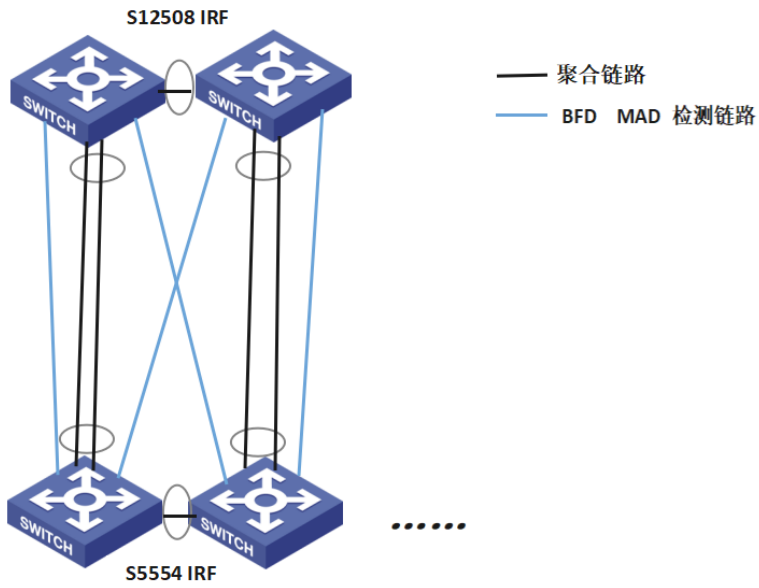


# 知 S12508X-AF下联irf, 存在偶尔ping不通的情况

STP ARP 直通转发 BFD MAD 陈泽勇 2023-05-04 发表

## 组网及说明



组网：s12508做irf, 分别与10组s5554irf做动态链路聚合和mad检测，其中每组irf的连接方式如上图。

## 问题描述

s12508上面去ping 下联的十组irf会出现偶发性的ping不通情况。

```
<YS-D02&D03.QQY-H3C-12508-1>ping 10.200.120.111
```

```
Ping 10.200.120.111 (10.200.120.111): 56 data bytes, press CTRL+C to break
```

```
56 bytes from 10.200.120.111: icmp_seq=0 ttl=255 time=1.913 ms
```

```
56 bytes from 10.200.120.111: icmp_seq=1 ttl=255 time=1.594 ms
```

```
56 bytes from 10.200.120.111: icmp_seq=2 ttl=255 time=1.562 ms
```

```
56 bytes from 10.200.120.111: icmp_seq=3 ttl=255 time=1.506 ms
```

```
56 bytes from 10.200.120.111: icmp_seq=4 ttl=255 time=1.602 ms
```

```
[YS-D02&D03.QQY-H3C-12508-1]ping 10.200.120.111
```

```
Ping 10.200.120.111 (10.200.120.111): 56 data bytes, press CTRL+C to break
```

```
Request time out
```

```
Request time out
```

```
--- Ping statistics for 10.200.120.111 ---
```

```
3 packet(s) transmitted, 0 packet(s) received, 100.0% packet loss
```

## 过程分析

1、根据现场描述的故障，检查s12508上面的arp表项发现是稳定存在的，但在ping不通时，对端s5554交换机没有s12508 arp表项，一旦ping通了就有了。因此怀疑是s5554的arp表项学习存在问题。让现场配置静态arp绑定。命令：[SW]arp static 1.1.1.1 AAAA-AAAA-AAAA 100 Ten-GigabitEthernet 1/5/0/1; 1.1.1.1为目的ip，AAAA-AAAA-AAAA为目的mac，100为vlan标签，Ten-gi为连目的设备的接口。配置完成之后故障依旧。

2、怀疑现场存在mac地址漂移查看s5554诊断未发现地址漂移且tc报文也为空：

```
=====display mac-address mac-move=====
```

```
MAC address VLAN Current port Source port Last time Times
```

```
--- 0 MAC address moving records found ---
```

```
=====display stp tc=====
```

```
----- STP slot 1 TC or TCN count -----
```

```
MST ID Port Receive Send 0 Bridge-Aggregation1 4 2
```

```
----- STP slot 2 TC or TCN count -----
```

```
MST ID Port Receive Send
```

```
=====
```

3、查看链路聚合是否存在问题，两边链路聚合端口状态均为select。

4、在s5554交换机上查看是否存在arp超限速丢包，通过底层命令查看debug rtx softcar show slot 2

:

```
=====debug rtx softcar show slot 2=====
```

```
ID Type RcvPps Rcv_All DisPkt_All Pps Dyn Swi Hash Am APps
```

```
0 ROOT 0 0 0 300 S On SMAC 0 0
```

```
1 ISIS 0 0 0 200 D On SMAC 8 512
```

```
2 ESIS 0 0 0 100 S On SMAC 8 512
```

```
3 CLNP 0 0 0 100 S On SMAC 8 512
```

```
4 VRRP 0 0 0 1024 S On SMAC 8 768
```

```
5 UNKNOWN_IPV4MC 0 0 0 100 S On SMAC
```

```
.
```

```
.
```

```
.
```

```
30 ARP 502 707433 425431 500 S On SMAC 8 496
```

从上可以看到当前arp报文每秒收到502个，而设备的arp报文接收速率上限是500个每秒，所以存在arp超限速的问题导致arp丢包，丢了425431个arp报文。

5、根据上面的分析推断现场应该是存在环路导致arp学习存在问题。

再次查看组网并分析发现，s5554上出了两根mad检测线没聚合，两根单线放通同一个vlan组成了口字形环路。先让现场整改测试下将链路聚合起来

## 解决方法

s5554的mac检查链路与对端s12508聚合起来，问题解决

