SR8800与NE40对接155M POS问题

广域网接口 **朱玉广** 2015-11-06 发表

某局点，使用SR88替换老的路由器与老NE40进行对接155POS，在替换老路由器之后，发现POS接口一直处于物理UP，协议down的状态。由于替换的时候，直接采用拷贝的原有配置，配置上再三对过无异常，此时接口依旧处于物理UP、协议down。
而且现场测试，将同一个线缆插到老设备上，接口立即物理协议双UP。

通过查看接口信息，可以看到配置上并无异常：
新设备：

```
[NEW]display cu interface Pos3/2/1/2/1:0
#
interface Pos3/2/1/2/1:0
 description TO-ANHUI-RT01-MSR50
 flag j1 sdh NetEngine
 link-protocol ppp
 ip address 10.200.1.45 255.255.255.252
 ospf authentication-mode simple cipher $c$3$oSoiIAY4zbbWJYGJ9g2fS+5Wjk5sYQ==
#
```

旧设备：

```
display cu interface Pos3/2/1/2/1:0
#
interface Pos3/2/1/2/1:0
 description TO-ANHUI-RT01-MSR50
 flag j1 sdh NetEngine
 link-protocol ppp
 ip address 10.200.1.45 255.255.255.252
 ospf authentication-mode simple plain h3c
```

查看接口状态，可以看到：
新设备：

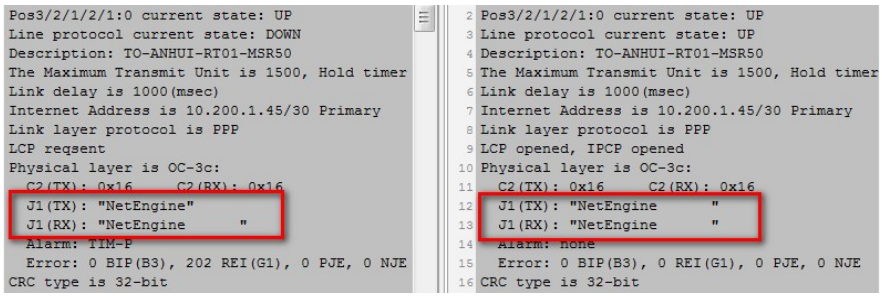
```
[NEW]display interface Pos3/2/1/2/1:0
Pos3/2/1/2/1:0 current state: UP
Line protocol current state: DOWN
Description: TO-ANHUI-RT01-MSR50
The Maximum Transmit Unit is 1500, Hold timer is 10(sec)
Link delay is 1000(msec)
Internet Address is 10.200.1.45/30 Primary
Link layer protocol is PPP
LCP reqsent
Physical layer is OC-3c:
  C2(TX): 0x16     C2(RX): 0x16
  J1(TX): "NetEngine"
  J1(RX): "NetEngine      "
  Alarm: TIM-P
  Error: 0 BIP(B3), 202 REI(G1), 0 PJE, 0 NJE
CRC type is 32-bit
SPE Scrambling enable
Last 300 seconds input:  0 Packets/sec, 0 Bytes/sec
Last 300 seconds output: 0 Packets/sec, 0 Bytes/sec
Input: 0 Packets, 0 Bytes
       0 Aborts, 0 FCS errors, 0 FIFO overflow
       0 Giants, 0 Runts
Output: 159 Packets, 2862 Bytes
        0 Aborts, 0 FIFO overflow
Peak value of input: 0 bytes/sec, at 2015-11-01 05:27:32
Peak value of output: 3 bytes/sec, at 2015-11-01 05:22:32
```

老设备：

```
display interface  Pos3/2/1/2/1:0
```

Pos3/2/1/2/1:0 current state: UP
Line protocol current state: UP
Description: TO-ANHUI-RT01-MSR50
The Maximum Transmit Unit is 1500, Hold timer is 10(sec)
Link delay is 1000(msec)
Internet Address is 10.200.1.45/30 Primary
Link layer protocol is PPP
LCP opened, IPCP opened
Physical layer is OC-3c:
 C2(TX): 0x16 C2(RX): 0x16
 J1(TX): "NetEngine "
 J1(RX): "NetEngine "
 Alarm: none
 Error: 0 BIP(B3), 0 REI(G1), 0 PJE, 0 NJE
CRC type is 32-bit
SPE Scrambling enable
Last 300 seconds input: 0 Packets/sec, 0 Bytes/sec
Last 300 seconds output: 0 Packets/sec, 0 Bytes/sec
Input: 13167 Packets, 14574737 Bytes
    0 Aborts, 0 FCS errors, 0 FIFO overflow
    0 Giants, 0 Runts
Output: 15 Packets, 738 Bytes
    0 Aborts, 0 FIFO overflow
Peak value of input: 0 bytes/sec, at 2015-10-31 21:38:18
Peak value of output: 0 bytes/sec, at 2015-10-31 21:38:18

由于此版本中并无已知的软件bug，所以更倾向于认为是配置问题。
仔细对比配置，发现，新旧设备的J1有所不同，具体如下：



```
Pos3/2/1/2/1:0 current state: UP
Line protocol current state: DOWN
Description: TO-ANHUI-RT01-MSR50
The Maximum Transmit Unit is 1500, Hold timer
Link delay is 1000(msec)
Internet Address is 10.200.1.45/30 Primary
Link layer protocol is PPP
LCP reqsent
Physical layer is OC-3c:
  C2(TX): 0x16     C2(RX): 0x16
  J1(TX): "NetEngine"
  J1(RX): "NetEngine      "
  Alarm: TIM-P
  Error: 0 BIP(B3), 202 REI(G1), 0 PJE, 0 NJE
CRC type is 32-bit
```

```
2  Pos3/2/1/2/1:0 current state: UP
3  Line protocol current state: UP
4  Description: TO-ANHUI-RT01-MSR50
5  The Maximum Transmit Unit is 1500, Hold timer
6  Link delay is 1000(msec)
7  Internet Address is 10.200.1.45/30 Primary
8  Link layer protocol is PPP
9  LCP opened, IPCP opened
10 Physical layer is OC-3c:
11   C2(TX): 0x16     C2(RX): 0x16
12   J1(TX): "NetEngine      "
13   J1(RX): "NetEngine      "
14   Alarm: none
15   Error: 0 BIP(B3), 0 REI(G1), 0 PJE, 0 NJE
16 CRC type is 32-bit
```

可以看到在新设备中
 J1(TX): "NetEngine"
 J1(RX): "NetEngine "
TX出方向，NetEngine后面没有空格，RX入方向NetEngine没有有空格。

对于老设备
 J1(TX): "NetEngine "
 J1(RX): "NetEngine "
出入方向一致，NetEngine后面均存在有空格。

所以此处判断是新设备的J1收发不一致导致。

在新设备的flag j1 sdh NetEngine后面敲上6个空格，使之收发一致，再做测试，物理协议正常UP，ping测试网络通畅。

遇到此类问题，还需要细心察看下，对于一些比较成熟的技术，通常问题还是跟配置有关。