

知 MSR 3620DP E1-F接口直连丢包

PPP IPv4 广域网接口 薛佳宇 2021-12-18 发表

组网及说明

MSR 3620DP配置两块SIC-2E1-F插卡，各出一个serial接口与对端直连

问题描述

两个Serial接口物理协议均up, 接口下无任何错包, ping对端直连地址丢包

现象1: 两个接口都UP, S1/1丢包, S2/1正常

现象2: shutdown S1/1, S2/1开始丢包; undo shutdown S1/1, S2/1逐渐恢复不丢包, S1/1继续丢包

现象3: shutdown S2/1, S1/1依旧丢包; undo shutdown S2/1, S1/1继续丢包, S2/1不丢包

过程分析

1、通过S1/1和S2/1下发QOS流量统计，初步判定包不是丢在路由器上的

```
#
acl advanced 3999
rule 0 permit icmp source X.X.X.117 0 destination X.X.X.118 0
rule 5 permit icmp source X.X.X.118 0 destination X.X.X.117 0
#
traffic classifier lt operator and
if-match acl 3999
#
traffic behavior lt
#
qos policy lt
classifier lt behavior lt
#
#
interface Serial1/1
qos apply policy lt inbound
qos apply policy lt outbound
#
```

```
<H3C>ping -c 20 X.X.X.117
```

```
20 packet(s) transmitted, 13 packet(s) received, 35.0% packet loss
```

```
<H3C>
```

```
<H3C>dis qos policy interface s1/1
```

```
Interface: Serial1/1
```

```
Direction: Inbound
```

```
Policy: lt
```

```
Classifier: lt
```

```
Matched : 13 (Packets) 1144 (Bytes)
```

```
5-minute statistics:
```

```
Forwarded: 0/0 (pps/bps)
```

```
Dropped : 0/0 (pps/bps)
```

```
Operator: AND
```

```
Rule(s) :
```

```
If-match acl 3999
```

```
Behavior: lt
```

```
-none-
```

```
Interface: Serial1/1
```

```
Direction: Outbound
```

```
Policy: lt
```

```
Classifier: lt
```

```
Matched : 20 (Packets) 1760 (Bytes)
```

```
5-minute statistics:
```

```
Forwarded: 0/0 (pps/bps)
```

```
Dropped : 0/0 (pps/bps)
```

```
Operator: AND
```

```
Rule(s) :
```

```
If-match acl 3999
```

```
Behavior: lt
```

```
-none-
```

```
<H3C>
```

2、对于以上解释，用户表示可以接受，但是仍觉得现象诡异，要求再深入分析

```
<H3C>debugging physical packet all interface Serial 1/1 key ffffffff offset 50 length 16
```

```
//查看硬件收发包
```

```
<H3C>t d
```

```
<H3C>t m
```

```
<H3C>ping -c 10 -p fffffff -s 160 X.X.X.117
```

```
PATTERN: 0xffffffff
```

```
Ping X.X.X.117 (X.X.X.117): 160 data bytes, press CTRL+C to break
```

```
Request time out
```

```
160 bytes from X.X.X.117: icmp_seq=1 ttl=255 time=49.937 ms
```

*Dec 18 00:18:16:429 2021 H3C DRVDBG/7/debugging:
(Serial1/1)PHY/PKT:

Packet Output, Packet Len =192,Partial data as follows:

FF 03 00 21 45 00 00 BC 18 35 00 00 FF 01 5A 1B
17 03 0D 76 17 03 0D 75 08 00 BC 0F 06 B3 00 01
61 BD 28 CF 00 03 AA A8 FF FF FF FF FF FF FF FF
FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF

13-26-08:056 UTC Wed 01/02/2013
*Dec 18 00:18:18:436 2021 H3C DRVDBG/7/debugging:
(Serial1/1)PHY/PKT:

MAC address, VLAN, Current port, Source port, Last time Times
Packet Input, Packet Len = 192, Partial data as follows:
XX XX XX XX XX XX XX XX GE1/0/2 GE1/0/3 2013-01-02 12:25:50 6639968
FF 03 00 21 45 00 00 BC 0F 06 B3 00 05
...17 03 0D 75 17 03 0D 76 00 00 85 D0 06 B3 00 01
XX XX XX XX XX XX XX XX GE1/0/3 GE1/0/2 2013-01-02 12:26:24 6656640
61 BD 28 CF 00 03 AA A8 FF FF FF FF FF FF FF FF
FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF

Request time out
Request time out
Request time out
160 bytes from X.X.X.117: icmp_seq=5 ttl=255 time=49.907 ms

*Dec 18 00:18:23:282 2021 H3C DRVDBG/7/debugging:
(Serial1/1)PHY/PKT:

Packet Output, Packet Len =192,Partial data as follows:
FF 03 00 21 45 00 00 BC 18 4A 00 00 FF 01 5A 06
17 03 0D 76 17 03 0D 75 08 00 BC 0F 06 B3 00 05
61 BD 28 CF 00 03 AA A8 FF FF FF FF FF FF FF FF
FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF

*Dec 18 00:18:23:290 2021 H3C DRVDBG/7/debugging:
(Serial1/1)PHY/PKT:

Packet Input, Packet Len = 192, Partial data as follows:
FF 03 00 21 45 00 00 BC 13 CA 00 00 FF 01 5E 86
17 03 0D 75 17 03 0D 76 00 00 C4 0F 06 B3 00 05
61 BD 28 CF 00 03 AA A8 FF FF FF FF FF FF FF FF
FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF

Request time out
Request time out
Request time out
160 bytes from X.X.X.117: icmp_seq=9 ttl=255 time=57.101 ms

*Dec 18 00:18:30:142 2021 H3C DRVDBG/7/debugging:
(Serial1/1)PHY/PKT:

Packet Output, Packet Len =192,Partial data as follows:
FF 03 00 21 45 00 00 BC 18 61 00 00 FF 01 59 EF
17 03 0D 76 17 03 0D 75 08 00 F9 1F 06 B3 00 09
61 BD 28 D6 00 01 6D 8F FF FF FF FF FF FF FF FF
FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF

*Dec 18 00:18:30:150 2021 H3C DRVDBG/7/debugging:
(Serial1/1)PHY/PKT:

Packet Input, Packet Len = 192, Partial data as follows:
FF 03 00 21 45 00 00 BC 13 CB 00 00 FF 01 5E 85
17 03 0D 75 17 03 0D 76 00 00 01 20 06 B3 00 09
61 BD 28 D6 00 01 6D 8F FF FF FF FF FF FF FF FF
FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF

--- Ping statistics for X.X.X.117 ---
10 packet(s) transmitted, 3 packet(s) received, 70.0% packet loss
round-trip min/avg/max/std-dev = 49.907/52.315/57.101/3.384 ms

3、以上信息又可以说明，此次ping10个包，丢7个包，实际上是路由器只发了3个包出去，因此判定问题确实存在于路由器上

4、查看路由器接口广播报文情况

[H3C]dis int | in Description|broadcasts
Description: GigabitEthernet0/1 Interface
- unicasts, - broadcasts, - multicasts, - pauses
1 unicasts, 50685821 broadcasts, 179 multicasts, 0 pauses
- unicasts, - broadcasts, - multicasts, - pauses
57 unicasts, 50 broadcasts, 0 multicasts, 2107 pauses

[H3C]

[H3C]dis int | in Description|broadcasts

Description: GigabitEthernet0/1 Interface

- unicasts, - broadcasts, - multicasts, - pauses