#

> 前端两台服务器作为负载均衡调度器，如果在一个master和一个backup的场景下，总有一个Directoy处于空闲状态，造成资源浪费。可以将两个Director同时作为负载调度器，对外接受请求。利用keepalived配置master/backup模型的两组实例，在正常情况下，两个Director同时负载请求，如果有一台出现故障，则出现故障的那台Director的VIP流动到另外一台服务器，此时，只有一台Director接受请求。将两个VIP同时解析到一个域名下，可实现DNS轮询请求，这样两个负载均衡器都可以接受请求，避免了资源浪费。

基于LVS-DR模型实现；master/backup要保持时间同步，可利用chrony服务进行时间同步；director之间能够基于主机名通信；Director是双主模式。基于上一篇的基础进行配置。

真实服务器配置

```
# web1配置
/usr/sbin/ip addr add 192.168.1.148/32 dev lo:1
# web2配置
/usr/sbin/ip addr add 192.168.1.148/32 dev lo:1
```

负载均衡器配置

> Director1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 LVS_DEVEL
}
vrrp_script monitor {
  script "[[ -f /etc/keepalived/down ]] && exit 1 || exit 0"
  interval 1
  weight -2
}
vrrp_instance VI_1 {
    state MASTER
    interface eno16777736
    virtual_router_id 51
    priority 100
    advert_int 1
    authentication {
        auth_type PASS
        auth_pass 1111
    }
    virtual_ipaddress {
        192.168.1.149
    }
   track_script {
        monitor
   }
}
vrrp_instance VI_2 {
    state BACKUP
    interface eno16777736
    virtual_router_id 52
    priority 99
    advert_int 1
    authentication {
        auth_type PASS
        auth_pass 1112
    }
    virtual_ipaddress {
        192.168.1.148
    }
```

```
   track_script {
        monitor
   }
}
virtual_server 192.168.1.149 80 {
    delay_loop 6
    lb_algo rr
    lb_kind DR
    protocol TCP
    real_server 192.168.1.152 80 {
        weight 1
        HTTP_GET {
            url {
              path /
              status_code 200
            }
            connect_timeout 3
            nb_get_retry 3
            delay_before_retry 3
        }
    }
    real_server 192.168.1.153 80 {
        weight 1
        HTTP_GET {
            url {
              path /
              status_code 200
            }
            connect_timeout 3
            nb_get_retry 3
            delay_before_retry 3
        }
    }
}
virtual_server 192.168.1.148 80 {
    delay_loop 6
    lb_algo rr
    lb_kind DR
```

```
    protocol TCP
    real_server 192.168.1.152 80 {
        weight 1
        HTTP_GET {
            url {
              path /
              status_code 200
            }
            connect_timeout 3
            nb_get_retry 3
            delay_before_retry 3
        }
    }
    real_server 192.168.1.153 80 {
        weight 1
        HTTP_GET {
            url {
              path /
              status_code 200
            }
            connect_timeout 3
            nb_get_retry 3
            delay_before_retry 3
        }
    }
}
```

> Director2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 LVS_DEVEL
}
vrrp_script monitor {
  script "[[ -f /etc/keepalived/down ]] && exit 1 || exit 0"
  interval 1
  weight -2
}
vrrp_instance VI_1 {
    state BACKUP
    interface eno16777736
    virtual_router_id 51
    priority 99
    advert_int 1
    authentication {
        auth_type PASS
        auth_pass 1111
    }
    virtual_ipaddress {
        192.168.1.149
    }
   track_script {
        monitor
   }
}
vrrp_instance VI_2 {
    state MASTER
    interface eno16777736
    virtual_router_id 52
    priority 100
    advert_int 1
    authentication {
        auth_type PASS
        auth_pass 1112
    }
    virtual_ipaddress {
```

```
        192.168.1.148
    }
   track_script {
        monitor
   }
}
virtual_server 192.168.1.149 80 {
    delay_loop 6
    lb_algo rr
    lb_kind DR
    protocol TCP

    real_server 192.168.1.152 80 {
        weight 1
        HTTP_GET {
            url {
              path /
              status_code 200
            }
            connect_timeout 3
            nb_get_retry 3
            delay_before_retry 3
       }
    }
    real_server 192.168.1.153 80 {
        weight 1
        HTTP_GET {
            url {
              path /
              status_code 200
            }
            connect_timeout 3
            nb_get_retry 3
            delay_before_retry 3
        }
    }
}
virtual_server 192.168.1.148 80 {
```

```
    delay_loop 6
    lb_algo rr
    lb_kind DR
    protocol TCP

    real_server 192.168.1.152 80 {
        weight 1
        HTTP_GET {
            url {
              path /
              status_code 200
            }
            connect_timeout 3
            nb_get_retry 3
            delay_before_retry 3
        }
    }
    real_server 192.168.1.153 80 {
        weight 1
        HTTP_GET {
            url {
              path /
              status_code 200
            }
            connect_timeout 3
            nb_get_retry 3
            delay_before_retry 3
        }
    }
}
```