

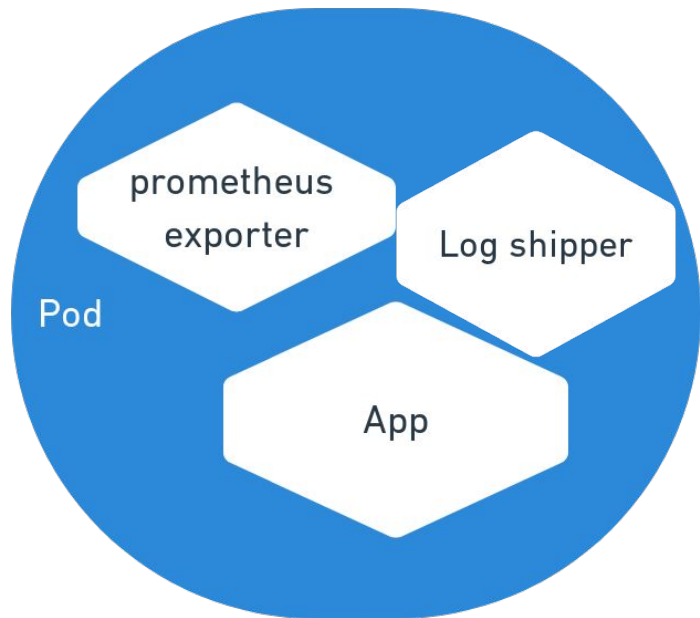
Kubernetes concepts

The container

- Version controlled code and environment
- Generally built with docker
- ??? we know this probably

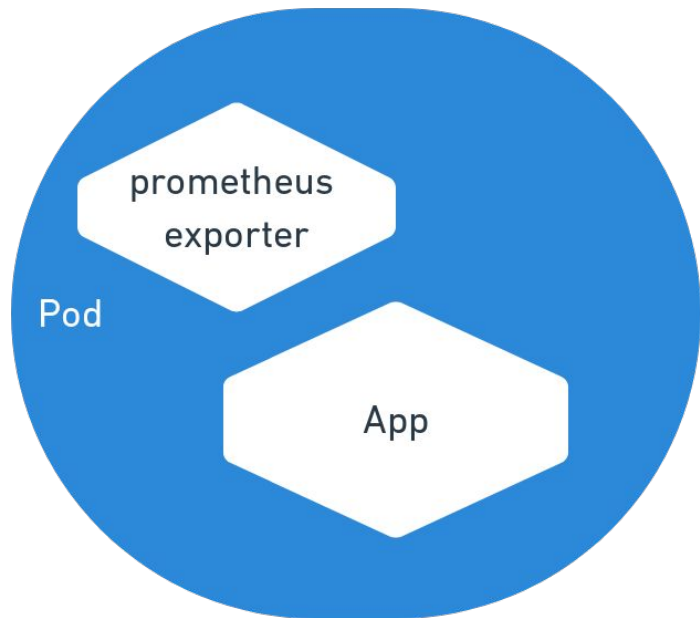


The pod



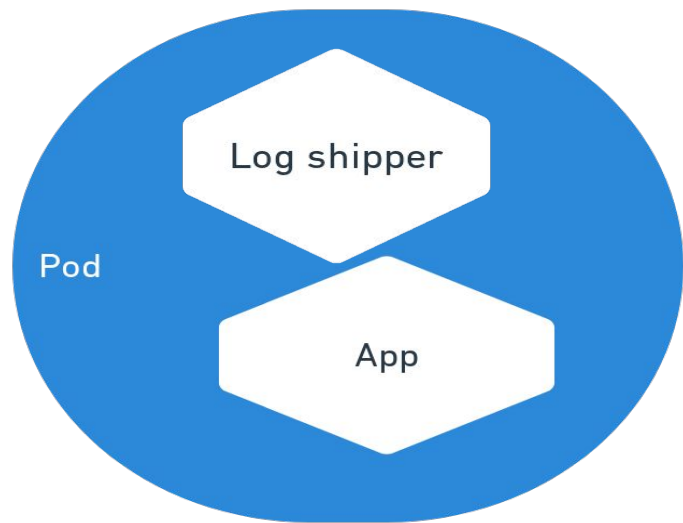
- One or more containers that share the same resources (network namespace, volumes, whatever...)
- Containers should do 1 thing well

Why tho



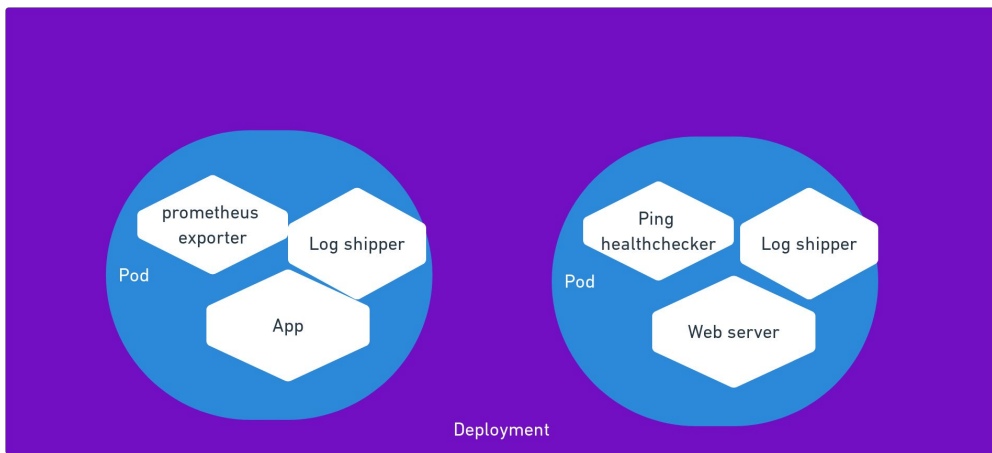
- Prometheus exporter: needs a web server, needs to take metrics and expose them as a prometheus friendly format
- Shares same network so that we don't need to expose a web server outside the container from the main app

Why tho



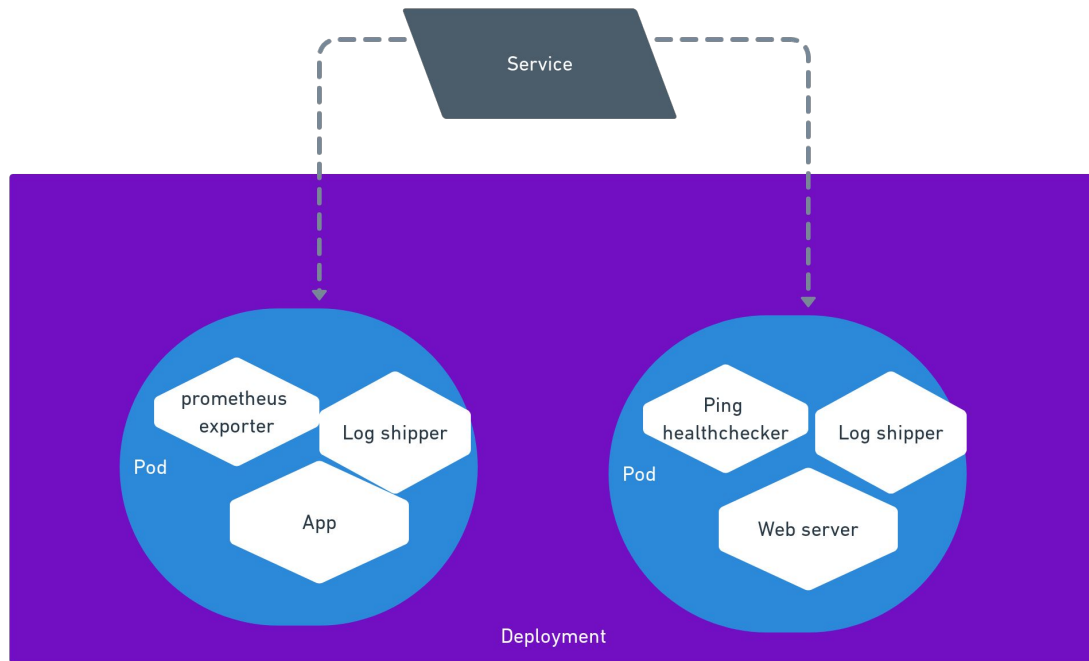
- Log shipper: app probably shouldn't care about which log storage we use
- Log shipper needs to have access to volumes in order to get at stored logs from the app itself

Deployments



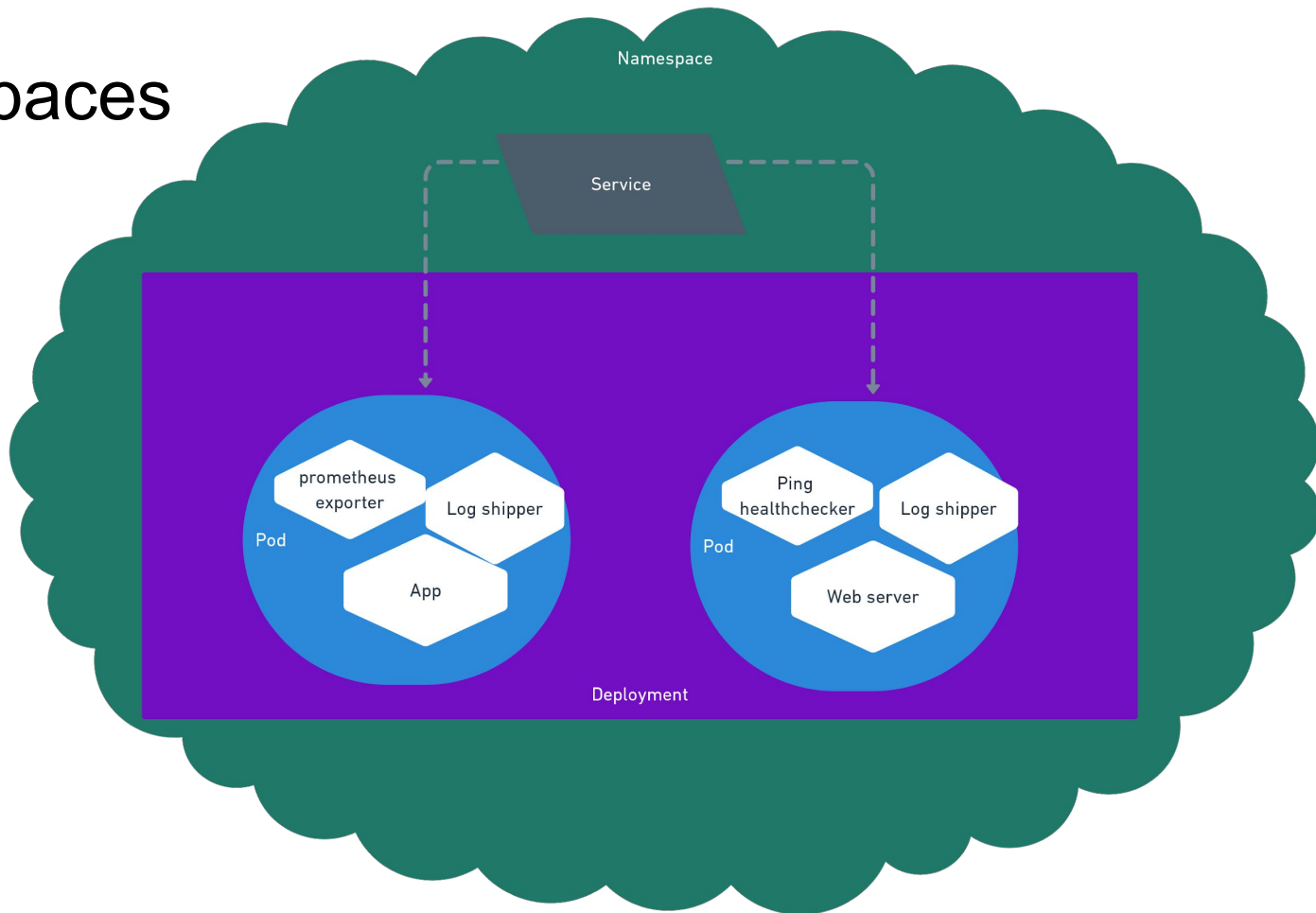
- Controller for pods - will create 1 or more copies or “replicas”
- Ensures pods don't end (and restarts them if they do), knows info about where to put them
- Other controllers: stateful set, cronjob (ish)...

Services



- Loosely coupled network link to pods
- Provides ip or name for multiple pods, sends traffic to different pods randomly
- Means you don't need to address specific pods which may come up and die etc

Namespaces



Namespaces

- Space where names have meaning
- Allows you to deploy the same app to different namespaces and configure it slightly differently depending on what's in that namespace
- Most other resources live in a namespace