DEPLOYMENT

ReplicaSet and the Pods and it will make sure the RS manages the Pods

Managing Resources

Imperative:

We will instruct what we require

Achieved through CLI

Declarative:

We will inform what we require

Achieved through YAML

JOBS and CRONJOBS

Jobs: Creating a Pod to perform a specific task and then terminating it.

Cronjob: Creating a Pod to perform specific tasks recurring

Backup:
sh that initiates the backup
Everyday at 6pm the Pod should be initiated and then once the backup is done, it should be terminated.

* * * * *

Minutes Hour **Date** Month **Day of the Week**

0 18 * * *
6:00 pm

* */2 * * *
every 2 hours

30 19 * * mon,tues,wed,thur,fri
Backup should initiate every day of week day, at 7:30pm

20 6 15 * mon,tues,wed,thur,fri

Cronjob should work on the 15th of every month if it is a weekday and at 6:20 am

NETWORKING

SDN (Software Defined Network)

Networking Add-ons:

- Flannel
- Calico
- Weave Net

OVN - Kubernetes
(Open Virtual Network)

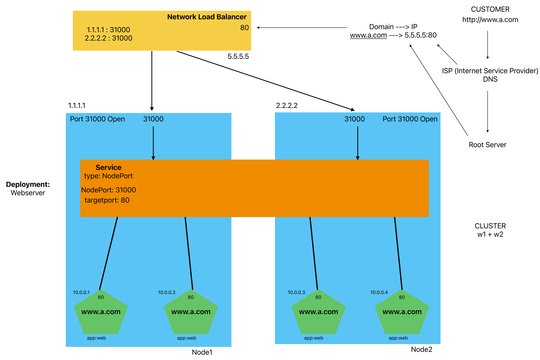
Networkings:

- Container to Container
- Pod to Pod
- Pod to Service
- Service to External

expose deployment --- create a service
expose the service --- create a route

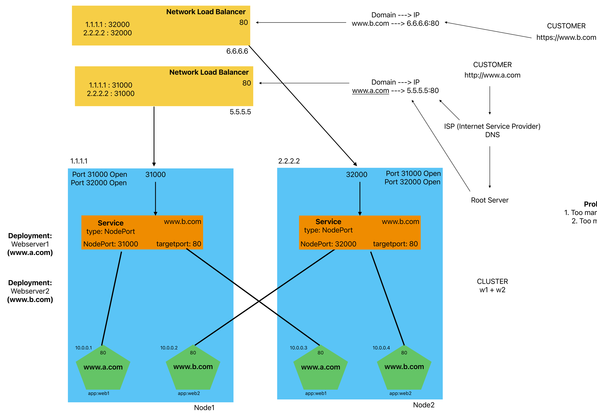
USING SERVICE

NodePort
ClusterIP

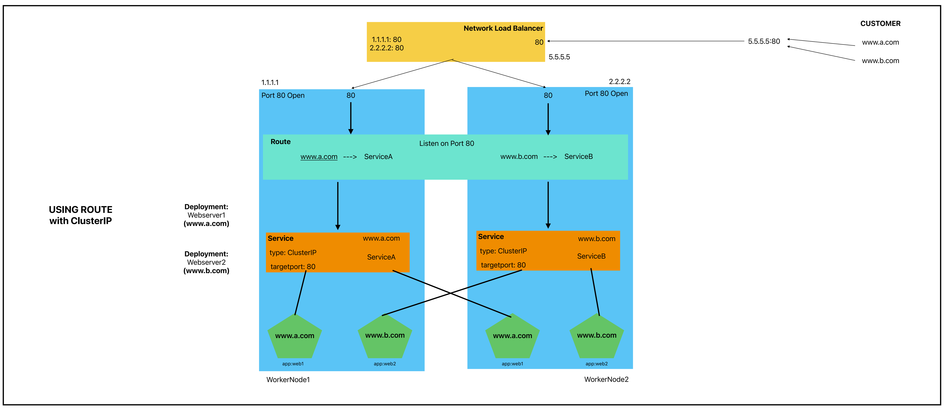


USING SERVICE

NodePort
ClusterIP



USING ROUTE
with ClusterIP



ConfigMap

Environmental Variables

Secrets

key: value

PV: Persistent Volumes

PVC: Persistent Volume Claims

Volume Access Modes

- ReadWriteOnce (RWO)
A single Node mounts the volume as read/write

- ReadOnlyMany (ROM)
Many nodes mount the volume as read only

- ReadWriteMany (RWM)
Many nodes mount the volume as read/write enabled