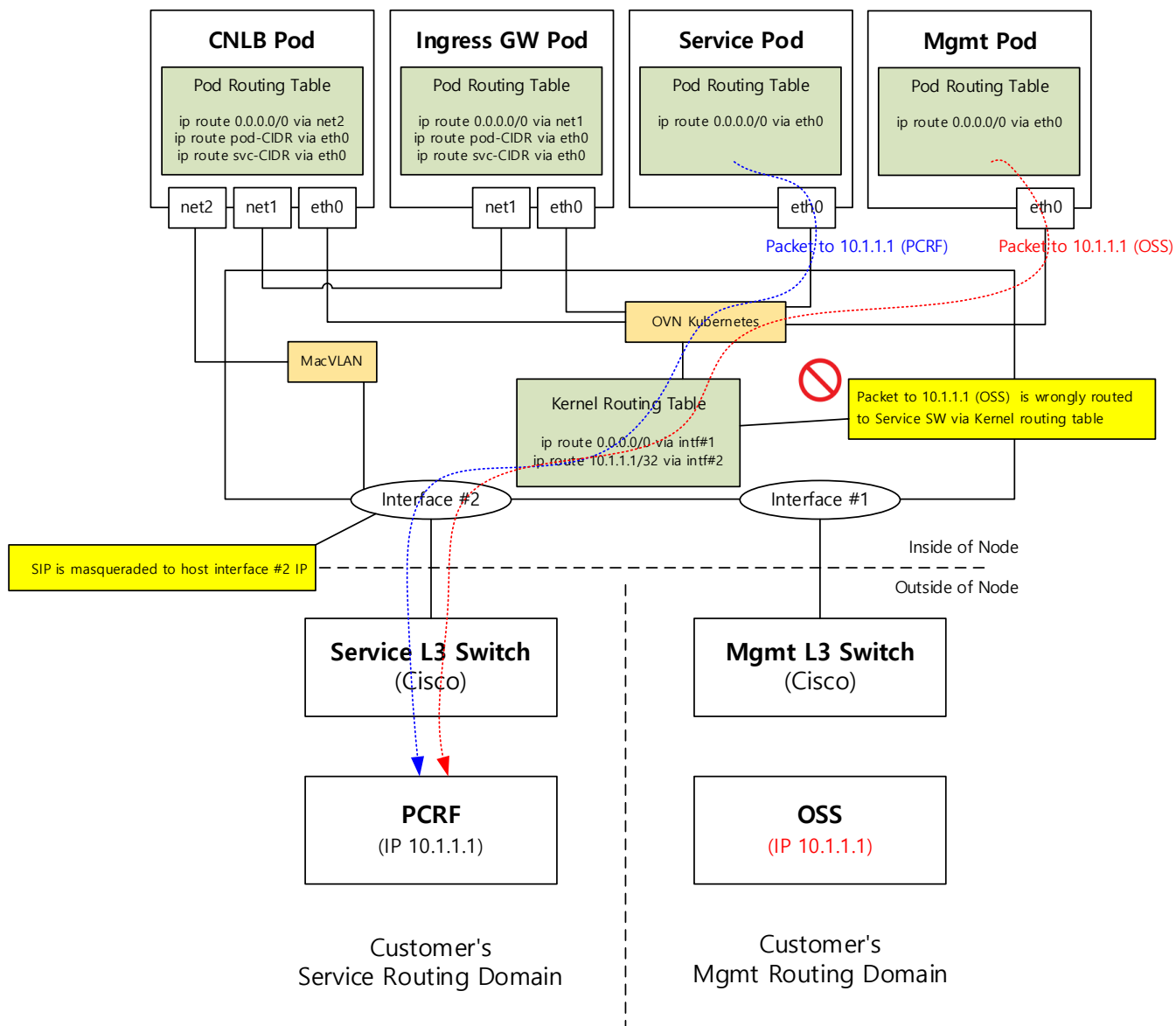


1. Condition

- Customer network is separated (different VR) by Management network and Service network (Single IP address can exist in both network)
- Primary network (OVN Kubernetes) and host interface #1 of node are connected to Management L3 switch
- Host interface #2 of node is connected to Service L3 switch

2. Current egress path

- Default route of kernel routing is via host interface #1 of node toward Management L3 switch
- Static route (toward PCRF) of kernel routing is via host interface #2 of node toward Service L3 switch
- Traffic path toward OSS SERVER of Management network
Backend Pod → (eth0 - OVN Kubernetes) → Kernel routing (default route) → host interface #1 of node to Management L3 switch (Src IP to be the host interface #1 IP)
- Traffic path toward PCRF of Service network
Backend Pod → (eth0 - OVN Kubernetes) → Kernel routing (static route) → host interface #2 of node to Service L3 switch (Src IP to be the host interface #2 IP)
- Problem
Egress traffic is relay on host kernel routing (single domain) and no VRF. So, OSS SERVER IP and PCRF IP cannot be identical



3. Proposed egress path

- Create secondary interface (Multus/bridge/net1) to backend Pod
- Net1 is linked with host interface #2 of node that is connected to Service L3 switch
- Default route of backed pod will be net1
- Traffic path toward PCRF of Service network
- Backend Pod → (net1 - bridge) → host interface o#2 of node to Management L3 switch (Src IP to be the host interface #2 IP)

※ Red Hat case Case #03260932 "IP masquerade is not working at the network-attachment-definition bridge" is opened for this approach

