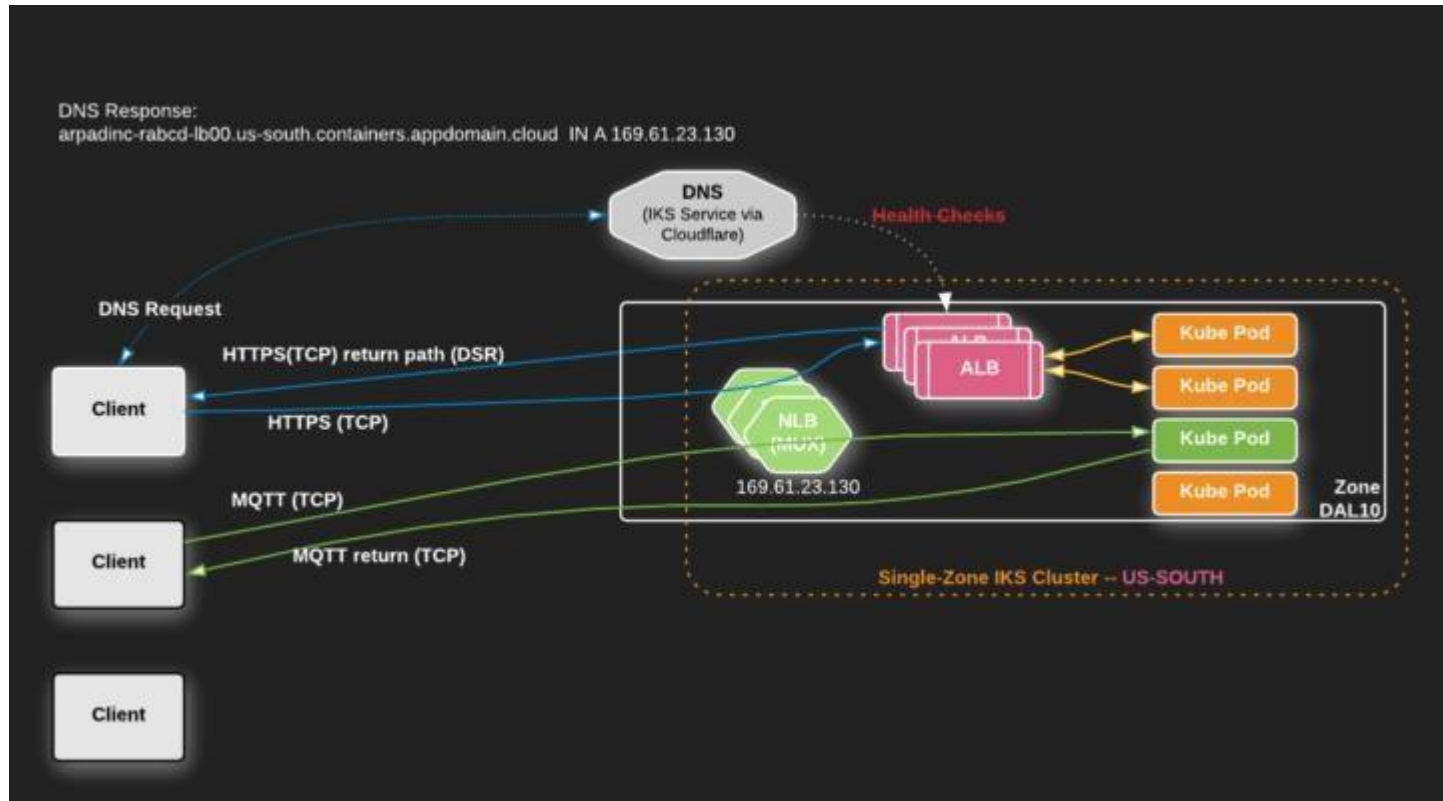


Deploy in Kubernetes Cluster

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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 curl commands.
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=195.21.1.1
  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-ipv6-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-ipv6-test-aug14.us-south.containers.appdomain.cloud:8080/

Request Headers:

accept=/*/*
host=echoserver.arpad-ipv6-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-ipv6-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-