EchoLife HG612 FTTC VDSL NTE

User Guide

HUAWEI TECHNOLOGIES CO., LTD.

EchoLife HG612 FTTC VDSL NTE

V100R001

User Guide

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About This Document

Purpose

This document describes the functions, features, and configuration methods of the EchoLife HG612 fiber to the curb (FTTC) Very High Speed Digital Subscriber Line (VDSL) Network Termination Equipment (NTE) (hereinafter referred to as the HG612).

By reading this document, you can find out the functions and features of the HG612 and the procedures for installing and configuring the HG612.

Related Versions

The following table lists the product version related to this document.

Product Name	Version
HG612	V100R001

Intended Audience

This document is intended for:

- Installation and commissioning engineers
- Technical support engineers

Organization

This document is organized as follows.

Chapter	Describes
1 Safety Precautions	The safety precautions to be followed during the use of the HG612.
2 Product Overview	The functions, features, indicators, and interfaces of the HG612.

Chapter	Describes
3 Getting Started	How to connect the cables of the HG612, power on the HG612, and log in to the Web-based configuration utility of the HG612.
4 Checking the Status	The parameters on the Web-based configuration utility and how to obtain the information about the working status of the HG612 from the Web-based configuration utility.
5 Parameter Settings	How to configure the functions and set the parameters of the HG612.
6 Maintenance	Certain maintenance operations performed on the HG612, such as login account management, software upgrade, and network status diagnosis.
7 FAQs	Certain common questions about the use of the HG612 and the related solutions.
A Technical Specifications	The technical specifications of the HG612.
B Default Settings	The default settings of the HG612.
C Acronyms and Abbreviations	The acronyms and abbreviations involved in this document.

Conventions

Symbol Conventions

The symbols that may be found in this document are defined as follows.

Symbol	Description
⚠ DANGER	Indicates a hazard with a high level of risk, which if not avoided, will result in death or serious injury.
⚠ WARNING	Indicates a hazard with a medium or low level of risk, which if not avoided, could result in minor or moderate injury.
⚠ CAUTION	Indicates a potentially hazardous situation, which if not avoided, could result in equipment damage, data loss, performance degradation, or unexpected results.
☞ TIP	Indicates a tip that may help you solve a problem or save time.

Symbol	Description
📖 NOTE	Provides additional information to emphasize or supplement important points of the main text.

General Conventions

The general conventions that may be found in this document are defined as follows.

Convention	Description
Times New Roman	Normal paragraphs are in Times New Roman.
Boldface	Names of files, directories, folders, and users are in **boldface**. For example, log in as user **root**.
Italic	Book titles are in *italics*.
Courier New	Examples of information displayed on the screen are in Courier New.

Command Conventions

The command conventions that may be found in this document are defined as follows.

Convention	Description
Boldface	The keywords of a command line are in **boldface**.
Italic	Command arguments are in *italics*.
[ ]	Items (keywords or arguments) in square brackets [ ] are optional.
{ x	y	... }	Optional items are grouped in braces and separated by vertical bars. One item is selected.
[x	y	...]	Optional items are grouped in brackets and separated by vertical bars. One item is selected or no item is selected.
{ x	y	... } *	Optional items are grouped in braces and separated by vertical bars. A minimum of one item or a maximum of all items can be selected.
[x	y	...] *	Optional items are grouped in brackets and separated by vertical bars. Several items or no item can be selected.

GUI Conventions

The GUI conventions that may be found in this document are defined as follows.

Convention	Description
Boldface	Buttons, menus, parameters, tabs, windows, and dialog titles are in **boldface**. For example, click **OK**.
>	Multi-level menus are in **boldface** and separated by the ">" signs. For example, choose **File** > **Create** > **Folder**.

Keyboard Operations

The keyboard operations that may be found in this document are defined as follows.

Format	Description
Key	Press the key. For example, press **Enter** and press **Tab**.
Key 1+**Key 2**	Press the keys concurrently. For example, pressing **Ctrl**+**Alt**+**A** means the three keys should be pressed concurrently.
Key 1, **Key 2**	Press the keys in turn. For example, pressing **Alt**, **A** means the two keys should be pressed in turn.

Mouse Operations

The mouse operations that may be found in this document are defined as follows.

Action	Description
Click	Select and release the primary mouse button without moving the pointer.
Double-click	Press the primary mouse button twice continuously and quickly without moving the pointer.
Drag	Press and hold the primary mouse button and move the pointer to a certain position.

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1 Safety Precautions

For safety purposes, carefully read through these safety precautions and observe them during operation.

Basic Requirements

- Keep the device dry during storage, transportation, and operation of the device.
- Prevent collision of the device with other objects during storage, transportation, and operation of the device.
- Do not attempt to dismantle the device. In case of any fault, contact the authorized maintenance center for assistance or repair.
- Without prior written consent, no organization or individual is permitted to make any change to the structure, safety, and performance design of the device.
- While using the device, observe all applicable laws, directives and regulations, and respect the legal rights of other people.

Environmental Requirements

- Place the device in a well-ventilated place. Do not expose the device to direct sunlight.
- Keep the device clean, free of dust and stain.
- Do not place the device near a water source or in a damp area.
- Place the device on a stable surface.
- Do not place any object on the top of the device. Reserve a minimum space of 10 cm at the four sides and on the top of the device for heat dissipation.
- Do not place the device on or near inflammable materials such as foam.
- Keep the device away from heat source or fire, such as a radiator or a candle.
- Keep the device away from any household appliances with strong magnetic field or electric field, such as microwave oven, refrigerator, or mobile phone.

Operation Requirements

- Do not allow children to play with the device or accessories. Swallowing the accessories may be fatal.
- Use the accessories such as the power adaptor provided or authorized only by the manufacturer.
- Ensure that the device does not get wet. If water gets into the device, disconnect the power supply immediately and unplug all the cables connected to the device, such as

the power cable, and telephone cable and then contact the authorized maintenance center.

- Before plugging or unplugging any cable, shut down the device and disconnect the power supply.
- While plugging or unplugging any cable, ensure that your hands are dry.
- Do not step on, pull, or stretch any cable. Otherwise, the cable may get damaged, leading to malfunction of the device.
- Do not use old or damaged cables.
- Keep the power plug clean and dry, to prevent electric shock or other dangers.
- During lightning, disconnect the device from the power supply and unplug all the cables connected to the device, such as the power cable, and telephone cable.
- If the device is not used for a long time, disconnect the power supply and unplug the all the cables connected to the device, such as the power cable, and telephone cable.
- If smoke, sound, or smell is emitted from the device, stop using the device immediately, disconnect the power supply, and unplug the power supply and other cables. Contact the authorized maintenance center for repair.
- Ensure that no object (such as metal shavings) enters the device through the heat dissipation vent.
- Do not scratch or abrade the shell of the device. The shed painting may lead to skin allergy or malfunctions of the device. If the shed painting material drops into the host, a short circuit may occur.

Cleaning Requirements

- Before cleaning the device, stop using it, disconnect the power supply, and unplug all the cables connected to the device, such as the power cable, and telephone cable.
- Do not clean the device cover with any cleaning solution or cleanser spray. Use a piece of soft cloth to clean the device cover.

Environmental Protection

Do not dispose the abandoned device in a garbage can. You need to dispose it according to the local regulations on disposing of device packing materials, exhausted battery and abandoned device, and support the recycling activity.

2 Product Overview

2.1 Product Features

The HG612 provides a user-friendly GUI, complemented by a fresh and unique appearance. On the network side, it supports the VDSL2 technology for rapid Internet access and high-speed broadband access, which is much faster than the Asymmetric Digital Subscriber Line 2+ (ADSL2+). The HG612 is also compatible with the ADSL, ADSL2 and ADSL2+.

The HG612 provides powerful routing and bridging functions and supports network address translation (NAT) and firewall technologies, with flexible network configuration and quality of service (QoS) policies. In addition, the HG612 provides quality guarantee for latency-sensitive voice services and for video services susceptible to packet loss. The HG612 provides high-bandwidth and premium-quality broadband services for home users.

As a broadband network terminal, the HG612 is an extension of the broadband network of an operator. The HG612 provides powerful remote maintenance and administration functions. It supports the latest Technical Report 069 (TR-069) terminal management standards and the remote upgrade, thus facilitating large-scale deployment and maintenance.

2.2 Hardware Structure

2.2.1 Appearance

Figure 2-1 shows the appearance of the HG612.

Figure 2-1 HG612 appearance

2.2.2 Indicators

Table 2-1 describes the indicators on the HG612.

Table 2-1 Indicators on the HG612

Indicator	Color	Status	Description
POWER	Green	On	The HG612 is powered on.
	Green	Blinking	The HG612 is booting (to be confirmed if all more LEDs blink).
	-	Off	The HG612 is powered off, or the power module is faulty.
DSL	Green	On	The HG612 is activated.
	Green	Blinking	The HG612 is performing line training.
	-	Off	No VDSL connection exists, or the VDSL connection is disconnected.
LAN1	Green	On	The Ethernet connection is set up, but no data is being transmitted.
	Green	Blinking	The Ethernet connection is set up, and data is being transmitted.
	-	Off	The Ethernet connection is disconnected.
LAN2	Green	On	The Ethernet connection is set up on the LAN2 interface. In this case, you need to disconnect the Ethernet connection on the LAN2 interface, and then set up an Ethernet connection on the LAN1 interface.
	-	Off	No Ethernet connection is set up on the LAN2 interface.

Note

LED = light-emitting diode

2.2.3 Interfaces and Buttons

Table 2-2 describes the interfaces and buttons on the HG612.

Table 2-2 Interfaces and buttons on the HG612

Interface or Button	Description
DSL	This interface is used to connect to the MODEM interface on a splitter.

Interface or Button	Description
LAN1, LAN2	This interface is used to connect to the Ethernet interface on a computer.
RESET	To restore the default settings of the HG612, press this button. After you restore the default settings, your customized data is lost. Therefore, use this function with caution.
BBU	This interface is used to connect to an external battery.
POWER	This interface is used to connect to a power adapter.

3 Getting Started

3.1 Connecting the Cables

Figure 3-1 shows the cable connections of the HG612.

Figure 3-1 Cable connections of the HG612

| 1. Telephone jack on the wall | 2. Gateway |
| 3. Computers | 4. Power adapter |
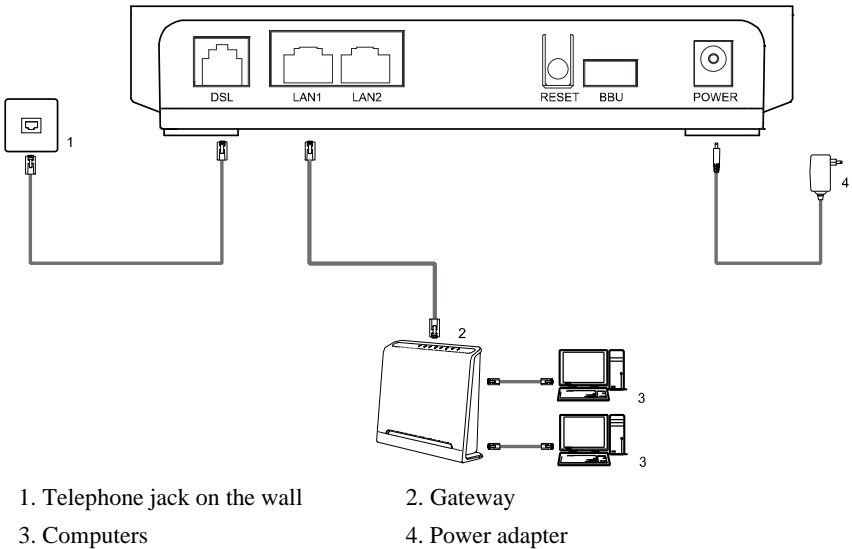
3.2 Powering on the HG612

To power on the HG612, press the POWER button on the top of the HG612.

After you power on the HG612, the DSL indicator blinks in green, which indicates that the HG612 is performing line training. After the DSL indicator stops blinking, the POWER and DSL indicators turn on, which indicates that the HG612 is working properly.

3.3 Logging In to the Web-Based Configuration Utility

The HG612 provides a simple and easy Web-based configuration utility through which you can view and set the parameters of the HG612.

By default, you cannot log in to the Web-based configuration utility before you enable the login function through TR069.

Table 3-1 lists the requirements on computer settings for logging in to the Web-based configuration utility.

Table 3-1 Requirements on computer settings for logging in to the Web-based configuration utility

Item	Requirement
Network protocol	You should enable TCP/IP.
Computer IP address and subnet mask	You should set the IP address of the computer to an IP address in the same network segment as that of the IP address of the LAN interface of the HG612. By using the routing function of the HG612, the IP address of the computer can be automatically obtained after you enable the DHCP function on the HG612. By default, the IP address of the LAN interface of the HG612 is **192.168.1.1**.
Internet Explorer	Ensure that no proxy server is used.
Note ● DHCP = Dynamic Host Configuration Protocol ● IP = Internet Protocol ● LAN = Local Area Network ● TCP = Transmission Control Protocol	

To log in to the Web-based configuration utility, do as follows:

Step 1 Launch the Internet Explorer on the computer and ensure that no proxy server is used.

Take Internet Explorer 6.0 as an example. To check whether any proxy server is used, do as follows:

1. Launch the Internet Explorer, and then choose **Tools** > **Internet Options** on the menu bar.
2. In the **Internet Options** dialog box, click the **Connections** tab, and then click **LAN Settings**.
3. In the **Proxy server** group box, ensure that **Use a proxy server for your LAN (These settings will not apply to dial-up or VPN connections** is cleared. Then, click **OK**.

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Step 2   Enter **http://192.168.1.1** in the address bar of the Internet Explorer, and then press
Enter.

Step 3   In the **Login** dialog box, enter the user name and the password, and then click **OK**.

By default, both the user name and the password are **admin**.

📖 **NOTE**

By default, the IP address of the LAN interface of the HG612 is **192.168.1.1**. You can change
this IP address.

After changing the IP address, ensure that the IP address of the computer is in the same
network segment as that of the IP address of the LAN interface of the HG612 so that the
computer can access the Web-based configuration utility. To log in to the Web-based
configuration utility, you need to enter the new IP address of the LAN interface of the HG612
in the address bar of the Internet Explorer.

3.4 ATM Mode Configuration

3.4.1 Configuring the ATM Route–PPPoA

Step 1   Configure the ATM PVC.

1. In the navigation tree, choose **Basic** > **ATM**.
2. Enter **VPI/VCI** provided by the ISP.
3. Set **DSL link type** to **PPPoA**.
4. Click **Submit**.

Step 2   Set WAN parameters.

1. In the navigation tree, choose **Basic** > **WAN**.
2. Select a PVC from the **Layer2 interface** drop-down list box.

Note

● The name of this PVC should begin with **atm**.

● The DSL link type of this ATM PVC should be PPPoA.

3. Select **Enable** for **WAN connection**.
4. Select a service from the **Service list** drop-down list box.
5. Set **Port binding** to **LAN1** or **LAN2**.
6. Select **Enable** for **NAT as required**.
7. Enter the user name and password provided by the ISP.
8. Select **Enable** for **DHCP spoofing** as required.
9. Select the authentication mode provided by the ISP.
10. Select a dialing method, and then click **Submit**.

Step 3   Set LAN parameters.

1. In the navigation tree, choose **Basic** > **LAN**.
2. Set the IP address and subnet mask of the HG612.
3. Select **Enable** for **DHCP server**, and then set the corresponding parameters.

4. Click **Submit**.

Note

- ATM = Asynchronous Transfer Mode
- ISP = Internet service provider
- PPPoA = Point-to-Point Protocol over ATM
- PVC = permanent virtual channel
- VCI = Virtual Channel Identifier
- VPI = Virtual Path Identifier
- WAN = Wide Area Network

3.4.2 Configuring the ATM Route–DHCP

Step 1   Configure the ATM PVC.

1. In the navigation tree, choose **Basic** > **ATM**.
2. Enter **VPI/VCI** provided by the ISP.
3. Set **DSL link type** to **EoA**.
4. Click **Submit**.

Step 2   Set WAN parameters.

1. In the navigation tree, choose **Basic** > **WAN**.
2. Select a PVC from the **Layer2 interface** drop-down list box.

Note

- The name of this PVC should begin with **atm**.
- The DSL link type of this ATM PVC should be EoA.

3. Select **Enable** for **WAN connection**.
4. Select a service from the **Service list** drop-down list box.
5. Set **Port binding** to **LAN1** or **LAN2**.
6. Select **Route** from the **Connection mode** drop-down list box.
7. Set **Connection type** to **DHCP**.
8. Select **Enable** for **WAN802.1q**, **WAN802.1p**, **LAN802.1q**, **LAN802.1p**, or **NAT** as required.
9. Click **Submit**.

Step 3   Set LAN parameters.

1. In the navigation tree, choose **Basic** > **LAN**.
2. Set the IP address and subnet mask of the HG612.
3. Select **Enable** for **DHCP server**, and then set the corresponding parameters.
4. Click **Submit**.

Note

EoA = Ethernet over ATM

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3.4.3 Configuring the ATM Route–Static

Step 1   Configure the ATM PVC.

  1. In the navigation tree, choose **Basic** > **ATM**.
  2. Enter **VPI/VCI** provided by the ISP.
  3. Set **DSL link type** to **EoA**.
  4. Click **Submit**.

Step 2   Set WAN parameters.

  1. In the navigation tree, choose **Basic** > **WAN**.
  2. Select a PVC from the **Layer2 interface** drop-down list box.

  Note

    ● The name of this PVC should begin with **atm**.
    ● The DSL link type of this ATM PVC should be EoA.

  3. Select **Enable** for **WAN connection**.
  4. Select a service from the **Service list** drop-down list box.
  5. Set **Port binding** to **LAN1** or **LAN2**.
  6. Select **Route** from the **Connection mode** drop-down list box.
  7. Set Connection type to **Static**.
  8. Select **Enable** for **WAN802.1q**, **WAN802.1p**, **LAN802.1q**, **LAN802.1p**, or **NAT** as required.
  9. Set the IP address and subnet mask of the WAN connection.
  10. Click **Submit**.

Step 3   Set LAN parameters.

  1. In the navigation tree, choose **Basic** > **LAN**.
  2. Set the IP address and subnet mask of the LAN connection.
  3. Select **Enable** for **DHCP server**, and then set the corresponding parameters.
  4. Click **Submit**.

3.4.4 Configuring the ATM Route–PPPoE

Step 1   Configure the ATM PVC.

  1. In the navigation tree, choose **Basic** > **ATM**.
  2. Enter **VPI/VCI** provided by the ISP.
  3. Set **DSL link type** to **EoA**.
  4. Click **Submit**.

Step 2   Set WAN parameters.

  1. In the navigation tree, choose **Basic** > **WAN**.
  2. Select a PVC from the **Layer2 interface** drop-down list box.

Note

- The name of this PVC should begin with **atm**.
- The DSL link type of this ATM PVC should be EoA.

3. Select **Enable** for **WAN connection**.
4. Select a service from the **Service list** drop-down list box.
5. Set **Port binding** to **LAN1** or **LAN2**.
6. Select **Route** from the **Connection mode** drop-down list box.
7. Set **Connection type** to **PPPoE**.
8. Select **Enable** for **WAN802.1q**, **WAN802.1p**, **LAN802.1q**, **LAN802.1p**, or **NAT** as required.
9. Enter the user name and password provided by the ISP.
10. Select **Enable** for **DHCP spoofing** as required.
11. Select the authentication mode provided by the ISP.
12. Select a dialing method, and then click **Submit**.

Step 3 Set LAN parameters.

1. In the navigation tree, choose **Basic** > **LAN**.
2. Set the IP address and subnet mask of the LAN connection.
3. Select **Enable** for **DHCP server**, and then set the corresponding parameters.
4. Click **Submit**.

3.4.5 Configuring the ATM Bridge

Step 1 Configure the ATM PVC.

1. In the navigation tree, choose **Basic** > **ATM**.
2. Enter **VPI/VCI** provided by the ISP.
3. Set **DSL link type** to **EoA**.
4. Click **Submit**.

Step 2 Set WAN parameters.

1. In the navigation tree, choose **Basic** > **WAN**.
2. Select a PVC from the **Layer2 interface** drop-down list box.

Note

- The name of this PVC should begin with **atm**.
- The DSL link type of this ATM PVC should be EoA.

3. Select **Enable** for **WAN connection**.
4. Select a service from the **Service list** drop-down list box.
5. Set **Port binding** to **LAN1** or **LAN2**.
6. Select **Bridge** from the **Connection mode** drop-down list box.
7. Select **PPPoE_ Bridged** or **IP_ Bridged** from the **Bridge type** drop-down list box.
8. Select **Enable** for **DHCP transparent transmission**, **WAN802.1q**, **WAN802.1p**, **LAN802.1q**, or **LAN802.1p** as required.
9. Click **Submit**.

Step 3 Set LAN parameters.
1. In the navigation tree, choose **Basic** > **LAN**.
2. Set the IP address and subnet mask of the LAN connection.
3. Click **Submit**.

3.5 PTM Mode Configuration

3.5.1 Configuring the PTM Route–DHCP

Step 1 Set PTM parameters.
1. In the navigation tree, choose **Basi**c > **PTM**.
2. Set **DSL latency** to **Path0** or **Path1**.
3. Set **PTM priority** to **Normal Priority** or **High Priority**.
4. Click **Submit**.

Step 2 Set WAN parameters.
1. In the navigation tree, choose **Basic** > **WAN**.
2. Select a PVC from the **Layer2 interface** drop-down list box.

Note

    The name of this PVC should begin with **ptm**.

3. Select **Enable** for **WAN connection**.
4. Select a service from the **Service list** drop-down list box.
5. Set **Port binding** to **LAN1** or **LAN2**.
6. Select **Route** from the **Connection mode** drop-down list box.
7. Set **Connection type** to **DHCP**.
8. Select **Enable** for **WAN802.1q**, **WAN802.1p**, **LAN802.1q**, **LAN802.1p**, or **NAT** as required.
9. Click **Submit**.

Step 3 Set LAN parameters.
1. In the navigation tree, choose **Basic** > **LAN**.
2. Set the IP address and subnet mask of the HG612.
3. Select **Enable** for **DHCP server**, and then set the corresponding parameters.
4. Click **Submit**.

Note

    PTM = pulse time modulation

3.5.2 Configuring the PTM Route–Static

Step 1 Set PTM parameters.
1. In the navigation tree, choose **Basic** > **PTM**.
2. Set **DSL latency** to **Path0** or **Path1**.
3. Set PTM priority to **Normal Priority** or **High Priority**.

4. Click **Submit**.

Step 2 Set WAN parameters.

1. In the navigation tree, choose **Basic** > **WAN**.
2. Select a PVC from the **Layer2 interface** drop-down list box.

Note

> The name of this PVC should begin with **ptm**.

3. Select **Enable** for **WAN connection**.
4. Select a service from the **Service list** drop-down list box.
5. Set **Port binding** to **LAN1** or **LAN2**.
6. Select **Route** from the **Connection mode** drop-down list box.
7. Set **Connection type** to **Static**.
8. Select **Enable** for **WAN802.1q**, **WAN802.1p**, **LAN802.1q**, **LAN802.1p**, or **NAT** as required.
9. Set the IP address and subnet mask of the WAN connection.
10. Click **Submit**.

Step 3 Set LAN parameters.

1. In the navigation tree, choose **Basic** > **LAN**.
2. Set the IP address and subnet mask of the LAN connection.
3. Select **Enable** for **DHCP server**, and then set the corresponding parameters.
4. Click **Submit**.

3.5.3 Configuring the PTM Route–PPPoE

Step 1 Set PTM parameters.

1. In the navigation tree, choose **Basic** > **PTM**.
2. Set **DSL latency** to **Path0** or **Path1**.
3. Set **PTM priority** to **Normal Priority** or **High Priority**.
4. Click **Submit**.

Step 2 Set WAN parameters.

1. In the navigation tree, choose **Basic** > **WAN**.
2. Select a PVC from the **Layer2 interface** drop-down list box.

Note

> The name of this PVC should begin with **ptm**.

3. Select **Enable** for **WAN connection**.
4. Select a service from the **Service list** drop-down list box.
5. Set **Port binding** to **LAN1** or **LAN2**.
6. Select **Route** from the **Connection mode** drop-down list box.
7. Set **Connection type** to **PPPoE**.
8. Select **Enable** for **WAN802.1q**, **WAN802.1p**, **LAN802.1q**, **LAN802.1p**, or **NAT** as required.
9. Enter the user name and password provided by the ISP.

10. Select **Enable** for **DHCP spoofing** as required.
11. Select the authentication mode provided by the ISP.
12. Select a dialing method, and then click **Submit**.

Step 3 Set LAN parameters.

1. In the navigation tree, choose **Basic** > **LAN**.
2. Set the IP address and subnet mask of the LAN connection.
3. Select **Enable** for **DHCP server**, and then set the corresponding parameters.
4. Click **Submit**.

3.5.4 Configuring the PTM Bridge

Step 1 Set PTM parameters.

1. In the navigation tree, choose **Basic** > **PTM**.
2. Set **DSL latency** to **Path0** or **Path1**.
3. Set **PTM priority** to **Normal Priority** or **High Priority**.
4. Click **Submit**.

Step 2 Set WAN parameters.

1. In the navigation tree, choose **Basic** > **WAN**.
2. Select a PVC from the **Layer2 interface** drop-down list box.

   Note

   The name of this PVC should begin with **ptm**.

3. Select **Enable** for **WAN connection**.
4. Select a service from the **Service list** drop-down list box.
5. Set **Port binding** to **LAN1** or **LAN2**.
6. Select **Bridge** from the **Connection mode** drop-down list box.
7. Select **PPPoE_ Bridged** or **IP_ Bridged** from the **Bridge type** drop-down list box.
8. Select **Enable** for **DHCP transparent transmission**, **WAN802.1q**, **WAN802.1p**, **LAN802.1q**, or **LAN802.1p** as required.
9. Click **Submit**.

Step 3 Set LAN parameters.

1. In the navigation tree, choose **Basic** > **LAN**.
2. Set the IP address and subnet mask of the LAN connection.
3. Click **Submit**.

4 Checking the Status

4.1 Checking Device Information

Function

You can check device information, including the product type, hardware version, and software version.

Path

Choose **Status** > **Device**.

Parameter Description

Table 4-1 describes the device information.

Table 4-1 Device information

Parameter	Description
Product type	It indicates the product type.
Hardware version	It indicates the hardware version of the HG612.
Software version	It indicates the software version of the HG612.
Firmware version	It indicates the firmware version of the HG612.
Batch number	It indicates the batch number of the HG612.

4.2 Checking xTM Information

Function

You can check the byte count and cell errors.

Path

Choose **Status** > **xTM**.

4.3 Checking WAN Information

Function

You can check the connection status and line status of the WAN and the xDSL.

Path

Choose **Status** > **WAN**.

Parameter Description

Table 4-2 describes WAN information.

Table 4-2 WAN information

Parameter	Description
Connection Name	It indicates the connection name of the WAN.
IP Address	It indicates the IP address of the WAN interface.
Subnet Mask	It indicates the subnet mask of the WAN interface.
Default Gateway	It indicates the gateway IP address of the WAN interface.

Table 4-3 describes xDSL information.

Table 4-3 xDSL information

Parameter	Description
Mode	It indicates the DSL standard of the current DSL connection.
Attainable rate (for downstream or upstream, unit: kbit/s)	It indicates the transmission rate negotiated with the upper-layer equipment when the current DSL line is activated.
SNR margin (for downstream or upstream, unit: dB)	It indicates the noise margin, also called noise tolerance. A greater value contributes to stronger anti-interference capability but a lower maximum attainable rate.
Output power (for downstream or upstream, unit: dBmv)	It indicates the signal power.

4.4 Checking LAN Information

Function

You can check the interface and connection information of the LAN.

Path

Choose **Status** > **LAN**.

Parameter Description

Table 4-4 describes network information.

Table 4-4 Network information

Parameter	Description
IP address	It indicates the IP address of the Ethernet interface on the HG612.
MAC address	It indicates the MAC address of the Ethernet interface on the HG612.

Table 4-5 describes Ethernet information.

Table 4-5 Ethernet information

Parameter	Description
Link Status	It indicates the connection status on the LAN interfaces. • **Connected**: A connection is set up on the LAN interface. • **Disconnected**: No connection is set up on the LAN interface.
Max bitRate	It indicates the maximum bit rate of the LAN.
Duplex mode	It indicates the duplex mode of the Ethernet interface on the HG612.

5 Parameter Settings

5.1 Configuring the DSL

Function

The DSL standard used by the HG612 must be the same as that used by the upper-layer equipment so that the two can communicate with each other. Currently, multiple DSL standards are available.

Path

Choose **Basic** > **DSL**.

Parameter Description

Table 5-1 describes DSL parameters.

Table 5-1 DSL parameters

Parameter	Description
Modulation type	It specifies the working mode of the DSL. You have the following options: • **G.Dmt** • **ADSL2** • **ADSL2+** • **T1.413** • **VDSL2** • **ALL**: If this option is selected, the system automatically selects a proper mode to set up a connection.
Submit	To save the settings, click this button.

5.2 Configuring the ATM

Function

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You can set ATM parameters as required.

Path

Choose **Basic** > **ATM**.

Parameter Description

Table 5-2 describes ATM parameters.

Table 5-2 ATM parameters

Parameter	Description
VPI/VCI	It specifies the VPI of the selected PVC. To enable the HG612 to communicate with the upper-layer equipment, ensure that this VPI is the same as the VPI set on the upper-layer equipment.
DSL latency	It specifies the DSL latency for the HG612.
DSL link type	You can select either of the following two options: • **EoA**: The EoA includes the bridge, PPPoE and IPoE modes of the ATM. • **PPPoA**: If this option is selected, the HG612 is used as a router. The HG612 uses the embedded PPP dial-up software to set up dial-up connections, and encapsulates data packets in PPPoA mode.
Encapsulation mode	You can select either of the following two options: • **LLC** • **VCMUX**

Parameter	Description
Service type	It specifies the traffic management type used for the PVC. ● **UBR Without PCR**: The ATM network makes the best efforts to transmit UBR user information. This is called best-effort transmission. The transmission quality, such as cell loss, transmission delay, and jitter, cannot be guaranteed. This type of service is applicable when an end-to-end error tolerance mechanism or protocol is designed in the higher layer and the applications do not impose stringent requirements on network transmission capability. ● **CBR**: A fixed bandwidth (or rate) is required. This type of service is applicable to real-time audio and video signal transmission. ● **Realtime VBR**: Stringent requirements are imposed on transmission delay. This type of service is mainly used for services with stringent requirements on real-time performance, such as video monitoring and compressed voice communications. ● **Non Realtime VBR**: This type of service does not impose stringent requirements on transmission delay. For example, a transmission delay of multiple seconds does not affect the image quality when a user retrieves the image coded with MPEG-2 from the video server through the ATM network. The transmission rate between the user and the network, such as the PCR and the SCR, however, needs to be specified to reduce the cell loss probability.
Submit	To save the settings, click this button.

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Parameter	Description
Note • CBR = Constant Bit Rate • IPoE = IP over Ethernet • LLC = Logical Link Control • MPEG-2 = Moving Picture Experts Group-2 • PCR = Peak Cell Rate • PPP = Point-to-Point Protocol • PPPoE = Point to Point over Ethernet • SCR = Sustainable Cell Rate • UBR = Unspecified bit rate • VBR = Variable Bit Rate • VCMUX = Virtual Circuit Multiplexing	

5.3 Configuring the PTM

Function

You can set PTM parameters as required.

Path

Choose **Basic** > **PTM**.

Parameter Description

Table 5-3 describes PTM parameters.

Table 5-3 PTM parameter

Parameter	Description
DSL latency	It specifies the DSL latency for the HG612.
PTM priority	You can select either of the following two options: • **Normal Priority** • **High Priority**

5.4 Configuring the WAN

Function

The HG612 communicates with the upper-layer network equipment of an operator through the WAN interface. During the communication, the parameter settings of the HG612 must be consistent with those of the upper-layer network equipment. On the **WAN Connection** page, you can set WAN parameters.

Path

Choose **Basic** > **WAN**.

Parameter Description

Table 5-4 describes WAN parameters.

Table 5-4 WAN parameters

Parameter	Description
Layer2 interface	It specifies the ID of the connection to be configured.
WAN connection	It specifies whether to enable the connection.
Service list	You can select one of the following options: • **INTERNET**: If this option is selected, the WAN connection provides only data services. • **TR069**: If this option is selected, the WAN connection provides only the services related to TR-069. • **TR069_INTERNET**: If this option is selected, the WAN connection provides both data and TR-069 services.
Port binding	It specifies the LAN interface to be bound for the WAN connection.
Connection mode	It specifies the working mode of the PVC. You can select either of the following two options: • **Bridge**: If this option is selected, the PVC is set to the bridge mode. In this mode, PPP dial-up software needs to be installed on the computer that is connected to the Internet through the PVC to implement Internet access through a dial-up connection. • **Route**: If this option is selected, the PVC is set to the routing mode. Only the HG612 with the routing software supports the routing mode. In this mode, the HG612 connected to the Internet through the PVC can access the Internet by using its own routing function and thus PPP dial-up software does not need to be installed.

Parameter	Description
Connection type	You can select one of the following options: • **DHCP**: If this option is selected, the HG612 obtains its IP address used for the WAN connection from the DHCP server of the service provider. • **Static**: If this option is selected, the HG612 uses the static IP address provided by the service provider for the WAN connection. You need to enter the IP address, subnet mask, default gateway, and DNS name provided by the service provider. • **PPPoE**: If this option is selected, the HG612 uses the PPPoE mode for the WAN connection, that is, the HG612 uses the embedded PPPoE dial-up software for dialing. You can choose the dialing method as required.
WAN802.1q, WAN802.1p, LAN802.1q, and LAN802.1p	They specify whether to enable the WAN802.1q, WAN802.1p, LAN802.1q, and LAN802.1p.
NAT	It specifies whether to enable the NAT function. If the NAT function is enabled, the HG612 maps the internal IP addresses of the LAN to the ports that correspond to the WAN IP addresses of the PVC. If the NAT function is disabled, the HG612 cannot use the functions related to the NAT and the computer connected with the HG612 may be unable to access the Internet. You are recommended to set this parameter to **Enable**.
Submit	To save the settings, click this button.
Note • DNS = Domain Name Server • NAPT = Network address and Port Translation	

Table 5-5 describes protocol parameters.

Table 5-5 Protocol parameters

Parameter	Description
IP Address	This parameter is valid when **Connection type** is set to **Static**. It specifies the WAN IP address of the PVC.
Subnet Mask	This parameter is valid when **Connection type** is set to **Static**. It specifies the WAN subnet mask of the PVC.

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Parameter	Description
Primary DNS	This parameter is valid when **Connection type** is set to **Static**. It specifies the primary DNS address of the PVC.
Secondary DNS	This parameter is valid when **Connection type** is set to **Static**. It specifies the secondary DNS address of the PVC.
Default Gateway	This parameter is valid when **Connection type** is set to **Static**. It specifies the gateway IP address of the PVC.
Username	It specifies the PPP dial-up user name used for user identity authentication.
Password	It specifies the PPP dial-up password used for user identity authentication.
DHCP spoofing	This parameter is valid when **Connection type** is set to **PPPoE**. It specifies whether to enable the DHCP spoofing.
Authentication Mode	It specifies the PPP authentication mode. You are recommended to set this parameter to **Auto** so that the HG612 automatically negotiates with the authentication equipment to choose a proper authentication mode.
Dialing method	This parameter is valid when **Connection type** is set to **PPPoE**. It specifies whether to perform dial-up operations automatically. You are recommended to set this parameter to **Auto**.

5.5 Configuring the LAN

Function

The HG612 communicates with a computer through the LAN interface. You can access the Web-based configuration utility of the HG612 through the Internet Explore after entering the IP address of the LAN interface of the HG612. On the LAN settings page, you can change the parameter settings. For example, you can change the IP address of the LAN interface based on the IP address allocation of the LAN.

After changing the IP address of the LAN interface, ensure that the IP address of the computer is in the same network segment as that of the IP address of the LAN interface of the HG612 so that the computer can access the Web-based configuration utility. To log

in to the Web-based configuration utility, you need to enter the new IP address of the LAN interface of the HG612 in the address bar of the Internet Explorer.

Path

Choose **Basic** > **LAN**.

Parameter Description

Table 5-6 describes LAN parameter.

Table 5-6 LAN parameters

Parameter	Description
IP address	It specifies the primary IP address of the LAN interface of the HG612. You can access the Web-based configuration utility of the HG612 through this IP address. If you enable the DHCP function of the HG612, the HG612 allocates an IP address in the same network segment as that of this IP address to the computer.
Subnet mask	It specifies the subnet mask for the primary IP address of the LAN interface of the HG612.
DHCP server	It specifies whether to enable the DHCP server. If you select **Enable**, the HG612 serves as a DHCP server and allocates IP addresses to the computers in the LAN.
Start IP address	It specifies the start IP address among a group of continuous IP addresses.
End IP address	It specifies the end IP address among a group of continuous IP addresses.
DHCP relay	It specifies whether to enable the DHCP relay. If you select **Enable**, the HG612 forwards the data packets containing an IP address request to the DHCP server for processing.
Primary DNS server address	It specifies the primary DNS server allocated to the computers in the LAN.
Secondary DNS server address	It specifies the secondary DNS server allocated to the computers in the LAN.
DHCP port transparent transmission	It specifies whether to enable the DHCP port transparent transmission.

5.6 Configuring the Routing Function

Function

The routing function enables a computer network to forward data packets between different subnets so that computers in different subnets can communicate with each other.

Path

Choose **Advanced** > **Routing**.

Parameter Description

Table 5-7 describes static routing parameters.

Table 5-7 Static routing parameters

Parameter	Description
Destination network address	It specifies the IP address of the destination computer. It can be the IP address of a specific computer or the IP address of a network. This destination IP address can also be **0.0.0.0**, which indicates that the destination address is not specified. Then, the HG612 checks whether there is another routing rule is using this destination IP address. If not, data packets are routed based the other parameter settings. For example, data packets can be transmitted to the gateway that is set through **Default gateway**.
Subnet mask	It specifies the subnet mask. The subnet mask along with the destination IP address defines the destination network of data packets.
Default gateway	It specifies the IP address of the gateway that receives data packets. If the destination IP address of data packets is within the destination network defined by the routing rule, the HG612 forwards the data packets to this gateway.
Interface	It specifies the ID of the connection to be configured.
New	To display the page for creating routing rules, click this button.
Remove	To remove certain routing settings, click this button.

Table 5-8 describes dynamic routing parameters.

Table 5-8 Dynamic routing parameters

Parameter	Description
Operation	It specifies the direction of transmitting RIP information.
Version	It specifies the RIP version supported by the HG612.

5.7 Configuring the Firewall

Function

The firewall can prevent unauthorized access to the WAN interface of the HG612. The firewall function, however, is valid only when the HG612 works in routing mode.

Path

Choose **Advanced** > **Firewall**.

Parameter Description

Table 5-9 describes firewall parameters.

Table 5-9 Firewall parameters

Parameter	Description
Firewall level	It specifies the level of the firewall.
Operation	It specifies whether to enable the firewall function.
Note You can select one of the following five types of firewall: **MAC filtering**, **IP filtering**, **Application filtering**, **DoS attack**, and **ACL**.	

5.8 Configuring the NAT

Function

The NAT is a technology used to translate internal private network addresses into legal network IP addresses. The NAT technology solves the problem of IP address shortage, and guarantees the network security by isolating internal networks from external networks. Internal network addresses are used within a network and translated through the NAT into legal IP addresses for the use on the Internet. During the translation, the address field in each IP packet is replaced by a legal IP address. NAT rules are defined to

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determine when and how to perform the translation between WAN IP addresses and LAN IP addresses.

Path

Choose **Advanced** > **NAT**.

Parameter Description

Table 5-10 describes application-level gateway (ALG) parameters.

Table 5-10 ALG parameters

Parameter	Description
Enable L2TP ALG, Enable IPSec ALG, Enable H.323 ALG, Enable RTSP ALG, Enable SIP ALG, and Enable PPTP ALG	It specifies whether to enable the corresponding ALG function.

Table 5-11 describes demilitarized zone (DMZ) parameters.

Table 5-11 DMZ parameters

Parameter	Description
Host address	It specifies the IP address of the LAN computer that provides the access service for external networks.
DMZ	It specifies whether to enable the DMZ function.

Table 5-12 describes port-mapping parameters.

Table 5-12 Port-mapping parameters

Parameter	Description
Type	It specifies the type of the rule for mapping IP addresses. You can set the mapping rule to one-to-one mapping or multiple-to-multiple mapping between LAN IP addresses and WAN IP addresses.
Interface	It specifies the ID of the connection to be configured.
Protocol	You can select one of the following three options: • **TCP** • **UDP** • **TCP/UDP**

Parameter	Description
External port	It specifies the external port.
Internal port	It specifies the internal port.
Internal host	It specifies the internal host.
Remote host	It specifies the remote host.
Mapping name	It specifies the name of the mapping rule.
Note UDP = User Datagram Protocol	

5.9 Configuring the IGMP

Function

The Internet Group Management Protocol (IGMP) is a multicast protocol that belongs to the Internet protocol family. It is used by the IP host to report the information of group members to any of the neighboring routers.

Path

Choose **Advanced** > **IGMP**.

Parameter Description

Table 5-13 describes IGMP parameters.

Table 5-13 IGMP parameters

Parameter	Description
Enable IGMP proxy	It specifies whether to enable the IGMP proxy function.
IGMP snooping	It specifies whether to enable the IGMP snooping function.
IGMP version	It specifies the version of the IGMP.

5.10 Configuring the QoS

Function

The quality of service (QoS) is the capability to guarantee a required bandwidth, delay, jitter, and packet loss rate when the data communication network permits.

Multiple QoS methods are used to provide different priorities to different services or data flows to ensure that high-priority data is processed at first priority.

Different applications provided by the HG612 impose different QoS requirements. To meet these QoS requirements, the HG612 may resort to service classification to provide the required QoS through DiffServ. The HG612 sets an independent queue for each priority and uses a strict priority or the weighted round robin (WRR) mechanism to control the output of each priority queue.

NOTE

Only the HG612 with the routing software supports the QoS function.

Path

Choose **Advanced** > **QoS**.

Parameter Description

Table 5-14 describes QoS parameters.

Table 5-14 QoS parameters

Parameter	Description
Enable	It specifies whether to enable the QoS function.
BandWidth	It specifies the bandwidth of the QoS.
QueueType	It specifies the queue type of the QoS.

Table 5-15 describes classification parameters.

Table 5-15 Classification parameters

Parameter	Description
Rule name	It specifies the rule name.
Classification	It specifies whether to enable the classification function.
SET1	In **SET1**, you can set certain parameters, such as **Source MAC**, **Dest MAC**, **Source IP**, and **Source IP Mask**. Multiple rules can be used simultaneously. If multiple rules are used, all the rules must be met so that the classification can take effect.
SET2	It specifies the IEEE 802.1p traffic classification rule.

5.11 Configuring the SNTP

Function

The HG612 needs to record the operation time of certain logs. Therefore, the HG612 should access a Network Time Protocol (NTP) server to obtain the accurate time.

Path

Choose **Advanced** > **SNTP**.

Parameter Description

Table 5-16 describes the Simple Network Time Protocol (SNTP) parameters.

Table 5-16 SNTP parameters

Parameter	Description
Enable auto synchronization with network time	It specifies whether to enable the SNTP function.
Primacy time server	It specifies the primary SNTP server.
Secondary time server	It specifies the secondary SNTP server.
Time zone	It specifies the time zone.

5.12 Configuring the CWMP

Function

The HG612 is completely compatible with the TR069 standard launched by the DSL Forum. After the default configuration file is customized, the HG612 can properly access the automatic configuration server (ACS) with the initial configuration to implement a zero-configuration solution.

If an operator has enabled the automatic service provisioning function of the TR069, the ACS automatically allocates the parameter settings of the HG612. You need only to set the ACS parameters on the HG612 and complete the relevant settings on the ACS. The network parameters can be automatically set through the TR069 function. You do not need to set any other parameters on the HG612.

Path

Choose **Advanced** > **CWMP**.

Parameter Description

Table 5-17 describes customer-premises equipment (CPE) WAN Management Protocol (CWMP) parameters.

Table 5-17 CWMP parameters

Parameter	Description
Periodic inform	It specifies whether to send inform packets periodically. If this function is enabled, the HG612 sends inform packets to the ACS at a specified interval.
Periodic inform interval	It specifies the interval at which the HG612 sends inform packets.
ACS URL	It specifies the URL of the ACS.
ACS user name	It specifies the user name used by the HG612 to access the ACS. To access the ACS, the HG612 needs to provide this user name and the corresponding password for the authentication performed by the ACS. The user name and the password must be consistent with those set on the ACS.
ACS password	It specifies the password used by the HG612 to access the ACS.
Connection request user name	It specifies the user name used by the ACS to access the HG612. To access the HG612, the ACS needs to provide this user name and the corresponding password for the authentication performed by the HG612. The user name and password set here must be consistent with those set on the ACS.
Connection request password	It specifies the password used by the ACS to access the HG612.
Enable certificate	It specifies whether to use the certificate.
Path of the certificate file	It specifies the name of the certificate file.
Browse	To find the certificate file, click this button to display a dialog box. In this dialog box, find the certificate file.
Upload	To upload the certificate upgrade file, click this button.
Note URL = Uniform Resource Locator	

5.13 Configuring the UPnP

Function

The universal plug and play (UPnP) function supports plug-and-play and automatic discovery for multiple types of network equipment. If the UPnP function is enabled, a device that supports the UPnP function can access networks, obtain an IP address, transmit performance data, detect other devices, and learn the performance data of the other devices.

Path

Choose **Advanced** > **UPnP**.

Parameter Description

Table 5-18 describes UPnP parameters.

Table 5-18 UPnP parameters

Parameter	Description
UPnP	It specifies whether to enable the UPnP function on the HG612.

5.14 Configuring the LED

Function

The HG612 can control whether to turn on the LEDs.

Path

Choose **Advanced** > **LED**.

Parameter Description

Table 5-19 describes LED parameters.

Table 5-19 LED parameters

Parameter	Description
LED active	It specifies whether to turn on the LEDs. If the **LED active** is cleared, it indicates that the LEDs are turned off.

6 Maintenance

6.1 Account Management

Function

The Web-based configuration utility of the HG612 provides the password protection function. You can create and modify the accounts used to access the Web-based configuration utility of the HG612.

Path

Choose **Maintenance** > **Account**.

Parameter Description

Table 6-1 describes account parameters.

Table 6-1 Account parameters

Parameter	Description
User name	It specifies the user name used to access the Web-based configuration utility.
Current password	This parameter is valid when you set **User name** to **admin**. You need to enter the current password of the administrator account.
New user name	This parameter is valid when you set **User name** to **user**. It specifies the new user name for the selected account.
New password	It specifies the new password for the selected account.
Confirm password	You need to confirm the new password for the selected account.

6.2 Device Management

Function

You can manage the HG612. For example, you can reboot the HG612, restore the default settings, perform backup operations, and upgrade the configuration file.

Path

Choose **Maintenance** > **Device**.

Parameter Description

Table 6-2 describes reset parameters.

Table 6-2 Reset parameters

Parameter	Description
Reboot	To reboot the HG612 and save the settings, click this button.
Restore Default Settings	To restore default settings of the HG612, click this button.

Table 6-3 describes configuration-file parameters.

Table 6-3 Configuration-file parameters

Parameter	Description
Download Configuration File	Click this button to download the configuration information in the specified configuration file to the HG612.
Configuration file name	It specifies the name of the configuration file.
Browse	To find the configuration file, click this button to display a dialog box. In this dialog box, find the configuration file. Then, the system automatically writes the complete name of the selected file in the **Configuration file name** text box.
Upload Configuration File	To upload the selected configuration file, click this button. The system uses the specified configuration file to upgrade the software of the HG612.

Table 6-4 describes firmware-upgrade parameters.

Table 6-4 Firmware-upgrade parameters

Parameter	Description
Upgrade file name	It specifies the name of the upgrade file.
Browse	To find the upgrade file, click this button to display a dialog box. In this dialog box, find the upgrade file. Then, the system automatically writes the complete name of the selected file in the **Upgrade file name** text box.

Parameter	Description
Software Upgrade	To upload the selected upgrade file, click this button. The system uses the specified upgrade file to upgrade the firmware of the HG612.

Table 6-5 describes multicast-upgrade parameters.

Table 6-5 Multicast-upgrade parameters

Parameter	Description
Multicast upgrade	It specifies whether to enable the multicast upgrade.
Multicast IP address	It specifies the IP address used for the multicast upgrade.
Multicast port number	It specifies the port number used for the multicast upgrade.

Table 6-6 describes BT agent parameters.

Table 6-6 BT agent parameters

Parameter	Description
Active	To enable the BT agent function, click this button.
Deactive	To disable the BT agent function, click this button.
TPS file name	It specifies the TPS file name.
Browse	To find the TPS file, click this button to display a dialog box. In this dialog box, find the TPS file.
Upload TPS File	To upload the selected TPS file, click this button.
Note BT = British Telecom	

6.3 Diagnosis

Function

Through the diagnosis function, you can check whether the HG612 is connected to the LAN, the DSL, or the Internet.

The fault management function is only used for the VDSL PTM mode.

Path

Choose **Maintenance** > **Diagnose**.

Parameter Description

Table 6-7 describes diagnosis parameters.

Table 6-7 Diagnose parameters

Parameter	Description
IP address	It specifies the IP address to be pinged.
Start	To start to ping the specified IP address, click this button.
Auto Diagnose	To perform diagnosing operations, click this button.
Interface	It specifies the interface on which the diagnosing operations are performed.
Start	To start the Atm Oamf5 test, click this button.

Table 6-8 describes fault management parameters.

Table 6-8 Fault management parameters

Parameter	Description
Maintenance Domain (MD) level	It specifies the MD level of the 802.1ag diagnosis.
Destination MAC address	It specifies the destination MAC address of the 802.1ag diagnosis.
Set MD Level	To set the MD level, click this button.
Send Loopback	If the VDSL is connected and the corresponding parameters are valid, to send a loopback message, click this button.
Send Linktrace	If the VDSL is connected and the corresponding parameters are valid, to send a linktrace message, click this button.
Maintenance Association	It specifies the channel number for the 802.1ag diagnosis.

6.4 Log Management

Function

Logs record the information about important operations and actions performed on the HG612.

Path

Choose **Maintenance** > **Log**.

Parameter Description

Table 6-9 describes log parameters.

Table 6-9 Log parameters

Parameter	Description
Log level	The events whose levels are higher than or equal to this level are recorded.
Enable log server	If **Enable** is selected, the HG612 starts to record all the events that match the specified condition.
Primary server address or domain name	It specifies the primary server address or domain name of the remote server on which the logs are saved.
Primary server port	It specifies the primary server port of the remote server on which the logs are saved.
Secondary server address	It specifies the secondary server address of the remote server on which the logs are saved.
Secondary server port	It specifies the secondary server port of the remote server on which the logs are saved.

Table 6-10 describes parameters on the **Displaying Logs** tab.

Table 6-10 Parameters on the Displaying Logs tab

Parameter	Description
Log Level	It specifies the level of the logs to be displayed.
Save Log	To save the displayed logs, click this button.

7 FAQs

Question 1   Can I use the HG612 as a DHCP server?

Yes, you can. The HG612 incorporates the DHCP server software.

Question 2   How can I quickly restore the default settings of the HG612?

To restore the default settings of the HG612, power on the HG612, press and hold the RESET button, and then release the RESET button.

Question 3   What can I do if I cannot access the Web-based configuration utility of the HG612?

Step 1   Check the IP address of your computer and ensure that this IP address is in the same network segment as that of the LAN IP address of the HG612.

Step 2   Ensure that your Web browser does not use a proxy server.

Step 3   Ensure that you have entered the correct user name and password that are used for accessing the Web-based configuration utility of the HG612.

If the problem persists, restore the default settings of the HG612.

Question 4   What can I do if Web pages often cannot be displayed during Web page browsing and can be displayed after the HG612 is restarted?

Step 1   Ensure that telephone lines are properly connected.

If the telephone lines are improperly connected, the stability of the network connection is affected.

Step 2   Check the positions of your HG612 and computer. Ensure that they are far from the electric appliances such as microwave ovens, refrigerators, or cordless telephones that generate strong magnetic or electric fields.

If the problem persists, contact your service provider.

A Technical Specifications

Item	Specification		
Dimensions	162 mm × 120 mm × 29 mm		
Weight	About 320 g		
Power consumption	< 6 W		
Overall power supply	12 V DC, 0.7 A		
Operating temperature	0ºC to 40ºC		
Operating humidity	5% to 95% (non-condensing)		
Standards	ADSL standard	• ITU G.992.1 (G.dmt) Annex A • ITU G.994.1 (G.hs) • ANSI T1.413 Issue 2	
	ADSL2 standard	ITU G.992.3 Annex A	
	ADSL2+ standard	ITU G.992.5 Annex A	
	VDSL2 standard	• G.993.2 Annex B PSD Mask • G.994.1	

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B Default Settings

Parameter	Default Value
IP address of the LAN interface	192.168.1.1
Subnet mask of the LAN interface	255.255.255.0
Administrator name	admin
Administrator password	admin

C Acronyms and Abbreviations

A

ACS	Automatic Configuration Server
ADSL	Asymmetrical Digital Subscriber Line
ADSL2+	Asymmetrical Digital Subscriber Line 2plus
ATM	Asynchronous Transfer Mode

B

BAS	Broadband Access Server

C

CBR	Constant Bit Rate
CDN	Content Distribution Network
CRC	Cyclic Redundancy Check

D

DHCP	Dynamic Host Configuration Protocol
DMZ	Demilitarized Zone
DNS	Domain Name Server
DSCP	Differentiated Services Code point
DSL	Digital Subscriber Line

F

FEC	Forward Error Correction
FTP	File Transfer Protocol

H

HEC	Header Error Control
HTTP	Hyper Text Transport Protocol

I

IGMP   Internet Group Management Protocol

IP   Internet Protocol

IPoA   IP over ATM

IPoEoA   IP over Ethernet over ATM

L

LAN   Local Area Network

LLC   Logical Link Control

M

MAC   Media Access Control

MBS   Maximum Burst Size

N

NAPT   Network Address and Port Translation

NAT   Network Address Translation

NRT-VBR   Non-Real Time Variable Bit Rate

NTP   Network Time Protocol

P

PC   Personal Computer

PPPoA   Point to Point Protocol over ATM

PPPoE   Point to Point Protocol over Ethernet

PPPoEoA   Point to Point Protocol over Ethernet over ATM

PVC   Permanent Virtual Channel

Q

QoS   Quality of Service

R

RIP   Routing Information Protocol

RT-VBR   Real Time Variable Bit Rate

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S

SNTP   Simple Network Time Protocol

T

TCP   Transfer Control Protocol

U

UBR   Unspecified Bit Rate

UDP   User Datagram Protocol

URL   Uniform Resource Locator

USB   Universal Serial Bus

UPnP   Universal Plug and Play

V

VCI   Virtual Channel Identifier

VDSL   Very High Speed Digital Subscriber Line

VLAN   Virtual Local Area Network

VoIP   Voice over IP

VPC   Virtual Path Connection

VPI   Virtual Path Identifier

W

WAN   Wide Area Network

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