GPON-SFP-ONT-MAC-I

Configuration Guide

GPON-SFP-ONT-MAC-I

User Manual

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Introduction

This manual provides a quick guide for users to know CLI of GPON Stick It is useful for local support test with OLT and doing some trouble shootings

1. Hardware connection

GPON-SFP-ONT-MAC-I plug in the Host device's GE fiber port. It convert GE uplink to GPON uplink and support 1GE/2.5GE rate

- Telnet access(N/A)
- Web GUI access(N/A)
- SSH access

The GPON SFP ONU open SSH port 22 for setting and debugging. There are two ways to debug ONU. One is local access,other is remote access.

Acconut	ONTUSER
Password	7sp!IwUBz1

1.1 Login via SSH on the Host device(Local access)

If host device is a switch,You can login via SSH from switch device after system up. There is an example for you reference.

192.168.1.10 : GPON SFP ONU LAN debug IP address(maybe change according to the actual situation)

Switch create vlanif (take vlan id 50 as an example) to guarantee the same network segment as GPON SFP ONU.

```
<Switch> system-view
[Switch] vlan 50
[Switch-vlan50] quit
[Switch] interface vlanif 50
[Switch-Vlanif50] ip address 192.168.1.100 255.255.225.0
[Switch-Vlanif50] quit
```

- Switch add vlan port(take GPON SFP ONU plug port 0/0/4 as an example)

```
[Switch] interface GigabitEthernet 0/0/4
[Switch-GigabitEthernet0/0/4]port link-type access
[Switch-GigabitEthernet0/0/4] port default vlan 50
```

- Switch enable SSH client

```
[Switch] ssh client first-time enable
[Switch] ssh client 192.168.1.10 assign rsa-key 192.168.1.10
```

- Switch SSH login

```
[Switch] stelnet 192.168.1.10
Please input the username: ONTUSER
Trying 192.168.1.10 ...
Press CTRL+Kto abort
Connected to 192.168.1.10 ...
```

Enter password: //password:7sp!lwUBz1

The module IP address is as follows:

The following interface is displayed after you log in through SSH:

1.2 Login via OLT SSH(Remote access)

The SSH login method is to create a flow on OLT to login to GPON SFP ONU after system up. It needs to be configured according to the actual situation of the customer's business.

Enter OLT's GPON mode and configure GPON SFP ONU with an IP address for a private network. This section uses the following configuration as an example:

OLT：OLTXX

GPON Board：Slot 0/ 15

GPON Port：4

GPON SFPONU ID：0

OLTXX(config)# interface gpon 0/ 15

OLTXX(config-if-gpon-0/ 15) ontipconfig 4 0 static ip-address 10.10.10.10 mask

255.255.255.0 gateway 10.10.10.1

OLTXX(config-if-gpon-0/ 15)# quitCreate a vlanif and configure an IP address on OLT to make OLT and GPON SFP ONU in the same network segment.This section take vlan id 400 ip interface as an example.

OLTXX(config)# vlan 400

OLTXX(config)# interface vlanif 400

OLTXX(config-if-vlanif400)# ip address 10.10.10.1 24 255.255.255.0

OLTXX(config-if-vlanif400)# quit Create a VLAN400 flow for GPON port 0/ 15/4 on ONT ID 0 GPON SFP ONU.

OLTXX(config)# service-port vlan 400 port 0/ 15/4 ont 0 iphost multi-service user-vlan

untagged tag-transform default inbound traffic-table index 5 outbound traffic-table index 5

Keep the flow configuration correctly and the state is UP.

OLTXX(config)# stelnet 10.10.10.10

Please input the username: ONTUSER

Trying 10.10.10.10 ...

Press CTRL+Kto abort

Connected to 10.10.10.10 ...

Enter password: //password:7sp!lwUBz1

2. General Settings

After SSH Log in to GPON SFP ONU to configure and all the below settings take effect after ONU reboot.

2.1 ONU firmware get

- root@SFP:/home/ONTUSER# omcid -v

2.2 ONU reboot

- root@SFP:/home/ONTUSER# reboot

2.3 SN get and modification

- root@SFP:/home/ONTUSER#onu gtcsng

```
root@SFP:/home/ONTUSER# onu gtcsng
errorcode=0 serial_number=485754430a45
root@SFP:/home/ONTUSER#
```

- root@SFP:/ home/ ONTUSER# set_ serial_ number PMAC12345678
- (notice:The configuration takes effect only after the module is restarted)

2.4 MAC address get and modification

- root@SFP:/home/ONTUSER# uci show network

```
network.lct.macaddr=00:06:B5:07:E2:30
network.lct.ipaddr=192.168.1.10
```

- root@SFP:/home/ONTUSER# uci set network. lct. macaddr=xx:xx:xx:xx:E7:xx
- oot@SFP:/home/ONTUSER# uci set network. host. macaddr=xx:xx:xx:xx:E9:xx
- oot@SFP:/home/ONTUSER# uci commit network
- (When you press Enter, the same numbers and letters appear as in the previous row,Then press the left button again, move all the way to the point of lct. Then press the back space key to delete, change lct to host, and then press the right arrow to move the position to E7: this colon here, add two to the second byte from the bottom of the MAC address)
- Plug in the module after it is powered off, turn off the software, and wait one minute to open the software again to see the changed MAC address

2.5 IP address get and modification

- root@SFP:/home/ONTUSER# uci show network
- root@SFP:/home/ONTUSER# fw_setenv ipaddr 192. 168.20.60
- root@SFP:/home/ ONTUSER#fw_setenv gatewayip 192. 168.20. 1

2.6 PLOAM password modification

- root@SFP:/ home/ ONTUSER#fw_ setenv nPassword 1234567890
- root@SFP:/home/ONTUSER#fw_printenv nPassword

2.7 LOID get and modification

Software 6BA1896 SPLQA41 and before:

root@SFP:/home/ONTUSER# fw_printenv omci_loid

root@SFP:/ home/ ONTUSER#fw_ setenv omci_loid 1234567890

Software 6BA1896 SPLQA42 and after:

sfp_i2c -i9 -s "omci_loid"

2.8 LOID password get and modification

Software 6BA1896 SPLQA41 and before:

- root@SFP:/home/ONTUSER#fw_printenv omci_lpwd

Software 6BA1896 SPLQA42 and after:

- sfp_i2c -i11 -s " 1234567890"
- root@SFP:/home/ ONTUSER#fw_ setenv omci_lpwd 0987654321

Software 6BA1896 SPLQA42 and after:

- sfp_i2c -i10 -s "omci_password"

2.9 PLOAM state get

- gtop -b -g a | grep "PLOAM state"

2. 10 One-click fully log get

- debug
- cat /tmp/log/one_click

2. 11 Modify the ONT-related parameters through sfp_i2c

sfp_i2c -iX -s, --set-string

set string, index selects:

- 0: vendor name
- 1: vendor part number
- 2: vendor revision
- 3: serial number
- 4: date code
- 5: vendor data
- 6: equipment id of ONU2-GOMCI ME
- 7: vendor id of ONU-GOMCI ME
- 8: GPON Serial Number

- 9: LOID
- 10: Logic password
- 11: PLOAM password

Example：

Software 6BA1896SPLQA42 and after:

- 0: vendor name

sfp_i2c -i0 -s 'SOURCEPHOTONICS"

- 1: vendor part number

sfp_i2c -i1 -s "SPS3424THPTDFP"

- 2: vendor revision

sfp_i2c -i2 -s " 1.01"

- 3: serial number

sfp_i2c -i3 -s "220627"

- 4: date code

sfp_i2c -i4 -s "220627"

> 5: vendor data

sfp_i2c -i5 -s "ABCDEFG"

- 6: equipment id of ONU2-GOMCI ME

sfp_i2c -i6 -s "221339120"

> 7: vendor id of ONU-GOMCI ME

sfp_i2c -i7 -s "ADVA"

- 8: GPON Serial Number

sfp_i2c -i8 -s "SPTC12345678"

- 9: LOID

sfp_i2c -i9 -s "omci_loid'

- 10: Logic password

sfp_i2c -i10 -s "omci_password"

- 11: PLOAM password

sfp_i2c -i11 -s " 1234567890"

3. Frequently asked question

Q: Can this module modify SN and MAC?

A: Yes, the modification method is as above 1.3 and 1.4, if you need help to modify, just make a note after placing the order

Q: Does GPON STICK support the TR069 protocol?

A: GPON STICK is only equivalent to a single-port bridge optical modem, does not support the TR069 protocol, only supports the OMCI protocol.

Q: Is it compatible with L2 switches?

A: This module is mainly used for Layer 2 equipment; it can be hot-swapped into SFP slots of Layer 2 Ethernet switches, network cards, routers and other equipment. The machine equipment can be directly connected to the GPON optical network. The central office OLT only needs to register the GPON MAC SFP ONU optical module in the way of configuring a common optical modem, and then complete the access switching of the equipment from the original P2P network to the PON network.

Q: Has it been tested for compatibility with the Nokia 7360 OLT? If not, do you sell an XGS-PON version with this capability
A:The SP laboratory has tested the IOP test with two OLTs, Huawei MA5600T and Nokia 7360, and the result is ok.

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For more questions, please see the website details page Questions & Answers