Kubernetes Install in CentOS7

This guide shows how to build a Kube cluster using 2 CentOS7 hosts. The following is required:

* Installation script (kube.sh)
* Slave join script (kube-print-joincmd.sh)
* 2 centsos7 hosts and a sysadmin account for install & configuration

# Install an API server in the Master

Pick a host to be the API server, SCP the install script (kube.sh):

1. Install docker/kubernetes: In the command console type: $ sudo kube.sh install
2. Initialize cluster networking. Type $ sudo kube.sh initflannel
3. Deploy Flannel cluster networking: $ kube.sh flannel

This will setup your API server, to verify type:

[labadmin@foghornleghorn DOCKER\_BUILD]$ kubectl get nodes

NAME STATUS ROLES AGE VERSION

elmerfudd.c1aslab.com Ready <none> 9d v1.18.3

foghornleghorn.c1aslab.com Ready master 9d v1.18.3

granny.c1aslab.com Ready <none> 9d v1.18.3

marvinthemartian.c1aslab.com Ready <none> 9d v1.18.3

porkypig.c1aslab.com Ready <none> 9d v1.18.3

speedygonzales.c1aslab.com Ready <none> 9d v1.18.3

# Disable SWAP in the API Server

This is required else the cluster will hung and become inaccessible after a while. Edit **/etc/fstab** and comment the swap file system.

# Add a Worker Node to the Cluster

SCP the install scripts (kube\*.sh) to the worker.

1. In the API server obtain the worker join command using kube-print-joincmd.sh) – Copy the command to some editor.

$ ./kube-print-joincmd.sh

kubeadm join 192.168.40.84:6443 --token 3y9xz0.4usgvbdl5zfi78ed --discovery-token-ca-cert-hash sha256:5682002bcc7d77649a5df0a996d23e5bf61e8e486c87e58e5cf96fec82048384

1. In the worker node install kubernetes: *$ sudo kube.sh install*
2. In the worker, Paste the command from item 1 to join the worker to the cluster.

# Install HELM in the API Server

HELM is required to install Apps from Helm Hub.

1. In the API server install slapd: $ sudo yum install snapd
2. Enable the slap daemon: $ sudo systemctl enable snapd
3. Start slapd: $ sudo systemctl start snapd
4. Install HELM via snap: $ sudo snap install helm –classic

Verify HELM, for details see: <https://helm.sh/docs/intro/install/>

$ helm version

version.BuildInfo{Version:"v3.2.1", GitCommit:"fe51cd1e31e6a202cba7dead9552a6d418ded79a", GitTreeState:"clean", GoVersion:"go1.13.10"}