

#

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Director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

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

负载均衡器配置

Director1配置

```
1 ! Configuration File for keepalived
2 global_defs {
3     notification_email {
4         acassen@firewall.loc
5         failover@firewall.loc
6         sysadmin@firewall.loc
7     }
8     notification_email_from
9     Alexandre.Cassen@firewall.loc
10    smtp_server 192.168.200.1
11    smtp_connect_timeout 30
```

```
11     router_id LVS_DEVEL
12 }
13 vrrp_script monitor {
14     script "[[ -f /etc/keepalived/down ]] && exit 1
15     || exit 0"
16     interval 1
17     weight -2
18 }
19 vrrp_instance VI_1 {
20     state MASTER
21     interface eno16777736
22     virtual_router_id 51
23     priority 100
24     advert_int 1
25     authentication {
26         auth_type PASS
27         auth_pass 1111
28     }
29     virtual_ipaddress {
30         192.168.1.149
31     }
32     track_script {
33         monitor
34     }
35 }
36 vrrp_instance VI_2 {
37     state BACKUP
38     interface eno16777736
39     virtual_router_id 52
40     priority 99
41     advert_int 1
42     authentication {
43         auth_type PASS
44         auth_pass 1112
45     }
46     virtual_ipaddress {
47         192.168.1.148
48     }
```

```
48     track_script {
49         monitor
50     }
51 }
52 virtual_server 192.168.1.149 80 {
53     delay_loop 6
54     lb_algo rr
55     lb_kind DR
56     protocol TCP
57     real_server 192.168.1.152 80 {
58         weight 1
59         HTTP_GET {
60             url {
61                 path /
62                 status_code 200
63             }
64             connect_timeout 3
65             nb_get_retry 3
66             delay_before_retry 3
67         }
68     }
69     real_server 192.168.1.153 80 {
70         weight 1
71         HTTP_GET {
72             url {
73                 path /
74                 status_code 200
75             }
76             connect_timeout 3
77             nb_get_retry 3
78             delay_before_retry 3
79         }
80     }
81 }
82 virtual_server 192.168.1.148 80 {
83     delay_loop 6
84     lb_algo rr
85     lb_kind DR
```

```

86     protocol TCP
87     real_server 192.168.1.152 80 {
88         weight 1
89         HTTP_GET {
90             url {
91                 path /
92                 status_code 200
93             }
94             connect_timeout 3
95             nb_get_retry 3
96             delay_before_retry 3
97         }
98     }
99     real_server 192.168.1.153 80 {
100         weight 1
101         HTTP_GET {
102             url {
103                 path /
104                 status_code 200
105             }
106             connect_timeout 3
107             nb_get_retry 3
108             delay_before_retry 3
109         }
110     }
111 }

```

Director2配置

```

1  ! Configuration File for keepalived
2  global_defs {
3      notification_email {
4          acassen@firewall.loc
5          failover@firewall.loc
6          sysadmin@firewall.loc
7      }
8      notification_email_from
        Alexandre.Cassen@firewall.loc

```

```
9      smtp_server 192.168.200.1
10      smtp_connect_timeout 30
11      router_id LVS_DEVEL
12  }
13  vrrp_script monitor {
14      script "[[ -f /etc/keepalived/down ]] && exit 1
15      || exit 0"
16      interval 1
17      weight -2
18  }
19  vrrp_instance VI_1 {
20      state BACKUP
21      interface eno16777736
22      virtual_router_id 51
23      priority 99
24      advert_int 1
25      authentication {
26          auth_type PASS
27          auth_pass 1111
28      }
29      virtual_ipaddress {
30          192.168.1.149
31      }
32      track_script {
33          monitor
34      }
35  }
36  vrrp_instance VI_2 {
37      state MASTER
38      interface eno16777736
39      virtual_router_id 52
40      priority 100
41      advert_int 1
42      authentication {
43          auth_type PASS
44          auth_pass 1112
45      }
46      virtual_ipaddress {
```

```
46         192.168.1.148
47     }
48     track_script {
49         monitor
50     }
51 }
52 virtual_server 192.168.1.149 80 {
53     delay_loop 6
54     lb_algo rr
55     lb_kind DR
56     protocol TCP
57
58     real_server 192.168.1.152 80 {
59         weight 1
60         HTTP_GET {
61             url {
62                 path /
63                 status_code 200
64             }
65             connect_timeout 3
66             nb_get_retry 3
67             delay_before_retry 3
68         }
69     }
70     real_server 192.168.1.153 80 {
71         weight 1
72         HTTP_GET {
73             url {
74                 path /
75                 status_code 200
76             }
77             connect_timeout 3
78             nb_get_retry 3
79             delay_before_retry 3
80         }
81     }
82 }
83 virtual_server 192.168.1.148 80 {
```

```
84     delay_loop 6
85     lb_algo rr
86     lb_kind DR
87     protocol TCP
88
89     real_server 192.168.1.152 80 {
90         weight 1
91         HTTP_GET {
92             url {
93                 path /
94                 status_code 200
95             }
96             connect_timeout 3
97             nb_get_retry 3
98             delay_before_retry 3
99         }
100     }
101     real_server 192.168.1.153 80 {
102         weight 1
103         HTTP_GET {
104             url {
105                 path /
106                 status_code 200
107             }
108             connect_timeout 3
109             nb_get_retry 3
110             delay_before_retry 3
111         }
112     }
113 }
```

