EPON OLT Products User Manual

FD1204S/FD1208S/FD1216S/FD8000-L116

---Quick Configuration Guide

Version：V1.3

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About This Manual

This manual is applicable to C-Data FD1204S、FD1208S、FD1216S、FD8000-L116 EPON OLT products quickly installation configuration guide, Is the user to quickly and easily manage EPON OLT equipment should read the information before guidelines.

The related documents for EPON OLT device are:
《FD1204S/FD1208S/FD1216S/FD8000-L116 User Manual-Device Installation User Manual》
《FD1204S/FD1208S/FD1216S/FD8000-L116 User Manual- CLI Operation User Manual》
《FD1204S/FD1208S/FD1216S/FD8000-L116 User Manual- Configuration Guide》

Content

1 Instruction

Document Scope

Reading Object	Product	Products Software Version	
C-DATA Employees, FTTX Operation&Maintenance Engineer, C-DATA Customer's Technical Engineer	Cdata EPON OLT（FD1204S/FD1208S/FD1216S/FD8000-L116）	V1.3.X	
Compiling Department	C-Data Product Management Center Technical Support Department	Document Version	V1.3

Revision History

Date	Version	Description	Author
2017-12-7	V1.1	OLT version switch to V1.2.X, cli command line have been changed.,update config guide fully	Technical Support Department
2018-3-4	V1.2	1.OLT version switch to V1.3.X, cli command line have been changed,update config guide fully 2.Add FD8000-L116 config instruction	Technical Support Department
2019-02-13	V1.3	1.Add OLT EMS and WEB management type config guide 2.Add how to access the OLT web management	Technical Support Department

Proper Noun

Acronym	Full name	Instructions
EPON	Ethernet Passive Optical Network	Ethernet Passive Optical Network
OLT	Optical Line Terminal	Optical Line Terminal
ONU	Optical Network Unit	Optical Network Unit
OMCI	ONU Management and Control Interface	GPON OLT&ONU Management and Control Interface(protocol)

OAM	Operation Administration and Maintenance	EPON OLT&ONU Operation Administration and Maintenance Protocol
DBA	Dynamic Bandwidth Allocation	Dynamic Bandwidth Allocation
VLAN	Virtual Local Area Network	Virtual Local Area Network
VoIP	Voice over IP	Voice over IP
WLAN	Wireless Local Area Networks	Wireless Local Area Networks
FTTH	Fiber To The Home	Fiber To The Home
FTTB	Fiber To The Building	Fiber To The Building

Note

- The command line described in the document is case sensitive in OLT.
- If we meet a command that cannot be inputed or is prompted for error,we can input **"?"** to see the latter command format.
- Input incomplete commands can be completed by pressing the **"Tab"** key.
- FD1204S、FD1208S、FD1216S are Pizza-Box OLT，only have one card，so,if we want to enter PON mode,need input interface epon 0/0
- FD8000-L116 is Plug-in card OLT,has four PON card,so the comamnd for entering PON mode is OLT(config)# interface epon 0/**<SlotID>** ,SlotID is Slot Number,range is 1-4，for example,the command for entering slot 1 is OLT(config)# interface epon 0/1

2 OLT Login Manage

2.1 OLT Login Manage Explanation

FD1204S、FD1208S、FD1216S support CLI,EMS and WEB management;CLI manege type divided into telnet remote manage and console local manage, please check #2.2 and #2.3 chapter to see concrete operations;please check EMS user manual to see EMS manage way;please check #4 to see WEB manage way.

2.2 OLT Login By Console

First,find console port on OLT front surface,which is a RJ45 port.if want to login OLT by Console port,we need do prepare as follows:

- Need RJ-45-to-DB-9 serial line
- Connect PC to OLT concole port,find COM number in **"computer management"**

- Software for logining OLT by console port(Putty,SecureCRT)
- parameter for console login software

  Baud Rate:9600

  Parity Check:None

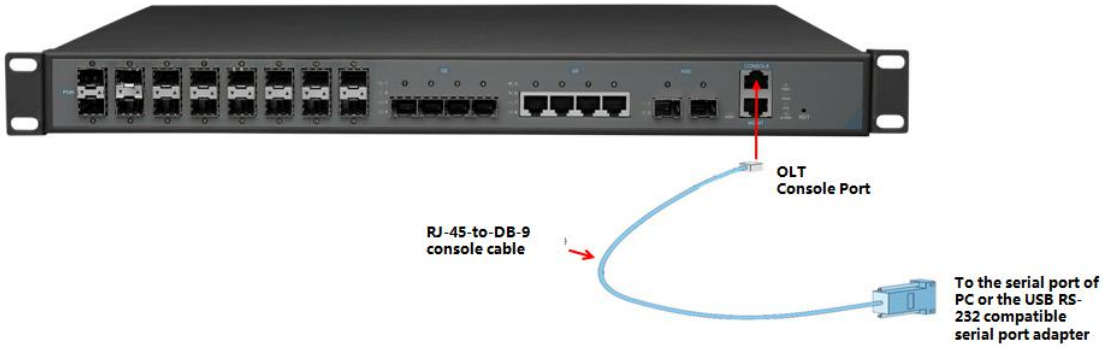
  Databit:8

  Stopbit:1

  Flow Control:None

  Login OLT by console login software,then input **username:root,password:admin**

[OLT console connection diagram]



[OLT console connection device]

RJ-45 to DB-9 Console Cable

USB to RS-232 compatible serial port adapter

Port on Computer	Required Cable	Port on OLT
Serial Port	RJ-45 to DB-9 Console Cable	RJ-45 Console Port
USB Type-A Port	● USB to RS-232 compatible serial port adapter (Adapter may require a software driver) ● RJ-45 to DB-9 Console Cable	

2.3 OLT Login By Telnet

There are two way to telnet,one is outband management,another is inband management.

1. Outband management(connect OLT MGMT port)

set PC ip as 192.168.1.X(except 192.168.1.100),PC connect to OLT MGMT port, login the OLT with OLT default manage IP (default IP : 192.168.1.100). then input username and password,default login username is root,password is admin.

Use command as follow can modify the outband management IP:

OLT> enable

OLT# config

OLT(config)# interface mgmt

OLT(config-interface-mgmt)# ip address 192.168.5.100 24

OLT(config-interface-mgmt)# exit

2. Inband management(connect OLT ge port)

First we login olt via console port or mgmt port, and add a vlanif for inband management, assigned an IP address to this vlan,add the ge port to the vlan,ge port vlan mode can be access or trunk,which depend on your network environment,then pc connect to OLT ge port（ge1-ge8）and telnet to the OLT.

The way to set inband mangement ip as follows：

OLT> enable

OLT# config

OLT(config)# vlan 100

OLT(config)# interface ge

OLT(interface-ge)# vlan access 5 100 **----configure ge 5 as inband management port**

OLT(interface-ge)# exit

OLT(config)# interface vlanif 100

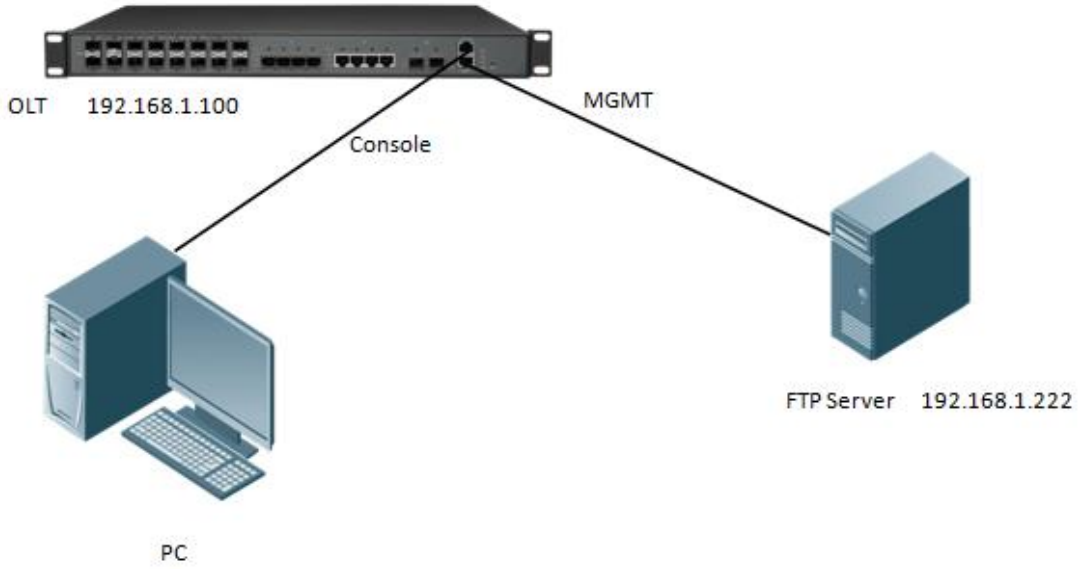
OLT(interface-vlanif-100)# ip address 192.168.2.100 255.255.255.0

OLT(interface-vlanif-100)# exit

3 OLT Upgrade Method

1.Set up OLT update topology:

Use a PC as FTP server(run wftpd32.exe or Wftpd.exe in this pc),and connect to OLT mgmt port or ge port to transmit firmware.



2.Test network connectivity

a.Connnect PC to OLT console port,used for updating OLT in boot mode.

b.Connect pc to OLT MGMT port or ge port,configure PC ip and OLT ip(inband ip or outband ip) are in same segment.

c.PC can ping OLT manegemnet IP,if pc can ping OLT manegemnet ip,means OLT can connect to FTP server.

d.Close PC firewall,prevent firewall intercept FTP software.

3. FTP server configuration

a.Open FTP software,configure FTP username and password,**such as**:admin/admin

b.Set up a directory of OLT updade files for the FTP server, such as the way for setting up the wftp32. Exe software：

---Security -> User/Rights Security Dialog -> User Name —input admin

---Change Password —input admin

---Home Directory —set directory of OLT upgrade files

4.OLT update command

FD1216S、FD1208S、FD1204S、FD8000-L116 OLT need update two file,one is FW file,another is Kernel file;if the boot file is too old,we need update boot file in OLT boot mode,boot upgrade way will be provided separately.OLT the common upgrade method please see below:

a.Enter config view,input command as follows to update OLT kernel file(file name include Kernel)

OLT(config)# load packetfile ftp 192.168.1.222 admin admin FD1216S_Kernel_X000_171114_1833.img
Broadcast message from root:
Upgrade is in process.
File [FD1216S_Kernel_X000_171114_1833.img] download ..... OK
File [FD1216S_Kernel_X000_171114_1833.img] upgrade ..... OK

b.Input command as follows to update OLT FW file(file name include FW)：

OLT(config)# load packetfile ftp 192.168.1.222 admin admin FD1216S_FW_V1.3.1_X000_171114_1841.img
Broadcast message from root:
Upgrade is in process.
File [FD1216S_FW_V1.3.1_X000_171114_1841.img] download ..... OK
File [FD1216S_FW_V1.3.1_X000_171114_1841.img] upgrade ..... OK

5.After update OLT,we need reboot OLT(Note:only reboot OLT,OLT can use new version)

OLT(config)# reboot

Please check whether data has saved, the unsaved data will lose if reboot system. Are you sure to reboot system? (y/n)[n]:y

4 OLT WEB Access Management Installation Method

1.First, update the WEB firmware via the #3 OLT upgrade way,(firmware name include Web word ,such as FD1216S_Web_V1.0.1_X000_171114_1841.img)

OLT(config)# load packetfile ftp 192.168.1.222 admin admin FD1216S_Web_V1.0.1_X000_171114_1841.img

2.PC connect to OLT mgmt port or inband management port,make sure PC can ping OLT inband management ip or outband management ip

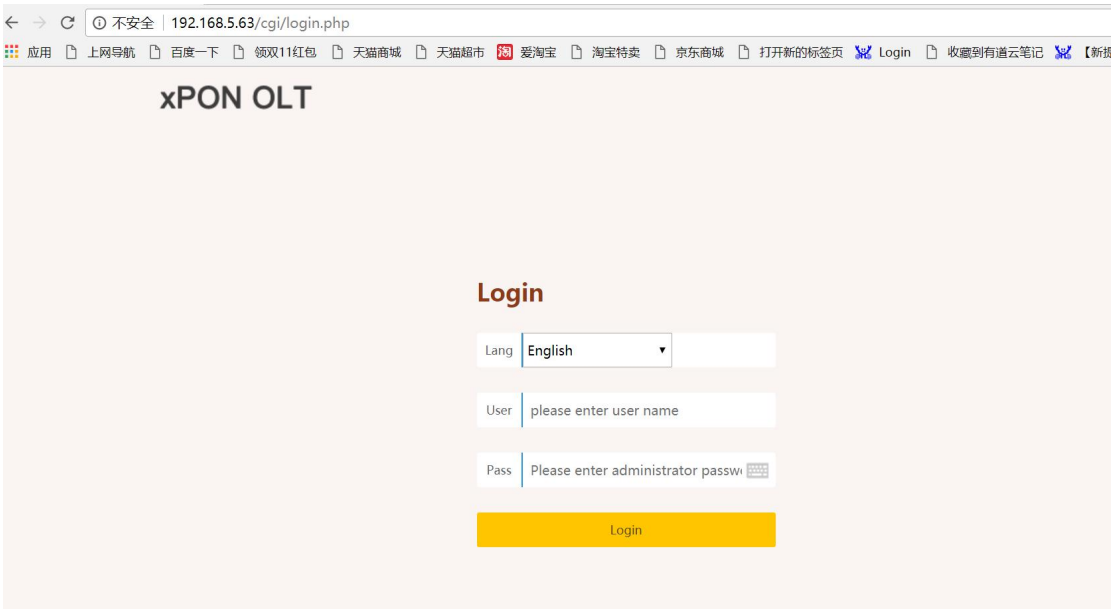
3.Before accessing OLT's web management from a PC, you need to enable OLT's SNMP functionality by the OLT command line.The configuration command is as follows:

OLT(config)# snmp-agent enable
OLT(config)# snmp-agent community read public
OLT(config)# snmp-agent community write private

4.After the OLT WEB firmware upgrade,can use below method check the OLT if have the web firmware version informaton,if see the information on the OLT,this mean the OLT have the web firmware version:

```
OLT(config)# show version
  Hardware version : V1.0B1
  Firmware version : V1R03B002 (Tue, 22 Jan 2019 11:02:30 +0800)
  Kernel version   : V1.0.0 190122 (Tue, 22 Jan 2019 10:54:57 +0800)
  Web version      : V1.1.0_181125 (Sun, 25 Nov 2018 11:26:18 +0800)
```

5.Open PC browser input OLT management ip,then we can see web login interface,web login username and password is admin/admin：

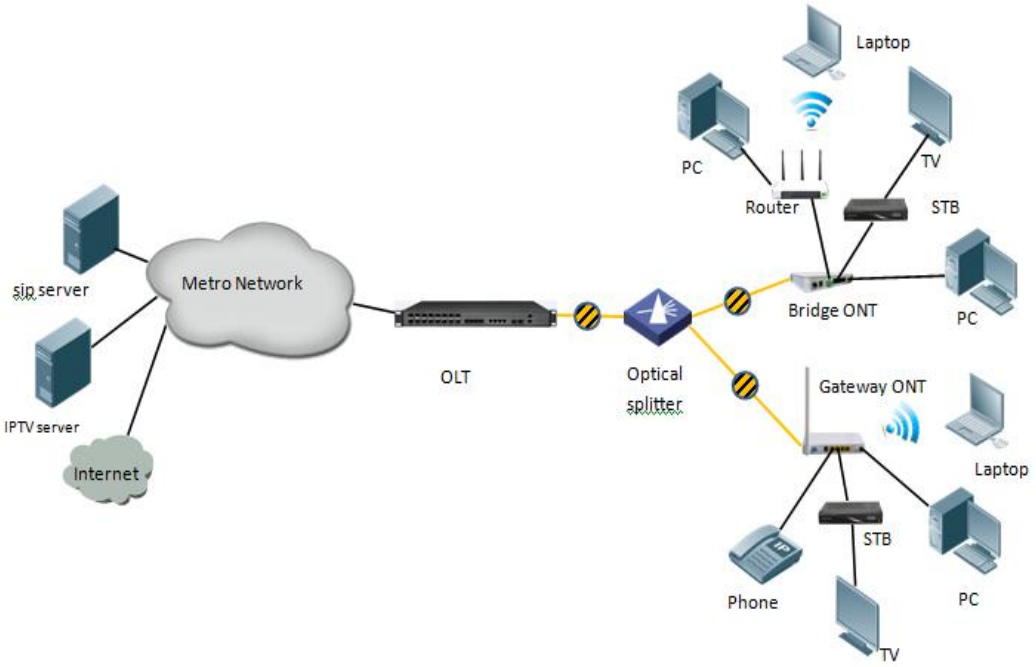


5 Configure Service In OLT Discrete Mode （Non-Template）

---CLI Command Method

This section mainly introduct FD1204S、FD1208S、FD1216S、FD8000-L116 internet service, voice service and multicast service in discrete mode in FTTH environment.Mainly introduce the bridge ONU(SFU and Home Gateway ONU (HGU),The following will introduce the service configuration way for OLT and ONU according to two types ONU.

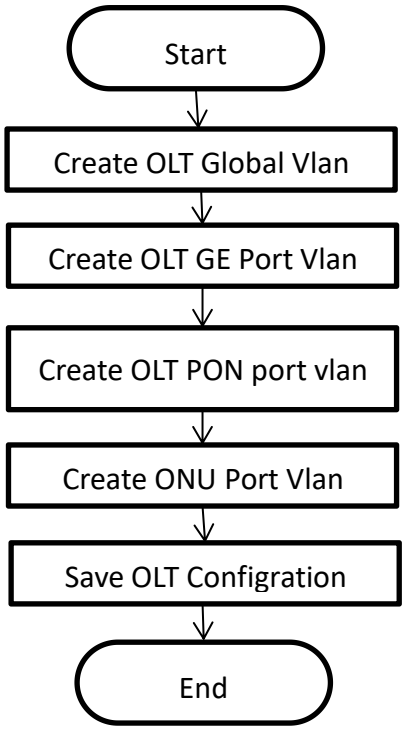
5.1 FTTH Service Topology



5.2 Data Plan

Main Data Plan List	
Configuration Item	**Data**
VLAN Data	**VLAN 100：** Internet Service **VLAN 200：** IPTV Service **VLAN 300：** VOIP Service
OLT Port Setting	**Ge5：** VLAN 100 access mode **Ge6：** VLAN 200 access mode **Ge7：** VLAN 300 access mode **PON1：** VLAN 100, VLAN 200, VLAN 300 trunk mode
ONU Register ID	**Bridge ONU ID：** 1 **Gateway ONU ID：** 2
Bridge ONU Port config	**LAN 1：** VLAN 100 **LAN 2：** VLAN 200 **LAN3:** VLAN 300 ---connect to VOIP phone
Gateway ONU Port config	**Internet WAN：** VLAN 100 **IGMP WAN：** VLAN 200 **VOIC WAN：** VLAN 300

5.3 Config Guide



5.4 Configure OLT Service

5.4.1 Configure OLT Global Vlan

In **config** mode,we can use **OLT(config)# show vlan all** to show the created vlan.

If the created vlan can't meet the need,we can use command **OLT(config)# vlan** vlan-list to create new vlan,According to the data plan, we create vlan100,vlan200,vlan300 firstly:

```
OLT(config)# vlan 100
OLT(config)# vlan 200
OLT(config)# vlan 300
```

5.4.2 Configure OLT GE Port Service Vlan

We can config GE port vlan mode as access,hybrid and trunk,we can configure different mode according to our network plan, configure way of three mode as follows.

Configure GE 5,6,7 port vlan mode is access(in this document,GE port connect to PC,so we configure ge port vlan mode as access):

```
OLT(config)# interface ge 0/0
OLT(config-interface-ge-0/0)# vlan mode 5-7 access
OLT(config-interface-ge-0/0)# vlan access 5 100
OLT(config-interface-ge-0/0)# vlan access 6 200
OLT(config-interface-ge-0/0)#vlan access 7 300
OLT(config-interface-ge-0/0)# exit
```

Configure GE 5、6、7 口 vlan mode is trunk：

```
OLT(config)# interface ge 0/0
OLT(config-interface-ge-0/0)# vlan mode 5-7 trunk
OLT(config-interface-ge-0/0)# vlan trunk 5 100
OLT(config-interface-ge-0/0)# vlan trunk 6 200
OLT(config-interface-ge-0/0)#vlan trunk 7 300
OLT(config-interface-ge-0/0)# exit
```

Configure GE 5、6、7 口 vlan mode is hybrid：

```
OLT(config)# interface ge 0/0
OLT(config-interface-ge-0/0)# vlan mode 5-7 hybrid
OLT(config-interface-ge-0/0)# vlan hybrid 5 tagged 100
OLT(config-interface-ge-0/0)# vlan hybrid 6 tagged 200
OLT(config-interface-ge-0/0)# vlan hybrid 7 tagged 300
OLT(config-interface-ge-0/0)# exit
```

NOTE：

The OLT vlan handle process as follows:

Vlan mode	Direction	Message have vlan tag or not	Handling method
Access mode	In	vlan tag	Discard
		untag	Add port configured vlan in access mode for message (main parameter is VID),and forword
	Out	vlan tag	Forward message to the corresponding port according to VID and remove vlan tag;If the VLAN ID of the Tagged message is not same to the port VID, it is discard.
		untag	Discard
Trunk mode	In	vlan tag	If the VLAN in the message is permit to pass port, it will be forwarded directly; If the VLAN in the message doesn't permit to pass port, it is discarded.
		untag	Add default vlan(native-vlan) for untagged message and forward.
	Out	vlan tag	If the VLAN in the message is permit to pass port, it will be forwarded directly; If the VLAN ID of the message is the default (native-VLAN)VLAN, then the VLAN tag is discard and forward;If the VLAN in the message doesn't permit to pass port, it is discarded.

		untag	Discard
Hybrid mode	**In**	**vlan tag**	If the VLAN in the message is permit to pass port, it will be forwarded directly; If the VLAN in the message doesn't permit to pass port, it is discarded.
		untag	Add default vlan(native-vlan) for untagged message and forward.
	Out	**vlan tag**	If the VLAN in the message is permit to pass port,according vlan tag or vlan untag of message to discard or no discard vlan tag,then forward message,If the VLAN ID of the message is the default (native-VLAN) VLAN, then the VLAN tag is discard and forward; If the VLAN in the message doesn't permit to pass port, it is discarded.
		untag	Discard

5.4.3 Configure OLT PON Port Service Vlan

We can config PON port vlan mode as access,hybrid and trunk,according to our network plan configure different mode,if message from ONU is untag,we can configure PON port vlan mode is access or hybrid untag mode;if message from ONU is tag,we can configure PON port vlan mode is trunk or hybrid tag mode; configure way as follows.

Config PON1 port vlan mode is access:

```
OLT(config)# interface epon 0/0
OLT(config-interface-epon-0/0)# vlan mode 1 access
OLT(config-interface-epon-0/0)# vlan access 1 100
OLT(config-interface-epon-0/0)# exit
```

Config PON1 port vlan mode is trunk:（PON port is trunk mode in this document）:

```
OLT(config)# interface epon 0/0
OLT(config-interface-epon-0/0)# vlan mode 1 trunk
OLT(config-interface-epon-0/0)# vlan trunk 1 100,200,300
OLT(config-interface-epon-0/0)# exit
```

Config PON1 port vlan mode is hybird:

```
OLT(config)# interface epon 0/0
OLT(config-interface-epon-0/0)# vlan mode 1 hybrid
OLT(config-interface-epon-0/0)# vlan hybrid 1 tagged 100,200,300
OLT(config-interface-epon-0/0)# exit
```

5.4.4 Configure OLT Multicast Service

Configure IGMP and multicast-vlan 200

```
OLT(config)# igmp mode snooping
OLT(config)# multicast-vlan 200
OLT(config-multicast-vlan-200)# igmp program add program-index 1 ip 224.3.3.3
OLT(config-multicast-vlan-200)# igmp router-port ge 0/0/6
OLT(config-multicast-vlan-200)# btv
OLT(config-btv)# igmp user add user-index 1 pon 0/0/2 ont 2 vlan 1000 no-auth
OLT(config-btv)# multicast-vlan 200
OLT(config-multicast-vlan-200)# igmp member user-index 1
OLT(config-multicast-vlan-200)# exit
```

NOTE：

igmp program add program-index command is used to create multicast program table. Only the program table in the multicast vlan, the user can watch the program. Create multicast program table can use **igmp program add program-index <1-2000> batch** command to batch add program or use **igmp program add program-index <1-2000> ip** command to add program single.

5.5 Check ONU Register Status.

In OLT discrete mode,ONU is automatically registered,after ONU is automatically registered,use command **show ont info** to query ONU online status.make sure ONU “Control flag”is“Active”,“Run State”is“Online”,“Config state”is“Success”and“Match state”is“Match”

```
OLT(config-interface-epon-0/0)# show ont info 1 all
------------------------------------------------------------------------------
F/S P   ONT MAC          Control   Run       Config    Match     Desc
        ID               flag      state     state     state
------------------------------------------------------------------------------
 0/0 1 1   E0:67:B3:09:F0:21   active    online    success   match
 0/0 1 2   E0:67:B3:12:05:3E   active    online    success   match
------------------------------------------------------------------------------
   Total: 2, online 2
```

5.6 Configure Bridge ONU(SFU) Service

In OLT discrete mode,we need enter OLT to config ONU one by one,config way as follows:

5.6.1 Configure Bridge Onu(SFU) Internet Service

Premise condition of ONU to open internet service:

- OLT connect to uplink device and open internet service

- OLT have created vlan for internet service
- OLT have configured GE port vlan
- OLT have configured PON port vlan
- ONU have registered

SFU ethernet port vlan mode have transparent,tag(access),trunk mode and so on,we can according to our network plan configure different mode.all onu vlan is configured by OLT,configure way as follows:

Configure ONU1 eth1 vlan mode is tag(access) (ONU eth port vlan mode is tag in this document):

```
OLT(config)# interface epon 0/0
OLT(config-interface-epon-0/0)# ont port native-vlan 1 1 eth 1 vlan 100
OLT(config-interface-epon-0/0)# exit
```

Configure ONU1 eth1 vlan mode is transparent:

```
OLT(config)# interface epon 0/0
OLT(config-interface-epon-0/0)# ont port vlan 1 1 eth 1 transparent
OLT(config-interface-epon-0/0)# exit
```

Config ONU1 eth1 vlan mode is trunk:

```
OLT(config)# interface epon 0/0
OLT(config-interface-epon-0/0)# ont port vlan 1 1 eth 1 100
OLT(config-interface-epon-0/0)# exit
```

5.6.2 Configure Bridge Onu(SFU) Multicast Service

Premise Condition

- OLT connect to uplink device and open service
- OLT have created vlan for multicast service
- OLT have configured GE port vlan
- OLT have configured PON port vlan
- ONU have registered

In OLT discrete mode,we need enter OLT to config ONU multicast service,configure way as follows:

Configure ONU1 multicast vlan mode is snooping,ONU1 eth2 vlan is 200,and multicast vlan mode is untag:

```
OLT(config)# interface epon 0/0
OLT(config-interface-epon-0/0)#ont multicast-mode 1 1 igmp-snooping
OLT(config-interface-epon-0/0)#ont port attribute 1 1 eth 2 multicast-tagstrip untag
OLT(config-interface-epon-0/0)# ont port multicast-vlan 1 2 eth 2 200
OLT(config-interface-epon-0/0)# exit
```

----End

5.7 Configure Gateway ONU（HGU）Service

Gateway ONU （ HGU ） can provide internet,VOIP,IPTV service for FTTH,support PPPOE/DHCP dial-up,NAT， IGMP.Because HGU have route function, ONU service need to be configured with the local web or tr069,include wan and vlan configuration,don't need configure vlan in olt,only make sure ONU can register to OLT.OLT don't support configure ONU route wan,specific configure as follows:

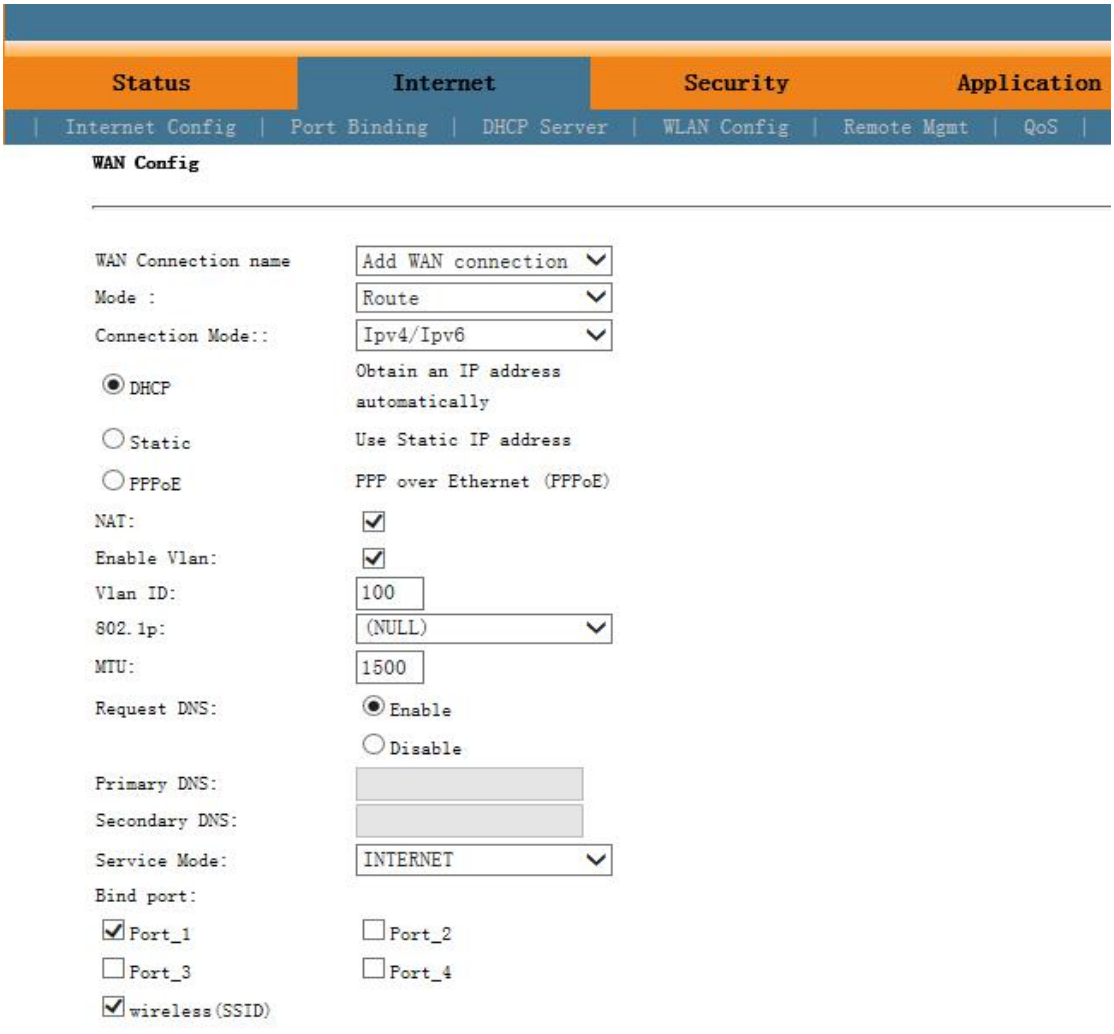
5.7.1 Configure Gateway ONU（HGU）Internet Service--RTK Solution

premise condition

- OLT connect to uplink device and open service
- OLT have created vlan for internet
- OLT have configured GE port vlan
- OLT have configured PON port vlan
- ONU have registered

1.Create route wan and bind LAN1 in onu web

Click Internet→Internet Config→ WAN Config



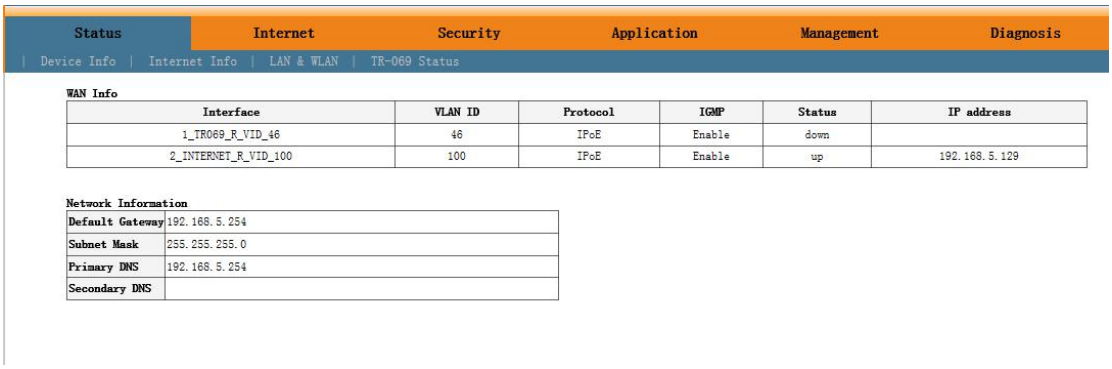
NOTE：

Mode select **Route.** Check **Enable VLAN** and Vlan ID input 100. Service Mode select **INTERNET.** Bind port check **Port_1** and **wireless(SSID).**

Internet service take DHCP mode as an example in this document. The service type please select suitable type according to the user's actual environment. ONT detail usage please refer to ONT user manual.

2. Check ONU internet wan status

Click Status→Internet Info



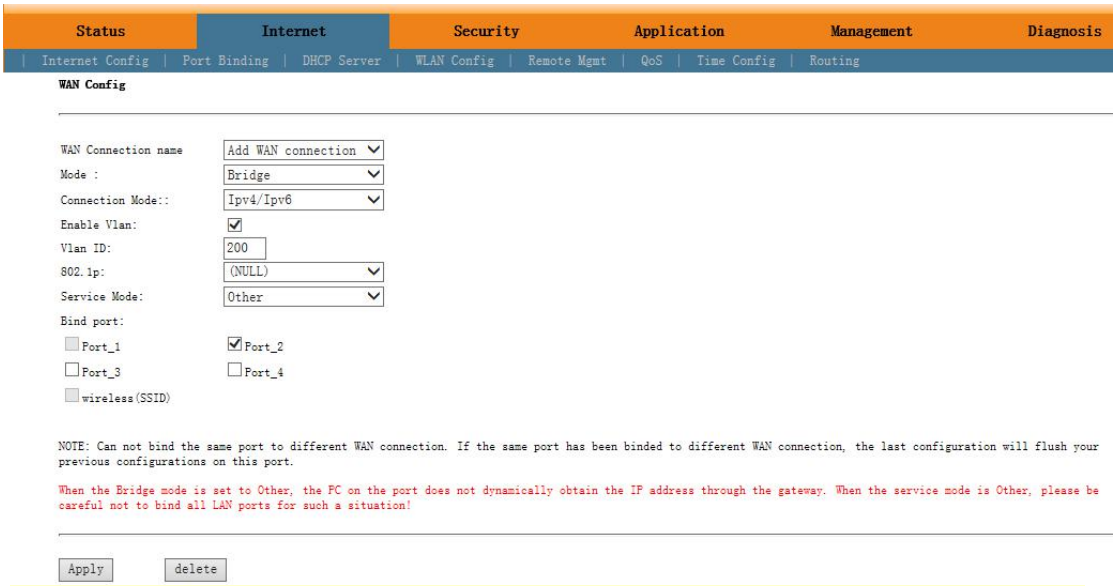
5.7.2 Configure Gateway ONU（HGU）Multicast Service--RTK Solution

premise condition

- OLT connect to uplink device and open multicast service
- OLT have created vlan for multicast
- OLT have configured GE port multicast vlan
- OLT have configured PON port multicast vlan
- ONU have registered

1. Create bridge wan and bind LAN2 in onu web

Click Internet→Internet Config→ WAN Config

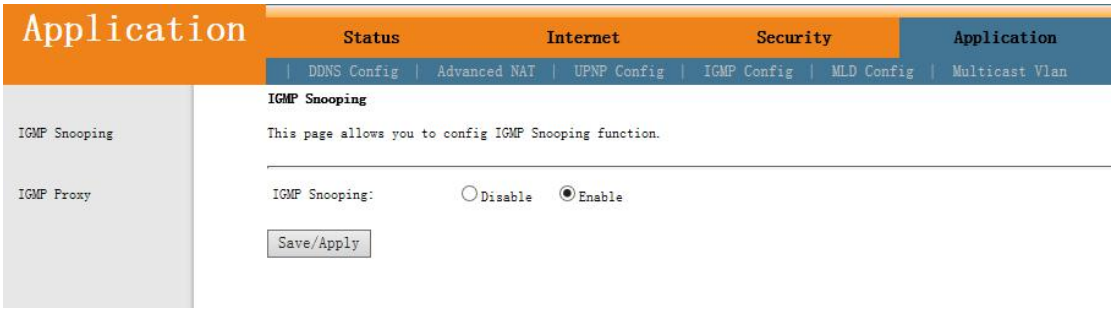


NOTE：

Mode select to **Bridge**. Check **Enable Vlan**,Vlan ID input **200**. Service Mode select **Other**.Bind port click **Port_2**.

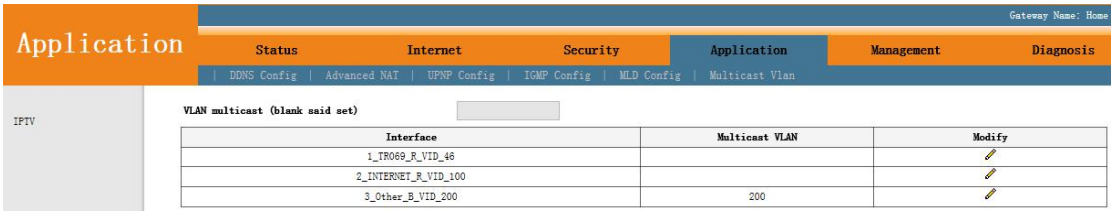
2. Config IGMP mode in ONU web

Click Application→ IGMP Config→ IGMP Snooping. Enable IGMP Snooping.



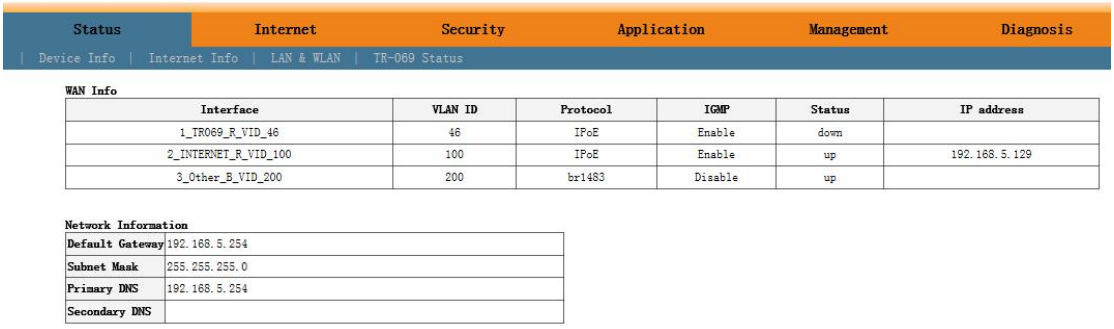
3.Configure multicast vlan on ONU web

Click Application→ Multicast Vlan→ 3_Other_B_VID_200→ Modify. Input 200 behind VLAN multicast(blank said set).



4.Check ONU multicast wan status

Click Status→Internet Info



----end

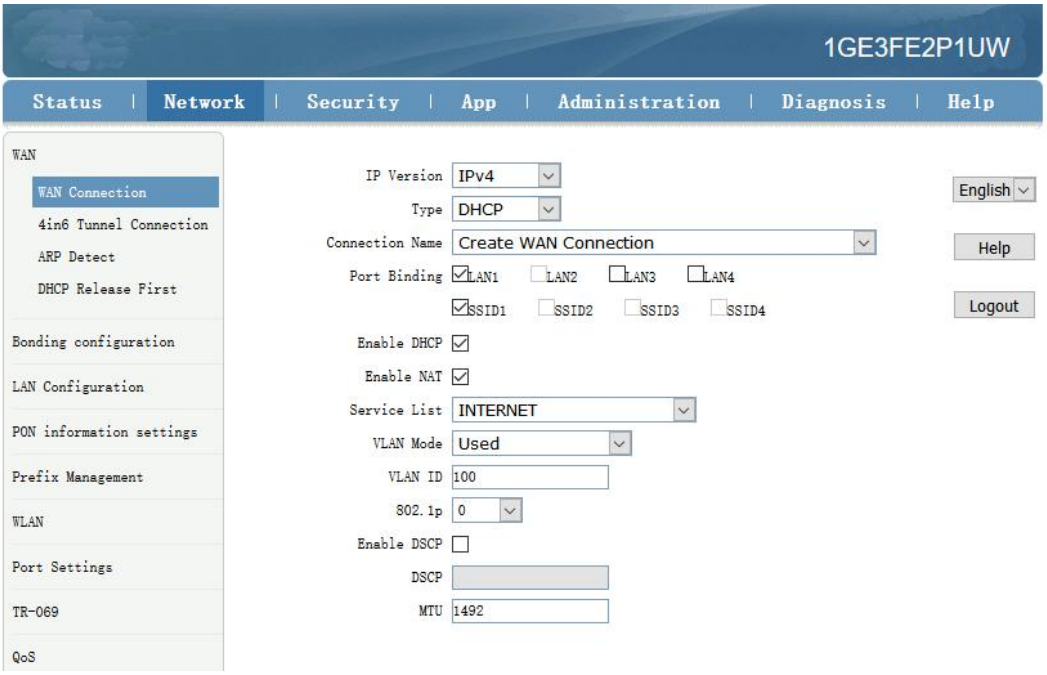
5.7.3 Configure Gateway ONU（HGU）Internet Service--ZTE Solution

premise condition

- OLT connect to uplink device and open internet service
- OLT have created vlan for internet
- OLT have configured GE port vlan
- OLT have configured PON port vlan
- ONU have registered

1. Create route wan and bind LAN1 in ont web

Click Network→WAN→WAN Connection. Type select to DHCP. Connection Name select to Create WAN Connection. Port Binding check LAN1 and SSID1. Service List select to INTERNET. VLAN Mode select to Used. VLAN ID enter 100. finally click Create.



NOTE：

Type select to **DHCP**. Connection Name select to **Create WAN Connection**. Port Binding check **LAN1** and **SSID1**. Service List select to **INTERNET**. VLAN Mode select to **Used**. VLAN ID enter **100**. Enable DHCP and Enable NAT keep default checked status.

In this document,Internet service take DHCP mode as an example.please selected suitable service type according to the user's actual need. ONT detail use way please refer to ONT user manual.

2. Check ONT internet wan status

---end

5.7.4 Configure Gateway ONU（HGU）Multicast Service--ZTE Solution

premise condition

- OLT connect to uplink device and open multicast service
- OLT have created vlan for multicast
- OLT have configured GE port multicast vlan
- OLT have configured PON port multicast vlan
- ONU have registered

1. Create bridge wan in ont web

Click Network→WAN→WAN Connection. Type select to Bridge. Connection Name select to Create WAN Connection. Port Binding check LAN2. Service List select to OTHER. VLAN Mode select to Used. VLAN ID enter 200. Finally click Create.

NOTE：

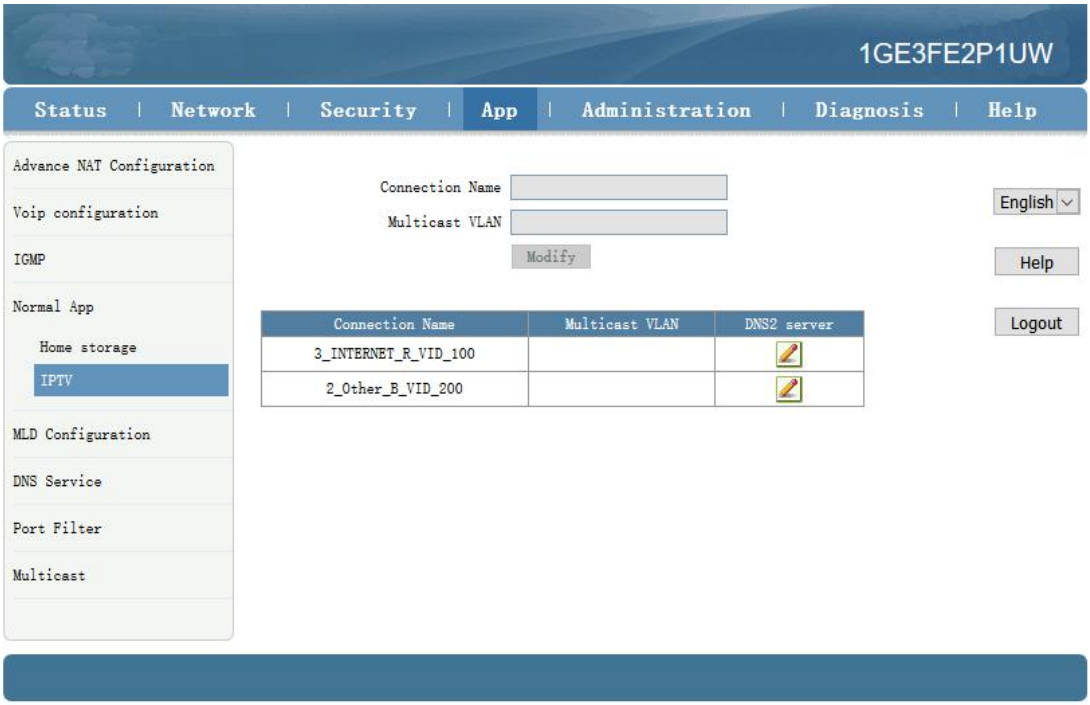
Type select to **Bridge**. Connection Name select to **Create WAN Connection**. Port Binding check **LAN2**. Service List select to **OTHER**. VLAN Mode select to **Used**. VLAN ID enter **200**. Enable DHCP keep default unchecked status.

2. Check ONT Bridge wan status

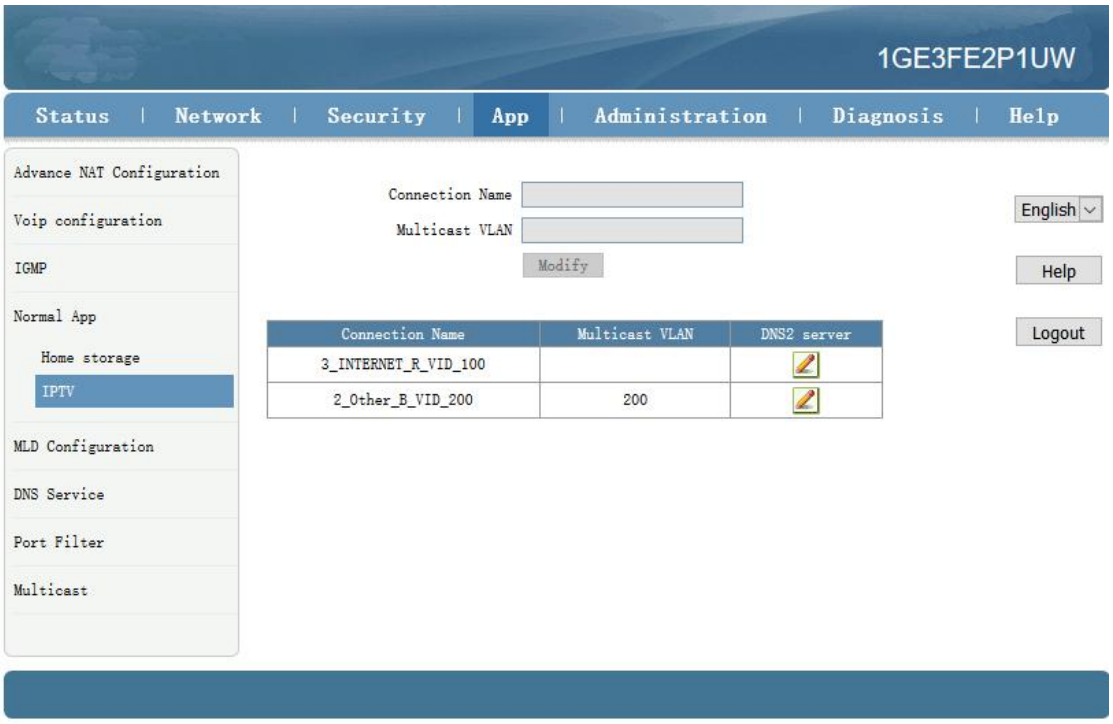
Click Status→Network Interface→WAN Connection(IPv4).

3. Configure multicast vlan on ONT web

Click App→Normal App→IPTV. Modify the Bridge WAN 2_Other_B_VID_200



Multicast VLAN enter 200. Then click Modify。



---end

5.7.5 Configure Gateway ONU（HGU）VOIP Service--ZTE Solution

premise condition

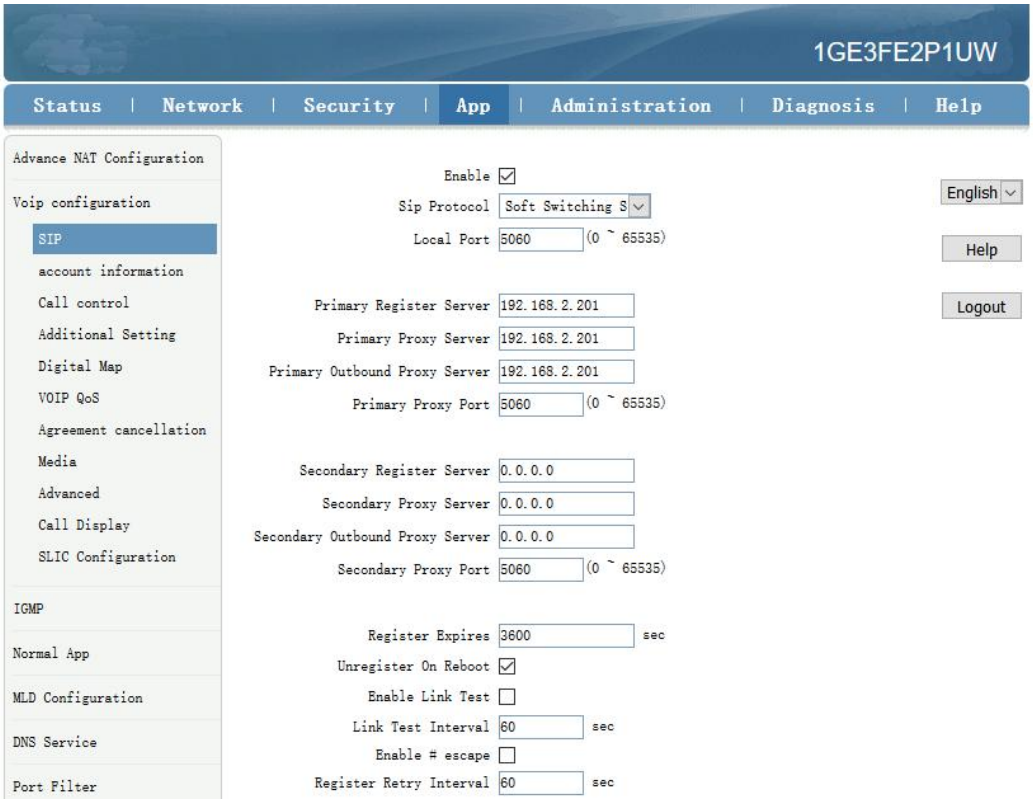
- OLT connect to uplink device and open multicast service
- OLT have created vlan for VOIP
- OLT have configured GE port VOIP vlan
- OLT have configured PON port VOIP vlan
- ONU have registered

1. Configure Voice in ONT web

Click Network→WAN→WAN Connection. Type Select to DHCP. Connection Name Select to Create WAN Connection. Service List select to VOICE. VLAN Mode select to Used. VLAN ID enter 300. Finally click Create。

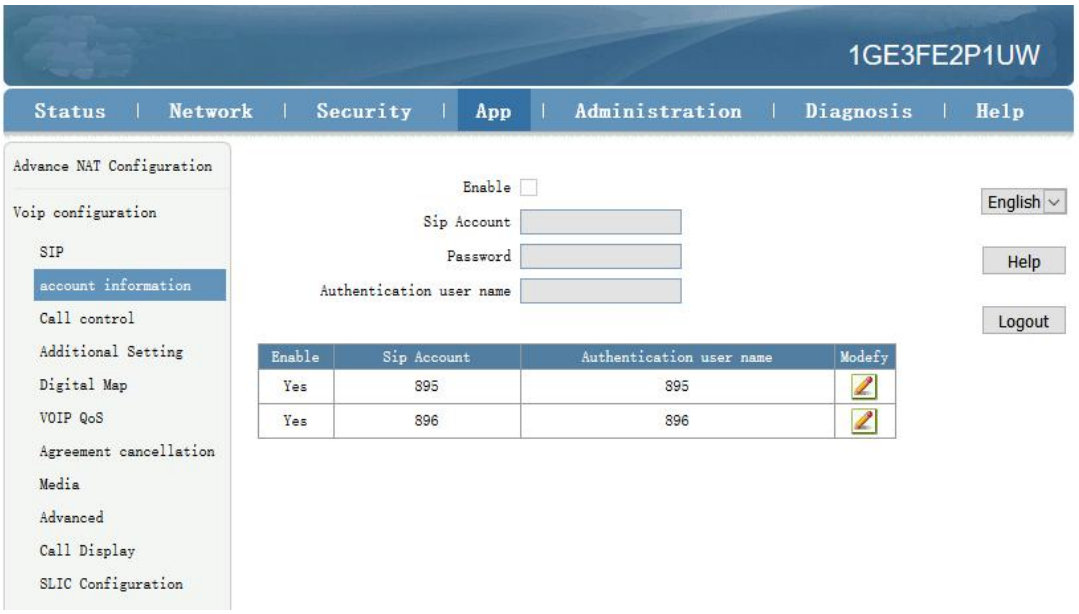
2. Configure ONT VOIP

Click App→Voip configuration→SIP. Enther Sip server ip address.



3. Configure ONT VOIP Account

Click App→Voip Configuration→account information. Enther Sip account information.

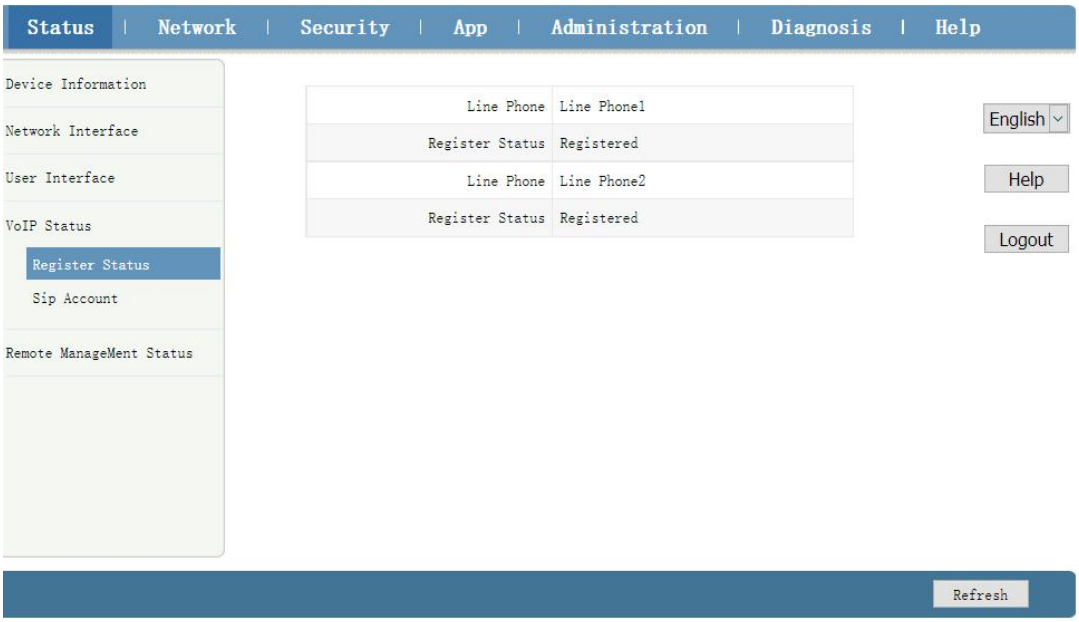


NOTE：

Sip Account, **Password**, **Authentication user name** please modify according to the user's actual need.

4. Check Sip account register status

Click Status→VoIP Status→Register Status.



NOTE：

The **Register Status** is Registered mean sip account register successfully.

----end

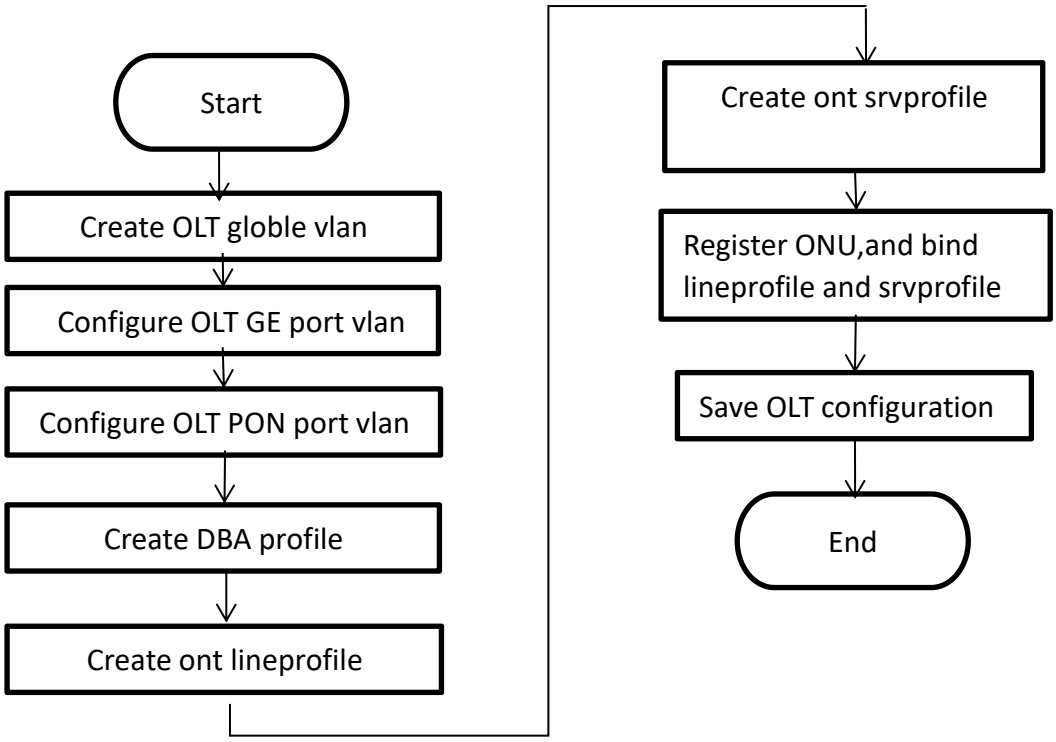
6 Configure Service In OLT Profile Mode---CLI Command Method

This section is mainly introduct FD1204S、FD1208S、FD1216S、FD8000-L116 internet service, voice service and multicast service in profile mode in FTTH environment.we can configure different service profile based on different types of ONU, which can be handled flexibly.Mainly introduce the bridge ONU(SFU) and family gateway ONU (HGU),The following will introduce the service configure way for OLT and ONU according to two types ONU.

6.1 Data Plan

Main Data Plan List	
Configure Iteam	**Data**
OLT Port Config	**Ge5：** VLAN 100 access mode **Ge6：** VLAN 200 access mode **Ge7：** VLAN 300 access mode **PON1**: VLAN 100, VLAN 200, VLAN 300 trunk mode
DBA Profile（upload bandwidth control）	**Profile number：** 1 **DBA type：** Type3 **Assure bandwidth：** 8Mbit/s **Max bandwidth：** 20Mbit/s
ONU Lineprofile	**Profile ID：** 1 **LLID：** 1
ONU Srvprofile	**Profile ID：** 1 **ONU Port Capability：** 4 ETH Port， 1 POTS Port
Bridge ONU Port Config	**LAN 1：** VLAN 100 **LAN 2：** VLAN 200 **LAN 3：** VLAN 300 ---connect to VOIP phone
Gateway ONT Port Config	**LAN1：** VLAN 100 **LAN2：** VLAN 200 **POTS1：** VLAN 300

6.2 Configure Process



6.3 Configure OLT Service

6.3.1 Configfure OLT Globle Vlan

In **config** mode,we can use **OLT(config)# show vlan all** to show the created vlan.

If the created vlan can't meet the need,we can use command **OLT(config)# vlan** vlan-list to create new vlan,According to the data plan, we create vlan100,vlan200,vlan300 firstly:

```
OLT(config)# vlan 100
OLT(config)# vlan 200
OLT(config)# vlan 300
```

6.3.2 Configure OLT GE Port Service Vlan

We can config GE port vlan mode as access,hybrid and trunk,according to our network plan configure different mode, configure way of three mode as follows.

Configure GE 5、6、7 port vlan mode is access(in this document,GE port connect to PC,so we configure ge port vlan mode as access):

```
OLT(config)# interface ge 0/0
OLT(config-interface-ge-0/0)# vlan mode 5-7 access
OLT(config-interface-ge-0/0)# vlan access 5 100
OLT(config-interface-ge-0/0)# vlan access 6 200
OLT(config-interface-ge-0/0)#vlan access 7 300
OLT(config-interface-ge-0/0)# exit
```

Configure GE 5、6、7 port vlan mode is trunk：

```
OLT(config)# interface ge 0/0
OLT(config-interface-ge-0/0)# vlan mode 5-7 trunk
OLT(config-interface-ge-0/0)# vlan trunk 5 100
OLT(config-interface-ge-0/0)# vlan trunk 6 200
OLT(config-interface-ge-0/0)#vlan trunk 7 300
OLT(config-interface-ge-0/0)# exit
```

Configure GE 5、6、7 port vlan mode is hybrid：

```
OLT(config)# interface ge 0/0
OLT(config-interface-ge-0/0)# vlan mode 5-7 hybrid
OLT(config-interface-ge-0/0)# vlan hybrid 5 tagged 100
OLT(config-interface-ge-0/0)# vlan hybrid 6 tagged 200
OLT(config-interface-ge-0/0)# vlan hybrid 7 tagged 300
OLT(config-interface-ge-0/0)# exit
```

6.3.3 Configure OLT PON Port Service Vlan

We can config PON port vlan mode as access,hybrid and trunk,according to our network plan configure different mode,if message from ONU is untag,we can config PON port vlan mode is access or hybrid untag mode;if message from ONU is tag,we can config PON port vlan mode is trunk or hybrid tag mode; configure way as follows.

Configure PON1 port vlan mode is access:

```
OLT(config)# interface epon 0/0
OLT(config-interface-epon-0/0)# vlan mode 1 access
OLT(config-interface-epon-0/0)# vlan access 1 100
OLT(config-interface-epon-0/0)# exit
```

Configure PON1 port vlan mode is trunk:（PON port is trunk mode in this document）:

```
OLT(config)# interface epon 0/0
OLT(config-interface-epon-0/0)# vlan mode 1 trunk
OLT(config-interface-epon-0/0)# vlan trunk 1 100,200,300
OLT(config-interface-epon-0/0)# exit
```

Configure PON1 port vlan mode is hybird:

```
OLT(config)# interface epon 0/0
OLT(config-interface-epon-0/0)# vlan mode 1 hybrid
OLT(config-interface-epon-0/0)# vlan hybrid 1 tagged 100,200,300
OLT(config-interface-epon-0/0)# exit
```

6.3.4 Configure OLT Multicast Service

Configure IGMP and multicast-vlan 200

```
OLT(config)# igmp mode snooping
OLT(config)# multicast-vlan 200
OLT(config-multicast-vlan-200)# igmp program add program-index 1 ip 224.3.3.3
OLT(config-multicast-vlan-200)# igmp router-port ge 0/0/6
OLT(config-multicast-vlan-200)# btv
OLT(config-btv)# igmp user add user-index 1 pon 0/0/2 ont 2 vlan 1000 no-auth
OLT(config-btv)# multicast-vlan 200
OLT(config-multicast-vlan-200)# igmp member user-index 1
OLT(config-multicast-vlan-200)# exit
```

NOTE：

igmp program add program-index command is used to create multicast program table. Only the program table in the multicast vlan, the user can watch the program. Create multicast program table can use **igmp program add program-index <1-2000> batch** command to batch add program or use **igmp program add program-index <1-2000> ip** command to add program single.

6.4 Create ONU Profile

EPON ONU profile include DBA-profile,ont-lineprofile,ont-srvprofile.

- DBA profile:DBA profile describes the EPON flow parameters,the LLID bind DBA profile to distribute bandwidth dynamically,and increases utilization of uplink bandwidth.
- ont-lineprofile:ont-lineprofile describes the bind relationship of LLID and DBA profile,FEC mode,QOS mode and so on.
- ont-srvprofile:ont-srvprofile provides a service configuration channel for ONU manage by oam.such as ONU port vlan configure,ONU igmp configure.

6.4.1 Create ONU DBA Profile

Use **show dba-profile all** command to query the existing DBA profile in the system,if the existing DBA profile can't meet the demand,we need use dba-profile to add DBA profile.Create different DBA profile for different service type.

Create dba profile number is 1,type is Type3,assure bandwidth is 8Mbit/s,max bandwidth is 20Mbit/s：

```
OLT(config)# dba-profile profile-id 1
OLT(dba-profile-1)# type3 assure 8192 max 20480
OLT(dba-profile-1)# commit
OLT(dba-profile-1)# exit
```

NOTE：

DBA based on the entire ONU schedule, we need to select the appropriate bandwidth type and bandwidth size according to the service type and onu users number. The summation of fixed bandwidth (fix) and guarantee bandwidth (assure) not surpass the total bandwidth of PON port.

6.4.2 Create ONU Lineprofile

Create EPON ONU lineprofile,number is 1,bind to DBA profile 1:

```
OLT(config)# ont-lineprofile epon profile-id 1
OLT(config-epon-lineprofile-1)# llid 1 dba-profile-id 1
OLT(config-epon-lineprofile-1)# commit
OLT(config-epon-lineprofile-1)# exit
```

6.4.3 Create ONU Srvprofile

Create EPON ONU **srvprofile,**number is 1,configure ONU ETH port number is 4,POTS port number is 2:

```
OLT(config)# ont-srvprofile epon profile-id 1
OLT(config-epon-srvprofile-1)# ont-port eth 4 pots 2
OLT(config-epon-srvprofile-1)# commit
OLT(config-epon-srvprofile-1)# exit
//finish config,use commit command to make parameter effect
```

6.5 Add ONU Manually

1. Modify PON port ONU authentication method is manually registered with MAC.

```
OLT(config)# interface epon 0/0
OLT(config-interface-epon-0/0)# ont authmode 1 mac
```

2.Open pon port ONU automatic find function:

```
OLT(config)# interface epon 0/0
OLT(config-interface-epon-0/0)#ont autofind 1 enable
OLT(config-interface-epon-0/0)#show ont autofind 1
//This command show all unregistered ONT information that is connected to the EPON port by the spectrometer.
```

3.Register ONU manually and bind lineprofile and srvprofile.

```
OLT(config-interface-epon-0/0)# ont add 1 1 mac-auth E0:67:B3:12:05:3E ont-lineprofile-id 1 ont srvprofile-id 1
Add pon 1 onu 1 successfully.
OLT(config-interface-epon-0/0)# ont add 1 2 mac-auth E0:67:B3:09:f0:21 ont-lineprofile-id 1 ont-srvprofile-id 1
Add pon 1 onu 2 successfully.
```

4.Add all the ONU under PON port:

ont confirm command can be used to add all the ONU under PON port, and also can add ONU separately.:

```
OLT(config-interface-epon-0/0)# ont confirm 1 all mac-auth ont-lineprofile-id 1 ont-srvprofile-id 1
```

6.6 Check ONU Registration Status

After adding ONU, use **show ont info** command to query the online status of ONU, and ensure that

the ”Control flag” of ont is “Active”, ”Run State” is ”Online”, ”Config state” is “Success” and ”Match state” is ”Match”.

```
OLT(config-interface-epon-0/0)# show ont info 1 all
------------------------------------------------------------------------
  F/S P    ONT MAC                 Control    Run        Config    Match       Desc
           ID                      flag       state      state     state
 ------------------------------------------------------------------------
  0/0 1 1     E0:67:B3:09:F0:21    active     online     success   match
  0/0 1 2     E0:67:B3:12:05:3E    active     online     success   match
------------------------------------------------------------------------
  Total: 2, online 2
```

When the ONU configuration status is failed, ONU cannot up:

- If the “Control flag” is “deactive”,we need to use ont activate command to activate ONU in EPON mode.
- If the ONU not online, the “Run state” is “offline”, it may be a physical line break, or optical module is damaged, so we need to check all device and the physical line.
- If the ONU “config state” is “failed”, it means ONU’s configuration is not applicable to some configuration of srvprofile, we need to capture packet on the ONU and analyze onu not accept which configuration.
- If the ONU “Match state” is “Mismatch”, it shows that onu srvprofile capability(port number) don't Match ONU practical capability,we can use **show ont capability** and **show ont config -capability to** contrast ONU practical ability and onu srvprofile capability.

6.7 Configure Bridge ONU（SFU）Service

6.7.1 Configure Bridge ONU(SFU) Internet Service

premise condition of ONU to open internet service:

- OLT connect to uplink device and open internet service
- OLT have created vlan for internet
- OLT have configured GE port vlan
- OLT have configured PON port vlan
- ONU have registered and bind to lineprofile and srvprofile

SFU ethernet port vlan mode have transparent,tag(access),trunk mode and so on,we can configure vlan in srvprofile mode or discrete mode(note： If we configure onu port vlan in srvprofile and discrete mode,the discrete configuration priority is higher than the profile configuration,when ONU port discrete configuration vlan is transparent,will apply profile configuration),#4.5 show the discrete configuration, profile config is introduced as follows we can according to our network plan configure different vlan mode,configure way as follows:

Configure ONU port vlan mode is tag(access) (ONU port vlan mode is tag in this document):

```
OLT(config)# ont-srvprofile epon profile-id 1
OLT(config-epon-srvprofile-1)# port native-vlan eth 1 100
```

```
OLT(config-epon-srvprofile-1)# commit
OLT(config-epon-srvprofile-1)# exit
```

Configure ONU port vlan mode is transparent:

```
OLT(config)# ont-srvprofile epon profile-id 1
OLT(config-epon-srvprofile-1)# port vlan eth 1 transparent
OLT(config-epon-srvprofile-1)# commit
OLT(config-epon-srvprofile-1)# exit
```

Configure ONU port vlan mode is trunk:

```
OLT(config)# ont-srvprofile epon profile-id 1
OLT(config-epon-srvprofile-1)# port vlan eth 1 100
OLT(config-epon-srvprofile-1)# commit
OLT(config-epon-srvprofile-1)# exit
```

6.7.2 Configure Bridge ONU(SFU) IPTV Service

Premise condition of ONU to open internet service:

- OLT connect to uplink device and open internet service
- OLT have created vlan for IPTV
- OLT have configured GE port IPTV vlan
- OLT have configured PON port IPTV vlan
- ONU have registered and bind to lineprofile and srvprofile

we can configure SFU IPTV service in srvprofile mode or discrete mode(note：if we configure onu iptv service in srvprofile and discrete mode,the discrete configuration priority is higher than the profile configuration,when ONU iptv service in discrete configuration is default,will apply profile configuration),#4.5 show the discrete config, profile config is introduced as follows,we can according to our network plan configure different vlan mode,configure way as follows:

Configure ONU port multicast mode ,multicast vlan,process mode of multicast vlan

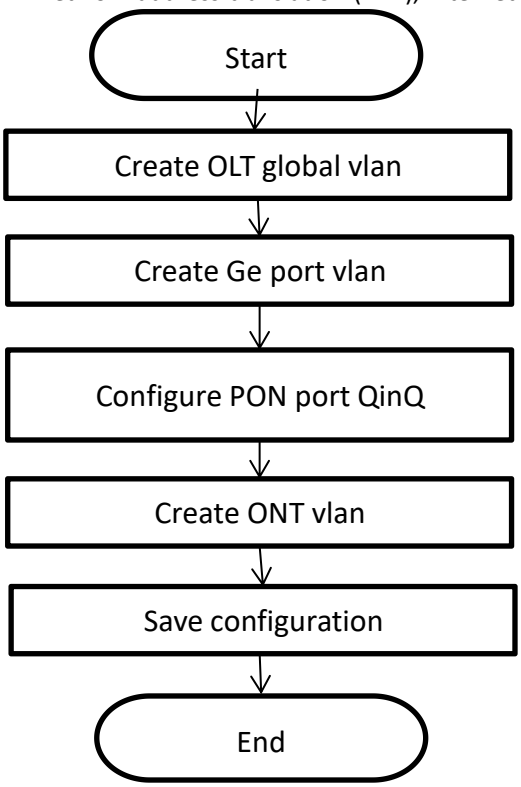
```
OLT(config)# interface epon 0/0
OLT(config-interface-epon-0/0)#ont multicast-mode 1 1 igmp-snooping
OLT(config-interface-epon-0/0)# exit
OLT(config)# ont-srvprofile epon profile-id 11
OLT(config-epon-srvprofile-11)# port eth 1 multicast-tagstrip untag
OLT(config-epon-srvprofile-11)# port multicast-vlan eth 1 200
OLT(config-epon-srvprofile-11)# commit
OLT(config-epon-srvprofile-11)# exit
```

----end

6.8 Gateway ONU（HGU）Service Configure Introduction

Gateway ONU(HGU) can provide internet,voice,iptv service for FTTH,support PPPOE dial-up,

network address translation (NAT), Internet Group Management Protocol (IGMP), due to the ONU



heve route function, so we need configure onu wan and lan in onu web or TR069 server,not need configure ONU port in OLT, OLT don't support configure ONU route wan, specific configure way can refer to the previous discrete configuration method and the ONU user manual.

7 Configure OLT QinQ Service

7.1 Data Plan

Main Data Plan List	
Configure Iteam	**Data**
VLAN	**SVLAN 400 :** QinQ service outer vlan **CVLAN 100-200:**QinQ service inner vlan
OLT Port Configure	**Ge8：** VLAN 400 Hybrid mode **PON2：** VLAN 400 Hybrid mode
Bridge ONT Port Configure	**LAN 3：** VLAN 100
Gateway ONT Port Configure	**LAN 3：** VLAN 100

7.2 Configure Processes

7.3 Configure OLT

Create outer vlan：

Oprate **show vlan all** command can query the existing vlan,If the existing vlan does not meet the need, we can use vlan command to create outer vlan.

```
OLT(config)# vlan 400
```

Configure GE port QinQ outer vlan：

```
OLT(config)# interface ge 0/0
OLT(config-interface-ge-0/0)#vlan mode 8 hybrid
OLT(config-interface-ge-0/0)# vlan hybrid 8 tagged 400
OLT(config-interface-ge-0/0)# exit
```

Configure PON port QinQ outer vlan and PON port QinQ：

```
OLT(config)# interface epon 0/0
OLT(config-interface-epon-0/0)#vlan mode 2 hybrid
OLT(config-interface-epon-0/0)#vlan hybrid 2 tagged 400
OLT(config-interface-epon-0/0)# vlan qinq 2 cvlan-range 1000 2000 400
OLT(config-interface-epon-0/0)# exit
```

8 Common Command Description

Command	Description
interface epon 0/0	Enter OLT PON board（Apply to box OLT FD1204S 、 FD1208S 、 FD1216S all default is 0/0）
OLT(config)# interface epon 0/ ***<SlotID>*** Example：OLT(config)# interface epon 0/1 ---Enter slot 1	Enter OLT PON board（apply to Plug-in card OLT FD8000-L116）
interface ge 0/0	Enter OLT uplink(ge) board（In default,box OLT all is 0/0）
show vlan all	View all vlan in OLT
show port vlan ***<Port ID>***	View OLT uplink(ge) and PON port vlan(The premise is we need enter the board card mode.）
show port state ***<Port ID>***	View OLT uplink port and PON port status（The premise is we need enter the board card mode.）
show version	View OLT software version
show device	View OLT mode and other information
show interface mgmt	View OLT outband Manage IP

show interface vlanif brief	View OLT inband Management IP(The premise is we need have vlanif interface)
show current-config	View OLT running configuration
show saved-config	View OLT have saved configuration
show ont info 0/0 ***<Port ID>*** all	View ONU register status in PON port
show ont info 0/0 ***<Port ID> <ONT ID>***	View ONU details information
show ont autofind ***<Port ID>***	View autofind but unregistered ONU in PON port(The premise is we need to enter the PON board mode)
show ont optical-info ***<Port ID> <ONT ID>***	View ONU optical information
show ont port state ***<Port ID> <ONT ID>*** eth ***<ONT Port ID>***	View ONU port status(The premise is we need to enter the PON board mode)

9 Configure Service In OLT Discrete Mode （Non-Template）

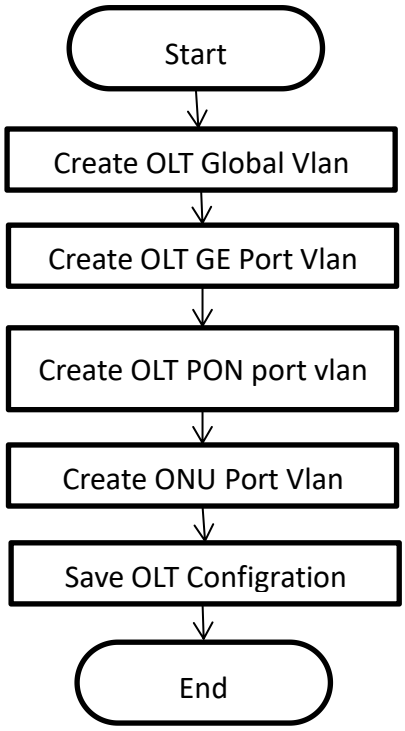
---EMS Method

This section mainly introduct New 4Port/8Port/16Port/Plug-in 16Port OLT internet service and multicast service in discrete mode in FTTH environment.The following will introduce the service configuration way for OLT and ONU according to the bridge ONU(SFU).

9.1 Data Plan

Main Data Plan List	
Configuration Item	**Data**
VLAN Data	**VLAN 110：** Internet Service **VLAN 120：** IPTV Service
OLT Port Setting	**Ge5：** VLAN 110 access mode **Ge6：** VLAN 120 access mode **PON5：** VLAN 110, VLAN 120 trunk mode
ONU Register ID	**Bridge ONU ID：9**
Bridge ONU Port config	**LAN 1：** VLAN 110 **LAN 2：** VLAN 120

9.2 Configuration Guide

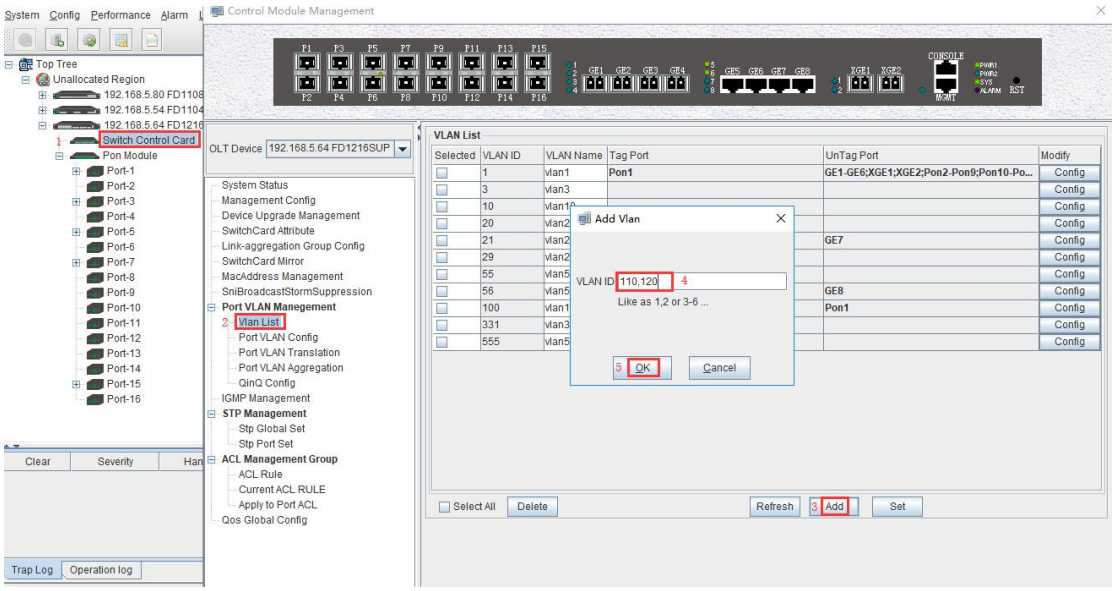


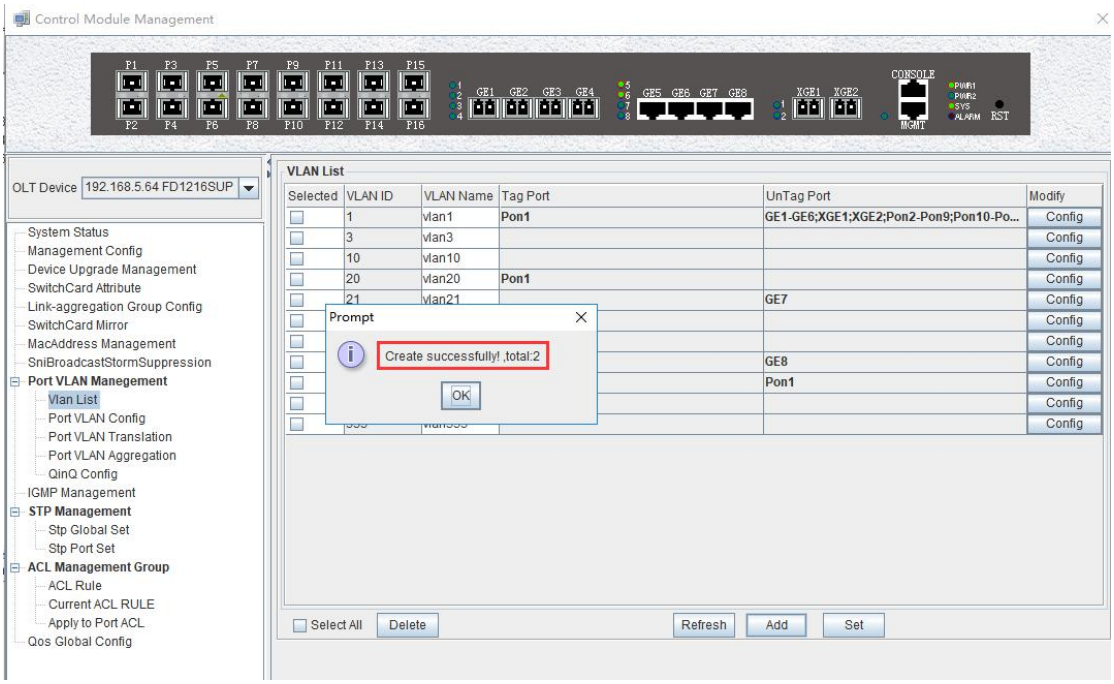
9.3 Configure OLT Service

9.3.1 Configure OLT Global Vlan

Click **"Switch Control Card --> Vlan list"** to query the created Vlan.

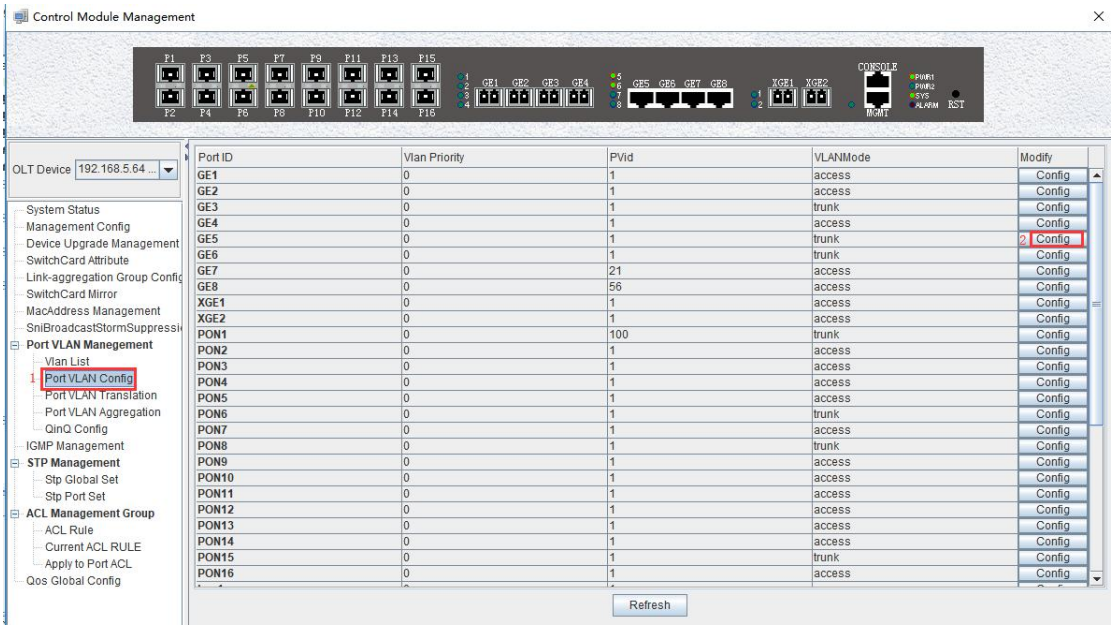
If the created vlan cannot meet the requirements, vlan can be created by clicking the **Vlan List**. According to the data planning, we create vlan110 and vlan120 firstly:

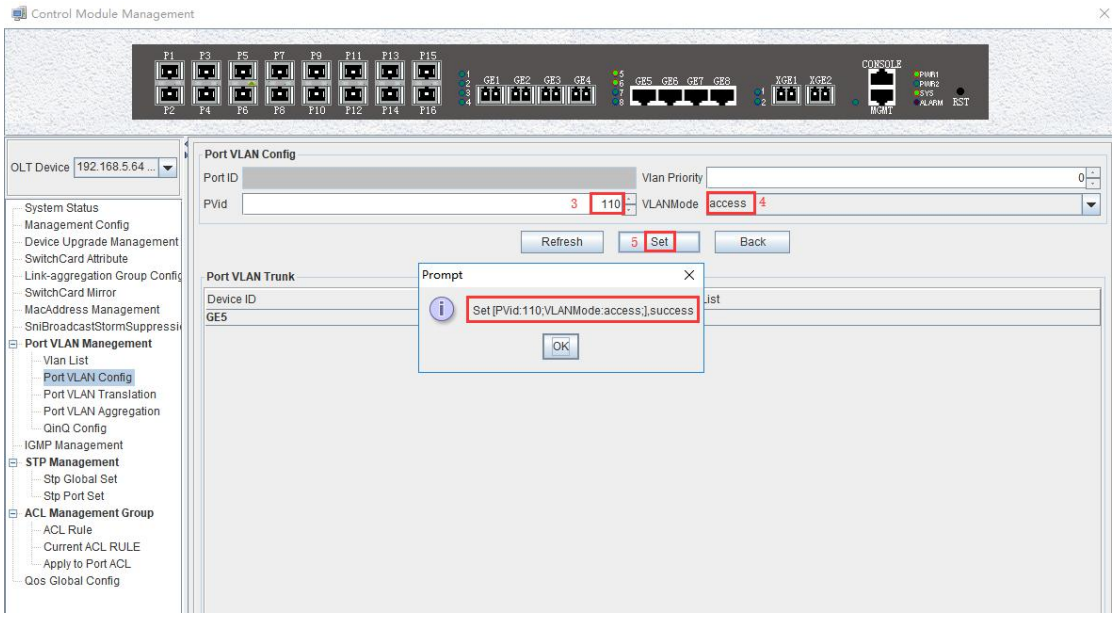




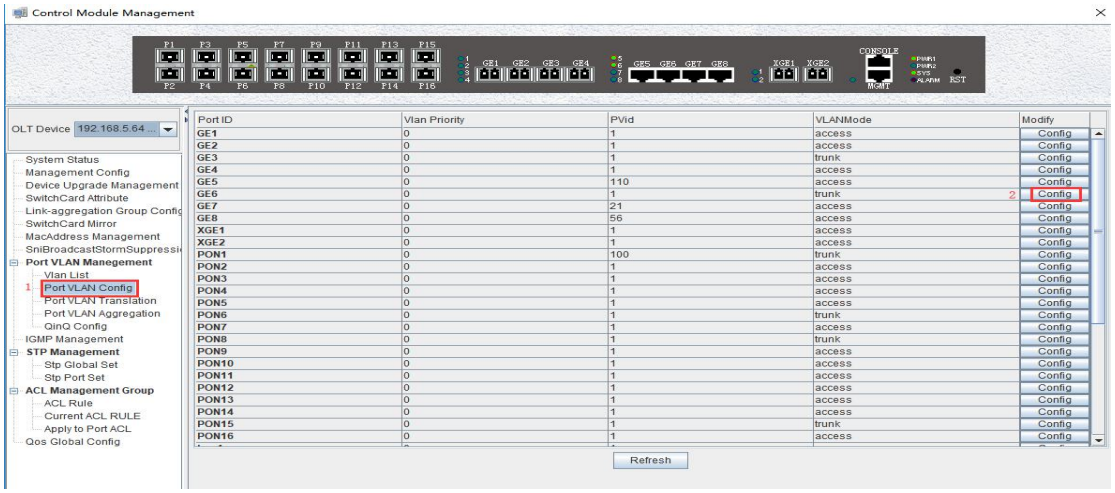
9.3.2 Configure OLT GE Port Service Vlan

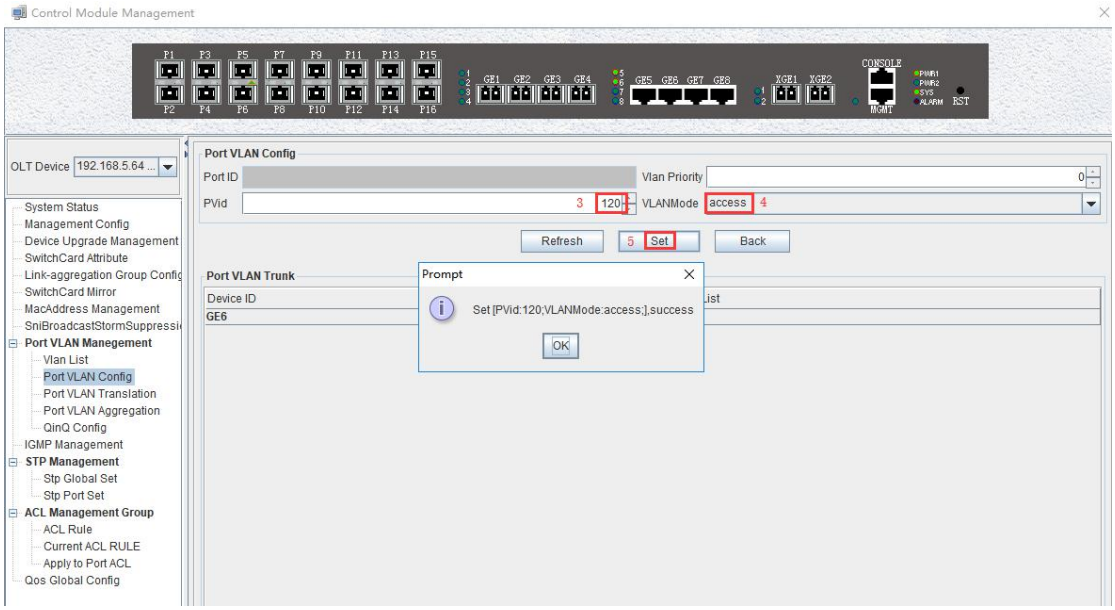
1. Click **“Switch Control Card --> Port VLAN Config”** , and then configure GE 5 port vlan mode is access and add the vlan 110 to the ge5 port :





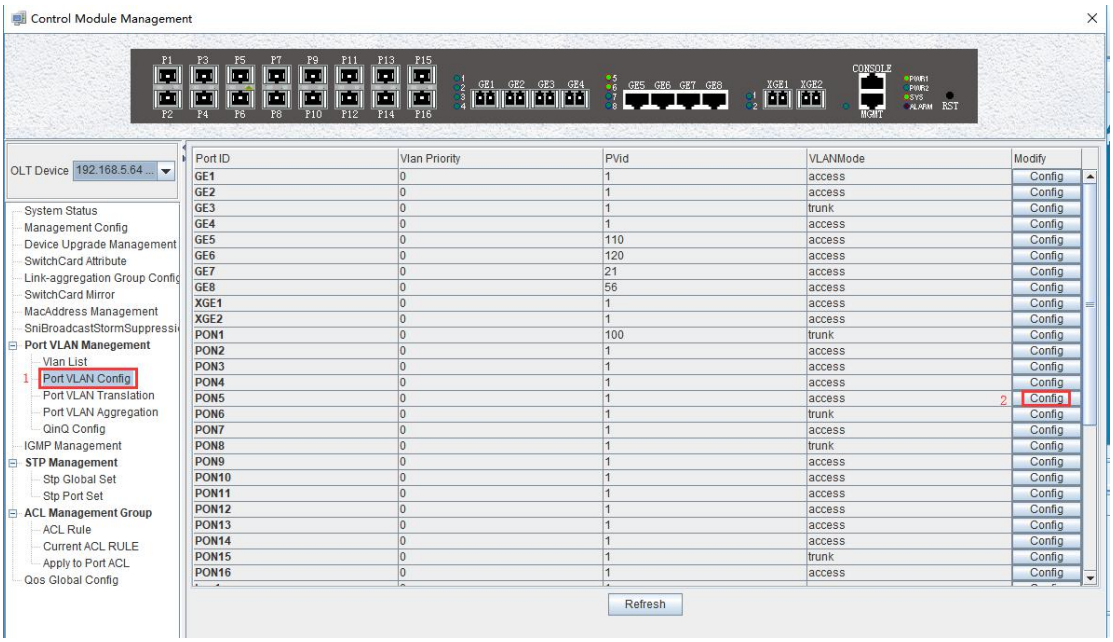
2. Click **“Switch Control Card --> Port VLAN Config”** , and then configure GE 6 port vlan mode is access and add the vlan 120 to the ge6 port :

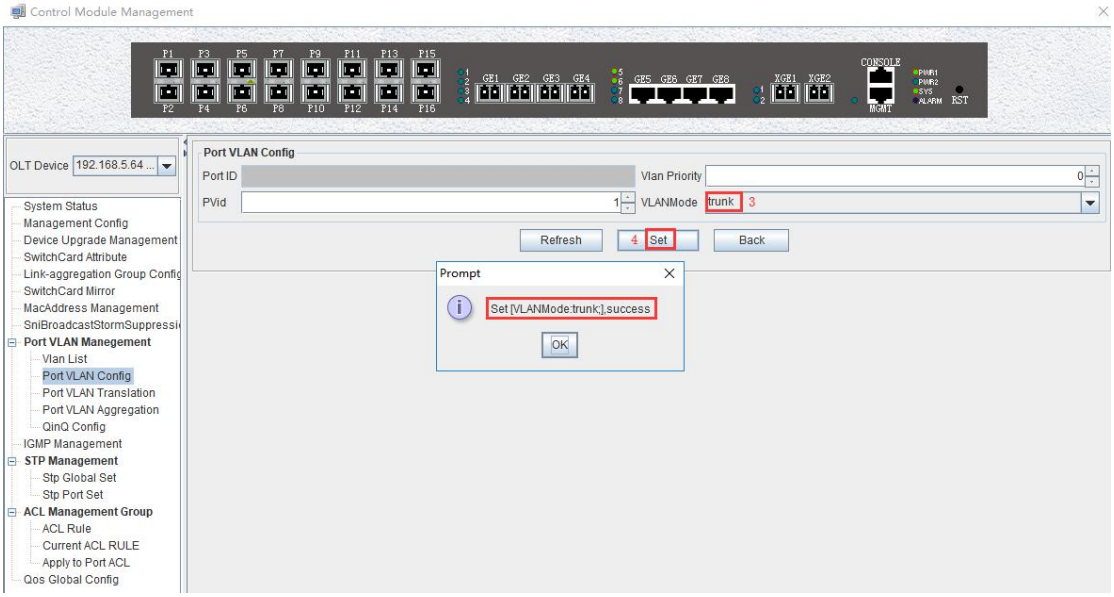




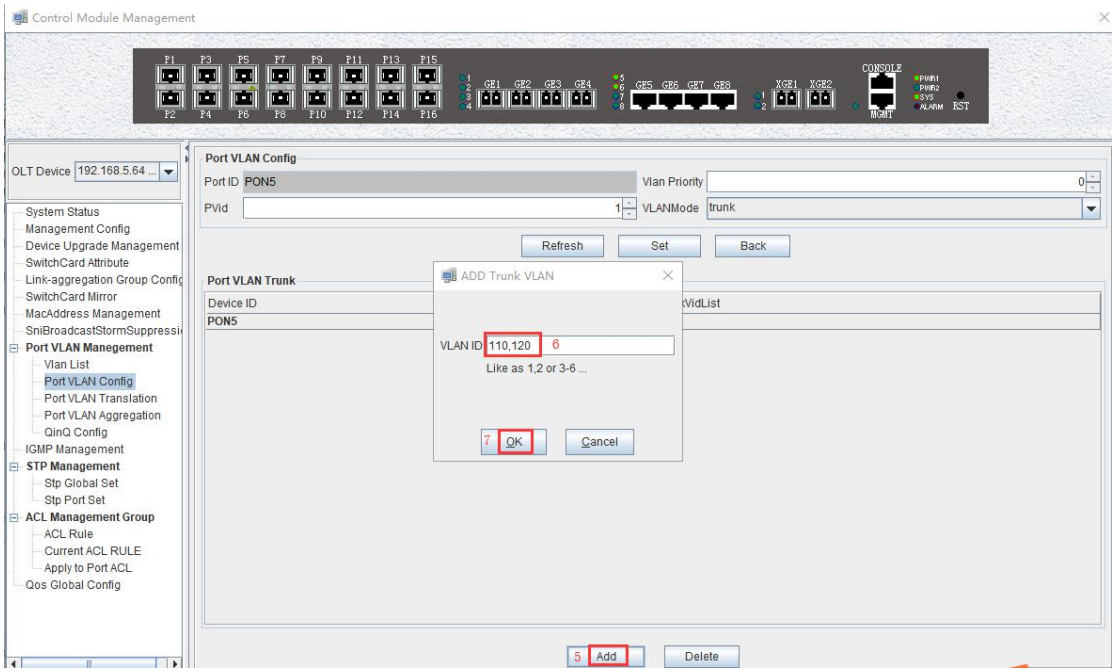
9.3.3 Configure OLT PON Port Service Vlan

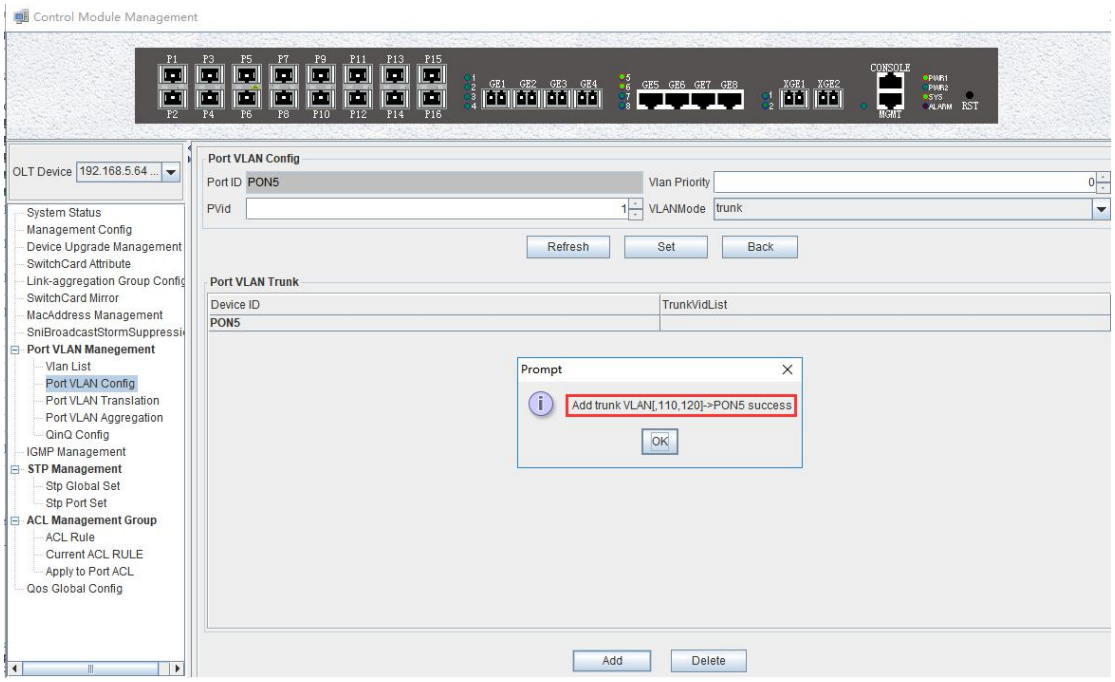
1. Click **“Switch Control Card --> Port VLAN Config --> Config”** , and then config PON5 port vlan mode is trunk:





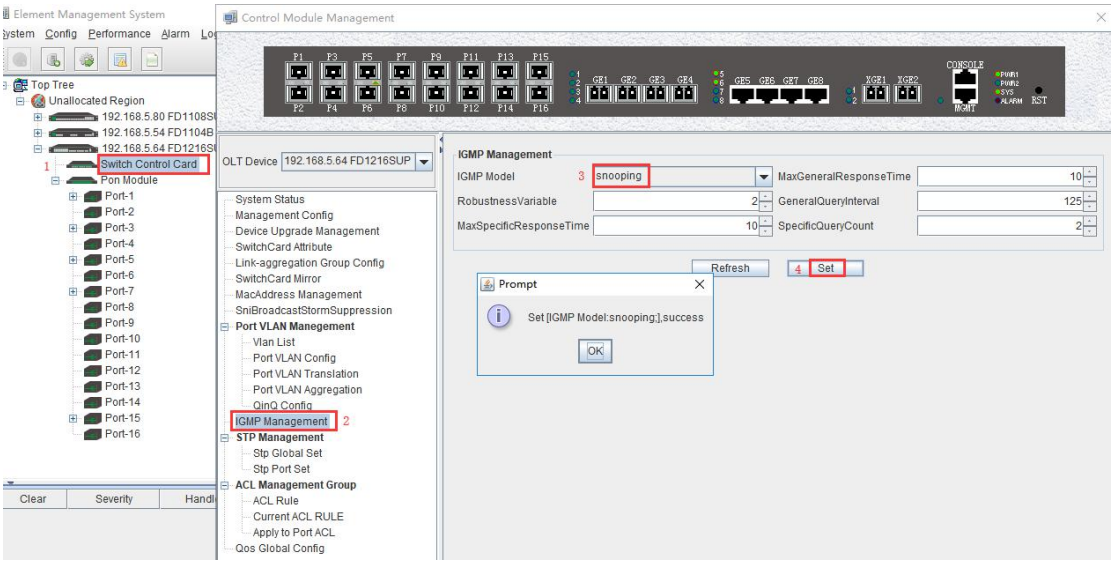
2. Click **“Switch Control Card --> Port VLAN Config --> Config -->Add**” , and then add the vlan 110 and vlan 120 to pon 5 port:



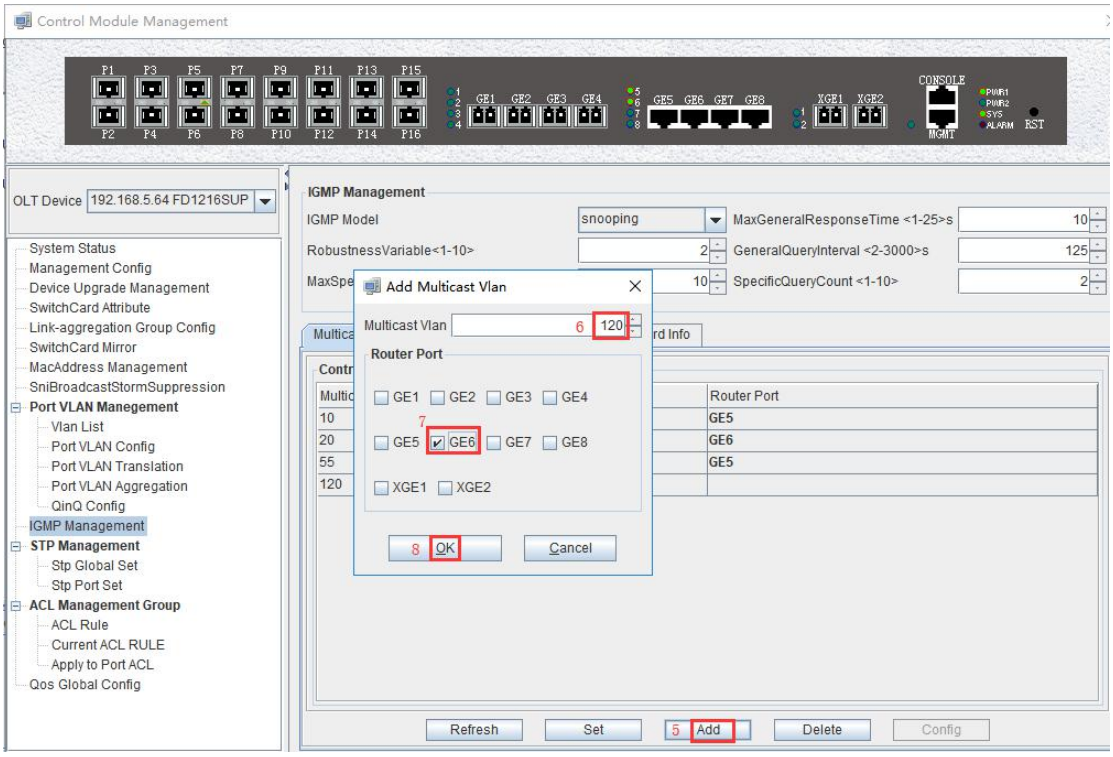


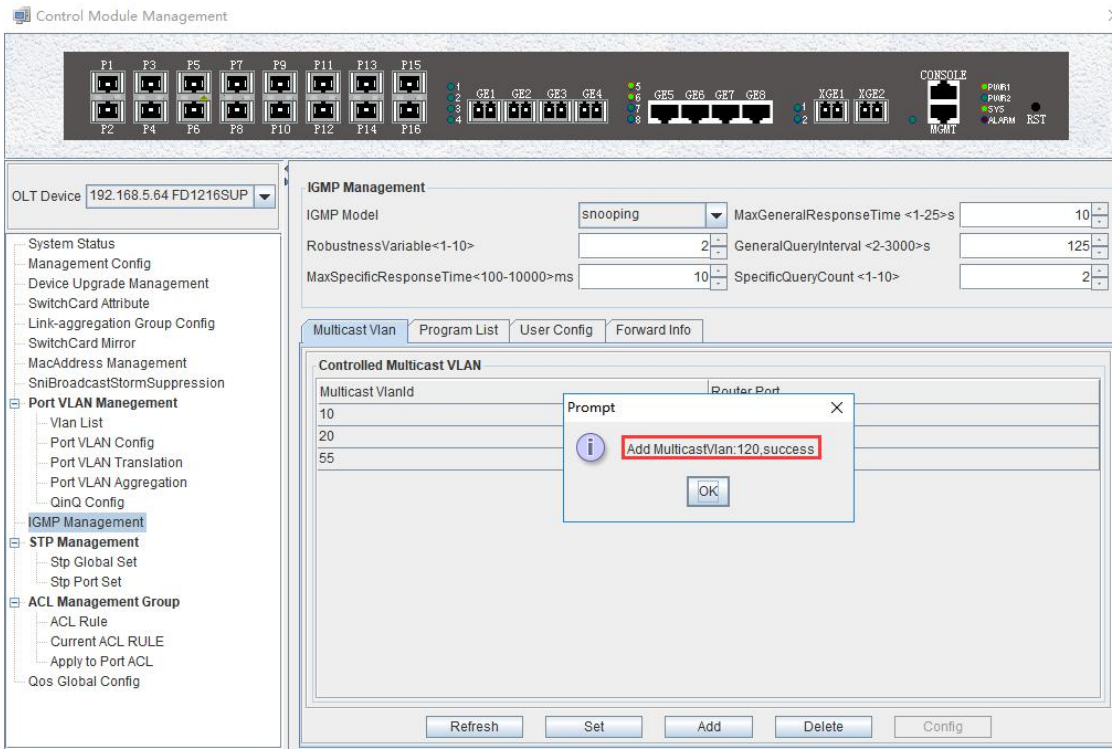
9.3.4 Configure OLT Multicast Service

1. Click **“Switch Control Card --> IGMP Management”** , and then configure IGMP mode is snooping:

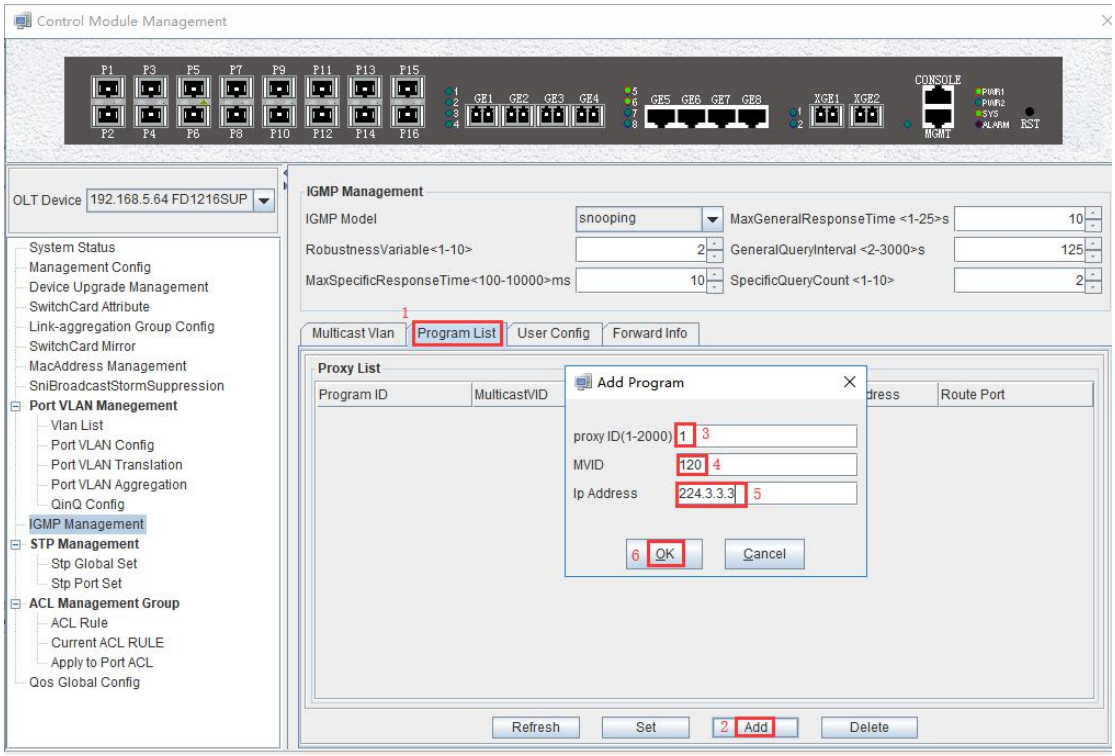


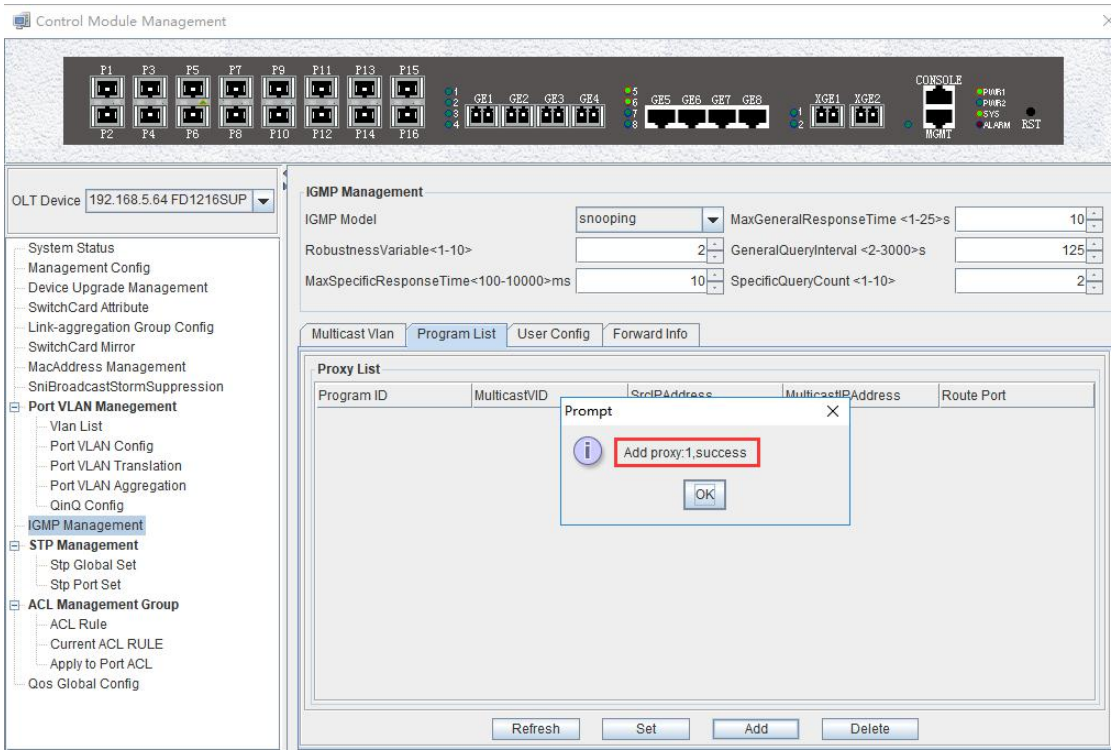
2. Click **“Switch Control Card --> IGMP Management -->Add”** , and then configure IGMP router port is GE6 and multicast vlan is 120:





3. Click **“Switch Control Card --> IGMP Management -->Program List”**, and then configure IGMP program id is 1 ,multicast vlan is 120 and multicast address is 224.3.3.3:





9.4 Configure Bridge ONU(SFU) Service

In OLT discrete mode,we need enter OLT to config ONU one by one,config way as follows:

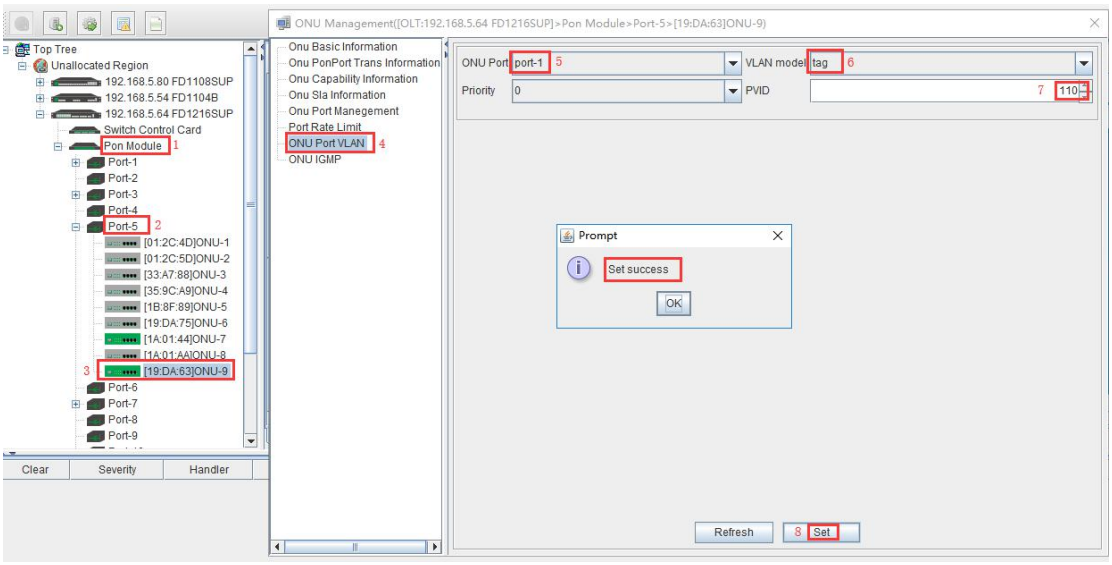
9.4.1 Configure Bridge Onu(SFU) Internet Service

Premise condition of ONU to open internet service:

- OLT connect to uplink device and open internet service
- OLT have created vlan for internet service
- OLT have configured GE port vlan
- OLT have configured PON port vlan
- ONU have registered

SFU ethernet port vlan mode have transparent,tag(access),trunk mode and so on,we can according to our network plan configure different mode.all onu vlan is configured by OLT,configure way as follows:

1. Click “Pon Module --> Port-5 --> ONU ID9 --> ONU Port VLAN” , and then configure ONU9 eth1 vlan mode is tag(access):



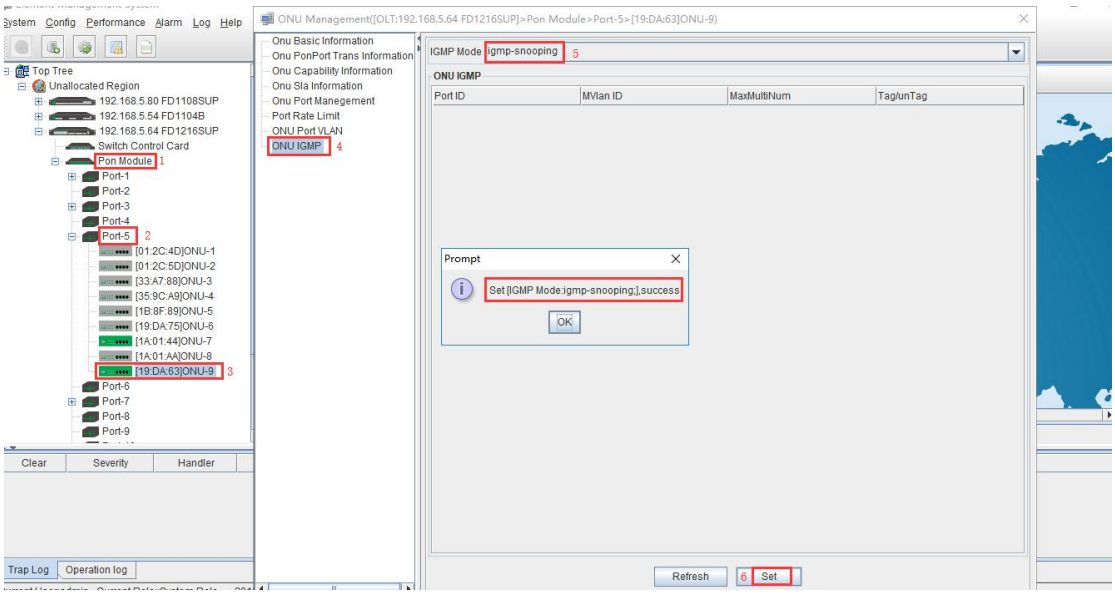
9.4.2 Configure Bridge Onu(SFU) Multicast Service

Premise Condition

- OLT connect to uplink device and open service
- OLT have created vlan for multicast service
- OLT have configured GE port vlan
- OLT have configured PON port vlan
- ONU have registered

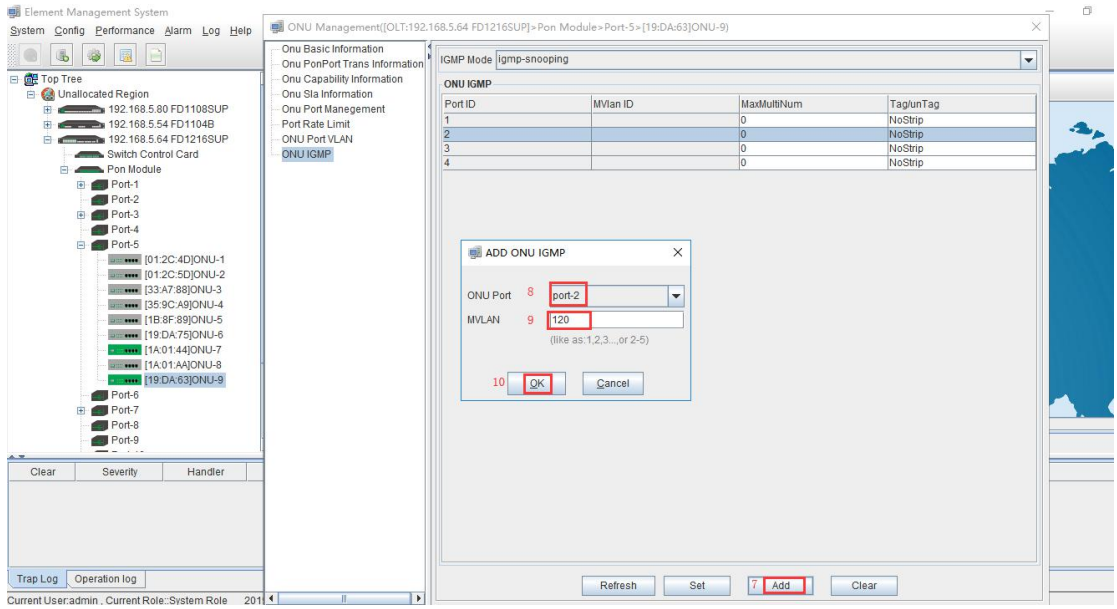
In OLT discrete mode,we need enter OLT to config ONU multicast service,configure way as follows:

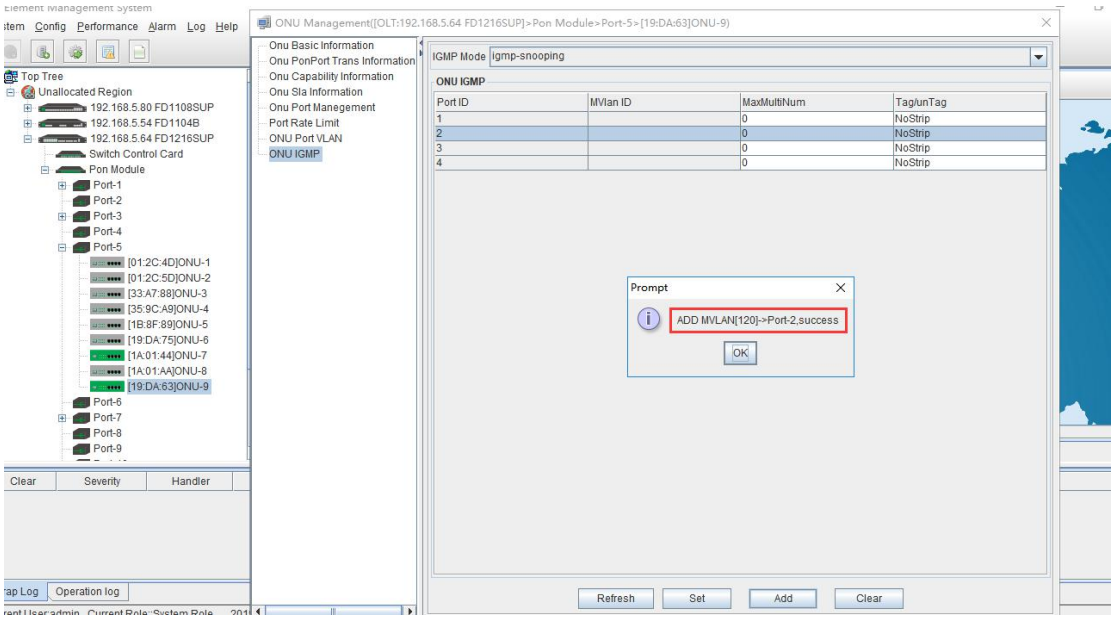
1. Click **“Pon Module --> Port-5 --> ONU ID 9 --> ONU IGMP”** , and then config ONU9 multicast vlan mode is snooping:



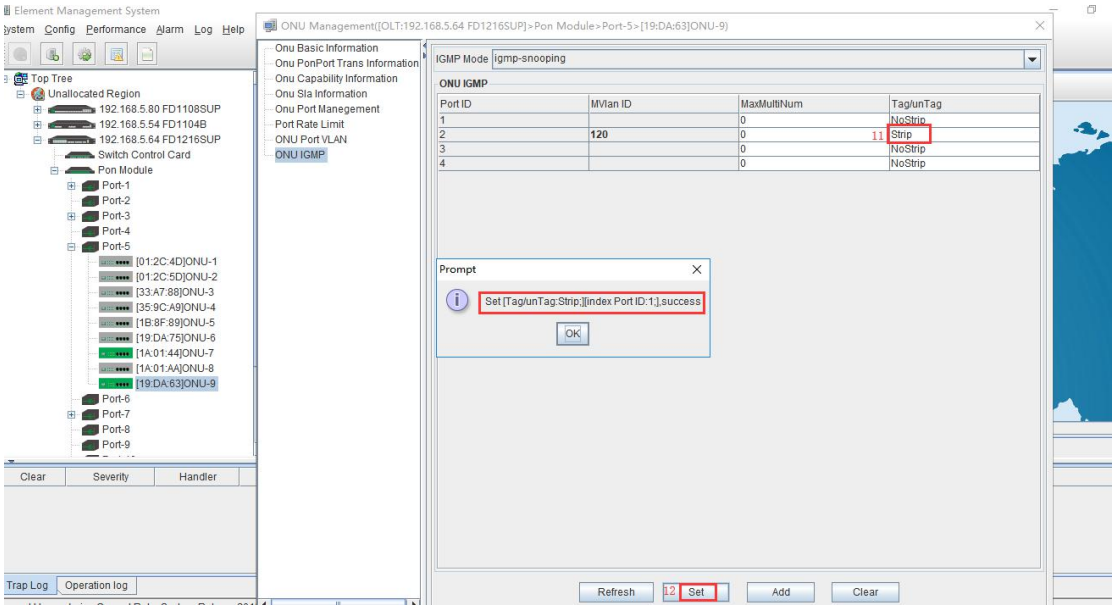
2. Click **“Pon Module --> Port-5 --> ONU ID 9 --> ONU IGMP -->Add”**, and then config ONU9 eth2

vlan is 120:





3. Click **“Pon Module --> Port-5 --> ONU ID 9 --> ONU IGMP -->Set”** , and then config multicast vlan mode is strip:



10 Configure Service In OLT Discrete Mode（Non-Template）

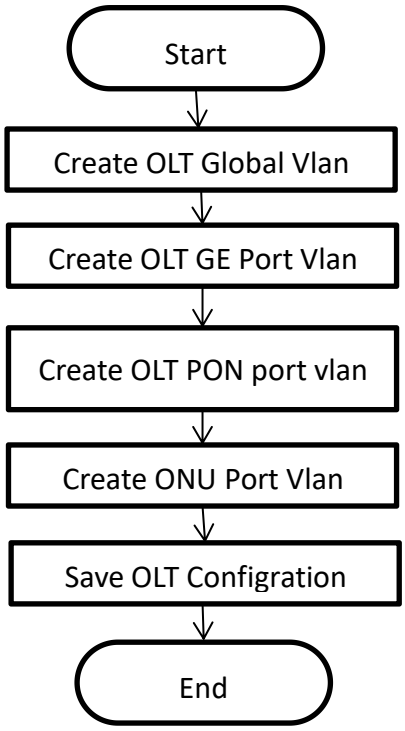
---WEB Method

This section mainly introduct New 4Port/8Port/16Port/Plug-in 16Port OLT internet service and multicast service in discrete mode in FTTH environment.The following will introduce the service configuration way for OLT and ONU according to the bridge ONU(SFU).

10.1 Data Plan

Main Data Plan List	
Configuration Item	**Data**
VLAN Data	**VLAN 110：** Internet Service **VLAN 120：** IPTV Service
OLT Port Setting	**Ge5：** VLAN 110 access mode **Ge6：** VLAN 120 access mode **PON5：** VLAN 110, VLAN 120 trunk mode
ONU Register ID	**Bridge ONU ID：9**
Bridge ONU Port config	**LAN 1：** VLAN 110 **LAN 2：** VLAN 120

10.2 Configuration Guide

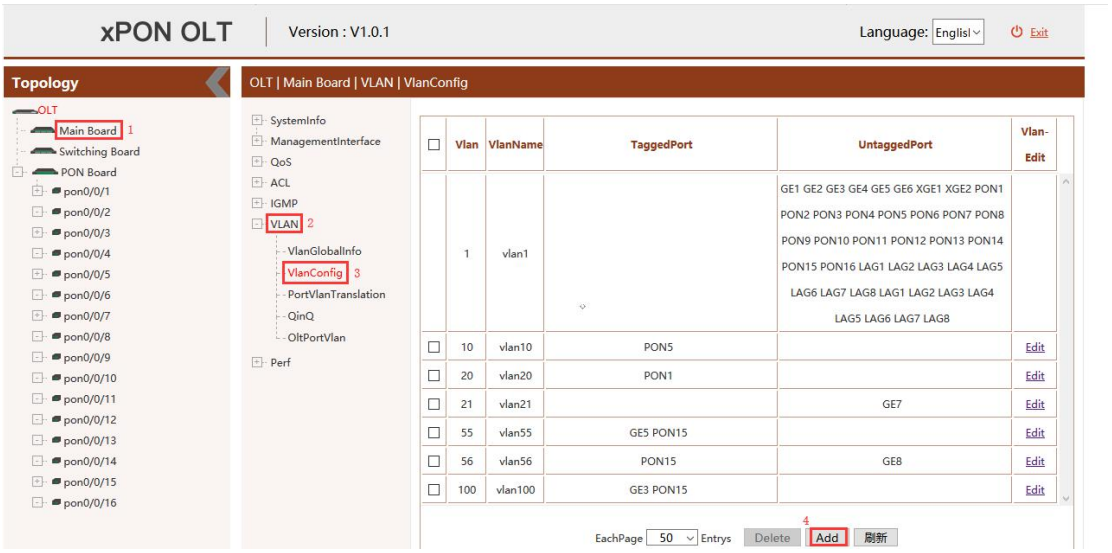


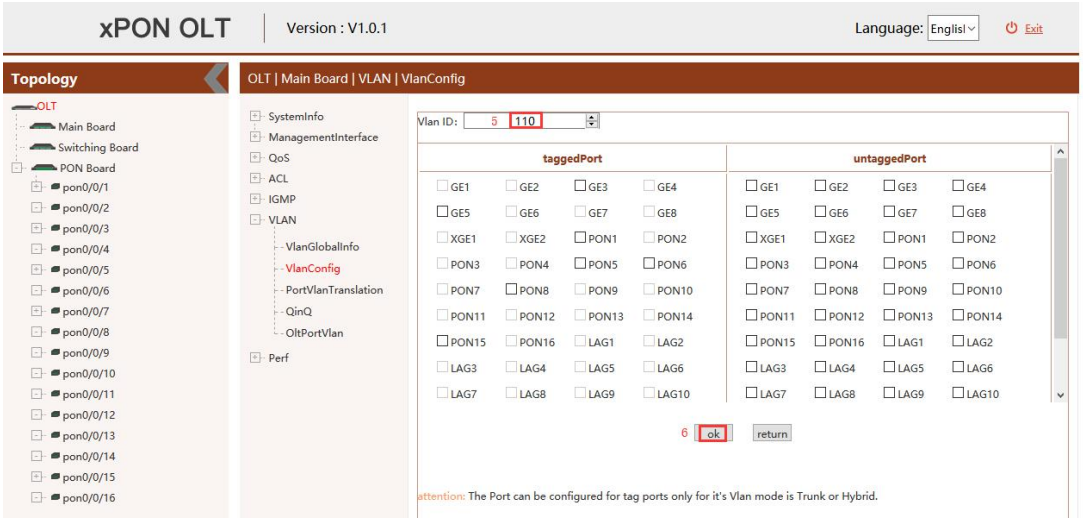
10.3 Configure OLT Service

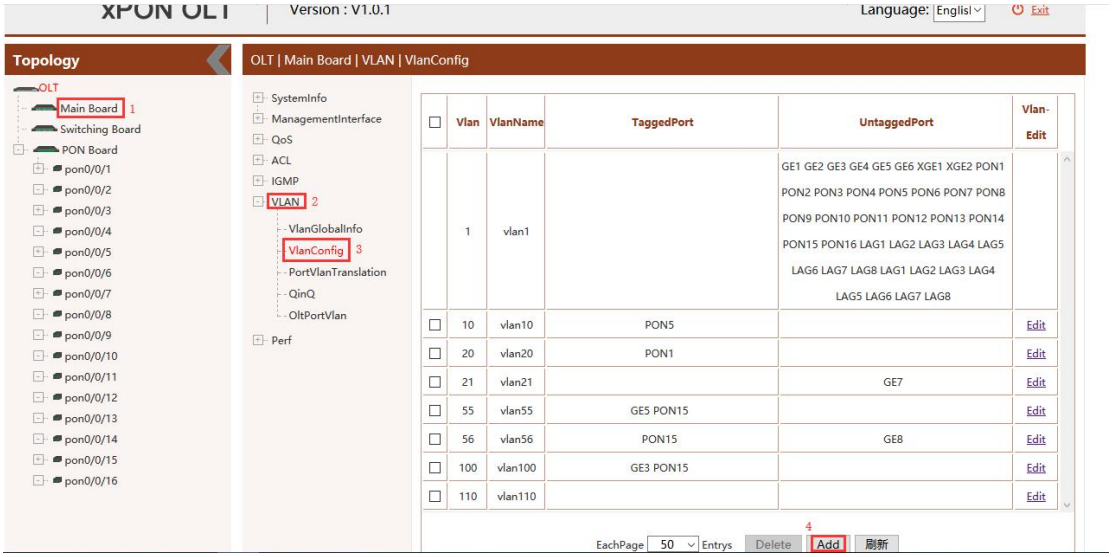
10.3.1 Configure OLT Global Vlan

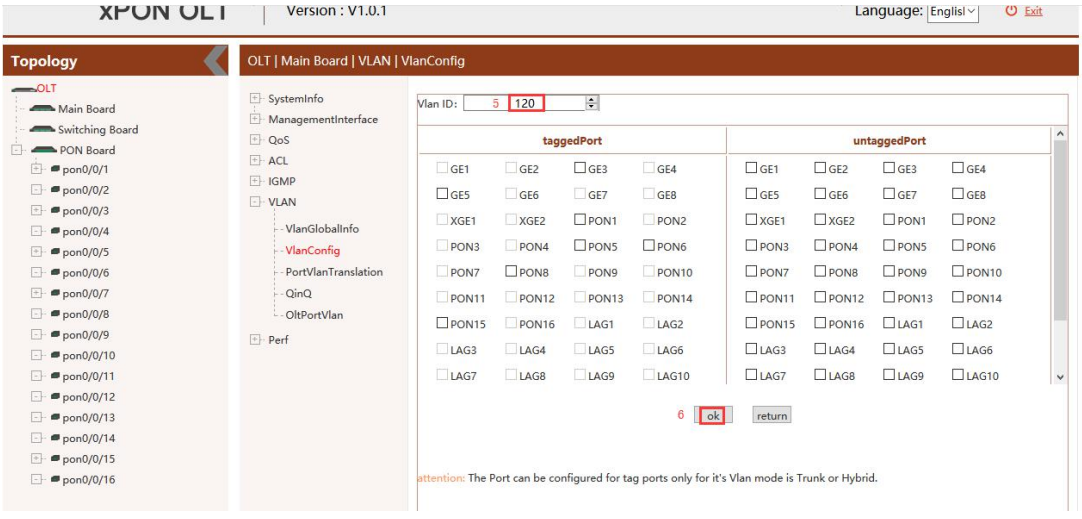
Click the **"Main Board --> Vlan-->Vlan Config"** to query the created Vlan.

If the created vlan cannot meet the requirements, vlan can be created by clicking the **"VLAN --> Vlan Config ".** According to the data planning, we create vlan110 and vlan120 firstly:



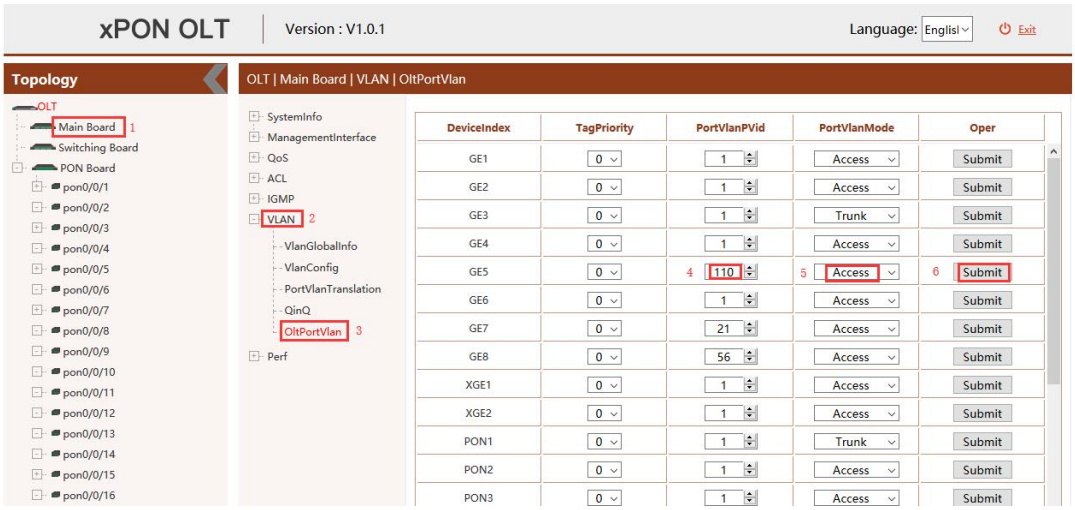




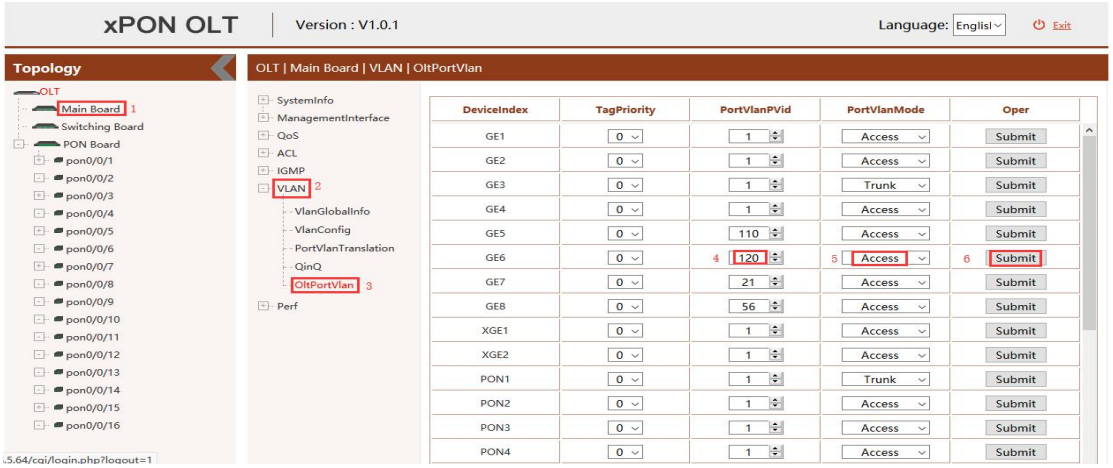


10.3.2 Configure OLT GE Port Service Vlan

1. Click **“Main Board --> VLAN --> OLT Port Vlan”** ,and then config GE 5 port vlan mode is access, vlan id is 110 :

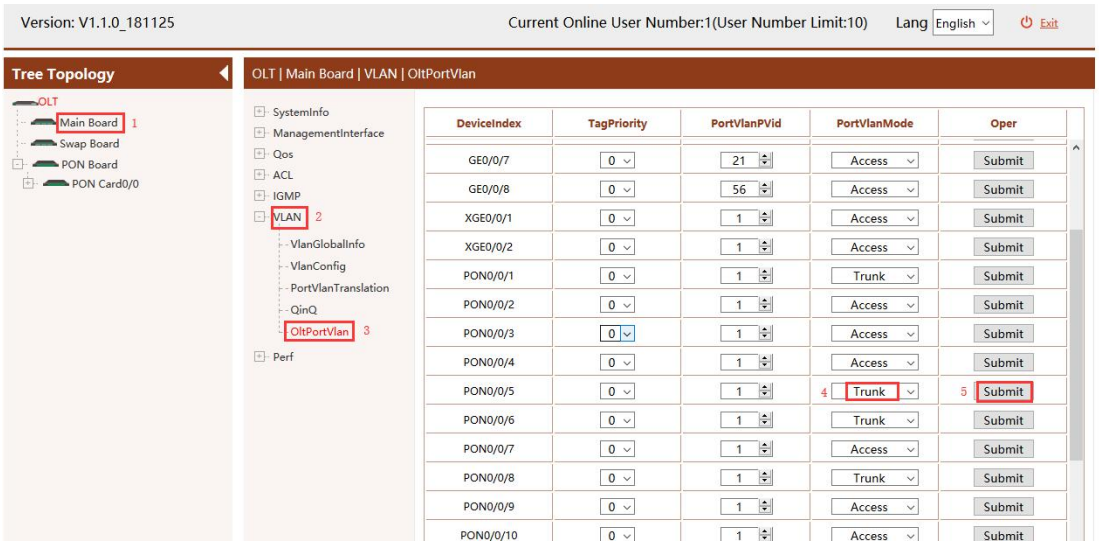


2. Click **“Main Board--> VLAN --> OLT Port Vlan”** ,and config GE 6 port vlan mode is access, vlan id is 120 :

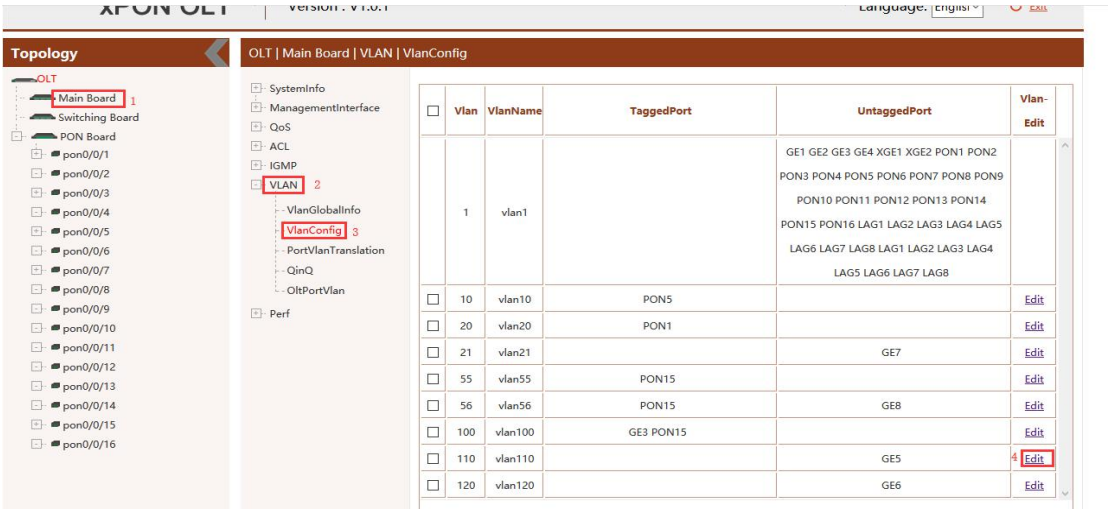


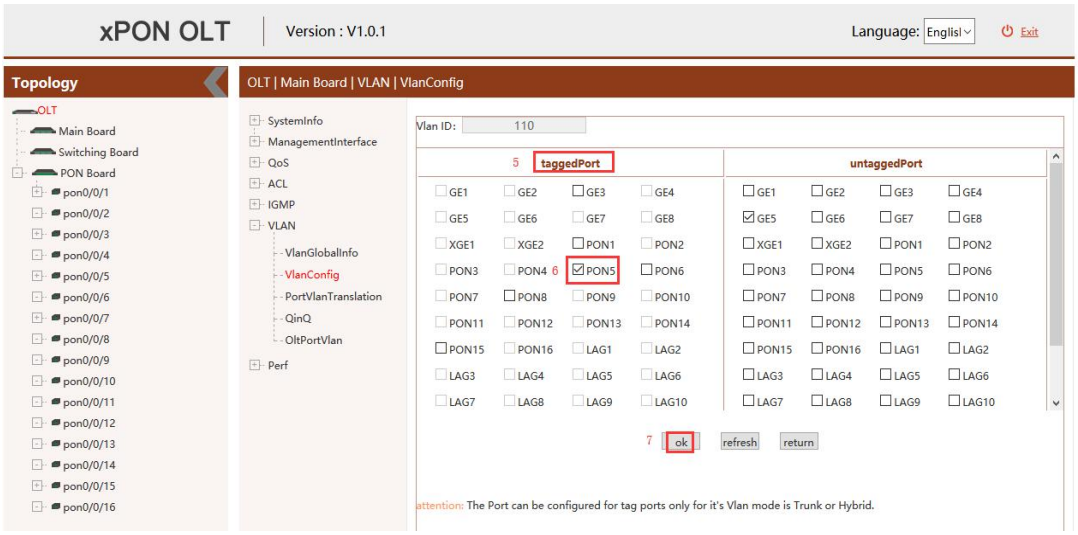
10.3.3 Configure OLT PON Port Service Vlan

1. Click **“Main Board --> VLAN --> OLT Port Vlan”** , and then Config PON5 port vlan mode is trunk:

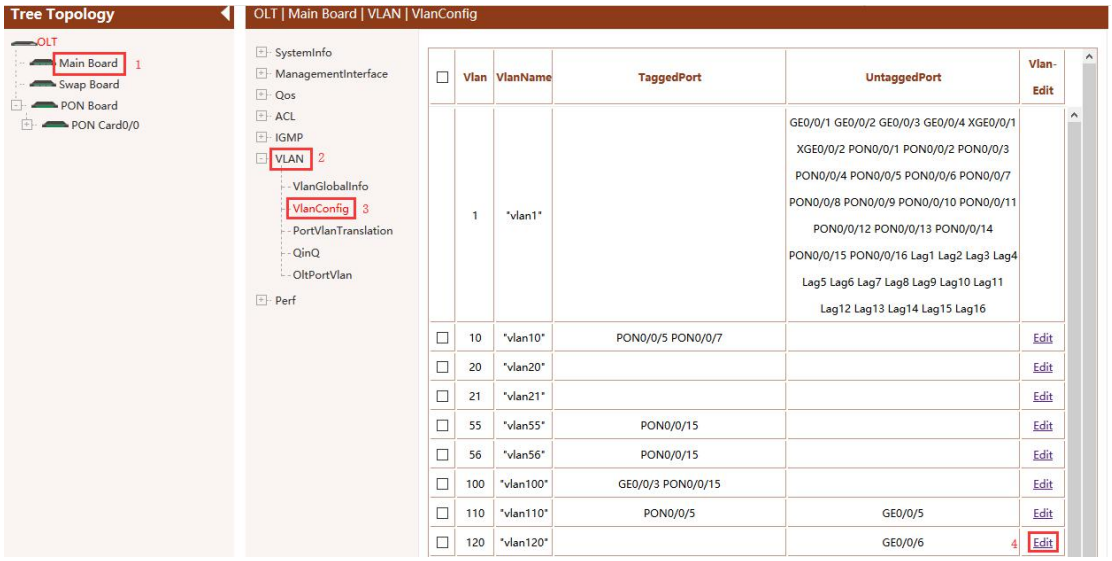


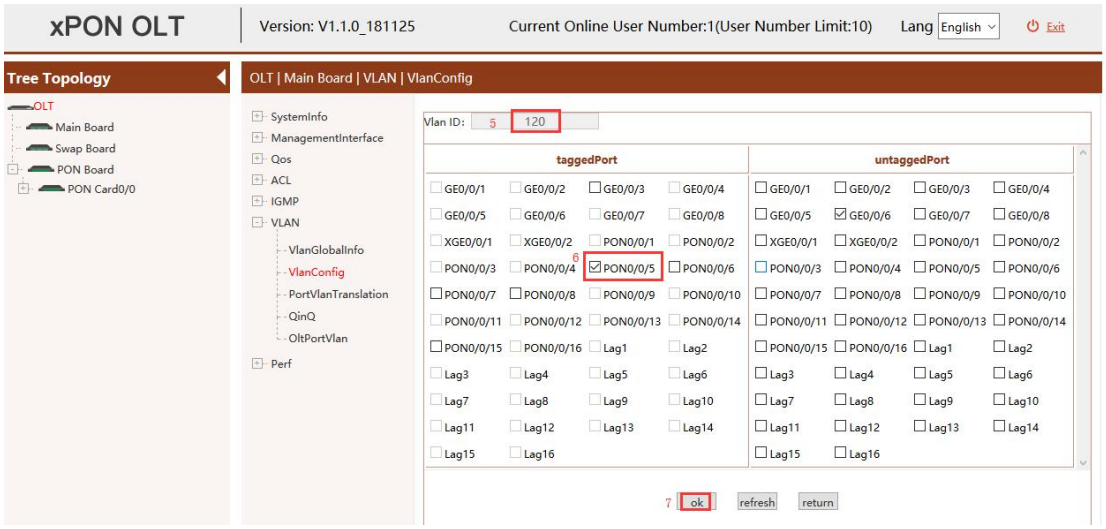
2. Click **“Main Board--> VLAN--> OLT Port Vlan--> (vlan110)Edit”** ,and then add tag vlan 110 to pon 5:





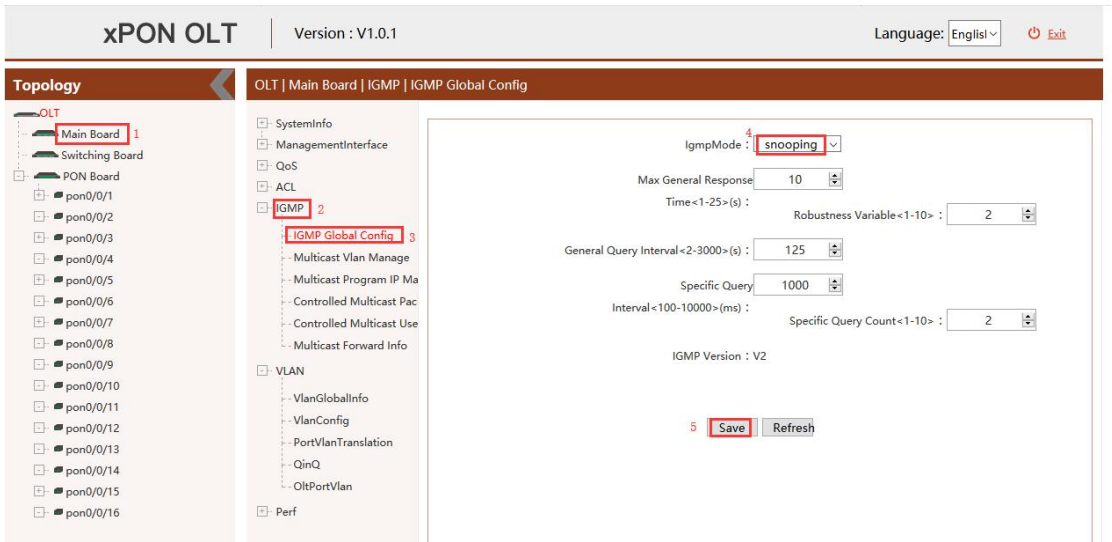
3. Click **“Main Board--> VLAN--> OLT Port Vlan--> (vlan120)Edit”** ,and then add tag vlan 120 to pon 5:



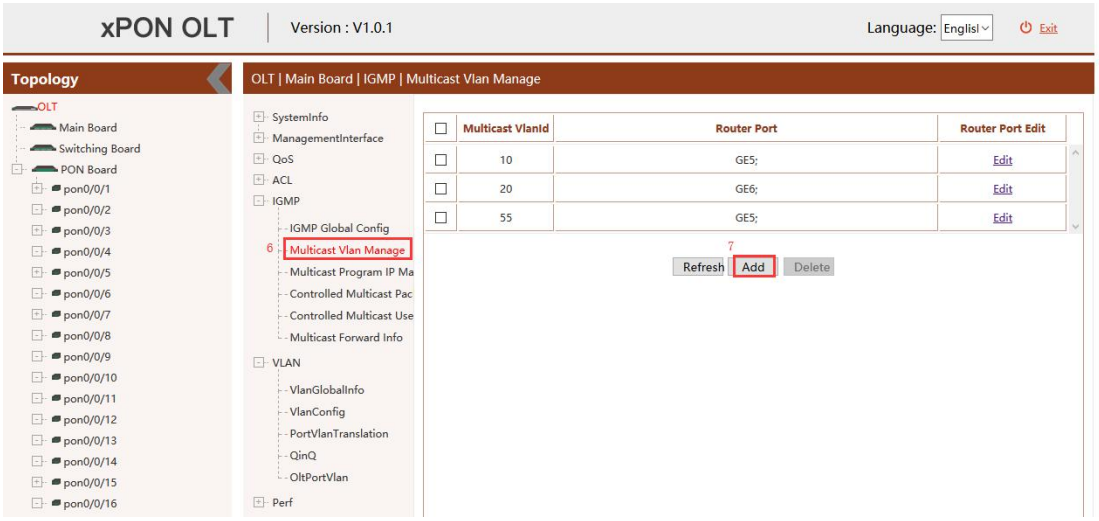


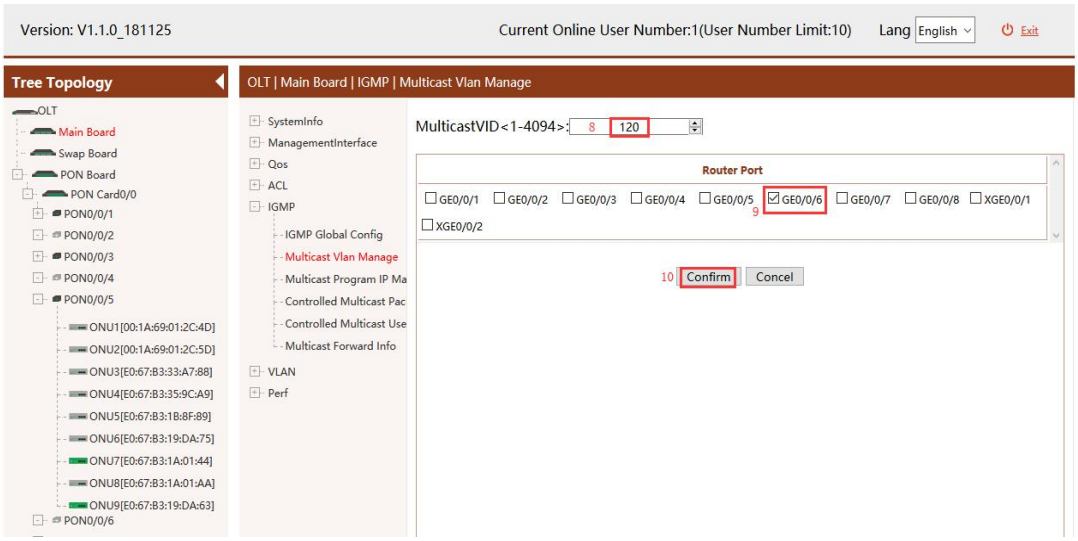
10.3.4 Configure OLT Multicast Service

1. Click **“Main Board --> IGMP --> IGMP Global Config”** ,and then config IGMP mode is snooping:

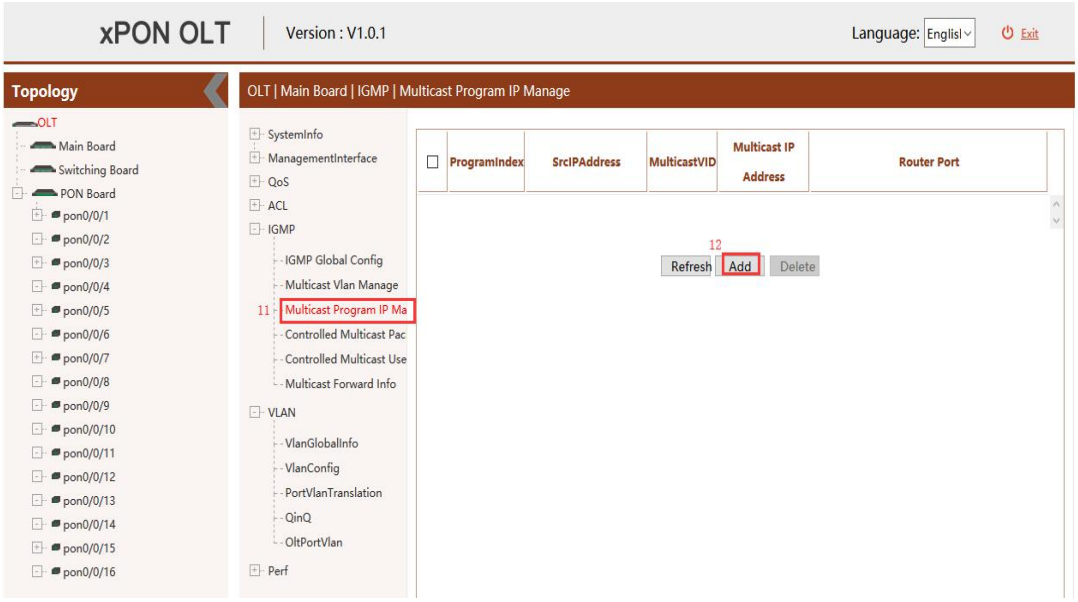


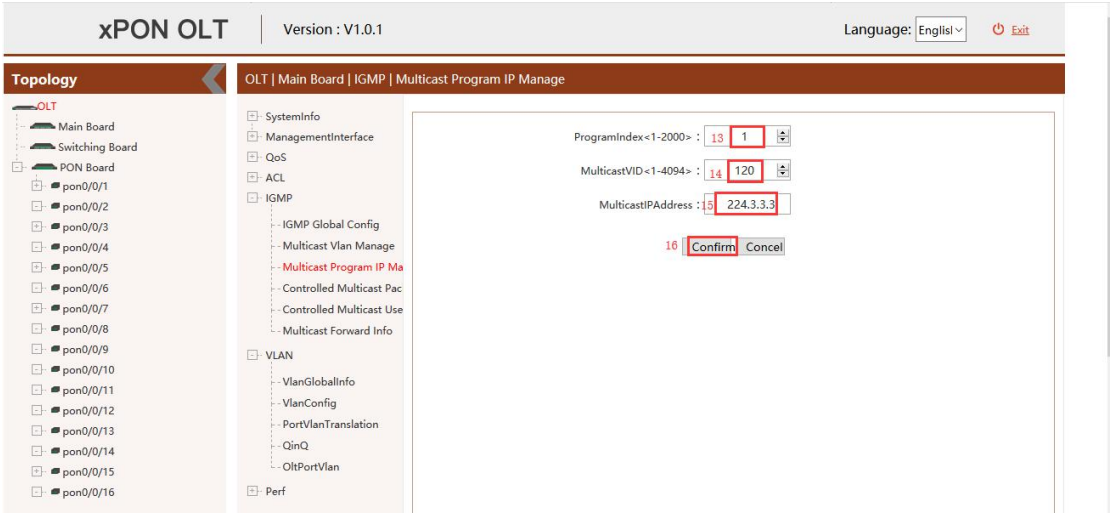
2. Click **“Main Board --> IGMP --> Multicast Vlan Manage --> Add”** ,and then config multicast-vlan is 120 and IGMP route port is ge6 :





3. Click **“Main Board --> IGMP --> Multicast Program IP Manage --> Add”** ,and then config program id is 1 , multicast-vlan is 120 and program ip is 224.3.3.3 :





10.4 Configure Bridge ONU(SFU) Service

In OLT discrete mode,we need enter OLT to config ONU one by one,config way as follows:

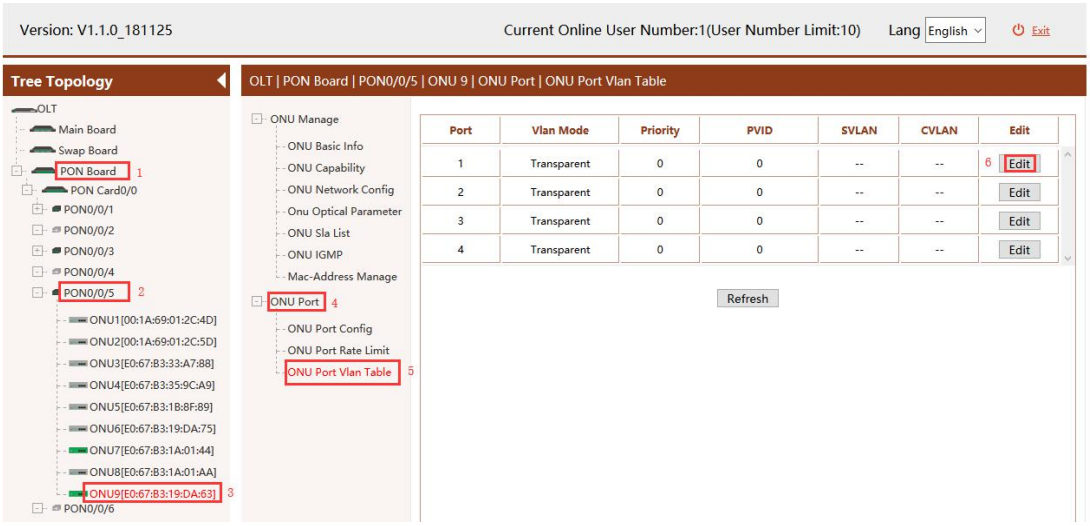
10.4.1 Configure Bridge Onu(SFU) Internet Service

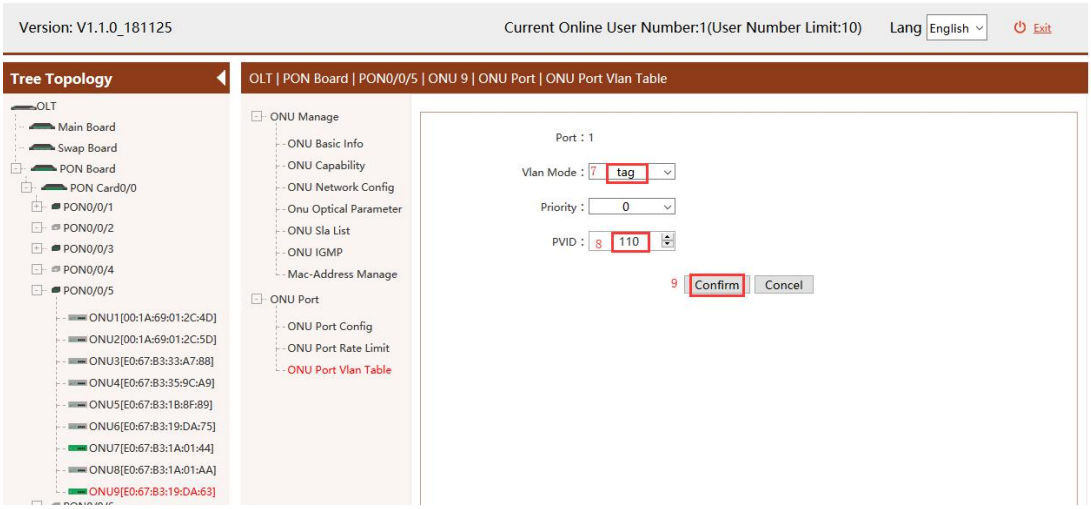
Premise condition of ONU to open internet service:

- OLT connect to uplink device and open internet service
- OLT have created vlan for internet service
- OLT have configured GE port vlan
- OLT have configured PON port vlan
- ONU have registered

SFU ethernet port vlan mode have transparent,tag(access),trunk mode and so on,we can according to our network plan configure different mode.all onu vlan is configured by OLT,configure way as follows:

1. Click **“PON Control --> PON0/0/5 --> ONU ID 9 --> ONU port --> ONU Port Vlan Table --> Edit”**, Config ONU9 eth1 vlan mode is tag(access):





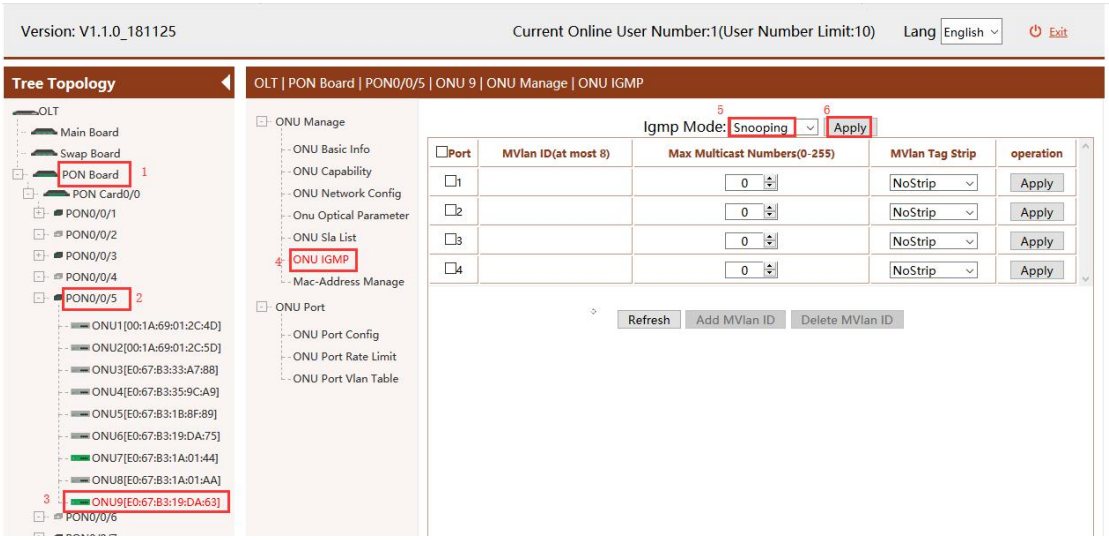
10.4.2 Configure Bridge Onu(SFU) Multicast Service

Premise Condition

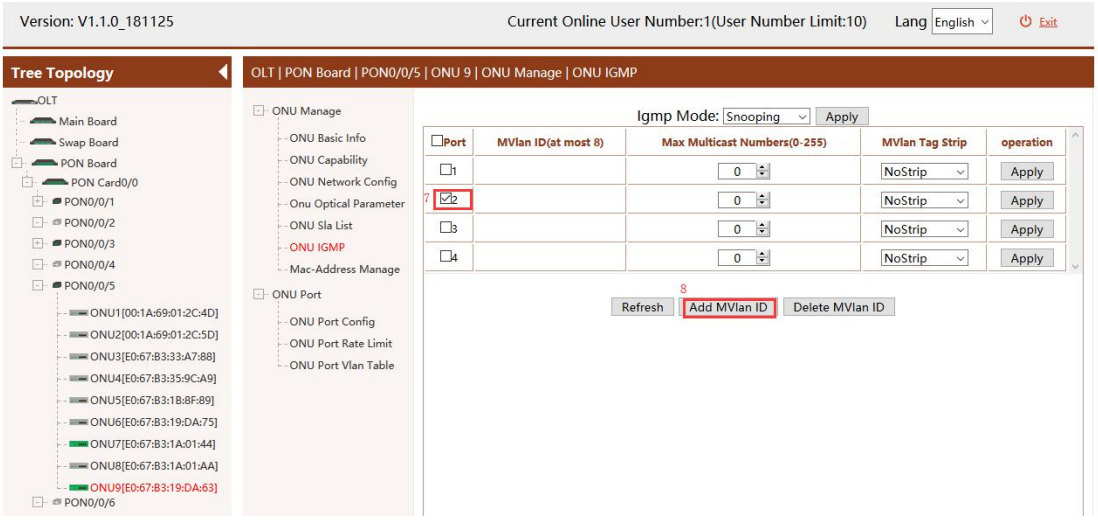
- OLT connect to uplink device and open service
- OLT have created vlan for multicast service
- OLT have configured GE port vlan
- OLT have configured PON port vlan
- ONU have registered

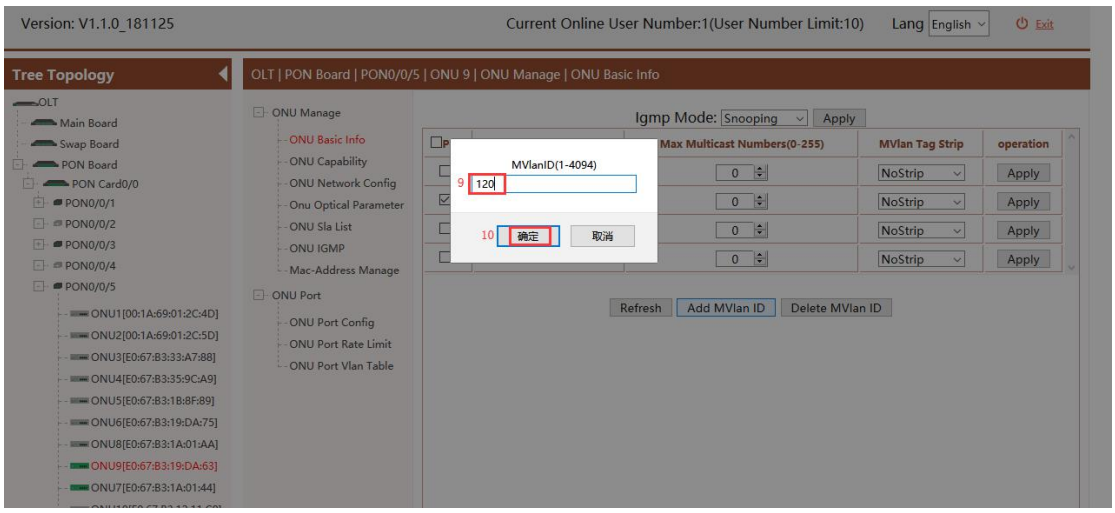
In OLT discrete mode,we need enter OLT to config ONU multicast service,configure way as follows:

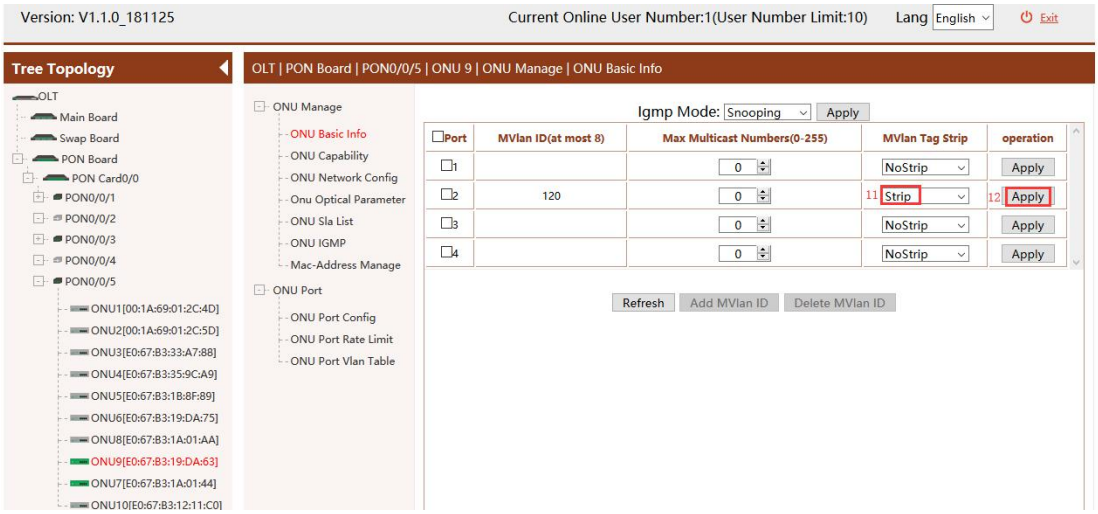
1. Click **“PON Control --> PON0/0/5 --> ONU ID 9 --> ONU IGMP”**, Configure ONU9 multicast vlan mode is snooping:



2. Click **“PON Control --> PON0/0/5 --> ONU ID 9 --> ONU IGMP --> Add Mvlan ID”**, Configure ONU9 eth2 vlan is 120, and multicast vlan mode is untag:







Concluding Remarks

Thanks for using products of Shenzhen C-Data Technology Co. Ltd.

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