



某局点M9000 RBM+VRRP 联动状态异常问题

双机热备

刘文峰

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组网及说明

无

问题描述

某局点采用2台M9000做HA，采用RBM+VRRP组网，配置完之后发现RBM和VRRP的状态不一致，VRRP状态没有跟着RBM状态，怀疑联动出老问题，RBM主设备上的VRRP状态是backup，RBM备设备上的VRRP状态是master。

主设备RBM状态：

```
===== display remote-backup-group status =====  
=====
```

Remote backup group information:

```
Backup mode: Active/standby  
Device management role: Primary  
Device running status: Active  
Data channel interface: Route-Aggregation1024  
Local IP: 1.1.1.1  
Remote IP: 1.1.1.2 Destination port: 60064  
Control channel status: Connected
```

主设备VRRP状态：

```
=====display vrrp verbose=====
```

IPv4 Virtual Router Information:

```
Running mode : Standard  
Total number of virtual routers : 7  
Interface Route-Aggregation1.100  
VRID : 100 Adver Timer : 100  
Admin Status : Up State : Backup  
Config Pri : 100 Running Pri : 100  
Preempt Mode : Yes Delay Time : 0  
Become Master : 2980ms left  
Auth Type : None  
Virtual IP : 10.129.x.x/32  
Master IP : 10.129.x.x
```

Interface Route-Aggregation1.130

```
VRID : 130 Adver Timer : 100  
Admin Status : Up State : Backup  
Config Pri : 100 Running Pri : 100  
Preempt Mode : Yes Delay Time : 0  
Become Master : 3320ms left  
Auth Type : None  
Virtual IP : 192.168.x.x/32  
Master IP : 192.168.x.x  
.....
```

备设备RBM状态：

```
===== display remote-backup-group status =====  
=====
```

Remote backup group information:

```
Backup mode: Active/standby  
Device management role: Primary  
Device running status: Active  
Data channel interface: Route-Aggregation1024  
Local IP: 1.1.1.1  
Remote IP: 1.1.1.2 Destination port: 60064  
Control channel status: Connected
```

备设备VRRP状态：

```
=====display vrrp verbose=====
```

IPv4 Virtual Router Information:

```
Running mode : Standard  
Total number of virtual routers : 7  
Interface Route-Aggregation1.100  
VRID : 100 Adver Timer : 100  
Admin Status : Up State : Master
```

```
Config Pri : 100          Running Pri : 100
Preempt Mode : Yes       Delay Time : 0
Auth Type : None
```

过程分析
Virtual IP : 10.129.x.x/32

查看R1的VRRP配置，发现没有联动上，初步怀疑是设备的VRRP配置有问题，进一步检查配置之后，发现了下面问题，指导客户修改

问题1：VRID冲突

```
Interface Route-Aggregation1.130
interface Route-Aggregation1.160
  VRID : 130          Adver Timer : 100
description yanfahuanjing
  Admin Status : Up      State : Master
ip address 192.168.x.x 255.255.254.0
  Config Pri : 100      Running Pri : 100
vrrp vrid 160 virtual-ip 192.168.x.x standby
  Preempt Mode : Yes    Delay Time : 0
vlan-type dot1q vid 160
Auth Type : None
```

```
Virtual IP : 192.168.x.x/32
interface Route-Aggregation1.210
Virtual MAC : 0000-5e00-0182
description yanfahuanjing
Master IP address 10.0.0.253 255.255.255.0
vrrp vrid 160 virtual-ip 10.0.x.x standby
vlan-type dot1q vid 210
```

问题2：160的VRRP少了一边的配置

```
interface Route-Aggregation1.160
description yanfahuanjing
ip address 192.168.108.252 255.255.254.0
vrrp vrid 160 virtual-ip 192.168.x.x active
vlan-type dot1q vid 160
ipv6 address FD01::160:x.x/96
vrrp ipv6 vrid 15 virtual-ip FE80::160:x.x link-local active
vrrp ipv6 vrid 15 virtual-ip FD01::160:x.x
```

```
interface Route-Aggregation1.160
description yanfahuanjing
ip address 192.168.x.x 255.255.254.0
vrrp vrid 160 virtual-ip 192.168.x.x standby
vlan-type dot1q vid 160
ipv6 address FD01::160:x.x/96
```

解决方法

指导现场修改完配置之后，发现VRRP状态还是异常，说明不是VRRP的配置导致的，进一步把设备配置在模拟器复现发现故障跟现场一样，并且在配置RBM下的track 接口的时候设备有报错，提示要删除vlan和接口监控。

进一步查看配置指导发现在RBM下直接track 联动接口是用户二层组网模式的，所以配置之后会跟vrrp的联动产生冲突，提示报错。

```
remote-backup group
data-channel interface Route-Aggregation1024
configuration sync-check interval 12
delay-time 30
adjust-cost ospf enable absolute 6000
track interface Ten-GigabitEthernet6/0/1
track interface Ten-GigabitEthernet6/0/2
local-ip 1.1.1.1
remote-ip 1.1.1.2
device-role primary
```

解决办法：修改为下面的联动方式：全局track 接口，然后再RBM下track 对应的联动项。

```
track 1 interface Route-Aggregation1 physical

remote-backup group
data-channel interface Route-Aggregation2
configuration sync-check interval 12
delay-time 30
adjust-cost ospf enable absolute 6000
track 1 //后面不直接track 接口，
local-ip 1.1.1.1
remote-ip 1.1.1.2
device-role primary
```

