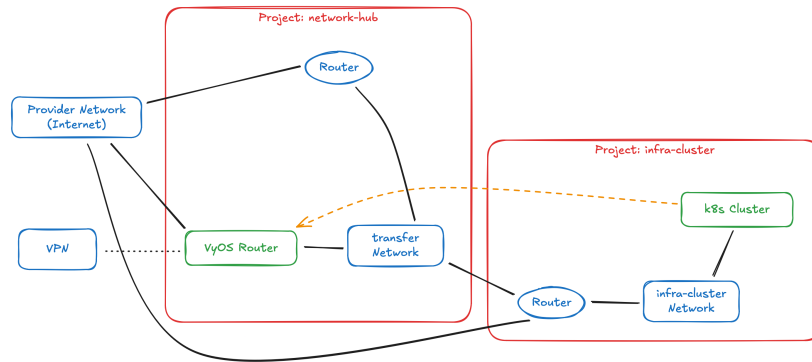


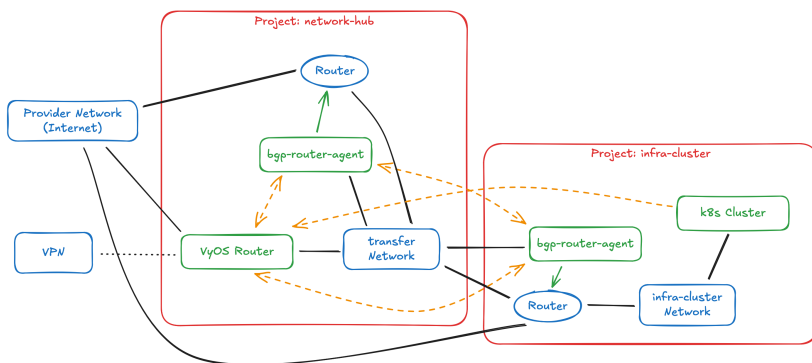
Hackathon: Cloud Router + Kubernetes FRR Pod Peering

- Provision an AWS EC2 "cloud router" and a Kubernetes FRR pod.
[VyOS router on OpenStack and Peering with Cilium CNI Plugin](#)
- Configure BGP peering between them using Ansible.
- Validate route exchange with Python.
[Monitoring is Work-in-Progress](#)
- Automate the entire workflow.
[Ansible + Cloud-Init for VMs and Flux GitOps for Kubernetes](#)

Hub-Spoke Network Topology in OpenStack



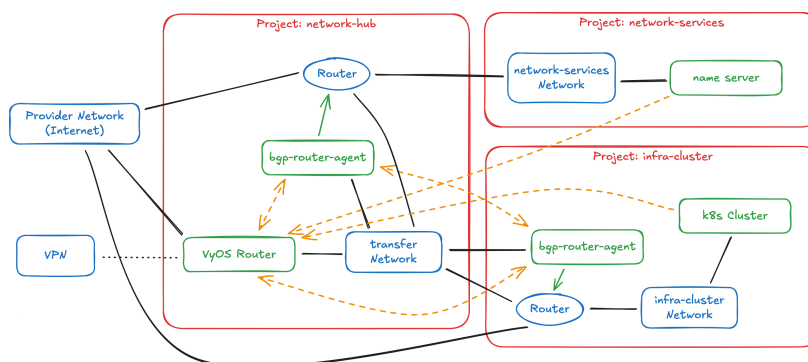
OpenStack Router Agent for Dynamic Routing



- Agent VM runs BGP daemon for one OpenStack router
- OpenBGPD without route injection into Kernel
- Golang programm synchronizes BGP daemon with OpenStack router
 - Connected networks get injected into BGP daemon
 - Learned BGP routes get added to OpenStack router static routes
- VyOS router peers with router agents

Code will be published in a few weeks to github.com/nimbolus

Final Setup



- Cilium CNI plugin peers with VyOS router -> Load Balancer IPs get advertised via BGP
- Bonus: BGP daemon on name server peers with VyOS router -> Anycast DNS IP