

组网及说明

现网RA5300与友商建立MPLS L2VPN。

问题描述

RA5300与友商B设备之间L2VPN PW能up, BFD for PW会话无法up。debug bfd、debug mpls bfd只有发包没有收包。

现网友商A设备与其B设备之间L2VPN PW和BFD均正常。

```
<RA5300>dis bfd session
```

.....

MPLS PW static session working in control packet mode:

LD/RD	SourceAddr	DestAddr	State	Holdtime	Interface
1/7	1.1.1.1	127.0.0.2	Down	0ms	N/A

过程分析

对比RA5300与友商A/B设备配置, 未发现明显差异。现场初始是在RA53设备xcg下面peer下配置的bfd dis ld/rd, 发现会话不上后, 仿照友商A设备配置改为bfd static bfd-pw1234, 之后仍不上。

RA53配置:

```
#
xconnect-group 1234
connection 1234
mtu 2000
revertive wtr 300
protection dual-receive
ac interface Ten-GigabitEthernet4/0/1.100
peer 1.1.1.1 pw-id 1234 pw-class class_gz
backup-peer 2.2.2.2 pw-id 22005 pw-class class_gz
bfd discriminator local 2 remote 6
arp suppression enable
##
bfd static bfd-pw1234 pw interface Ten-GigabitEthernet4/0/1.100 remote-peer 1.1.1.1
discriminator local 1
discriminator remote 7
bfd multi-hop min-transmit-interval 50
bfd multi-hop min-receive-interval 50
#
```

H友商A设备配置:

```
#
bfd bfd-pw12003 bind pw interface GigabitEthernet0/1/4.100
discriminator local 1
discriminator remote 3
min-tx-interval 50
min-rx-interval 50
##
interface GigabitEthernet0/1/4.100
vlan-type dot1q 100
mtu 2000
description LTE-FDD-HUAWEI:TO-ZhuJiaChangJieRuWang800MBBU1
statistic enable
trust upstream diffserv-volte
mpls l2vc 1.1.1.1 12003 control-word
mpls l2vc 2.2.2.2 22003 control-word secondary
mpls l2vpn redundancy master
mpls l2vpn reroute delay 300
mpls l2vpn stream-dual-receiving
mpls l2vpn arp-dual-sending
#
```

H友商B设备配置:

```
interface Global-VE2.104
mtu 2000
undo trust upstream
undo qos phb disable
trust upstream diffserv-volte
trust 8021p
qos phb dscp disable
vlan-type dot1q 104
mpls l2vc 3.3.3.3 1234 control-word tagged ignore-standby-state
```

```
bfd bfd-pw1234 bind pw interface Global-VE2.104
discriminator local 7
discriminator remote 1
min-tx-interval 50
min-rx-interval 50
```

查看PW，发现对端vccv类型为控制字、告警、ttl均包含，本端只有告警。该异常会导致对端发来的BFD报文在本端不识别。

```
[RA5300]dis l2vpn ldp verbose
Peer: 1.1.1.1 PW ID: 1234
 Xconnect-group: 1234
 Connection : 1234
 PW State : Up
 PW Status Communication: Notification method
 PW Preferential Forwarding Status Bit: Process
 PW ID FEC (Local/Remote):
 PW Type : VLAN/VLAN
 Group ID : 0/0
 Label : 1279/49684
 Control Word : Enabled/Enabled
 VCCV CV Type : LSP Ping, BFD/LSP Ping, BFD
 VCCV CC Type : Router-Alert/Control-Word, Router-Alert, TTL
 Flow Label : -/-
 MTU : 2000/2000
 MTU Negotiation : Enabled
 PW Status : PW forwarding/PW forwarding
```

之后将本地pw-class的vccv cc改为控制字解决。

```
#
pw-class class_gz
control-word enable
vccv cc router-alert
vccv bfd
#
```

解决方法

将本端PW对应vccv cc改为控制字、与对端保持一致解决。