K8S INSTALL

Network Basic Config

Kub master Ext IP address
52.30.171.219
Kub master Int IP address
172.31.117.148
Node-1 ext
34.242.38.81
Node-1 int
172.31.116.128
Node-2 ext
63.33.70.210
Node-2 int
172.31.119.176

/etc/hosts

172.31.117.148 master.example.com
172.31.116.128 node-1.example.com
172.31.119.176 node-2.example.com

自定义hosts，并在各机器相互可以解析ping通


更新安装必要工具
yum -y install epel-release
yum -y update
yum -y install wget vim curl net-tools
yum -y install yum-utils device-mapper-persistent-data lvm2
yum -y install  ntp


同步时间
ntpdate -u asia.pool.ntp.org


关闭swap
swapoff -a
vim /etc/fstab        #检查 # /root/swap

关闭 selinux
vim /etc/selinux/config    #SELINUX=disabled
setenforce 0
getenforce

关闭防火墙
systemctl stop firewalld
systemctl disable firewalld

k8s网络桥接配置修改

```
vim /etc/sysctl.d/k8s.conf
#
net.bridge.bridge-nf-call-ip6tables = 1
net.bridge.bridge-nf-call-iptables = 1

sysctl --system
```

添加源并安装docker
```
yum-config-manager --add-repo https://download.docker.com/linux/centos/docker-ce.repo

yum -y install docker-ce

systemctl enable docker
systemctl start docker
```

添加kubernetes的google 源
```
vim /etc/yum.repos.d/kubernetes.repo

#
[kubernetes]
name=kubernetes
baseurl=https://packages.cloud.google.com/yum/repos/kubernetes-el7-x86_64
enablec1
gpgcheck=1
repo_gpgcheck=1
gpgkey= https://packages.cloud.google.com/yum/doc/yum-key.gpg
        https://packages.cloud.google.com/yum/doc/rpm-package-key.gpg
exclude=kube*
```

```
cat <<EOF > /etc/yum.repos.d/kubernetes.repo
[kubernetes]
name=Kubernetes
baseurl=https://mirrors.aliyun.com/kubernetes/yum/repos/kubernetes-el7-x86_64/
enabled=1
gpgcheck=1
repo_gpgcheck=1
gpgkey=https://mirrors.aliyun.com/kubernetes/yum/doc/yum-key.gpg
https://mirrors.aliyun.com/kubernetes/yum/doc/rpm-package-key.gpg
EOF
```

安装kubernetes
```
yum -y install kubelet kubeadm kubectl --disableexcludes=kubernetes

systemctl enable --now kubelet
systemctl start kubelet
```

启动Master节点
kubeadm init --apiserver-advertise-address=10.0.0.60 --pod-network-cidr=10.244.0.0/16 --
apiserver-cert-extra-sans=stage.tooc.in

单节点，让 master 运行 pod
kubectl taint nodes ali-hk-c-0 --all node-role.kubernetes.io/master-


启动 flannel 网络
wget https://raw.githubusercontent.com/coreos/flannel/master/Documentation/kube-
flannel.yml

kubectl apply -f kube-flannel.yml


测试DNS
kubectl apply -f https://k8s.io/examples/admin/dns/busybox.yaml
kubectl exec -ti busybox -- nslookup kubernetes.default


通过gitlab 安装 helm 和 runner

启动前，授权
kubectl create clusterrolebinding serviceaccounts-cluster-admin \
  --clusterrole=cluster-admin \
  --group=system:serviceaccounts



忘记 token 后加入集群的办法

kubeadm token create --ttl 0


[root@master ~]# kubeadm token create
TOKEN                  TTL      EXPIRES                 USAGES             DESCRIPTION  EXTRA
GROUPS
qbyhi6.p8zg6r3eir4xqqmn  23h      2018-11-16T16:37:19+08:00   authentication,signing
<none>       system:bootstrappers:kubeadm:default-node-token
[root@master ~]# openssl x509 -pubkey -in /etc/kubernetes/pki/ca.crt | openssl rsa -pubin -
outform der 2>/dev/null | openssl dgst -sha256 -hex | sed 's/^.* //'
dfc5b832302e76b277ca2bf79ba86d43d5337d15b3abdaf90be052ad58f0f2a9


kubeadm join --token qbyhi6.p8zg6r3eir4xqqmn --discovery-token-ca-cert-hash
sha256:dfc5b832302e76b277ca2bf79ba86d43d5337d15b3abdaf90be052ad58f0f2a9
192.168.0.101:6443


安装 dashboard

wget
https://raw.githubusercontent.com/kubernetes/dashboard/v1.10.1/src/deploy/recommended/kubernetes-dashboard.yaml

修改文件
```
apiVersion: v1
kind: Service
metadata:
  labels:
    k8s-app: kubernetes-dashboard
  name: kubernetes-dashboard
  namespace: kube-system
spec:
  clusterIP: 10.97.14.63
  externalTrafficPolicy: Cluster
  ports:
  - nodePort: 30443
    port: 443
    protocol: TCP
    targetPort: 8443
  selector:
    k8s-app: kubernetes-dashboard
  sessionAffinity: None
  type: NodePort
status:
  loadBalancer: {}
```

私有化集群负载均衡器

kubectl apply -f
https://raw.githubusercontent.com/google/metallb/v0.8.1/manifests/metallb.yaml