



HUAWEI HG655d Home Gateway

User Guide



HUAWEI HG655d Home Gateway
V100R001

User Guide

Issue 02
Date 2010-11-27
Part Number 202304

Huawei Technologies Co., Ltd. provides customers with comprehensive technical support and service. Please feel free to contact our local office or company headquarters.

Huawei Technologies Co., Ltd.

Address: Huawei Industrial Base
Bantian, Longgang
Shenzhen 518129
People's Republic of China

Website: <http://www.huawei.com>

Email: terminal@huawei.com

Copyright © Huawei Technologies Co., Ltd. 2010. All rights reserved.

No part of this document may be reproduced or transmitted in any form or by any means without prior written consent of Huawei Technologies Co., Ltd.

The product described in this manual may include copyrighted software of Huawei Technologies Co., Ltd and possible licensors. Customers shall not in any manner reproduce, distribute, modify, decompile, disassemble, decrypt, extract, reverse engineer, lease, assign, or sublicense the said software, unless such restrictions are prohibited by applicable laws or such actions are approved by respective copyright holders under licenses.

Trademarks and Permissions



HUAWEI, HUAWEI, and



are trademarks or registered trademarks of Huawei Technologies Co., Ltd.

Other trademarks, product, service and company names mentioned are the property of their respective owners.

Notice

Some features of the product and its accessories described herein rely on the software installed, capacities and settings of local network, and may not be activated or may be limited by local network operators or network service providers. Thus the descriptions herein may not exactly match the product or its accessories you purchase.

Huawei Technologies Co., Ltd reserves the right to change or modify any information or specifications contained in this manual without prior notice or obligation.

NO WARRANTY

THE CONTENTS OF THIS MANUAL ARE PROVIDED "AS IS". EXCEPT AS REQUIRED BY APPLICABLE LAWS, NO WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE MADE IN RELATION TO THE ACCURACY, RELIABILITY OR CONTENTS OF THIS MANUAL.

TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, IN NO CASE SHALL HUAWEI TECHNOLOGIES CO., LTD BE LIABLE FOR ANY SPECIAL, INCIDENTAL, INDIRECT, OR CONSEQUENTIAL DAMAGES, OR LOST PROFITS, BUSINESS, REVENUE, DATA, GOODWILL OR ANTICIPATED SAVINGS.

Import and Export Regulations

Customers shall comply with all applicable export or import laws and regulations and will obtain all necessary governmental permits and licenses in order to export, re-export or import the product mentioned in this manual including the software and technical data therein.

Contents

1 Warnings and Precautions	1
2 Product Overview	6
2.1 Indicators.....	6
2.2 Interfaces and Buttons.....	8
3 Product Installation and Getting Started.....	9
3.1 Selecting the Installation Position	9
3.2 Connecting the Cables.....	10
3.3 Getting Started	10
4 Setting the Internet Access Parameters.....	11
4.1 Configuring the HSPA uplink	11
4.2 Configuring the DSL uplink.....	11
5 Configuring the Wireless Connection.....	14
5.1 Setting Up a Wireless Connection by WPS.....	14
5.2 Setting Up a Wireless Connection Manually.....	14
6 Setting the VoIP Parameters.....	17
6.1 Voice Service Introduction.....	17
6.2 Networking.....	17
6.3 Configuration Procedure	18
7 Configuring the Basic Settings	19
7.1 Changing the Administrator Password	19

7.2 Enabling or Disabling the Wireless Network Function	19
7.3 Changing the Wireless Network Name and the Access Password	20
7.4 Changing the Login IP Address	20
7.5 Downloading Files Through the USB Port.....	21
7.6 Restoring Default Settings.....	21
8 FAQs.....	22
9 Appendix.....	26
9.1 Default Settings.....	26
9.2 Technical Specifications.....	26

1 Warnings and Precautions

To use the device properly and safely, read these warnings and precautions carefully and strictly observe them during operation. Unless otherwise specified, the term "device" refers to the device and its accessories.

Basic Requirements

- During storage, transportation, and operation of the device, keep it dry and prevent it from colliding with other objects.
- Do not dismantle the device. In case of any fault, contact an authorized service center for assistance or repair.
- Without authorization, no organization or individual can change the mechanical, safety, or performance design of the device.
- When using the device, observe all applicable laws and regulations and respect the legal rights of other people.

Environmental Requirements for Using the Device

- Before connecting and disconnecting cables, stop using the device, and then disconnect it from the power supply. Ensure that your hands are dry during operation.
- Keep the device far from sources of heat and fire, such as a heater or a candle.
- Keep the device far from electronic appliances that generate strong magnetic or electric fields, such as a microwave oven or a refrigerator.
- Place the device on a stable surface.
- Place the device in a cool and well-ventilated indoor area. Do not expose the device to direct sunlight. Use the device in an area with a temperature ranging from 0°C to 40°C.
- Do not block the openings on the device with any object. Reserve a minimum space of 10 cm around the device for heat dissipation.
- Do not place any object (such as a candle or a water container) on the device. If any foreign object or liquid enters the device, stop using the device immediately, power it off, remove all the cables connected to it, and then contact an authorized service center.
- During thunderstorms, power off the device, and then remove all the cables connected to it to prevent it from getting damaged due to lightning strikes.

Precautions for Using Wireless Devices

- When using the device, ensure that the antenna of the device is at least 20 cm away from all persons.
- Do not use the device where using wireless devices is prohibited or may cause interference or danger.
- The radio waves generated by the device may interfere with the operation of electronic medical devices. If you are using any electrical medical device, contact its manufacturer for the restrictions on the use of the device.
- Do not take the device into operating rooms, intensive care units (ICUs), or coronary care units (CCUs).

Areas with Inflammables and Explosives

- Do not use the device where inflammables or explosives are stored, for example, in a gas station, oil depot, or chemical plant. Otherwise, explosions or fires may occur. In addition, follow the instructions indicated in text or symbols.
- Do not store or transport the device in the same box as inflammable liquids, gases, or explosives.

Accessory Requirements

- Use only the accessories supplied or authorized by the device manufacturer. Otherwise, the performance of the device may get affected, the warranty for the device or the laws and regulations related to telecommunications terminals may become null and void, or an injury may occur.
- Do not use the power adapter if its cable is damaged. Otherwise, electric shocks or fires may occur.
- Ensure that the power adapter meets the specifications indicated on the device nameplate.
- Ensure that the power adapter meets the requirements of Clause 2.5 in IEC60950-1/EN60950-1 and it is tested and approved according to national or local standards.

Safety of Children

Keep the device and its accessories out of the reach of children. Otherwise, they may damage the device and its accessories by mistake, or they may swallow the small components of the device, causing suffocation or other dangerous situations.

Maintenance

- If the device is not used for a long time, power it off, and then remove all the cables connected to it.
- If any exception occurs, for example, if the device emits any smoke or unusual sound or smell, stop using the device immediately, power it off, remove all the cables connected to it, and then contact an authorized service center.
- Do not trample, pull, or overbend any cable. Otherwise, the cable may get damaged, causing malfunction of the device.
- Before cleaning the device, stop using it, power it off, and then remove all the cables connected to it.
- Use a clean, soft, and dry cloth to clean the device shell. Do not use any cleaning agent or spray to clean the device shell.

Disposal and Recycling Information



This symbol on the device (and any included batteries) indicates that the device (and any included batteries) should not be disposed of as normal household garbage. Do not dispose of your device or batteries as unsorted municipal waste. The device (and any batteries) should be handed over to a certified collection point for recycling or proper disposal at the end of its life.

For more detailed information about the recycling of the device or batteries, contact your local city office, the household waste disposal service, or the retail store where you purchased this device.

The disposal of this device is subject to the Waste from Electrical and Electronic Equipment (WEEE) Directive of the European Union. The purpose for separating WEEE and batteries from other waste is to minimize any environmental impact and health hazard due to the presence of hazardous substances.

Reduction of Hazardous Substances

This device is compliant with the EU Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) Regulation (Regulation No 1907/2006/EC of the European Parliament and of the Council) and the EU Restriction of Hazardous Substances (RoHS) Directive (Directive 2002/95/EC of the European Parliament and of the Council). For more information about the REACH compliance of the device, visit the Web site www.huaweidevice.com/certification. You are recommended to visit the Web site regularly for up-to-date information.

EU Regulatory Conformance

This device should be installed and operated with a minimum distance of 20 cm between the antenna and all persons.

Български: С настоящето Huawei Technologies Co., Ltd. декларира, че този уред съответства на основните изисквания и другите разпоредби на Директива 1999/5/EC.

Česky: Huawei Technologies Co., Ltd., tímto prohlašuje, že toto zařízení je ve shodě se základními požadavky a dalšími souvisejícími opatřeními směrnice 1999/5/EC.

Dansk: Huawei Technologies Co., Ltd. erklærer hermed at denne enhed er i overensstemmelse med de obligatoriske krav og andre relevante bestemmelser i direktiv 1999/5/EF.

Nederlands: Hierbij verklaart Huawei Technologies Co., Ltd. dat dit apparaat in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EC.

English: Hereby, Huawei Technologies Co., Ltd. declares that this device is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

Eesti: Käesolevaga kinnitab Huawei Technologies Co., Ltd., et see seade vastab Direktiivi 1999/5/EÜ põhinõudmistele ja teistele asjakohastele määrustele.

Suomi: Huawei Technologies Co., Ltd. vakuuttaa täten, että tämä laite on yhdenmukainen direktiivin 1999/5/EY olennaisten vaatimusten ja direktiivin muiden asiaankuuluvien lausumien kanssa.

Français (Européen) : Le fabricant déclare que ce produit est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE.

Deutsch: Huawei Technologies Co., Ltd. erklärt hiermit, dass dieses Produkt die erforderlichen Bestimmungen und andere relevante Verordnungen der Richtlinie 1999/5/EG einhält.

Ελληνικά: Δια της παρούσης η Huawei Technologies Co., Ltd. δηλώνει ότι αυτή η συσκευή συμμορφώνεται με τις βασικές απαιτήσεις και άλλες σχετικές διατάξεις της οδηγίας 1999/5/E.K.

Magyar: Jelen nyilatkozaton keresztül a Huawei Technologies Co., Ltd. kijelenti, hogy a készülék megfelel az EC/5/1999 Irányelv összes lényeges követelményének és vonatkozó előírásának.

Gaeilge: Fograíonn Huawei Technologies Co., Ltd leis seo go bhfuil an fheiste seo i gcomhlíonadh leis na fíor-riachtanais agus na forálacha eile maidir le Treoir 1999/5/AE.

Italiano: Col presente documento, Huawei Technologies Co., Ltd. dichiara che questo dispositivo è conforme ai requisiti essenziali e alle altre disposizioni applicabili della Direttiva 1999/5/CE.

Latviski: Ar šo Huawei Technologies Co., Ltd. paziņo, ka šī ierīce atbilst Direktīvas 1999/5/EC pamatprasībām un piemērojamajiem nosacījumiem.

Lietuviškai: Šiuo Huawei Technologies Co., Ltd. praneša, kad šis įtaisas atitinka Direktyvos 1999/5/EC pagrindinius reikalavimus ir taikomas sąlygas.

Malti: Hawnehkk, Huawei Technologies Co., Ltd. tiddikjara li dan it-taghmir hu konformi mal-htigijiet essenzjali u provvedimenti rilevanti ohrajn ta' Direttiva 1999/5/KE.

Polski: Wymieniona w tym dokumencie firma Huawei Technologies Co., Ltd. deklaruje, że niniejsze urządzenie spełnia zasadnicze wymagania w zakresie zgodności oraz inne odnośnie postanowienia Dyrektywy 1999/5/EC.

Português (Europeu) : Deste modo, a Huawei Technologies Co., Ltd. declara que este dispositivo está em conformidade com os requisitos essenciais e outras provisões relevantes da Directiva 1999/5/CE.

Română: Prin prezenta Huawei Technologies Co., Ltd. declară că acest dispozitiv este conform cu cerințele esențiale și alte prevederi relevante ale directivei 1999/5/CE.

Slovenčina: Huawei Technologies Co., Ltd. týmto vyhlasuje, že zariadenie je v súlade so základnými požiadavkami a inými relevantnými predpismi Smernice 1999/5/ES.

Slovenščina: Huawei Technologies Co., Ltd. izjavlja, da je ta naprava v skladu z bistvenimi zahtevami in drugimi ustreznimi določbami Direktive 1999/5/ES.

Español (Europeo) : Con el presente documento, Huawei Technologies Co., Ltd. declara que este dispositivo cumple con los requisitos esenciales y con las demás disposiciones correspondientes de la Directiva 1999/5/CE.

Svenska: Huawei Technologies Co., Ltd. förklarar härmed att denna produkt överensstämmer med de grundläggande kraven och andra relevanta föreskrifter i direktiv 1999/5/EG.

For the declaration of conformity, visit the Web site
www.huaweidevice.com/certification.

CE 0678 

Notice: This device can be operated in all European countries.

France: Outdoor use limited to 10 mW e.i.r.p. within the band 2454-2483.5 MHz.

Italy: For private use, a general authorisation is required if WAS/RLAN's are used outside own premises. For public use, a general authorisation is required.

Luxembourg: General authorisation required for network and service supply.

Norway: This subsection does not apply for the geographical area within a radius of 20 km from the centre of Ny-Ålesund.

2 Product Overview

2.1 Indicators

Figure 2-1 Indicators on the front panel

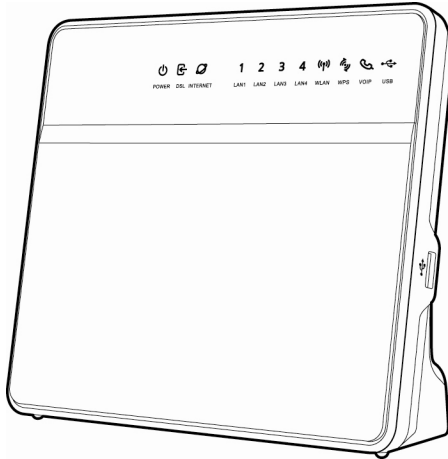


Table 2-1 Description of the indicators

Indicator	Status	Description
POWER	On	The HG655d is powered on.
	Off	The HG655d is powered off.
DSL	On	The DSL connection is established and activated.
	Blinking	The DSL connection is being activated.
	Off	The HG655d is powered off or faulty.

Indicator	Status	Description
INTERNET	On	The WAN connection is successfully established but no data is being transmitted.
	Blinking	The WAN connection is successfully established and data is being transmitted.
	Off	The HG655d is powered off or the WAN connection is not yet established.
LAN1, LAN2, LAN3, LAN4	On	The LAN connection is successfully established but no data is being transmitted.
	Blinking	The LAN connection is successfully established and data is being transmitted.
	Off	The HG655d is powered off or the LAN connection is not yet established.
WLAN	On	The WLAN connection is successfully established but no data is being transmitted.
	Blinking	The WLAN connection is successfully established and data is being transmitted.
	Off	The HG655d is powered off or the WLAN connection is not yet established.
WPS	Solid On 300s	The WPS password has switched successfully.
	Blinking	The WPS password is being switched.
	Off	The HG655d is powered off.
VOIP	On	The softswitch has logged in successfully.
	Off	The HG655d is powered off or no softswitch connection.
USB	On	The USB connection is successfully established at USB host mode but no data is being transmitted.
	Blinking	The USB connection is successfully established at USB host mode and data is being transmitted.
	Off	The HG655d is powered off or the USB connection is not yet established.

2.2 Interfaces and Buttons

Figure 2-2 Interfaces and buttons

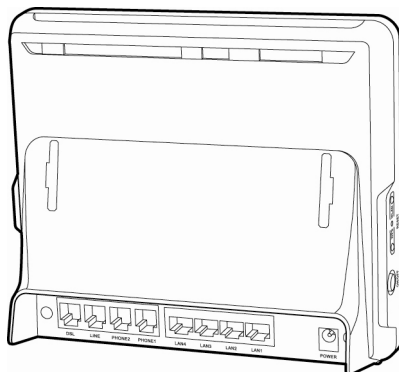


Table 2-2 Description of the interfaces and buttons

Interface/Button	Function
DSL	Connects to the MODEM interface on the splitter.
LINE	Connects to the PHONE interface on the splitter.
PHONE1, PHONE2	Connects a phone.
LAN1–LAN4	Connect PCs, switches, or other equipment.
RESET	Restarts the equipment if this button is pressed and held for three to six seconds, restores the factory settings of the equipment if held for more than six seconds. NOTE After you restore the default settings, the customized data will be lost. So press the RESET button with caution.
WPS	Used to start the WPS negotiation.
WLAN	Used to enable or disable the WLAN function.
ON/OFF	Used to power on or off the HG655d.
POWER	Connects a power adapter.
USB	Connects a USB device, such as a specified model of Huawei HSPA data card or a hard disk.

3 Product Installation and Getting Started

3.1 Selecting the Installation Position

If you need to use the WLAN function of the HG655d, pay attention to the following requirements when selecting the installation position of the HG655d:

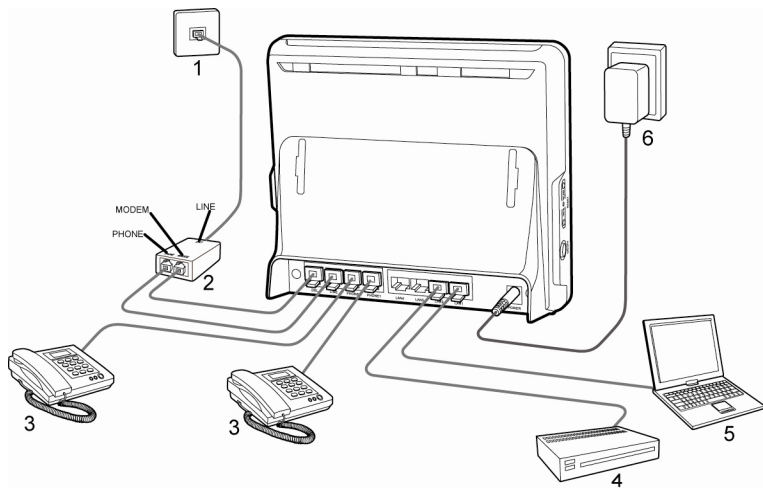
- Obstacles, such as cement walls and wooden plate walls, would affect the radio signal propagation effect of wireless networks. Therefore, it is recommended that the HG655d be installed in an open space so that no obstacles exist between the PC and the HG655d to block signal propagation.
- Ensure that the HG655d and the PC are placed away from electrical appliances generating a strong magnetic or electric field, such as microwave ovens.

3.2 Connecting the Cables



Before connecting the cables, power off all equipment connected to it including the HG655d, the PC, and the switch.

Figure 3-1 Cable connection



- | | | | | | |
|---|------------------------|---|----------|---|---------------|
| 1 | Phone jack on the wall | 2 | Splitter | 3 | Telephone |
| 4 | Set-top box | 5 | PC | 6 | Power adapter |

3.3 Getting Started

To power on the HG655d, press the **ON/OFF** button on the rear panel of the HG655d. After you power on the HG655d, the **DSL** indicator blinks (for less than three minutes), which indicates that the HG655d is being activated. Later, the **DSL** indicator turns solid on. The **POWER** indicator is also solid on, which indicates that the HG655d is working properly.

4 Setting the Internet Access Parameters

The HG655d supports VDSL2 uplink and High-Speed Packet Access (HSPA) uplink through Huawei HSPA data card. You can access the Internet through the DSL link and HSPA link.

4.1 Configuring the HSPA uplink

When the HG655d is working through the Huawei HSPA data card, you need to install the Huawei HSPA data card on the HG655d. To create a HSPA uplink connection, do as follows.

Step 1 Setting the WAN Parameters.

1. Launch the Internet Explorer and enter **http://192.168.1.1** in the address bar, and then press **Enter**.
2. Enter the user name and the password (**admin** and **admin** by default), and then click **Login**.
3. Click **Basic > WAN**.
4. Click **New**.
5. Select **UMTS1** from the **Connection device** drop-down combo box.
6. Select **Enable** for **WAN connection**.
7. Select **IP_Route(PPP)** from the **Connection type** drop-down combo box
8. Enter the user name and password in the **User name** and **Password** text boxes.
9. Enter the APN and the Dial number that are provided by the Internet Service Provider (ISP) in the **APN** and **Dial number** text boxes.
10. Keep the default value for other parameters and click **Submit**.

Step 2 Insert the Huawei HSPA data card that the ISP specified to the USB interface on the HG655d.

Step 3 Verify the PIN Code of SIM Card.

1. Click **Advanced > PIN**.
2. Enter the original PIN number in the **PIN** text box.
3. Click **Submit**.

4.2 Configuring the DSL uplink

By configuring the DSL uplink, you can choose any of the following methods to surf the Internet:

- Using the Embedded PPP Dial-Up Software on the HG655d

- Using the PPP Dial-Up Software on Your Computer

Using the Embedded PPP Dial-Up Software on the HG655d

If you select this method for accessing the network, the HG655d starts to set up a dial-up connection automatically after the startup. You can access the network after you power on your computer.

To configure the HG655d and your computer for the network access, do as follows:

Step 1 Log in to the web page.

Step 2 Configure the PTM PVC and ATM PVC.

1. In the navigation tree, choose **Basic > ATM**.
2. Click **New**.
3. Enter VPI and VCI in the **VPI/VCI** text box provided by the Internet Service Provider.
4. Select **EoA** from the **DSL link type** option button, and keep the default settings of other parameters.
5. Click **Submit**.

Just keep the default settings for PTM settings.

Step 3 Enable the embedded dial-up function.

1. In the navigation tree on the left of the web page, choose **Basic > WAN**.
2. Click **New**.
3. Select a PVC from the **Layer2 interface** drop-down combo box.
 - The HG655d supports ADSL/VDSL compliance uplink.
 - When choose the ADSL uplink mode, the name of PVC should be composed by the value of VPI and VCI. When choose the VDSL uplink mode, the name of PVC should begin with **ptm**.
4. Select **Enable** check box for **WAN connection**.
5. Select **VOICE_TR069_INTERNET** from the **Service list** drop-down combo box.
6. Select **Route** from the **Connection mode** drop-down combo box.
7. Select **PPPoE** option button for **Connection type**.
8. Select **Enable** check box for **NAT**.
9. Enter the user name and password that are provided by the ISP in the **User name** and **Password** text boxes, and keep the default settings of other parameters.
10. Click **Submit**.



After you complete the preceding settings, you can surf the Internet.

You need to perform the preceding operations on a computer once only. The next time when you power on your computer, you can surf the Internet without any configuration.

Using the PPP Dial-Up Software on Your Computer

If you select this method for accessing the network, you need to install and configure the dial-up software on your computer. In addition, you need to perform dial-up operations on your computer upon each startup.

To configure the HG655d and your computer for the network access, do as follows:

Step 1 Set the working mode of the HG655d to **Bridge**.

For details, refer to the procedure for enabling the embedded dial-up function described in Step 2 in section "Using the Embedded PPP Dial-Up Software on the HG655d." Note that **Bridge** is selected from the **Connection mode** drop-down combo box.

Step 2 Install and configure the PPP dial-up software on your computer.

The PPP dial-up software is pre-installed on certain computer operating systems. To create a dial-up connection, do as follows (taking the Windows XP operating system as an example):

1. Choose **Start > All Programs > Accessories > Communications > Network Connections**.
2. Click **Create a new connection** in **Network Tasks** to display the **New Connection Wizard** window, and then click **Next**.
3. Select **Connect to the Internet**, and then click **Next**.
4. Select **Set up my connection manually**, and then click **Next**.
5. Select **Connect using a broadband connection that requires a user name and password**, and then click **Next**.
6. Enter the name (as desired) of the dial-up connection in **ISP Name**, and then click **Next**.
7. Select **Anyone's use** or **My use only**, and then click **Next**.
8. Enter the user name and password provided by the network operator and used for the dial-up connection, and then click **Next**.
9. Select **Add a shortcut to this connection to my desktop**, and then click **Finish**.

An icon for the dial-up connection is displayed on the desktop of your computer.

You need to perform the preceding operations only once for creating a network connection. After the network connection is created, to access the network, double-click the icon for the dial-up connection, and then click **Connect** in the displayed dialog box.

5 Configuring the Wireless Connection

If a wireless network adapter is installed on your computer, you can connect your computer to the HG655d through a wireless connection.



The hardware installation methods and driver installation methods of wireless network adapters provided by different companies vary from each other. For details, see the installation guide provided by the wireless network adapter provider.

5.1 Setting Up a Wireless Connection by WPS

The HG655d supports the Wi-Fi Protected Setup (WPS) function. If your network adapter also supports the WPS function, you can use the WPS function to set up a wireless connection between your PC and the HG655d quickly.

To set up a wireless connection by WPS, do as follows:

Step 1 Enable the wireless network function.

The WLAN function is enabled by default and the WLAN indicator is on.

Step 2 Press the WPS button to enable the HG655d to enter the WPS negotiation state. The WPS indicator blinks.



If the WPS indicator does not blink, it indicates that the WPS function cannot be enabled. Note that the WPS function can be used only when the wireless network function is enabled and the wireless network security mode of the WLAN is set to WPA-PSK or WPA2-PSK.

Step 3 Enable the WPS negotiation function of the wireless network adapter on your PC within two minutes, and then wait for a moment (typically 10s and at most 2mins).

The WPS indicator of the HG655d becomes on from the blinking state, indicating that the HG655d is connected to your PC through the WLAN.

5.2 Setting Up a Wireless Connection Manually

If your network adapter does not support the WPS function, you can set up a wireless connection between your PC and the HG655d manually.

To manually set up a wireless connection, use either of the following methods:

- Use the tool provided by your network adapter.

For details, see the user guide of your network adapter.

- Use the wireless configuration software provided by the operating system of your PC.

If your PC runs on Windows XP, you can use the Wireless Zero Configuration that is provided by Windows XP to set up a wireless connection between your PC and the HG655d.

Takes Windows XP as an example, to set up a wireless connection, do as follows:

Step 1 Enable the wireless network function, and set the wireless network name and access password of the HG655d.

1. Log in to the web page.
2. In the navigation tree on the left of the web page, choose **Basic > WLAN**.
3. Select the **Enable WLAN**.
4. Enter a wireless network name in the **SSID** text box.
5. Select **WPA-PSK/WPA2-PSK** from the **Security** drop-down combo box.
6. Enter an access password in the **WPA pre-shared key** text box.
7. Select **AES** from the **WPA encryption** drop-down combo box.
8. Click **Submit** to save the settings.

Step 2 Enable the wireless configuration service provided by Windows XP.

1. Right-click **My Computer**, and then choose **Manage** from the shortcut menu.
2. In the **Computer Management** window, choose **Computer Management (Local) > Services and Applications > Services**.
3. From the services listed in the right pane of the **Computer Management** window, right-click **Wireless Zero Configuration**, and then choose **Properties** from the shortcut menu.
4. In the **Wireless Zero Configuration Properties (Local Computer)** dialog box, check whether **Service status** is **Started**. If not, click **Start**.
5. Click **OK** to close the dialog box, and then close the **Computer Management** window.

Step 3 Configure the wireless network connection on your computer.

1. Choose **Start > All Programs > Accessories > Communications > Network Connections**.
2. In the **Network Connections** window, right-click **Wireless Network Connection** to display a shortcut menu, and then select **View Available Wireless Networks** from the shortcut menu.
3. In the **Wireless Network Connection Properties** dialog box, select **Wireless Networks**.
4. Select **Use Windows to configure my wireless network settings**.
5. Click **View Wireless Networks**.

6. In the Wireless Network Connection dialog box, select the WLAN with the same name that is configured in Step 1, and then click **Connect** in the lower right corner of the window.
7. In the displayed dialog box, enter the access password that is preset in Step 1, and then click **Connect**.

After the password is authenticated, Connected is displayed in the upper right corner of the WLAN icon in the WLAN list, indicating that a wireless connection is set up between you PC and the HG655d.

8. Close the **Wireless Network Connection** dialog box.
9. In the **Wireless Network Connection Properties** dialog box, click **OK**.

6 Setting the VoIP Parameters

6.1 Voice Service Introduction

The HG655d supports voice services based on the Session Initiation Protocol (SIP). The SIP is an application layer protocol used to create, modify, or end multimedia sessions.

The HG655d enables voice service interworking between the Internet and the Public Switched Telephone Network (PSTN).

6.2 Networking

Figure 6-1 shows the network model of voice services.

Figure 6-1 Network model of voice services

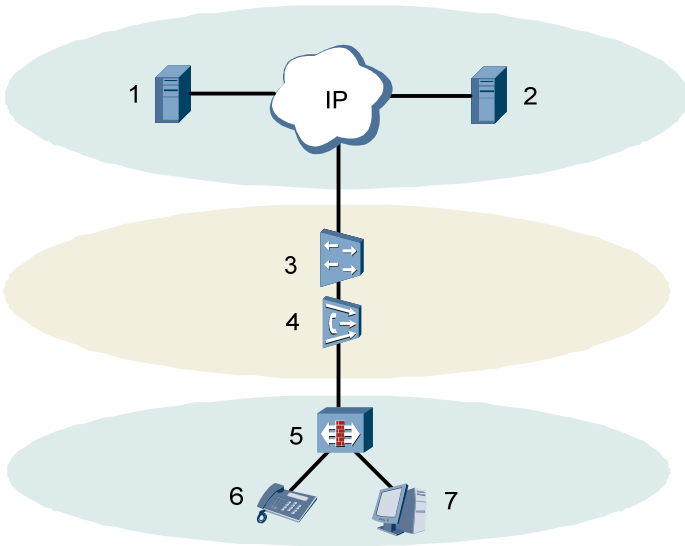


Table 6-1 Description of the equipment in voice service networking

No.	Item	Description
1	Proxy Server	A server that forwards requests or responses in place of the client
2	Registrar Server	A server that receives registration requests
3	BRAS	Broadband Remote Access Server
4	DSLAM	Digital Subscriber Line Access Multiplexer
5	HG655d	-
6	Telephone	-
7	Computer	-

6.3 Configuration Procedure

The VoIP parameter has been configured with the delivered HG655d. In general, this parameter does not need to be configured and please keep the default settings.

7 Configuring the Basic Settings

7.1 Changing the Administrator Password

For safety reasons or to make the password easy to remember, you can change the administrator password for login after logging in to the web page.

To change the password, do as follows:

- Step 1** Log in to the web page.
- Step 2** Choose **Maintenance > Account** in the navigation tree to display the system management page.
- Step 3** Select **admin** from the **User name** drop-down combo box.
- Step 4** Enter the **Current password** and the **New password**. Then enter the new password again in the **Confirm password** text box for confirmation.
- Step 5** Click **Submit** to save the settings.

After you change the password successfully, the current page jumps to the page for logging in to the web page. To log in to the web page, enter the new password, and then click **Submit**.



If you forget the user name or password that has been changed, you can restore the default settings of the HG655d by pressing and holding the RESET button for over six seconds. Then, the user name and password that are used for logging in to the web page are restored to default values. After you restore the default settings, however, your customized data is lost. Therefore, use this function with caution.

7.2 Enabling or Disabling the Wireless Network Function

You can quickly enable or disable the wireless network function by pressing the WLAN button on the HG655d. To enable the wireless network function, press and hold the WLAN button for over one second, and then release the button. You can disable the wireless network function in the same way. The WLAN indicator shows whether the wireless network function is enabled.

In addition, you can enable or disable the wireless network function through the web page. To enable or disable the wireless network function, do as follows:

- Step 1** Log in to the web page.

- Step 2** In the navigation tree on the left, choose **Basic > WLAN**.
- Step 3** Select or not select the **Enable WLAN** option.
- Step 4** Click **Submit** to save the settings.

7.3 Changing the Wireless Network Name and the Access Password

To change the name and access password for the wireless network, do as follows (taking the authentication type WPA-PSK as an example):

- Step 1** Log in to the web page.
- Step 2** In the navigation tree on the left, choose **Basic > WLAN**.
- Step 3** Enter the new wireless network name in the **SSID** text box.
- Step 4** Select **WPA-PSK** from the **Security** drop-down combo box.
- Step 5** Enter the new access password in the **WPA pre-shared key** text box.
- Step 6** Select **AES** from the **WPA encryption** drop-down combo box.
- Step 7** Click **Submit** to save the settings.

7.4 Changing the Login IP Address

To make the login IP address easy to remember, you can change the IP address after logging in to the web page.

To change the IP address, do as follows:

- Step 1** Choose **Basic > LAN** in the navigation tree.
- Step 2** Select the **DHCP** page.
- Step 3** Enter a new IP address as desired in the **IP address** text box. Then, enter a subnet mask in **Subnet mask**.
- Step 4** Click **Submit** to save the settings.



To log in to the web page after you change the IP address successfully, you need to launch the Internet Explorer, and then enter the new IP address. Ensure that the IP address of the computer is in the same network segment as that of the HG655d so that the computer can access the web page.

7.5 Downloading Files Through the USB Port

After a portable storage device is connected to the USB port on the rear panel of the HG655d, you can configure the HG655d as a File Transfer Protocol (FTP) client. Through the HG655d, the files on the FTP server can be downloaded to the removable storage device.

To download files through the HG655d, do as follows:

- Step 1** Choose **Advanced > USB Port**.
- Step 2** In the **User name** and **Password** text boxes, enter the user name and the password.
- Step 3** In **Download URL** and **Port** text boxes, enter the Uniform Resource Locator (URL) address and port used for downloading files from the FTP server.
- Step 4** Click the **Device** drop-down list box, and then select the storage device partition used for saving downloaded files.
- Step 5** In the **Local path** text box, enter the path used for saving downloaded files.
- Step 6** Click **Download**.



After files are downloaded, you can view file downloading records on the **Download History** tab.

7.6 Restoring Default Settings

You can quickly restore the default settings of the HG655d by pressing the **RESET** button on the rear panel. To restore the default settings, press and hold the **RESET** button for over six seconds after the HG655d is powered on, and then release the button. In addition, you can restore the default settings of the HG655d through the web page. To restore the default settings through the web page, do as follows:

- Step 1** Log in to the web page.
- Step 2** Choose **Maintenance > Device**.
- Step 3** Click **Restore Default Settings**.

After the preceding operations, the current page jumps to the login page. You can log in to the web page by entering the default user name and password that are **admin**.

8 FAQs

How can I quickly enable or disable the wireless network function?

Press and hold the WLAN button for over one second, and then release the button to enable or disable the wireless network function. The WLAN indicator shows whether the wireless network function is enabled.

How can I quickly restore the default settings of the terminal?

To restore the default settings, press and hold the RESET button on the rear panel for over six seconds after the HG655d is powered on, and then release the button.

What can I do if I cannot access the Internet through the terminal?

Step 1 Check whether the POWER indicator on the terminal is solid on.

If the POWER indicator is off, perform further checks as follows:

1. Ensure that the terminal is turned on.
2. Ensure that electricity comes from the socket and that the power input from the socket meets the requirements described on the label of the terminal power adapter. If the voltage is unsteady, for example, if the voltage is too high or too low, do not use the terminal. Wait until the voltage restores to its normal level, and then use the terminal.
3. Ensure that the terminal is properly connected to the socket through the power adapter.

If the POWER indicator is still off, contact an authorized maintenance center.

Step 2 After powering on the terminal, wait for about three minutes. Then, check whether the DSL indicator on the terminal is solid on.

If the DSL indicator blinks for a long time, perform further checks as follows:

1. Ensure that telephone lines are properly connected. Pay special attention to the connections between the telephone lines and the splitter.
2. Ensure that the terminal or telephone lines are far from the electric appliances that generate strong magnetic or electric fields. Replace telephone lines when necessary.

If the DSL indicator still blinks and does not turn solid on, contact your network operator.

Step 3 Check whether the LAN indicator of the terminal is on.

If the LAN indicator is off, perform further checks as follows:

1. Ensure that the network adapter of the computer is enabled.
2. Ensure that the network cable between the terminal and the computer is properly connected. Remove and then insert the network cable or replace the network cable when necessary.

If the LAN indicator is still off, contact an authorized maintenance center.

Step 4 Check whether the driver for the network adapter is properly installed. Take a computer that runs Windows XP as an example. To check whether the driver for the network adapter is installed, do as follows:

1. On the desktop, right-click **My Computer**, and then choose **Manage**.
2. In the navigation tree of the **Computer Management** window, choose **Device Manager**.
3. In the right pane of the **Computer Management** window, click **Network adapters** to view the information about the network adapter of the computer.

If no network adapter is found or if a question mark (?) or an exclamation mark (!) is displayed next to the icon of the network adapter, you can infer that the driver for the network adapter is not properly installed. In this case, re-install the driver for the network adapter of the computer.

Step 5 Ensure that you have entered the correct user name and user password that are required by the PPP dial-up software.

The user name and the user password are provided by your network operator.

Step 6 Check whether you can use the PPP dial-up software to dial successfully.

If you cannot use the PPP dial-up software to dial successfully, perform further checks as follows:

1. Stop the PPP dial-up software and then power off the terminal. After five minutes, power on the terminal, and then use the PPP dial-up software to dial again.
2. Restore the default settings of the terminal.

If the problem persists, contact your network operator.

Step 7 Check whether the proxy server of the Web browser is correctly configured. Take the Internet Explorer installed on a computer that runs Windows XP as an example. To check whether the proxy server of the Web browser is correctly configured, do as follows:

1. Launch the Internet Explorer.
2. Choose **Tools > Internet Options**.
3. In the **Internet Options** dialog box, click the **Connections** tab.
4. In the **Local Area Network (LAN) settings** group box, click **LAN Settings**.
5. In the **Proxy server** group box of the **Local Area Network (LAN)**

Settings dialog box, ensure that the **Use a proxy server for your LAN (These settings will not apply to dial-up or VPN connections)**, check box is cleared.

Step 8 Try to access multiple Web sites to check whether the terminal can access these Web sites.

If the terminal still cannot access Web sites, contact your network service provider.

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

Step 1 Ensure that the terminal and other devices, such as telephones or fax machines, are connected to telephone lines through a splitter.

For details about how to install a splitter, see the related description in the manual.

Step 2 Ensure that telephone lines are properly connected.

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

Step 3 Check the positions of your terminal and your computer. Ensure that they are far from 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.

What can I do if sometimes the terminal cannot access the Internet through a WLAN connection or if the WLAN connection is unsteady?

Step 1 Check the positions of your terminal and your 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.

Step 2 Place your terminal in an open area.

Although radio signals can pass through obstacles, the transmission effects of WLAN radio signals are affected if radio signals pass through too many obstacles, such as cement or wooden walls.

Step 3 Place your computer close to your terminal.

If your computer is far from your terminal, the effects of the WLAN are affected.

Step 4 Place your terminal and computer in another direction.

Step 5 Do not use your terminal to access the WLAN during thunderstorms.

After a broadband terminal is installed, does Internet access degrade call quality or do telephone calls lower the Internet access rate?

No. The terminal uses the frequency division multiplexing (FDM) and splitter technologies to separate voice signals from data signals. Although the two types of signals are transmitted through one telephone line, they are carried by different frequency bands. Therefore, they do not interfere with each other. In this case, you can make a telephone call and access the Internet simultaneously, without degrading call quality or lowering the Internet access rate.

9 Appendix

9.1 Default Settings

Parameter	Setting
IP address of the LAN interface	192.168.1.1
Subnet mask of the LAN interface	255.255.255.0
User name used for logging in to the web page	admin
Password used for logging in to the web page	admin
DHCP server function	Enable
Wireless network function	Enable

9.2 Technical Specifications

Item	Specification
Power supply	12 V DC, 1.5 A
Power consumption	< 18 W
Ambient temperature for operation	0°C to 40°C (32°F to 104°F)
Relative humidity for operation	5% to 95%, non-condensing
Dimensions (L × W × H)	194 mm × 60 mm × 165 mm
Weight	<1 kg

Item	Specification	
Standards	VDSL2 standards	G.993.2 Annex B PSD Mask ITU G.994.1 (G.hs)
	ADSL2+ standard	ITU G.992.5 (G.dmt.bitplus) Annex A
	ADSL2 standards	ITU G.992.3 (G.dmt.bis) Annex A ITU G.992.3 (G.dmt.bis) Annex L
	ADSL standards	ITU G.992.1 (G.dmt) Annex A ITU G.994.1 (G.lite) ANSI T1.413 Issue 2
	WLAN standard	802.11b, 802.11g and 802.11n(2.4 GHz)

HUAWEI TECHNOLOGIES CO., LTD.

Huawei Industrial Base

Bantian, Longgang

Shenzhen 518129

People's Republic of China

www.huawei.com

Part Number: 202304