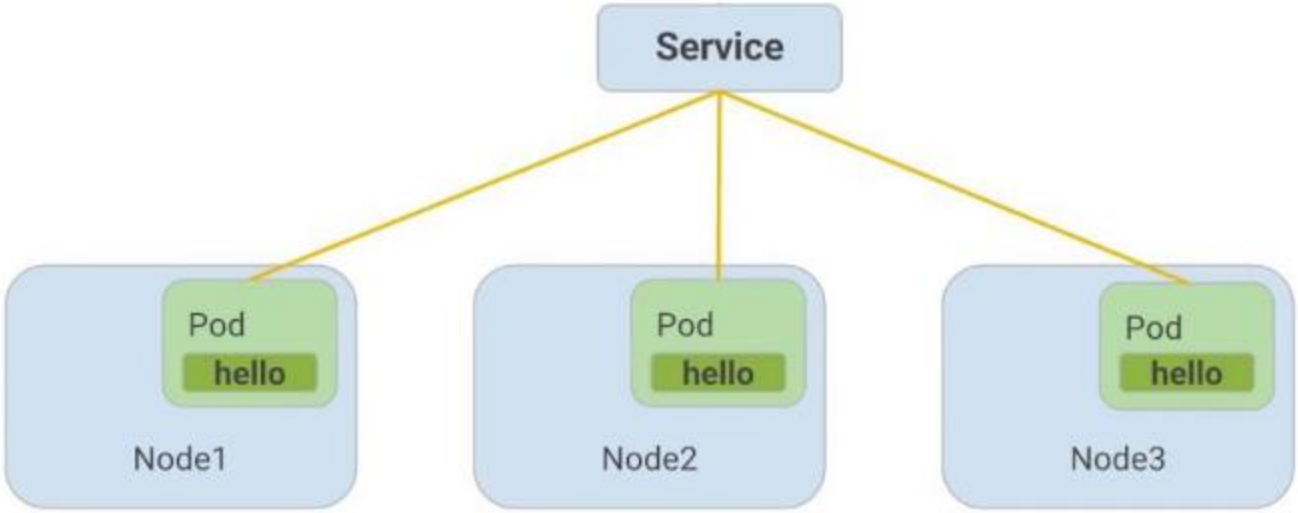
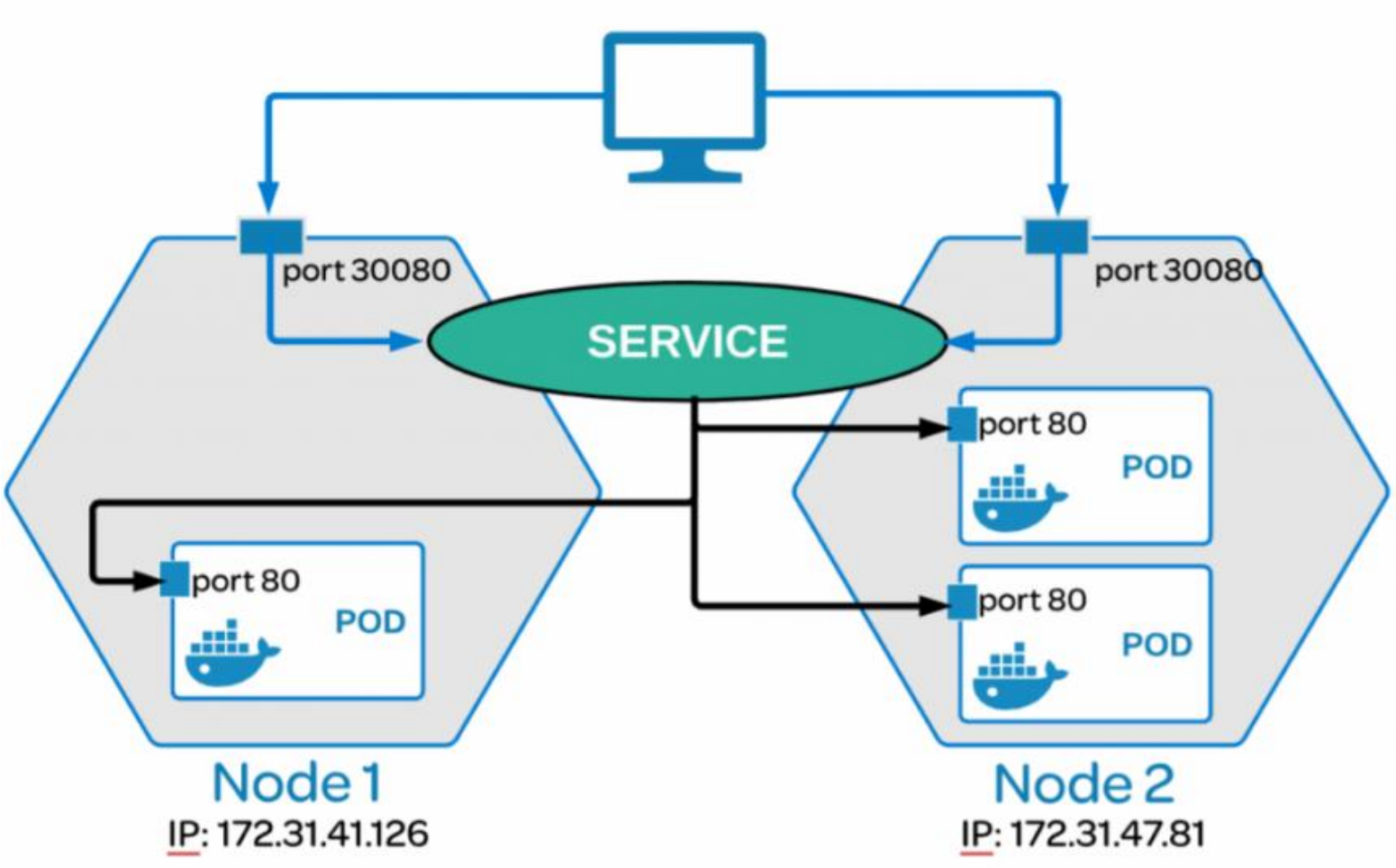
K8s – Service and Networking

Service



Service

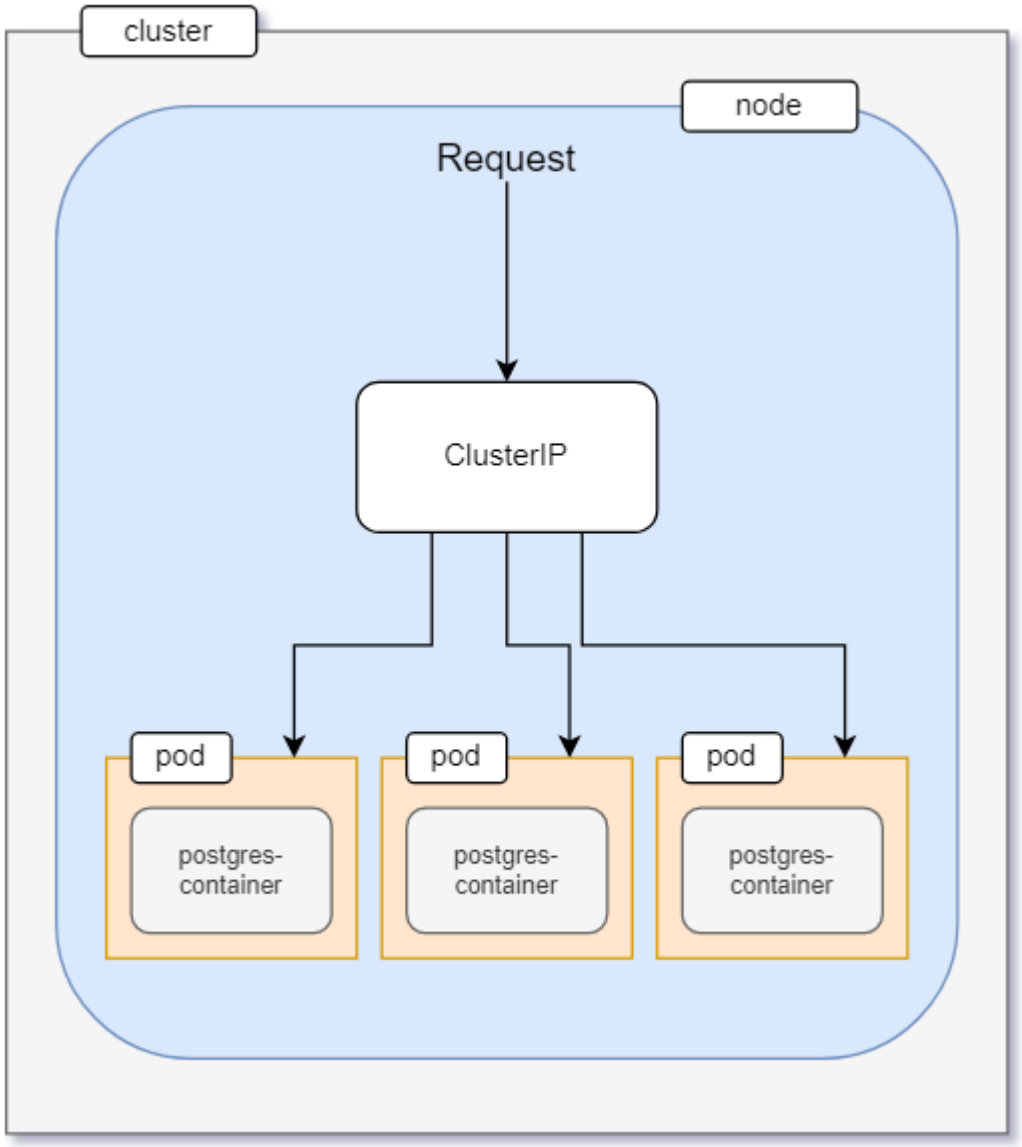

port 30080
SERVICE
port 30080
port 80
POD
port 80
POD
port 80
POD
Node 1
IP: 172.31.41.126
Node 2
IP: 172.31.47.81

Service

- Abstract way to expose an application running on a set of Pods as a network service
- Single point of contact to access your applications running in pods
- Acts load balancing , auto scaling
- e.g. Frontend UI wants to communicate to backend then communicating happens through frontend service to backend service
- port - service port
- targetPort - container application port

- Types of service
  - NodePort
  - ClusterIP
  - Load balancer
  - External

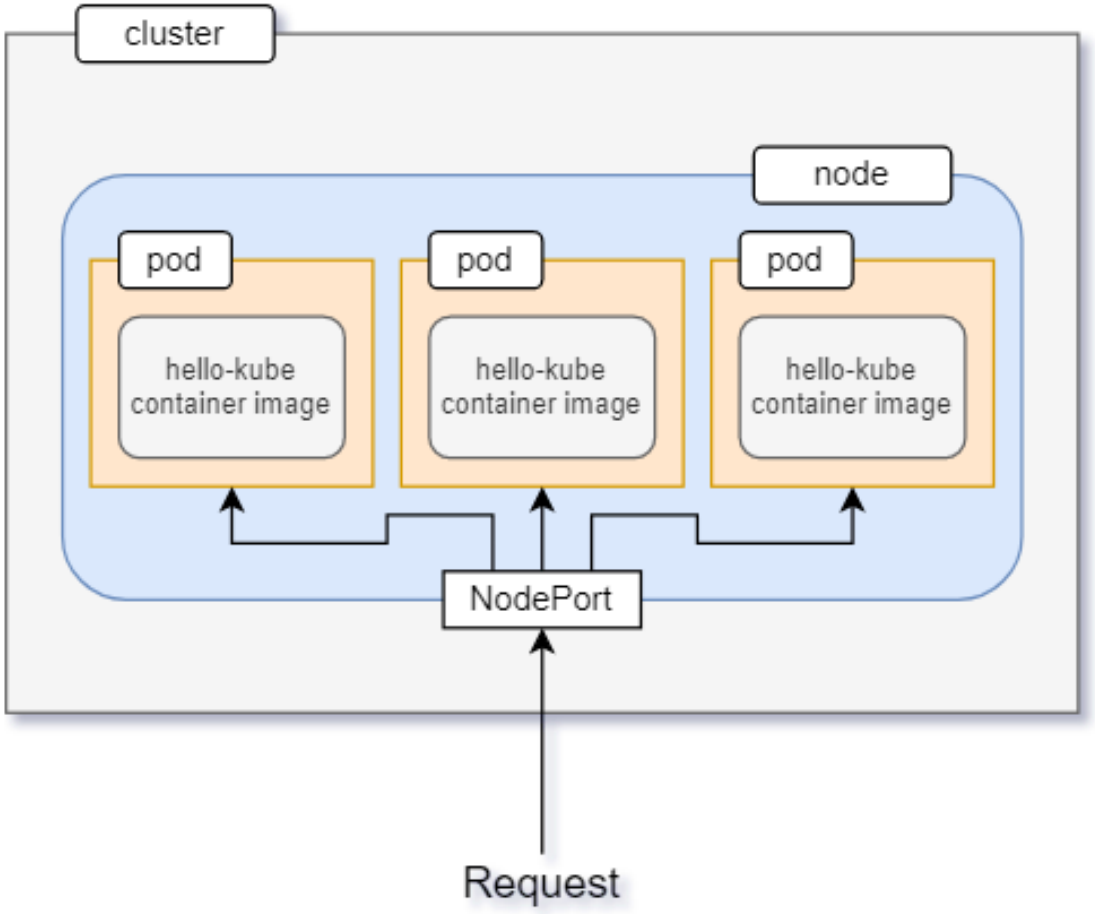
Service - ClusterIP



Service - ClusterIP

- Cluster IP is the default one used only for internal communication within the cluster through service, not to the external traffic
- Useful when you plan to have architecture like frontend end and backend services
- Its like a private pods, not exposed to public
- Exposes an application within your cluster
- No outside traffic can reach the application using a ClusterIP service

Service - NodePort



Service - NodePort

- Alternative to load balancer service type
- Opens a specific port on all the nodes in your cluster, and handles any traffic that comes through that open port
- If service type NodePort, random port from range (30000-32767) will be allocated to service on every worker node
- e.g. NodePort=32000 , so service will listen on 32000 port
- If you want a specific port number, you can specify a value in the NodePort field but it should valid and from above mentioned range

Service – LoadBalancer and ClusterIP