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haproxy+keepalived构建RGW高可用集群

1. 环境说明

主机名	IP地址	端口	软件	VIP+端口
node-1	10.211.55.201	81	rgw+haproxy+keepalived	10.211.55.200：80
node-2	10.211.55.201	81	rgw+haproxy+keepalived	

2. keepalived安装配置

2.1 安装软件

```
yum -y install keepalived
```

分别在两个节点node-1和node-2上执行安装即可。

2.2 配置VIP

master节点配置

```
! Configuration File for keepalived


global_defs {
   notification_email {
     acassen@firewall.loc
     failover@firewall.loc
     sysadmin@firewall.loc
   }
   notification_email_from Alexandre.Cassen@firewall.loc
   smtp_server 192.168.200.1
   smtp_connect_timeout 30
   router_id RGW
   vrrp_skip_check_adv_addr
```

```
   vrrp_strict
   vrrp_garp_interval 0
   vrrp_gna_interval 0
}

vrrp_script chk_haproxy {          #健康检查脚本，检测到haproxy异常时权重降低2
    script "killall -0 haproxy"
    interval 2
    weight -2
}

vrrp_instance RGW {
    state MASTER                   #角色为master，权重为100
    interface eth0
    virtual_router_id 51
    priority 100                   #权重为100
    advert_int 1
    authentication {
        auth_type PASS
        auth_pass 1111
    }
    virtual_ipaddress {
          10.211.55.200/24                 #VIP地址
    }
    track_script {
        chk_haproxy                        #健康检查脚本
    }
```

```
}
```

备节点配置

```
! Configuration File for keepalived

global_defs {
   notification_email {
     acassen@firewall.loc
     failover@firewall.loc
     sysadmin@firewall.loc
   }
   notification_email_from Alexandre.Cassen@firewall.loc
   smtp_server 192.168.200.1
   smtp_connect_timeout 30
   router_id RGW
   vrrp_skip_check_adv_addr
   vrrp_strict
   vrrp_garp_interval 0
   vrrp_gna_interval 0
}

vrrp_instance RGW {
    state BACKUP             #备份节点，权重为99
    interface eth0
    virtual_router_id 51
    priority 99              #权重
    advert_int 1
    authentication {
```

```
        auth_type PASS
        auth_pass 1111
    }
    virtual_ipaddress {
            10.211.55.200/24               #VIP地址
    }
   track_script {
     chk_haproxy
   }
}

vrrp_script chk_haproxy {
    script "killall -0 haproxy" #check the haproxy process
    interval 2
    weight 2 # add 2 points if OK
}
```

3. 配置负载均衡

3.1 修改RGW端口

```
[global]
fsid = 81434779-5264-4f06-8456-a891bc52ce79
public_network = 10.211.55.0/24
cluster_network = 10.211.56.0/24
mon_initial_members = node-1
mon_host = 10.211.55.201
auth_cluster_required = cephx
auth_service_required = cephx
```

```
auth_client_required = cephx
mon_allow_pool_delete = true

[client.rgw.node-1]
rgw_frontends = "civetweb port=81"      #修改rgw端口为81

[client.rgw.node-2]
rgw_frontends = "civetweb port=81"      #修改rgw端口为81
```

重启rgw服务

```
systemctl restart ceph-radosgw.target
```

3.2 修改haproxy配置

haproxy.cfg配置文件内容

```
global
    log         127.0.0.1 local2
    chroot      /var/lib/haproxy
    pidfile     /var/run/haproxy.pid
    maxconn     4000
    user        haproxy
    group       haproxy
    daemon
    stats socket /var/lib/haproxy/stats
defaults
    mode                    http
    log                     global
    option                  httplog
```

```
    option                  dontlognull
    option http-server-close
    option forwardfor       except 127.0.0.0/8
    option                  redispatch
    retries                 3
    timeout http-request    10s
    timeout queue           1m
    timeout connect         10s
    timeout client          1m
    timeout server          1m
    timeout http-keep-alive 10s
    timeout check           10s
    maxconn                 3000
frontend  http_web *:80                 #rgw的入口监听地址，调用rgw的后端
  mode http
  default_backend rgw

backend rgw                             #后端的名称rgw，关联两个节点node-1和node-2
  balance roundrobin
  mode http
  server node-1 10.211.55.201:81 check
  server node-2 10.211.55.202:81 check
```

3.3 修改客户端配置

1. s3cmd客户端

```
[default]
host_base = 10.211.55.200:80      #修改地址
```

host_bucket = 10.211.55.208:80/%(bucket)s

2. swift客户端

cat /root/swift_openrc.sh

export ST_AUTH=http://10.211.55.200:80/auth

export ST_USER=ceph-s3-user:swift

export ST_KEY=f6j4ACwAd49oQ3TmF21kxKamhtMaP3kt4MAKpUSD