

关于H3C高端防火墙从CMW520-B3103升级到B3155及以后版本必须手动设置MAC地址的解决方法

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一、 问题描述:

H3C高端防火墙设备(F1000-E、SecBladeII), 当版本从CMW520-B3103升级到CMW520-3155及以后的版本, 其固定4GE接口MAC地址会被重置, 升级完成后, 必须手动设置固定4GE接口的MAC地址。

涉及产品: H3C SecPath F1000-E、H3C SecBladeII

涉及版本: CMW520-B3103, 后续版本升级不存在此问题

二、 原因分析:

H3C高端防火墙从CMW520-B3155版本开始, 软件修改了MAC地址存放格式。

三、 解决办法:

版本从B3103升级到B3155及以后版本后, 需要手动修改固定4GE接口MAC地址。实际操作时, 只需要手动修改第一个接口即可 (F1000-E为int g0/0, SecBladeII为int g0/1), 系统会自动重置后续接口MAC。

下面以F1000-E为例介绍手动设置int g0/0 MAC的操作步骤, 设置SecBladeII int g0/1 MAC方法类似:

1、 升级前记录MAC地址:

对于F1000-E记录int g0/0口MAC地址, 对于SecBladeII记录int g0/1的MAC地址。

以F1000-E为例, 将int g0/0的MAC地址 (红色字体部分) 记下来:

```
<F1000-E>display interface gigabitethernet 0/0
GigabitEthernet0/0 current state: UP
Line protocol current state: UP
Description: GigabitEthernet0/0 Interface
The Maximum Transmit Unit is 1500, Hold timer is 10(sec)
Internet Address is 192.168.1.226/24 Primary
IP Packet Frame Type: PKTFMT_ETHNT_2, Hardware Address: 000f-e200-8871
Media type is twisted pair, loopback not set, promiscuous mode not set
100Mb/s, Full-duplex, link type is autonegotiation
Output flow-control is disabled, input flow-control is disabled
Last clearing of counters: Never
  Last 300 seconds input rate 0.00 bytes/sec, 0 bits/sec, 0.00 packets/sec
  Last 300 seconds output rate 0.00 bytes/sec, 0 bits/sec, 0.00 packets/sec
Input: 0 packets, 0 bytes, 0 buffers
  0 broadcasts, 0 multicasts, 0 pauses
  0 errors, 0 runts, 0 giants
  0 crc, 0 align errors, 0 overruns
  0 dribbles, 0 drops, 0 no buffers
Output: 1 packets, 42 bytes, 1 buffers
  1 broadcasts, 0 multicasts, 0 pauses
  0 errors, 0 underruns, 0 collisions
  0 deferred, 0 lost carriers
```

2、 升级到CMW520-3155及以后版本

升级步骤详见《版本使用指导书》, 升级后MAC地址会被重置:

```
<F1000E>display interface gigabitethernet 0/0
GigabitEthernet0/0 current state: UP
Line protocol current state: UP
Description: GigabitEthernet0/0 Interface
The Maximum Transmit Unit is 1500, Hold timer is 10(sec)
Internet Address is 192.168.1.226/24 Primary
IP Packet Frame Type: PKTFMT_ETHNT_2, Hardware Address: 000f-e200-0002
Media type is twisted pair, loopback not set, promiscuous mode not set
100Mb/s, Full-duplex, link type is autonegotiation
Output flow-control is disabled, input flow-control is disabled
Last clearing of counters: Never
  Last 300 seconds input rate 0.00 bytes/sec, 0 bits/sec, 0.00 packets/sec
  Last 300 seconds output rate 0.00 bytes/sec, 0 bits/sec, 0.00 packets/sec
Input: 0 packets, 0 bytes, 0 buffers
```

```
0 broadcasts, 0 multicasts, 0 pauses
0 errors, 0 runts, 0 giants
0 crc, 0 align errors, 0 overruns
0 dribbles, 0 drops, 0 no buffers
Output:1 packets, 42 bytes, 1 buffers
1 broadcasts, 0 multicasts, 0 pauses
0 errors, 0 underruns, 0 collisions
0 deferred, 0 lost carriers
```

3. 手动设置MAC地址, 对于F1000-E:

```
<F1000E>
%Dec 21 19:15:04:942 2007 F1000E SHELL/4/LOGIN: Console login from con0
<F1000E>system-view
System View: return to User View with Ctrl+Z.
[F1000E]_hidecmd
Now you enter a hidden command view for developer's testing, some commands may affect
operation by wrong use, please carefully use it with our engineer's direction.
[F1000E-hidecmd]en_equipmnet
input password (1-12 characters) :*****
This mode is for our engineers to test. Running these commands could result in
exceptions. Please carefully use it with our engineer's direction.
其中, 键入en_equipmnet命令后, 系统要求输入密码, 密码为diagnosis, 全部为小写英文字母。注意
en_equipmnet命令为内部受控命令, 仅限于公司内部人员使用。
进入诊断模式之后, 键入命令修改MAC地址:
[F1000E-equipmnet]test ethernet 0/0/0 setmac HHHH-HHHH-HHHH
其中, HHHH-HHHH-HHHH (红色字体部分) 为前面步骤1记录下来的int g0/0的MAC地址。
```

4. 确认设置的MAC地址生效:

执行完上述操作后, 重新启动设备, 验证刚才操作是否生效:
使用display interface命令可以看到, 设备出厂时的MAC地址重新生效。

```
<F1000-E>display interface gigabitethernet 0/0
GigabitEthernet0/0 current state: UP
Line protocol current state: UP
Description: GigabitEthernet0/0 Interface
The Maximum Transmit Unit is 1500, Hold timer is 10(sec)
Internet Address is 192.168.1.226/24 Primary
IP Packet Frame Type: PKTFMT_ETHNT_2, Hardware Address: 000f-e200-8871
Media type is twisted pair, loopback not set, promiscuous mode not set
100Mb/s, Full-duplex, link type is autonegotiation
Output flow-control is disabled, input flow-control is disabled
Last clearing of counters: Never
  Last 300 seconds input rate 0.00 bytes/sec, 0 bits/sec, 0.00 packets/sec
  Last 300 seconds output rate 0.00 bytes/sec, 0 bits/sec, 0.00 packets/sec
Input: 0 packets, 0 bytes, 0 buffers
  0 broadcasts, 0 multicasts, 0 pauses
  0 errors, 0 runts, 0 giants
  0 crc, 0 align errors, 0 overruns
  0 dribbles, 0 drops, 0 no buffers
Output:1 packets, 42 bytes, 1 buffers
  1 broadcasts, 0 multicasts, 0 pauses
  0 errors, 0 underruns, 0 collisions
  0 deferred, 0 lost carriers
```