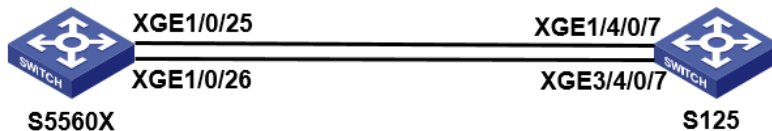


知 某局点 S5560X 动态链路聚合无法选中

二层链路聚合 刘雨 2020-04-13 发表

组网及说明

现场一台S5560X对接S12500设备，S5560X版本为R1119P12，组网如图：



问题描述

1. 现场反馈该5560X设备和125X设备动态链路聚合异常：

5560X上：

```
interface Bridge-Aggregation1
port access vlan 1006
link-aggregation mode dynamic
undo stp enable
Aggregate Interface: Bridge-Aggregation1
```

Local:

Port	Status	Priority	Index	Oper-Key	Flag
XGE1/0/25(R)	S	32768	1	1	{ACDEFG}
XGE1/0/26	U	32768	2	1	{ACG}

Remote:

Actor	Priority	Index	Oper-Key	SystemID	Flag
XGE1/0/25	32768	0	0	0x8000, 0000-0000-0000	{DEF}
XGE1/0/26	32768	0	0	0x8000, 0000-0000-0000	{DEF}

125X上：

```
interface Bridge-Aggregation407
port access vlan 2000
link-aggregation mode dynamic
undo stp enable
Aggregate Interface: Bridge-Aggregation407
Creation Mode: Manual
Aggregation Mode: Dynamic
Loadsharing Type: Shar
Management VLANs: None
System ID: 0x8000, 5098-b8d2-4800
```

Local:

Port	Status	Priority	Index	Oper-Key	Flag
XGE1/4/0/7	U	32768	31	25	{ACD}
XGE3/4/0/7	U	32768	43	25	{ACD}

Remote:

Actor	Priority	Index	Oper-Key	SystemID	Flag
XGE1/4/0/7	32768	1	1	0x8000, 441a-facc-e440	{ACEFG}
XGE3/4/0/7	32768	2	1	0x8000, 441a-facc-e440	{ACG}

2. 改为静态链路聚合可以正常选中，且业务报文交互正常：

```
Aggregate Interface: Bridge-Aggregation1
Aggregation Mode: Static
Loadsharing Type: Shar
Management VLANs: None
Port      Status Priority Oper-Key
XGE1/0/25(R) S    32768  1
XGE1/0/26 S    32768  1
```

过程分析

(1) 打开debug lACP, 发现S125有发送lACP报文过来, 但S5560X上并没有收到。

[EOR-1-probe]ping 1.1.1.3

Ping 1.1.1.3 (1.1.1.3): 56 data bytes, press CTRL_C to break

*Jan 19 06:59:56:659 2011 EOR-1 DRVPLAT/7/RxTxDebug:

From board 1: transmit packet from chip0,port5,Priority=3,len=102

0000 70 57 bf 30 10 f9 7c 1e 06 2c 1f 9a 81 00 00 c8
0010 08 00 45 00 00 54 fc 50 00 00 ff 01 bb 52 01 01
0020 01 01 01 01 01 03 08 00 01 17 25 dc 00 00 4d 36
0030 8b ec 00 0a 0c dd 08 09 0a 0b 0c 0d 0e 0f 10 11

56 bytes from 1.1.1.3: icmp_seq=0 ttl=255 time=133.296 ms

56 bytes from 1.1.1.3: icmp_seq=1 ttl=255 time=2.477 ms

*Jan 19 06:59:56:993 2011 EOR-1 DRVPLAT/7/RxTxDebug:

From board 1: transmit packet from chip0,port5,Priority=3,len=102

0000 70 57 bf 30 10 f9 7c 1e 06 2c 1f 9a 81 00 00 c8
0010 08 00 45 00 00 54 fc 51 00 00 ff 01 bb 51 01 01
0020 01 01 01 01 01 03 08 00 e8 7b 25 dc 00 01 4d 36
0030 8b ec 00 0f 25 72 08 09 0a 0b 0c 0d 0e 0f 10 11

(2) 在静态链路聚合的情况下, 聚合口和物理口都正常up, 但在5560X上看不到LLDP邻居:

<SW-L2B-SURV-AS01>dis lldp neighbor-information list

There is no neighbor on the device.

但在125X上可以正常看到邻居:

XGE1/4/0/7 441a-facc-e440 Ten-GigabitEthernet1/0/25 SW-L2B-SURV-AS01

XGE3/4/0/7 441a-facc-e440 Ten-GigabitEthernet1/0/26 SW-L2B-SURV-AS01s

(3) 查看匹配底层LLDP报文上送CPU的acl, 发现没有匹配, LACP的acl也没有匹配:

[SW-L2B-SURV-AS01-probe]debug qacl show sl 1 c 0 v 0 acl-type 8

=====

Acl-Type RX IPv4 High, Stage IPCL 2, Global, ToInstall, Active

Prio Mjr/Sub 0x30b/0x11, RuleFormat INGRESS_EXT_NOT_IPV6, Vtcame/Idx 4/55,

Rule Match -----

Global range

Dest mac: 0180-C200-0003, FFFF-FFFF-FFFF

EtherType: 0x88cc, 0xffff

SysmRule Index : 53

Actions -----

Account mode packets, green and non-green

Redirect : Trap to cpu

Change CPU pkt COS 5

Red Deny

Red_Copy_to_cpu : No

Yel Deny

Yel_Copy_to_cpu : No

MatchedName:53, LLDP

Skip the following PCL lookups

Skip the following ingress pipe

Skip the Bridge

Accounting: Hi 0, Lo 0

(4) 在设备上下发qos, 希望流统LACP报文看报文是否发送到5560X上, 但提示QOS无法下发:

[SW-L2B-SURV-AS01-Ten-GigabitEthernet1/0/25]qos apply policy LLDP inbound

[SW-L2B-SURV-AS01-Ten-GigabitEthernet1/0/25]%Mar 9 15:33:14:476 2020 SW-L2B-SURV-AS01

QOS/4/QOS_POLICY_APPLYIF_CBFAIL: Failed to apply classifier-behavior LLDP in policy LLDP to

the inbound direction of interface Ten-GigabitEthernet1/0/25. Operation failed.

(5) 查询平台驱动, 有如下已知问题:

问题单号	简述	基线版本-子版本
201907250868	【S5560X B70D022SP维护分支】【同步问题单: 201906110314】【端口专项】端口下发满规格acl提示失败, 实际底层已下发, 但打流不生效	S5560XV100R001B01D047

(6) 这个已知问题会导致底层acl损坏, 现场LACP报文和LLDP报文无法匹配ACL上送到CPU, 就是因为相应的ACL被损坏了。

解决方法

- (1) 建议升级到R1119P16 + H02补丁版本。
- (2) 对不能升级但已经触发此问题的设备，保存配置重启能规避这个问题。