

知 关于MSR G2路由器和中兴路由器通过ppp mp对接的

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MSR G2路由器与中兴路由器在做PPP MP 对接的时候, 出现PPP MP工作不正常, MP-group、Serial口不断UP DOWN的现象。将接口的mp取消, 则接口物理和协议都能正常up。

Log日志信息:

```
37%Sep 7 10:21:05:136 2015 220zhongdiantou-MSR36-40-R1 IFNET/5/LINK_UPDOWN: Line protocol state on the interface Serial7/0 changed to up.
%@38%Sep 7 10:21:05:138 2015 220zhongdiantou-MSR36-40-R1 IFNET/3/PHY_UPDOWN: Physical state on the interface MP-group0 changed to up.
%@39%Sep 7 10:21:05:138 2015 220zhongdiantou-MSR36-40-R1 IFNET/5/LINK_UPDOWN: Line protocol state on the interface MP-group0 changed to up.
%@40%Sep 7 10:21:05:156 2015 220zhongdiantou-MSR36-40-R1 IFNET/5/LINK_UPDOWN: Line protocol state on the interface Serial7/0 changed to down.
%@41%Sep 7 10:21:05:159 2015 220zhongdiantou-MSR36-40-R1 IFNET/3/PHY_UPDOWN: Physical state on the interface MP-group0 changed to down.
%@42%Sep 7 10:21:05:160 2015 220zhongdiantou-MSR36-40-R1 IFNET/5/LINK_UPDOWN: Line protocol state on the interface MP-group0 changed to down.
%@43%Sep 7 10:21:08:349 2015 220zhongdiantou-MSR36-40-R1 IFNET/5/LINK_UPDOWN: Line protocol state on the interface Serial7/1 changed to up.
%@44%Sep 7 10:21:08:351 2015 220zhongdiantou-MSR36-40-R1 IFNET/3/PHY_UPDOWN: Physical state on the interface MP-group1 changed to up.
%@45%Sep 7 10:21:08:351 2015 220zhongdiantou-MSR36-40-R1 IFNET/5/LINK_UPDOWN: Line protocol state on the interface MP-group1 changed to up.
```

设备debug信息:

```
*Sep 7 12:48:37:635 2015 220zhongdiantou-MSR36-40-R1 PPP/7/FSM_STATE_0:
  PPP State Change:
    Serial7/1 LCP: stopped --> acksent
*Sep 7 12:48:37:637 2015 220zhongdiantou-MSR36-40-R1 PPP/7/EXTERNAL_EVENT:
  PPP External Event:
    Serial7/1 deliver packet to user space success
*Sep 7 12:48:37:637 2015 220zhongdiantou-MSR36-40-R1 PPP/7/FSM_PACKET_0:
  PPP Packet:
    Serial7/1 Input LCP(c021) Packet, PktLen 30
    Current State acksent, code ConfAck(02), id ff, len 26
    MagicNumber(5), len 6, val dc fd e8 86
    MRRU(11), len 4, val 05 dc
    Discr(13), len c, val 01 4d 50 2d 67 72 6f 75 70 31
%Sep 7 12:48:37:642 2015 220zhongdiantou-MSR36-40-R1 IFNET/5/LINK_UPDOWN: Line protocol state on the interface Serial7/1 changed to up.
*Sep 7 12:48:37:637 2015 220zhongdiantou-MSR36-40-R1 PPP/7/FSM_EVENT_0:
  PPP Event:
    Serial7/1 LCP RCA(Receive Config Ack) Event
    State acksent
*Sep 7 12:48:37:638 2015 220zhongdiantou-MSR36-40-R1 PPP/7/FSM_STATE_0:
  PPP State Change:
    Serial7/1 LCP: acksent --> opened
%Sep 7 12:48:37:643 2015 220zhongdiantou-MSR36-40-R1 IFNET/3/PHY_UPDOWN: Physical state on the interface MP-group1 changed to up.
%Sep 7 12:48:37:643 2015 220zhongdiantou-MSR36-40-R1 IFNET/5/LINK_UPDOWN: Line protocol state on the interface MP-group1 changed to up.
*Sep 7 12:48:37:659 2015 220zhongdiantou-MSR36-40-R1 PPP/7/EXTERNAL_EVENT:
  PPP External Event:
    Serial7/1 deliver packet to user space success
*Sep 7 12:48:37:659 2015 220zhongdiantou-MSR36-40-R1 PPP/7/FSM_PACKET_0:
  PPP Packet:
    Serial7/1 Input LCP(c021) Packet, PktLen 8
    Current State opened, code TermReq(05), id ac, len 4 //前面协商均正常, 此处突然收到
    对端发送过来的terminal终止协商报文, 导致协商终端PPP down.
```

当使用MP-Group进行MP捆绑，缺省情况下，MSR G2路由器发送报文中的终端描述符（Endpoint）为设备配置的MP-Group组名称。

中兴对MP的捆绑实现可能存在如下的限制：同一路由器下多个Multiink口对应的对端终端描述符不能重复，如果重复，会将后面捆绑的链路断开。因此当有两个或两个以上MSR设备与中兴路由器通过PP P-MP互联，且配置的MP-Group组名称相同时，由于发送给中兴的终端描述符是相同的，这种情况下中兴路由器会将链路拆链。

通过命令ppp mp endpoint xxx 为MP-Group组配置不同的终端描述符

我司多台设备与友商对接mp的时候，在接口与mp接口不断up/down的情况下，建议修改我司设备的终端描述符。