Sunday, 13 November 2022 12.59

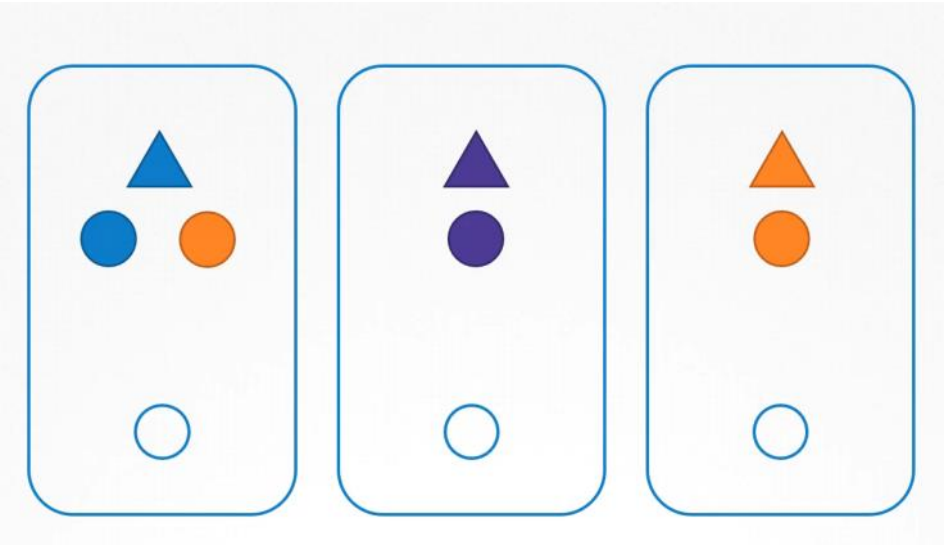
Cluster DNS

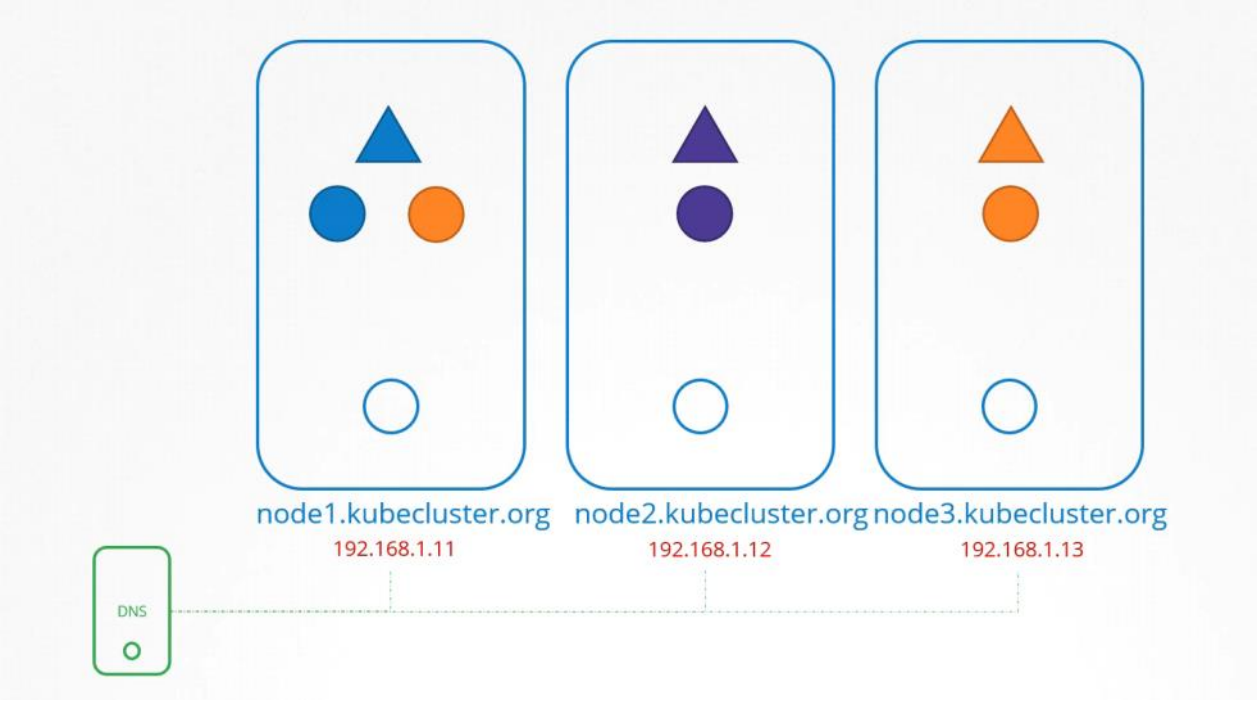
Pre-Requisite

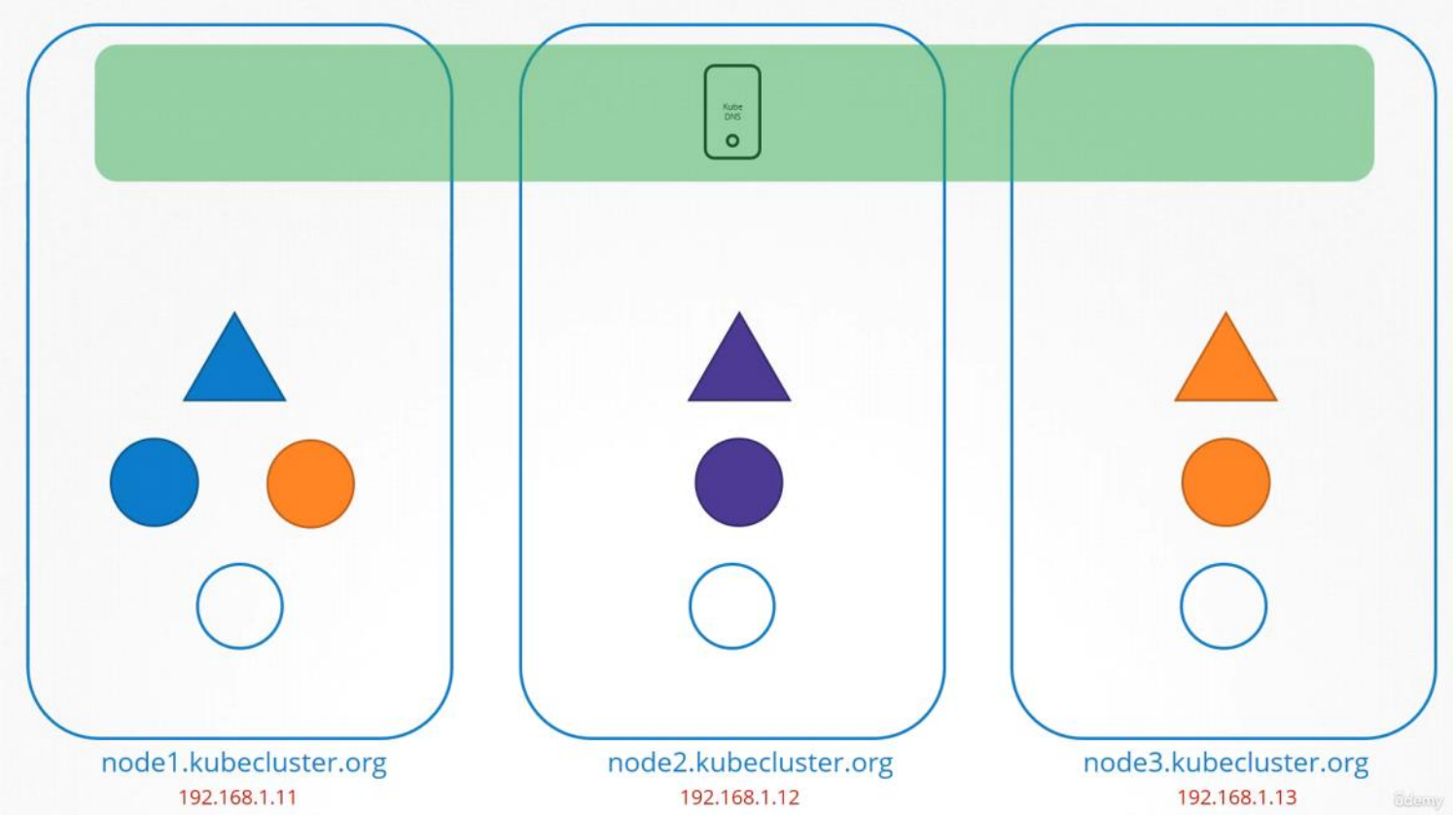
- ✓ What is DNS?
- ✓ Host/NS Lookup, Dig utility
- ✓ Recorded Types – A, CNAME
- ✓ Domain Name Hierarchy

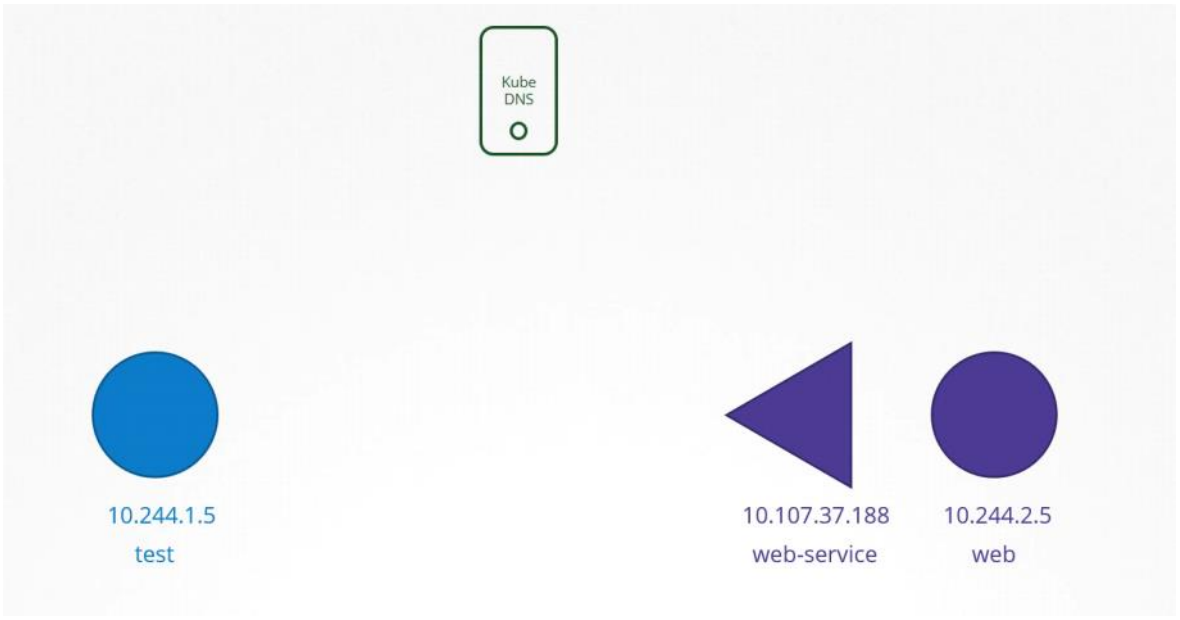
Objectives

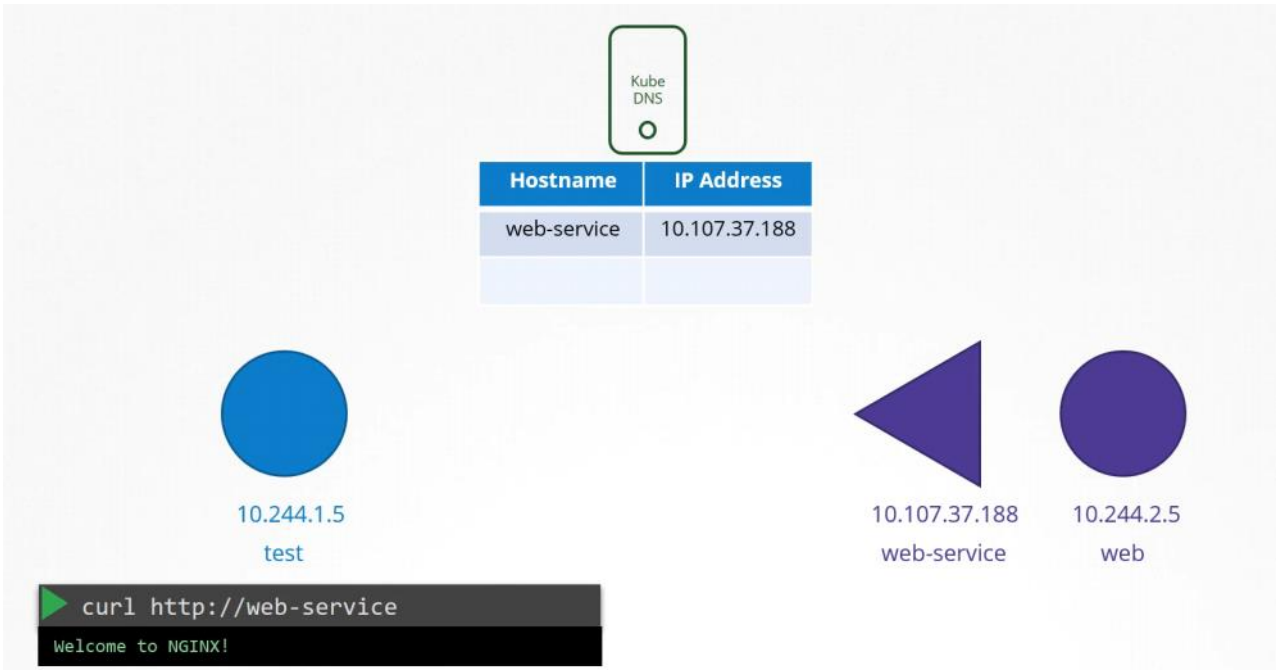
- ❑ What names are assigned to what objects?
- ❑ Service DNS records
- ❑ POD DNS Recrods

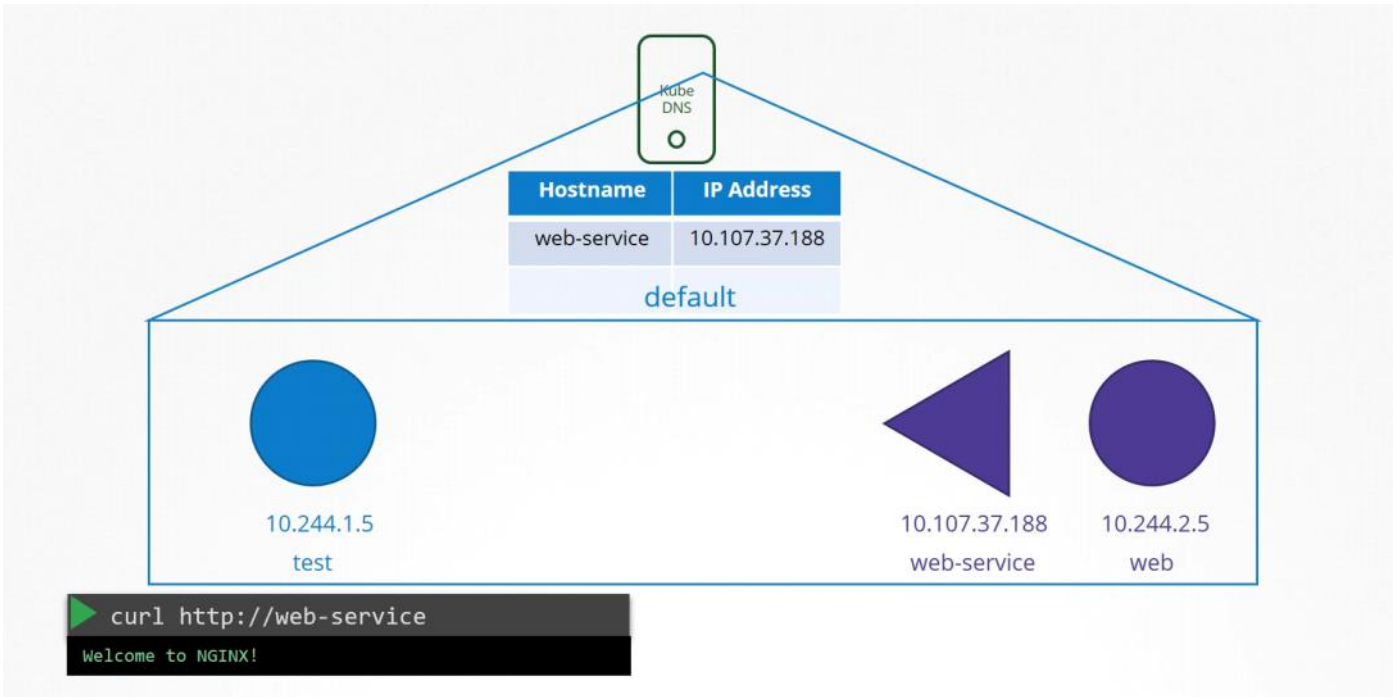


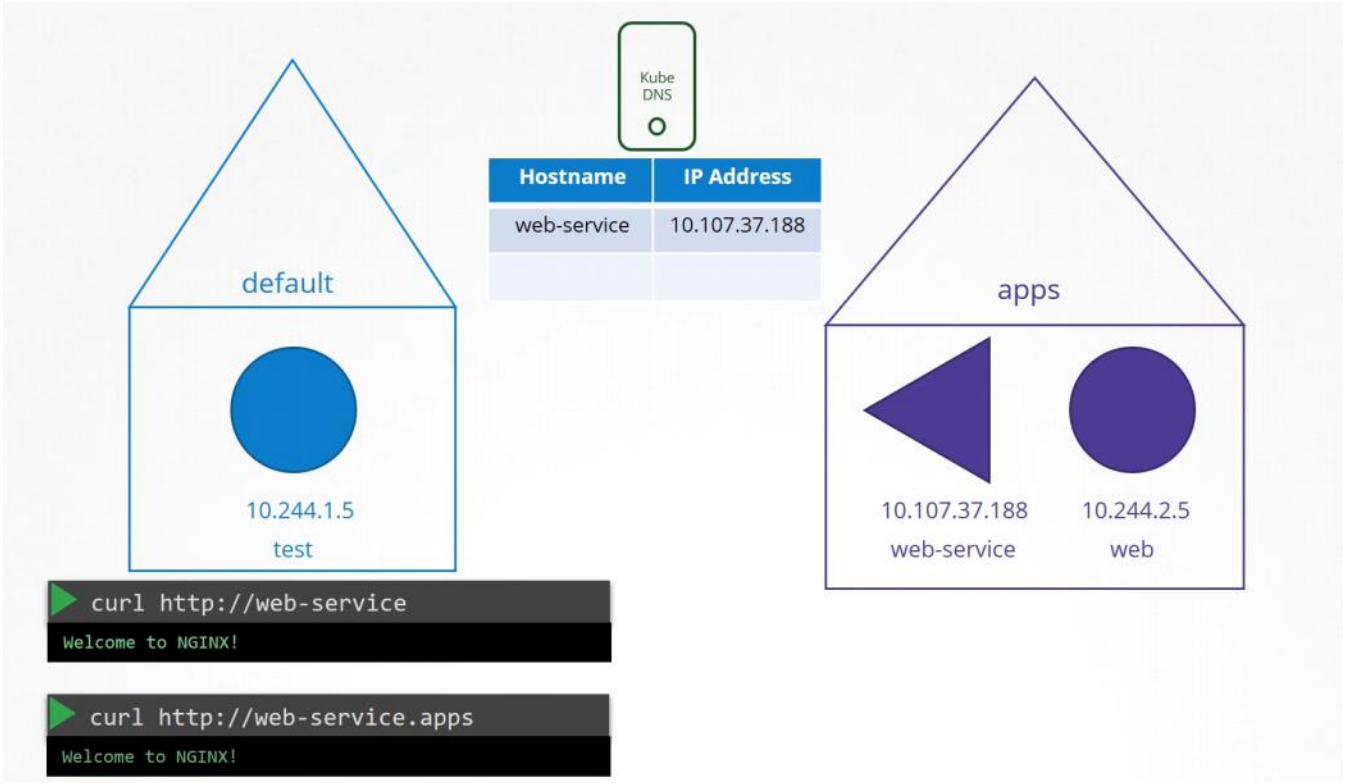

node1.kubecluster.org
192.168.1.11
node2.kubecluster.org
192.168.1.12
node3.kubecluster.org
192.168.1.13
DNS

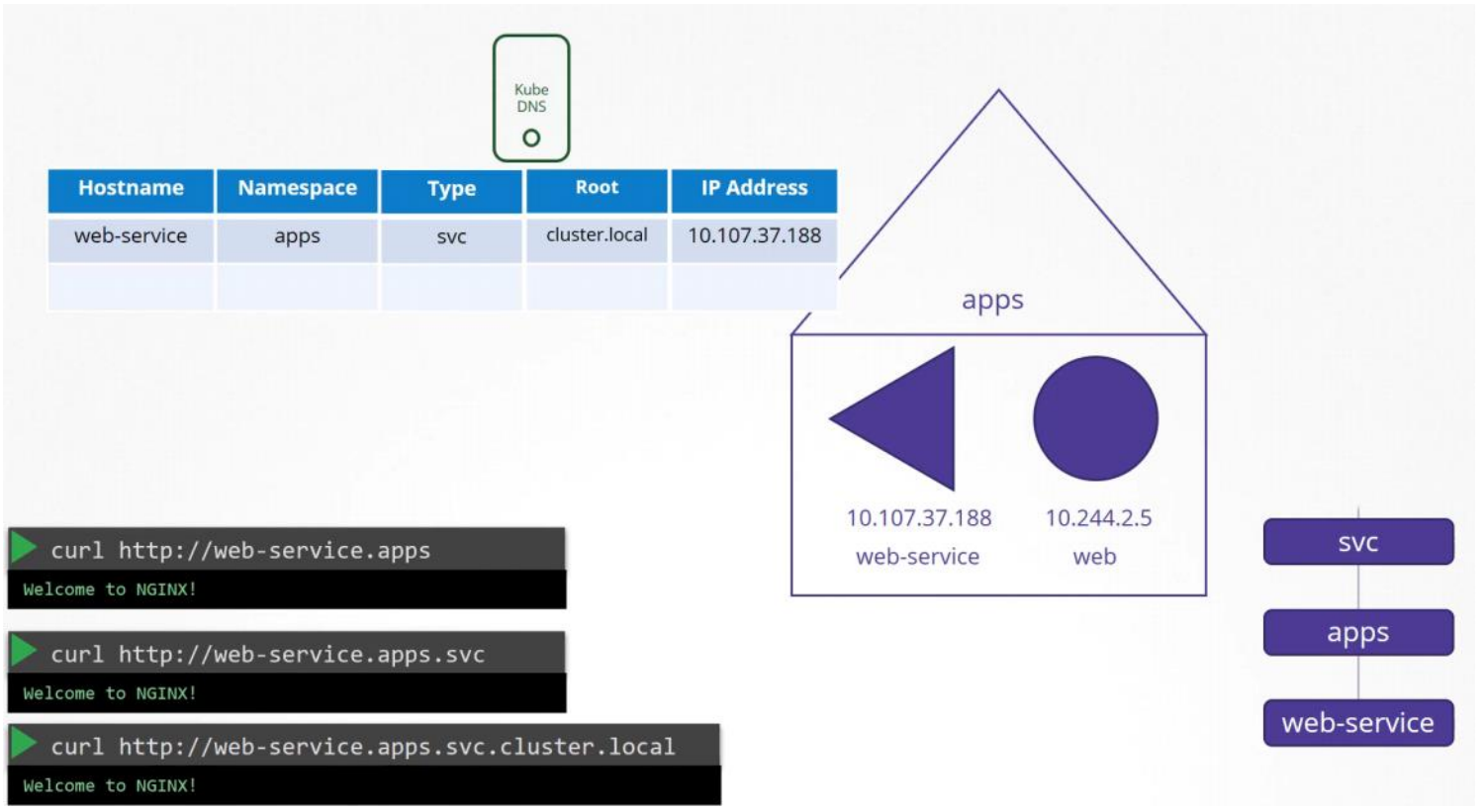

Kube DNS
node1.kubecluster.org
192.168.1.11
node2.kubecluster.org
192.168.1.12
node3.kubecluster.org
192.168.1.13

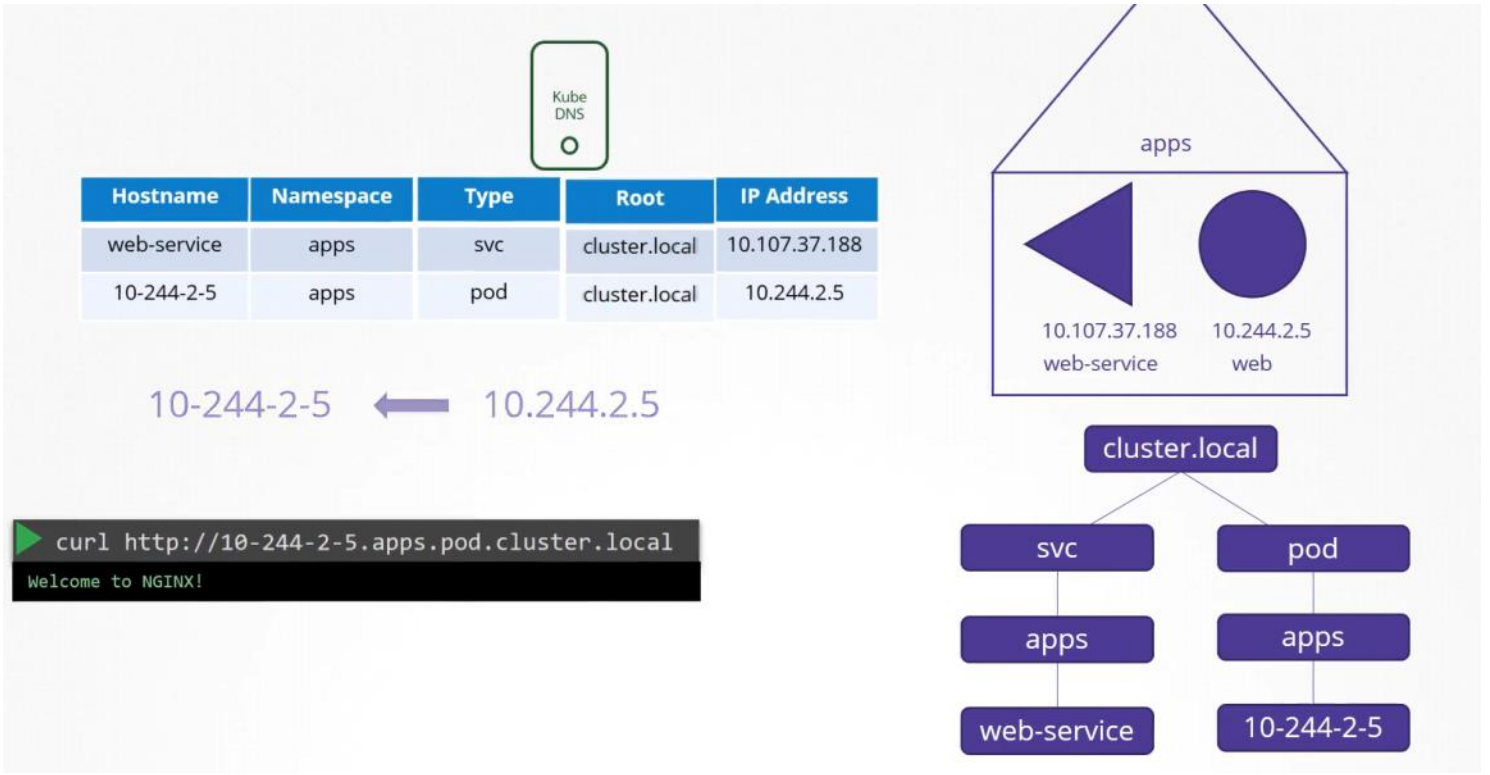

Kube
DNS
10.244.1.5
test
10.107.37.188
web-service
10.244.2.5
web

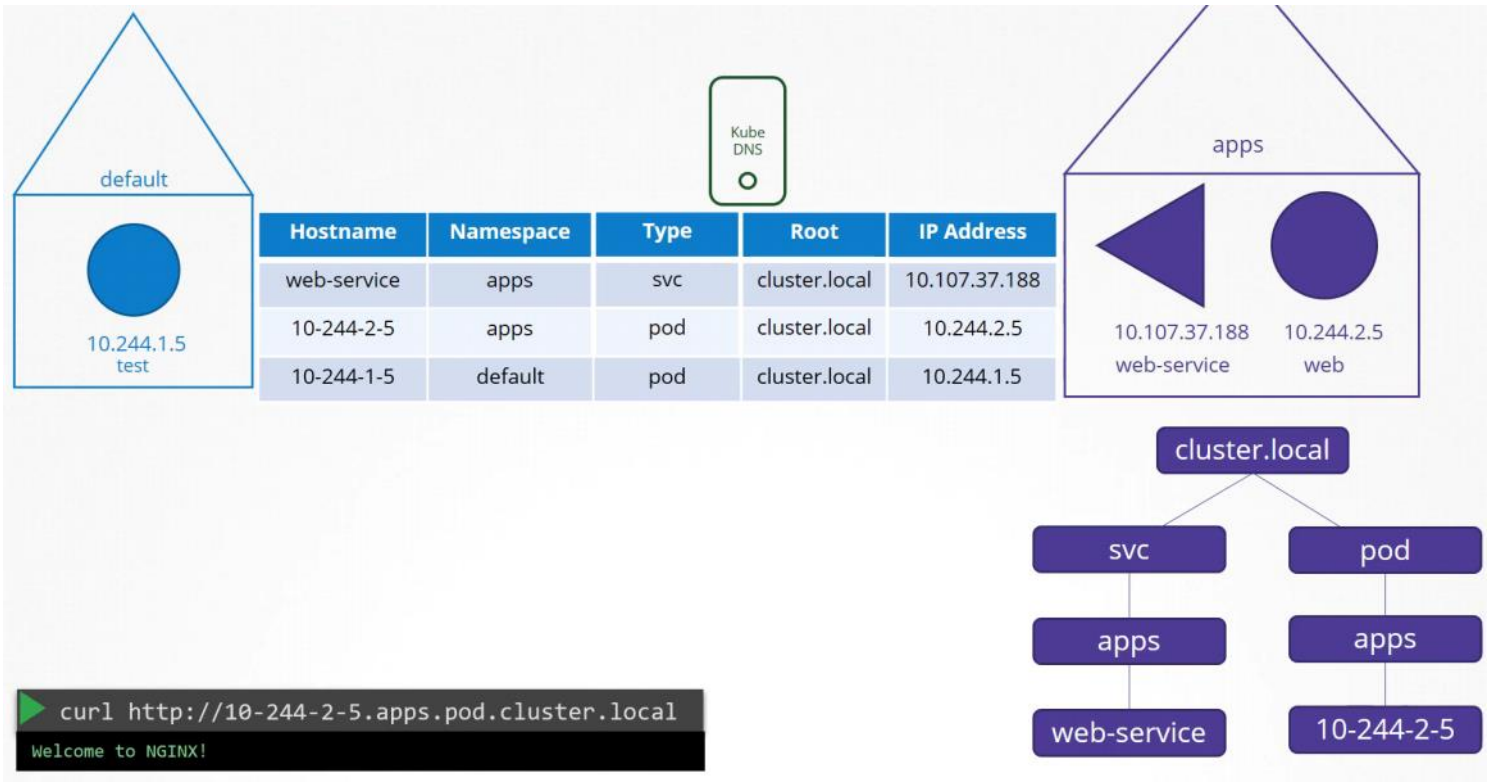

Kube
DNS
Hostname
IP Address
web-service
10.107.37.188
10.244.1.5
test
10.107.37.188
web-service
10.244.2.5
web
curl http://web-service
Welcome to NGINX!


Kube
DNS
Hostname
IP Address
web-service
10.107.37.188
default
10.244.1.5
test
10.107.37.188
web-service
10.244.2.5
web
curl http://web-service
Welcome to NGINX!


Kube DNS
Hostname
IP Address
web-service
10.107.37.188
default
10.244.1.5
test
apps
10.107.37.188
web-service
10.244.2.5
web
curl http://web-service
Welcome to NGINX!
curl http://web-service.apps
Welcome to NGINX!


Kube DNS
Hostname
Namespace
Type
Root
IP Address
web-service
apps
svc
cluster.local
10.107.37.188
apps
10.107.37.188
web-service
10.244.2.5
web
curl http://web-service.apps
Welcome to NGINX!
curl http://web-service.apps.svc
Welcome to NGINX!
curl http://web-service.apps.svc.cluster.local
Welcome to NGINX!
svc
apps
web-service


Kube DNS
Hostname | Namespace | Type | Root | IP Address
web-service | apps | svc | cluster.local | 10.107.37.188
10-244-2-5 | apps | pod | cluster.local | 10.244.2.5
10-244-2-5 ⟵ 10.244.2.5
curl http://10-244-2-5.apps.pod.cluster.local
Welcome to NGINX!
apps
10.107.37.188
web-service
10.244.2.5
web
cluster.local
svc
pod
apps
apps
web-service
10-244-2-5


default
10.244.1.5
test
Kube DNS
Hostname | Namespace | Type | Root | IP Address
web-service | apps | svc | cluster.local | 10.107.37.188
10-244-2-5 | apps | pod | cluster.local | 10.244.2.5
10-244-1-5 | default | pod | cluster.local | 10.244.1.5
apps
10.107.37.188
web-service
10.244.2.5
web
cluster.local
svc
pod
apps
apps
web-service
10-244-2-5
curl http://10-244-2-5.apps.pod.cluster.local
Welcome to NGINX!