# Deploy in Kubernetes Cluster

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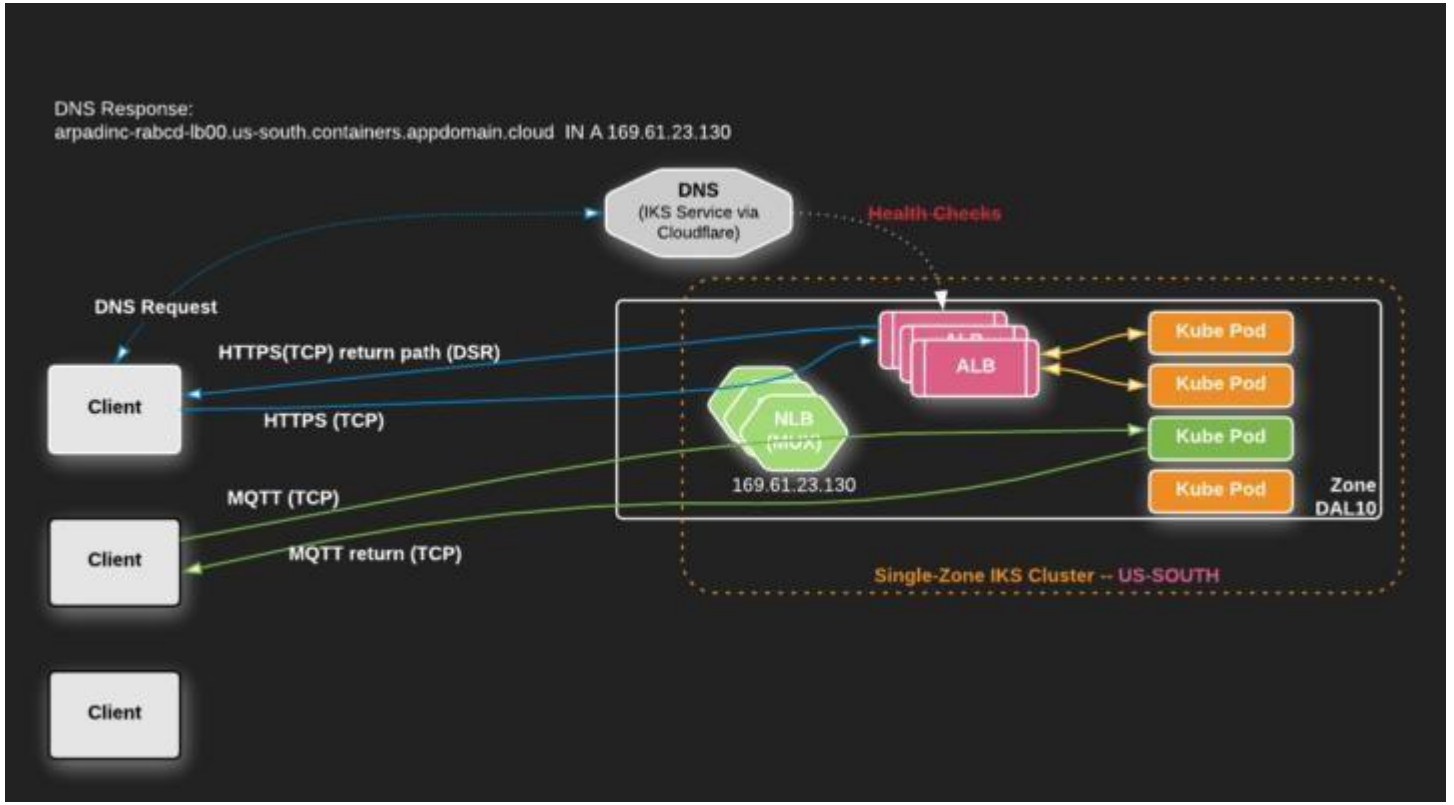


App deployment in Single Zone Cluster using LoadBalancer

# Steps to deploy app directly using LoadBalancer

1. Create a **single-zone** IKS cluster using the IBM Cloud Console.

2. Download and apply Deployment and Service resource yaml, which will expose the echoserver application via the LoadBalancer service on specified port.

3. Check the IP address of the LoadBalancer service:

```
$ kubectl get svc
NAME                  TYPE           CLUSTER-IP       EXTERNAL-IP   PORT(S)          AGE
iks-new-loadbalancer  LoadBalancer   172.21.183.148   169.61.18.4   1884:30923/TCP   1m
kubernetes            ClusterIP      172.21.0.1       <none>        443/TCP          50d
```

# Steps To Test The App

1. To test, load the specified IP port in the browser or initiate
2. The following response is obtained:

```
$ curl http://169.61.18.4:1884

Hostname: echoserver-deployment-859b75d8c4-r6s62

Pod Information:
        node name:      10.73.115.27
        pod name:       echoserver-deployment-859b75d8c4-r6s62
        pod namespace:  default
        pod IP: 172.30.154.209

Server values:
        server_version=nginx: 1.13.3 - lua: 10008

Request Information:
        client_address=195.21[redacted]
        method=GET
        real path=/
        query=
        request_version=1.1
        request_scheme=http
        request_uri=http://169.61.18.4:8080/

Request Headers:
        accept=*/*
        host=169.61.18.4:1884
        user-agent=curl/7.54.0

Request Body:
        -no body in request-
```

# Steps to deploy app directly using ALB/ Ingress Controller and Test it

1. Create a **single-zone** IBM Cloud Kubernetes Service cluster using the IBM Cloud Console.
2. Check if everything came up and the ALBs are running fine.
3. Download, edit, and apply the

Deployment and Ingress resource yaml, which will expose the echoserver application via the ALB/Ingress controller on both port 80(http) and 443(https)

4. To test, load the host you specified in your browser or initiate curl commands

```
$ curl https://echoserver.arpad-ipvs-test-aug14.us-south.containers.appdomain.cloud


Hostname: echoserver-deployment-859b75d8c4-d6fdx

Pod Information:
        node name:      10.73.115.19
        pod name:       echoserver-deployment-859b75d8c4-d6fdx
        pod namespace:  default
        pod IP: 172.30.116.132

Server values:
        server_version=nginx: 1.13.3 - lua: 10008

Request Information:
        client_address=172.30.119.129
        method=GET
        real path=/
        query=
        request_version=1.1
        request_scheme=http
        request_uri=http://echoserver.arpad-ipvs-test-aug14.us-south.containers.appdomain.cloud:8080/

Request Headers:
        accept=*/*
        host=echoserver.arpad-ipvs-test-aug14.us-south.containers.appdomain.cloud
        user-agent=curl/7.54.0
        x-forwarded-for=10.184.100.58
        x-forwarded-host=echoserver.arpad-ipvs-test-aug14.us-south.containers.appdomain.cloud
        x-forwarded-port=443
        x-forwarded-proto=https
        x-global-k8fdic-transaction-id=838e8708691877ea4ac7448370362e22
        x-real-ip=10.184.100.58

Request Body:
        -no body in request-
```