

# centos安装kubernetes

## 关闭防火墙

```
systemctl stop firewalld
systemctl disable firewalld
```

## 禁用SELINUX

```
# 临时禁用
setenforce 0

# 永久禁用
vim /etc/selinux/config    # 或者修改/etc/sysconfig/selinux
SELINUX=disabled
```

## 修改k8s.conf文件

```
cat <<EOF > /etc/sysctl.d/k8s.conf
net.bridge.bridge-nf-call-ip6tables = 1
net.bridge.bridge-nf-call-iptables = 1
EOF

sysctl --system
```

## 关闭swap

```
# 临时关闭
swapoff -a

# 永久关闭
vim /etc/fstab
# 注释以下一行
/dev/mapper/cl-swap      swap          swap          defaults      0 0
```

## 安装最新的docker

```
# 删除老版本的docker
sudo yum remove docker \
           docker-common \
           docker-selinux \
           docker-engine
```

```
# step 1: 安装必要的一些系统工具
sudo yum install -y yum-utils device-mapper-persistent-data lvm2
# Step 2: 添加软件源信息
sudo yum-config-manager --add-repo http://mirrors.aliyun.com/docker-
ce/linux/centos/docker-ce.repo
# Step 3: 更新并安装 Docker-CE
sudo yum makecache fast
sudo yum -y install docker-ce docker-ce-selinux
# Step 4: 开启Docker服务
sudo systemctl enable docker && systemctl start docker
```

## 校验docker安装

```
docker version
# 出现如下表示正确
Client:
  Version:      17.03.2-ce
  API version:  1.27
  Go version:   go1.7.5
  Git commit:   f5ec1e2
  Built:        Tue Jun 27 02:21:36 2017
  OS/Arch:      linux/amd64

Server:
  Version:      17.03.2-ce
  API version:  1.27 (minimum version 1.12)
  Go version:   go1.7.5
  Git commit:   f5ec1e2
  Built:        Tue Jun 27 02:21:36 2017
  OS/Arch:      linux/amd64
  Experimental: false
```

## 修改yum安装源

```
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flannel、kubeadm、kubectl、kubelet

```
sudo yum install -y flannel kubelet kubeadm kubectl
systemctl enable kubelet && systemctl start kubelet
```

## 初始化kubernetes

```
sudo kubeadm init --apiserver-advertise-address 0.0.0.0 --pod-network-cidr
10.10.0.0/16
```

### 安装结束后，会给你一些提示命令，直接按照结果中给出的复制粘贴执行就行，大致是如下命令：

```
# mkdir -p $HOME/.kube
# sudo cp -i /etc/kubernetes/admin.conf $HOME/.kube/config
# sudo chown $(id -u):$(id -g) $HOME/.kube/config
```

## 安装flannel

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

## 错误异常处理

如果出现cotedns或flannel的错误，导致kubernetes无法正常运行，则依次删除cotedns和flannel对应的pod，再次查看状态，大部分情况下会恢复正常，如果未恢复正常，则运行 `kubeadm reset`，然后重新使用 `kubeadm init` 进行安装。