

# **XG(S)-PON Combo OLT Overview of deployment configuration**

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## 1.1 Software and Hardware Information

### 1.1.1 OLT Software and Hardware Information

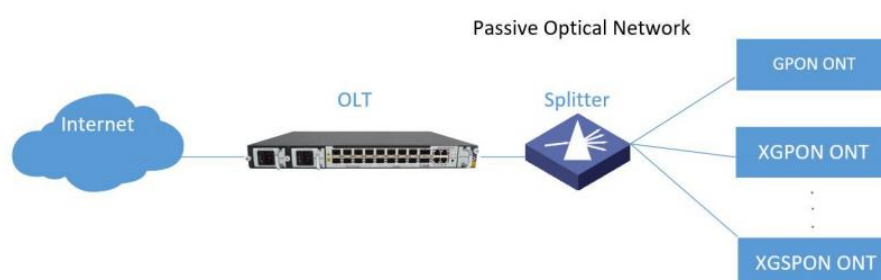
Equipment model	Equipment introduction	Version
GP5810-08P	8*XG(S)-PON/GPON port, 8*10GE/GE SFP + 2*100G QSFP28	V1.05.B05

### 1.1.2 ONU Software and Hardware Information

Equipment model	Equipment introduction	Version
GN2000-04GS-2VW / (GPON ont)	4*GE, 2*POTS, WIFI	R4.2.56.022
FC8141X/(XGPON ont)	4*GE, 2*POTS, WIFI	V1.0.5
HX8141C/(XGSPON ont)	4*GE, 2*POTS, WIFI	V1.0.5

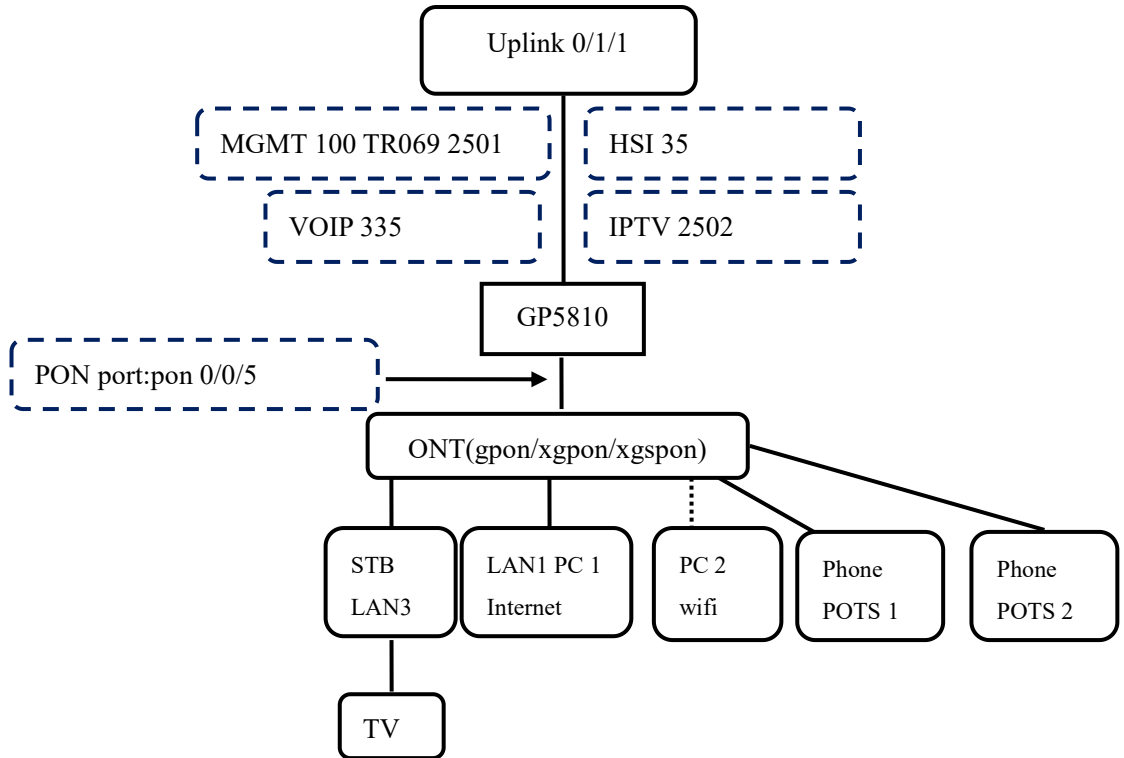
## 1.2 Application scenarios

### 1.2.1 Network diagram



### 1.2.2 Data Planning

The business model is shown below:



The data plan is shown in the following table:

OLT uplink port	0/1/1
OLT GPON port	0/0/1
OLT ONU SN	
<b>Configuration item</b>	<b>HSI</b>
ONU lan	LAN 1、 wifi
VLAN ID	35
Priority	0
TCONT	Broadband Internet service usage TCONT 1, DBA type 4 1000M
GEM Port	Broadband Internet service usage GEM Port 1
WAN	Mode: Router IP: PPPoE PPPoE account: h004_ftth_doitdvtq24/ 7in0nV
<b>Configuration item</b>	<b>IPTV</b>
ONU lan	LAN 2
VLAN ID	2502
Priority	0
TCONT	IPTV Service usage TCONT 2, DBA type 2 10M
GEM Port	IPTV Service usage GEM Port 2
WAN	Mode: Bridge
<b>Configuration item</b>	<b>Voice (SIP)</b>

ONU lan	pots_0/1 pots_0/2
VLAN ID	335
Priority	0
TCONT	Voice service usage TCONT 3, DBA type 1 10 M
GEM Port	Voice service usage GEM Port 3
SIP server IP	10.116.255.100 Port : 5060
WAN	Mode : Router IP: DHCP
POTS 1	AOR: 422258964 Username: 422258964 Password: 123456 Port : 5060
POTS2	AOR: 422258965 Username: 422258965 Password: 123456 Port : 5060
<b>Configuration item</b>	<b>TR069</b>
VLAN ID	2501
Priority	0
TCONT	TR069 Service usage TCONT 4, DBA type 4 50M
GEM Port	TR069 Service usage GEM Port 4
WAN	Mode: Router IP: DHCP
ACS URL:	http://10.30.185.38:8885/acs

## 1.3 Data Configuration

### 1.3.1 Global configuration

#### 1.3.1.1 Creating a VLAN

```
[XGPON]vlan 100,35,335,2501,2502
```

To view the created vlan:

```
[XGPON]display vlan brief
```

System Management	<b>VLAN Create And Delete</b>			
Port Management	VLAN(8,9,11-15)	100,35,335,2501,2502		
Basic Service	Refresh Create Delete			
VLAN Configuration	<b>VLAN Information</b>			
Static VLAN	VLAN	Status	Member Ports	Static Tag Ports
VLAN Port	1	static	gpon0/0/1-gpon0/0/8,e0/1/1-e0/2/2	gpon0/0/1-gpon0/0/8

### 1.3.1.2 Configuring the OLT Management IP Interface

[XGPON]interface vlan-interface 100

Create vlan-interface successfully!

GPON(xgpon-vlanInterface-100)#ip address 100.1.1.1 255.255.255.0

This ipaddress will be the primary ipaddress of this interface.

Config ipaddress successfully!

View the created vlan interface:

[XGPON]display ip interface

Port Management	<b>VLAN IP</b>	
Basic Service	Interface Name	New...
VLAN Configuration	VLAN ID	100
Static VLAN	IP Address	10.1.1.1
VLAN Port	Subnet Mask	255.255.255.0
IP and Route Config...	Refresh New Apply Delete	
MGMT IP Configuration		
VLAN IP Configuration		

### 1.3.1.3 Configuring the Uplink Port

[XGPON]interface ethernet 0/1/1

GPON(config-if-ethernet-0/1/1)#switchport hybrid tagged vlan 100,35,335,2501,2502

PS: The GPON port is in tag mode in all vlans by default. No additional configuration is required.

To view the vlan added to the port:

[XGPON]display int brief ethernet 0/1/1

Port Management

Basic Service

VLAN Configuration

Static VLAN

VLAN Port

IP and Route Config...

**Port VLAN Settings**

Port: e0/1/1

PVID(1-4094): 1

Mode: hybrid

Tag VLAN(8,9,11-15): 100,35,335,2501,2502

Untag VLAN(8,9,11-15): 1

Refresh Modify

### 1.3.1.4 Configuring the SNMP NMS Function

[XGPON]snmp-server community public rw permit view iso

[XGPON]snmp-server community private rw permit view iso

[XGPON]snmp-server host 100.1.1.2 version 2c public udp-port 162 notify-type bridge gbn

gbnsavecfg interfaces rmon snmp

[XGPON]snmp-server enable traps

Note: This command must be configured; otherwise, NMS cannot work.

View the configured snmp:

[XGPON]display current-config snmp

System Management

Port Management

Basic Service

VLAN Configuration

IP and Route Config...

Multicast

STP Configuration

LACP Configuration

MAC Configuration

SNMP Configuration

Community Configuration

Trap Configuration

**SNMP Community Settings (support max 8 entries)**

ID	Name (1-20 characters)	Access Privilege	Status	View (0-32 characters)
0	public	Read-only	Active	

Refresh Add Modify Delete

### 1.3.1.5 ONT Discovery Function

【GPON ONT】

[XGPON]ont-autofind interface gpon all

Note: Automatic discovery is enabled by default

Check the pon port discovery configuration in GPON mode.

[XGPON]display ont-autofind config interface gpon all

Monitor Config Maintain

GPON English Login

System Management

Port Management

Basic Service

Advanced Service

ONT Management

Auto Find

Auto Config

Silent

FEC

**ONT Auto Find Configuration**

Port	Auto Find	Interval(s)	List Age	Age Time(s)	Min Distance(km)	Max Distance(km)
gpon0/0/1	on	20	off	300	0	20
gpon0/0/2	on	20	off	300	0	20
gpon0/0/3	on	20	off	300	0	20
gpon0/0/4	on	20	off	300	0	20
gpon0/0/5	on	20	off	300	0	20
gpon0/0/6	on	20	off	300	0	20
gpon0/0/7	on	20	off	300	0	20
gpon0/0/8	on	20	off	300	0	20

Apply Reset

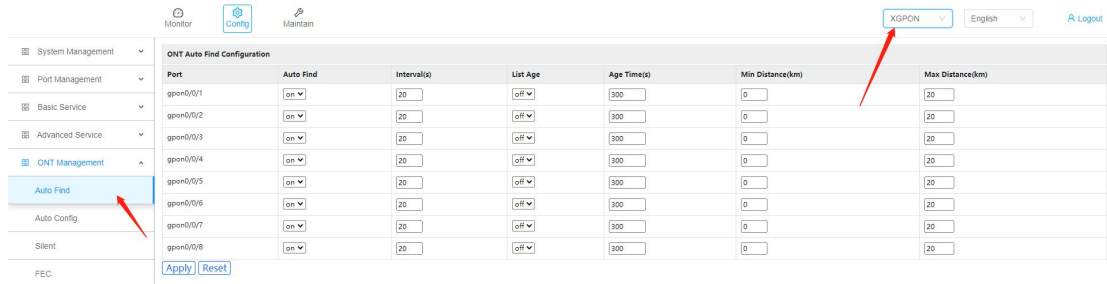
【XGPON ONT】

[XGPON]ont-autofind interface xgpon all

Note: Automatic discovery is enabled by default

Check the pon port discovery configuration in XGPON mode.

[XGPON]display ont-autofind config interface xgpon all



### 1.3.1.6 Viewing the ONT Discovery List 【GPON ONT】

[XGPON]display ont-autofind list interface gpon all

```
Port Index SN Last-find Find-cnt
p0/5 0 FCOM-e4801440 2000/04/19 00:28:23 147
Total entries: 1.
```

View the details of the discovery list GPON ONT:

(You can obtain the ont registration parameters sn-pw, loid, loid-pw, and ont type by viewing the ont information.)

[XGPON]display ont-autofind list interface gpon 0/2 index 0 //indexID is the INDEX to discover the list.

```
Index : 0
Port : gpon 0/2
ONT SN : ONPL-0080e4da
ONT Type : HGU
Password : 1234567890
LOID : N.A.
Checkcode : N.A.
VendorID : ONPL
ONT SoftwareVersion : 3.1.02
ONT FirmwareVersion : V3.7L
ONT EquipmentID : ONPL71110N
ONT Unregistered Reason : AUTH_PARAM_NOT_MATCH
ONT First Autofind Time : 2023/01/06 09:31:29
ONT Last Autofind Time : 2023/01/06 09:31:29
ONT Find Count : 1
```



Port	Index	Serial Number	Equipment ID	Last Find Time	Find Count	Detail
0/0/1	0	GPFF-00e254dd	MONUV691	2022/12/27 11:41:10	1	<a href="#">Detail</a>

### 【XGPON ONT】

[XGPON]display ont-autofind list interface xgpon all

```
Port      Index  ONT-SN          EquipmentID  Last-autofind-time  Num
xgpon 0/1  0      XPON-12345678          MONUV691      2022/12/26 16:02:40  2
```

Total entries: 1.

To view the details of the discovery list XGPON ONT:

(You can obtain the ont registration parameters sn-pw, loid, loid-pw, and ont type by viewing the ont information.)

[XGPON]display ont-autofind list interface xgpon 0/2 index 0/ /indexID is the INDEX to discover the list.

```
Index                : 0
Port                 : xgpon 0/2
ONT SN               : 02FE-00005c2a
ONT Type             : SFU
Password             : 00000001
LOID                 : N.A.
Checkcode            : N.A.
VendorID             : 02FE
ONT SoftwareVersion  : ECNT-SW-V1.0
ONT FirmwareVersion  : ECNT-HW-V1.0
ONT EquipmentID      : UNG900E
ONT Unregistered Reason : AUTH_PARAM_NOT_MATCH
ONT First Autofind Time : 2023/01/06 09:30:48
ONT Last Autofind Time  : 2023/01/06 09:35:04
ONT Find Count       : 13
```

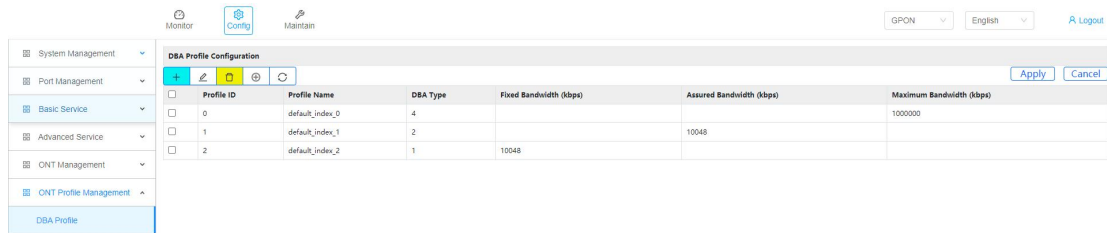
[XGPON]

Port	Index	Serial Number	Equipment ID	Last Find Time	Find Count	Detail
0/0/1	0	XPON-12345678	IGD	2022/12/27 11:41:28	2	<a href="#">Detail</a>

### 1.3.1.7 Configuring the DBA Template

#### 【GPON ONT】

```
[XGPON]dba-profile 0
[XGPON-dba-profile-0]type 4 max 1000000
[XGPON-dba-profile-0]commit
[XGPON-dba-profile-0]quit
[XGPON]dba-profile 1
[XGPON-dba-profile-1]type 2 assured 10000
Input assured bandwidth 10000 has been adjusted to 10048 kbps.
[XGPON-dba-profile-1]commit
[XGPON-dba-profile-1]quit
[XGPON]dba-profile 2
[XGPON-dba-profile-2]type 1 fix 10000
Input fixed bandwidth 10000 has been adjusted to 10048 kbps.
[XGPON-dba-profile-2]commit
[XGPON-dba-profile-2]quit
```



<input type="checkbox"/>	Profile ID	Profile Name	DBA Type	Fixed Bandwidth (kbps)	Assured Bandwidth (kbps)	Maximum Bandwidth (kbps)
<input type="checkbox"/>	0	default_index_0	4			1000000
<input type="checkbox"/>	1	default_index_1	2		10048	
<input type="checkbox"/>	2	default_index_2	1	10048		

#### 【XGPON ONT】

```
[XGPON]dba-profile 3
[XGPON-dba-profile-3]type 4 xgpon max 2000000
[XGPON-dba-profile-3]commit
[XGPON-dba-profile-3]quit

[XGPON]dba-profile 4
[XGPON-dba-profile-4]type 2 xgpon assured 10000
Input assured bandwidth 10000 has been adjusted to 10048 kbps.
[XGPON-dba-profile-4]commit
[XGPON-dba-profile-4]quit

[XGPON]dba-profile 5
[XGPON-dba-profile-5]type 1 xgpon fix 10000
Input fixed bandwidth 10000 has been adjusted to 10240 kbps.
[XGPON-dba-profile-5]commit
[XGPON-dba-profile-5]quit
[XGPON]
```

Profile ID	Profile Name	DBA Type	PON Type	Fixed Bandwidth (kbps)	Assured Bandwidth (kbps)	Maximum Bandwidth (kbps)
0	default_index_0	4	GPON			1000000
1	default_index_1	2	GPON		10048	
2	default_index_2	1	GPON	10048		
3	default_index_3	4	XGPON			2000000
4	default_index_4	2	XGPON		10048	
5	default_index_5	1	XGPON	10240		
6	default_index_6	4	XGSPON			8500096
7	default_index_7	2	XGSPON		10112	
8	default_index_8	1	XGSPON	10240		

### 【XGSPON ONT】

[XGPON]dba-profile 6

[XGPON-dba-profile-6]type 4 xgspn max 8500000

Input maximum bandwidth 8500000 has been adjusted to 8500096 kbps.

[XGPON-dba-profile-6]commit

[XGPON-dba-profile-6]quit

[XGPON]dba-profile 7

[XGPON-dba-profile-7]type 2 xgspn assured 100000

Input assured bandwidth 100000 has been adjusted to 100096 kbps.

[XGPON-dba-profile-7]commit

[XGPON-dba-profile-7]quit

[XGPON]dba-profile 8

[XGPON-dba-profile-8]type 1 xgspn fix 100000

Input fixed bandwidth 100000 has been adjusted to 100352 kbps.

[XGPON-dba-profile-8]commit

[XGPON-dba-profile-8]quit

[XGPON]

Profile ID	Profile Name	DBA Type	PON Type	Fixed Bandwidth (kbps)	Assured Bandwidth (kbps)	Maximum Bandwidth (kbps)
0	default_index_0	4	GPON			1000000
1	default_index_1	2	GPON		10048	
2	default_index_2	1	GPON	10048		
3	default_index_3	4	XGPON			2000000
4	default_index_4	2	XGPON		10048	
5	default_index_5	1	XGPON	10240		
6	default_index_6	4	XGSPON			8500096
7	default_index_7	2	XGSPON		10112	
8	default_index_8	1	XGSPON	10240		

### 1.3.1.8 Configuring VLAN Templates

[XGPON]vlan-profile 1

[XGPON-vlan-profile-1] translate cvlan 35 svlan 35

[XGPON-vlan-profile-1]commit

[XGPON-vlan-profile-1]quit

[XGPON]vlan-profile 2

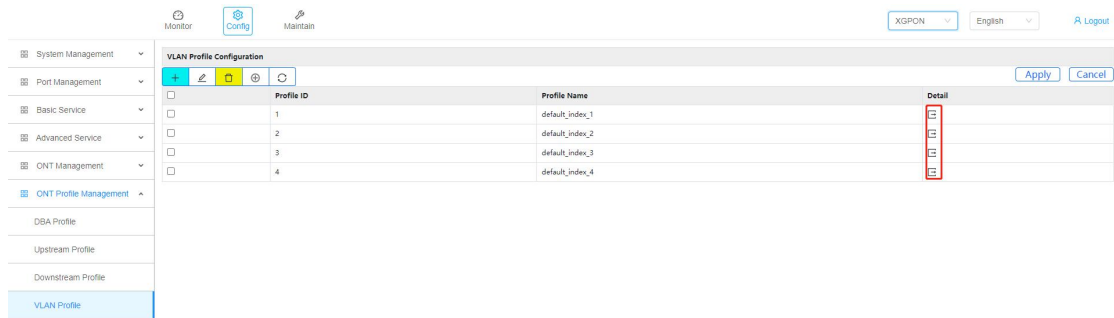
[XGPON-vlan-profile-2]translate cvlan 335 svlan 335

[XGPON-vlan-profile-2]commit

```

[XGPON-vlan-profile-2]quit
[XGPON]vlan-profile 3
[XGPON-vlan-profile-3]translate cvlan 2502 svlan 2502
[XGPON-vlan-profile-3]commit
[XGPON-vlan-profile-3]quit
[XGPON]vlan-profile 4
[XGPON-vlan-profile-4]translate cvlan 2501 svlan 2501
[XGPON-vlan-profile-4]commit
[XGPON-vlan-profile-4]quit
[XGPON]

```



### 1.3.1.9 Configuring a Line Template 【GPON-ONT】

```

[XGPON]line-profile 1 name GPON-ONT // User-defined template id and template name
[XGPON-line-profile-1]model f0-h210 // Specifies the device type of the ONT. The
following is an HGU example

```

```

[XGPON-line-profile-1]tcont 1 dba-profile 0 //Internet service channel
[XGPON-line-profile-1]tcont 2 dba-profile 1 //IPTV
[XGPON-line-profile-1]tcont 3 dba-profile 2 //VOIP
[XGPON-line-profile-1]tcont 4 dba-profile 1 //TR069
[XGPON-line-profile-1]gem 1 tcont 1 vlan-profile 1
[XGPON-line-profile-1]gem 2 tcont 2 vlan-profile 3
[XGPON-line-profile-1]gem 3 tcont 3 vlan-profile 2
[XGPON-line-profile-1]gem 4 tcont 4 vlan-profile 4
[XGPON-line-profile-1]mapping 1 vlan 35 gem 1
[XGPON-line-profile-1]mapping 2 vlan 335 gem 3
[XGPON-line-profile-1]mapping 3 vlan 2502 gem 2
[XGPON-line-profile-1]mapping 4 vlan 2501 gem 4
[XGPON-line-profile-1]commit
[XGPON-line-profile-1]quit

```

#### 【XGPON-ONT】

```

[XGPON]line-profile 2 name XGPON-ONT
[XGPON-line-profile-2]model f0-h210
[XGPON-line-profile-2]tcont 1 dba-profile 3
[XGPON-line-profile-2]tcont 2 dba-profile 4

```

```

[XGPON-line-profile-2]tcont 3 dba-profile 5
[XGPON-line-profile-2]tcont 4 dba-profile 1
[XGPON-line-profile-2]gem 1 tcont 1 vlan-profile 1
[XGPON-line-profile-2]gem 2 tcont 2 vlan-profile 3
[XGPON-line-profile-2]gem 3 tcont 3 vlan-profile 2
[XGPON-line-profile-2]gem 4 tcont 4 vlan-profile 4
[XGPON-line-profile-2]mapping 1 vlan 35 gem 1
[XGPON-line-profile-2]mapping 2 vlan 335 gem 3
[XGPON-line-profile-2]mapping 3 vlan 2502 gem 2
[XGPON-line-profile-2]mapping 4 vlan 2501 gem 4
[XGPON-line-profile-2]commit
[XGPON-line-profile-2]quit

```

### 【XGSPON-ONT】

```

[XGPON]line-profile 3 name XGSPON-ONT
[XGPON-line-profile-3]model f0-h210
[XGPON-line-profile-3]tcont 1 dba-profile 6 //Internet
[XGPON-line-profile-3]tcont 2 dba-profile 7 //IPTV
[XGPON-line-profile-3]tcont 3 dba-profile 8 //VOIP
[XGPON-line-profile-3]tcont 4 dba-profile 1 //TR069
[XGPON-line-profile-3]gem 1 tcont 1 vlan-profile 1
[XGPON-line-profile-3]gem 2 tcont 2 vlan-profile 3
[XGPON-line-profile-3]gem 3 tcont 3 vlan-profile 2
[XGPON-line-profile-3]gem 4 tcont 4 vlan-profile 4
[XGPON-line-profile-3]mapping 1 vlan 35 gem 1
[XGPON-line-profile-3]mapping 2 vlan 335 gem 3
[XGPON-line-profile-3]mapping 3 vlan 2502 gem 2
[XGPON-line-profile-3]mapping 4 vlan 2501 gem 4
[XGPON-line-profile-3]commit
[XGPON-line-profile-3]quit

```

Profile ID	Profile Name	ONT Model	Mapping Mode	Qos Mode	FEC Status	Bind Alarm Profile	Bind Multicast Profile	Detail
0	GPON-ONT	f0-h210 (common model for HGU)	VLAN	Priority Queue	Disable			E
1	XGSPON-ONT	f0-h210 (common model for HGU)	VLAN	Priority Queue	Disable			E
2	XGSPON-ONT	f0-h210 (common model for HGU)	VLAN	Priority Queue	Disable			E

### 1.3.1.10 Configuring an Authentication Rule Template

#### 【GPON-ONT】

View the discovery list to find the information about the ONT to be registered, and view the

details to obtain registration parameters SN,PW,SN-PW,LOID,LOID-PW, refer 1.3.1.6。

```
[XGPON]display ont-autofind list interface gpon all
Port      Index  ONT-SN          EquipmentID  Last-autofind-time  Num
gpon 0/1  1      GPTF-00ed6add  MONUV691    2022/12/26 16:50:14  3
Total entries: 1.
```

Note: The ONT registration template can be set based on SN,PW, sn-pw,LOID,LOID-PW.

Configure the registration template based on the SN:

[XGPON]rule-profile gpon 0/1/5 // Slot 0, 1 is the pon port number and 5 is the customized ontid

```
[XGPON-rule-profile-gpon 0/1/5]
[XGPON-rule-profile-gpon 0/1/5]sn-auth string-hex GPTF-00ed6add line-profile 1
[XGPON-rule-profile-gpon 0/1/5]commit
[XGPON-rule-profile-gpon 0/1/5]quit
[XGPON]
```

Configure a registration template based on SN-PW:

```
[XGPON-rule-profile-xgpon 0/2/1] sn-auth string-hex 02FE-00005c2a password-auth string 123456 line-profile 10
```

Configure a registration template based on a PW:

```
[XGPON-rule-profile-xgpon 0/2/1] password-auth string 123456 line-profile 10
```

LOID Based. Configure the registration template.

```
[XGPON-rule-profile-xgpon 0/2/1]loid-auth 123123 line-profile 10
```

LOID-PW Specifies the registration template.

```
[XGPON-rule-profile-xgpon 0/2/1]loid-auth 123123123 checkcode-auth 123456 line-profile 10
```

View the configured ONT registration rule template:

```
[XGPON]display rule-profile gpon 0/1/1 //created ruid
[XGPON]display current-config rule-profile
```

Profile ID	Profile Name	Auth Mode	SN/LOID	Password/Checkcode	Line Profile
0/1/1	AUTO_ONT_gpon 0/1/1	SN	GPTF-00ed6add		0@GPON-ONT

### 【XGPON-ONT】

Obtain registration parameters SN,PW, sn-pw,LOID,LOID-PW. Obtain the registration parameters SN,PW, sn-pw, loid, loid - pw, refer [1.3.1.6](#).

```
[XGPON]display ont-autofind list interface xgpon all
```

Port	Index	ONT-SN	EquipmentID	Last-autofind-time	Num
xgpon 0/1	0	XPON-12345678		2022/12/26 16:09:25	13

Total entries: 1.

Note: You can set the registration template for XGPON-ONT based on SN,PW, sn-pw,LOID,LOID-PW. The detailed configuration commands are the same as those for GPON ONT.

```
[XGPON]rule-profile xgpon 0/1/6
```

```
[XGPON-rule-profile-xgpon 0/1/6]sn-auth string-hex XPON-12345678 line-profile 2 ont-type 10g/2.5g
```

```
[XGPON-rule-profile-xgpon 0/1/6]commit
```

```
[XGPON-rule-profile-xgpon 0/1/6]quit
```

```
[XGPON]
```

### 【XGSPON-ONT】

Obtain registration parameters SN,PW, sn-pw,LOID,LOID-PW. Obtain the registration parameters SN,PW, sn-pw, loid, loid - pw, refer [1.3.1.6](#).

```
[XGPON]display ont-autofind list interface xgpon all
```

Port	Index	ONT-SN	EquipmentID	Last-autofind-time	Num
xgpon 0/1	0	XPON-018C5678		2022/12/26 16:19:21	1

Total entries: 1.

Note: The registration template for XGSPON-ONT can be specified based on SN,PW, sn-pw,LOID,LOID-PW. The detailed configuration commands are the same as those for GPON ONT.

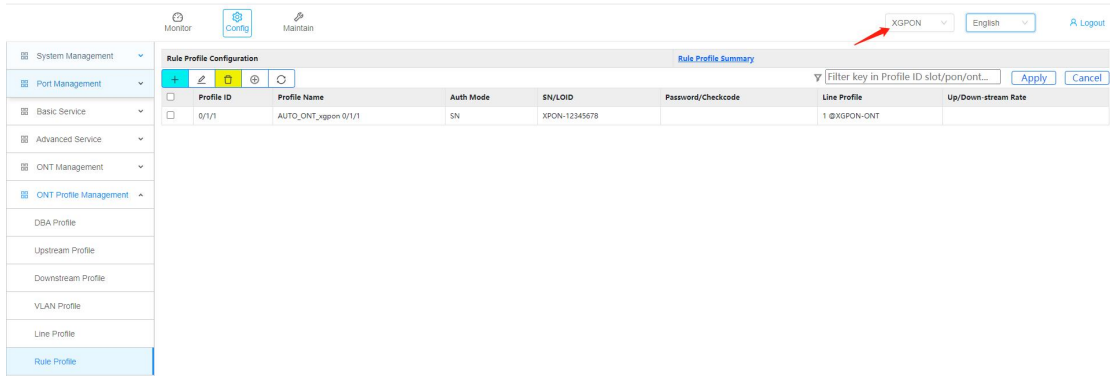
```
[XGPON]rule-profile xgpon 0/1/7
```

```
[XGPON-rule-profile-xgpon 0/1/7]sn-auth string-hex XPON-018C5678 line-profile 3 ont-type 10g/10g
```

```
[XGPON-rule-profile-xgpon 0/1/7]commit
```

```
[XGPON-rule-profile-xgpon 0/1/7]quit
```

```
[XGPON]
```



### 1.3.1.11 Save configure

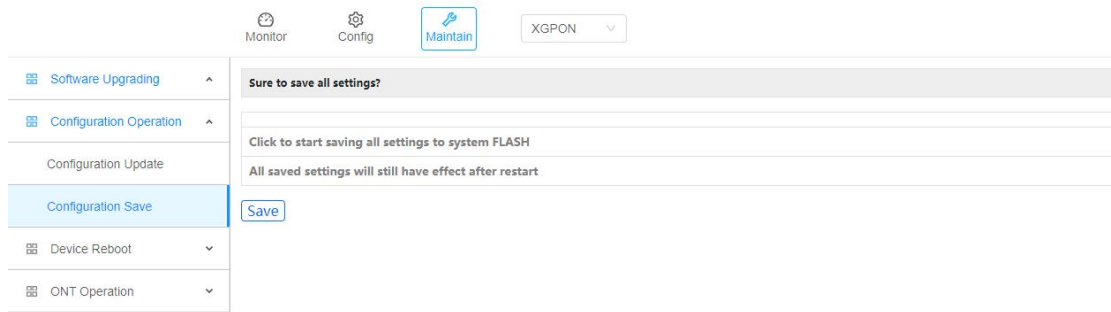
[XGPON]quit

<XGPON>save current-config

Config in flash will be updated, confirm to do this?(y/n)[n]:y

Start to do this, please wait...

Save config successfully.



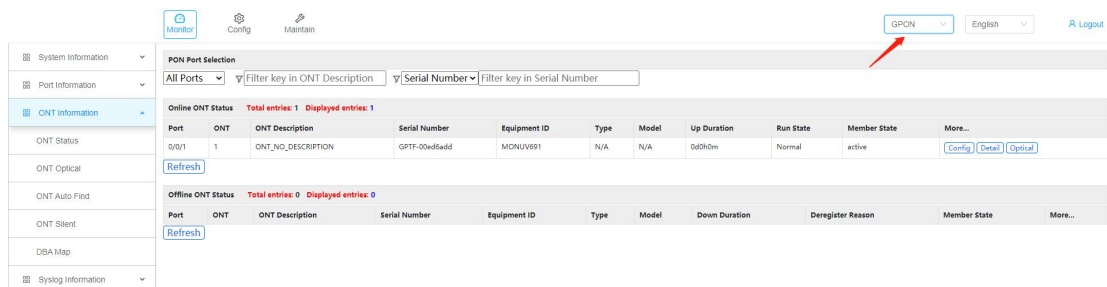
### 1.3.1.12 Viewing the ONT Registration Online List

**【GPON】**

[XGPON]display ont info online interface gpon all

ONT-ID            SN                            Up-duration    Config-state    Member-state  
gpon 0/1/1    GPTF-00ed6add    0d0h5m            Normal            active

Total entries: 1.

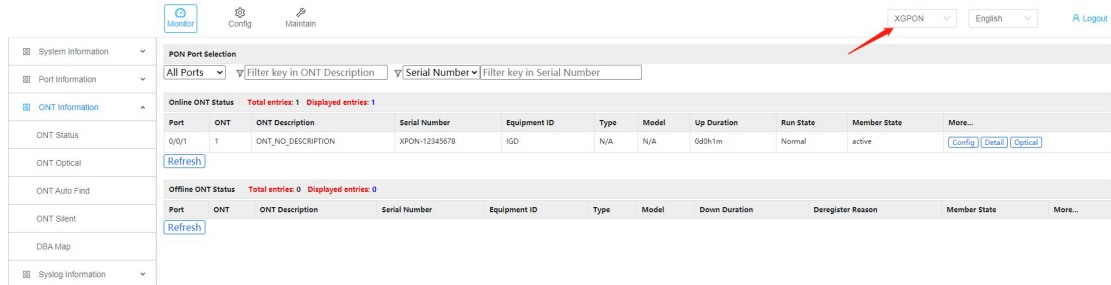


**【XGPON】**



```
[XGPON]display ont info online interface xgpon all
```

```
ONT-ID          SN                Up-duration  Config-state  Member-state
xgpon 0/1/6     XPON-12345678    0d0h1m      Normal        active
xgpon 0/1/7     XPON-018C5678   0d0h1m      Normal        active
Total entries: 1.
```



### 1.3.1.13 ONT Registration Automatic Configuration

Create an automatic configuration template. Configure the template based on the ONT type and Equipment-id parameters, and reference an existing line template based on service deployment, refer 1.3.1.9.

```
[XGPON]
```

```
[XGPON]ont auto-config 11 name GPON all-hgu line-profile 1
```

```
[XGPON]ont auto-config 12 name XGPON all-hgu line-profile 2 xgpon
```

```
[XGPON]ont auto-config 13 name XGSPON all-hgu line-profile 3 xgpon
```

```
[XGPON]ont auto-config
```

View the created automatic registration template:

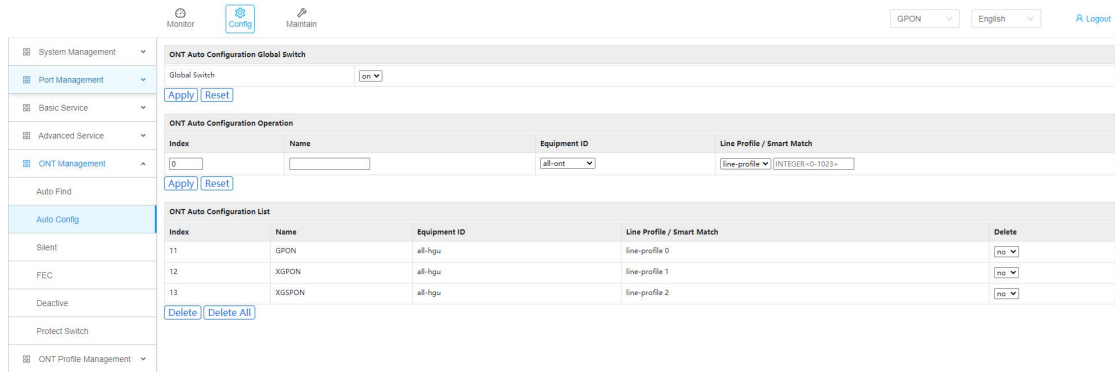
```
[XGPON]display current-config gpon-device
```

Note: By default, XGPON OLT enables the ONT automatic registration configuration function to implement ONT plug and play.

By default, vlan 1 is used as the service vlan, which only meets the requirements of simple data service scenarios. If the OLT deployment scenario requires multiple vlans, you need to manually create a configuration template for the ONT to meet service requirements. Before manually creating a template, disable the ont auto-config function.

To disable the ONT automatic registration configuration function:

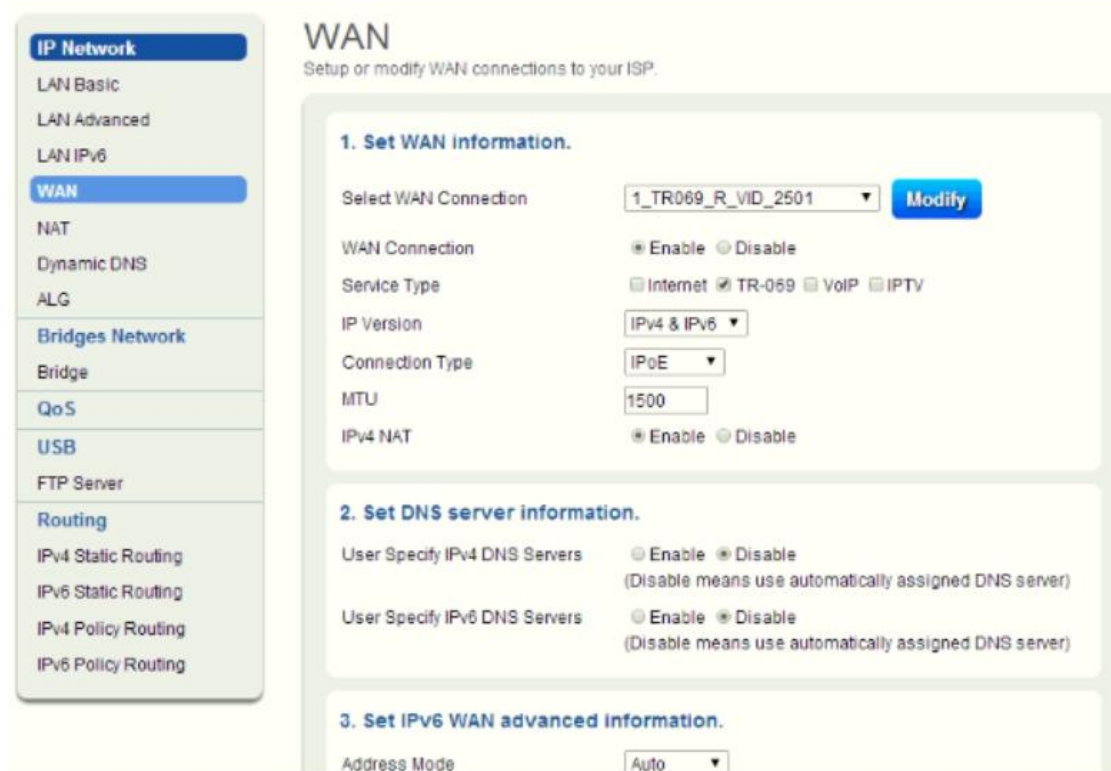
```
[XGPON]undo ont auto-config
```



## 1.3.2 TR069 Configuration

### 1.3.2.1 Configuring the TR069 WAN Port

Set the IP address of the PC to the network segment 192.168.1.X, and log in to the ONT WEB page using the IP address 192.168.1.1 to configure the WAN connection. The username/password on the web page is superman / 654321. Create a wan for TR069. The wan for TR069 is usually obtained by DHCP



### 1.3.2.2 Configure TR069

Other basic services can be delivered from the ACS only after the TR069 is configured. Therefore, the wan and TR069 parameters of the deployment TR069 are configured by default before delivery based on customer requirements and loaded into the version. In deployment, users only need to connect to the ONT to manage the ONT from the ACS and deliver service configurations. Easy to maintain, but also reduce the workload of engineering personnel.

1. Configure periodic inform.

Periodic Inform  Enable  Disable

Periodic Inform Interval 86400 seconds

2. Enter ACS connection parameters.

ACS URL

Username

Password

Connect Request Username

Connect Request Password

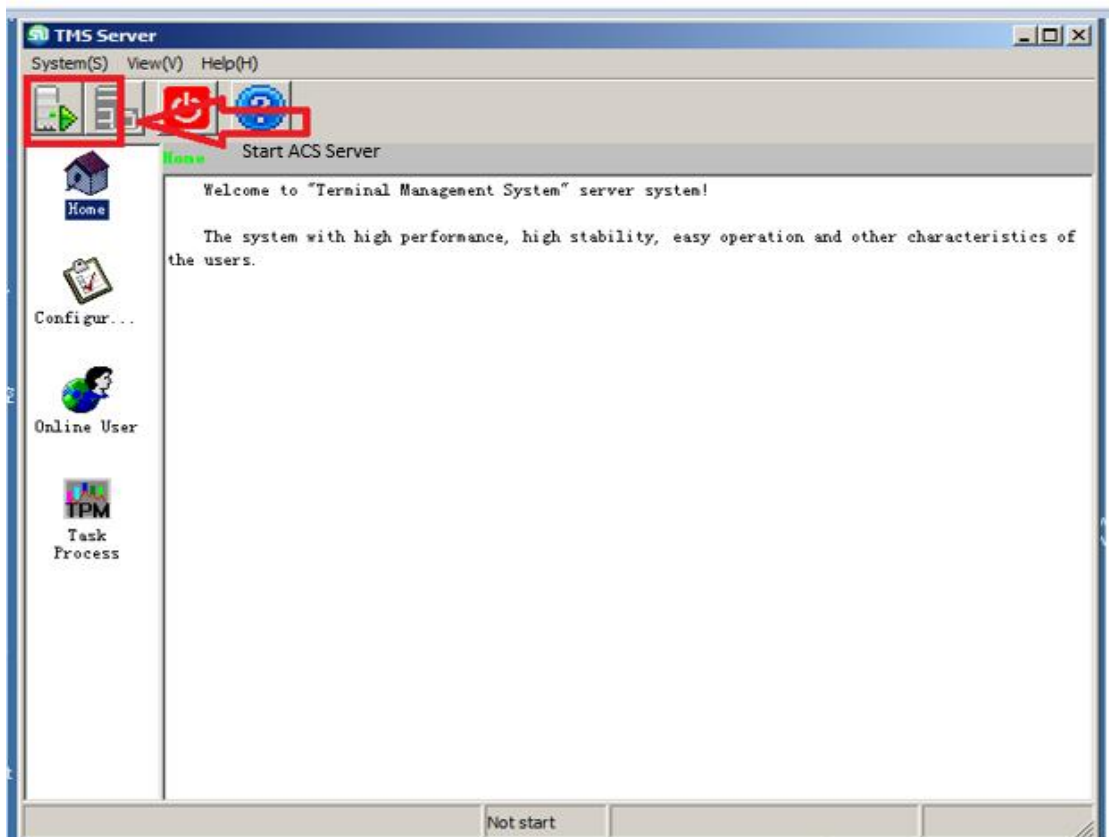
3. Click "Apply" to save your settings.

Write ACS URL,  
format must be  
like this

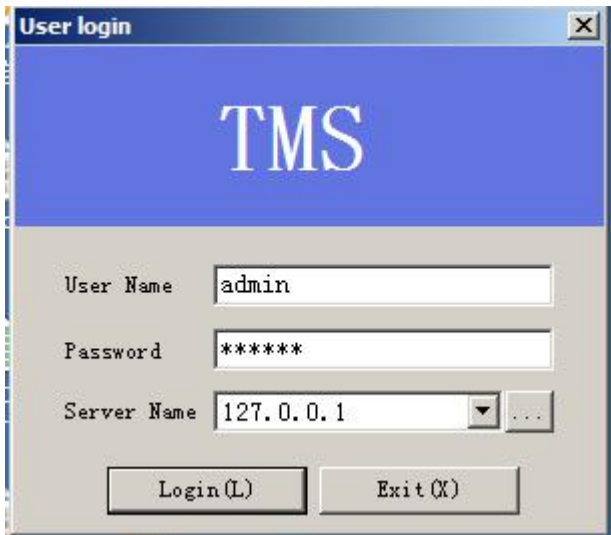
### 1.3.2.3 Enable ACS

After setting the ONT, start the ACS server to discover the ONT

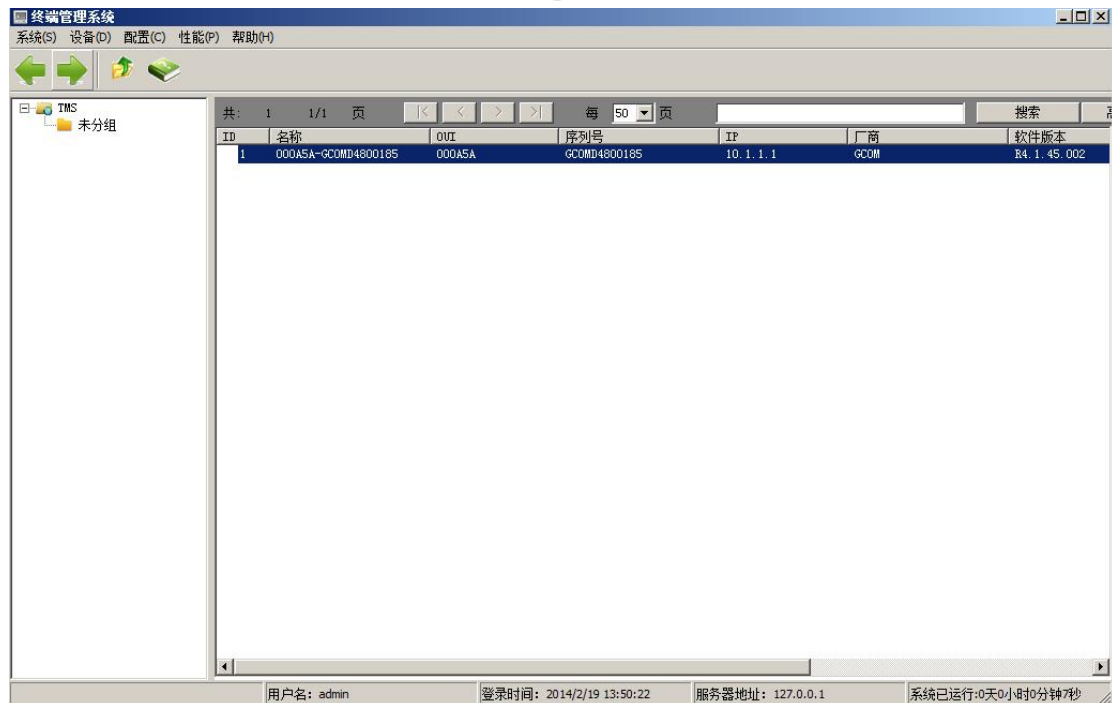
Step 1:enable ACS server



Step 2 : enable username / password (admin / 123456)



Step 3: If an ONT is discovered, you can view some parameters of the ONT



### 1.3.3 HSI Service & wifi Service Configuration

#### 1.3.3.1 Configuring the WAN Interface for HSI Services

Set the IP address of the PC to the network segment 192.168.1.X, and log in to the ONT WEB page using the IP address 192.168.1.1 to configure the WAN connection. The username/password on the web page is superman / 654321. HIS user name and password are h004\_ftth\_doitdvtq24/7in0nV

- LAN Advanced
- LAN IPv6
- WAN**
- NAT
- Dynamic DNS
- ALG
- Bridges Network**
- Bridge
- QoS**
- USB**
- FTP Server
- Routing**
- IPv4 Static Routing
- IPv6 Static Routing
- IPv4 Policy Routing
- IPv6 Policy Routing

**1. Set WAN information.**

Select WAN Connection: 1 INTERNET\_R\_VID\_35 **Modify**

WAN Connection:  Enable  Disable

Service Type:  Internet  TR-069  VoIP  IPTV

IP Version: IPv4 Only

Connection Type: PPPoE

MTU: 1492

IPv4 NAT:  Enable  Disable

Route metric: 1 (The smaller the number, the higher the priority)

---

**2. Enter PPP username and password.**

PPP Username: h004\_ftth\_doitdvtq24

PPP Password: .....

PPP Connect Mode: Always

### 1.3.3.2 View HSI WAN status

- Device Status
- GPON Status
- WAN Status**
- Ethernet Status
- 2.4G Wireless Status
- Device Table
- Routing Table
- Resource Table

## WAN Status

Select WAN connection to display WAN status.

**WAN Status**

1 INTERNET\_R\_VID\_35 Connected

**Reconnect**

**WAN Settings**

WAN Type	PPPoE
User Name	h004_ftth_doitdvtq24
Authentication Failures	ERROR_NONE
Session Time	0 Day(s), 0h:5m:59s
Bytes Sent	28324
Bytes Received	33765
Packets Sent	602
Packets Received	406

### 1.3.3.3 View HSI Service Status

The PC connected to port LAN1 can access the Internet



### 1.3.3.4 Config WiFi

The SSID system exists by default, and the wireless password can be configured on the web

**Wireless Security**  
Configure wireless security options for each network.

- 1. Select SSID to configure.**  
SSID:
- 2. Select security type.**  
Security Type:
- 3. Select encryption type.**  
Encryption Type:
- 4. Enter security passphrase.**  
Security Passphrase:
- 5. Click "Apply" to save your settings.**

### 1.3.4 VOIP (SIP) configure

#### 1.3.4.1 Configuring the WAN Interface for VOIP Service

For the ONT part, use 192.168.1.1 IP to log in to the ONT WEB page to configure the WAN connection. VOIP obtains the IP address through DHCP

**IP Network**

LAN Basic

LAN Advanced

LAN IPv6

**WAN**

NAT

Dynamic DNS

ALG

**Bridges Network**

Bridge

QoS

USB

FTP Server

**Routing**

IPv4 Static Routing

IPv6 Static Routing

IPv4 Policy Routing

IPv6 Policy Routing

## WAN

Setup or modify WAN connections to your ISP.

**1. Set WAN information.**

Select WAN Connection: 3\_VOIP\_R\_VID\_335 Modify

WAN Connection:  Enable  Disable

Service Type:  Internet  TR-069  VoIP  IPTV

IP Version: IPv4 & IPv6

Connection Type: IPoE

MTU: 1500

IPv4 NAT:  Enable  Disable

**2. Set DNS server information.**

User Specify IPv4 DNS Servers:  Enable  Disable  
(Disable means use automatically assigned DNS server)

User Specify IPv6 DNS Servers:  Enable  Disable  
(Disable means use automatically assigned DNS server)

**3. Set IPv6 WAN advanced information.**

Address Mode: Auto

### 1.3.4.2 Configure voip pots

**VoIP**

Basic

Advanced

Codecs

**SIP**

Basic

Advanced

Fax

Digit Map

## Basic

SIP server and account.

**1. Set SIP account.**

SIP Port Base: 5060 (0~65535)

SIP Host Part URI: 10.116.255.100

POTS Interface	POTS1	POTS2
Authorization Username	422258964	422258965
Authorization Password	*****	*****
User Part AOR	422258964	422258965

**2. Set SIP server.**

Enable SIP Outbound Proxy:

SIP Outbound Proxy Address:

SIP Outbound Proxy Port: 0

Enable SIP Registrar:

SIP Registrar Address: 10.116.255.100

SIP Registrar Port: 5060

**3. Click "Apply" to save your settings.**

Apply



### 1.3.4.3 View sip Registration status

The screenshot shows a web interface for 'Device Status'. On the left is a navigation menu with options: Device Status (selected), GPON Status, WAN Status, Ethernet Status, 2.4G Wireless Status, Device Table, Routing Table, and Resource Table. The main content area is titled 'Device Status' and contains a 'Save' button and a table of device information. The table includes fields for Working Mode (HGU), Serial Number (GPON15705016), Model Name (4GE-2VW), Software Version (R4.2.56.008EE), Hardware Version (C30-401), Device Up Time (0 Day(s), 18h:54m:46s), GPON Status (O5 - Operation state), POTS1 (Registration successful), POTS2 (Registration successful), ONU ID (1), and ONU Product Description (4GE-2VW). The POTS1 and POTS2 rows are highlighted with a red border.

Device Status	
Working Mode	HGU
Serial Number	GPON15705016
Model Name	4GE-2VW
Software Version	R4.2.56.008EE
Hardware Version	C30-401
Device Up Time	0 Day(s), 18h:54m:46s
GPON Status	O5 - Operation state
POTS1	Registration successful
POTS2	Registration successful
ONU ID	1
ONU Product Description	4GE-2VW

### 1.3.4.4 VOIP Service Communication with the PON Port

The pon product has a feature that it is isolated from users under the PON port by default, but voice communication with users under the PON port may occur. Therefore, we need to enable the layer 2 forwarding function of the pon port, Pon-switch. Enable pon port forwarding based on the vlan to be forwarded.

```
[GPON_OLT-vlan-335]pon-switch  
Config vlan pon-switch successfully.
```

### 1.3.5 IPTV configure

#### 1.3.5.1 Enable IGMP-SNOOPING

If this function is normally enabled, the IPTV can watch programs. Other configuration items can be selected based on the actual network.

```
[XGPON]igmp-snooping
```

#### 1.3.5.2 Enabling Multicast Group Suppression

This function is the multicast proxy function. After this function is enabled, OLT proxy forwards multicast protocol packets.

```
[XGPON]igmp-snooping report-suppression
```

#### 1.3.5.3 Configuring Multicast vlans for Ports

After a multicast vlan is enabled, OLT changes the IGMP packets received by a port to a multicast VLAN regardless of which VLAN they belong to.

```
GPON(config-if-pon-0/5)#igmp-snooping multicast vlan 2502
```

#### 1.3.5.4 Recommended Configuration of OLT Multicast Services

```
[XGPON]igmp-snooping  
[XGPON]igmp-snooping report-suppression
```



```

[XGPON]igmp-snooping profile 1
GPON(config-igmp-profile-1)#ip range 225.1.1.1 225.1.2.254
[XGPON]interface gpon 0/0/5
[XGPON-gpon-0/0/5]igmp-snooping multicast vlan 2502
[XGPON-gpon-0/0/5]igmp-snooping profile refer 1
[XGPON-gpon-0/0/5]igmp-snooping record-host

```

### 1.3.5.5 Configuring the ONT Multicast Service

The port connecting to the STB on the ONT must be set to bridge. The STB does not recognize vlans. Therefore, you need to strip the vlan tag

**Bridge**  
Setup networking bridging services.

**1. Set bridge information.**

Select Bridge: IPTV

Enable:

Spanning Tree:

**2. Configure traffic filter rules.**

Select LAN Port: ETH3

Forward Untagged Traffic:

Tagged Traffic Action: Not forward tagged traffic

Click "Add" to add this filter entry

LAN Port	Forward Untagged Traffic	Tagged Traffic Action	Edit
ETH3	True	Untag	<input type="button" value="Remove"/>

**3. Click "Apply" to save your settings.**

Bridge List