

Configuration change in K8S Nginx and NginxPlus

There are two ways of changing nginx configuration file inside ingress controller.

- Using ConfigMap
- Using Ingress Annotation

First we will checkout use of ConfigMap

Using ConfigMap (Applies for both K8S Nginx and NginxPlus)

Scenario: Let's say you have an ingress controller deployment file, they you can see below lines under `spec` section.

```
# Uncomment the lines below to enable extensive logging and/or
customization of
# NGINX configuration with configmaps
args:
  - -nginx-plus
  #- -v=3
  #- -nginx-configmaps=$(POD_NAMESPACE)/nginx-config
```

Just uncomment the last line which have nginx-configmaps option. Now create a config map in the same namespace where ingress controller is running.

```
kind: ConfigMap
apiVersion: v1
metadata:
  name: nginx-config
  namespace: NAMESPACE-OF-INGRESS-CONTROLLER
data:
  proxy-connect-timeout: "10s"
  proxy-read-timeout: "10s"
  client-max-body-size: "2m"
  worker-processes: "1"
```

Now Just create the configmap and post that create Nginx controller. In this way ingress controller will have all the parameter value mentioned in ConfigMap.

For More Optimization parameter refer below links (K8S Nginx have more option than NginxPlus)

NginxPlus:

<https://github.com/nginxinc/kubernetes-ingress/blob/master/examples/customization/nginx-config.yaml>

Google Nginx controller:

<https://github.com/kubernetes/ingress-nginx/blob/master/docs/user-guide/configmap.md>

Using Ingress Annotation (Applies for both K8S Nginx and NginxPlus)

In this method we have to provide the annotation in ingress file. For eg

```
apiVersion: extensions/v1beta1
kind: Ingress
metadata:
  name: cafe-ingress-with-annotations
  annotations:
    nginx.org/proxy-connect-timeout: "30s"
    nginx.org/proxy-read-timeout: "20s"
    nginx.org/client-max-body-size: "4m"
spec:
  rules:
  - host: cafe.example.com
    http:
      paths:
      - path: /tea
        backend:
          serviceName: tea-svc
          servicePort: 80
      - path: /coffee
        backend:
          serviceName: coffee-svc
          servicePort: 80
```

If you have running ingress then you can modify the file and apply command. It will update the nginx config file on the fly.

Note:

- Google Nginx have more extensions and optimization parameter than Nginx Plus.
- Some annotations parameter can't be used in configmap and vice versa.