Ingress Setup

services in Kubernetes are exposed with ingress controllers for safety and security. They also allow for multiple services to be exposed on one ingress controller

Client

Client Requests for

Suzaku
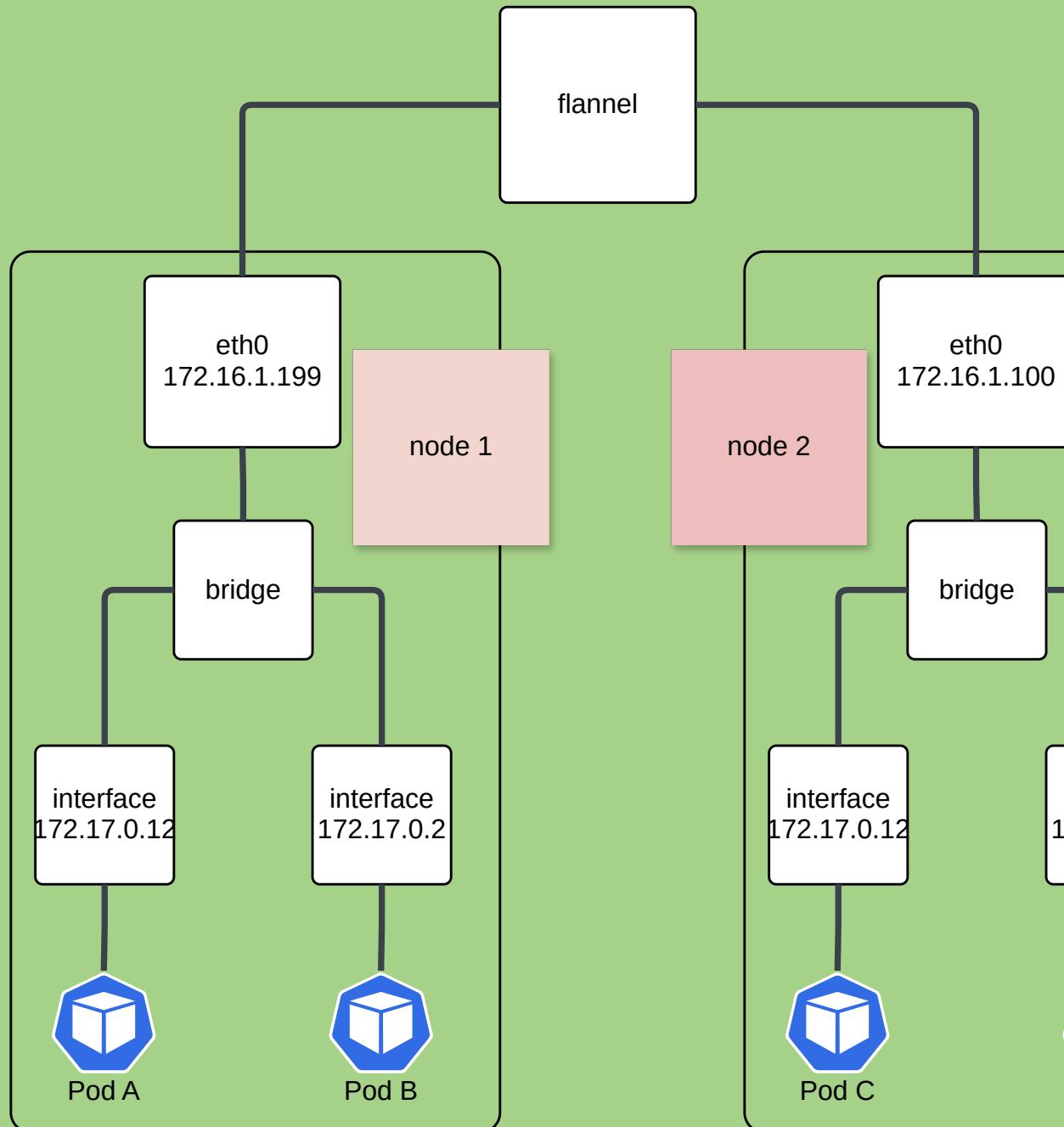
Amun
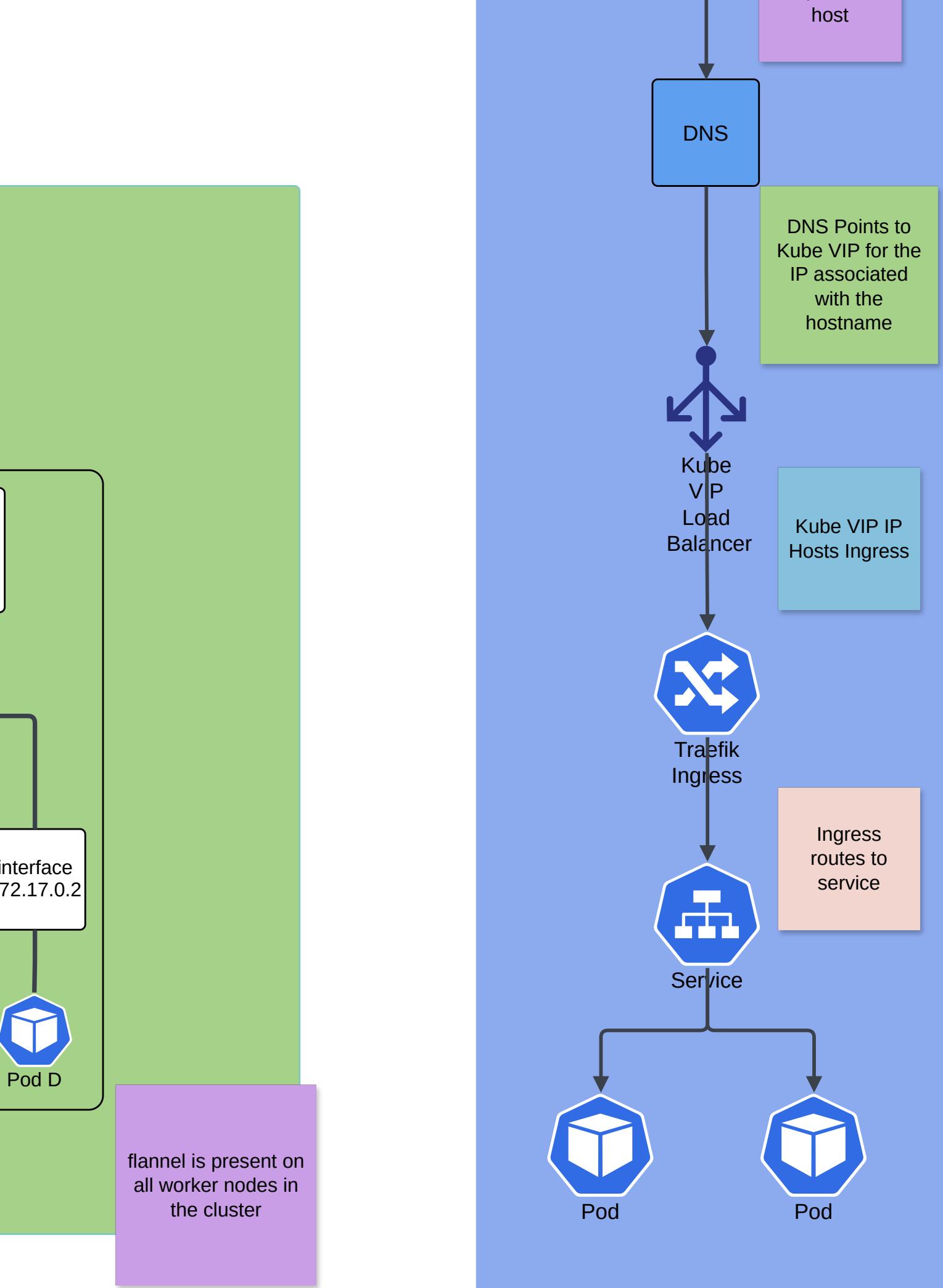
Cyberman
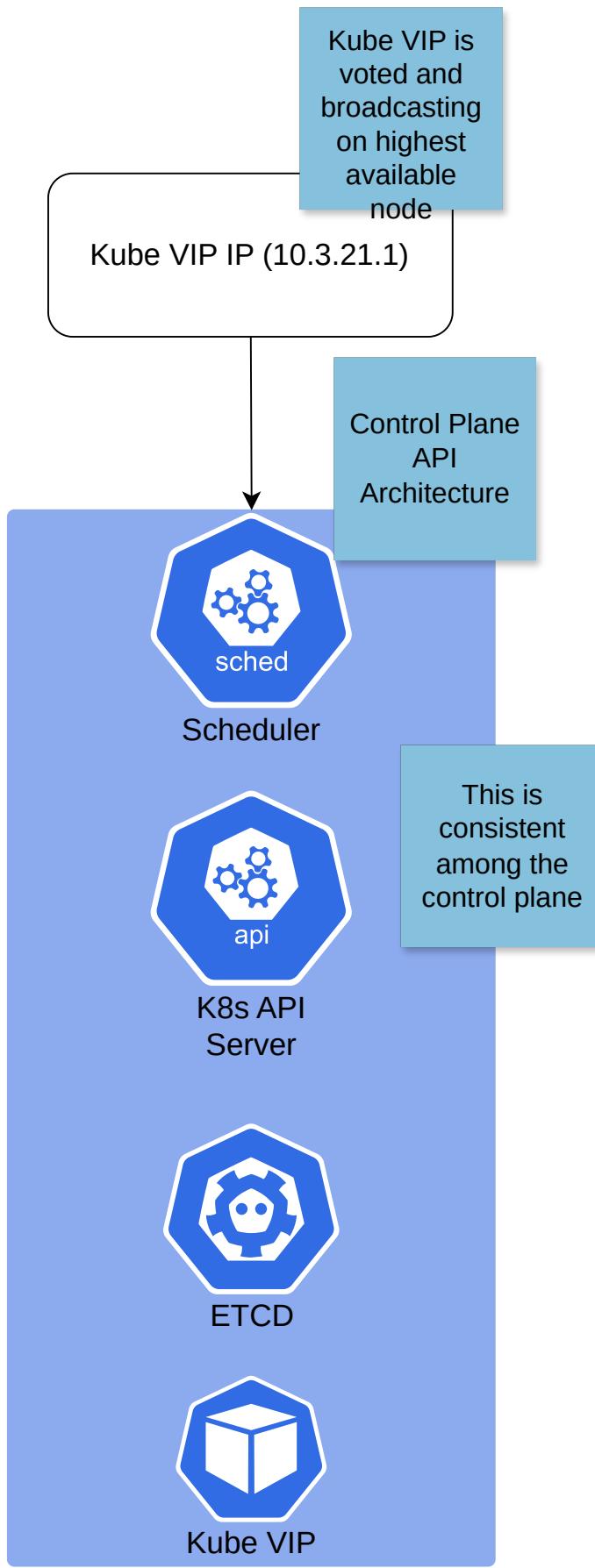
All control
nodes are
currently also
worker and
etcd nodes
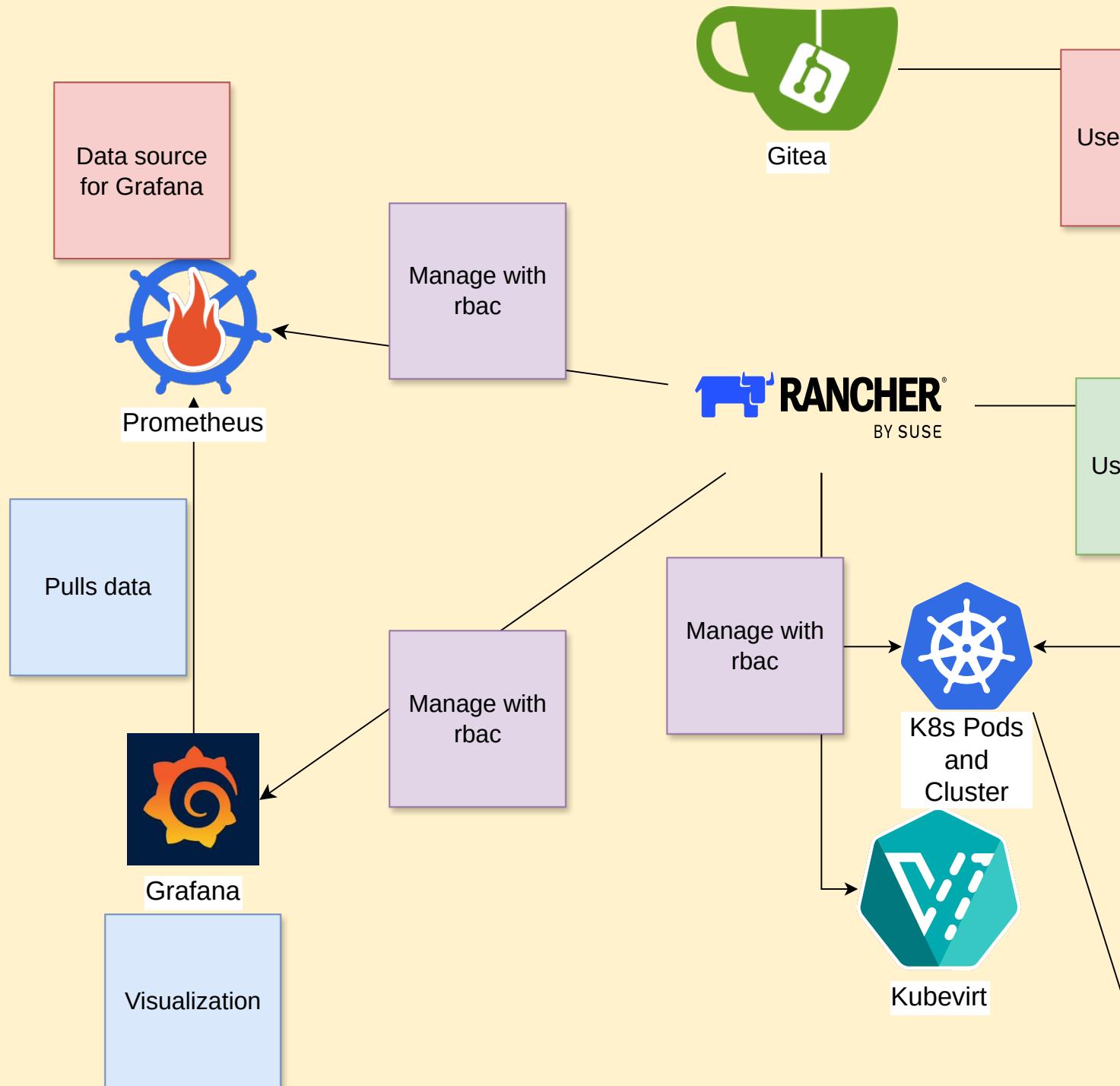
Flannel Networking with VETH

flannel

node 1

eth0
172.16.1.199

bridge

interface
172.17.0.12

interface
172.17.0.2

Pod A

Pod B

node 2

eth0
172.16.1.100

bridge

interface
172.17.0.12

Pod C

host

DNS

DNS Points to
Kube VIP for the
IP associated
with the
hostname

Kube
VIP
Load
Balancer

Kube VIP IP
Hosts Ingress

Traefik
Ingress

Ingress
routes to
service

Service

Pod

Pod

interface
72.17.0.2

Pod D

flannel is present on
all worker nodes in
the cluster

Kube VIP is voted and broadcasting on highest available node

Kube VIP IP (10.3.21.1)

Control Plane API Architecture

sched

Scheduler

This is consistent among the control plane

api

K8s API Server

ETCD

Kube VIP

Gitea

Use

Data source
for Grafana

Manage with
rbac

RANCHER
BY SUSE

Us

Prometheus

Pulls data

Manage with
rbac

Manage with
rbac

K8s Pods
and
Cluster

Grafana

Manage with
rbac

Visualization

Kubevirt

Elasticsearch

s for auth

Uses for auth

Authentik

Uses for auth

Manage storage

Rookceph

Agents send telemetry

elastic

Cluster (not in Kubernetes)