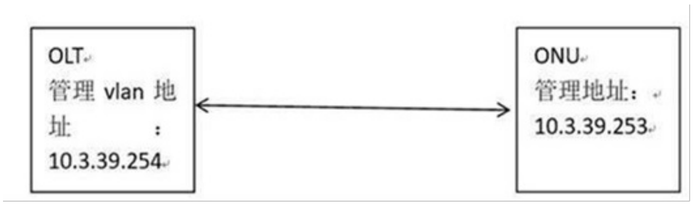
# 某局点onu重启后管理地址不通的经验案例

EPON-OLT **黎莹杉** 2021-12-10 发表

## 组网及说明

如图所示:


OLT
管理 vlan 地址：10.3.39.254
ONU
管理地址：10.3.39.253

## 问题描述

第三方ONU在配置管理地址后能通过OLT上的网关ping通ONU的管理地址，ONU重新上电后就不能通过OLT上的网关ping通ONU的管理地址。ONU为第三方ONU，VenderID为第三方万隆的VenderID。现场华为和中兴均能正常管理。

## 过程分析

测试步骤:

查看olt口，

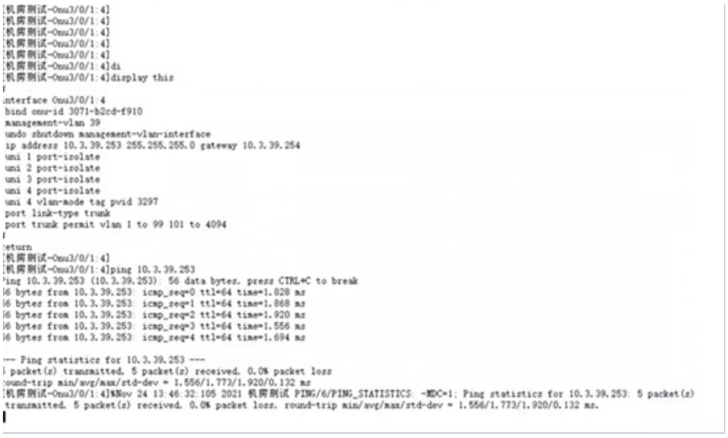
```
#
interface Olt3/0/1
using onu 1 to 64
port link-type hybrid
undo port hybrid vlan 1
port hybrid vlan 21 39 72 79 100 125 130 139 180 to 181 228 tagged
port hybrid vlan 462 480 482 490 to 495 497 697 700 800 to 801 890 1000 tagged
port hybrid vlan 1100 1200 1400 1497 3297 3299 4000 tagged
port hybrid vlan 113 353 422 446 519 1019 1173 untagged
qinq enable
qinq transparent-vlan 21 39 72 79 100 123 125 130 139 180 to 181
 qinq transparent-vlan 228 422 462 480 482 490 to 495 497 800 to 801 890 1000
 qinq transparent-vlan 1100 1200 to 1201 1400 1497 3000 3297 3299 4000
 qos apply policy qinq_619 inbound
 qos apply policy olt-deny outbound
```

onu口:

```
#
interface Onu3/0/1:4
bind onu-id 3071-b2cd-f910
management-vlan 39
 undo shutdown management-vlan-interface
ip address 10.3.39.253 255.255.255.0 gateway 10.3.39.254
uni 1 port-isolate
uni 2 port-isolate
uni 3 port-isolate
uni 4 port-isolate
uni 4 vlan-mode tag pvid 3297
port link-type trunk
port trunk permit vlan 1 to 99 101 to 4094
```

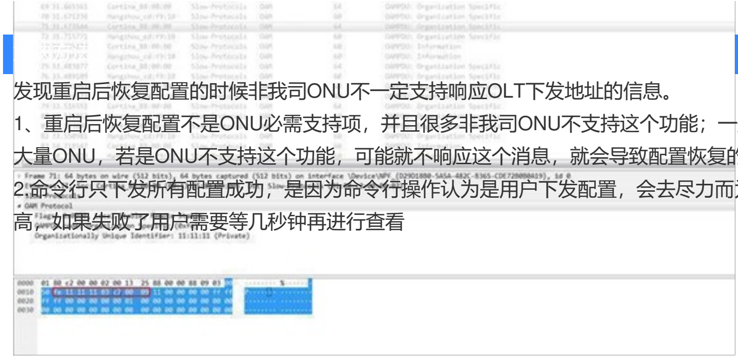
ONU初次接入到OLT上，绑定ONU后ONU正常上线，在OLT通过命令对端口和管理地址下发正常。管理地址下发后能通过OLT ping通ONU。

如图:



```
[机房测试-Onu3/0/1:4]
[机房测试-Onu3/0/1:4]
[机房测试-Onu3/0/1:4]
[机房测试-Onu3/0/1:4]
[机房测试-Onu3/0/1:4]
[机房测试-Onu3/0/1:4]di
[机房测试-Onu3/0/1:4]display this
#
nterface Onu3/0/1:4
 bind onu-id 3071-b2cd-f910
 management-vlan 39
 undo shutdown management-vlan-interface
 ip address 10.3.39.253 255.255.255.0 gateway 10.3.39.254
 uni 1 port-isolate
 uni 2 port-isolate
 uni 3 port-isolate
 uni 4 port-isolate
 uni 4 vlan-mode tag pvid 3297
 port link-type trunk
 port trunk permit vlan 1 to 99 101 to 4094
#
eturn
[机房测试-Onu3/0/1:4]
[机房测试-Onu3/0/1:4]ping 10.3.39.253
ing 10.3.39.253 (10.3.39.253): 56 data bytes, press CTRL+C to break
6 bytes from 10.3.39.253: icmp_seq=0 ttl=64 time=1.828 ms
6 bytes from 10.3.39.253: icmp_seq=1 ttl=64 time=1.868 ms
6 bytes from 10.3.39.253: icmp_seq=2 ttl=64 time=1.920 ms
6 bytes from 10.3.39.253: icmp_seq=3 ttl=64 time=1.556 ms
6 bytes from 10.3.39.253: icmp_seq=4 ttl=64 time=1.694 ms

-- Ping statistics for 10.3.39.253 ---
 packet(s) transmitted, 5 packet(s) received, 0.0% packet loss
ound-trip min/avg/max/std-dev = 1.556/1.773/1.920/0.132 ms
[机房测试-Onu3/0/1:4]%Nov 24 13:46:32:105 2021 机房测试 PING/6/PING_STATISTICS: -MDC=1; Ping statistics for 10.3.39.253: 5 packet(s)
 transmitted, 5 packet(s) received, 0.0% packet loss, round-trip min/avg/max/std-dev = 1.556/1.773/1.920/0.132 ms.
```

Oam报文截取如下:



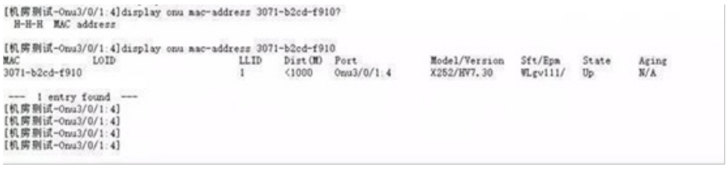
发现重启后恢复配置的时候非我司ONU不一定支持响应OLT下发地址的信息。

1、重启后恢复配置不是ONU必需支持项，并且很多非我司ONU不支持这个功能；一般OLT都会接入大量ONU，若是ONU不支持这个功能，可能就不响应这个消息，就会导致配置恢复的时间很长。

2.命令行只下发所有配置成功，是因为命令行操作认为是用户下发配置，会去尽力而为，对时间要求不高，如果失败了用户需要等几秒钟再进行查看

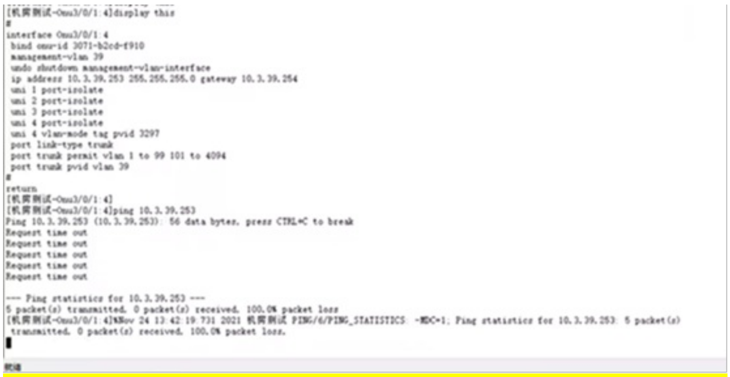
对ONU进行掉电重启，ONU重启后上线正常，但是管理地址不通。

ONU在线情况：



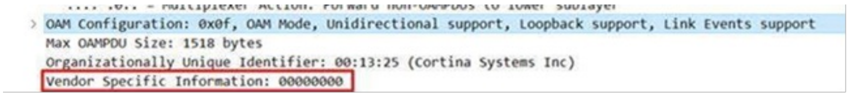
```
[机房测试-Onu3/0/1:4]display onu mac-address 3071-b2cd-f910?
  H-H-H  MAC address

[机房测试-Onu3/0/1:4]display onu mac-address 3071-b2cd-f910
MAC            LOID                             LLID    Dist(M)  Port              Model/Version   Sft/Epm     State    Aging
3071-b2cd-f910                                  1       <1000    Onu3/0/1:4        X252/HV7.30     WLgv111/    Up       N/A

 ---   1 entry found   ---
[机房测试-Onu3/0/1:4]
[机房测试-Onu3/0/1:4]
[机房测试-Onu3/0/1:4]
[机房测试-Onu3/0/1:4]
```

这里是ping不通的截图



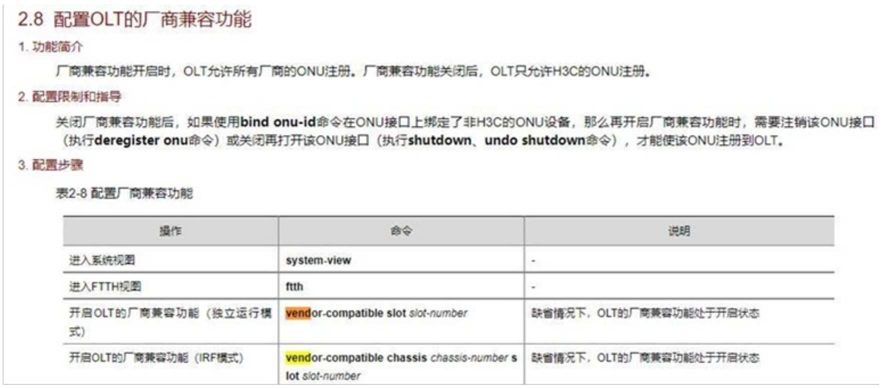
```
[机房测试-Onu3/0/1:4]display this
#
interface Onu3/0/1:4
 bind onu-id 3071-b2cd-f910
 management-vlan 39
 undo shutdown management-vlan-interface
 ip address 10.3.39.253 255.255.255.0 gateway 10.3.39.254
 uni 1 port-isolate
 uni 2 port-isolate
 uni 3 port-isolate
 uni 4 port-isolate
 uni 4 vlan-mode tag pvid 3297
 port link-type trunk
 port trunk permit vlan 1 to 99 101 to 4094
 port trunk pvid vlan 39
#
return
[机房测试-Onu3/0/1:4]
[机房测试-Onu3/0/1:4]ping 10.3.39.253
Ping 10.3.39.253 (10.3.39.253): 56 data bytes, press CTRL+C to break
Request time out
Request time out
Request time out
Request time out
Request time out

--- Ping statistics for 10.3.39.253 ---
5 packet(s) transmitted, 0 packet(s) received, 100.0% packet loss
[机房测试-Onu3/0/1:4]%Nov 24 13:42:19:731 2021 机房测试 PING/6/PING_STATISTICS: -MDC=1; Ping statistics for 10.3.39.253: 5 packet(s)
 transmitted, 0 packet(s) received, 100.0% packet loss.
```

在ONU上进行OAM抓包，发现OLT没有下发管理地址的报文。



```
  .... .0.. = Multiplexer Action: Forward non-OAMPDUs to lower sublayer
> OAM Configuration: 0x0f, OAM Mode, Unidirectional support, Loopback support, Link Events support
  Max OAMPDU Size: 1518 bytes
  Organizationally Unique Identifier: 00:13:25 (Cortina Systems Inc)
  Vendor Specific Information: 00000000
```

也配置了默认开启厂商兼容功能



## 2.8 配置OLT的厂商兼容功能

### 1. 功能简介

厂商兼容功能开启时，OLT允许所有厂商的ONU注册。厂商兼容功能关闭后，OLT只允许H3C的ONU注册。

### 2. 配置限制和指导

关闭厂商兼容功能后，如果使用**bind onu-id**命令在ONU接口上绑定了非H3C的ONU设备，那么再开启厂商兼容功能时，需要注销该ONU接口（执行**deregister onu**命令）或关闭再打开该ONU接口（执行**shutdown**、**undo shutdown**命令），才能使该ONU注册到OLT。

### 3. 配置步骤

表2-8 配置厂商兼容功能

| 操作 | 命令 | 说明 |
|---|---|---|
| 进入系统视图 | **system-view** | - |
| 进入FTTH视图 | **ftth** | - |
| 开启OLT的厂商兼容功能（独立运行模式） | **vendor-compatible slot** *slot-number* | 缺省情况下，OLT的厂商兼容功能处于开启状态 |
| 开启OLT的厂商兼容功能（IRF模式） | **vendor-compatible chassis** *chassis-number* **slot** *slot-number* | 缺省情况下，OLT的厂商兼容功能处于开启状态 |