KUBERNETES ASSIGNMENT 4

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Assignment: Change Service Type from NodePort to ClusterIP

Problem Statement

Using the existing Kubernetes deployment, modify the service type from **NodePort** to **ClusterIP** without deleting the deployment.

TASK 1: Verify Existing Service

Run on Kubernetes Master Node

kubectl get svc

Confirmed service was of type NodePort.

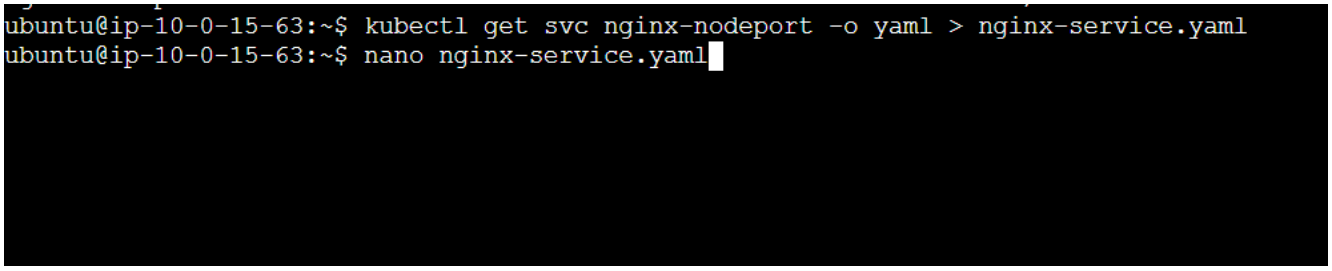
```
ubuntu@ip-10-0-15-63:~$ kubectl get svc
NAME             TYPE        CLUSTER-IP       EXTERNAL-IP   PORT(S)        AGE
kubernetes       ClusterIP   10.96.0.1        <none>        443/TCP        88m
nginx-nodeport   NodePort    10.104.208.124   <none>        80:30007/TCP   55m
ubuntu@ip-10-0-15-63:~$
```

i-0ec6451fd14969f99 (k8s-master)

PublicIPs: 54.82.221.39 PrivateIPs: 10.0.15.63

TASK 2: Export Current Service Configuration

kubectl get svc nginx-nodeport -o yaml > nginx-service.yaml



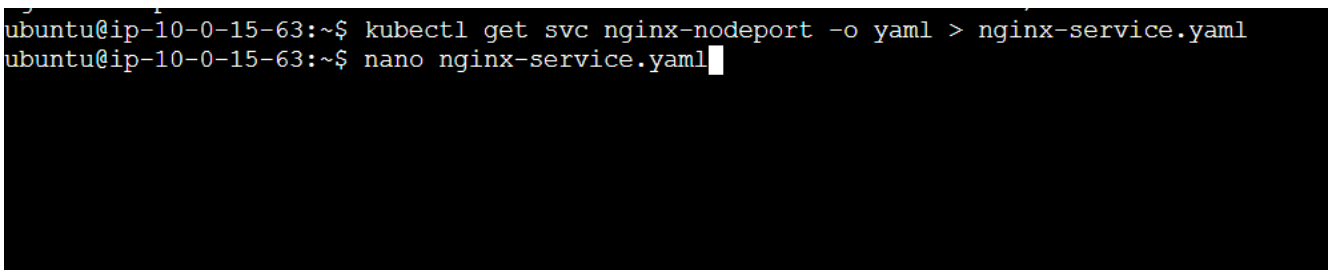
TASK 3: Modify Service Configuration

nano nginx-service.yaml

modified the existing with the following:

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

Saved the file.



```
  GNU nano 7.2
apiVersion: v1
kind: Service
metadata:
  name: nginx-nodeport
spec:
  selector:
    app: nginx
  type: ClusterIP
  ports:
    - port: 80
      protocol: TCP
      targetPort: 80

^G Help          ^O Write Out     ^W Whe
```

TASK 4: Apply Updated Service

kubectl apply -f nginx-service.yaml

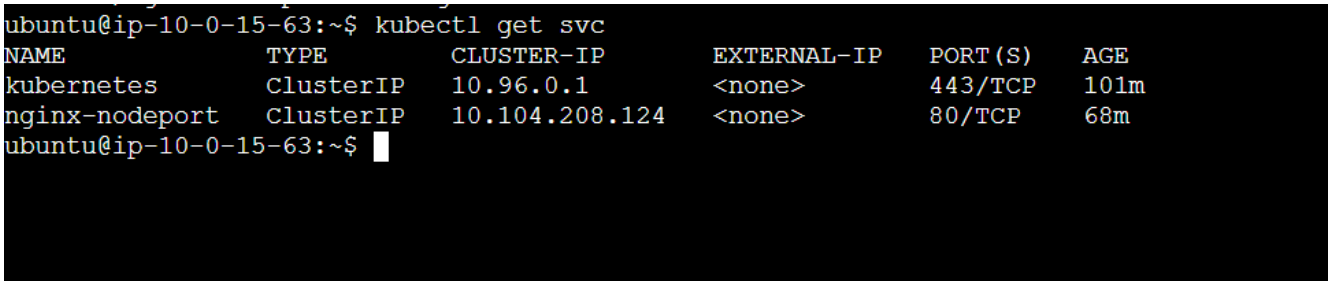
```
ubuntu@ip-10-0-15-63:~$ nano nginx-service.yaml
ubuntu@ip-10-0-15-63:~$ kubectl apply -f nginx-service.yaml
service/nginx-nodeport configured
ubuntu@ip-10-0-15-63:~$
```

TASK 5: Verify the Update

kubectl get svc

Output confirmed service type:

nginx-nodeport ClusterIP 10.x.x.x <none> 80/TCP



Conclusion

Successfully modified the Kubernetes service from NodePort to ClusterIP while keeping the deployment intact.

Verified the updated service configuration using kubectl.