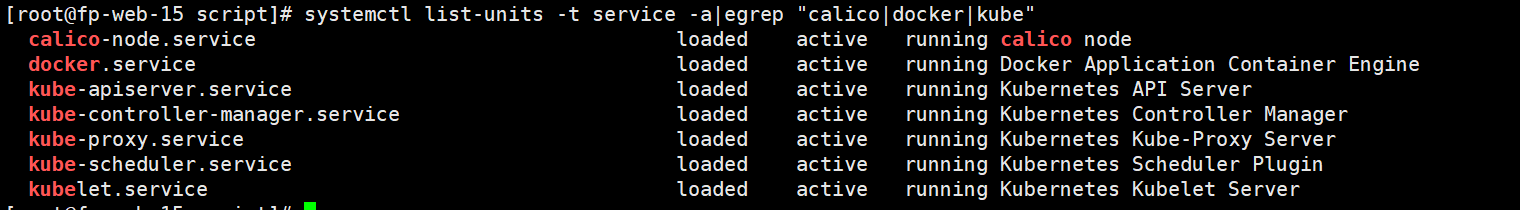
Ks8常见故障处理文档

1. 快速查看所有服务状态。



calico-node.service loaded active running calico node

docker.service loaded active running Docker Application Container

kube-apiserver.service loaded active running Kubernetes API Server

kube-controller-manager.service loaded active running Kubernetes Controller Manager

kube-proxy.service loaded active running Kubernetes Kube-Proxy Server

kube-scheduler.service loaded active running Kubernetes Scheduler Plugin

kubelet.service loaded active running Kubernetes Kubelet Server

1. Etcd故障排查。

报错如下：

Oct 18 17:56:47 etcd2 etcd[3117]: recognized environment variable ETCD\_NAME, but unused: shadowed by corresponding flag

Oct 18 17:56:47 etcd2 etcd[3117]: recognized environment variable ETCD\_DATA\_DIR, but unused: shadowed by corresponding flag

Oct 18 17:56:47 etcd2 systemd[1]: etcd.service: main process exited, code=exited, status=1/FAILURE

Oct 18 17:56:47 etcd2 systemd[1]: Failed to start Etcd Server.

Etcd状态排查

etcdctl --ca-file=/etc/etcd/ssl/etcd-root-ca.pem --cert-file=/etc/etcd/ssl/etcd.pem \

--key-file=/etc/etcd/ssl/etcd-key.pem --endpoints="https://10.129.55.111:2379,https://10.129.55.112:2379,https://10.129.55.113:2379" cluster-health

原因如下：

注：另外两台需要修改配置文件中的ETCD\_NAME、ETCD\_DATA\_DIR及相关IP地址，否则将无法启动，具体报错如下：

1. 查看集群状态。

[root@fp-web-15 system]# kubectl get cs

NAME STATUS MESSAGE ERROR

scheduler Healthy ok

controller-manager Healthy ok

etcd-2 Healthy {"health": "true"}

etcd-1 Healthy {"health": "true"}

etcd-0 Healthy {"health": "true"}

1. Kubelet报错。

kubelet日志：

Warning FailedCreatePodSandBox 2h (x128 over 2h) kubelet, master3 Failed create pod sandbox: rpc error: code = Unknown desc = NetworkPlugin cni failed to set up pod "coredns-6f7b865bcb-h6hcs\_kube-system" network: pods "coredns-6f7b865bcb-h6hcs" is forbidden: User "system:serviceaccount:kube-system:calico-node" cannot get pods in the namespace "kube-system"

Warning FailedSync 1h kubelet, master3 (combined from similar events): error determining status: rpc error: code = Unknown desc = Error: No such container: c4339df5dc1c31a3b6261d52317e1be2dd007386addd5908393f86a52893afc7

Normal Scheduled 1h default-scheduler Successfully assigned coredns-6f7b865bcb-h6hcs to master3

Normal SandboxChanged 35m (x2317 over 2h) kubelet, master3 Pod sandbox changed, it will be killed and re-created.

Warning FailedCreatePodSandBox 30m (x2301 over 2h) kubelet, master3 Failed create pod sandbox: rpc error: code = Unknown desc = NetworkPlugin cni failed to set up pod "coredns-6f7b865bcb-h6hcs\_kube-system" network: Unauthorized

解决方法：

kubectl get nodes

NAME STATUS ROLES AGE VERSION

node1 NotReady k8s-master 4h v1.10.13

node2 NotReady k8s-master 30m v1.10.13

node节点都处于NotReady状态，将生产master中的/etc/cni移动到新搭建的每一台机器中

启动kubelet报错：

server.go:492] No cloud provider specified: "" from the config file: ""

Nov 01 19:10:04 node1 systemd[1]: kubelet.service failed.

Nov 01 19:10:04 node1 hyperkube[62228]: E1101 19:10:04.643365 62228 bootstrap.go:179] Unable to read existing bootstrap client config: invalid configuration: [unable to read client-cert /etc/kubernetes/ssl/kubelet-client.crt for default-auth due to open /etc/kubernetes/ssl/kubelet-client.crt: no such file or directory, unable to read client-key /etc/kubernetes/ssl/kubelet-client.key for default-auth due to open /etc/kubernetes/ssl/kubelet-client.key: no such file or directory]

Nov 01 19:10:04 node1 hyperkube[62228]: I1101 19:10:04.643376 62228 bootstrap.go:58] Using bootstrap kubeconfig to generate TLS client cert, key and kubeconfig file

Nov 01 19:10:04 node1 hyperkube[62228]: F1101 19:10:04.663211 62228 server.go:233] failed to run Kubelet: cannot create certificate signing request: Post https://127.0.0.1:6443/apis/certificates.k8s.io/v1beta1/certificatesigningrequests: dial tcp 127.0.0.1:6443: getsockopt: connection refused

Nov 01 19:10:04 node1 systemd[1]: kubelet.service holdoff time over, scheduling restart.

Nov 01 19:10:04 node1 systemd[1]: start request repeated too quickly for kubelet.service

Nov 01 19:10:04 node1 systemd[1]: Failed to start Kubernetes Kubelet Server.

-- Subject: Unit kubelet.service has failed

-- Defined-By: systemd

-- Support: http://lists.freedesktop.org/mailman/listinfo/systemd-devel

--

-- Unit kubelet.service has failed.

--

-- The result is failed.

Nov 01 19:10:04 node1 systemd[1]: Unit kubelet.service entered failed state.

Nov 01 19:10:04 node1 systemd[1]: kubelet.service failed

解决方法：

原因为连接不到apiserver的6443端口，通过配置启动nginx后，即可解决！！！！

1. calico 服务报错解决。

报错如下：

Warning FailedCreatePodSandBox 14s kubelet, node1 Failed create pod sandbox: rpc error: code = Unknown desc = failed pulling image "k8s.gcr.io/pause-amd64:3.0": Error response from daemon: Get https://k8s.gcr.io/v2/: dial tcp 108.177.125.82:443: getsockopt: connection timed out

Failed create pod sandbox: rpc error: code = Unknown desc = failed pulling image "k8s.gcr.io/pause-amd64:3.0": Error response from daemon: Get https://k8s.gcr.io/v2/: net/http: request canceled while waiting for connection (Client.Timeout exceeded while awaiting headers)

Warning FailedSync 14h kubelet, master1 error determining status: rpc error: code = Unknown desc = Error: No such container: 26b5a145e94f0aead0467c7230ee4448d808f10d52d6cacd5c2a88c4696ac0a5

Warning FailedCreatePodSandBox 14h (x11 over 14h) kubelet, master1 Failed create pod sandbox: rpc error: code = Unknown desc = NetworkPlugin cni failed to set up pod "coredns-6f7b865bcb-t68lk\_kube-system" network: stat /var/lib/calico/nodename: no such file or directory: check that the calico/node container is running and has mounted /var/lib/calico/

Warning FailedSync 7h (x361 over 14h) kubelet, master1 (combined from similar events): error determining status: rpc error: code = Unknown desc = Error: No such container: 1206c6448d17689c3e89f57fb8ed7aff35ed0ec2ddcb646b74c706b25408a2b4

Normal SandboxChanged 1h (x4033 over 14h) kubelet, master1 Pod sandbox changed, it will be killed and re-created.

Warning FailedCreatePodSandBox 12s (x4341 over 14h) kubelet, master1 Failed create pod sandbox: rpc error: code = Unknown desc = NetworkPlugin cni failed to set up pod "coredns-6f7b865bcb-t68lk\_kube-system" network: context deadline exceeded

calico-kube-controllers服务报错（原因为etcd的证书没有对应上）

Environment:

ETCD\_ENDPOINTS: <set to the key 'etcd\_endpoints' of config map 'calico-config'> Optional: false

ETCD\_CA\_CERT\_FILE: <set to the key 'etcd\_ca' of config map 'calico-config'> Optional: false

ETCD\_KEY\_FILE: <set to the key 'etcd\_key' of config map 'calico-config'> Optional: false

ETCD\_CERT\_FILE: <set to the key 'etcd\_cert' of config map 'calico-config'> Optional: false

Normal Pulled 34m (x4 over 36m) kubelet, master1 Container image "quay.io/calico/kube-controllers:v3.1.3" already present on machine

Warning BackOff 1m (x148 over 36m) kubelet, master1 Back-off restarting failed container

ERROR: Error accessing the Calico datastore: could not initialize etcdv3 client: read /etc/etcd/ssl/etcd.pem: is a directoryCalico node failed to start

解决方法：

需要将/etc/etcd/ssl下的证书全部移动到/etc/calico下边

1. POD启动错误。

如上的Failed create pod sandbox报错，临时解决办法是将k8s.gcr.io/pause-amd64:3.0镜像手动导入到每一台机器上

kubectl logs 报错如下：

Error from server: Get https://node1:10250/containerLogs/kube-system/coredns-7b7d5d59b9-p4hbz/coredns?follow=true: remote error: tls: internal error

解决方法：

通过kubectl get csr发现很多处于pending状态的，同意所有的csr

for i in $(kubectl get csr | grep Pending | awk '{print $1}') do kubectl certificate approve $i done

POD出现错误无法连接

error: unable to upgrade connection: Forbidden (user=system:anonymous, verb=create, resource=nodes, subresource=proxy)

解决方法：

kubectl create clusterrolebinding system:anonymous --clusterrole=cluster-admin --user=system:anonymous

1. DNS错误排查

Dns服务检查：

kubectl run -it --rm --restart=Never --image=infoblox/dnstools:latest dnstools

kubectl run nginx --image=nginx --replicas=2

kubectl expose deployment nginx --port=88 --target-port=80 --type=NodePort

#测试解析nginx

#dns 解析的名称是svc (service 名称, 非pod名称)

dnstools# nslookup nginx

解决方法：

重启DNS pod服务