

Working with Cluster IP Service

Create a deployment from following configuration deploy.yaml

```
apiVersion: apps/v1
kind: Deployment
metadata:
  name: nginx-deployment
  labels:
    app: nginx
spec:
  replicas: 1
  selector:
    matchLabels:
      app: nginx
  template:
    metadata:
      labels:
        app: nginx
    spec:
      containers:
        - name: nginx-ctr
          image: nginx:1.9.1
          ports:
            - containerPort: 80
```

Deploy the deployment

```
kubectl apply -f deploy.yaml
```

Create a clusterIP service for above created deployment - clusterip-svc.yaml

```
apiVersion: v1
kind: Service
metadata:
  name: nginx-svc
  labels:
    app: nginx
spec:
  type: ClusterIP
  ports:
    - port: 80
      targetPort: 80
      protocol: TCP
  selector:
    app: nginx
```

Deploy the service

```
kubectl apply -f clusterip-svc.yaml
```

List the services

```
kubectl get svc
```

NAME	CLUSTER-IP	EXTERNAL-IP	PORT(S)	AGE
kubernetes	10.0.0.1	<none>	443/TCP	1h
nginx-svc	10.0.0.134	<none>	80/TCP	8s

```
kubectl get svc -n kube-system
```

Verify the DNS service via nslookup

Create a new deployment

```
kubectl run test --image=nginx:1.9.1 /bin/sh
```

New pods would have got created..

Login to the pod and run the below

```
apt update
```

```
apt-get install dnsutils
```

```
nslookup nginx-svc
```

```
Server: 10.0.0.10
```

```
Address: 10.0.0.10#53
```

```
Name: nginx-svc.default.svc.cluster.local
```

```
Address: 10.0.0.134
```

Within the same namespace service can be accessed by the other service/pods with its DNS name.

Delete the deployment and service:

```
kubectl delete svc nginx-svc
```

```
kubectl delete deploy deploymentname
```