

Prometheus & Grafana Setup

git clone <https://github.com/kubernetes/ingress-nginx>

Create nginx ingress controller

```
kubectl apply -f
```

<https://raw.githubusercontent.com/kubernetes/ingress-nginx/master/deploy/mandatory.yaml>

Deploy prometheus configurations in Kubernetes

```
cd ingress-nginx/deploy/monitoring
```

```
kubectl apply -f configuration.yaml
```

Deploy prometheus in Kubernetes

```
kubectl apply -f prometheus.yaml
```

Open Prometheus dashboard in web browser

Get the internal ips of the nodes

```
kubectl get nodes --selector=kubernetes.io/role!=master -o  
jsonpath={.items[*].status.addresses[?(@.type=="InternalIP")].address}
```

In the browser, open the prometheus endpoint url

<http://172.18.0.2:30843/graph>

Setup Grafana

```
cd ingress-nginx/deploy/monitoring
```

```
kubectl apply -f grafana.yaml
```

Launch grafana endpoint url

```
http://172.18.0.2:30623/login
```

admin/admin is the default login/password credentials

Create prometheus datasource

<http://172.18.0.2:30843/>

Then import grafana dashboard for nginx controller

Setting up ELK Stack

git clone <https://github.com/kubernetes/kubernetes.git>

```
cd /home/jegan/kubernetes/cluster/addons/fluentd-elasticsearch
```

Install ElasticSearch

```
kubectl apply -f es-statefulset.yaml -f es-service.yaml
```

```
kubectl label nodes kube-node-1 beta.kubernetes.io/fluentd-ds-ready=true
```

```
kubectl label nodes kube-node-2 beta.kubernetes.io/fluentd-ds-ready=true
```

```
kubectl apply -f fluentd-es-configmap.yaml
```

```
kubectl apply -f fluentd-es-ds.yaml
```

Install Kibana and its service

```
kubectl apply -f kibana-deployment.yaml
```

```
kubectl apply -f kibana-service.yaml
```

```
kubectl cluster-info
```

<https://www.elastic.co/guide/en/kibana/6.x/tutorial-load-dataset.html>