

## HG532d 300Mbps Wireless ADSL2+ Router

## **User Guide**



HUAWEI TECHNOLOGIES CO., LTD.

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## Supported Features

The HG532d 300Mbps Wireless ADSL2+ Router (HG532d for short) is a high-speed wireless router designed for home and small office use. This chapter describes the features supported by the HG532d.

#### High-Bandwidth DSL Connectivity

The HG532d incorporates a high-performance ADSL2+ processor and provides high-speed Internet access and abundant services to be delivered through the digital subscriber line (DSL).

#### Routing

The HG532d supports routing. It can obtain an IP address through PPP dial-up or Dynamic Host Configuration Protocol (DHCP), which provides simultaneous access for multiple devices.

#### WLAN

The HG532d supports multiple WLAN protocols, including 802.11b/g/n (2.4 GHz). Adopting 802.11n multiple-input multiple-output antennas (MIMO) technology, the HG532d delivers a wireless transmission rate of up to 300Mbps with its dual antennas. In addition, the HG532d supports multiple wireless encryption modes to provide a secure, reliable, and high-speed WLAN.

#### **Bandwidth Control**

The HG532d supports IP bandwidth control and allocates bandwidth to different computers within your home based on Internet access requirements. Your family can then access the Internet, play online games, and watch videos without interfering with each other.

#### Wi-Fi Protected Setup

You can set up wireless connections between the HG532d and Wi-Fi enabled devices by pressing the Wi-Fi Protected Setup (WPS) button.

#### WDS Wireless Bridging and Repeating

The wireless distribution system (WDS) function in wireless bridging or wireless repeating mode enables you to set up wireless connections between wireless routers to implement large-scale WLAN coverage.

#### **PVC Automatic Tuning**

The HG532d offers a permanent virtual circuit (PVC) for automatic tuning. It can automatically detect the virtual path identifier (VPI) and virtual channel identifier (VCI) for your area, eliminating all configuration needs.

#### **Firewall**

The powerful built-in firewall effectively protects against viruses and malicious attacks.

#### **ARP Attack Protection**

You can bundle an IP address and MAC address bi-directionally, which effectively protects your LAN from Address Resolution Protocol (ARP) attacks.

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#### **Parental Controls**

Parents can control their children's computer usage by placing time limits on usage duration or forbidding access to certain websites.

#### **Easy Configuration and Management**

The HG532d provides password-protected web-based management pages to protect your personal data.

## Ports and Buttons



No.	Item	Description		
1	ADSL	Connects to a DSL filter or phone socket.		
2	$LAN1 \sim LAN4$	Connects to Ethernet devices, such as computers, set-top boxes (STBs), and switches.		
3	Reset	Restores the HG532d to its default settings after you press and hold this button for 6 seconds or more while the HG532d is powered on. A reset will result in all custom data and settings being lost. Use with caution.		
4	On/Off	Powers the HG532d on or off.		
5	Power	Connects to a power adapter.		
6	WPS	Starts Wi-Fi protected setup (WPS) negotiation.		
7	WLAN	Enables or disables the WLAN function.		

## Indicators



Indicator	Status	Description
Power	Steady green	The HG532d is powered on.
Fower	Off	The HG532d is powered off.
	Steady green	The HG532d is connected to the Internet in router mode, but no data is being transmitted.
Internet	Blinking green	The HG532d is connected to the Internet in router mode, and data is being transmitted.
	Off	> The HG532d is in router mode, but not connected to the Internet.
		> The HG532d is in bridge mode.
	Steady green	A digital subscriber line (DSL) connection has been set up and activated.
ADSL	Blinking green	A DSL connection is being activated.
	Off	No DSL connection has been set up, or the DSL connection is faulty.

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Indicator	Status	Description
	Steady green	The HG532d has WLAN enabled, but is not transmitting data.
WLAN	Blinking green	The HG532d has WLAN enabled, and data is being transmitted.
	Off	WLAN is disabled.
WPS	Steady green	The HG532d is connected to a wireless client, such as a computer with a wireless network adapter, over the WLAN using the Wi-Fi Protected Setup (WPS) function.
	Blinking green	The HG532d is attempting to connect to a wireless client over the WLAN using the WPS function.
	Off	WPS is disabled.
	Steady green	The LAN port is connected to an Ethernet device (such as a computer) with a network cable, but no data is being transmitted.
LAN1 $\sim$ LAN4	Blinking green	The LAN port is connected to an Ethernet device with a network cable, and data is being transmitted.
	Off	The LAN port is not connected to any Ethernet device.

## Selecting an Installation Location

Place the HG532d on a well-ventilated even surface without exposure to direct sunlight. For the best possible performance, take note of the following:

- Make sure there are no obstacles, such as concrete or wooden walls, between the computer and HG532d.
- > Ensure that the computer and HG532d are far from electric appliances that generate strong magnetic or electric fields, such as microwave ovens.

## **Connecting Cables**

If you have subscribed to digital subscriber line (DSL) broadband, you can connect the HG532d to a telephone port for Internet access.

Connect your devices in the sequence indicated in the following figure.



When configuring the HG532d for the first time, use an Ethernet cable to connect the HG532d to a computer.

## Powering On

To power on the HG532d, press its power button.



After the HG532d is powered on, the HG532d indicator turns on. The following table lists how the indicators behave when the HG532d is operating correctly. If the indicators do not behave as expected, ensure that everything is plugged in correctly.

Indicator	Expected State	
Power	Steady on	
ADSL	Steady on or blinking The blinking may last from 40 seconds to 3 minutes. When the indicator stops blinking and remains on, the HG532d is working correctly.	
LAN	Steady on or blinking (indicator of the connected LAN port)	

## Setting the Computer IP Address

Before logging in to the HG532d web management page, set the IP address of the computer that will be used for the login.

#### **On Windows 7**

1. Choose Start > Control Panel > Network and Internet > Network and Sharing Center.



2. Choose Change adapter settings. Right-click Local Area Connection and choose Properties.



3. Double-click Internet Protocol Version 4 (TCP/IPv4).

🖗 Local Area Connection 10 Properties	x
Networking Sharing	
Connect using:	
Generic Marvell Yukon 88E8070 based Ethemet Controlle	
Configure	וכ
This connection uses the following items:	
<ul> <li>✓ ♥ Client for Microsoft Networks</li> <li>✓ ■ QoS Packet Scheduler</li> </ul>	
File and Printer Sharing for Microsoft Networks	
Internet Protocol Version 4 (TCP/IPv4)	11
Link-Layer Topology Discovery Mapper I/O Driver     Link-Layer Topology Discovery Responder	
Install Uninstall Properties	
Description	
Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.	
OK Cance	:

4. Select Obtain an IP address automatically and Obtain DNS server address automatically. Click OK.

General Alternate Configuration	Propertie	5		? ×	
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.					
Obtain an IP address automatica	lly				
Use the following IP address:					
IP address:					
Subnet mask:					
Default gateway:					
Obtain DNS server address auto	matically				
<ul> <li>Use the following DNS server ad</li> </ul>	dresses:				
Preferred DNS server:			1.0		
Alternate DNS server:					
Validate settings upon exit			Adva	nced	
		ОК		Cancel	

#### **On Windows XP**

1. Choose Start > Control Panel > Network and Internet Connections.



2. Click Network Connections. Right-click Local Area Connection and choose Properties from the shortcut menu.

	Disable
	Status
	Repair
Local Area Connect	Bridge Connections
	Create Shortcut
	Delete
	Rename
	Properties

3. Double-click Internet Protocol (TCP/IP).

🕹 Local Area Connection Properties 🛛 🔹 💽
General Advanced
Connect using:
Intel(R) Gigabit CT Desktop Adapter Configure
This connection uses the following items:
Description
Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.
Show icon in notification area when connected Notify me when this connection has limited or no connectivity
OK Cancel

 Select Obtain an IP address automatically and Obtain DNS server address automatically. Click OK.

Internet Protocol (TCP/IP) Prope	erties 🛛 🤉 🔀			
General Alternate Configuration				
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.				
Obtain an IP address automatica	ly			
O Use the following IP address: —				
IP address:				
Subnet mask:				
Default gateway:				
Obtain DNS server address auto	matically			
Use the following DNS server ad	dresses:			
Preferred DNS server:	and the second second			
Alternate DNS server:				
	Advanced			
	OK Cancel			

### Logging In to the Web Management Page

The HG532d provides an intuitive web management page where you can view or set the HG532d parameters.

Before you log in to the HG532d web management page, ensure that the computer used for the login is connected to the HG532d and has been configured to automatically obtain an IP address or assigned with a static IP address.

1. Open a browser. In the address box, enter 192.168.1.1. Press Enter.

2. Enter the login user name (admin by default) and password (admin by default). Click Login.

y Lagin - Windows Intern → → M http://19 → Lagin	1210611/	• 49 X b Bing A
HUAWEI	Home Gateway	
	Username Username Password Password Content C	
	Login Cancel	

To protect against unauthorized access, change the user name and password after the first login.

## Configuring the Internet Connection

When you install the HG532d for the first time, you need to configure the HG532d. The HG532d supports quick configuration page. You can quickly configure the network connection parameters through the quick configuration page.

- **1.** Log in to the Web management page.
- 2. Select a network connection type and set the network connection parameters.

If you selected PPPoE or Static, enter the parameters provided by your Internet Service Provider (ISP) and click Next.

Quick Configure	Internet
Connection type	
	PPPoE The internet service provider has provided you the internet access account and password, the gateway dials and gets IP address. Connect the device(such as PC) to the gateway and then surf internet directly. Bridge
o	The internet service provider has provided you the internet access account and password. Connect the device(such as PC) to the gateway and dial. After getting IP address, the device can surf internet. DHCP
0	The internet service provider has not provided you the internet access account and password, the gateway sends DHCP request and gets IP address. Connect the device (such as PC) to the gateway and then surf internet directly. Static
	The internet service provider has provided you VPI/VCI, IP address DNS server address, you need config them to gateway successfully. Connect the device(such as PC) to the gateway and then surf internet directly.
	Please enter the PPPoE username and password provided by the ISP (Internet
Username	
Password	
	Connect
Quick Configure	Internet
Connection type	
0	PPPOE The internet service provider has provided you the internet access account and password, the gateway dials and gets IP address. Connect the device(such as PC) to the acteurus call those activities that discretions are accessed as the second service of the second service and the second seco
0	Bridge
	The internet service provider has provided you the internet access account and password. Connect the device(such as PC) to the gateway and dial. After getting IP address, the device can surf internet.
	DHCP The internet service provider has not provided you the internet access account and password, the gateway sends DHCP request and gets IP address. Connect the device (such as PC) to the gateway and then surf internet directly.
۲	Static The internet service provider has provided you VPI/VCI, IP address DNS server address, you need config them to gateway successfully. Connect the device(such as PC) to the gateway and then surf internet directly.
V	PI (0-255)
V	CI (32-65535)
IP addre	SS
Subnet ma	sk

>	lf y	you	selected	Bridge	or	DHCP	,	click	Next	Ł
---	------	-----	----------	--------	----	------	---	-------	------	---

Connect

Default gateway Primary DNS Secondary DNS

Internet
PPPOE The internet service provider has provided you the internet access account and password, the gateway dials and gets IP address. Connect the device(such as PC) to the gateway and then surf internet directly. Bridge The internet service provider has provided you the internet access account and password. Connect the device(such as PC) to the gateway and dial. After getting IP address, the device can surf internet. DHCP The internet service provider has not provided you the internet access account and password. The gateway sends DHCP request and gets IP address. Connect the device (such as PC) to the gateway and then surf internet directly. Static The internet service provider has provided you VPIV/CI, IP address DNS server address, you need config them to gateway successfully. Connect the device(such as PC) to the gateway and then surf internet directly. Connect
Internet
PPPOE The internet service provider has provided you the internet access account and password, the gateway dials and gets IP address. Connect the device(such as PC) to the gateway and then surf internet directly. Bridge The internet service provider has provided you the internet access account and password. Connect the device(such as PC) to the gateway and dial. After getting IP address, the device can surf internet. DHCP The internet service provider has not provided you the internet access account and password, the gateway sends DHCP request and gets IP address. Connect the device (such as PC) to the gateway and then surf internet directly. Static The internet service provider has provided you VPI/VCI, IP address DNS server address, you need config them to gateway successfully. Connect the device(such as PC) to the gateway and then surf internet directly. Connect

If you selected **PPPoE**, **Static**, or **DHCP**, the computer automatically connects to the Internet as long as the HG532d is working correctly. If you selected **Bridge**, use the dial-up software on the computer to set up a dial-up connection each time you want to access the Internet.

E

If **Did not get an available network connection** is displayed, set the VPI and VCI to the values obtained from your ISP and click **Connect**.

Quick Configure Internet
Did not get an available network connection, it is recommended that you click the "Reconnect" button to try again if still fails after several attempts, please contact your internet Service Provider (ISP) to obtain the following parameters (VPI/VCI) and manaby configure them.
Please <u>enter the VPI and VCI parameter</u> values provided by your ISP, and then click the "Connect" button.           VPI         (0.255)           VCI         (32-65535)
Connect Back

 If Network connected successfully is displayed, the HG532d is connected to the Intenet. You can click Configure Wireless to modify the wireless settings.

Quick Configure Internet	
Network connected successfully IP address: 168 99.218.160 Please enjoy surfing the internet!  Reconfigure  The factory preconfigured wireless name and password are printed on the equipment shell. If you need to modify them, please cick "Configure Wireless", otherwise click "Complete" to end the configuration.  Configure Wireless Complete	

4. Enter the SSID (WLAN name) and key and click Next.

Quick Configure Wireless Network
Please enter SSID and WLAN Key. If you need config more parameters, please enter "Basic>WLAN" page.
SSID:
[Next] [Back]

- To obtain the default SSID and key, check the label on the rear panel. To better secure your WLAN, promptly change the SSID and key.
- In the displayed Wireless config successful page, click Completed to complete the configuration.

### Setting Dial-Up Connection Parameters

When the HG532d works in **Bridge** mode you need to perform this operation. The other three connection types **PPPoE**, **DHCP** and **Static** do not need to perform this operation.

Before setting dial-up connection parameters, verify that the HG532d is correctly connected to your computer and you have the dial-up connection account name and password provided by your Internet service provider (ISP). This section demonstrates how to set up a Point-to-Point Protocol over Ethernet (PPPoE) connection on Windows.

#### On Windows 7

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1. Choose Start > Control Panel > Network and Internet > Network and Sharing Center.



2. Under Change your networking settings, click Set up a new connection or network.

Change y	our networking settings
1	Set up a new connection or network
	Set up a wireless, broadband, dial-up, ad hoc, or VPN connection; or set up a router or access point.

 In the Set Up a Connection a Network window, select Connect to the Internet and click Next.



4. Click Broadband (PPPoE).

🚱 🐟 Connect to the Internet	
How do you want to connect?	
Broadband (PPPoE) Connect using DSL or cable that requires a user name and password.	
Dial-up Connect using a dial-up modem or ISDN.	
Help me choose	
	Cancel

5. In User name and Password, enter the dial-up connection account name and password provided by your ISP. In Connection name, name the dial-up connection. Select or deselect Allow other people to use this connection. Then click Connect.

🚱 🚸 Connect to the Interne	t				
Type the information	n from your Internet service provider (ISP)				
User name:	[Name your ISP gave you]				
Password:	[Password your ISP gave you]				
Connection name:	Show characters Remember this password Broadband Connection				
Z Allow other people to use this connection This option allows anyone with access to this computer to use this connection. I don't have an ISP					
	Connect				

 Return to the Network and Sharing Center page. Click Change adapter settings. Rightclick the icon for the dial-up connection you just set up and choose Create Shortcut from the shortcut menu. In the displayed dialog box, click Yes.

Broac	Iband Connection
	Connect
	Status
	Cancel as Default Connection
	Create Copy
	Create Shortcut
0	Delete
0	Rename
9	Properties

#### **On Windows XP**

1. Choose Start > Control Panel > Network and Internet Connections > Network Connections.



2. Under Network Tasks, click Create a New Connection.



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 $\textbf{3.} \ \ \text{In the Network Connection Wizard dialog box, click Next}.$ 



4. Select Connect to the Internet and click Next.

etw V	ork Connection Type /hat do you want to do?
0	Connect to the Internet Connect to the Internet so you can browse the Web and read email.
C	Connect to the network at my workplace Connect to a business network (using dial-up or VPN) so you can work from home, a field office, or another location.
C	) Set up an advanced connection
	Connect directly to another computer using your serial, parallel, or infrared port, or set up this computer so that other computers can connect to it.

5. Select Set up my connection manually and click Next.

New Connection Wizard	
Getting Ready The wizard is preparing to set up your Internet connection.	
How do you want to connect to the Internet?	
<ul> <li>Set up my connection manually</li> <li>For a diakup connection, you will need your account name, password, and a phone number for your ISP. For a broadband account, you won't need a phone number.</li> <li>Use the CD I got from an ISP</li> </ul>	
< Back Next> Cancel	)

6. Select Connect using a broadband connection that requires a user name and password and click Next.

New Connection Wizard
Internet Connection How do you want to connect to the Internet?
Connect using a dial-up modem This time of connection uses a modem and a regular or ISDN phone line
Oronnect using a broadband connection that requires a user name and password This is a high-speed connection using either a DSL or cable modern. Your ISP may refer to this type of connection as PPOE.
Connect using a broadband connection that is always on This is a high-speed connection using either a cable modem, DSL or LAN connection. It is always active, and doesn't require you to sign in.
<back next=""> Cancel</back>

7. In ISP Name, name the dial-up connection. Click Next.

New Connection Wizard
Connection Name What is the name of the service that provides your Internet connection?
Type the name of your ISP in the following box.
ISP Name The name you type here will be the name of the connection you are creating.
< Back Next> Cancel

8. Select Anyone's use or My use only and click Next.

ew Conne	tion Wizard
You c	n make the new connection available to any user or only to yourself.
A con availai	ection that is created for your use only is saved in your user account and is not le unless you are logged on.
Create	his connection for:
	inyone's use
	y dec only
	< Back Next > Cancel

\_ 20 \_\_\_\_\_

 Enter the dial-up connection account name and password provided by your ISP and click Next.

New Connection Wizard						
Internet Account Information You will need an account name and password to sign in to your Internet account.						
Type an ISP account name and password, then write down this information and store it in a safe place. (If you have forgotten an existing account name or password, contact your ISP.)						
User name:						
Password:						
Confirm password:						
<ul> <li>Use this account name and password when anyone connects to the Internet from this computer</li> </ul>						
Make this the default Internet connection						
< Back Next> Cancel						

10. Select Add a shortcut to this connection to my desktop and click Finish.

New Connection Wizard	
<b>S</b>	Completing the New Connection Wizard
	You have successfully completed the steps needed to create the following connection:
	Broadband • Make this the default connection • Share with all users of this computer • Use the same user name & password for everyone
	The connection will be saved in the Network Connections folder.
	Add a shortcut to this connection to my desktop
	To create the connection and close this wizard, click Finish.
	< Back Finish Cancel

After you successfully set up a PPPoE connection, a dial-up connection icon is displayed on your computer desktop.

To connect to the Internet, double-click the dial-up connection icon. In the displayed dialog box, click **Connect**.

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## Setting Up a Wireless Connection Using the WPS Button

Push the WPS button once to quickly set up a wireless connection between the HG532d and any WPScapable device.

Before you set up a wireless connection using the WPS button, verify the following:

- > The wireless network security mode of the HG532d is WPA2-PSK or WPA-PSK/WPA2-PSK.
- The wireless device (laptop, tablet, or mobile phone) to connect to the HG532d is WPScapable.
- 1. Press the WPS button on the wireless device to start WPS negotiation. For details, see the user guide for the wireless device.
- Within 2 minutes, press and hold the WPS button on the HG532d for 1 second or more. The WPS indicator blinks.



When the WPS indicator on the HG532d is steady on, a connection between the HG532d and wireless device is set up. The WPS indicator is on for 300 seconds.

## Manually Setting Up a Wireless Connection

The wireless configuration software provided by Windows is used as an example to describe how to set up a wireless connection.



You can also use the tool built into the network adapter to set up a wireless connection. For details, see the network adapter's user guide.

Before setting up a wireless connection, record the WLAN name and password of the HG532d. The default WLAN name and password are printed on the HG532d cover label.

#### **On Windows 7**

 Choose Start > Control Panel > Network and Internet > Network and Sharing Center > Change adapter settings. Right-click Wireless Network Connection, and select Connect/Disconnect.



2. From the wireless network list, select the WLAN provided by the HG532d. Click Connect.

Not connected	÷, ^					
Connections are available						
Wireless Network Connection 3						
huawei	ltte					
Connect automatically						
Open Network and Sharing Ce	enter					

3. In the displayed dialog box, enter the WLAN password and click OK.



 In the wireless network list, check the WLAN connection status. If the status is Connected, the computer is wirelessly connected to the HG532d.



#### **On Windows XP**

 Choose Start > Control Panel > Network and Internet Connections > Network Connections. Right-click Wireless Network Connection and choose View Available Wireless Networks from the shortcut menu.



2. From the wireless network list, select the WLAN provided by the HG532d. Click Connect.



3. In the displayed dialog box, enter the WLAN password and click Connect.



 In the wireless network list, check the WLAN connection status. If the status is Connected, the computer is wirelessly connected to the HG532d.

<sup>((†))</sup> Wirele	ss Network Connection	×
Choos	e a wireless network	
Click an ite information	m in the list below to connect to a wireless network in r h	range or to get more
((ດູ))	huawei	Connected 👷 🛆
U	😚 Security-enabled wireless network (WPA2)	util 🐱
		Connect

### Improving WLAN Security

#### Hiding the WLAN Name

After you hide the WLAN name, anyone who wishes to connect to the WLAN must enter the correct WLAN name. This measure helps improve WLAN security.

- 1. Log in to the web management page.
- 2. In the navigation tree, choose Basic > WLAN.
- 3. In SSID index, select the SSID index you want to hide.
- 4. Set SSID to Enable.
- 5. Set Hide broadcast to Enable.
- 6. Click Submit.

Ba	sic > WLAN > WLAN		_	
Wizard	WLAN WLAN Filtering	WDS		
Otatua	Wireless Settings			Help
Status	Wireless:	Enable		
	Mode:	802.11b/g/n 👻		
Jasic	Country code:	UNITED KINGDOM	-	
WAN	Channel:	1	-	
WLAN	11N Mcs:	Auto	•	
LAN	11N Band Width:	20/40	<ul> <li>MHZ</li> </ul>	
Interface Grouning	11N Guard Interval:	long	•	
DSI	Transmit power:	20	dBm (0-20 dBm)*	
PVC List	SSID index:	SSID1	•	
IDTV	SSID:	Huawel	*	
	Maximum number of accessing devices:	16	*	
Advanced	SSID:	Enable		
	Hide broadcast:	C Enable		
Maintenance	QoS:	C Enable		
	AP isolation:	Enable		
	Security:	WPA-PSK+WPA2-PS	к •	
	WPA pre-shared key:		-	
	WPA encryption:	AES -		
				Submit

#### **Changing Your WLAN Name and Password**

WLAN access requires the WLAN name and password. To improve your WLAN security, regularly change your WLAN name and password.

- **1.** Log in to the web management page.
- 2. In the navigation tree, choose **Basic** > WLAN.
- 3. In SSID, enter a new WLAN name.
- 4. In WPA pre-shared key, enter a new WLAN password.



HUAWEI	Home Gateway			🕐 Help ┣ Log
Ba	sic > WLAN > WLAN			
	WLAN WLAN Filtering	WDS		
Wizard				
	Mireless Cellings			Made
Status	Wireless Settings	Mr. II		1194
	Windows.	PO2 11b/a/a		
Basic	Country code	UNITED KINGDOM		
	Channel	1		
WAN	11N Mee	Auto		
WLAN	11N Band Width	2040	• MH7	
LAN	11N Guard Interval	long	*	
Interface Grouping	Transmit power.	20	dBm (0-20 dBm)*	
DSL	SSID index:	SSID1	•	
PVC List	SSID:	Huawei		
IPTV	Maximum number of accessing devices:	16	*	
Advanced	SSID	Fnable		
	Hide broadcast:	E Enable		
Maintenance	QoS:	Enable		
	AP isolation:	Enable		
	Security:	WPA-PSK+WPA2-PSF		
	WPA pre-shared key:		•	
	WPA encryption:	AES •		
	WPS:	🗷 Enable		
	WPS mode:	PBC ·		
				Submit

#### **Using High Security Encryption Modes**

Adopting high security encryption modes protects against unauthorized access as well as data interception on networks.

To improve WLAN security without sacrificing working efficiency, use **WPA-PSK/WPA2-PSK** and **AES**. This step also prevents WLAN unavailability caused by network adapters' incompatibility with the selected security mode.

- 1. Log in to the web management page.
- 2. In the navigation tree, choose Basic > WLAN.
- 3. In Security, choose WPA-PSK+WPA2-PSK.
- 4. In WPA pre-shared key, enter the WLAN password you specified.
- 5. In WPA encryption, select AES.

HUAWEI	Home Gateway		🕐 Heip 📑 L
Bas	sic > WLAN > WLAN		
	WLAN WLAN Filtering	WDS	
Wizard			
	Wireless Settings		Help
Status	Wireless:	Enable	
	Mode:	802.11b/g/n 🝷	
Basic	Country code:	UNITED KINGDOM -	
WAN	Channel:	1 -	
WEAN.	11N Mcs:	Auto -	
LAN	11N Band Width:	20/40 -	MHZ
Interface Crouping	11N Guard Interval:	long -	
Interface or ouping	Transmit power.	20	dBm (0-20 dBm)*
DVCLint	SSID index:	SSID1 -	
PVCLISE	SSID:	Huawei	*
IPTV .	Maximum number of accessing devices:	16	*
Advanced	SSID	Enable	
	Hide broadcast:	Enable	
Maintenance	QoS:	✓ Enable	
	AP isolation:	Enable	
	Security:	WPA-PSK+WPA2-PSK ·	
	WPA pre-shared key:		
	WPA encryption:	AES ·	
	WPS	Enable	
	WPS mode:	PBC -	

#### Allowing Only Specified Computers to Access Your WLAN

To prevent unauthorized access to your WLAN, you can specify which devices are allowed to access your WLAN.

1. View and record the MAC address of the laptop.

For details, see chapter Checking the Computer MAC Address.

- **2.** Log in to the web management page.
- 3. In the navigation tree, choose Basic > WLAN and click WLAN Filtering.
- 4. Select Enable.
- 5. In Filtering mode, select Whitelist.
- 6. Click New.

\_

- 7. In Select SSID, select the WLAN name.
- 8. In Source MAC address enter the MAC address of the laptop.
- The format of the MAC address entered in **Source MAC address** is different from that of the MAC address displayed in the command line window of a Windows operating system. The colons (:) replace the hyphens (-).

	Basic > WLAN > WLAN Fi	Itering						
	WLAN	WLAN Filter	ing	WDS				
Wizard								
Status	🗷 Enable							
Basic	Filtering mode Note: If Whitel	: O Blacklist @ White ist is chosen, WPS func	ist tion will be unavaila	ble. If you want to use WF	'S function, please uncheck	Whitelist.		
WAN	WI AN FI	Itering			New	Renove	Help	
WLAN		N	IAC Address			Remove		
LAN								
Interface Grouping	Settings							
DSL DVC List		Select SSID:	Huawei	•				
IPTV	s	Source MAC address:		(AA:BB:CC:D	D:EE:FF)*			
Advanced						Submit		
, la canoca								
Maintenance								

Controlling Computer Internet Access

Your HG532d provides MAC address filtering. With this function, you can confine Internet access to specific computers or deprive specific computers of Internet access. While using this function, you can also set limits on the duration of Internet usage.

- 1. Log in to the web management page.
- 2. In the navigation tree, choose Advanced > SNTP.
- 3. Select Enable auto synchronization with network time.
- 4. Select a time service address for Time server 1.
- 5. In Time zone, select your time zone.

HUAWEI	Home Gateway				0	) Help 🧻	Logout
	Advanced > SNTP						
Wizard	SNTP						
Status	Status Status			Disabled		Help	
Basic	Current Time Enable auto synchronization with network ti	me		2000-01-01 17	:10:45		
Advanced	Settings					Help	
IP QoS	Time server 1:	clock.fmt.h	a.net 🝷				
Routing	Time server 2:	clock.nyc.h	e.net 👻				
Firewall	Time server 3:	None	•				
NAT	Time server 4:	None	•				
DDNS	Time server 5:	None	•				
IGMP	Time zone:	(GMT+08:0	)) Beijing, Chongqir	ig, Hong Kong, Urumqi	·		
SNTP	Synchronization Interval:	86400					
UPNP	Enable daylight saving time						
ACL					Subm	iit	
TUNNEL					· · · · · · · · · · · · · · · · · · ·		
maintenance							

- 7. In the navigation tree, choose Advanced > Filter. The Mac Filter page is displayed.
- 8. Click New.
- 9. Create the filtering rules.
- > In Rule name, enter a filtering rule name you specified.
- > In Source MAC address, enter the MAC address of the computer you want to control.
- For details, see chapter **Checking the Computer MAC Address**.
  - > In Priority, enter any integer from 0 to 254.
- A larger value indicates higher priority. When a MAC address matches two MAC filtering rules, the rule with higher priority takes effect.
  - > In Status, select Reject.
  - 10. Set Time control to Enable, and set the effective time of the rule.
    - If you do not want to set the specific period during which the PCs are not allowed to access the Internet, you can clear **Enable** for **Time control**.

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HUAWEI	Home Gate	way						0	Help 🧻
	Advanced > Filter > Mac F	filter							
	Mac Filter	lp Filter	Applica	ation Filte	er URL Fi	ter			
Wizard									
	MAC fil	tering				New	Rem	718	Help
Status	Rule Name	Source MAC Address	Bridge destination	Time	Monday to Sunday	Time	Priority	Status	Remove
Paris									
Dasic	Settings								
Advanced		Rule name:							
IR Oos		Source MAC address:			(AA:BB:CC:DD:EE:FF)				
Routing	Bridge	destination MAC address:			(AA:BB:CC:DD:EE:FF)				
Firewall		Time control:	Enable						
NAT		Start time:	08:00						
DDNS		End time:	12.00						
IGMP			Monday.		V Tuesday	<b>V</b> 1	Nadnaadav		
UDND		Effective day:	Thursday		E Friday	E 5	Saturday		
Filter			E Sunday						
ACL		Priority:							
TUNNEL		Status:	Reject		•				
							Su	bmit	

## Filtering Out Inappropriate Websites

Use URL filtering to prevent certain websites from being accessed.

- 1. Log in to the web management page.
- 2. In the navigation tree, choose Advanced > Filter and click URL Filter.
- 3. Click New.
- 4. In URL, enter the Web site address you specify.
- 5. In Priority enter any integer from 0 to 254.



A larger value indicates higher priority. When a URL matches two URL filtering rules, the rule with higher priority takes effect.

6. In Status, select Reject.

HUAWEI	Home Gateway					0	Help 🧊	> Log
	Advanced > Filter > URL Filter							
	Mac Filter	Ip Filter	Application Filter	URL F	liter			
Wizard								
	URL filtering				New	Renove	Help	
Status	Sequence Number	URL	Prio	rity	Status	Re	move	
Deele								
Dasic	Settings							
Advanced		URL:						
		Priority:						
IP QoS		Status:	Reject -					
Finamel						Submit		
NAT								
DDNS								
IGMP								
SNTP								
UPNP								
Filter								
ACL								
TUNNEL								
Maintenance								

## Controlling Computer Bandwidth

By configuring bandwidth control policies, you can control the bandwidth of computers connected to the HG532d in the following ways:

- Determine the minimum bandwidth allocated to specific computers to help ensure the Internet access speed for those computers.
- Determine the maximum bandwidth certain computers can occupy so that bandwidth remains available to other computers.

You can configure different bandwidth control policies for different computers.

HG532d supports three types of traffic management.

- > IP Address: Manage traffic according to the IP address of the LAN side device.
- > MAC Address: Manage traffic according to the MAC address of the LAN side device.
- LAN Interface: Manage traffic according to the LAN interface of HG532d connected to the LAN side device.

The configuration procedure is as follows:

- 1. Log in to the web management page.
- 2. In the navigation tree, choose Advanced > IP QoS.
- 3. Select Enable Traffic Management.
- 4. In Traffic Management Type, select the traffic management type you specified.
- 5. In Bandwidth Classifications, click New.
- In Configuration, select Enable. In Rate Mode, select the rate mode you specified. In Download, enter the bandwidth you specified.
- 7. In Configuration, specify the computers you want to control.

> When the Traffic Management Type is IP Address, enter the IP address of the computers you want to control in IP Address.

HUAWEI	Home Gateway			0	) Help 🧻
	Advanced > IP QoS				
Wizard	IP QoS				
Status	Enable Traffic Management				
	Please Input The Bandwidth Downlo	ad: 0 Kbps (1Mbps=	1024Kbps) Traffic Management	Type: IP Address 🔹	Apply
Basic					
Advanced	LAN Host				Help
IP QoS					
Routing		_		_	
NAT	NXF-HP				
DDNS	Port: LAN1	Port:	Port:	Port:	
IGMP	Download: ID Address: 192 168 1 2	Download:	Download:	Download:	
SNTP		1 / du/obs	11 1 1001000.	in Fibbleos.	
UPNP					
Filter	Bandwidth Classifications			New Renove	Help
ACL	ID Mode D	ownload	IP Address Pool	State	Delete
TUNNEL					
Maintenance	Configuration				
	E	nable: 📝			
	Rate	Mode: Assure Minium Bandw	idth 👻		
	Dow	nload: Kbps			
	IP Ad	dress:			
					hankel

> When the Traffic Management Type is MAC Address, select the MAC address of the computer you want to control in MAC Address.

HUAWEI	Home Gateway	🕐 Həl	o 📑 Logout
	Advanced > IP QoS		
Wizard	P QoS		
Status	Enable Trafic Management		
Basic	Please Input The Bandwidth Download: U Kbps (1Mbps=1024Kbps) Traffic Management Type: M	AC Address • App	uy
Advanced	Bandwidth Classifications New ID Mede Download MAC Address	Remove State Del	Help ete
Routing	Configuration		-
NAT	Enable: 📝		
DDNS	Rate Mode: Assure Minium Bandwidth 💌		
IGMP	Download: Kbps		
SNTP	MAC Address: 00:18:21:00:86:63 •		
UPNP		Apply	
Filter			
TUNNEL			
Maintenance			

> When the Traffic Management Type is LAN Interface, select the interface of the HG532d connected to the computer you want to control in LAN Interface.

	Home Galeway		U Hel;
	Advanced > IP QoS		
Vizard	IP QoS		
atus	Enable Traffic Management		
asic	Please Input The Bandwidth Download: 0	Kbps (1Mbps=1024Kbps) Traffic Man	agement Type: LAN Interface •
dvanced	Bandwidth Classifications		New Remove
Doos	ID Mode	Download LAN Interface	State Delete
Routing			
Firewall	Configuration	-	
NAT	Enable:	12	
DDNS	Rate Mode:	Assure Minium Bandwidth 💌	
IGMP	Download:	Kbps	
SNTP	LAN Interface:	LANI	
UPNP			Apply
Filter			
ACL			
TUNNEL			
Aaintenance			
annenance			

8. Click Apply.

## Configuring the Firewall

The HG532d provides a firewall to help secure its WLAN and any devices connected to it. Set the firewall level based on site requirements to quickly configure the firewall.

- 1. Log in to the web management page.
- 2. In the navigation tree, choose Advanced > Firewall.
- 3. In Firewall level, select the firewall level you specified.

HUAWEI	Home Gateway	🕐 Help 🖡 Logout
	Advanced > Firewall > Firewall	
Wizard	Firewall DoS attack	
Status	Firewall Level	Help
olulub	Current firewall level: Low	
Basic	Firewall level: High	
	When level "High" is set, Only the FTP/DNS/HTTP packets are allowed	
Advanced		Submit
IP QoS		
Routing		
Firewall		
NAT		
DDNS		
IGMP		
LIDND		
Filter		
ACI		
TUNNEL		
Maintenance		

## Enabling and Disabling the WLAN on the HG532d

The following two methods are available to enable and disable the WLAN on the HG532d.

#### Using the WLAN Button

Press the WLAN button in the HG532d to enable or disable the WLAN. To ascertain whether the WLAN is enabled, view the WLAN indicator.

#### Using the Web Management Page

- 1. Log in to the web management page.
- 2. In the navigation tree, choose Basic > WLAN.
- 3. Configure Wireless.
  - > Select Enable to enable the WLAN.
  - > Clear Enable to disable the WLAN.

HUAWEI	Home Gateway			🕐 Help 🌓 Logi
Ba	sic > WLAN > WLAN			
	WLAN WLAN Filtering	WDS		
Wizard				
	Wireless Settings			Help
Status	Wireless:	V Enable		
	Mode:	802.11b/g/n 👻		
Basic	Country code:	UNITED KINGDOM	•	
WAN	Channel:	1	•	
DAL ANI	11N Mcs:	Auto	•	
LAN	11N Band Width:	20/40	▼ MHZ	
LAN Coursing	11N Guard Interval:	long	•	
Intenace Grouping	Transmit power:	20	dBm (0-20 dBm)*	
DSL	SSID index:	SSID1	•	
PVC LISI	SSID:	Huawei		
PTV	Maximum number of accessing devices:	16		
Advanced	SSID:	V Enable		
	Hide broadcast:	Enable		
Maintenance	QoS:	✓ Enable		
	AP isolation:	Enable		
	Security:	WPA-PSK+WPA2-PSK	•	
	WPA pre-shared key:			
	WPA encryption:	AES -		
	WPS:	I Enable		
	WPS mode:	PBC -		
				Submit

## Expanding WLAN Coverage

To expand WLAN coverage, use the wireless distribution system (WDS) to set up a wireless connection between two HG532d devices.

For example, if your house is too large to be fully covered by the WLAN provided by one HG532d device, add another HG532d device and set up a wireless connection between these two devices using the WDS. The WLAN coverage is then expanded.

While setting up the wireless connection between the two HG532d devices, configure the devices to use the same radio channel, WLAN name, encryption method, and encryption key.

- 1. Find and record the wireless MAC addresses of the two HG532d.
  - a. Log in to the web management page.
  - b. In the navigation tree, choose Status > LAN. Click WLAN.
  - c. Under Security Settings, find a character string that is similar to 12:3A:4B:5C:66:90. This value is the wireless MAC address of the HG532d.

HUAWEI	Home Gate	way								🕐 Help 耳	>
	Status > LAN > WLAN			_							
	Network		Ethernet		WLAN						
Wizard											
	WLAN S	itatus								Help	
Status			Status					Enab	led		
Device			Channel					1			
WAN			_								
LAN	Security S									Help	
E	SSID Index		SSID			MAC Ad	iress	Authenticati	on Mode	Encryption Mode	
Basic	SSID1		Huawei		12	2.3A:4B:5	0:66:90	WPAWPA	2-PSK	AES	
			-					,			
Advanced	VVireless	Packet		0.1					D	Help	
/ araneea	Interface			Send					Receive	<b>0</b> 1 1	
A destanda a service of		Byte	Packet	Error	Discare		Byte	Packet	Error	Discard	
Maintenance	SSID1	0	0	0	0		U	0	0	Ú	

- 2. Configure the WDS function of the first HG532d.
  - a. Log in to the web management page.
  - b. In the navigation tree, choose **Basic** > WLAN. Click WDS.
  - c. Select Enable.
  - d. In Channel, select a channel for HG532d.
  - e. In Mode selection, select Central Base Station.
  - f. In Repeater MAC Address 1, enter the wireless MAC address of the other HG532d.
  - g. Click Submit.

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HUAWEI	Home Gateway	Logout
	Basic > WLAN > WDS	
	WLAN WLAN Filtering WDS	
Wizard		
Status	I Enable	Î
Basic	Settings	
Dutit	WDS Security: Disabled -	
WAN	Allow WIFI client access: Reable (If it is unchecked, WIFI client cannot connect to the router.)	
WLAN	Channel 1	
LAN	MAC address 50:7D:5E:52:7F:20	
Interface Grouping DSL	Mode selection:   Repeater  (In "Central Base Station" mode, the DHCP server will be opened automatically.)	
PVC List	Repeater MAC Address 1: (AA:BB:CC:DD:EE:FF)	E
IPTV	Repester MAC Address 2. (AA:BB:CC:DD:EE:FF)	
Advanced	Repeater MAC Address 3: (AA:BB:CC:DD.EE:FF)	
	Repeater MAC Address 4: (AA:BB.CC.DD.EE:FF)	
Maintenance	Submit	

You can click **Scan** under **WIFI AP list**, and select the SSID of the other HG532d to obtain the wireless MAC address automatically.

- 3. Set the WLAN parameters of the other HG532d.
  - a. Log in to the web management page.
  - **b.** In the navigation tree, choose **Basic** > **WLAN**.
  - c. Set Channel, SSID, WPA pre-shared key and WPA encryption to the same value as the first HG532d.
  - d. Click Submit.

HUAWEI	Home Gateway			🕐 Heip 📑 Lo
	Basic > WLAN > WLAN			
	WLAN WLAN Filtering	WDS		
Wizard				
	Wireless Settings			Help
Status	Wireless.	🗹 Enable		
	Mode:	802.11b/g/n 🝷		
Basic	Country code:	UNITED KINGDOM	•	
WAN	Channel:	1	•	
WLAN	11N Mcs:	Auto	*	
LAN	11N Band Width:	20/40	• MHZ	
Interface Grouping	11N Guard Interval:	long	•	
DSI	Transmit power:	20	dBm (0-20 dBm)*	
D/C Liet	SSID index:	SSID1	•	
IDTV	SSID	Huawei	-	
1.1.4	Maximum number of accessing devices:	16	-	
Advanced	SSD.	C Enable		
	Hide broadcast:	Enable		
Maintenance	QoS:	Enable		
	AP isolation:	Enable		
	Security:	WPA/PSK+WPA2/PSk		
	WPA pre-shared key:	•••••	•	
	WPA encryption:	AES -		
	WPS.	🗹 Enable		
	WPS mode:	PBC ·		
				Submit

- 4. Configure the WDS function of the other HG532d.
  - a. In the navigation tree, choose Basic > WLAN. Click WDS.
  - b. Select Enable.
  - c. Set Channel to the same value as the first HG532d.
  - d. In Mode selection, select Repeater.
  - e. In Base Station MAC Address, enter the wireless MAC address of the first HG532d.
  - f. In Repeater's IP address, enter the IP address which is in the same network segment as the first HG532d's IP address.
  - g. Click Submit.

	Home Gateway 🛞 Help 🚺	Logou
	Basic > WLAN > WDS	
	WLAN WLAN Filtering WDS	
Wizard		
Status	🖉 Enable	
oranao	WDS Hep	
Basic	Settings	
WAN	WUS Security: Disabled	
WLAN	Channel 1	
LAN	MAC address 5C:7D:5E:52:7F:20	
Interface Grouping DSL	Mode selection: Central Base Station (In "Repeater" mode, the DHCP server will be closed automatically.)	
PVC List	Base Station MAC Address: (AA:BB:CC:DD:EE:FF)*	
IPTV	Repeater's IP address: (Recommend you to change the IP address to avoid conflict with the IP address of "Central Base Station".)	
Advanced	Submit	
Maintenance		

## 7 Maintenance Guide

## Changing the IP Address Used to Log In to the Web Management Page

The IP address used to log in to the HG532d web management page is the HG532d IP address. For security or other purposes (for instance, if the default HG532d IP address conflicts with that of another device on the same network), you can change the HG532d IP address.

- 1. Log in to the web management page.
- 2. In the navigation tree, choose Basic > LAN.
- 3. Under LAN Host Settings, enter a new IP address in IP address.
- 4. Click Submit.

HUAWEI	Home Gateway			🕐 Heip 📭 Logout
	Basic > LAN > DHCPv4 Server			
)0/mend	DHCPv4 Server Static Address	RA	DHCPv6 Server	
vaizard				
Status	LAN Host Settings			Help
	IP addres	s:	*	
Basic	Server Subnet mas	k: 255.255.255.0	*	
WAN				
WLAN	DHCP Server			Help
LAN	DHCP serv	er: 📝 Enable		
Interface Grouping	Start IP addres	is: 192.168.1.2	*	
DSL	End IP addres	192.168.1.254		
PVC List	Primary DNS server addres	192.168.1.1		
IPTV	Secondary DNS server addres	is: 192.168.1.1		
Advanced	Lease duration	on: 1 day 💌		
Maintenance				Submit

After changing the HG532d's IP address, you need to reconnect your PC for new IP address. Use the new IP address to log in to the web management page.

### Changing the Web Management Page User Name and Password

The correct user name and password are required to log in to the web management page. Regular changes to the web management page user name and password can effectively prevent unauthorized users from logging in and modifying important parameters.

- 1. Log in to the web management page.
- 2. In the navigation tree, choose Maintenance > Account.
- 3. In New user name, enter a new user name.
- 4. In Current password, enter the currently used password.
- 5. In New password, enter a new password. In Confirm password enter the new password again.

HUAWEI	Home Gateway		0	Help 📑 Logout
	Maintenance > Account			
	Account			
Wizard				
Statue	Account			Help
Sidius		New user name:		
Basic		Current password:	(Max length of Password is 32)*	
		New password:	(Max length of Password is 32)*	
Advanced		Confirm password:	(Max length of Password is 32)*	
			Submit	
Maintenance				
Account				
Device				
Diagnose				
Log				

After the user name and password are changed, the login page is displayed. Enter your new user name and password to log in.



If you forget the password, you can restore the default settings by pressing and holding the Reset button on the rear panel of the HG532d for over 6 seconds. The user name and password used for logging in to the web management page are then restored to their default values. After the HG532d is restored to its default settings, all user customized data will be lost. Perform this operation with caution.

## Restoring Default Settings

#### Using the Configuration Tool

If the HG532d parameter settings were configured incorrectly, log in to the web management page to reload the default configuration file and restore the HG532d to its default settings. Perform this operation with caution. After the HG532d is restored to its default settings, all custom data and settings will be lost, and the password will be restored to admin.

- 1. Log in to the web management page.
- 2. In the navigation tree, choose Maintenance > Device.

3. Under Restore Default, click Restore Default Settings.

HUAWEI	Home Gateway 📀 Heo 🖡 L	.ogout
	Maintenance > Device > Reset	
Wizard	Reset Configuration File Firmware Upgrade	_
Status	Reboot Hep	
Basic	Prease click the Rebool builden to rebool the device.	
Advanced		
Maintenance	Restore Default	
Account Device Diagnose Log	Please click the Restore Default Settings button to restore the default settings.           Restore Default Settings	

4. In the displayed dialog box, click OK.

#### Using the Reset Button

If you forget the login password to the web management page or could not access the web management page, use the reset button on the HG532d rear panel to restore the HG532d to its default settings. Perform this operation with caution. After the HG532d is restored to its default settings, all custom data and settings will be lost, and the password will be restored to admin.

- 1. Press the HG532d power button to power the HG532d on.
- Press and hold the reset button for 6 seconds or more. The HG532d will restart, which will cause temporary network interruptions.



After the HG532d is restored to its default settings, change the computer IP address so that it is in the same network segment as the 192.168.1.1 default IP address.

## Enabling Wireless Configuration on Windows

#### On Windows XP

- 1. Right-click My Computer and choose Manage from the shortcut menu.
- 2. In the left pane of the Computer Management window, choose Computer Management (Local) > Services and Applications > Services.
- In the right pane of the Computer Management window, right-click Wireless Zero Configuration and choose Properties from the shortcut menu.
- 4. In the displayed dialog box, check that Service status is Started.
- 5. Click OK to close the dialog box. Then close the Computer Management window.

#### **On Windows 7 or Windows Vista**

- 1. Right-click Computer and choose Manage from the shortcut menu.
- 2. In the left pane of the Computer Management window, choose Computer Management (Local) > Services and Applications > Services.
- In the right pane of the Computer Management window, right-click WLAN AutoConfig and choose Properties from the shortcut menu.
- 4. In the displayed dialog box, check that Service status is Started.
- 5. Click OK to close the dialog box. Then close the Computer Management window.

### Checking the Computer MAC Address

The MAC address, also known as the physical address, is a unique identifier assigned to a network adapter. A MAC address contains six groups of two hexadecimal digits, such as 2C-41–38–8D-75–8D. This section demonstrates how to check your computer's MAC address.

#### **On Windows 7**

 Choose Start > Control Panel > Network and Internet > Network and Sharing Center > Change adapter settings. Right-click Local Area Connection and choose Status from the shortcut menu.



2. Click Details.

📱 Local Area Connect	ion Status	<b>—</b> ×
General		
Connection		
IPv4 Connectivity:		No Internet access
IPv6 Connectivity:		No Internet access
Media State:		Enabled
Duration:		04:59:00
Speed:		100.0 Mbps
Details		
	Sent —	Received
Bytes:	13,631,607	71,148,233
Properties	😯 Disable	Diagnose
		Close

 In Network Connection Details, find the line similar to Physical Address 70-F3-95-0C-49-4E. The 70-F3-95-0C-49-4E string is your computer's MAC address.

Network Connection Deta	ils	×
Network Connection Details	¢	
Property	Value	-
Connection-specific DN Description	huawei.com Intel(R) 82578DM Gigabit Network C	c
Physical Address	70-F3-95-0C-49-4E	
DHCP Enabled	Yes	
IPv4 Address	192.168.1.2	
IPv4 Subnet Mask	255.255.255.0	
Lease Obtained	1/21/2013 9:05:43 PM	=
Lease Expires	1/24/2013 9:05:43 PM	
IPv4 Default Gateway	192. 168. 1. 1	
IPv4 DHCP Server	192.168.1.1	
IPv4 DNS Servers	192.168.1.1	
	192.168.1.1	
	192. 168. 1. 1	
IPv4 WINS Server		
NetBIOS over Topip En	Yes	
Link-local IPv6 Address	fe80::6c70:7b4e:e957:9aca%12	-
<	• III	
	Close	

#### **On Windows XP**

 Choose Start > Control Panel > Network and Internet Connections > Network Connections. Right-click Local Area Connection and choose Status from the shortcut menu.



2. Click the Support tab. Under Connection status, click Details.

🕹 Local Ai	rea Connection 2 Status	? [
Genera	upport	
Connect	ion status	
<b>1</b>	Address Type:	Assigned by DHCP
- <u>-</u>	IP Address:	192.168.1.2
	Subnet Mask:	255. 255. 255. 0
	Default Gateway:	192.168.1.1
	Details	
Windows connectio Repair.	did not detect problems with this on. If you cannot connect, click	Repair
		Close

3. In Network Connection Details, find the line similar to Physical Address 78–AC–C0–B0– DF-A1. The 78–AC–C0–B0–DF-A1 string is your computer's MAC address.

Ņ	letwork Connection De	tails 🛛 🖓 🔀
	Network Connection Details:	
	Property	Value
	Physical Address	78-AC-C0-B0-DF-A1
	IP Address	192.168.1.2
	Subnet Mask Default Gateway	255.255.255.0
	Derault Gateway DHCP Server	10 167 141 22
	Lease Obtained	1/21/2013 9:05:43 PM
	Lease Expires	1/24/2013 9:05:43 PM
	DNS Servers	192.168.1.1
		192.168.1.1
	WINC Course	192. 168. 1. 1
	WINS Server	
		Llose

## What Can I Do If I Cannot Open the Web Management Page?

- Open Internet Explorer. Choose Tools > Internet Options > Connections > LAN settings, and ensure that all check boxes are deselected.
- 2. Check that the computer IP address is 192.168.1.\*. (\* is any integer from 2 to 254.)
- Check that the cables are securely connected to the HG532d and that the LAN port's indicator is on.
- 4. Ensure that the user name and password are correct.

If the problem persists, restore the HG532d to its default settings.

# What Can I Do If the HG532d Cannot Access the Internet through a Wireless Network Adapter Sometimes or If the WLAN Connection Is Unsteady?

This is probably because the HG532d has its cables connected loosely, is placed too close to electronic appliances with intensive interference, or is too far from the computer. Verify that:

- 1. The power and telephone cables are correctly connected to the HG532d.
- Your computer and the HG532d are far from electric appliances that generate strong magnetic or electric fields, such as microwave ovens, refrigerators, and cordless telephones.
- The HG532d is in an open area, and there are no obstacles, such as concrete or wooden walls, between the HG532d and computer.
- 4. The HG532d is close to the computer.
- 5. The angle between the HG532d and computer is appropriate.



Do not use the HG532d during thunderstorms, as the signal strength may be unsteady and the HG532d itself may be damaged due to lightning strikes.

## What Can I Do If I Cannot Access the Internet?

- Check that the Power indicator on the HG532d is steady on. If the Power indicator is off, perform further checks as follows:
  - a) Check that the HG532d is turned on.
  - b) Check that electricity comes from the socket and that the power input from the socket meets the requirements described on the label of the HG532d's power adapter. If the voltage is unstable, for example, if the voltage is too high or too low, do not use the HG532d. Wait until the voltage recovers, and then use the HG532d.
  - c) Check that the HG532d is securely connected to the socket using its power adapter.

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

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- After powering on the HG532d, wait for about 3 minutes. Then check whether the ADSL indicator turns steady on.
  - a) Check that the telephone line is correctly and securely connected, especially the connection between the telephone line and the splitter.
  - b) Check that the HG532d and telephone line are located far from any electric appliances that generate strong magnetic or electric fields. Replace the telephone line when necessary.
  - If the ADSL indicator is still off, contact your network service provider.
- Check whether the LAN indicator is on. If the LAN indicator is off, perform further checks as follows:
  - a) Check that the network adapter on your computer is enabled.
  - b) Check that the network cable between the HG532d and the computer is securely 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.

- 4. Check that the driver for the network adapter is correctly installed. The following example uses a computer running the Windows XP operating system to check whether the driver for the network adapter is installed:
  - a) Right-click My Computer, and choose Manage from the displayed shortcut menu.
  - b) In the Computer Management window, click Device Manager.
  - c) In the right pane of the Computer Management window, click Network adapters.

If no network adapter is found or if a question mark (?) or an exclamation mark (!) is displayed next to the network adapter icon, the driver for the network adapter is not correctly installed. Re-install the driver.

- Check that PPP dial-up software is installed and parameters are set correctly. For details about parameter settings, see the user guide for the PPP dial-up software.
- Check that you have entered the correct user name and password required by the PPP dialup software. The user name and password are provided by your network service provider.
- Check that you can use the PPP dial-up software to set up dial-up connection. If the dial-up connection fails, perform further checks as follows:
  - a) Close the PPP dial-up software, and power off the HG532d. After 5 minutes, power on the HG532d, and use the PPP dial-up software to dial again.
  - b) Restore the HG532d to its default settings.

If the problem persists, contact your network service provider.

- 8. Check that the proxy server of the browser is correctly configured. The following example uses Internet Explorer on the Windows XP operating system to check whether the proxy server of the browser is correctly configured:
  - a) Launch Internet Explorer.
  - b) Choose Tools > Internet Options.
  - c) In the Internet Options dialog box, click the Connections tab.

d) In the Local Area Network (LAN) settings area, click LAN Settings.

internet Options			? ×
General Security Privacy Content	Connections	Programs	Advanced
To set up an Internet connect Setup.	tion, click	Setu	p
Dial-up and Virtual Private Network se	ttings		
		Add.	
		Add VF	'N
		Remov	e
Choose Settings if you need to configence server for a connection.	gure a proxy	Settin	ngs
Never dial a connection			
Dial whenever a network connect	ion is not prese	nt	
<ul> <li>Always dial my default connection</li> </ul>	n in the second s		
Current None		Set def	ault
Local Area Network (LAN) settings —	Local Area Network (LAN) settings		
Choose Settings above for dial-up se	connections. ettings.	LAN Set	tings
O	Cai	ncel	Apply

e) In the Proxy server area of the Local Area Network (LAN) Settings dialog box, check that the Use a proxy server for your LAN (These settings will not apply to dial-up or VPN connections). check box is cleared.

Local Area Network (LAN) Automatic configuration Automatic configuration n	Settings
use of manual settings, di	sable automatic configuration.
Automatically detect s	ettings
Use automatic configu	ration script
Address	
Proxy server	ware LAN (These settings will not apply to
dial-up or VPN connect	ions).
Address:	Port: 80 Advanced
Bypass proxy serv	er for local addresses
	OK Cancel

 Try to access more websites to check whether the HG532d can access these websites. If the problem persists, contact your network service provider.532d

## I Often Need to Restart the HG532d to Display Web Pages. What Can I Do?

Verify the following:

- The HG532d and other devices such as telephones or fax machines are connected to the plain old telephone service (POTS) line through a digital subscriber line (DSL) filter. For details about how to install a DSL filter, see the description in the DSL filter manual.
- 2. Cables are securely connected to HG532d ports. Otherwise, network stability may suffer.
- Your computer and the HG532d are far from electric appliances that generate strong magnetic or electric fields, such as microwave ovens, refrigerators, and cordless telephones.

If the problem persists, contact your Internet Service Provider.

## What Is the Difference Between Wireless MAC Address Filtering and MAC Address Filtering?

- > Wireless MAC address filtering: controls whether a computer can connect to the HG532d over the WLAN.
- MAC address filtering: controls whether a computer connected to the HG532d can access the Internet.

## **Technical Specifications**

Item	Specifications	
Power supply	12 V DC, 0.5 A	
Power consumption	< 6 W	
Ambient operating temperature	0°C to 40°C	
Ambient humidity	5% to 95% RH (non-	condensing)
Dimensions (H x W x D)	37 mm x 181 mm x 1 excluded	120 mm (1.46 in. x 7.13 in. x 4.72 in.), antenna
Weight	About 360 g	
	ADSL standard	ITU G.992.1 (G.dmt) ITU G.994.1 (G.hs) ANSI T1.413 Issue 2
DSL standard	ADSL2 standard	ITU G.992.3 (G.dmt.bis) Annex A ITU G.992.3 (G.dmt.bis) Annex L ITU G.992.3 (G.dmt.bis) Annex M
	ADSL2+ standard	ITU G.992.5 (G.dmt.bitplus) Annex A ITU G.992.5 (G.dmt.bitplus) Annex M
	WLAN standard	802.11b, 802.11g, and 802.11n (2.4 GHz)
	G.dmt T1.413	Downlink: 8 Mbit/s Uplink: 896 kbit/s
DSL transmission rate	ADSL	Downlink: 12 Mbit/s Uplink: 1024 kbit/s
	ADSL2+	Downlink: 24 Mbit/s Uplink: 1024 kbit/s
	802.11b	Up to 11 Mbit/s
Wireless transmission rate	802.11g	Up to 54 Mbit/s
	802.11n (2T2R antenna technology)	Up to 300 Mbit/s

## Default Settings

Parameter	Default Value
LAN port IP address	192.168.1.1
LAN port subnet mask	255.255.255.0
User name to log in to the web configuration page	admin
Password to log in to the web configuration page	admin
WLAN name	Labeled on the product cover
WLAN password	Labeled on the product cover
Dynamic Host Configuration Protocol (DHCP) server	Enabled
WLAN	Enabled

## 11 For More Help

Please visit www.huaweidevice.com/worldwide/support/hotline for recently updated hotline and email address in your country or region.

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