Create 3 VMs of centos7. 2 CPU 2 GB RAM

**COMMON STEPS FOR MASTER AND NODE**

modprobe br\_netfilter

echo '1' > /proc/sys/net/bridge/bridge-nf-call-iptables

Add local hosts entries in all the VMs.

The first thing that we are going to do is use SSH to log in to all machines. Once we have logged in, we need to elevate privileges using sudo.

sudo su

Disable SELinux.

setenforce 0

sed -i --follow-symlinks 's/SELINUX=enforcing/SELINUX=disabled/g' /etc/sysconfig/selinux

Enable the br\_netfilter module for cluster communication.

echo "net.bridge.bridge-nf-call-iptables=1" | sudo tee -a /etc/sysctl.conf

sudo sysctl -p

Disable swap to prevent memory allocation issues.

swapoff -a

vim /etc/fstab.  -> Comment out the swap line

Install Docker CE.

Install the Docker prerequisites.

yum install -y yum-utils device-mapper-persistent-data lvm2

Add the Docker repo and install Docker.

yum-config-manager --add-repo https://download.docker.com/linux/centos/docker-ce.repo

yum install -y docker-ce

Add the Kubernetes repo.

cat <<EOF > /etc/yum.repos.d/kubernetes.repo

[kubernetes]

name=Kubernetes

baseurl=https://packages.cloud.google.com/yum/repos/kubernetes-el7-x86\_64

enabled=1

gpgcheck=0

repo\_gpgcheck=0

gpgkey=https://packages.cloud.google.com/yum/doc/yum-key.gpg

        https://packages.cloud.google.com/yum/doc/rpm-package-key.gpg

EOF

Install Kubernetes.

yum install -y kubelet kubeadm kubectl

systemctl enable docker

systemctl enable kubelet

Reboot.

Enable and start Docker and Kubernetes.

systemctl start docker

systemctl start kubelet

\*Note: Complete the following section on the MASTER ONLY!

**ONLY MAMSTER**

Initialize the cluster using the IP range for Flannel.

kubeadm init --pod-network-cidr=10.244.0.0/16

mkdir -p $HOME/.kube

sudo cp -i /etc/kubernetes/admin.conf $HOME/.kube/config

sudo chown $(id -u):$(id -g) $HOME/.kube/config

Check the cluster state.

kubectl get nodes

Copy the kubeadmin join command.

Exit sudo and run the following:

Deploy Flannel.

kubectl apply -f https://raw.githubusercontent.com/coreos/flannel/master/Documentation/kube-flannel.yml

Check the cluster state.

kubectl get pods --all-namespaces

Note: Complete the following steps on the NODES ONLY!

Run the join command that you copied earlier, then check your nodes from the master.

kubectl get nodes