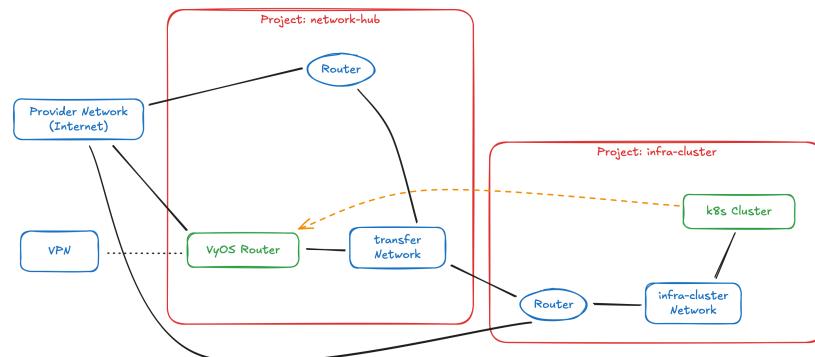


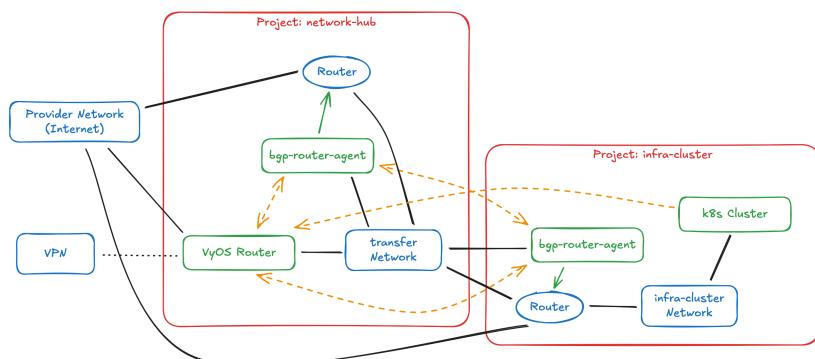
Hackathon: Cloud Router + Kubernetes FRR Pod Peering

- 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



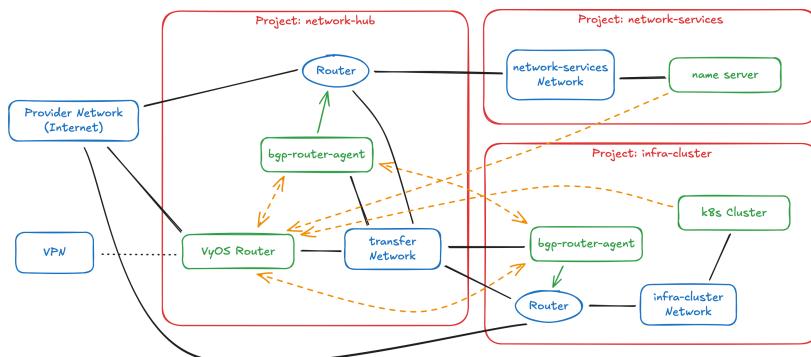
OpenStack Router Agent for Dynamic Routing



- Agent VM runs BGP daemon for one OpenStack router
- OpenBGPd without route injection into Kernel
- Golang program 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/nimbulus

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