

# MSR路由器 mpls ldp邻居建立不成功导致网段无法互访问题

LDP MPLS L3VPN LSP 马雷勇 2019-11-01 发表

## 组网及说明

经典MPLS三层组网，内网1-----PE1 (15.2.76.本地) -----P-----PE2 (15.2.72.邻居) -----内网2

## 问题描述

vpn实例路由表通过BGP能学习到，但是无法互通

```
<H3C>display ip routing-table vpn-instance vpn-rt
```

```
Destinations : 192      Routes : 192
```

Destination/Mask	Proto	Pre Cost	NextHop	Interface
0.0.0.0/32	Direct	0 0	127.0.0.1	InLoop0
10.15.0.0/19	BGP	255 0	15.2.72.x	MP2/0/1
10.15.x.0/21	BGP	255 0	15.2.72.x	MP2/0/1
10.15.x.0/21	BGP	255 0	15.2.72.x	MP2/0/1
15.10.x.0/23	BGP	255 0	15.2.72.x	MP2/0/1
15.x.x.0/19	BGP	255 0	15.2.72.x	MP2/0/1

## 过程分析

1、可根据云图排查，vpn实例路由已经学习到，后面就查公网标签学习情况

```
<H3C>display mpls lsp
```

FEC	Proto	In/Out Label	Interface/Out NHLFE
15.2.76.本地/32	LDP	3/-	-

标签分发有问题，只有自身的标签；

2、查看LDP邻居，状态为Non Existent (TCP连接建立不成功)，配置是没有问题的

```
<H3C>display mpls ldp peer
```

```
Total number of peers: 1
Peer LDP ID      State      Role  GR  MD5  KA Sent/Rcvd
15.2.72.邻居:0  Non Existent Active Off Off 0/0
```

```
#
```

```
interface MP-group2/0/1
```

```
description xxxx
```

```
ip address 15.3.x.x 255.255.255.252
```

```
mpls enable
```

```
mpls ldp enable
```

```
qos apply policy qos outbound
```

```
#
```

3、收集debug mpls ldp all信息

```
*Oct 31 14:39:58:577 2019 H3C LDP/7/SESSION: Created a new session (15.2.72.邻居:0): Local transport address (15.2.74.x), peer transport address (15.2.72.邻居).
```

```
*Oct 31 14:39:58:577 2019 H3C LDP/7/DISCOVERY: Send hello message, interface MP2/0/1, message content:
```

```
01 00 00 14 00 00 02 fb 04 00 00 04 00 0f 00 00
```

```
04 01 00 04 0f 02 4a 86
```

```
*Oct 31 14:39:58:578 2019 H3C LDP/7/SESSION: Session (15.2.72.邻居:0) received event (0x0), state: 0.
```

```
*Oct 31 14:39:58:578 2019 H3C LDP/7/SOCKET: Created a new socket (48) on the active LSR.
```

```
*Oct 31 14:39:58:578 2019 H3C LDP/7/SESSION: Opened a TCP connection (socket 48) to transport addr: 15.2.72.邻居 success.
```

```
*Oct 31 14:39:58:784 2019 H3C LDP/7/DISCOVERY: Send hello message, interface MP2/0/1, message content:
```

```
01 00 00 14 00 00 02 fc 04 00 00 04 00 0f 00 00
```

```
04 01 00 04 0f 02 4a 86
```

Local transport address (15.2.74.134)——协商的本地地址15.2.74.x，而当前是15.2.76.x，了解到这个之前地址规划错误配置的lsr-id，后续未重启设备或者ldp进程

## 解决方法

reset mpls ldp重启标签分发进程恢复正常