

# 某局点两台S5130-EI交换机经过不同运营商MSTP专线做链路聚合不成功

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## 组网及说明

某局点使用两台S5130-EI交换机做链路聚合，两根线路分别是联通和电信的MSTP专线。

## 问题描述

配置完之后发现链路聚合不成功，一个接口无法选中。

```
<S022-ZBJR-001>dis link-aggregation ver
<S022-ZBJR-001>dis link-aggregation verbose
Loadsharing Type: Shar -- Loadsharing, NonS -- Non-Loadsharing
Port Status: S -- Selected, U -- Unselected,
              I -- Individual, * -- Management port
Flags: A -- LACP Activity, B -- LACP Timeout, C -- Aggregation,
        D -- Synchronization, E -- Collecting, F -- Distributing,
        G -- Defaulted, H -- Expired

Aggregate Interface: Bridge-Aggregation1
Aggregation Mode: Dynamic
Loadsharing Type: Shar
Management VLAN : None
System ID: 0x8000, ac74-09ae-5cc8
Local:
-----
Port                Status Priority Oper-Key Flag
-----
GE1/0/47            S        32768  2      {ACDEF}
GE2/0/47            U        32768  2      {ACD}
-----
Actor                Partner Priority Oper-Key SystemID      Flag
-----
GE1/0/47             47       32768  2      0x8000, ac74-09ae-7108 {ACDEF}
GE2/0/47             112      32768  2      0x8000, ac74-09ae-7108 {ACG}
```

## 过程分析

查看设备两边的配置没有问题，在两侧交换机对无法选中的接口进行debug

<S022-ZBJR-002>debugging link-aggregation lacp packet all interface GigabitEthernet 2/0/47  
发现在一台设备上只发不收

```
*Aug 22 21:58:03:992 2018 S022-ZBJR-002 LAGG/7/Packet: PACKET.GigabitEthernet2/0/47.send.
size=110, subtype=1, version=1
Actor: type=1, len=20, sys-pri=0x8000, sys-mac=ac74-09ae-7108, key=0x2, pri=0x8000, port-index=
0x70, state=0xc5
Partner: type=2, len=20, sys-pri=0x8000, sys-mac=0000-0000-0000, key=0x0, pri=0x8000, port-
index=0x0, state=0x32
Collector: type=3, len=16, col-max-delay=0x0
Terminator: type=0, len=0
*Aug 22 21:58:04:770 2018 S022-ZBJR-002 LAGG/7/Packet: -Slot=1; PACKET.GigabitEthernet1/0/4
7.send.
size=110, subtype=1, version=1
Actor: type=1, len=20, sys-pri=0x8000, sys-mac=ac74-09ae-7108, key=0x2, pri=0x8000, port-index=
0x2f, state=0x3d
Partner: type=2, len=20, sys-pri=0x8000, sys-mac=ac74-09ae-5cc8, key=0x2, pri=0x8000, port-index
=0x2f, state=0x3d
Collector: type=3, len=16, col-max-delay=0x0
Terminator: type=0, len=0
*Aug 22 21:58:05:001 2018 S022-ZBJR-002 LAGG/7/Packet: PACKET.GigabitEthernet2/0/47.send.
size=110, subtype=1, version=1
Actor: type=1, len=20, sys-pri=0x8000, sys-mac=ac74-09ae-7108, key=0x2, pri=0x8000, port-index=
0x70, state=0xc5
Partner: type=2, len=20, sys-pri=0x8000, sys-mac=0000-0000-0000, key=0x0, pri=0x8000, port-
index=0x0, state=0x32
Collector: type=3, len=16, col-max-delay=0x0
Terminator: type=0, len=0
```

对端设备有收有发

```
*Aug 22 22:04:40:367 2018 S022-ZBJR-001 LAGG/7/Packet: -Slot=2;
PACKET.GigabitEthernet2/0/47.send.
size=110, subtype=1, version=1
Actor: type=1, len=20, sys-pri=0x8000, sys-mac=ac74-09ae-5cc8, key=0x2, pri=0x8000, port-index=
0x70, state=0xd
Partner: type=2, len=20, sys-pri=0x8000, sys-mac=ac74-09ae-7108, key=0x2, pri=0x8000, port-
index=0x70, state=0xc5
Collector: type=3, len=16, col-max-delay=0x0
```

Terminator: type=0, len=0  
\*Aug 22 22:04:49:797 2018 S022-ZBJR-001 LAGG/7/Packet: -Slot=2;  
PACKET.GigabitEthernet2/0/47.receive.  
size=110, subtype=1, version=1  
Actor: type=1, len=20, sys-pri=0x8000, sys-mac=ac74-09ae-7108, key=0x2, pri=0x8000, port-index=0x70, state=0x45  
Partner: type=2, len=20, sys-pri=0x8000, sys-mac=0000-0000-0000, key=0x0, pri=0x8000, port-index=0x0, state=0x38  
Collector: type=3, len=16, col-max-delay=0x0  
Terminator: type=0, len=0

通过日志发现发送的mac地址是全0的，正常情况下这个地址应该是接口的地址。

导致mac地址全0的原因是因为lacp报文不通导致，现场情况是因为运营商线路问题导致出现单通情况，由于无法和对端互通，故mac地址变成全0。

#### 解决方法

联系运营商修复中间的MSTP专线链路之后问题解决。