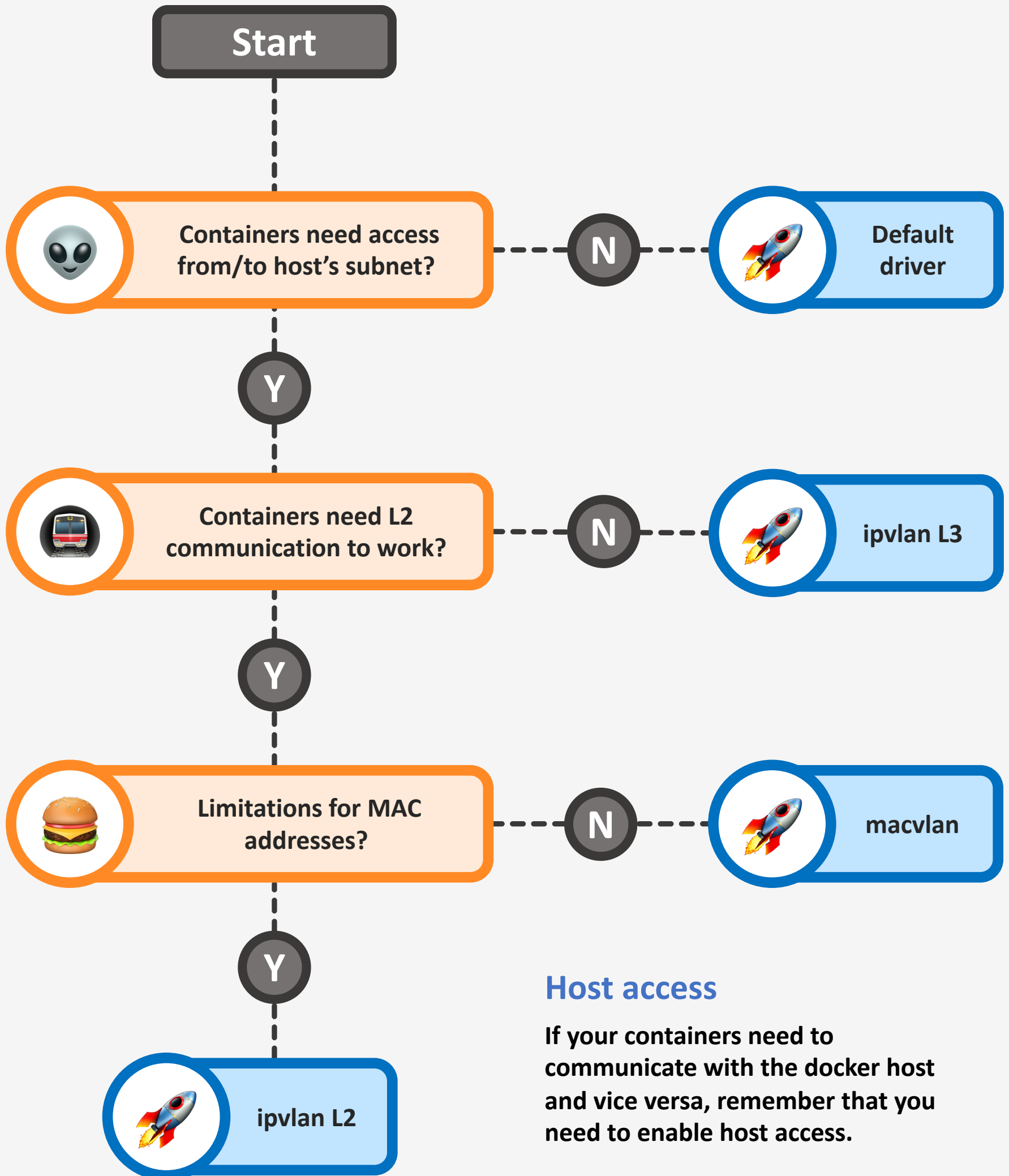


“Which docker VLAN Network Driver Should I Use?” Cheat Sheet



Host access

If your containers need to communicate with the docker host and vice versa, remember that you need to enable host access.

docker VLAN Creation Cheat Sheet

macvlan

```
1 docker network create -d macvlan \  
2   --subnet=192.168.178.16/28 \  
3   --gateway=192.168.178.1 \  
4   -o parent=enp0s3 \  
5   macvlan_net
```

ipvlan L2

```
1 docker network create -d ipvlan \  
2   --subnet=192.168.178.16/28 \  
3   --gateway=192.168.178.1 \  
4   -o parent=enp0s3 \  
5   -o ipvlan_mode=l2 \  
6   ipvlan_l2_net
```

ipvlan L3

```
1 docker network create -d ipvlan \  
2   --subnet=192.168.177.0/24 \  
3   --gateway=192.168.178.10 \  
4   -o parent=enp0s3 \  
5   -o ipvlan_mode=l3 \  
6   ipvlan_l3_net
```

IP Addresses

For explanation of IP addresses, refer to “Detailed Tutorials” section of article

docker VLAN Host Access Cheat Sheet

Settings necessary to access host from containers and vice versa. Default docker behaviour is to block traffic between the host and the containers.

macvlan

```
1 ip link add macvlan-shim link enp0s3 type macvlan mode bridge
2 ip addr add 192.168.178.15/32 dev macvlan-shim
3 ip link set macvlan-shim up
4
5 ip route add 192.168.178.16/28 dev macvlan-shim
```

Ipvlan L2

```
1 ip link add macvlan-shim link enp0s3 type macvlan mode bridge
2 ip addr add 192.168.178.15/32 dev macvlan-shim
3 ip link set macvlan-shim up
4
5 ip route add 192.168.178.16/28 dev macvlan-shim
```

ipvlan L3

No settings needed, docker does not block this traffic by default

IP Addresses

For explanation of IP addresses, refer to “Detailed Tutorials” section of article

docker VLAN make changes permanent

Cheat Sheet

macvlan

Permanently enable promiscuous mode

```
1 auto enp0s3
2 iface enp0s3 inet static
3   address 192.168.178.10
4   netmask 255.255.255.0
5   gateway 192.168.178.1
6   post-up ip link set enp0s3 promisc on
7   pre-down ip link set enp0s3 promisc off
```

Add bridge and enable routing permanently

```
1 auto macvlan-shim
2 iface macvlan-shim inet static
3   pre-up ip link add macvlan-shim link enp0s3 type macvlan mode bridge
4   address 192.168.178.15
5   netmask 255.255.255.240
6   post-up ip route add 192.168.178.16/28 dev macvlan-shim
7   pre-down ip route del 192.168.178.16/28 dev macvlan-shim
8   post-down ip link del macvlan-shim
```

Ipvlan L2

Add bridge and enable routing permanently

```
1 auto macvlan-shim
2 iface macvlan-shim inet static
3   pre-up ip link add macvlan-shim link enp0s3 type macvlan mode bridge
4   address 192.168.178.15
5   netmask 255.255.255.240
6   post-up ip route add 192.168.178.16/28 dev macvlan-shim
7   pre-down ip route del 192.168.178.16/28 dev macvlan-shim
8   post-down ip link del macvlan-shim
```

[/etc/network/interfaces](#)

All changes on this sheet have to be made in this file