



深圳市鸿升光通讯设备有限公司
Shenzhen HS Fiber Communication Equipment Co., Ltd

**G/EPON Fiber Optic Access Terminal
Equipment 2GE+POTS+Dual WiFi XGPON
ONU**

User's Guide

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statement

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This product complies with the design requirements for environmental protection and personal safety. The storage, use and disposal of the product should be carried out in accordance with the requirements of the product manual, relevant contracts or the laws and regulations of relevant countries.

Due to the continuous updating and improvement of products and technologies, the content in this information may not be completely consistent with the actual product, please understand. If you need to inquire about product updates, please contact us.

Documentation description

This manual is applicable to our company's 2GE+Dual WiFi+POTS product software operating instructions. Please read the user manual information carefully.

1 Note

1.1 Installation Precautions

- ① Do not place the device near flammable or conductive materials, in high temperatures (such as direct sunlight) or damp environments, or on PC chassis, and check if other household appliances are placed stably in the surrounding area.
- ② Check the cables for signs of aging.
- ③ Unless approved by the manufacturer, please use the type of power supply indicated on the label and the adapter included with the product.
- ④ To prevent lightning damage to the product, ensure that the ground end of the power outlet and power adapter is safely grounded. Be sure to unplug the power supply and all wiring of the equipment during thunderstorms.
- ⑤ The input voltage fluctuation of the device must be less than 10%, and the power plug should not be used in the same socket as the refrigerator, hair dryer, or electric iron.
- ⑥ To avoid electric shock or fire caused by overload of the power socket, damage to the wire body, or damage to the plug, please regularly check the power cord. If damage is found, please replace it immediately.
- ⑦ Items cannot be placed on the device.

1.2 Precautions for use

- ① Before using the device, please carefully read the user manual and follow all precautions on the user manual and product.
- ② Avoid direct eye contact with the optical interface to prevent laser radiation emitted by the interface from damaging the eyes. Please try to wear safety glasses as much as possible to effectively protect your eyes from damage. It is best to insert a fiber optic interface sheath when the optical interface is not in use.
- ③ Turn off the power when not using the device.

- ④ To ensure safety, do not open the casing of the device without authorization, especially when the device is powered on.
- ⑤ Before cleaning the equipment, unplug the power supply. Use a soft, dry cloth to clean the equipment and avoid using liquids or sprays.
- ⑥ Unless instructed by our customer engineer or your broadband supplier, do not connect this product to any electronic product, as any incorrect connection may cause power or fire hazards.

2 Introduction

2GE+Dual WiFi+POTS ONU is a passive optical network user end product launched by our company for the broadband access market based on GPON/EPON technology. ONU is used in conjunction with GPON/EPON office end products (OLTs) to provide users with a complete broadband access solution based on GPON/EPON technology.

GPON/EPON technology is an emerging technology that combines the advantages of PON technology and Ethernet technology, and is a point to multipoint networking technology. The OLT devices at the office end are interconnected with multiple ONU devices through a passive optical network in the middle, and combined with single fiber bidirectional technology, the GPON system can use very little fiber resources to meet the multi user access needs of operators.

The technical performance meets the requirements of ITU-TG.984, IEEE802.3ah, China Telecom GPON Equipment Technical Requirements (V3.0), China Telecom EPON Equipment Technical Requirements (V3.0), and other specifications. It has good compatibility when used in conjunction with mainstream manufacturers' office end OLTs. The device supports a symmetric 1Gbps transmission rate for both uplink and downlink, providing users with good QOS guarantee, flexible bandwidth allocation of Ethernet services, and IP comprehensive services.

It can integrate wireless functions and fully comply with the 802.11 n/b/g/ac wireless standard protocol. It has a built-in high gain directional antenna and a

wireless transmission rate of up to 866Mbps. It has strong penetration and wide coverage, providing users with more efficient data transmission guarantee.

2.1 Product characteristics

PON interface

Standard: GPON/EPON interface, meeting ITU-T G.984 and IEEE802.3ah

Standards Connector: SC/PC interface

Transmission distance: 20 km

Uplink and downlink 1.244Gbps/2.488Gbps (GPON), 1.244Gbps/1.244Gbps (EPON) Transmission rate split ratio 1:128 (GPON), 1:64 (EPON)

Support optical power detection

Ethernet interface

Standard: Meets IEEE 802.3/802.3u

Standard Connector: RJ45

Working mode: supports full-duplex and half-duplex, supports 10Base-TX, 100Base-TX, 1000Base-TX

Voice interface

Connector: RJ11

Working mode: Supports Sip, H.248 voice protocols

- Fully compatible with ITU-T G.984.x, IEEE802.3ah standards
- Support 802.11 a/n/ac wireless standard protocol
- Support VLAN configuration
- Supports Ethernet line performance statistics function
- Support ONU automatic discovery, link detection, and remote upgrade
- Support power-off alarm
- Support Qos configuration
- Support firewall settings
- Support the management method of TR069
- Support PPPoE, DHCP, IPTV, NAT

2.2 Product specifications

Ambient temperature: 0°C~60°C

Relative humidity: 5% to 95% (non-condensing)

Power consumption and power supply: <10W, 12V/1A

Indicator light description:

name	colour	describe	working status		
			Light always on	The light goes out	light flashing
Power	green	Power Indicator	Device is powered	Device is not powered	
LOS	red+green	optical signal		Optical signal input is normal	No light signal input Or the light signal input is abnormal
PON	green	Registration indicator light	registration success	No optical signal input or registration failed	Registering
NET	green	Broadband indicator light	With broadband input	No broadband input	
LAN	green	Connection indicator light	Ethernet connection is normal	Ethernet not connected	Ethernet port with data transmission
5G	green	WiFi	Turn on 5G WiFi	Turn off 5G WiFi	With data transmission
Voip	green	Voice port status	Voice port registration successful	Unregistered voice port	

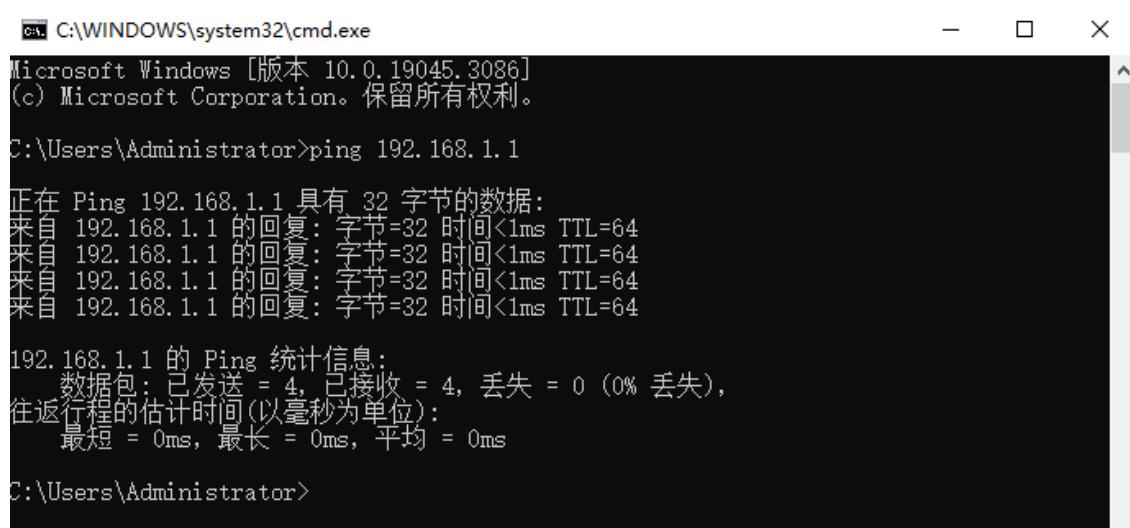
3 Log in to the web management page

① Manually set the local network port IP address of the computer to 192.168.1.100

② Use a network cable to connect the computer to any Ethernet port on the ONU

③ Open a browser to access <http://192.168.1.1> (User: telecomadmin, Password: admintelecom)

After successful login, the page is as follows:

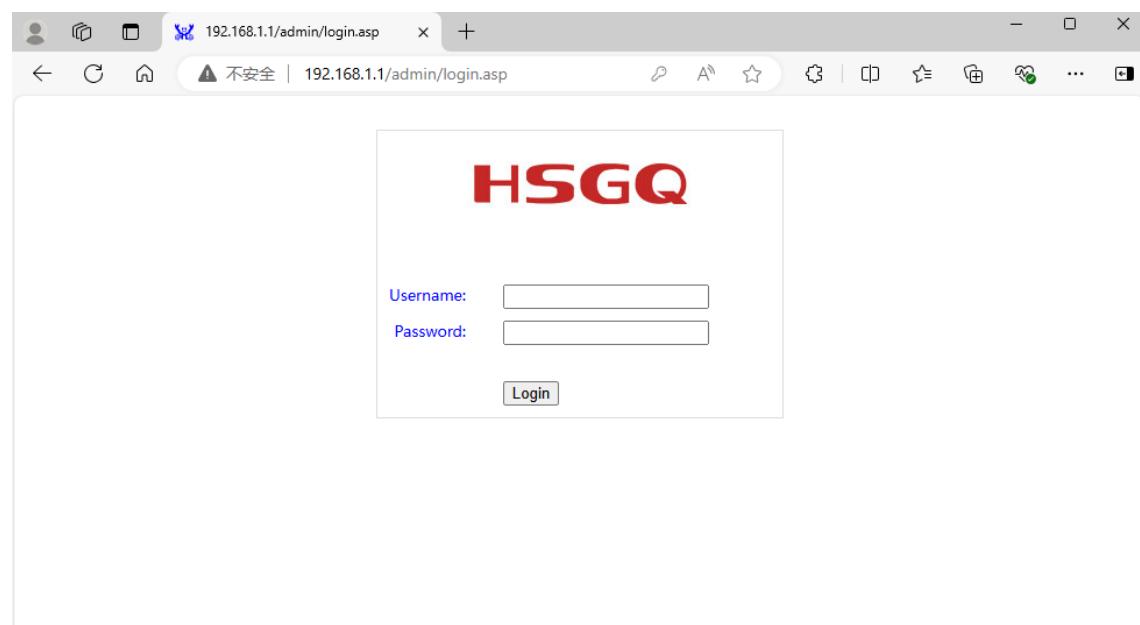


```
C:\WINDOWS\system32\cmd.exe
Microsoft Windows [版本 10.0.19045.3086]
(c) Microsoft Corporation。保留所有权利。
C:\Users\Administrator>ping 192.168.1.1

正在 Ping 192.168.1.1 具有 32 字节的数据:
来自 192.168.1.1 的回复: 字节=32 时间<1ms TTL=64

192.168.1.1 的 Ping 统计信息:
    数据包: 已发送 = 4, 已接收 = 4, 丢失 = 0 (0% 丢失),
往返行程的估计时间(以毫秒为单位):
    最短 = 0ms, 最长 = 0ms, 平均 = 0ms

C:\Users\Administrator>
```



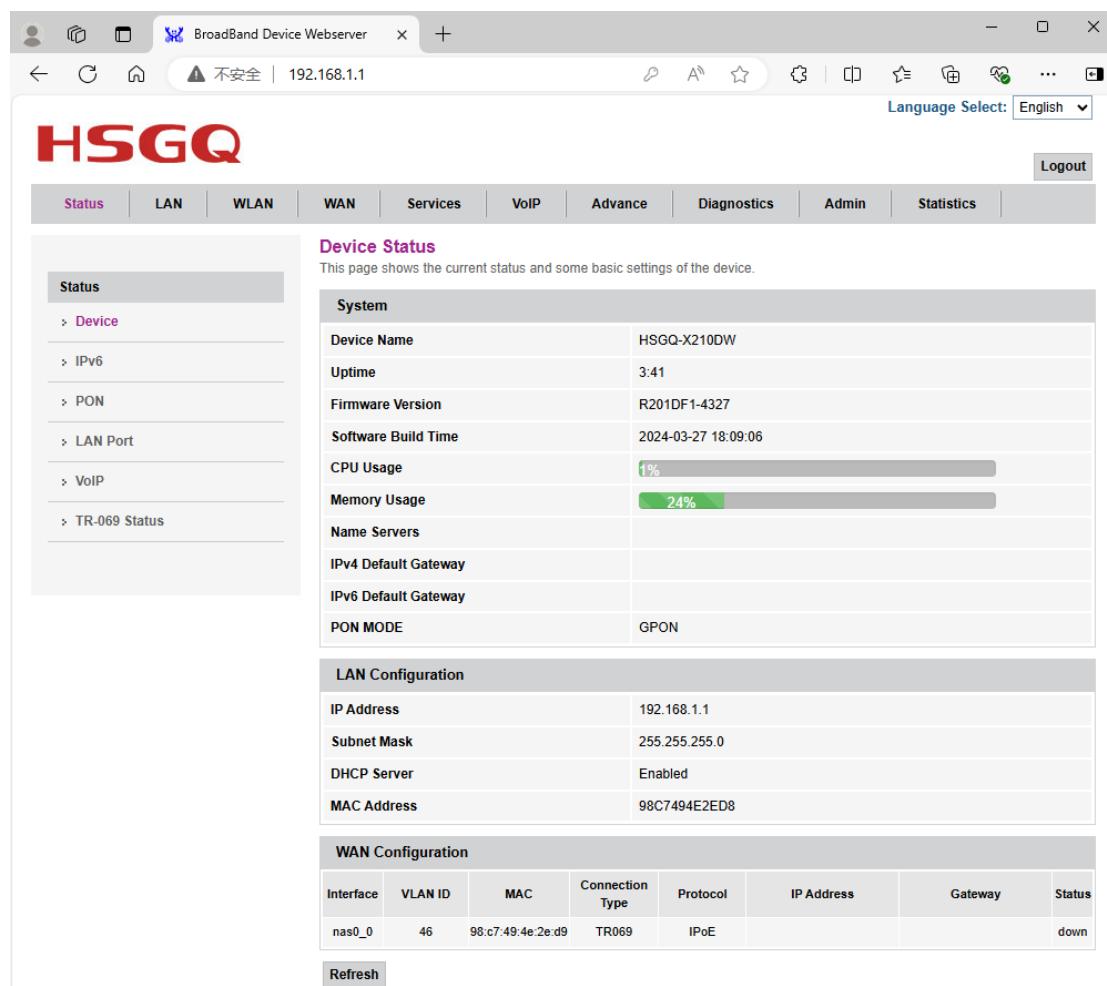
4 User page description

The management page includes: Status, LAN,WLAN, WAN,Service, Voip, Advance, Diagnostics, Admin and Statistics

4.1 Status

The status bar includes: Device, IPv6, PON, LAN Port, VOIP, TR069 Status

4.1.1 Device



Device Status
This page shows the current status and some basic settings of the device.

System

Device Name	HSGQ-X210DW
Uptime	3:41
Firmware Version	R201DF1-4327
Software Build Time	2024-03-27 18:09:06
CPU Usage	1%
Memory Usage	24%
Name Servers	
IPv4 Default Gateway	
IPv6 Default Gateway	
PON MODE	GPON

LAN Configuration

IP Address	192.168.1.1
Subnet Mask	255.255.255.0
DHCP Server	Enabled
MAC Address	98C7494E2ED8

WAN Configuration

Interface	VLAN ID	MAC	Connection Type	Protocol	IP Address	Gateway	Status
nas0_0	46	98:c7:49:4e:2e:d9	TR069	IPoE			down

Refresh

The device page can view device name, uptime, firmware version, software build time, LAN, WAN configuration.

4.1.2 IPv6



The screenshot shows the 'IPv6 Status' page of the HSGQ web interface. The left sidebar has a 'Status' section with links for Device, IPv6 (which is selected and highlighted in pink), PON, LAN Port, VoIP, and TR-069 Status. The main content area is divided into several sections: 'LAN Configuration' (IPv6 Address: fe80::9ac7:49ff:fe4e:2ed8/64, IPv6 Link-Local Address: fe80::9ac7:49ff:fe4e:2ed8/64), 'Prefix Delegation' (Prefix: fe80::/64), 'WAN Configuration' (Interface: br0, VLAN ID: 1, Connection Type: PPPoE, Protocol: PPPoE, IP Address: 192.168.1.1, Status: Up), 'Route Configuration' (Destination IP: fe80::/64, Source: ::, Gateway: ::, Metric: 1024, Interface: br0; Destination IP: fe80::/64, Source: ::, Gateway: ::, Metric: 256, Interface: br0), 'DS-lite Configuration' (Interface: br0, AFTR name: br0, AFTR address: fe80::9ac7:49ff:fe4e:2ed8, DS-Lite DHCPv6 option: Enabled), and a 'Refresh' button.

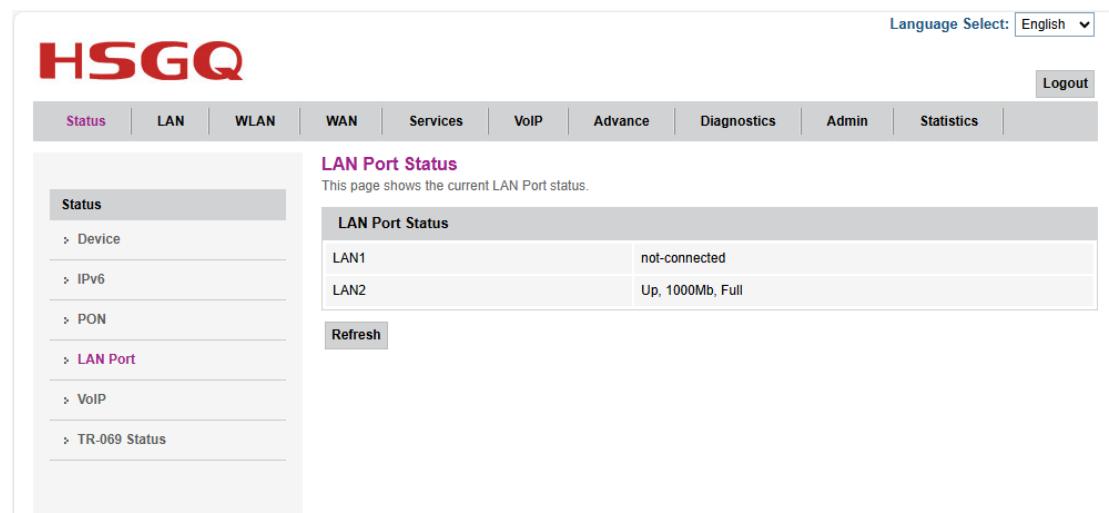
The IPv6 page can view the IPv6 configuration details of the LAN and WAN.

4.1.3 PON

The screenshot shows the 'PON Status' page of the HSGQ web interface. The left sidebar has a 'Status' section with links for Device, IPv6, PON (selected and highlighted in pink), LAN Port, VoIP, and TR-069 Status. The main content area is divided into several sections: 'PON Status' (Temperature: 23.042969 C, Voltage: 3.427700 V, Tx Power: No signal, Rx Power: No signal, Bias Current: 0.002000 mA), 'Registered Status' (Registered Status: Not Registered), and 'GPON Status' (ONU State: O1, ONU ID: 0, LOID Status: Initial Status). A 'Refresh' button is at the bottom.

The PON page can view PON status, registration status, GPON status (or EPON status)

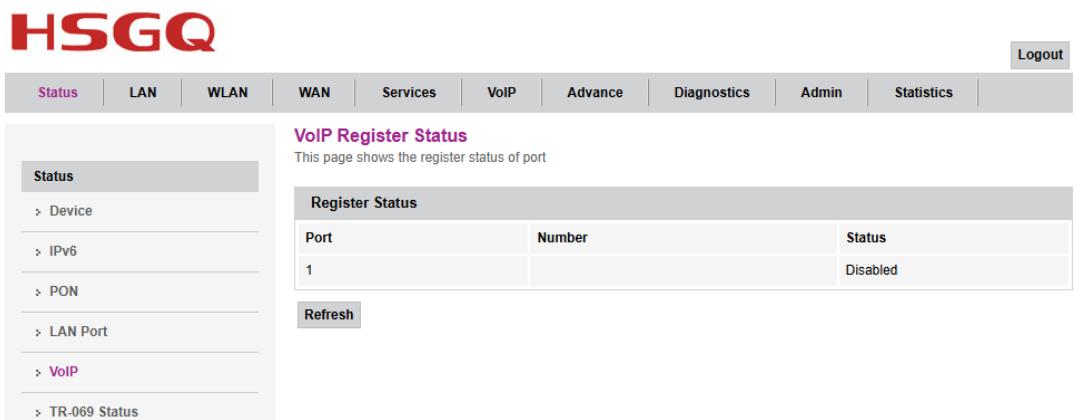
4.1.4 LAN Port



Port	Status
LAN1	not-connected
LAN2	Up, 1000Mb, Full

The LAN Port page can view the LAN port status

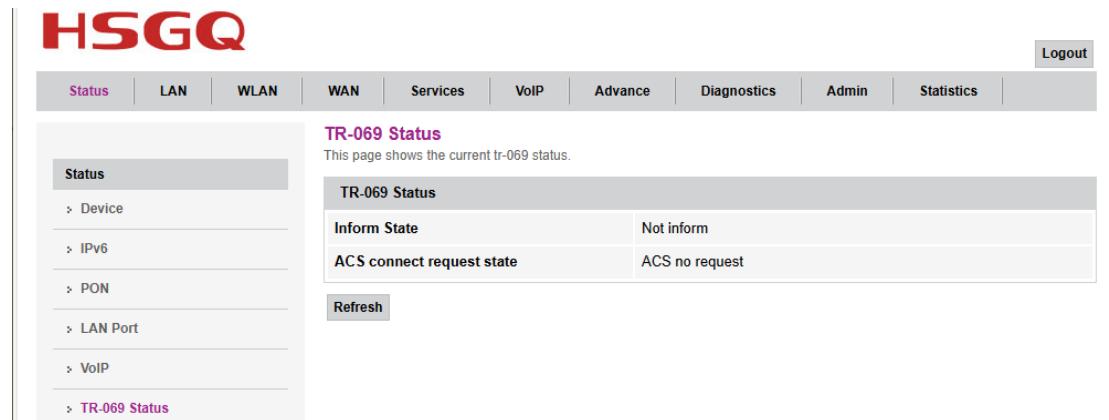
4.1.5 VOIP



Port	Number	Status
1		Disabled

The VOIP page can view the voice port number and registration status.

4.1.6 TR069 Status



Inform State	ACS connect request state
Not inform	ACS no request

The TR069 Status page can view the tr069 inform status

4.2 LAN

The LAN page includes LAN interface settings and DHCP settings

4.2.1 LAN Interface Settings

Language Select: English

LAN Interface Settings

This page is used to configure the LAN interface of your Device. Here you may change the setting for IP addresses, subnet mask, etc..

InterfaceName:	br0
IP Address:	192.168.1.1
Subnet Mask:	255.255.255.0
IPv6 Link-Local Address Mode:	Auto
IPv6 DNS Mode:	HGWProxy
Prefix Mode:	WANDelegated
WAN Interface:	<input type="button" value="▼"/>
IGMP Snooping:	<input type="radio"/> Disabled <input checked="" type="radio"/> Enabled
Ethernet to Wireless Blocking:	<input type="radio"/> Disabled <input checked="" type="radio"/> Enabled
LAN1:	<input type="radio"/> Disabled <input checked="" type="radio"/> Enabled
LAN2:	<input type="radio"/> Disabled <input checked="" type="radio"/> Enabled

This page supports modifying LAN IP addresses, enabling LAN ports, and enabling IGMP Snooping

4.2.2 DHCP

Logout

DHCP Settings

This page is used to configure DHCP Server and DHCP Relay.

DHCP Mode:	<input type="radio"/> NONE <input type="radio"/> DHCP Relay <input checked="" type="radio"/> DHCP Server <input type="radio"/> DHCP Client
Enable the DHCP Server if you are using this device as a DHCP server. This page lists the IP address pools available to hosts on your LAN. The device distributes numbers in the pool to hosts on your network as they request Internet access.	
LAN IP Address: 192.168.1.1 Subnet Mask: 255.255.255.0	
IP Pool Range:	192.168.1.2 - 192.168.1.254 <input type="button" value="Show Client"/>
Subnet Mask:	255.255.255.0
Max Lease Time:	86400 seconds (-1 indicates an infinite lease)
DomainName:	bbrouter
Gateway Address:	192.168.1.1
DNS option:	<input checked="" type="radio"/> Use DNS Proxy <input type="radio"/> Set Manually <input type="radio"/> From ISP



This page supports modifying the DHCP address pool range, DHCP network management, and domain name

4.3 WLAN

The WLAN page 5G WiFi configurations

4.3.1 5G

WLAN Basic Settings
This page is used to configure the parameters for WLAN clients which may connect to your Access Point. Here you may change wireless encryption settings as well as wireless network parameters.

Disable WLAN Interface

Band: 5 GHz (A+N+AC)

Mode: AP

SSID: HS-4E2ED8-5G

Channel Width: 80MHz

Control Sideband: Auto

Channel Number: Auto(DFS)

Radio Power (%): 100%

TX restrict: 0 Mbps (0.no restrict)

RX restrict: 0 Mbps (0.no restrict)

Associated Clients: Show Active WLAN Clients

Enable Universal Repeater Mode (Acting as AP and client simultaneously)

Apply Changes

The current page can view/modify the 5G WiFi SSID, Channel Width, and channel.

WLAN Security Settings
This page allows you setup the WLAN security. Turn on WEP or WPA by using Encryption Keys could prevent any unauthorized access to your wireless network.

SSID Type: Root AP - HS-4E2ED8-5G

Encryption: WPA2 Mixed

WPA Cipher Suite: TKIP AES

WPA2 Cipher Suite: TKIP AES

Group Key Update Timer: 86400

Pre-Shared Key Format: Passphrase

Pre-Shared Key: Show Password

Apply Changes

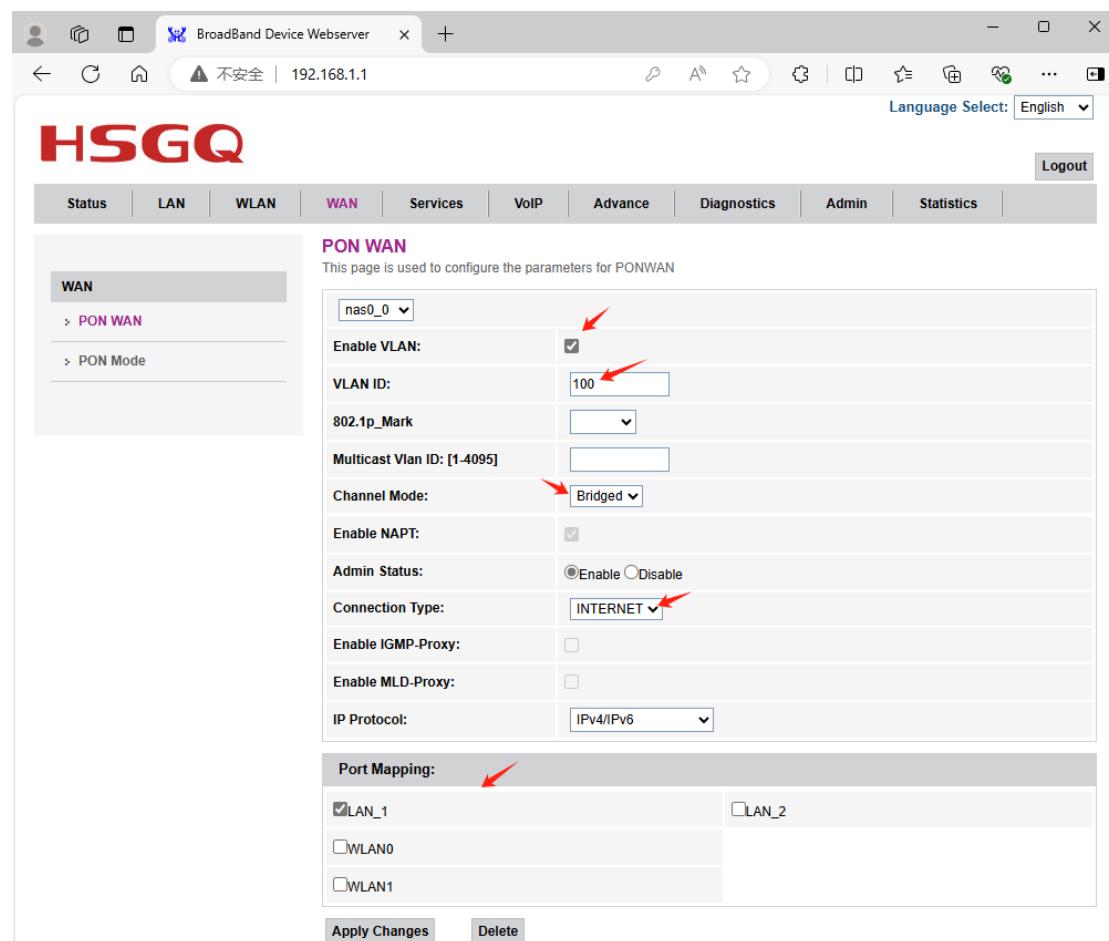
The current page can view/modify the 5G WiFi encryption type and password.

4.4 WAN

The WAN page includes WAN settings, mode settings, such as Bridge/IPoE/PPPoE, port binding, GPON/EPON adaptive switching

4.4.1 Bridged

For example, creating a VLAN 100 bridging network and binding 4 LAN ports (only the LAN port flows through VLAN 100 data)



PON WAN
This page is used to configure the parameters for PONWAN

nas0_0	
Enable VLAN:	<input checked="" type="checkbox"/>
VLAN ID:	100
802.1p_Mark	
Multicast Vlan ID: [1-4095]	
Channel Mode:	Bridged
Enable NAPT:	<input checked="" type="checkbox"/>
Admin Status:	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
Connection Type:	INTERNET
Enable IGMP-Proxy:	<input type="checkbox"/>
Enable MLD-Proxy:	<input type="checkbox"/>
IP Protocol:	IPv4/IPv6

Port Mapping:

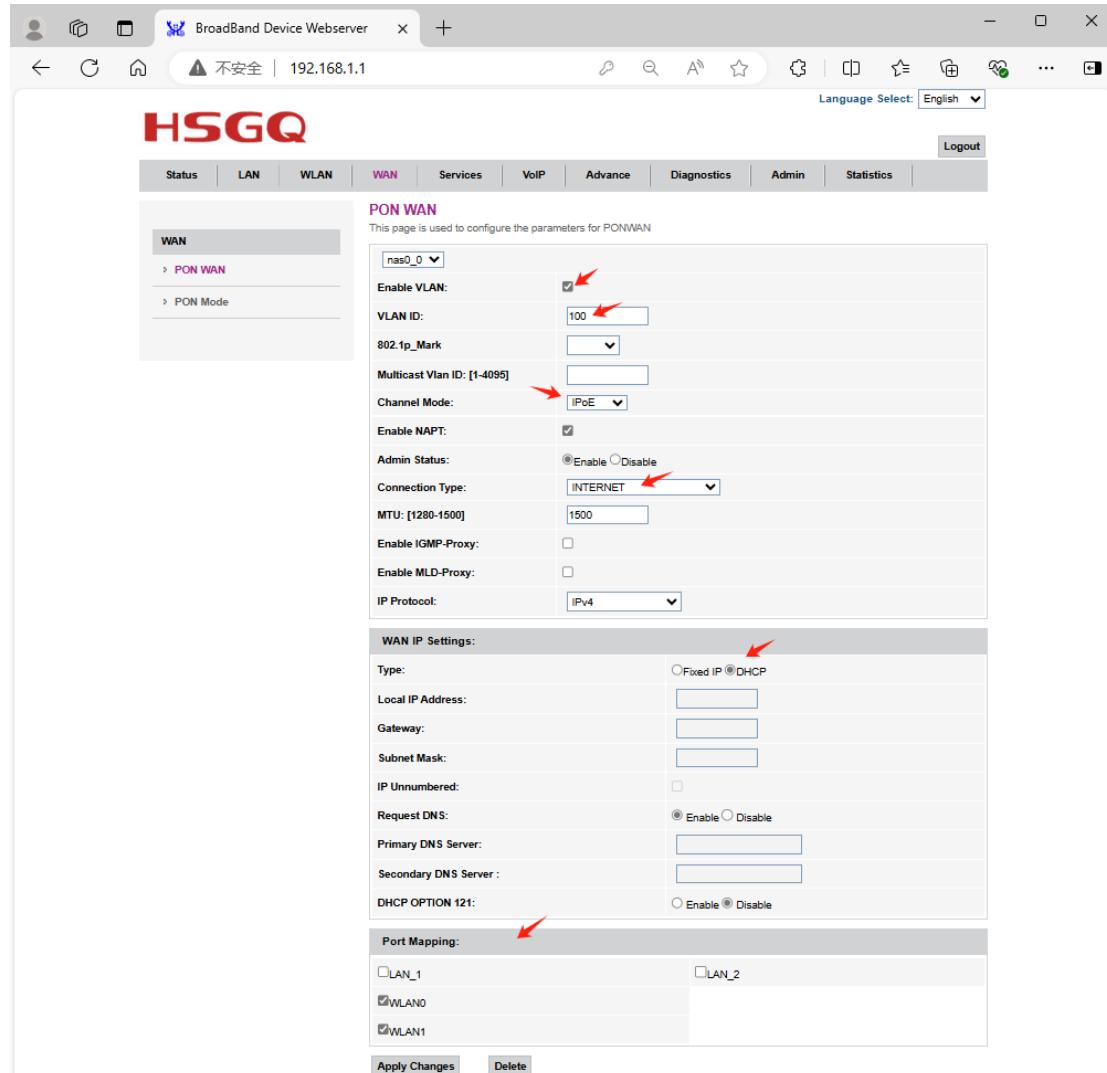
<input checked="" type="checkbox"/> LAN_1	<input type="checkbox"/> LAN_2
<input type="checkbox"/> WLAN0	
<input type="checkbox"/> WLAN1	

Apply Changes **Delete**

- ①Enable vlan
- ②VLAN ID: 100
- ③Mode: Bridged
- ④Service type: Internet
- ⑤LAN1 tick

4.4.2 IPOE DHCP

For example, creating a DHCP internet WAN with VLAN 100 and binding it to a WLAN port



The screenshot shows the 'PON WAN' configuration page. The 'nas0_0' port is selected. The 'Enable VLAN' checkbox is checked, and the 'VLAN ID' is set to 100. The 'Channel Mode' is set to 'IPOE'. The 'Connection Type' is set to 'INTERNET'. The 'Type' is set to 'DHCP'. In the 'Port Mapping' section, 'WLAN0' and 'WLAN1' are checked. The 'WAN IP Settings' section shows 'Type' as 'DHCP'.

- ①Enable vlan
- ②VLAN ID: 100
- ③Mode: IPOE
- ④Service type: Internet
- ⑤Type: DHCP
- ⑥WLAN0,WLAN1 tick

4.4.3 IPOE Static IP

For example, creating a static router with VLAN 100 to connect to WAN, binding LAN2



PON WAN
This page is used to configure the parameters for PONWAN

WAN

> PON WAN

> PON Mode

PON WAN

nas0_0

Enable VLAN: (arrow)

VLAN ID: 100 (arrow)

802.1p_Mark: (arrow)

Multicast Vlan ID: [1-4095] (arrow)

Channel Mode: IPoE (arrow)

Enable NAPT:

Admin Status: Enable Disable

Connection Type: INTERNET (arrow)

MTU: [1280-1500] 1500

Enable IGMP-Proxy:

Enable MLD-Proxy:

IP Protocol: IPv4

WAN IP Settings:

Type: Fixed IP DHCP (arrow)

Local IP Address: 192.168.2.123

Gateway: 192.168.2.1

Subnet Mask: 255.255.255.0

IP Unnumbered:

Request DNS: Enable Disable

Primary DNS Server: 192.168.2.1

Secondary DNS Server: 114.114.114.114

DHCP OPTION 121: Enable Disable

Port Mapping: (arrow)

LAN_1 (arrow)

WLAN0

WLAN1

LAN_2

Buttons: Apply Changes, Delete

- ①Enable vlan
- ②VLAN ID: 100
- ③Mode: IPoE
- ④Service type: Internet
- ⑤Type: Fixed IP
- ⑥LAN2 tick

4.4.4 PPPOE

For example, creating a VPN 100 PPPoE dial-up network wan (ONU dial-up),
binding lan1 and lan4

Status | LAN | WLAN | **WAN** | Services | VoIP | Advance | Diagnostics | Admin | Statistics |

PON WAN
This page is used to configure the parameters for PONWAN

ppp0_nas0_0	<input checked="" type="checkbox"/>
Enable VLAN:	<input checked="" type="checkbox"/>
VLAN ID:	100
802.1p_Mark	<input type="button" value="▼"/>
Multicast Vlan ID: [1-4095]	<input type="button"/>
Channel Mode:	PPPoE
Enable NAPT:	<input checked="" type="checkbox"/>
Admin Status:	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
Connection Type:	INTERNET
MTU: [1280-1492]	1492
Enable IGMP-Proxy:	<input type="checkbox"/>
Enable MLD-Proxy:	<input type="checkbox"/>
IP Protocol:	IPv4

PPP Settings:

UserName:	2456788980
Password:	*****
Type:	Continuous
Idle Time (sec):	<input type="button"/>
Authentication Method:	AUTO
AC-Name:	<input type="button"/>
Service-Name:	<input type="button"/>

Port Mapping:

<input checked="" type="checkbox"/> LAN_1	<input checked="" type="checkbox"/> LAN_2
<input type="checkbox"/> WLAN0	
<input type="checkbox"/> WLAN1	

Buttons: Apply Changes | Delete

- ①Enable vlan
- ②VLAN ID: 100
- ③Mode: PPPoE
- ④Service type: Internet
- ⑤PPP settings: PPPOE dial-up username and password
- ⑥LAN1,LAN2 tick

4.4.5 PON Mode

PonMode Configuration

This page be used to configure pon mode,the device will reboot after operation.

PON Mode: Auto GPON EPON

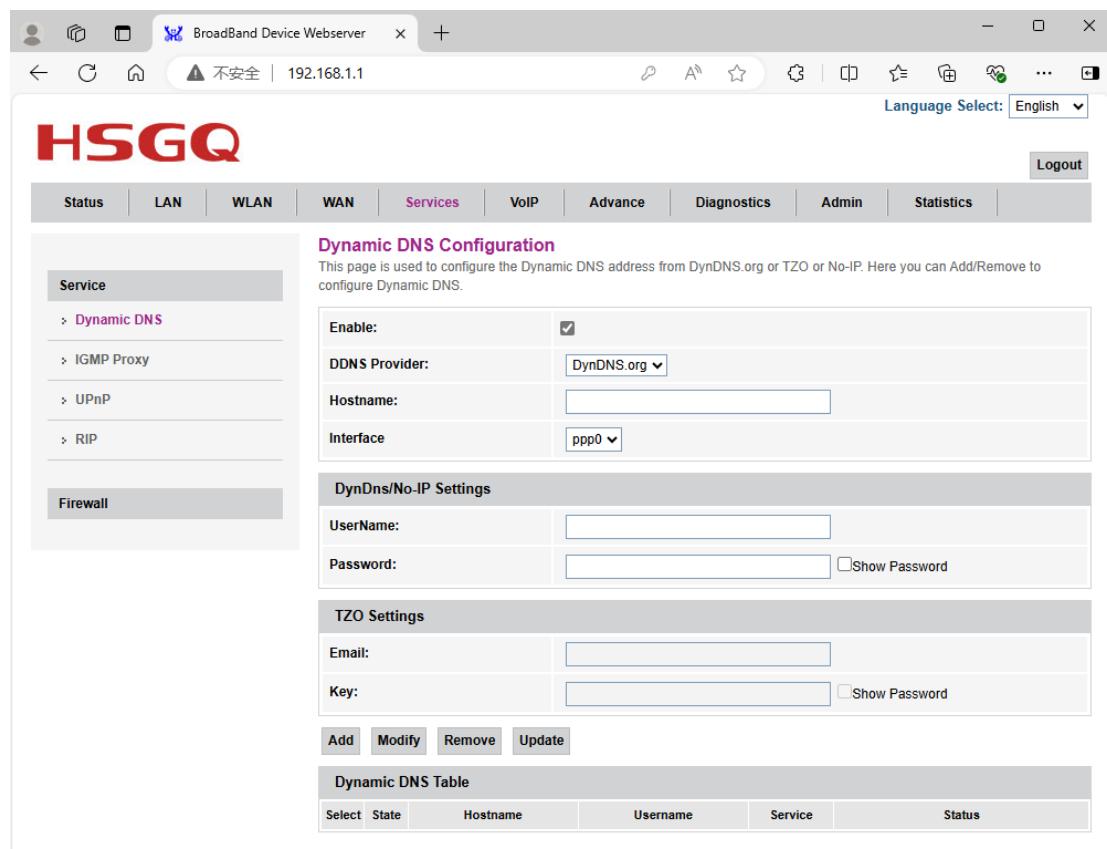
Buttons: Apply Changes

- ① Auto: GPON/EPON automatic switching, supporting registration on GPON and EPON OLT
- ② GPON: Only supports registration on GPON OLT
- ③ EPON: Only supports registration on EPON OLT

4.5 Services

The service function includes two parts: service and firewall

4.5.1 DDNS, IGMP proxy, UPnP, RIP, Samba



Dynamic DNS Configuration
This page is used to configure the Dynamic DNS address from DynDNS.org or TZO or No-IP. Here you can Add/Remove to configure Dynamic DNS.

Select	State	Hostname	Username	Service	Status

4.5.2 IP/Port filtering, MAC filtering, Port Forwarding, URL filtering, domain filtering, DMZ

[Status](#) | [LAN](#) | [WLAN](#) | [WAN](#) | [Services](#) | [VoIP](#) | [Advance](#) | [Diagnostics](#) | [Admin](#) | [Statistics](#)

IP/Port Filtering

Entries in this table are used to restrict certain types of data packets through the Gateway. Use of such filters can be helpful in securing or restricting your local network.

Outgoing Default Action:	<input type="radio"/> Deny <input checked="" type="radio"/> Allow
Incoming Default Action:	<input type="radio"/> Deny <input checked="" type="radio"/> Allow

Apply Changes

Direction: <input type="button" value="Outgoing"/>	Protocol: <input type="button" value="TCP"/>	Rule Action: <input checked="" type="radio"/> Deny <input type="radio"/> Allow
Source IP Address: <input type="text"/>	Subnet Mask: <input type="text"/>	Port: <input type="text"/> - <input type="text"/>
Destination IP Address: <input type="text"/>	Subnet Mask: <input type="text"/>	Port: <input type="text"/> - <input type="text"/>

Add

Select	Direction	Protocol	Source IP Address	Source Port	Destination IP Address	Destination Port	Interface	Rule Action
--------	-----------	----------	-------------------	-------------	------------------------	------------------	-----------	-------------

Current Filter Table

Add

Delete Selected | **Delete All**

4.6 VOIP

The voip page mainly includes SIP client configuration, Voice Region, call history, and voice port registration status

4.6.1 Sip Client/Voice Port Configuration

[Status](#) | [LAN](#) | [WLAN](#) | [WAN](#) | [Services](#) | [VoIP](#) | [Advance](#) | [Diagnostics](#) | [Admin](#) | [Statistics](#)

VoIP

Port1

- [Advance](#)
- [Dial plan](#)
- [Tone](#)
- [Other](#)
- [Network](#)
- [Call History](#)
- [Register Status](#)

Default Proxy

Select Default Proxy:

Display Name	<input type="text" value="308"/>
Number	<input type="text" value="3088"/>
Login ID	<input type="text" value="308"/>
Password	<input type="text" value="....."/>
Proxy	<input checked="" type="checkbox"/> Enable
Proxy Addr	<input type="text" value="192.168.2.218"/>
Proxy Port	<input type="text" value="5060"/>
SIP Subscribe	<input checked="" type="checkbox"/> Enable
SIP Domain	<input type="text" value="192.168.2.218"/>
Reg Expire (sec)	<input type="text" value="3600"/>
Outbound Proxy	<input checked="" type="checkbox"/> Enable
Outbound Proxy Addr	<input type="text" value="192.168.2.218"/>
Outbound Proxy Port	<input type="text" value="5060"/>
Enable Session timer	<input checked="" type="checkbox"/> Enable
Session Expire (sec)	<input type="text" value="1800"/>

Proxy1

Display Name	<input type="text"/>
--------------	----------------------



Phone number: 308, password: XXXX, voice server address: 192.168.2.218

Note: The prerequisite is to create a voice wan connection

4.6.2 Voice Region

The screenshot shows the HSGQ web interface. In the top right corner, there is a 'Logout' button. Below the header, there is a navigation menu with tabs: Status, LAN, WLAN, WAN, Services, VoIP (which is highlighted in pink), Advance, Diagnostics, Admin, and Statistics. On the left, there is a sidebar with a 'VoIP' section containing links for Port1, Advance, Dial plan, Tone, Other, Network, Call History, and Register Status. The main content area is titled 'Select Country/Region' and shows a dropdown menu with the following options: USA, UK, AUSTRALIA, HONG KONG, JAPAN, SWEDEN, GERMANY, FRANCE, TAIWAN, BELGIUM, FINLAND, ITALY, CHINA, RUSSIAN, SPAIN, INDIA, EXT4, and CUSTOMER. The 'CHINA' option is selected.

The current version can be selected with the above region code and supports additional customization

4.6.3 Call History

The screenshot shows the HSGQ web interface. In the top right corner, there is a 'Logout' button. Below the header, there is a navigation menu with tabs: Status, LAN, WLAN, WAN, Services, VoIP (which is highlighted in pink), Advance, Diagnostics, Admin, and Statistics. On the left, there is a sidebar with a 'VoIP' section containing links for Port1, Advance, Dial plan, Tone, Other, Network, Call History, and Register Status. The main content area is titled 'VoIP CallHistory' and contains the text 'This page shows the VoIP Call log.' Below this, there is a 'Refresh' button and a table header with columns: No., Status, From, To, Type, Duration, and DateTime.

4.6.4 Register Status

HSGQ

Logout

Status | LAN | WLAN | WAN | Services | **VoIP** | Advance | Diagnostics | Admin | Statistics |

VoIP

- > Port1
- > Advance
- > Dial plan
- > Tone
- > Other
- > Network
- > Call History
- > **Register Status**

VoIP Register Status

This page shows the register status of port

Register Status		
Port	Number	Status
1		Disabled

Refresh

4.7 Advance

The advanced page includes advance, IP QoS, and IPv6

4.7.1 ARP Table,Bridging,Loop Detection,Routing,Print Server

HSGQ
Logout

Status
LAN
WLAN
WAN
Services
VoIP
Advance
Diagnostics
Admin
Statistics

User List

This table shows a list of learned MAC addresses.

IP Address	MAC Address
192.168.1.7	f8-e4-3b-7b-b6-61

Refresh

4.7.2 IP Qos

HSGQ
Logout

Status
LAN
WLAN
WAN
Services
VoIP
Advance
Diagnostics
Admin
Statistics

IP QoS Configuration

Advance	<input checked="" type="radio"/> IP QoS	<input type="radio"/> Disable	<input type="radio"/> Enable
<input style="border: 1px solid #ccc; padding: 5px; width: 150px; height: 30px;" type="button" value="Apply Changes"/>			

- IP QoS
- > QoS Policy
- > QoS Classification
- > Traffic Shaping

- IPv6



4.7.3 IPv6

Mainly including IPv6 DHCP, MLD, IP/Port filtering, IPv6 ACL

IPv6 Configuration
This page is used to configure IPv6 enable/disable

IPv6: Disable Enable

Apply Changes

- ① WAN side: A dual stack (IPv4&IPv6) WAN connection
- ② LAN side: DHCPv6 setting

4.8 Diagnostics

The diagnosis page includes ping diagnosis and tracert tracking

4.8.1 Ping

Ping Diagnostics
This page is used to send ICMP ECHO_REQUEST packets to network host. The diagnostic result will then be displayed.

Host Address:

WAN Interface:

Go

Support IPv4, IPv6 address, domain name ping diagnosis

4.8.2 Tracert



HSGQ Logout

[Status](#) [LAN](#) [WLAN](#) [WAN](#) [Services](#) [VoIP](#) [Advance](#) [Diagnostics](#) [Admin](#) [Statistics](#)

Traceroute Diagnostics
This page is used to print the route packets trace to network host. The diagnostic result will then be displayed.

Protocol:	ICMP
Host Address:	<input type="text"/>
Number Of Tries:	3
Time out:	5 s
Data Size:	56 Bytes
DSCP:	0
Max HopCount:	30
WAN Interface:	Any

Go

Supports IPv4 and IPv6 address routing tracking

4.9 Admin

The Admin page includes GPON Settings,OMCI Information,commit/reboot, multi-lingual settings, backup/restore, system log , password, Firmware Upgrade,ACL settings, time zone,TR069,Reboot timer and logout.

4.9.1 GPON Settings

HSGQ Logout

[Status](#) [LAN](#) [WLAN](#) [WAN](#) [Services](#) [VoIP](#) [Advance](#) [Diagnostics](#) [Admin](#) [Statistics](#)

GPON Settings
This page is used to configure the parameters for your GPON network access.

LOID:	<input type="text"/>
LOID Password:	<input type="text"/>
PLOAM Password:	1234567890
Serial Number:	XPON494E2ED8
OMCI OLT Mode:	Default Mode

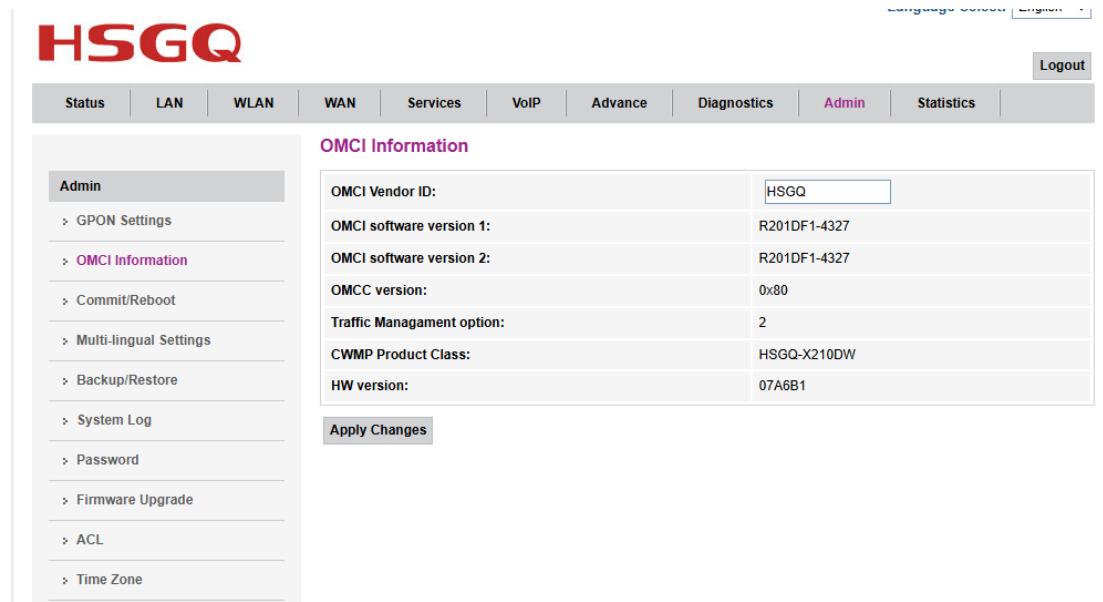
Apply Changes

Admin

- ▷ [GPON Settings](#)
- ▷ [OMCI Information](#)
- ▷ [Commit/Reboot](#)
- ▷ [Multi-lingual Settings](#)
- ▷ [Backup/Restore](#)
- ▷ [System Log](#)
- ▷ [Password](#)
- ▷ [Firmware Upgrade](#)
- ▷ [ACL](#)
- ▷ [Time Zone](#)
- ▷ [TR-069](#)
- ▷ [Reboot Timer](#)
- ▷ [Logout](#)

The current page allows you to view the GPON SN, modify the LOID, LOID password, and PLOAM password

4.9.2 OMCI Information



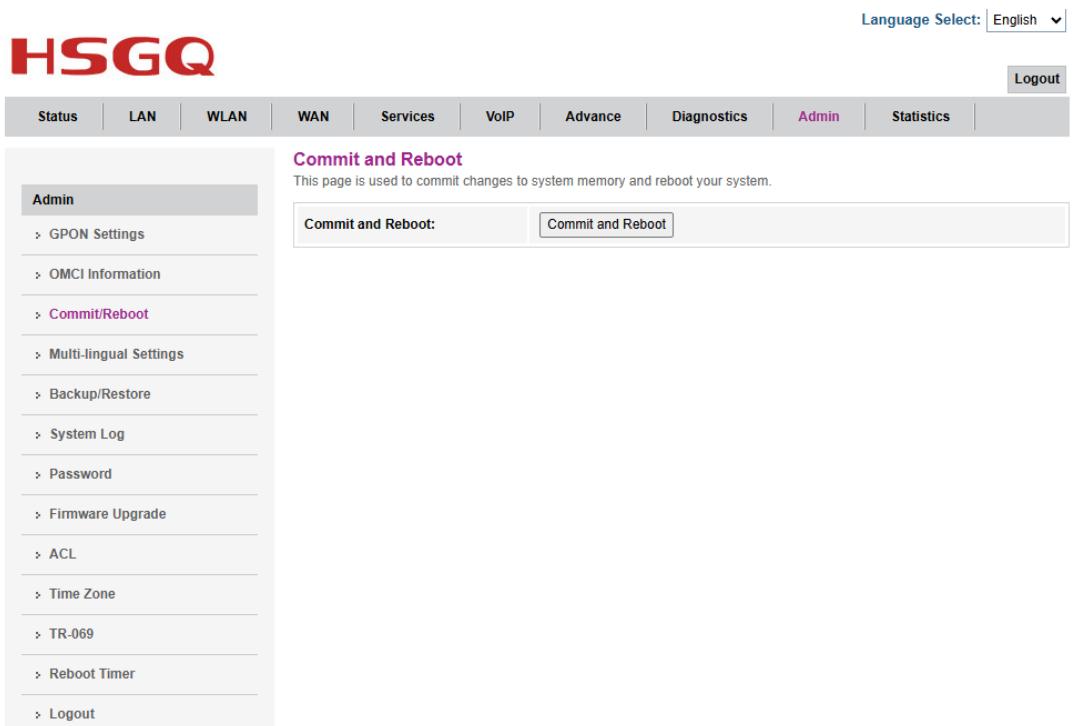
The screenshot shows the HSGQ web interface. The top navigation bar includes 'Language Select: English', 'Logout', and tabs for Status, LAN, WLAN, WAN, Services, VoIP, Advance, Diagnostics, Admin (which is selected), and Statistics. The left sidebar under 'Admin' has links for GPON Settings, OMCI Information (which is selected and highlighted in pink), Commit/Reboot, Multi-lingual Settings, Backup/Restore, System Log, Password, Firmware Upgrade, ACL, and Time Zone. The main content area is titled 'OMCI Information' and contains a table with the following data:

OMCI Vendor ID:	HSGQ
OMCI software version 1:	R201DF1-4327
OMCI software version 2:	R201DF1-4327
OMCC version:	0x80
Traffic Management option:	2
CWMP Product Class:	HSGQ-X210DW
HW version:	07A6B1

At the bottom of the content area is a 'Apply Changes' button.

The current page can view the OMCI version number (primary and backup partitions), OMCC version, GPON device ID, and hardware version, and supports modifying the manufacturer ID

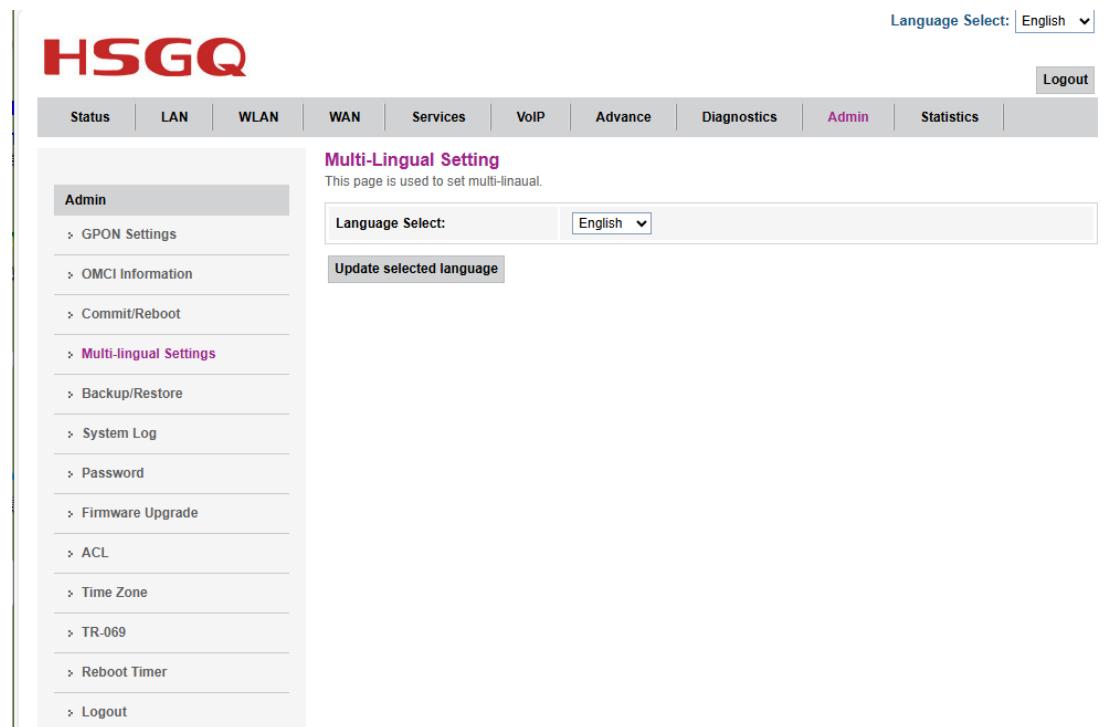
4.9.3 commit/reboot



The screenshot shows the HSGQ web interface. The top navigation bar includes 'Language Select: English', 'Logout', and tabs for Status, LAN, WLAN, WAN, Services, VoIP, Advance, Diagnostics, Admin (which is selected), and Statistics. The left sidebar under 'Admin' has links for GPON Settings, OMCI Information, Commit/Reboot (which is selected and highlighted in pink), Multi-lingual Settings, Backup/Restore, System Log, Password, Firmware Upgrade, ACL, Time Zone, TR-069, Reboot Timer, and Logout. The main content area is titled 'Commit and Reboot' and contains the following text: 'This page is used to commit changes to system memory and reboot your system.' Below this is a 'Commit and Reboot' button.

Save the current configuration and restart

4.9.4 multi-lingual settings



Language Select: English

Logout

Status LAN WLAN WAN Services VoIP Advance Diagnostics Admin Statistics

Multi-Lingual Setting
This page is used to set multi-lingual.

Language Select: English

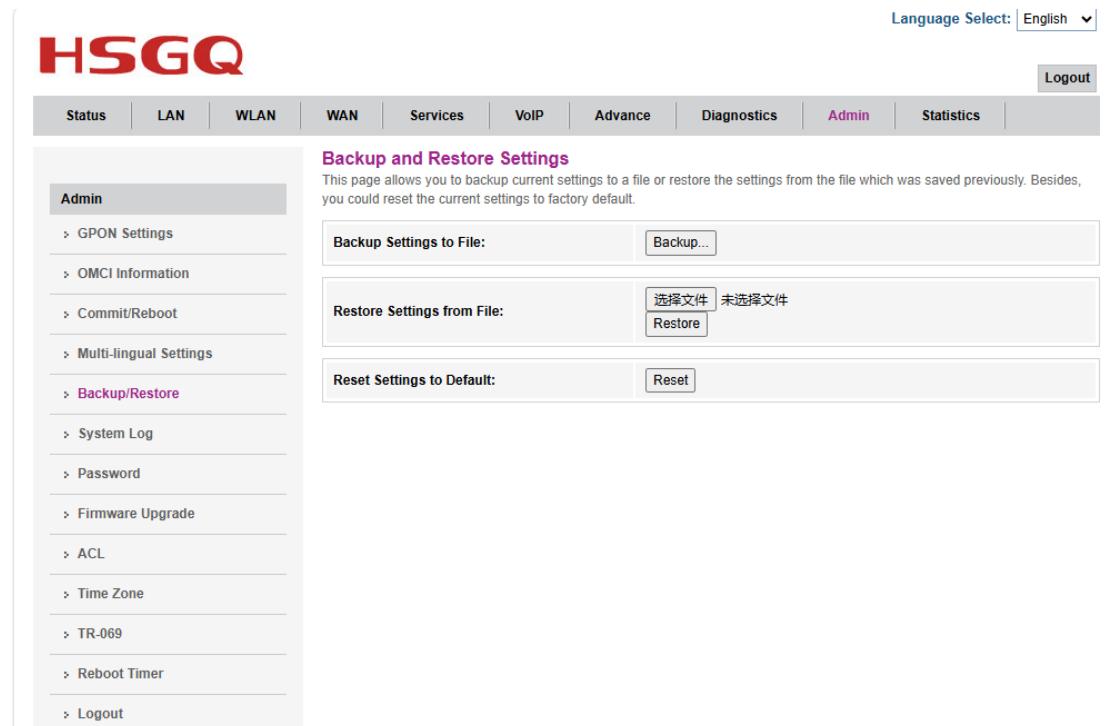
Update selected language

Admin

- > GPON Settings
- > OMCI Information
- > Commit/Reboot
- > **Multi-lingual Settings**
- > Backup/Restore
- > System Log
- > Password
- > Firmware Upgrade
- > ACL
- > Time Zone
- > TR-069
- > Reboot Timer
- > Logout

Switch between Chinese and English interfaces

4.9.5 backup/restore



Language Select: English

Logout

Status LAN WLAN WAN Services VoIP Advance Diagnostics Admin Statistics

Backup and Restore Settings
This page allows you to backup current settings to a file or restore the settings from the file which was saved previously. Besides, you could reset the current settings to factory default.

Backup Settings to File:

Restore Settings from File: 未选择文件

Reset Settings to Default:

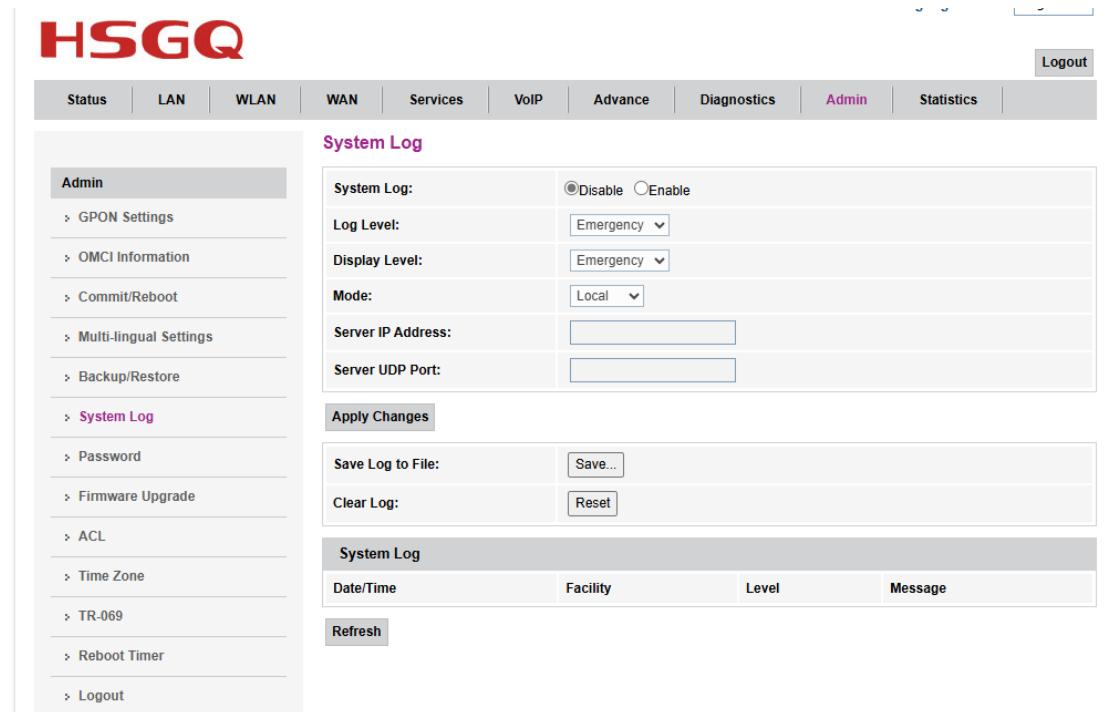
Admin

- > GPON Settings
- > OMCI Information
- > Commit/Reboot
- > Multi-lingual Settings
- > **Backup/Restore**
- > System Log
- > Password
- > Firmware Upgrade
- > ACL
- > Time Zone
- > TR-069
- > Reboot Timer
- > Logout

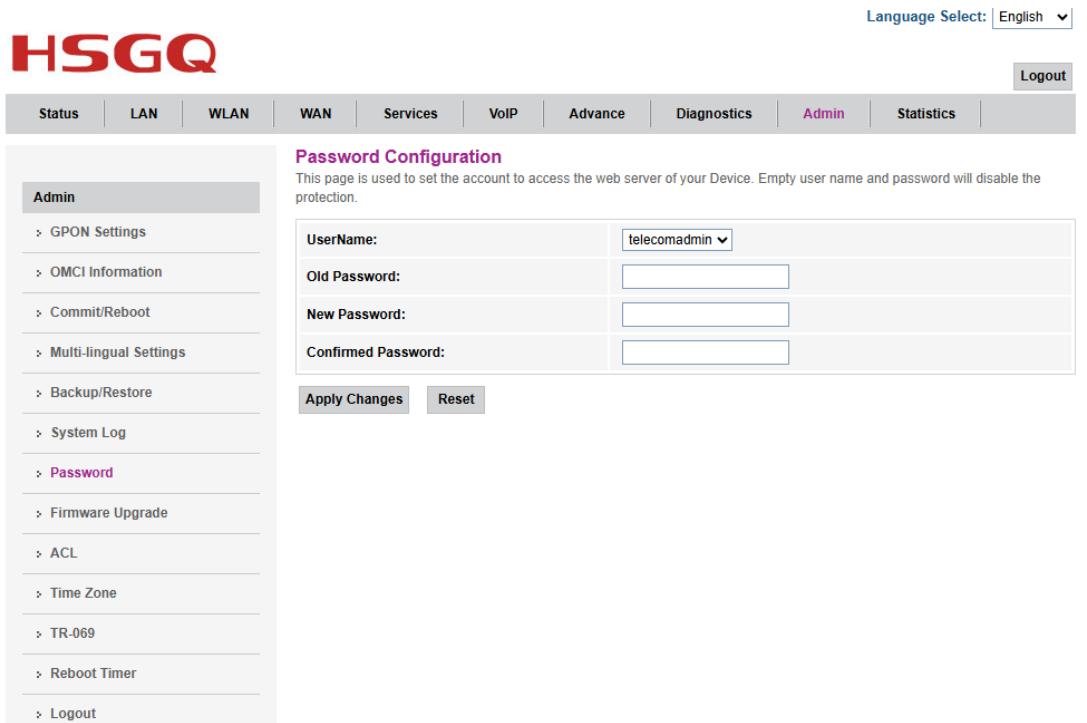
Supports backing up current configurations, restoring configurations, and

restoring factory settings

4.9.6 system log

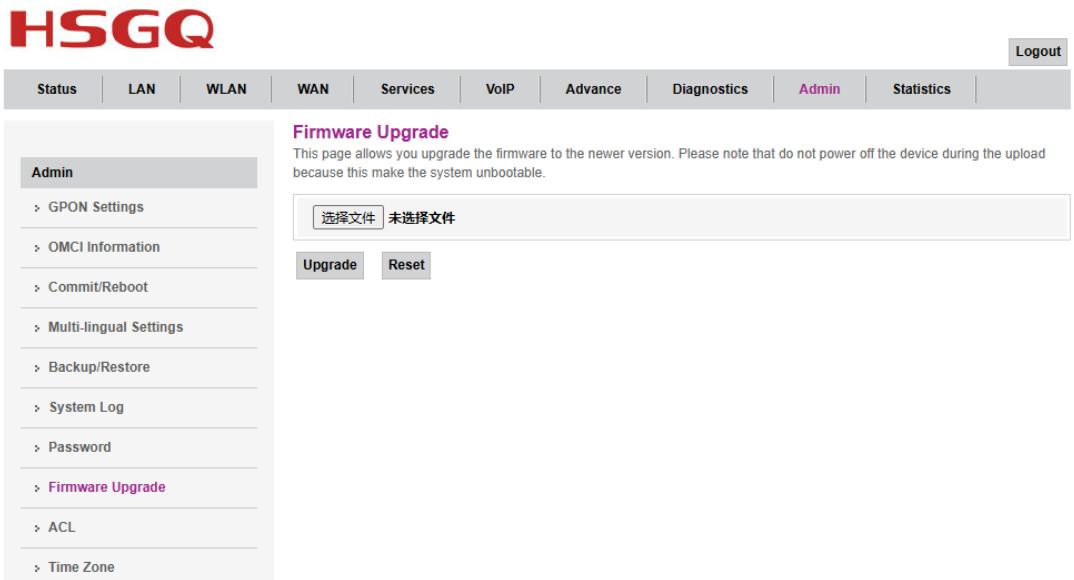


4.9.7 password



Change the login password for user permissions

4.9.8 Firmware Upgrade



Firmware Upgrade

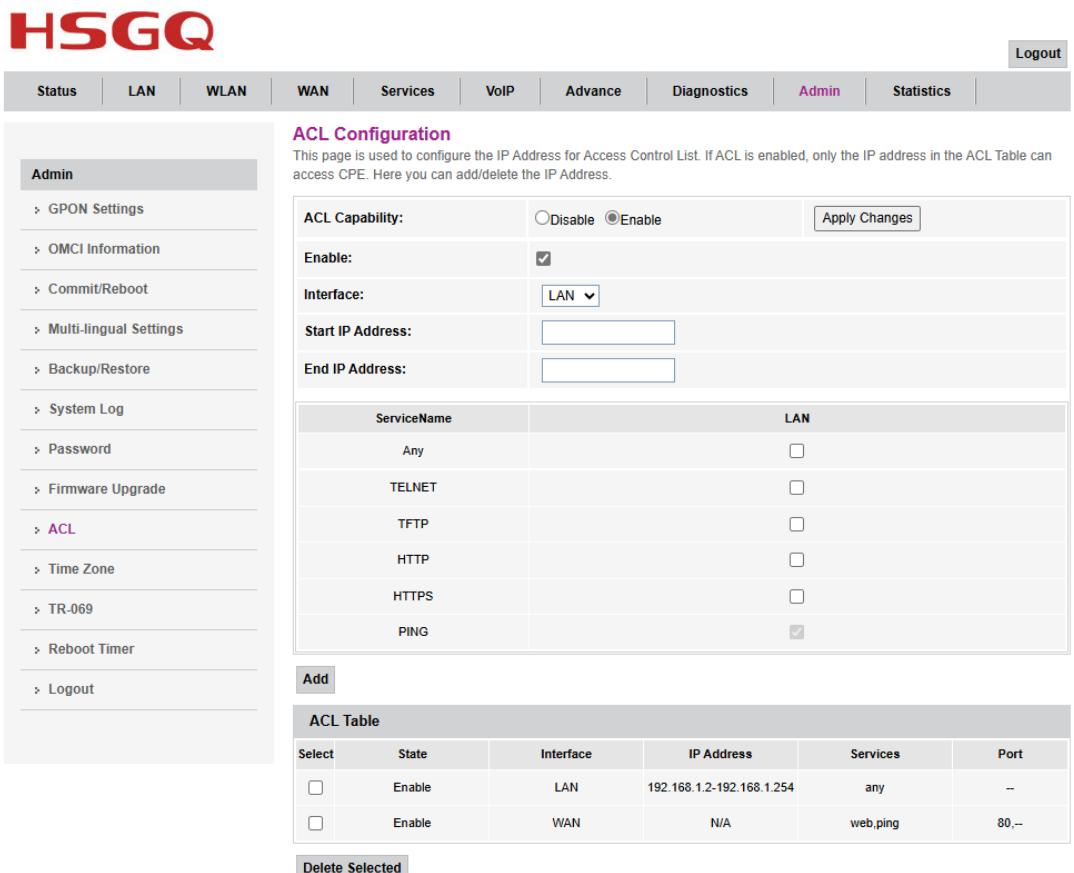
This page allows you upgrade the firmware to the newer version. Please note that do not power off the device during the upload because this make the system unbootable.

选择文件 未选择文件

Upgrade Reset

Only firmware version upgrades provided by our R&D/business are supported

4.9.9 ACL settings



ACL Configuration

This page is used to configure the IP Address for Access Control List. If ACL is enabled, only the IP address in the ACL Table can access CPE. Here you can add/delete the IP Address.

ACL Capability: Disable Enable

Enable:

Interface: LAN

Start IP Address:

End IP Address:

ServiceName	LAN
Any	<input type="checkbox"/>
TELNET	<input type="checkbox"/>
TFTP	<input type="checkbox"/>
HTTP	<input type="checkbox"/>
HTTPS	<input type="checkbox"/>
PING	<input checked="" type="checkbox"/>

Add

ACL Table

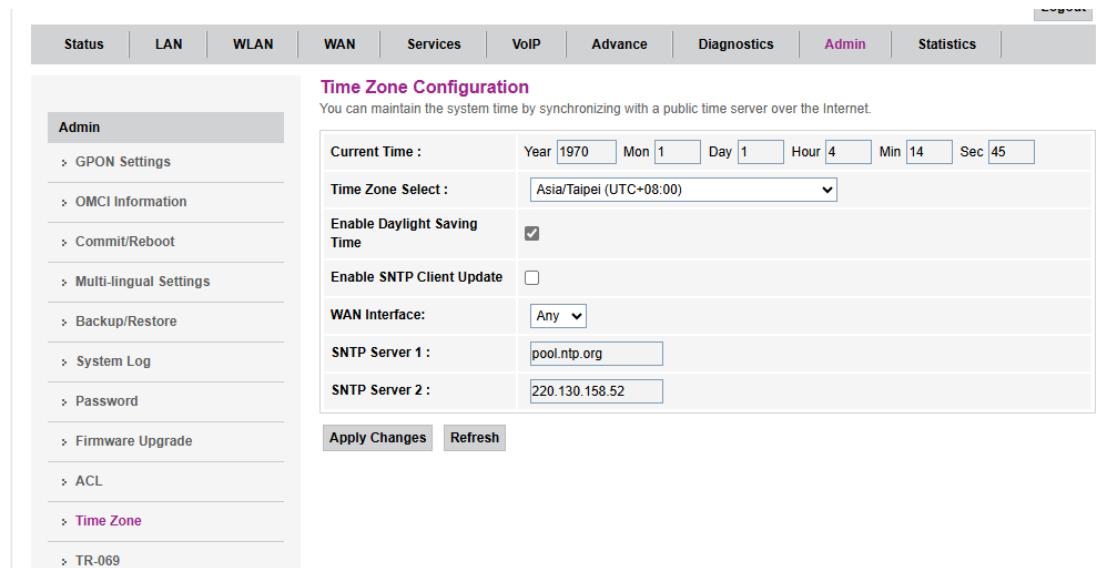
Select	State	Interface	IP Address	Services	Port
<input type="checkbox"/>	Enable	LAN	192.168.1.2-192.168.1.254	any	--
<input type="checkbox"/>	Enable	WAN	N/A	web,ping	80,--

Delete Selected

Enable/modify LAN side user telnet/HTTP/https/ping access to ONU by default,

support modifying WAN side access to ONU

4.9.10 Time zone



Time Zone Configuration
You can maintain the system time by synchronizing with a public time server over the Internet.

Current Time : Year 1970 Mon 1 Day 1 Hour 4 Min 14 Sec 45

Time Zone Select : Asia/Taipei (UTC+08:00)

Enable Daylight Saving Time

Enable SNTP Client Update

WAN Interface: Any

SNTP Server 1 : pool.ntp.org

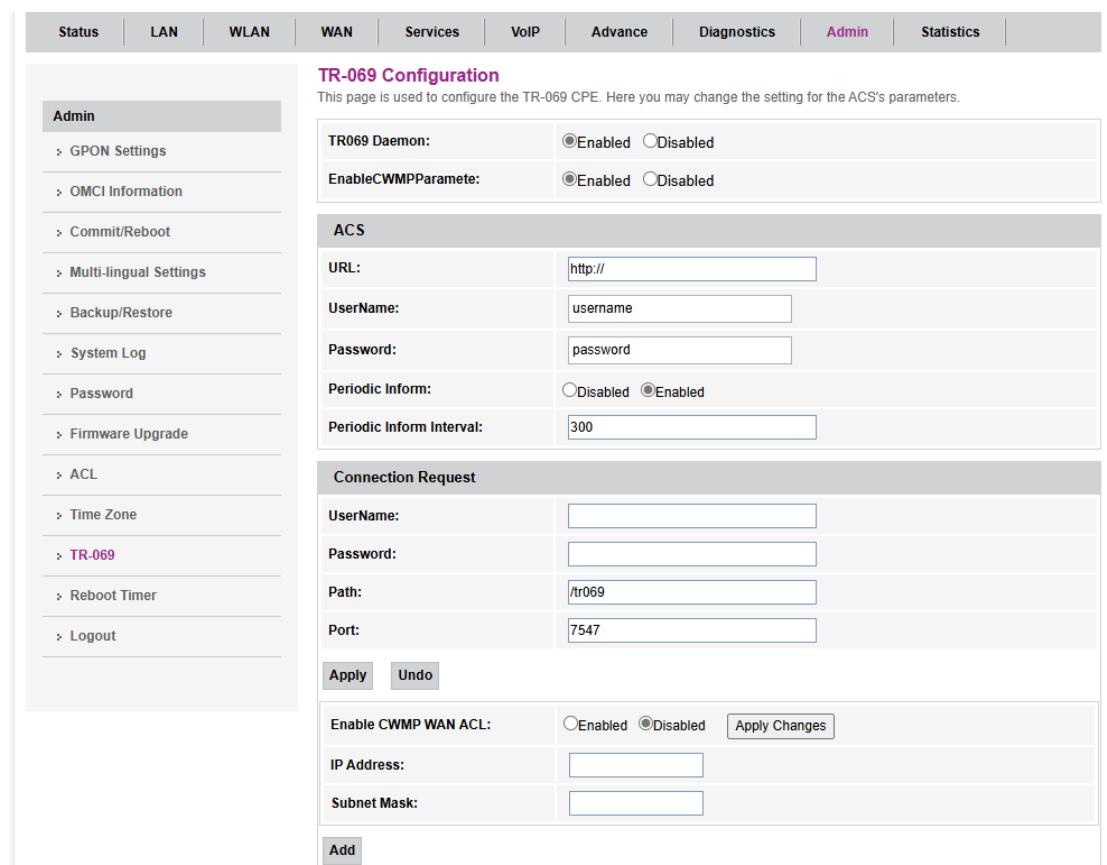
SNTP Server 2 : 220.130.158.52

Admin

- > GPON Settings
- > OMCI Information
- > Commit/Reboot
- > Multi-lingual Settings
- > Backup/Restore
- > System Log
- > Password
- > Firmware Upgrade
- > ACL
- > **Time Zone**
- > TR-069

Support modifying the current time zone and opening the SNTP time server

4.9.11 TR069



TR-069 Configuration
This page is used to configure the TR-069 CPE. Here you may change the setting for the ACS's parameters.

TR-069 Daemon: Enabled Disabled

EnableCWMPParameter: Enabled Disabled

ACS

URL: http://

UserName: username

Password: password

Periodic Inform: Disabled Enabled

Periodic Inform Interval: 300

Connection Request

UserName:

Password:

Path: /tr069

Port: 7547

Enable CWMP WAN ACL: Enabled Disabled **Apply Changes**

IP Address:

Subnet Mask:

Add

Note: Need to create a TR069 WAN connection

4.9.12 Reboot timer

Language Select: English ▾ [Logout](#)

HSGQ

Status | LAN | WLAN | WAN | Services | VoIP | Advance | Diagnostics | Admin | Statistics |

Commit and Reboot
This page is used to configure the Reboot Timer. It will reboot after running the setting of time!

uptime(mins): (0: not reboot)

[Apply Changes](#)

Admin

- > GPON Settings
- > OMCI Information
- > Commit/Reboot
- > Multi-lingual Settings
- > Backup/Restore
- > System Log
- > Password
- > Firmware Upgrade
- > ACL
- > Time Zone
- > TR-069
- > **Reboot Timer**
- > Logout

4.9.13 Logout

Language Select: English ▾ [Logout](#)

HSGQ

Status | LAN | WLAN | WAN | Services | VoIP | Advance | Diagnostics | Admin | Statistics |

Logout
This page is used to logout from the Device.

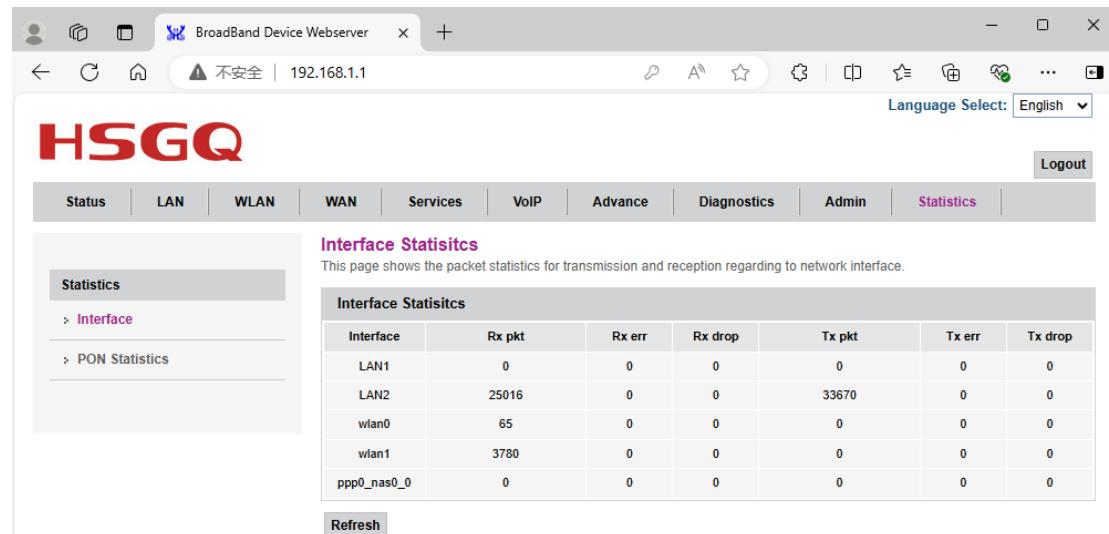
[Logout](#)

Admin

- > GPON Settings
- > OMCI Information
- > Commit/Reboot
- > Multi-lingual Settings
- > Backup/Restore
- > System Log
- > Password
- > Firmware Upgrade
- > ACL
- > Time Zone
- > TR-069
- > Reboot Timer
- > Logout

4.10 Statistics

The statistics page contains LAN, WLAN, and PON port statistics information



Interface	Rx pkt	Rx err	Rx drop	Tx pkt	Tx err	Tx drop
LAN1	0	0	0	0	0	0
LAN2	25016	0	0	33670	0	0
wlan0	65	0	0	0	0	0
wlan1	3780	0	0	0	0	0
ppp0_nas0_0	0	0	0	0	0	0

5 Common Fault Handling

Serial Number	Faultphenomenon	Solution
1	POWER light does not light up	1. Check whether the power access is normal 2. Check whether the power switch is on
2	NET light does not light up	1. Fiber optic failure, check if the fiber optic is damaged and if the fiber optic is connected correctly 2. The office equipment is malfunctioning
3	PON light does not light up	1. Check whether the optical fiber is connected normally 2. Check whether the ONU has passed the verification
4	LAN light does not light up	1. Check whether the cable is damaged or connected correctly 2. Check whether the cable is made incorrectly. Please use a cable made according to the standard Category 5 twisted pair method. 3. Whether the length of the network cable exceeds the allowed range



Conclusion

Thank you for using the products of Shenzhen Hongsheng Fiber Communication Equipment Co., Ltd.!

FCC Warning:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.