

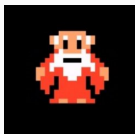
Demystifying Docker Networking

Practical guide to black magic

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About Me



Lorenzo Fontana

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Docker Maintainer

<http://fntlnz.wtf>

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See you there!

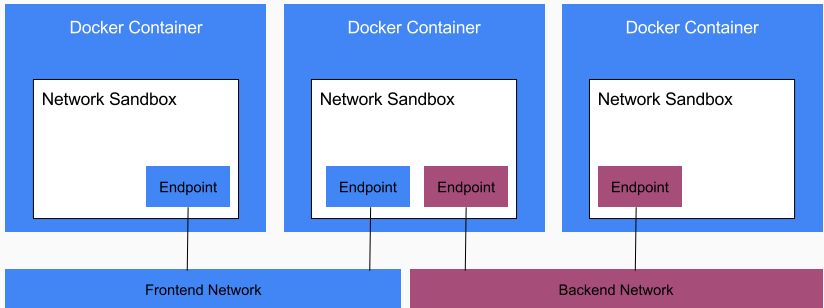
10th, March	Incontro DevOps Italia 2017
16th, March	CloudConf 2017
24,25th, March	Codemotion Rome 2017
29,30th, March	Codemotion Tel Aviv 2017
17-20th, April	DockerCon 2017
27,28th, April	ContainerDay
17,19, May	InfoShare

Libnetwork

CNM: Container Network Model

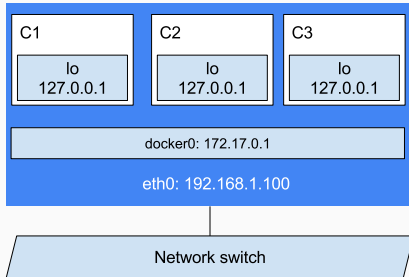
- Sandbox
- Endpoint
- Network

CNM: Container Network Model (cont'd)



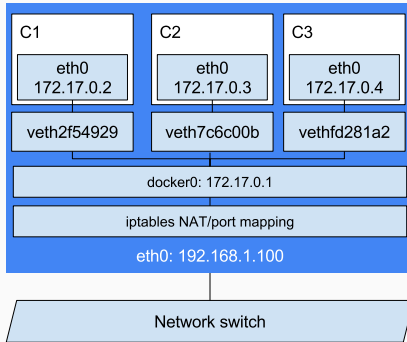
Network Drivers 101

Null



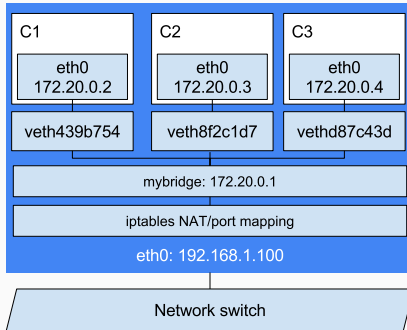
```
# docker run -it --network=none alpine sh
```


Default Bridge (docker0)



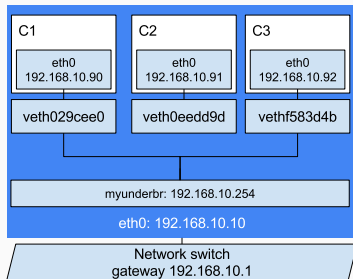
```
# docker run -it alpine sh
```

Custom Bridge (mybridge)



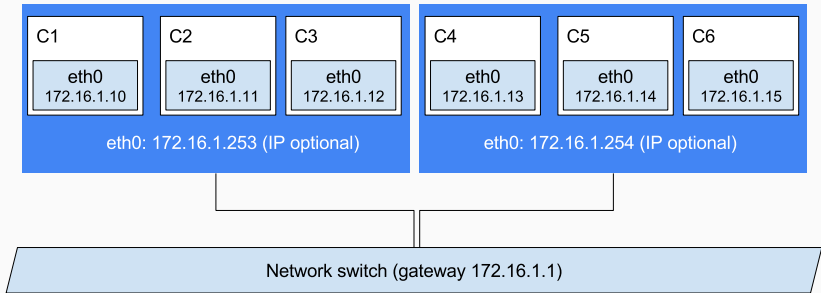
```
# docker network create -d bridge \  
-o com.docker.network.bridge.name=mybridge \  
mybridge  
  
# docker run -it --net mybridge alpine sh
```

Custom Bridge Network IPAM underlay (myunderbr)

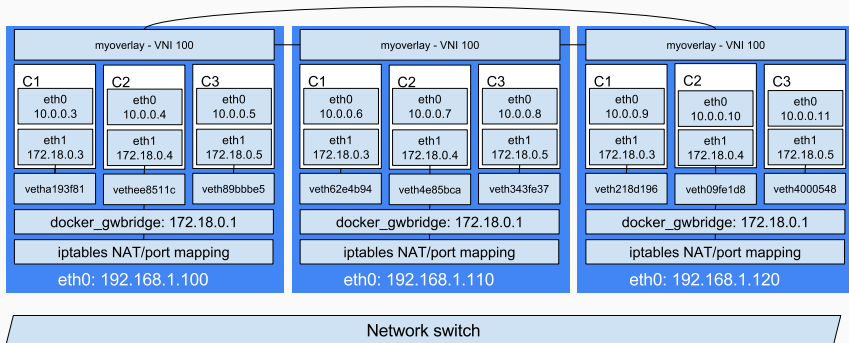


```
# docker network create -d bridge --subnet
    =192.168.10.0/24 --gateway=192.168.10.254 \
    --aux-address DefaultGatewayIPv4=192.168.10.1 -o
    com.docker.network.bridge.name=myunderbr
    myunderbr
# brctl addif myunderbr enp5s0
# docker run -it --net myunderbr alpine sh
# docker run -it --net myunderbr --ip 192.168.10.90
    nginx:1.9
# ip a del 192.168.10.254/24 dev myunderbr
```

Macvlan & IPvlan

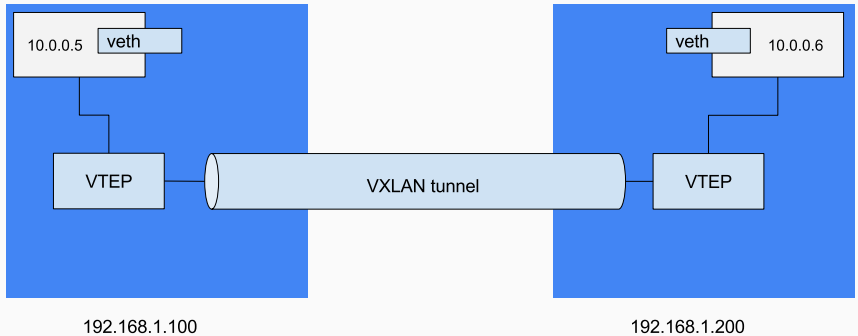


Overlay network (myoverlay)

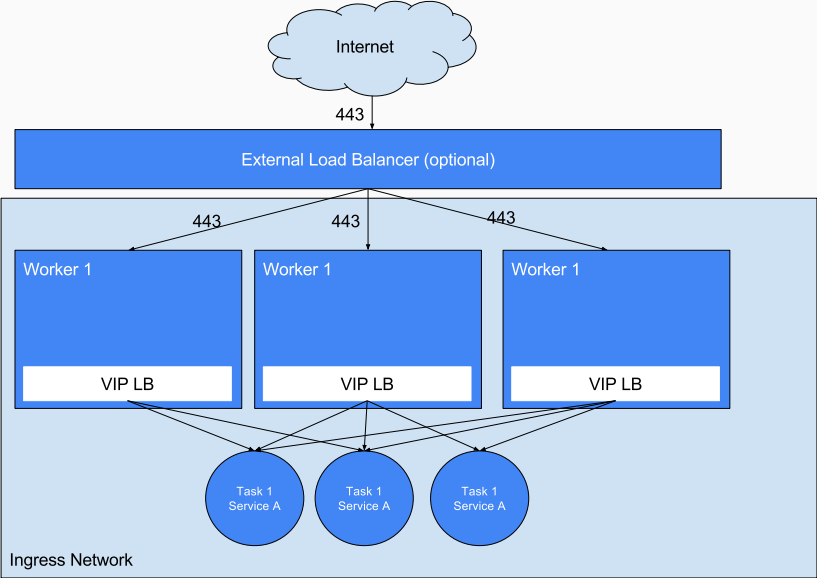


```
# docker network create -d overlay myoverlay
# docker service create --network myoverlay nginx
```

Overlay network (cont'd)



IPVS



Questions?

We are hiring
drop me a line at lo@linux.com