1. K8’s MASTER ( etcd, API server, Scheduler, Controller manager)
   1. Install Docker engine
   2. Install etcd2.0
      1. curl -L <https://github.com/coreos/etcd/releases/download/v2.0.0/etcd> -v2.0.0-linux-amd64.tar.gz -o etcd-v2.0.0-linux-amd64.tar.gz
      2. tar xzvf etcd-v2.0.0-linux-amd64.tar.gz
      3. cd etcd-v2.0.0-linux-amd64
      4. mkdir /opt/bin
      5. cp etcd\* /opt/bin
   3. Now install K8’s in all the Machines
      1. git clone <https://github.com/GoogleCloudPlatform/kubernetes.git>
      2. cd kubernetes
      3. make release
   4. Add Hostname and IP address

echo "<IP address of master machine> kube-master < IP address of Node Machine>" >> /etc/hosts

* 1. Copy all configuration files to correct location (/opt/bin)
     1. cp <Current dir. location>/kube-apiserver /opt/bin/
  2. Build K8’s folder
     1. cp kubernetes/cluster/ubuntu/init\_conf/kube-apiserver.conf /etc/init/
  3. Configure ETCD
     1. ETCD\_OPTS = "-listen-client-urls = <http://kube-master:4001>"

1. Configure kube-apiserver
   1. Edit **/etc/default/kube-apiserver**
      1. KUBE\_APISERVER\_OPTS = "--address = 0.0.0.0 \

--port = 8080 \

--etcd\_servers = <The path that is configured in ETCD\_OPTS> \

--portal\_net = 11.1.1.0/24 \

--allow\_privileged = false \

--kubelet\_port = < Port you want to configure> \

--v = 0"

3. Configure the Kube controller manager

a. Edit **/etc/default/kube-controller-manager**.

KUBE\_CONTROLLER\_MANAGER\_OPTS = "--address = 0.0.0.0 \

--master = 127.0.0.1:8080 \

--machines = kube-minion \ -----> #this is the kubernatics node

--v = 0

b. Configure kube scheduler

KUBE\_SCHEDULER\_OPTS = "--address = 0.0.0.0 \

--master = 127.0.0.1:8080 \ --v = 0"

c. Service docker restart

1. K8’s NODE (Docker, Kubelet, K8’s Proxy)
2. Copy the below files to configure node
   1. $ cp <Path of the extracted file>/kubelet /opt/bin/
   2. $ cp <Path of the extracted file>/kube-proxy /opt/bin/
   3. $ cp <Path of the extracted file>/kubecfg /opt/bin/
   4. $ cp <Path of the extracted file>/kubectl /opt/bin/
   5. $ cp <Path of the extracted file>/kubernetes /opt/bin/

Now copy the below to appropriate dir:

$ cp kubernetes/cluster/ubuntu/init\_conf/kubelet.conf /etc/init/

$ cp kubernetes/cluster/ubuntu/init\_conf/kube-proxy.conf /etc/init/

$ cp kubernetes/cluster/ubuntu/initd\_scripts/kubelet /etc/init.d/

$ cp kubernetes/cluster/ubuntu/initd\_scripts/kube-proxy /etc/init.d/

$ cp kubernetes/cluster/ubuntu/default\_scripts/kubelet /etc/default/

$ cp kubernetes/cluster/ubuntu/default\_scripts/kube-proxy /etc/default/

1. Configure **etc/init/kubelet.conf**.
   1. KUBELET\_OPTS = "--address = 0.0.0.0 \

--port = 10250 \

--hostname\_override = kube-minion \

--etcd\_servers = http://kube-master:4001 \

--enable\_server = true

--v = 0"

/

* 1. Kube-proxy , run the below command
     1. KUBE\_PROXY\_OPTS = "--etcd\_servers = http://kube-master:4001 \

--v = 0"

/etc/init/kube-proxy.conf

* + 1. Service docker restart
  1. To verify the K8’s by this command
     1. /opt/bin/kubectl get minions

Reference:- <https://codelabs.developers.google.com/codelabs/cloud-orchestrate-with-kubernetes/index.html?index=..%2F..%2Findex#0>