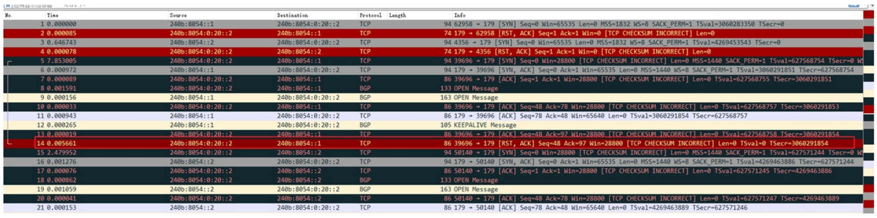
某局点SR88对接控制器bgp-ls邻居起不来，connect状态

BGP **刘平泽** 2023-02-27 发表

问题描述

SR88配置与控制器对接BGP-LS邻居，发现起不来，为connect
抓包发现BGP 交互中，是控制器给我们发送了reset 重置连接。



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No.  Time         Source                Destination           Protocol Length  Info
   1 0.000000     240b:8054::1          240b:8054:0:20::2     TCP           94 62958 → 179 [SYN] Seq=0 Win=65535 Len=0 MSS=1832 WS=8 SACK_PERM=1 TSval=3060283350 TSecr=0
   2 0.000085     240b:8054:0:20::2     240b:8054::1          TCP           74 179 → 62958 [RST, ACK] Seq=1 Ack=1 Win=0 [TCP CHECKSUM INCORRECT] Len=0
   3 0.646743     240b:8054::2          240b:8054:0:20::2     TCP           94 4356 → 179 [SYN] Seq=0 Win=65535 Len=0 MSS=1832 WS=8 SACK_PERM=1 TSval=4269453543 TSecr=0
   4 0.000078     240b:8054:0:20::2     240b:8054::2          TCP           74 179 → 4356 [RST, ACK] Seq=1 Ack=1 Win=0 [TCP CHECKSUM INCORRECT] Len=0
   5 7.853005     240b:8054:0:20::2     240b:8054::1          TCP           94 39696 → 179 [SYN] Seq=0 Win=28800 [TCP CHECKSUM INCORRECT] Len=0 MSS=1440 SACK_PERM=1 TSval=627568754 TSecr=0 WS
   6 0.000972     240b:8054::1          240b:8054:0:20::2     TCP           94 179 → 39696 [SYN, ACK] Seq=0 Ack=1 Win=65535 Len=0 MSS=1440 WS=8 SACK_PERM=1 TSval=3060291851 TSecr=627568754
   7 0.000089     240b:8054:0:20::2     240b:8054::1          TCP           86 39696 → 179 [ACK] Seq=1 Ack=1 Win=28800 [TCP CHECKSUM INCORRECT] Len=0 TSval=627568755 TSecr=3060291851
   8 0.001591     240b:8054:0:20::2     240b:8054::1          BGP          133 OPEN Message
   9 0.000156     240b:8054::1          240b:8054:0:20::2     BGP          163 OPEN Message
  10 0.000033     240b:8054:0:20::2     240b:8054::1          TCP           86 39696 → 179 [ACK] Seq=48 Ack=78 Win=28800 [TCP CHECKSUM INCORRECT] Len=0 TSval=627568757 TSecr=3060291853
  11 0.000943     240b:8054::1          240b:8054:0:20::2     TCP           86 179 → 39696 [ACK] Seq=78 Ack=48 Win=65640 Len=0 TSval=3060291854 TSecr=627568757
  12 0.000265     240b:8054::1          240b:8054:0:20::2     BGP          105 KEEPALIVE Message
  13 0.000019     240b:8054:0:20::2     240b:8054::1          TCP           86 39696 → 179 [ACK] Seq=48 Ack=97 Win=28800 [TCP CHECKSUM INCORRECT] Len=0 TSval=627568758 TSecr=3060291854
  14 0.005661     240b:8054:0:20::2     240b:8054::1          TCP           86 39696 → 179 [RST, ACK] Seq=48 Ack=97 Win=28800 [TCP CHECKSUM INCORRECT] Len=0 TSval=0 TSecr=3060291854
  15 2.479952     240b:8054:0:20::2     240b:8054::2          TCP           94 50140 → 179 [SYN] Seq=0 Win=28800 [TCP CHECKSUM INCORRECT] Len=0 MSS=1440 SACK_PERM=1 TSval=627571244 TSecr=0 WS
  16 0.001276     240b:8054::2          240b:8054:0:20::2     TCP           94 179 → 50140 [SYN, ACK] Seq=0 Ack=1 Win=65535 Len=0 MSS=1440 WS=8 SACK_PERM=1 TSval=4269463886 TSecr=627571244
  17 0.000076     240b:8054:0:20::2     240b:8054::2          TCP           86 50140 → 179 [ACK] Seq=1 Ack=1 Win=28800 [TCP CHECKSUM INCORRECT] Len=0 TSval=627571245 TSecr=4269463886
  18 0.000862     240b:8054:0:20::2     240b:8054::2          BGP          133 OPEN Message
  19 0.001059     240b:8054::2          240b:8054:0:20::2     BGP          163 OPEN Message
  20 0.000041     240b:8054:0:20::2     240b:8054::2          TCP           86 50140 → 179 [ACK] Seq=48 Ack=78 Win=28800 [TCP CHECKSUM INCORRECT] Len=0 TSval=627571247 TSecr=4269463889
  21 0.000153     240b:8054::2          240b:8054:0:20::2     TCP           86 179 → 50140 [ACK] Seq=78 Ack=48 Win=65640 Len=0 TSval=4269463889 TSecr=627571246
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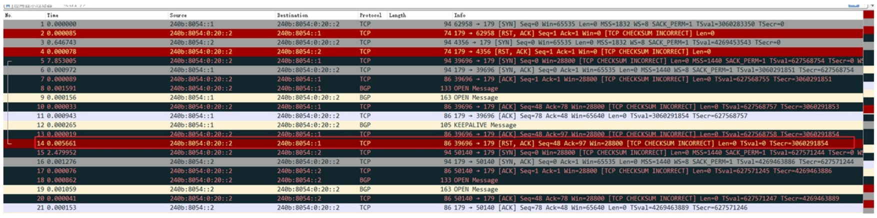

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   4 0.000078     240b:8054:0:20::2     240b:8054::2          TCP           74 179 → 4356 [RST, ACK] Seq=1 Ack=1 Win=0 [TCP CHECKSUM INCORRECT] Len=0
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   6 0.000972     240b:8054::1          240b:8054:0:20::2     TCP           94 179 → 39696 [SYN, ACK] Seq=0 Ack=1 Win=65535 Len=0 MSS=1440 WS=8 SACK_PERM=1 TSval=3060291851 TSecr=627568754
   7 0.000089     240b:8054:0:20::2     240b:8054::1          TCP           86 39696 → 179 [ACK] Seq=1 Ack=1 Win=28800 [TCP CHECKSUM INCORRECT] Len=0 TSval=627568755 TSecr=3060291851
   8 0.001591     240b:8054:0:20::2     240b:8054::1          BGP          133 OPEN Message
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  14 0.005661     240b:8054:0:20::2     240b:8054::1          TCP           86 39696 → 179 [RST, ACK] Seq=48 Ack=97 Win=28800 [TCP CHECKSUM INCORRECT] Len=0 TSval=0 TSecr=3060291854
  15 2.479952     240b:8054:0:20::2     240b:8054::2          TCP           94 50140 → 179 [SYN] Seq=0 Win=28800 [TCP CHECKSUM INCORRECT] Len=0 MSS=1440 SACK_PERM=1 TSval=627571244 TSecr=0 WS
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后续，控制器侧排查服务器的日志，发现，是由于bgp capability不对等导致，发起reset流程。后续查看设备配置，CR16K上面不仅配置和控制器的ls邻居，还配置有EVPN的BGP邻居（没有建立起来，但是有邻居配置），因此导致
CR16K发送的协议报文，包含有其他地址族的capability属性，而控制器那边的BGP实现只能支持BGP LS邻居，不支持其他协议族的邻居，从而造成控制器发送RESET 报文，影响BGP邻居建立。

解决方法

后续设备删除EVPN BGP的配置，问题解决。