MSR56建立VPLS，作为PE无法学习到下连CE的MAC地址

MPLS L2VPN　王科　2022-04-05 发表

组网及说明

CE---PE---P---PE（MSR56）---CE

问题描述

两端跑VPLS业务，56侧可以学习到对端CE的MAC地址，但是无法学习到本端CE交换机的MAC地址。更换CE也无法学习到。

过程分析

隧道正常建立，LDP及PW都没有异常，且56能学到对端的MAC地址。

interface GigabitEthernet2/0/2.1

mpls enable

mpls ldp enable

vlan-type dot1q vid 3

xconnect vsi abxwj

==========display l2vpn pw==========

Flags: M - main, B - backup, BY - bypass, H - hub link, S - spoke link, N - no split horizon

Total number of PWs: 1

1 up, 0 blocked, 0 down, 0 defect, 0 idle, 0 duplicate

VSI Name: abxwj

Peer	PW ID/Rmt Site	In/Out Label	Proto	Flag	Link ID	State
10.71.20.81	513200112	917631/133758	LDP	M	8	Up

==========display l2vpn ldp==========

Total number of LDP PWs: 1, 1 up, 0 down

Peer	PW ID/VPLS ID	In/Out Label	State	Owner
10.71.20.81	513200112	917631/133758	Up	abxwj

==========display l2vpn forwarding pw==========

Total number of VSIs: 1

Total number of PWs: 1, 1 up, 0 blocked, 0 down

VSI Name	In/Out Label	NID	Link ID	State
abxwj	917631/133758	64	8	Up

随将我们MSR56 vsi所在得物理接口接口从2口换为6口后，MAC地址学习正常，业务恢复。

测试发现，业务换到接口2口3口都异常，换到6口则业务恢复。

怀疑设备硬件有问题，**此类问题建议收集故障口的如下信息：**

display interfece GigabitEthernet 2/0/0---2/0/3

display hardware internal physical GigabitEthernet 2/0/0 statistic

display hardware internal physical GigabitEthernet 2/0/1 statistic

display hardware internal physical GigabitEthernet 2/0/2 statistic

display hardware internal physical GigabitEthernet 2/0/3 statistic

dis hardware internal dump GigabitEthernet 2/0/0 chip 1 channel

dis hardware internal dump GigabitEthernet 2/0/0 chip 2 channel

dis hardware internal dump GigabitEthernet 2/0/1 chip 1 channel

dis hardware internal dump GigabitEthernet 2/0/1 chip 2 channel

dis hardware internal dump GigabitEthernet 2/0/2 chip 1 channel

dis hardware internal dump GigabitEthernet 2/0/2 chip 2 channel

dis hardware internal dump GigabitEthernet 2/0/3 chip 1 channel

dis hardware internal dump GigabitEthernet 2/0/3 chip 2 channel

解决方法

如上信息收集后，可判断 G2/0/0 -- G2/0/3 接收通道无法收包，发送通道正常、只有广播/组播包(无法学习到MAC)。怀疑此四个口对应的CPU MAC出问题。更换备件即可。

GigabitEthernet2/0/0

Last 300 second input: 0 packets/sec 0 bytes/sec 0%

Last 300 second output: 0 packets/sec 36 bytes/sec 0%

Input (total): 0 packets, 0 bytes

- unicasts, - broadcasts, - multicasts, - pauses

Input (normal): 0 packets, - bytes

0 unicasts, 0 broadcasts, 0 multicasts, 0 pauses

Input: 0 input errors, 0 runts, 0 giants, - throttles

0 CRC, - frame, - overruns, 0 aborts

- ignored, - parity errors //**无法接收了**

Output (total): 745515 packets, 82379963 bytes

- unicasts, - broadcasts, - multicasts, - pauses

Output (normal): 745515 packets, - bytes

0 unicasts, 14 broadcasts, 745501 multicasts, 0 pauses

Output: 0 output errors, - underruns, - buffer failures

0 aborts, 0 deferred, 0 collisions, 0 late collisions

- lost carrier, - no carrier

[MSR5560-probe]display hardware internal physical GigabitEthernet 2/0/0 statistic

Hardware information of receive:

Input packets: 0

Broadcast packets: 0

Multicast packets: 0

Align error packets: 0

CRC errors packets: 0

Symb errors packets: 0

Sequence err packets: 0

Recv No Buffers: 0

Short Packets(<64): 0

TooLongErrs Packets: 0

Missed packets(fifo): 0 //**没有接收计数**

Hardware information of transmitted:

Output packets: 745331

Broadcast packets: 14

Multicast packets: 745317

Defered Packets: 0

No ready(underrun): 0

Lost Carriers: 0

Late collisions: 0

Total collision: 0