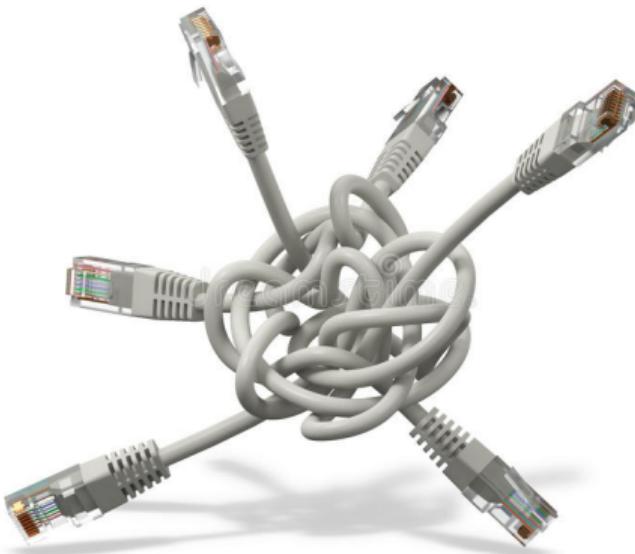


container networking from scratch



The aim

The network needs to satisfy the following (Kubernetes) requirements:

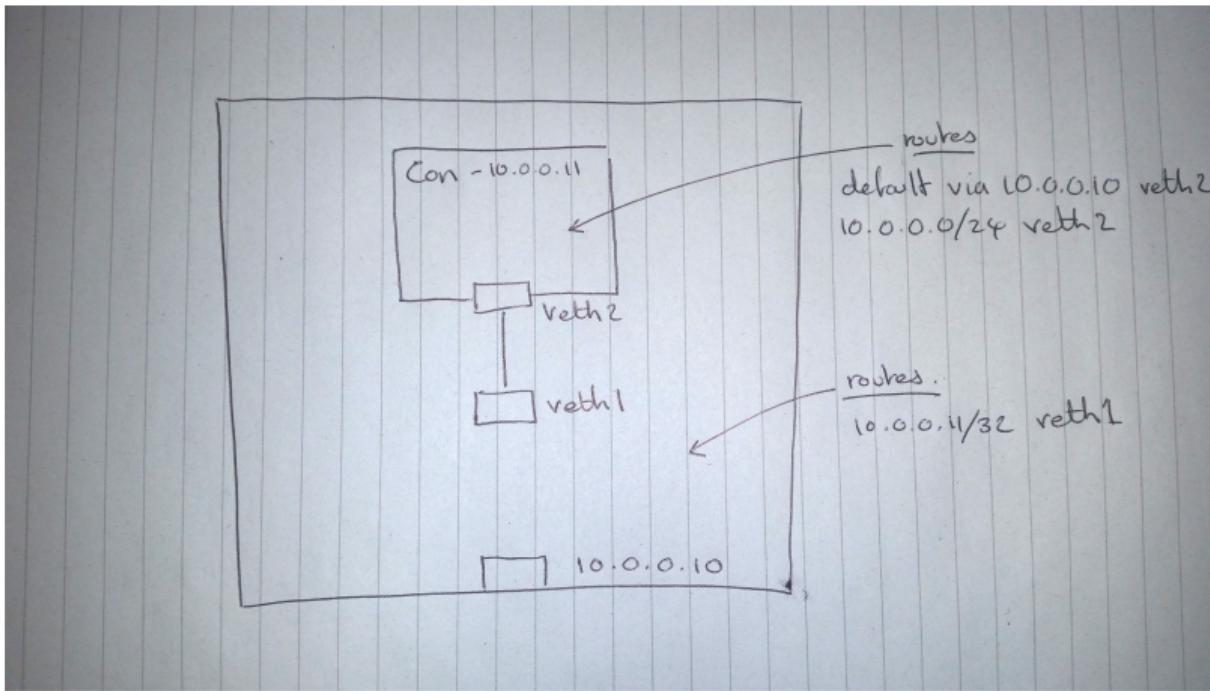
- All containers can communicate with all other containers without NAT
- All nodes can communicate with all containers (and vice-versa) without NAT
- The IP that a container sees itself as is the same IP that others see it as

The plan

To work our way from nothing, to a (flannel style) overlay network in 4 'easy' steps:

- Step 1: Single network namespace
- Step 2: Single node
- Step 3: Multi node
- Step 4: Overlay network

container networking from scratch



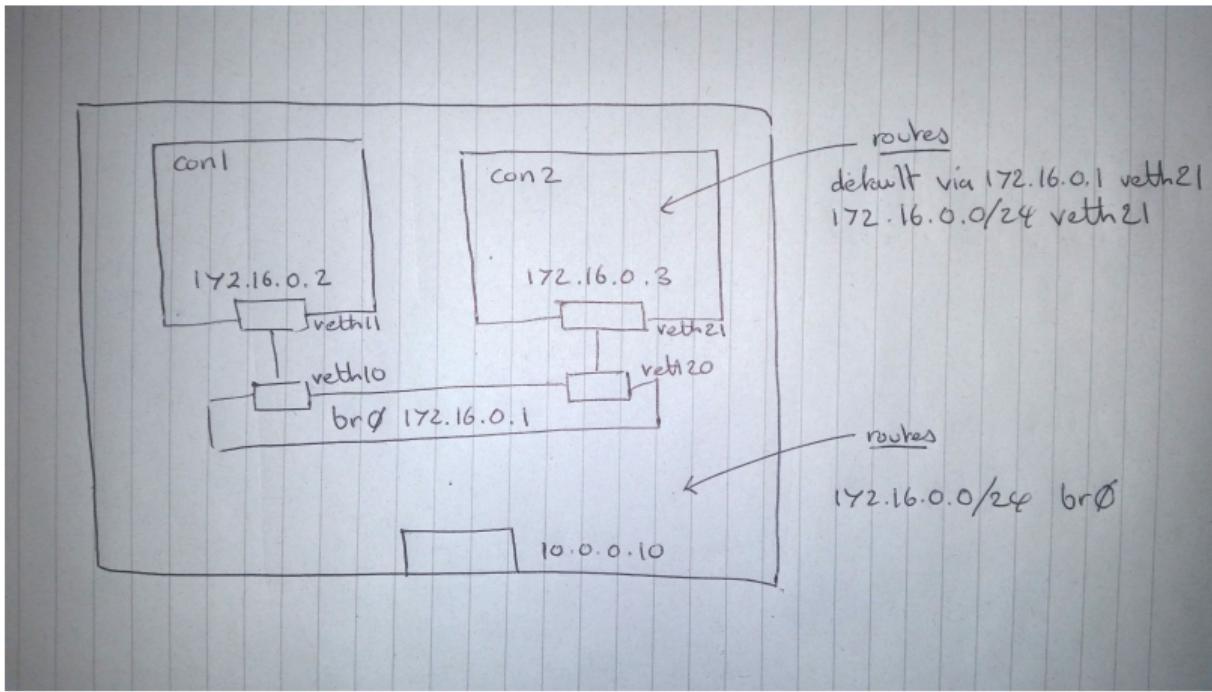
Routing rules 101

4 Types of routing rules (in order of precedence):

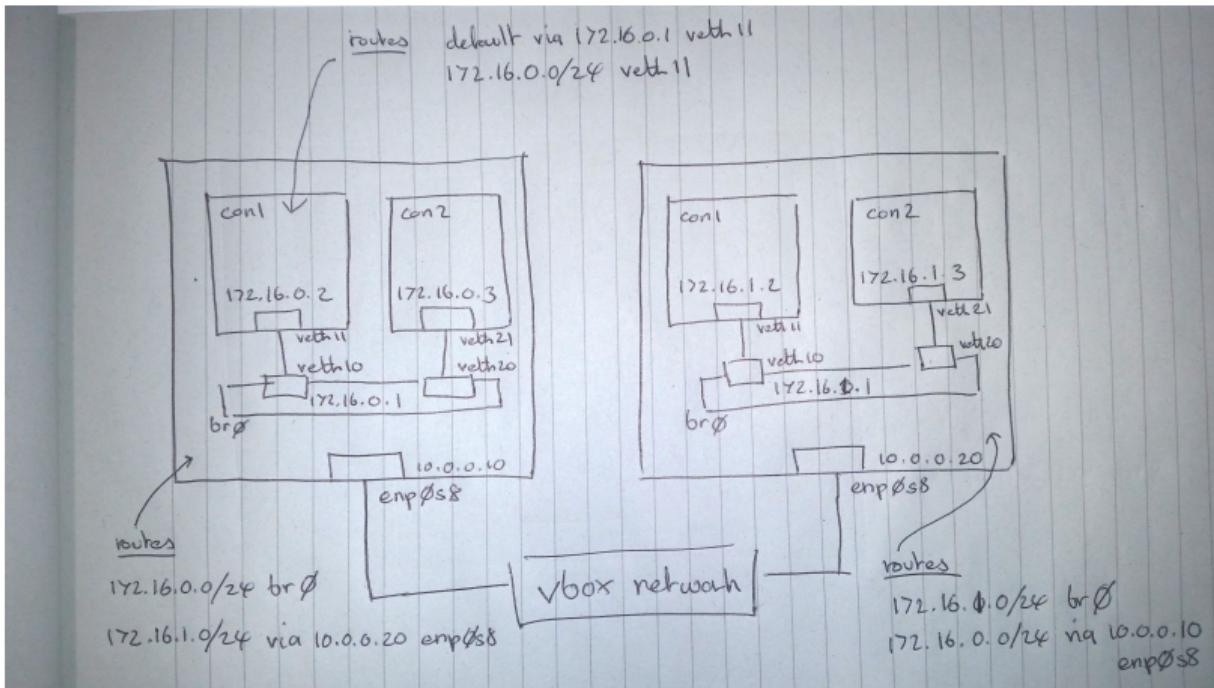
1. Directly connected network, e.g. `10.0.0.0/24 eth1`
2. Static (manually added) routing rule, e.g. `10.0.0.0/24 via 10.0.0.1 eth0`
3. Dynamic (automatically added) routing rule, e.g. `10.0.0.0/24 via 10.0.0.1 eth0`
4. Default rule, e.g. `default via 10.0.0.1 eth0`

Within each of the above, the most specific CIDR range takes priority.

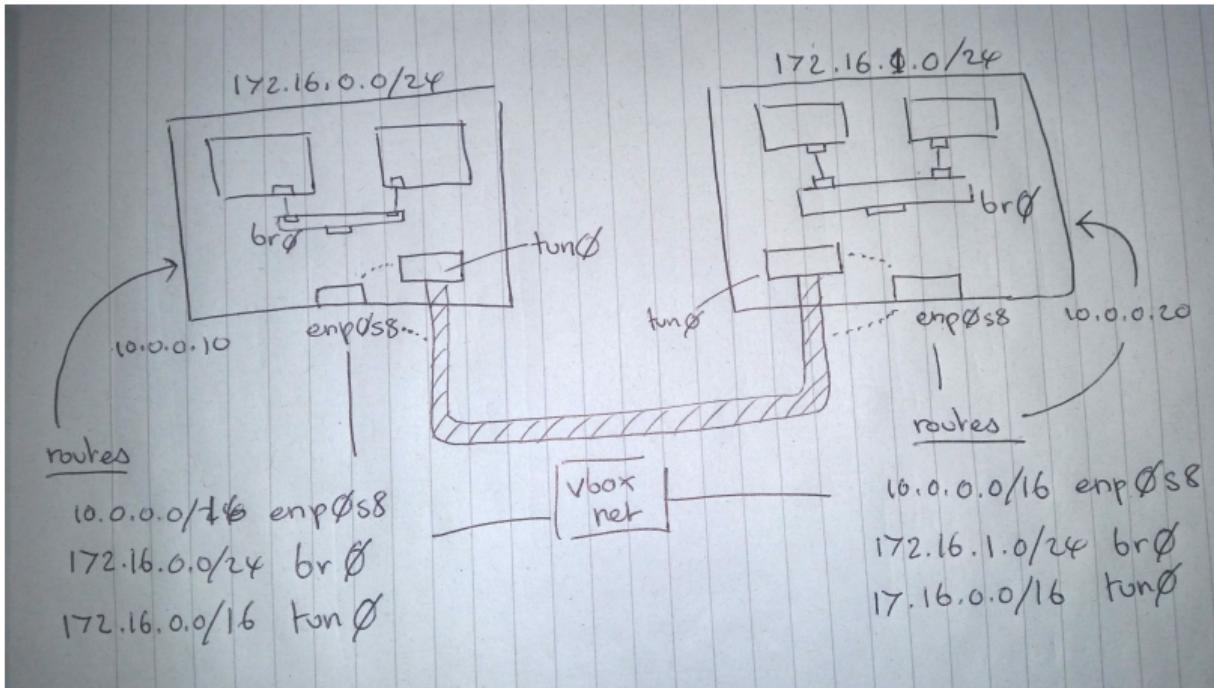
container networking from scratch



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Links

- <https://github.com/kristenjacobs/container-networking>