

二进制Etcd集群升级

步骤

1. 备份etcd 数据
2. 下载新版 etcd包
3. 停止etcd
4. 替换etcd和 etcdctl
5. 启动

说明

需求：如果从k8s 1.20 升级到 k8s 1.21

查看官方的 更改日志

<https://github.com/kubernetes/kubernetes/blob/master/CHANGELOG/CHANGELOG-1.21.md>

找到下面这种，类似这种更新的

```
Kubeadm installs etcd v3.4.13 when creating cluster v1.19 (#97244, @pacoxu)
```

升级etcd操作

```
# v2
$ etcdctl --ca-file /etc/kubernetes/pki/etcd/etcd-ca.pem --key-file
/etc/kubernetes/pki/etcd/etcd-key.pem --cert-file /etc/kubernetes/pki/etcd/etcd.pem --
endpoints https://10.4.7.107:2379,https://10.4.7.108:2379,https://10.4.7.109:2379
member list

# v3
$ export ETCDCTL_API=3
$ etcdctl --cacert=/etc/kubernetes/pki/etcd/etcd-ca.pem --
cert=/etc/kubernetes/pki/etcd/etcd.pem --key=/etc/kubernetes/pki/etcd/etcd-key.pem --
endpoints https://10.4.7.107:2379,https://10.4.7.108:2379,https://10.4.7.109:2379
member list
2075659d8c0e93a, started, k8s-master02, https://10.4.7.108:2380,
https://10.4.7.108:2379, false
7626dc6cd4e892c1, started, k8s-master03, https://10.4.7.109:2380,
https://10.4.7.109:2379, false
badc9b068aea441f, started, k8s-master01, https://10.4.7.107:2380,
https://10.4.7.107:2379, false
```

```
## or
$ etcdctl --endpoints="10.4.7.109:2379,10.4.7.108:2379,10.4.7.107:2379" --
cacert=/etc/kubernetes/pki/etcd/etcd-ca.pem --cert=/etc/kubernetes/pki/etcd/etcd.pem --
key=/etc/kubernetes/pki/etcd/etcd-key.pem endpoint status --write-out=table
```

ENDPOINT	ID	VERSION	DB SIZE	IS LEADER	IS LEARNER
10.4.7.109:2379	7626dc6cd4e892c1	3.4.13	8.5 MB	false	false
10.4.7.108:2379	2075659d8c0e93a	3.4.13	8.5 MB	false	false
10.4.7.107:2379	badc9b068aea441f	3.4.13	8.5 MB	true	false

```
# 备份
$ etcdctl --cacert=/etc/kubernetes/pki/etcd/etcd-ca.pem --
cert=/etc/kubernetes/pki/etcd/etcd.pem --key=/etc/kubernetes/pki/etcd/etcd-key.pem --
endpoints https://10.4.7.107:2379 snapshot save 20210610-2301.db
```

```
# master02, 停掉 etcd
$ systemctl stop etcd
$ which etcd
/usr/local/bin/etcd
```

```
# master01, 查看 etcd集群, 发现master02已经停掉
$ etcdctl --cacert=/etc/kubernetes/pki/etcd/etcd-ca.pem --
cert=/etc/kubernetes/pki/etcd/etcd.pem --key=/etc/kubernetes/pki/etcd/etcd-key.pem --
endpoints https://10.4.7.107:2379,https://10.4.7.108:2379,https://10.4.7.109:2379
endpoin health
{"level":"warn","ts":"2021-06-
11T00:13:10.066+0800","caller":"clientv3/retry_interceptor.go:62","msg":"retrying of
unary invoker failed","target":"endpoint://client-36d6a97d-a057-42a8-8079-
d58b87a52b13/10.4.7.108:2379","attempt":0,"error":"rpc error: code = DeadlineExceeded
desc = latest balancer error: all SubConns are in TransientFailure, latest connection
error: connection error: desc = \"transport: Error while dialing dial tcp
10.4.7.108:2379: connect: connection refused\""}
https://10.4.7.107:2379 is healthy: successfully committed proposal: took = 18.702919ms
https://10.4.7.109:2379 is healthy: successfully committed proposal: took = 20.945198ms
https://10.4.7.108:2379 is unhealthy: failed to commit proposal: context deadline
exceeded

# tar etcd
$ tar xf etcd-v3.4.13-linux-amd64.tar.gz
$ cd etcd-v3.4.13
$ scp etcd* k8s-master02:/usr/local/bin/etcd
```

```
# master02, 停掉 etcd
$ etcdctl version
etcdctl version: 3.4.13
API version: 3.4

$ systemctl start etcd

# 如果启动失败
vim /etc/etcd/etcd.config.yml ## 修改成下面这种
log-outputs: [default]
```

升级其他节点

```
# master03 升级同上面操作

# 主节点也是同上面操作
```