

# Demystifying Docker Networking

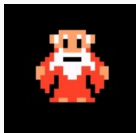
Practical guide to black magic

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# About Me



## **Lorenzo Fontana**

DevOps Expert @Kiratech

Docker Captain

Docker Maintainer

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**We are hiring**

# All the things!

09th, March	Docker Workshop at Incontro DevOps Italia 2017
10th, March	Incontro DevOps Italia 2017
16th, March	CloudConf 2017
24,25th, March	Codemotion Rome 2017
29,30th, March	Codemotion Tel Aviv 2017
17-20th, April	DockerCon 2017
27,28th, April	ContainerDay



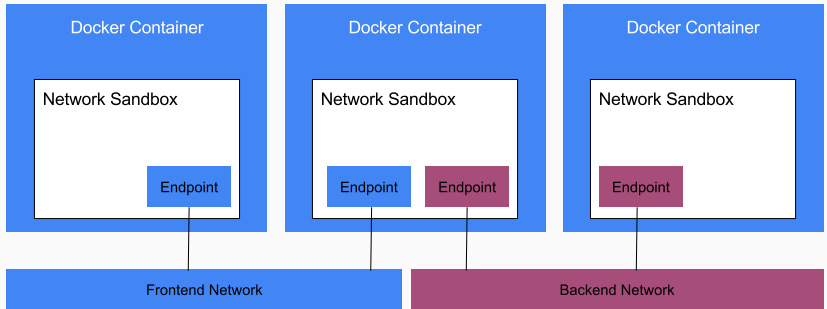
# Libnetwork

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# CNM: Container Network Model

- Sandbox
- Endpoint
- Network

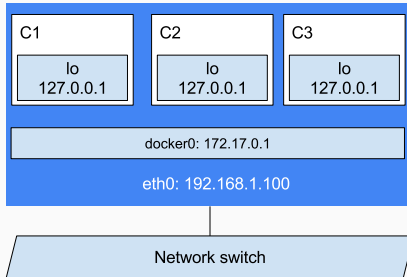
# CNM: Container Network Model (cont'd)





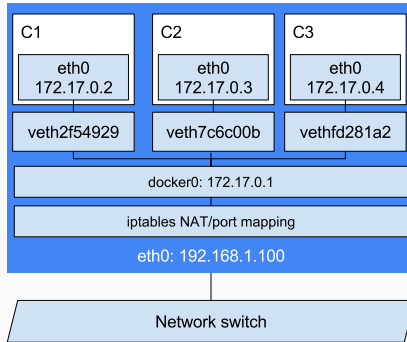
# Network Drivers 101

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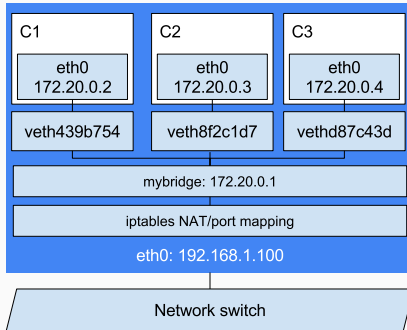
```
# docker run -it --network=none alpine sh
```

# Default Bridge (docker0)



```
# docker run -it alpine sh
```

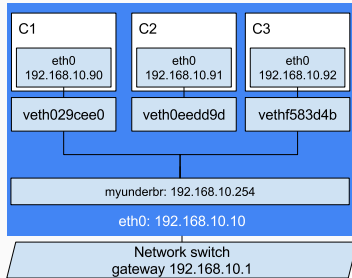
# Custom Bridge (mybridge)



```
# docker network create -d bridge \
  -o com.docker.network.bridge.name=mybridge \
  mybridge

# docker run -it --net mybridge alpine sh
```

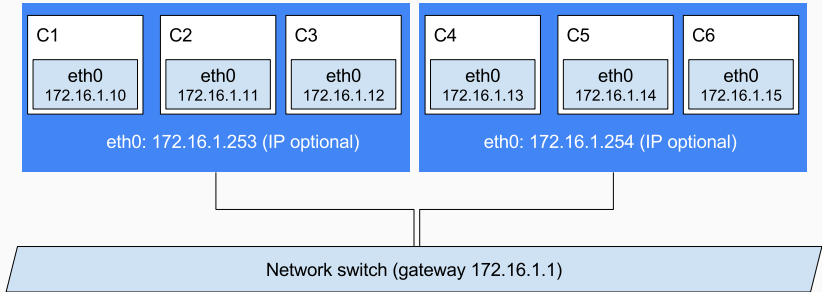
# Custom Bridge Network IPAM underlay (myunderbr)



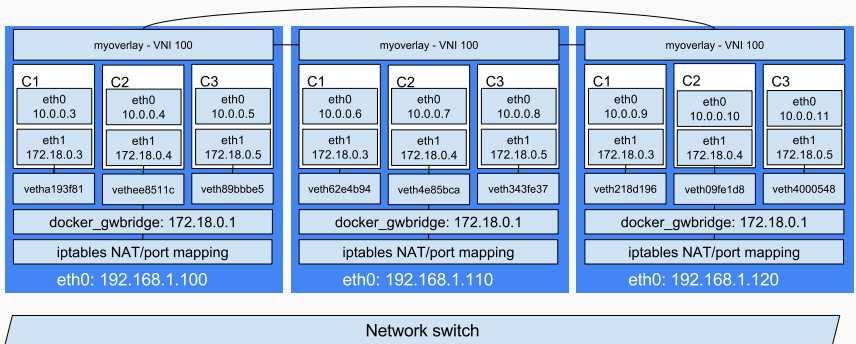
```
# docker network create -d bridge --subnet
    =192.168.10.0/24 --gateway=192.168.10.254 \
    --aux-address DefaultGatewayIPv4=192.168.10.1 -o
    com.docker.network.bridge.name=myunderbr
    myunderbr

# brctl addif myunderbr enp5s0
# docker run -it --net myunderbr alpine sh
# docker run -it --net myunderbr --ip 192.168.10.90
    nginx:1.9
# ip a del 192.168.10.254/24 dev myunderbr
```

# Macvlan & IPvlan

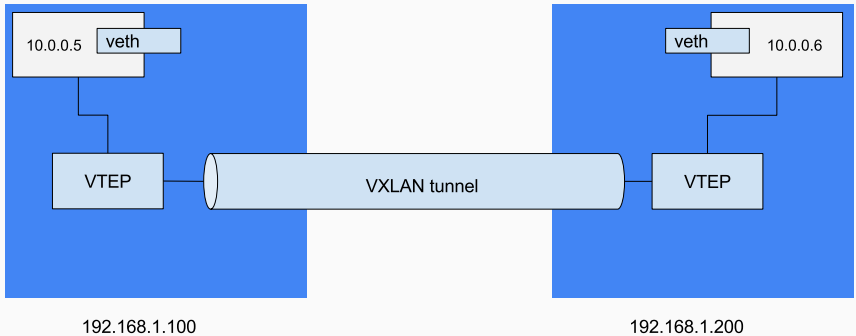


# Overlay network (myoverlay)



```
# docker network create -d overlay myoverlay
# docker service create --network myoverlay nginx
```

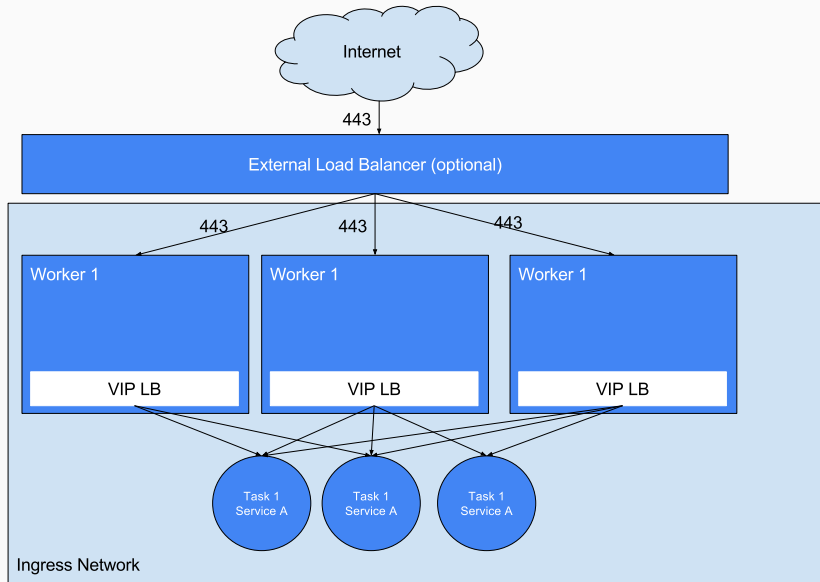
## Overlay network (cont'd)





# IPVS

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**Questions?**