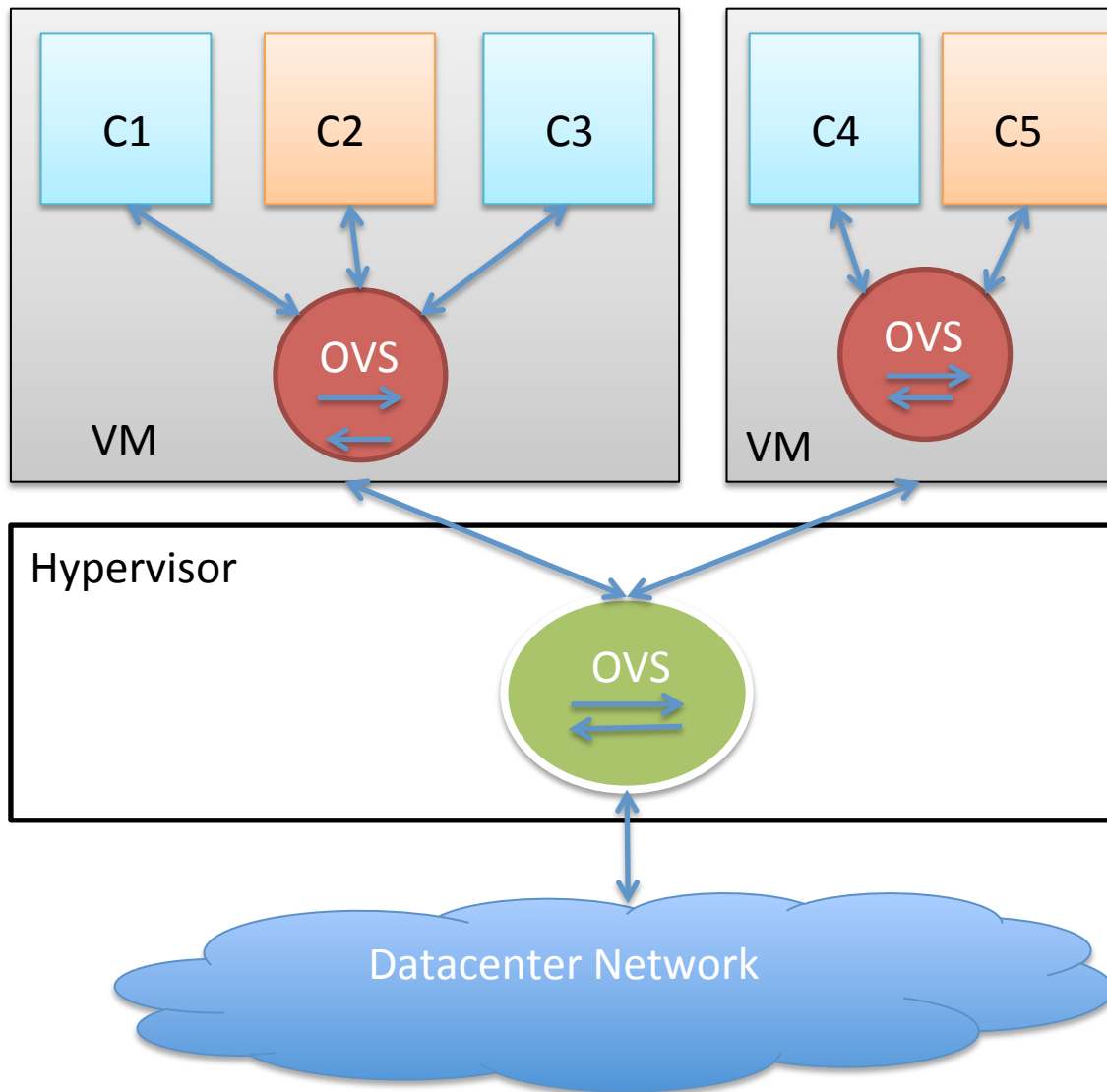
# OVN Physical Space



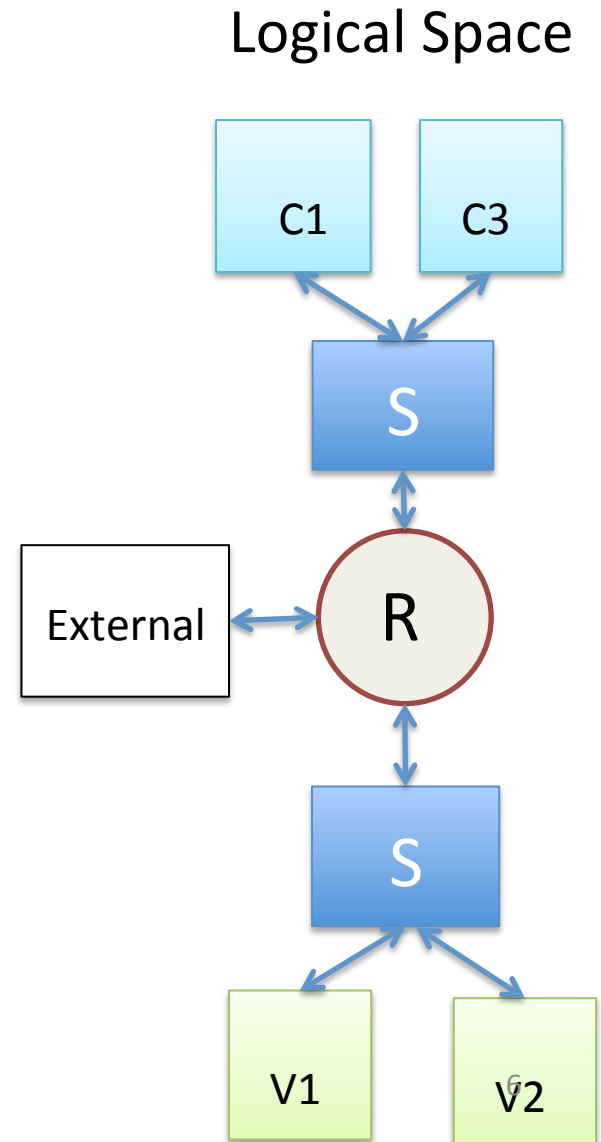
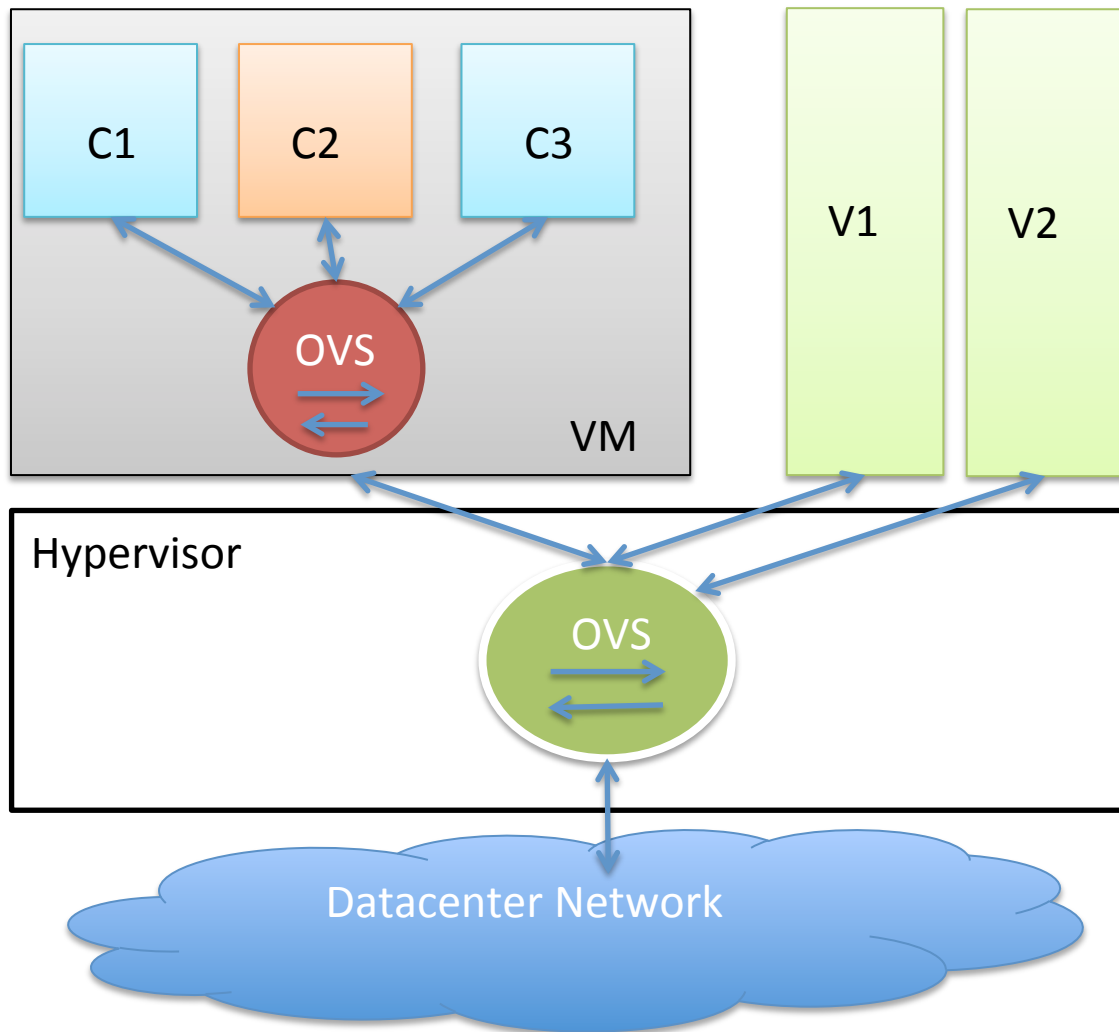
# Docker integration



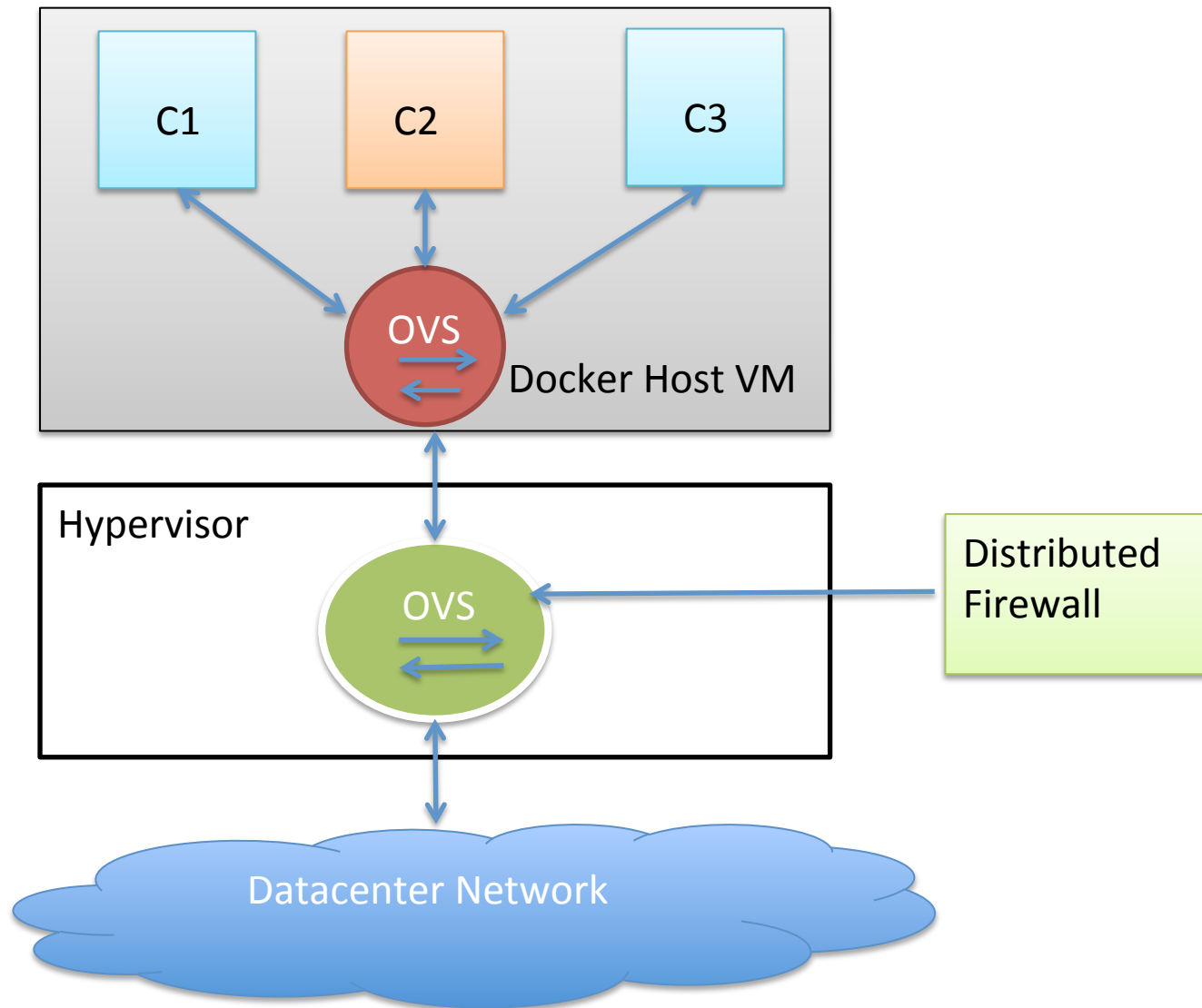
# Docker integration



# Docker integration



# Docker Security

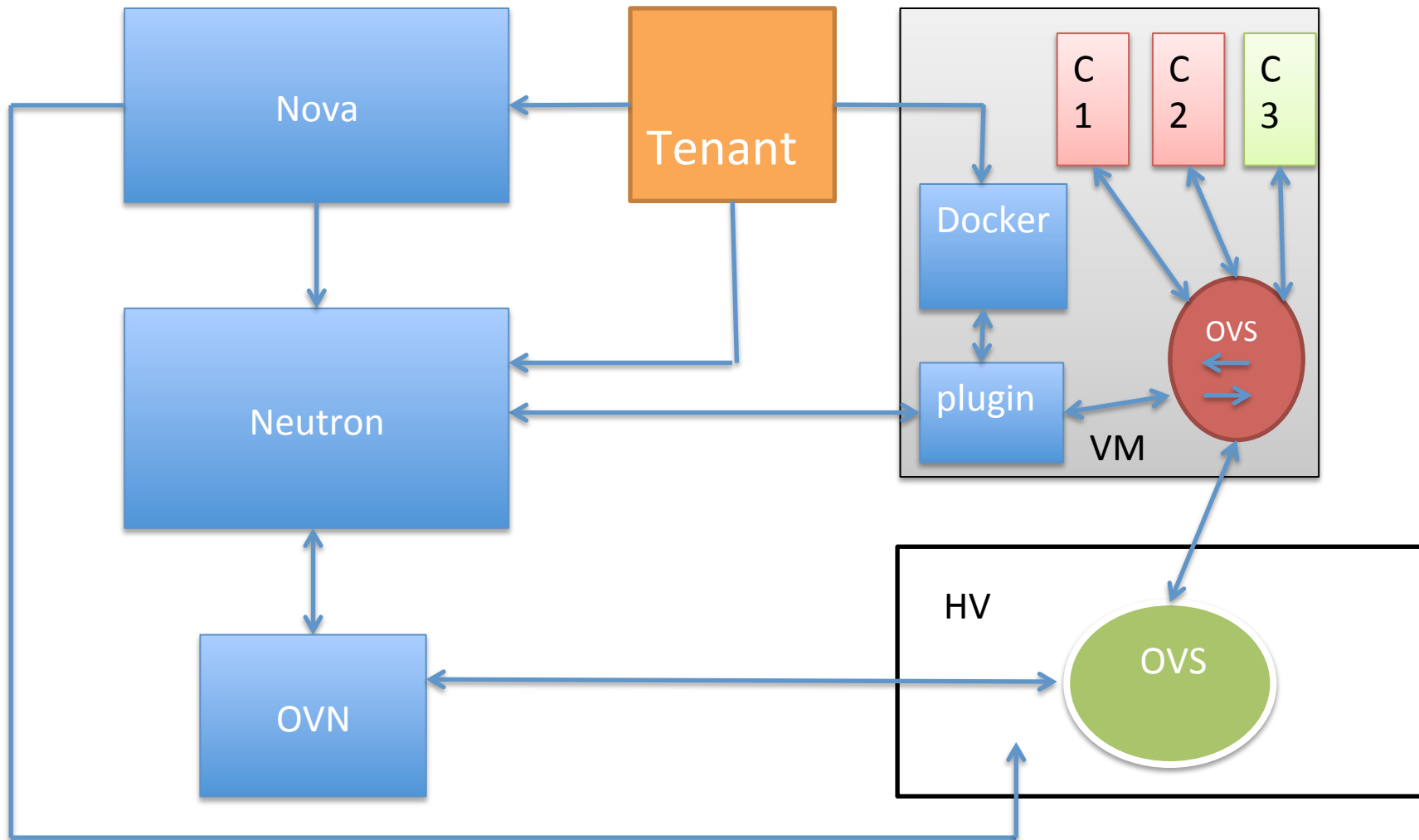


# Docker OpenStack Integration

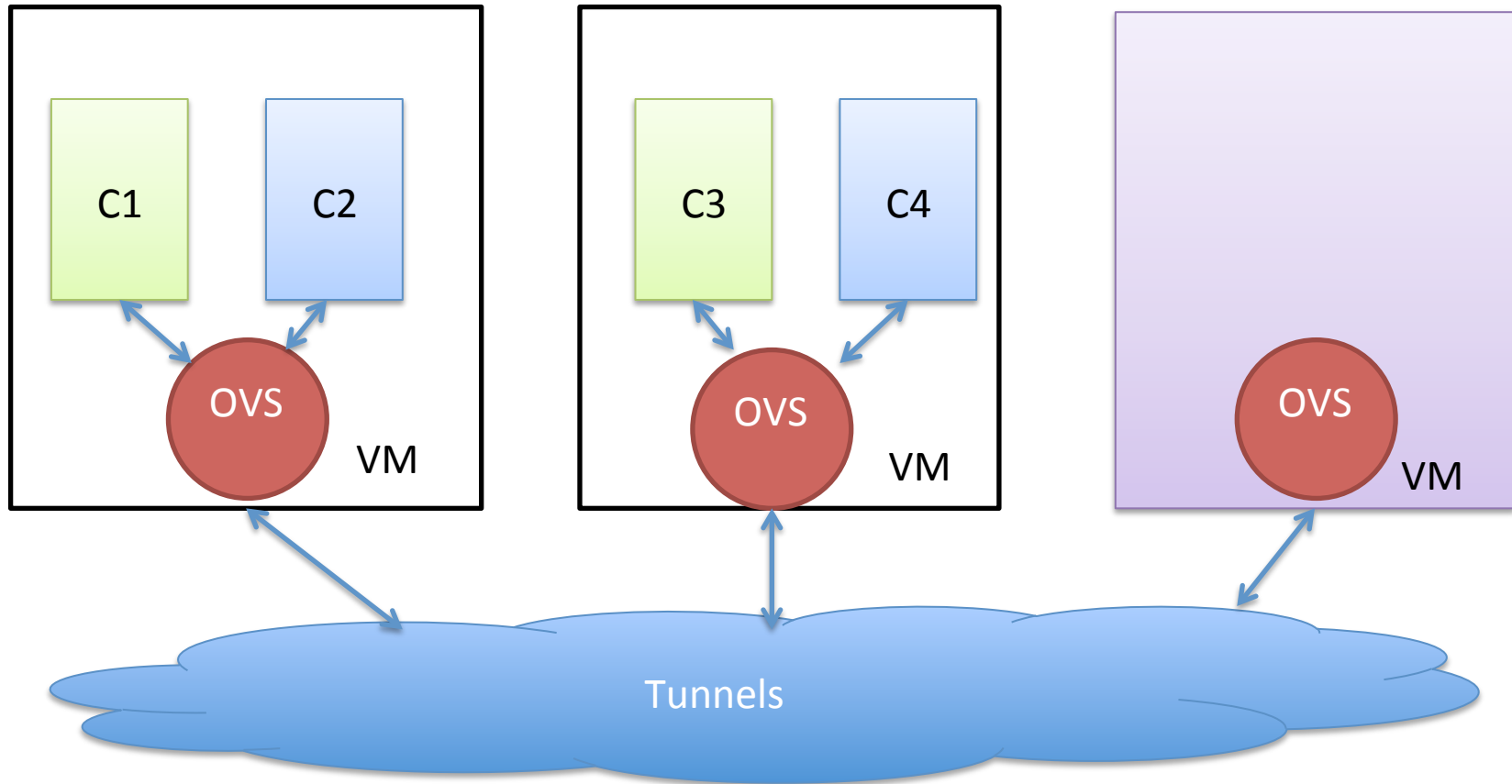
- `docker network create -d openvswitch -- subnet=192.168.1.0/24 foo`
- `docker run --net=foo --name=busybox busybox`



# Docker OpenStack Integration



# Pure Overlay



# Demo

# Kubernetes

- A pod is a group of containers that share the same network namespace.
- Containers inside a pod speak via localhost with each other.
- A host can have multiple pods.
- Containers speak to the outside world via the pod IP.
- All pods in a cluster should be able to talk to each other via their own IP.
- A pod should also be able to speak to Kubernetes central daemons.
- Pods are fungible. They can be destroyed and re-created in a different host with a different IP.

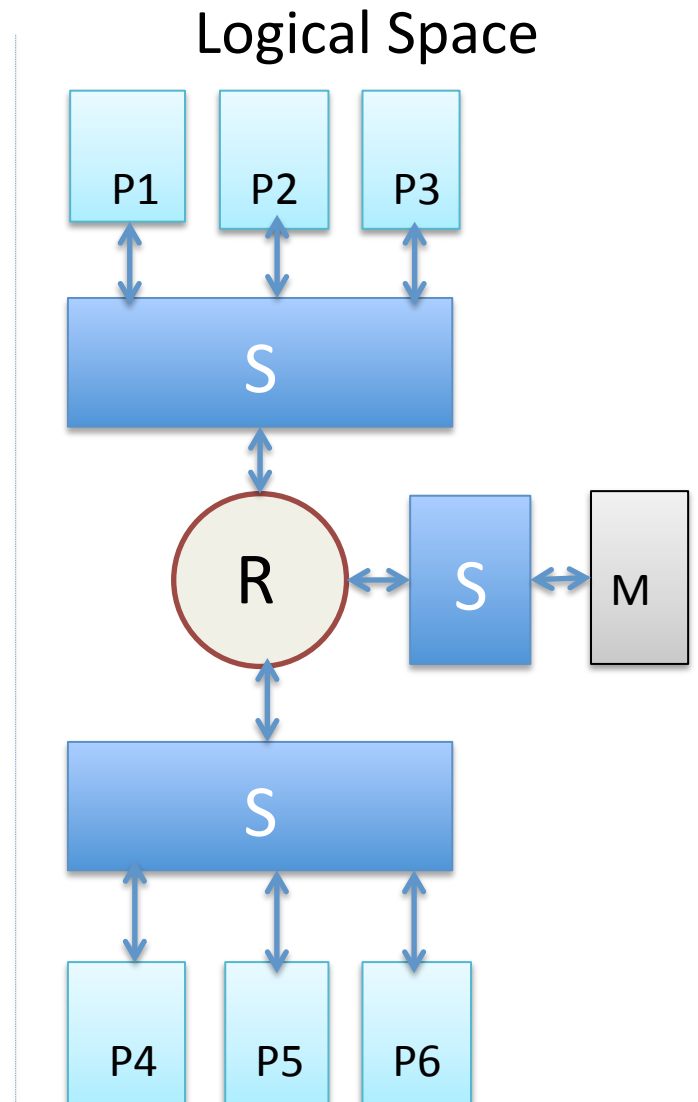
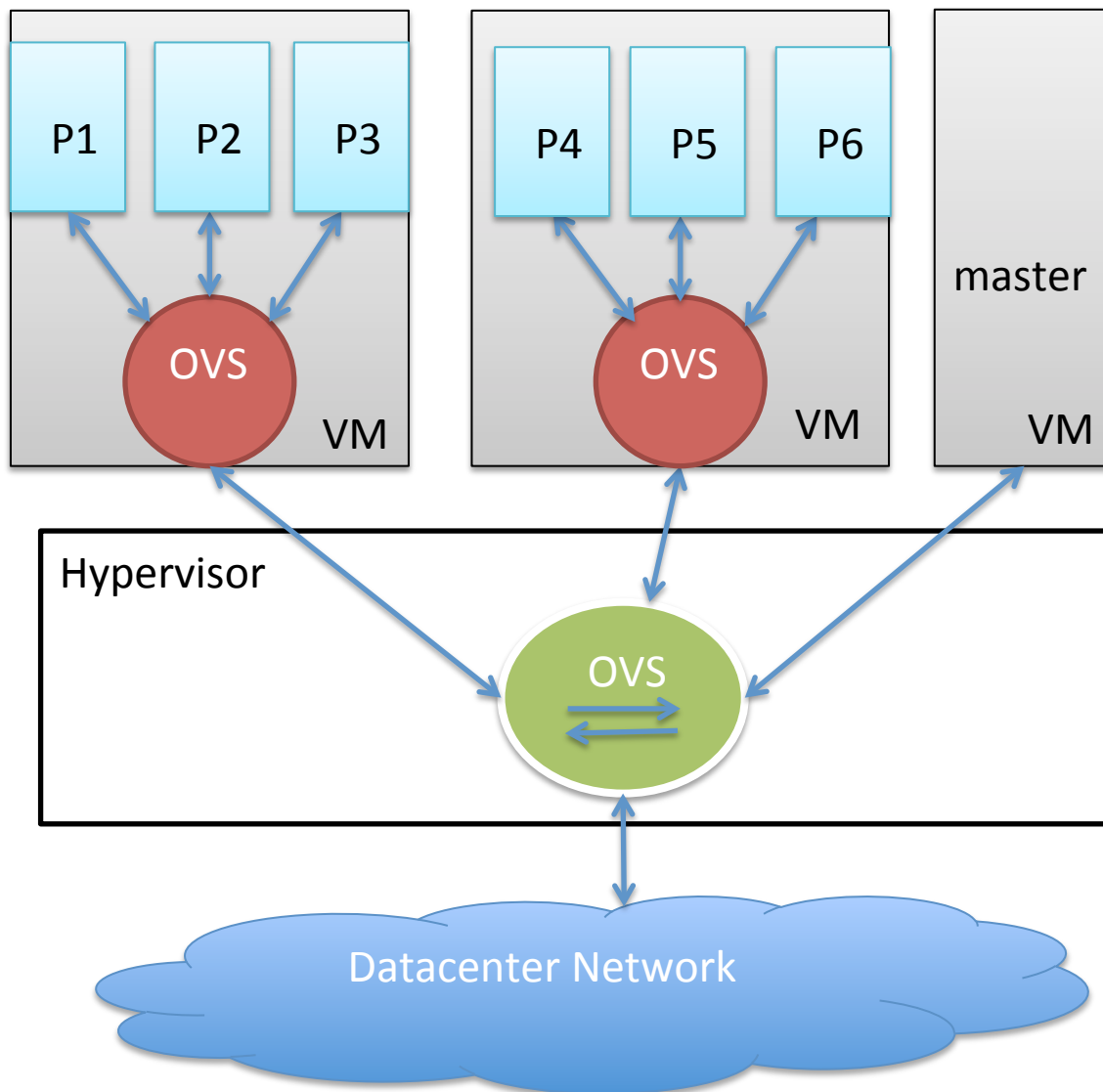
# Kubernetes Services

- A Service is a front end to a Pod (or group of pods)
- Pods discover each other via the Service IP.
- The service IP is constant (a VIP), but the pods backing it can change.
- In-built load balancers in each VM.
- Service discovery by application happens either via DNS or via Environmental variables.
- Each service has a set of endpoint objects (pods) that can be queried.

# Replication Controller

- Responsible to maintain a fixed amount of pods backing a service.
- Scale up or scale down the number of pods backing a service.
- Opportunity to perform rolling upgrades in your deployment.

# Kubernetes integration



# Demo



# Work for V1.0

- Integrate with native OVS load-balancers and NAT.
- Cleaner Security integration with k8s native extensions
- Integrate with OVN L3 gateway for north-south.
- External Load-balancer support for north-south traffic