ETCD/Patroni Centos 7

Description

Partindo da premissa que o servidor já está rodando um banco de dados postgresql

Instalar ETCD

Download do ETCD

```
ETCD_RELEASE=$(curl -s https://api.github.com/repos/etcd-io/etcd/releases/late
echo $ETCD_RELEASE
wget https://github.com/etcd-io/etcd/releases/download/${ETCD_RELEASE}/etcd-${
```

Extrair o pacote

```
tar xvf etcd-${ETCD_RELEASE}-linux-amd64.tar.gz
```

Mover os binarios para o local correto

```
cd etcd-${ETCD_RELEASE}-linux-amd64 ; mv etcd* /usr/local/bin
```

Verificar se os 3 binarios foram copiados (etcd etcdctl etcdutl)

```
ls /usr/local/bin
```


Configurar o systemd

```
mkdir -p /var/lib/etcd/ mkdir /etc/etcd groupadd --system etcd
useradd -s /sbin/nologin --system -g etcd etcd
chown -R etcd:etcd /var/lib/etcd/
```

Criar o arquivo etcd.service com o conteudo abaixo

```
vim /etc/systemd/system/etcd.service
```

Conteudo :

```
[Unit]
Description=etcd
Documentation=https://github.com/etcd-io/etcd
After=network.target

[Service]
User=etcd
Type=simple
ExecStart=/usr/local/bin/etcd --config-file /etc/etcd/etcd.yml

[Install]
WantedBy=multi-user.target
```

Criar pasta de logs

```
mkdir -p /var/log/etcd chown -R etcd:etcd /var/log/etcd
```

Criar arquivo de configuração
O name é o hostname do host que está sendo instalado

```
vim /etc/etcd/etcd.yml
```


Conteudo:

```
name: 'hostname'
data-dir: '/var/lib/etcd'
listen-peer-urls: 'http://10.30.50.37:2380'
listen-client-urls: 'http://10.30.50.37:2379,http://127.0.0.1:2379'
initial-advertise-peer-urls: 'http://10.30.50.37:2380'
advertise-client-urls: 'http://10.30.50.37:2379'
initial-cluster: 'hostname=http://10.30.50.37:2380,hostname-do-cluster-2=http:
initial-cluster-state: 'new'
initial-cluster-token: 'etcd-cluster-1'
```

Atenção com a pasta “data-dir” quando subir a primeira vez **essa pasta `/var/lib/etcd` deve estar vazia**, caso contrário as configurações que estiverem na pasta irão sobrepor as do arquivo de configuração !

ATENÇÃO ALTERAR HOSTNAME PELO HOSTNAME DO HOST E HOSTNAME-DO-CLUSTER-2 PELO HOSTNAME DO OUTRO SERVIDOR.

Alterar o IP de acordo com o host

REPETIR OS PASSOS ANTERIORES NO PROXIMO NODE.

Ativar e subir o serviço somente depois de configurar nos dois lados para que sejam ativados juntos

```
systemctl daemon-reload systemctl enable --now etcd.service
```

Verificar saude do cluster

```
etcdctl endpoint health
```

Verificar membros do cluster

```
etcdctl member list
```

O serviço roda na porta 2379 para verificar podemos usar o comando abaixo

```
ss -tunelp
```

Saida do comando

```
Netid State Recv-Q Send-Q Local Address:Port Peer Address:Port Process
udp UNCONN 0 0 127.0.0.1:323 0.0.0.0:* users:(("chronyd",pid=1126,fd=6)) ino:1
udp UNCONN 0 0 [::1]:323 [::]:* users:(("chronyd",pid=1126,fd=7)) ino:16273 sk
tcp LISTEN 0 128 0.0.0.0:22 0.0.0.0:* users:(("sshd",pid=1147,fd=4)) ino:29601
tcp LISTEN 0 128 127.0.0.1:2379 0.0.0.0:* users:(("etcd",pid=19327,fd=9)) uid:

tcp LISTEN 0 128 10.30.50.37:2379 0.0.0.0:* users:(("etcd",pid=19327,fd=8)) ui

tcp LISTEN 0 128 10.30.50.37:2380 0.0.0.0:* users:(("etcd",pid=19327,fd=7)) ui

tcp LISTEN 0 128 [::]:22 [::]:* users:(("sshd",pid=1147,fd=6)) ino:29603 sk:4
```


Caso já exista um banco de dados é necessário criar o usuário admin, muita atenção para que a senha seja a mesma informada no arquivo de configuração do patroni.

====== **RODAR O BLOCO ABAIXO ANTES DE INSTALAR O PATRONI APENAS PARA BANCO PRE-EXISTENTE** ======

```
su - postgres
create role admin password 'admin' createrole createdb login;
grant connect on database zabbix to admin;
```

Instalar Patroni

```
yum -y install python3 python3-devel
python3-pip gcc libpq-devel
pip3 install --upgrade testresources
pip3 install --upgrade setuptools
pip3 install psycopg2
yum -y install python3-etcd
yum -y install patroni patroni-etcd
```

Criar arquivo de config e pastas do Patroni em cada host

```
mkdir -p /etc/patroni
mkdir -p /var/patroni/data/
mkdir -p /var/log/patroni
chown -R postgres:postgres /etc/patroni
chown -R postgres:postgres /var/patroni/data
chown -R postgres:postgres /var/log/patroni
chmod -R 700 /etc/patroni
chmod -R 700 /var/patroni/data
chmod -R 700 /var/log/patroni
vim /etc/patroni/patroni.yml
```

Conteudo do arquivo:

```
scope: postgres
namespace: /db/
name: node1



restapi:
  listen: 10.30.50.43:8008
  connect_address: 10.30.50.43:8008



etcd3:
  hosts: 10.30.50.43:2379,10.30.50.44:2379



bootstrap:
  dcs:
    ttl: 30
    loop_wait: 10
    retry_timeout: 10
    maximum_lag_on_failover: 1048576
    postgresql:
      use_pg_rewind: true
      use_slots: true
      parameters:



  initdb:
  - encoding: UTF8
  - data-checksums



  pg_hba:
  - host replication replicator 127.0.0.1/32 md5
  - host replication replicator 10.30.50.43/0 md5
```

```
  - host replication replicator 10.30.50.44/0 md5
  - host all all 0.0.0.0/0 md5



  users:
    admin:
      password: admin
      options:
        - createrole
        - createdb



postgresql:
  listen: 0.0.0.0:5432
  connect_address: 10.30.50.43:5432
  data_dir: /var/lib/pgsql/14/data
  bin_dir: /usr/pgsql-14/bin/
  pgpass: /tmp/pgpass
  authentication:
    replication:
      username: replic
      password:
  superuser:
    username: postgres
    password: postgres
  parameters:
    unix_socket_directories: '.'



tags:
  nofailover: false
  noloadbalance: false
  clonefrom: false
  nosync: false
```


Criar serviço Patroni

```
vim /etc/systemd/system/patroni.service
```

Conteudo do arquivo:

```
[Unit]
Description=High availability PostgreSQL Cluster
After=syslog.target network.target

[Service]
Type=simple
User=postgres
Group=postgres
ExecStart=/usr/bin/patroni  /etc/patroni/patroni.yml
```

```
KillMode=process
TimeoutSec=30
Restart=no
[Install]
WantedBy=multi-user.target
```

Iniciar e ativar o serviço

```
systemctl daemon-reload
systemctl enable --now patroni
```

Já deve ser possivel logar no postgres normalmente
Podemos verificar quem é o “lider” com o patroni

```
patronictl -c /etc/patroni/patroni.yml list
```

Caso precise restaurar um nó do node

```
patronictl -c /etc/patroni/patroni.yml reinit postgres
```

Category

1. Banco

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