

知 IPOE Portal认证未携带IPv6前缀

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组网及说明



客户端通过二层网络以portal方式接入到BRAS接入设备，SR8806作为双栈BRAS设备，路由器连接IMC服务器。

告警信息

带前缀抓包

```
■ > AVP: l=38 t=Acct-Session-Id(44): 0000000820220706193335007398e2001810
> AVP: l=38 t=Vendor-Specific(26) v=H3C(25506)
> AVP: l=19 t=Calling-Station-Id(31): 70-5A-0F-8E-46-E7
> AVP: l=6 t=Framed-IP-Address(8): 192.168.60.5
> AVP: l=10 t=Framed-Interface-Id(96): 0000000000000000
> AVP: l=12 t=Framed-IPv6-Prefix(97): 2001:250:3415:60::/64
> AVP: l=24 t=Vendor-Specific(26) v=H3C(25506)
> AVP: l=6 t=Framed-Protocol(7): PPP(1)
> AVP: l=18 t=User-Password(2): Decrypted: P\372\230]1\001_\233R\267\004\200\213\360\375\2
> AVP: l=6 t=Service-Type(6): Framed(2)
> AVP: l=17 t=Vendor-Char(17)(76): v=H3C(25506)
100 c0 a8 3c 05 60 0a 00 00 00 00 00 00 02 51 0c .....S.
110 50 40 20 01 02 50 34 15 00 60 1a 18 00 00 63 a2 ..@..P4.....c.
120 9e 12 20 01 02 50 34 15 00 60 00 00 00 00 00 00 .....P4.....
130 00 02 07 06 00 00 01 02 12 24 70 7a 0b 4e f6 .....$pz.N.
140 ff 25 18 f5 92 73 86 0d 81 a8 06 06 00 00 00 02 .....X...S.....
140b 1a 0e 00 00 63 a2 b4 06 00 00 00 03 04 06 c0 a8 .....c.....
```

现在并没有带ipv6前缀

```
> AVP: t=User-Name(1) l=19 val=202103640230jccc
> AVP: t=NAS-Identifier(32) l=17 val=192.168.204.252
> AVP: t=NAS-Port(5) l=6 val=53489724
> AVP: t=NAS-Port-Id(87) l=18 val=0300003000000000
> AVP: t=NAS-Port-Type(61) l=6 val={ethernet(15)}
> AVP: t=Acct-Session-Id(44) l=38 val=00000007202200041615320000019a000010
> AVP: t=Vendor-Specific(26) l=38 vnd=H3C(25506)
> AVP: t=Calling-Station-Id(31) l=19 val=70-5A-0F-8E-46-E7
> AVP: t=Framed-IP-Address(8) l=6 val=192.168.60.5
> AVP: t=Vendor-Specific(26) l=14 vnd=H3C(25506)
> AVP: t=Framed-Protocol(7) l=6 val=Ascend-ARA(255)
> AVP: t=Service-Type(6) l=6 val=framed(2)
> AVP: t=Vendor-Specific(26) l=12 vnd=H3C(25506)
> AVP: t=Acct-Authentic(45) l=6 val=RADIUS(1)
> AVP: t=NAS-IP-Address(4) l=6 val=192.168.204.252
> AVP: t=Acct-Status-Type(40) l=6 val=Start(1)
> AVP: t=Acct-Delay-Time(41) l=6 val=0
> AVP: t=Event-Timestamp(55) l=6 val=Aug 5, 2022 00:15:32.000000000 中国标准时间
> AVP: t=Vendor-Specific(26) l=22 vnd=H3C(25506)
> AVP: t=Vendor-Char(17)(76): l=17 vnd=H3C(25506)
00a0 39 61 30 30 30 31 30 1a 26 00 00 63 a2 3c 20 9a000010 &.c.c
00b0 31 39 32 2e 31 36 38 2e 36 30 2e 35 20 37 30 3a 192.168.60.5 70:
00c0 35 61 3a 30 66 3a 38 65 3a 34 36 3a 65 37 1f 13 5a:0f:8e :46:e7..
00d0 37 30 2d 35 41 2d 30 46 2f 38 45 2d 34 36 2d 45 70-5A-0F -8E-46-E
00e0 37 08 06 c0 a8 3c 05 1a 0e 00 00 63 a2 11 08 64 7...c...c..d
00f0 6d 36 30 76 36 07 06 00 00 00 ff 06 06 00 00 00 m60v6.....
0100 02 1a 0c 00 00 63 a2 b4 06 00 00 00 03 2d 06 00 .....c.....
0110 00 00 01 04 06 c0 a8 cc fc 28 06 00 00 00 01 .....{.....
```

问题描述

现场IPOE Portal认证，认证可以通过，现场IPv4触发认证需要带一个IPv6前缀，现在抓包radius报文中没有携带IPv6前缀。

过程分析

查看测试接口配置

```
interface GigabitEthernet3/3/3.60
ip address 192.168.60.254 255.255.255.0
vlan-type dot1q vid 60
ipv6 dhcp select server
ipv6 dhcp server apply pool XXXX
ipv6 address XX:XX/64
ipv6 nd autoconfig managed-address-flag
ipv6 nd autoconfig other-flag
undo ipv6 nd ra halt
portal enable method direct
portal bas-ip X.X.X.X
portal apply web-server myp_v6
ip subscriber routed enable
ip subscriber initiator dhcp enable
ip subscriber initiator unclassified-ip enable matching-user
undo ip subscriber user-detect ipv6
ip subscriber pre-auth domain dm60v6
ip subscriber web-auth domain XXX
```

当前接口配置是ipoe和portal混配状态，且当前命令行没有ip subscriber authentication-method web [mac-auth]命令，因此ipoe仅为普通绑定认证，而不触发web认证流程，在dm60v6中，ipoe绑定认证方式为none。

所以当前的radius认证报文是portal流程触发发送的。

怀疑ipv4走portal流程认证上线，ipv6触发了三层ipoe的上线流程，ipoe会话停在前域，两个栈分离。需要进一步查看V4 portal会话和V6 ipoe会话。

```
[SR8806]display portal user ip 192.168.60.5
Username: 202103640230
  Portal server: ipv6
  State: Online
  VPN instance: N/A
  MAC          IP          VLAN   Interface
  -----
  [REDACTED]  192.168.60.5  60    GigabitEthernet3/3/3.60
  Authorization information:
  DHCP IP pool: N/A
  User profile: N/A
  Session group profile: N/A
  ACL number: N/A
  Inbound CAR: CIR: 507904 kbps, PIR: 507904 kbps
                CBS N/A (active)
  Outbound CAR: CIR: 507904 kbps, PIR: 507904 kbps
                CBS N/A (active)
  Inbound priority: N/A
  Outbound priority: N/A
```

```
[SR8806]display ip subscriber session ipv6 2001:250:3415:60:3482:722b:a089:a695 verbos
e
[SR8806]display ip subscriber session ipv6 2001:250:3415:60:e0fb:1ec2:200a:102d verbos
e
```

```
[SR8806]display portal user ipv6 2001:250:3415:60:3482:722b:a089:a695 ver
[SR8806]display portal user ipv6 2001:250:3415:60:3482:722b:a089:a695 verbose
```

从会话看仅有IPv4会话，没有认证IPv6会话。

解决方法

经研发确认，我司portal功能不支持双栈合一，仅ipoe web方式支持双栈合一。也就是说即使IPv6地址在portal流程里上线了也是生成独立的会话。像现在这样靠portal流程上线的用户一定不会携带IPv6的认证信息。

如果需要radius报文里同时携带IPv4和IPv6的用户信息，必须要使用ipoe web认证方式上线，此时会话里能同时查看到IPv4的地址和IPv6的前缀信息。

