# **User Guide**

# RT-AC55U

### **Dual Band Wireless-AC1200 Gigabit Router**





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# 1 Getting to know your wireless router

### 1.1 Welcome!

Thank you for purchasing an ASUS RT-AC55U Wireless Router! The ultra-thin and stylish RT-AC55U features a 2.4GHz and 5GHz dual bands for an unmatched concurrent wireless HD streaming; SMB server, UPnP AV server, and FTP server for 24/7 file sharing.

### 1.2 Package contents

- ☑ RT-AC55U Wireless Router
- AC adapter
- Support CD (User Guide)

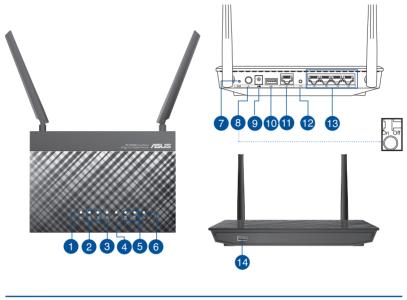
Network cable (RJ-45)

**Quick Start Guide** 

Two external Antennas

- If any of the items are damaged or missing, contact ASUS for technical inquiries and support, Refer to the ASUS Support Hotline list at the back of this user manual.
- Keep the original packaging material in case you would need future warranty services such as repair or replacement.

### **1.3 Your wireless router**





#### WPS LED

**Off:** WPS is not processing. **Flashing quick:** WPS is processing.



#### USB 3.0/2.0 LED

**Off**: No power or no physical connection. **On**: Has physical connection to USB device.



4

#### LAN 1~4 LED

**Off**: No power or no physical connection. **On**: Has physical connection to a local area network (LAN).

WAN (Internet) LED

Off: No power.

Blue light on: Successful physical connection to a wide area network (WAN).

#### Red light on:

- No physical connection to WAN;
- · Limited or no Internet connection;
- In the rescue mode.



#### 2.4GHz LED / 5GHz LED

Off: No 2.4GHz or 5GHz signal.

**On**: Wireless system is ready.

Flashing: Transmitting or receiving data via wireless connection.

6	Power LED     Image: Comparison of the second
7	<b>Reset button</b> This button resets or restores the system to its factory default settings.
8	<b>Power button</b> Press this button to power on or off the stystem.
9	<b>Power (DC-IN) port</b> Insert the bundled AC adapter into this port and connect your router to a power source.
10	<b>USB 2.0 port</b> Insert a USB device such as USB hard disk or USB flash drive into the port. Insert your iPad's USB cable into the port to charge your iPad.
1	WAN (Internet) port Connect a network cable into this port to establish WAN connection.
12	WPS button Press to launch the WPS Wizard.
13	LAN 1 ~ 4 ports Connect network cables into these ports to establish LAN connection.
14	<b>USB 3.0 port</b> Insert a USB device such as USB hard disk or USB flash drive into the port. Insert your iPad's USB cable into the port to charge your iPad.

- Use only the adapter that came with your package. Using other adapters may damage the device.
- Specifications:

DC Power adapter	DC Output: +12V with max 2A / 2.5A current;		
Operating Temperature	0~40°C	Storage	0~70°C
Operating Humidity	50~90%	Storage	20~90%

### **1.4 Positioning your router**

For the best wireless signal transmission between the wireless router and the network devices connected to it, ensure that you:

- Place the wireless router in a centralized area for a maximum wireless coverage for the network devices.
- Keep the device away from metal obstructions and away from direct sunlight.
- Keep the device away from 802.11g or 20MHz only Wi-Fi devices, 2.4GHz computer peripherals, Bluetooth devices, cordless phones, transformers, heavy-duty motors, fluorescent lights, microwave ovens, refrigerators, and other industrial equipment to prevent signal interference or loss.
- Always update to the latest firmware. Visit the ASUS website at <u>http://www.asus.com</u> to get the latest firmware updates.
- To ensure the best wireless signal, orient the two detachable antennas as shown in the drawing below.



### 1.5 Setup Requirements

To set up your wireless network, you need a computer that meets the following system requirements:

- Ethernet RJ-45 (LAN) port (10Base-T/100Base-TX/1000Base-TX)
- IEEE 802.11a/b/g/n/ac wireless capability
- An installed TCP/IP service
- Web browser such as Internet Explorer, Firefox, Safari, or Google Chrome

- If your computer does not have built-in wireless capabilities, you may
  install an IEEE 802.11a/b/g/n/ac WLAN adapter to your computer to
  connect to the network.
- With its dual band technology, your wireless router supports 2.4GHz and 5GHz wireless signals simultaneously. This allows you to do Internet-related activities such as Internet surfing or reading/writing e-mail messages using the 2.4GHz band while simultaneously streaming high-definition audio/video files such as movies or music using the 5GHz band.
- Some IEEE 802.11n devices that you want to connect to your network may or may not support 5GHz band. Refer to the device's manual for specifications.
- The Ethernet RJ-45 cables that will be used to connect the network devices should not exceed 100 meters.

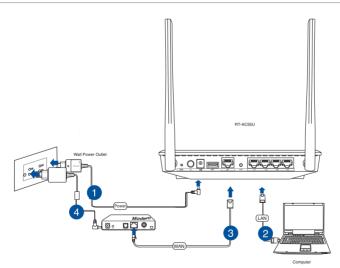
### 1.6 Router Setup

#### **IMPORTANT!**

- Use a wired connection when setting up your wireless router to avoid possible setup problems.
- Before setting up your ASUS wireless router, do the following:
  - If you are replacing an existing router, disconnect it from your network.
  - Disconnect the cables/wires from your existing modem setup. If your modem has a backup battery, remove it as well.
  - Reboot your cable modem and computer (recommended).

### **1.6.1 Wired connection**

**NOTE:** You can use either a straight-through cable or a crossover cable for wired connection.



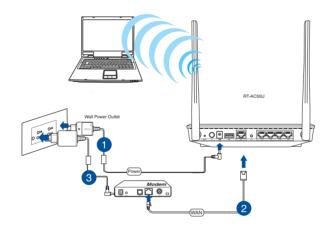
### To set up your wireless router via wired connection:

1. Insert your wireless router's AC adapter to the DC-IN port and plug it to a power outlet.

2. Using the bundled network cable, connect your computer to your wireless router's LAN port.

**IMPORTANT!** Ensure that the LAN LED is on.

- 3 Using another network cable, connect your modem to your wireless router's WAN port.
- 4. Insert your modem's AC adapter to the DC-IN port and plug it to a power outlet.



### **1.6.2 Wireless connection**

#### To set up your wireless router via wireless connection:

- 1. Insert your wireless router's AC adapter to the DC-IN port and plug it to a power outlet.
- 2 Using the bundled network cable, connect your modem to your wireless router's WAN port.

- 3. Insert your modem's AC adapter to the DC-IN port and plug it to a power outlet.
- 4. Install an IEEE 802.11a/b/g/n/ac WLAN adapter on your computer.

- For details on connecting to a wireless network, refer to the WLAN adapter's user manual.
- To set up the security settings for your network, refer to the section Setting up the wireless security settings in Chapter 3 of this user manual.

# 2 Getting started

### 2.1 Logging into the Web GUI

Your ASUS Wireless Router comes with an intuitive web graphical user interface (GUI) that allows you to easily configure its various features through a web browser such as Internet Explorer, Firefox, Safari, or Google Chrome.

NOTE: The features may vary with different firmware versions.

### To log into the web GUI:

- On your web browser, manually key in the wireless router's default IP address: <u>192.168.1.1</u> or enter <u>http://router.asus.com</u>.
- 2. On the login page, key in the default user name (**admin**) and password (**admin**).
- 3. You can now use the Web GUI to configure various settings of your ASUS Wireless Router.



# **NOTE:** If you are logging into the Web GUI for the first time, you will be directed to the Quick Internet Setup (QIS) page automatically.

### 2.2 Quick Internet Setup (QIS) with Autodetection

The Quick Internet Setup (QIS) function guides you in quickly setting up your Internet connection.

**NOTE:** When setting the Internet connection for the first time, press the Reset button on your wireless router to reset it to its factory default settings.

### To use QIS with auto-detection:

1. Log into the Web GUI. The QIS page launches automatically.

indows Security				X
The server 192.168.1.1 a Warning: This server is sent in an insecure mar connection).	equesting that you	r username and p	assword be	
User r Passw Re		tials		
		ОК	Cancel	

- By default, the login username and password for your wireless router's Web GUI is **admin**. For details on changing your wireless router's login username and password, refer to section **4.7.2 System**.
- The wireless router's login username and password is different from the 2.4GHz/5GHz network name (SSID) and security key. The wireless router's login username and password allows you to log into your wireless router's Web GUI to configure your wireless router's settings. The 2.4GHz/5GHz network name (SSID) and security key allows Wi-Fi devices to log in and connect to your 2.4GHz/5GHz network.

2. The wireless router automatically detects if your ISP connection type is **Dynamic IP**, **PPPoE**, **PPTP**, **L2TP**, and **Static IP**. Key in the necessary information for your ISP connection type.

**IMPORTANT**! Obtain the necessary information from your ISP about the Internet connection type.

### for Automatic IP (DHCP)

ASUS Router	
Quick Internet Setup	Automatic IP connection setup
Check Connection	Host Name(optional): 😨
2 Internet Setup	MAC Address(optional) 2 MAC Clone
3 Router Setup	MAC (Media Access Control) address is a unique identifier that identifies your computer or device in the network, ISPs monitor the MAC addresses of devices that connect to their services, and would disallow Internet connection for new MAC addresses. To firs this issue, you can do either of the following:
	<ul> <li>Contact your ISP and request to update the MAC address associated with your ISP subscription. Once this is done, you can run the router's setup wixed again.</li> <li>Clone or change the MAC address of the we device to match the MAC address of the original device. If you just replaced an od router, you will find the old router's MAC address from its label. If you previously commeted your computer to the modern, you will need to enter your computer's MAC address or dick "MAC Clone" to done your computer's MAC addresss.</li> </ul>
	Previous Next

### for PPPoE, PPTP, and L2TP

/ISUS Router			
Quick Internet Setup	Account Setting		
Check Connection	Please enter the re-	quired information below.	
2 Internet Setup	User Name		
3 Router Setup	Password	Show password	
	Obtain the account i	name and password from your ISP.	
		Previous Next	

### for Static IP

A Router				
Quick Internet Setup	Please refer to your ISP setting,	and	i input the related information.	
(1) Check Connection	Use the following IP address:			
Cneck Connection	IP Address			
Internet Setup	Subnet Mask			
Router Setup	Default Gateway		0.0.0.0	
<u> </u>	DNS Servers			
	DNS Server1			
	DNS Server2			
	MAC Address(optional)	•	MAC Clone	
			Previous Next	

- The auto-detection of your ISP connection type takes place when you configure the wireless router for the first time or when your wireless router is reset to its default settings.
- If QIS failed to detect your Internet connection type, click **Skip to manual setting** and manually configure your connection settings.
- 3. Assign the wireless network name (SSID) and security key for your 2.4GHz and 5 GHz wireless connection. Click **Apply** when done.

Quick Intetnet Setup	fireless Setting			
() Check Connection	Assign a unique name o	r SSI	) (Service Set Identifier) to help identify your wireless netwo	ń.
Internet Setup	2.4GHz - Security			
(3) Router Setup	Network Name(SSID)			
	Security Key			
	5GHz - Security Network Name(SSID)		Copy 2.4GHz to 5GHz settings.	
	Security Key			
	Security Key			
			Αρρίγ	

- 4. Your Internet and wireless settings are displayed. Click **Next** to continue.
- 5. Read the wireless network connection tutorial. When done, click **Finish**.

	And a state of the			
	Completed Network Configuration Summary			
Quick Internet Setup	System Time: Sat, Jan 01 00:02:51 2011 Change the time zone			
Check Connection				
	Network Name(SSID)	ASUS-monkey		
Internet Setup	Wireless Security	Open System		
3 Router Setup	Network Name(SSID)	ASUS_5G-monkey		
	Wireless Security	Open System		
	WAN Connection Type	Automatic IP		
	WAN IP	192.168.123.23		
	LAN IP	192.168.1.1		
	MAC	20:CF:30:B6:C0:C0		
		Next		

### 2.3 Connecting to your wireless network

After setting up your wireless router via QIS, you can connect your computer or other smart devices to your wireless network.

#### To connect to your network:

- 1. On your computer, click the network icon display the available wireless networks.
- 2. Select the wireless network that you want to connect to, then click **Connect**.
- 3. You may need to key in the network security key for a secured wireless network, then click **OK**.
- 4. Wait while your computer establishes connection to the wireless network successfully. The connection status is displayed and the network icon displays the connected status.

- Refer to the next chapters for more details on configuring your wireless network's settings.
- Refer to your device's user manual for more details on connecting it to your wireless network.

## 3 Configuring the General settings

### 3.1 Using the Network Map

Network Map allows you to configure your network's security settings, manage your network clients, and monitor your USB device.



### 3.1.1 Setting up the wireless security settings

To protect your wireless network from unauthorized access, you need to configure its security settings.

#### To set up the wireless security settings:

- 1. From the navigation panel, go to **General** > **Network Map**.
- 2. On the Network Map screen and under **System status**, you can configure the wireless security settings such as SSID, security level, and encryption settings.

**NOTE**: You can set up different wireless security settings for 2.4GHz and 5GHz bands.

### 2.4GHz security settings



### **5GHz security settings**



3. On the **Wireless name (SSID)** field, key in a unique name for your wireless network.

4. From the **Security Level** dropdown list, select the encryption method for your wireless network.

**IMPORTANT!** The IEEE 802.11n/ac standard prohibits using High Throughput with WEP or WPA-TKIP as the unicast cipher. If you use these encryption methods, your data rate will drop to IEEE 802.11g 54Mbps connection.

- 5. Key in your security passkey.
- 6. Click **Apply** when done.

### 3.1.2 Managing your network clients



### To manage your network clients:

- 1. From the navigation panel, go to **General** > **Network Map** tab.
- 2. On the Network Map screen, select the **Client Status** icon to display your network client's information.
- 3. To block a client's access to your network, select the client and click **block**.

### 3.1.3 Monitoring your USB device

The ASUS Wireless Router provides a USB port for connecting USB devices or USB printer to allow you to share files and printer with clients in your network.



**NOTES:** To use this feature, you need to plug a USB storage device, such as a USB hard disk or USB flash drive, to the USB port on the rear panel of your wireless router. Ensure that the USB storage device is formatted and partitioned properly. Refer to the Plug-n-Share Disk Support List at <u>http://event.asus.com/networks/disksupport</u>

**IMPORTANT!** You first need to create a share account and its permission /access rights to allow other network clients to access the USB device via an FTP site/third-party FTP client utility, Servers Center, Samba, or AiCloud. For more details, refer to the section **3.5.Using the USB Application** and **3.6 Using AiCloud** in this user manual.

### To monitor your USB device:

- 1. From the navigation panel, go to **General** > **Network Map**.
- 2. On the Network Map screen, select the **USB Disk Status** icon to display your USB device's information.
- 3. On the AiDisk Wizard field, click **GO** to set up an FTP server for Internet file sharing.

- For more details, refer to the section **3.5.2 Using Servers Center** in this user manual.
- The wireless router works with most USB HDDs/Flash disks (up to 2TB size) and supports read-write access for FAT16, FAT32, EXT2, EXT3, and NTFS.

### Safely removing the USB disk

**IMPORTANT**: Incorrect removal of the USB disk may cause data corruption.

### To safely remove the USB disk:

- 1. From the navigation panel, go to **General** > **Network Map**.
- In the upper right corner, click > Eject USB disk. When the USB disk is ejected successfully, the USB status shows Unmounted.



### 3.2 Creating a Guest Network

The Guest Network provides temporary visitors with Internet connectivity via access to separate SSIDs or networks without providing access to your private network.

**NOTE:** RT-AC55U supports up to six SSIDs (three 2.4GHz and three 5GHz SSIDs).

### To create a guest network:

- 1. From the navigation panel, go to **General** > **Guest Network**.
- 2. On the Guest Network screen, select 2.4Ghz or 5Ghz frequency band for the guest network that you want to create.
- 3. Click Enable.

The Guest Network provides In your Intranet.	ternet connection for guests i	but restricts access to
Enable	Enable	Enable
		Enable
Enable	Enable	Enable

4. To configure additional options, click **Modify**.

Guess Network			
	ast network can provide interr network.		
2.4GHz			
Network name:	ASUS_Guest1		
Wireless Security:			
Security key:		Create	Create
Access Time:	Limitless		
Access Intranet:			
	Modify		
5GHz			
Network name:	ASUS_5G_Guest1		
Wireless Security:			
Security key:		Create	Create
Access Time:	Limitless		
Access Intranet:			
	Modify		

- 5. Click Yes on the Enable Guest Network screen.
- 6. Assign a wireless name for your temporary network on the **Network Name (SSID)** field.
- 7. Select an Authentication Method.
- 8. Select an **Encryption** method.
- 9. Specify the Access time or choose Limitless.
- 10. Select **Disable** or **Enable** on the **Access Intranet** item.
- 11. When done, click **Apply**.

### 3.3 Using the Traffic Manager

### 3.3.1 Managing QoS (Quality of Service) Bandwidth

Quality of Service (QoS) allows you to set the bandwidth priority and manage network traffic.

	Setup	QoS Traffic Monitor							
_	General	Traffic Manager - Qo	s			Automatic mo	de 👻		
	Network Map Guest Network Fraffic Manager Parental control USB application AlCloud	Cost And Andrew Control Contro							
••••	dvanced Settings	Save							
(llo	Wireless	User Specify Rule Lis	t Source IP or MAC	Destination Port	Protocol	Transferred	Priority		
ជ	LAN	Web Surf		80	tcp	0~512	Highest		
۲	WAN	HTTPS		443	tcp	0~512	Highest		
1	IPv6	File Transfer		80	tcp	512~	Low		
×	VPN Server	File Transfer		443	tcp	512~	Low		

### To set up bandwidth priority:

- 1. From the navigation panel, go to **General** > **Traffic Manager** > **QoS** tab.
- 2. Click **ON** to enable QoS. Fill in the upload and download bandwidth fields.

NOTE: Get the bandwidth information from your ISP.

#### 3. Click Save.

**NOTE:** The User Specify Rule List is for advanced settings. If you want to prioritize specific network applications and network services, select **User-defined QoS rules** or **User-defined Priority** from the drop-down list on the upper-right corner.

4. On the user-defined QoS rules page, there are four default online service types – web surf, HTTPS and file transfers. Select your preferred service, fill in the Source IP or MAC, Destination Port, Protocol, Transferred and Priority, then click Apply. The information will be configured in the QoS rules screen.

- To fill in the source IP or MAC, you can:
  - a) Enter a specific IP address, such as "192.168.122.1".
  - b) Enter IP addresses within one subnet or within the same IP pool, such as "192.168.123.\*", or "192.168.\*.\*"
  - c) Enter all IP addresses as "\*.\*.\*" or leave the field blank.
  - d) The format for the MAC address is six groups of two hexadecimal digits, separated by colons (:), in transmission order (e.g. 12:34:56:aa:bc:ef)
- For source or destination port range, you can either:
  - a) Enter a specific port, such as "95".
  - b) Enter ports within a range, such as "103:315", ">100", or "<65535".
- The Transferred column contains information about the upstream and downstream traffic (outgoing and incoming network traffic) for one section. In this column, you can set the network traffic limit (in KB) for a specific service to generate specific priorities for the service assigned to a specific port. For example, if two network clients, PC 1 and PC 2, are both accessing the Internet (set at port 80), but PC 1 exceeds the network traffic limit due to some downloading tasks, PC 1 will have a lower priority. If you do not want to set the traffic limit, leave it blank.

- 5. On the User-defined Priority page, you can prioritize the network applications or devices into five levels from the user-defined QoS rules' dropdown list. Based on priority level, you can use the following methods to send data packets:
  - Change the order of upstream network packets that are sent to the Internet.
  - Under **Upload Bandwidth** table, set **Minimum Reserved Bandwidth** and **Maximum Bandwidth Limit** for multiple network applications with different priority levels. The percentages indicate the upload bandwidth rates that are available for specified network applications.

#### NOTES:

- Low-priority packets are disregarded to ensure the transmission of high-priority packets.
- Under Download Bandwidth table, set Maximum Bandwidth Limit for multiple network applications in corresponding order. The higher priority upstream packet will cause the higher priority downstream packet.
- If there are no packets being sent from high-priority applications, the full transmission rate of the Internet connection is available for lowpriority packets.
- 6. Set the highest priority packet. To ensure a smooth online gaming experience, you can set ACK, SYN, and ICMP as the highest priority packet.

**NOTE:** Ensure to enable QoS first and set up the upload and download rate limits.

### 3.3.2 Monitoring Traffic

The traffic monitor function allows you to access the bandwidth usage and speed of your Internet, wired, and wireless networks. It allows you to monitor network traffic even on a daily basis.

Setup	QoS Traffic Monitor	-							
General	Traffic Manager	- Traffic Monitor			Real-time				
Hetwork Map	Traffic Monitor allows you to monitor the incoming or outgoing packets of the following:								
🞊 Guest Network		internet Wired Wirekess							
🚧 Traffic Manager	Reception II				s from wireless				
Parental control	Transmission O			network Outgoing packet	is from wireless				
USB application		ernet are evenly transmitted to the	wired and wireless devices.						
AiCloud	Traffic Monitor FAQ	Wireless (2.4GHz)	Wireless (SGHz)						
Advanced Settings	36.62 KB/s			Tue	04:52 am / 12.24 KB/s				
察 Wireless									
	25.63 KB/s								
⊕ wa>	18.31 KB/s								
🚯 IРv6									
VPN Server	9.16 KB/s								
Firew all									
Administration	Network	Current	Average	Maximum	Total				
System Log	Reception	0.10 rates	0.01 xave	0.90 кан	5976				
	Transmission	0.00 Kestw	0.00 kana	0.31 kase	1920				
Help & Manual   Utility FAQ     P									

**Note:** Packets from the Internet are evenly transmitted to the wired and wireless devices.

### 3.4 Setting up Parental Control

Parental Control allows you to control the Internet access time. Users can set the time limit for a client's network usage.

Quick I Setup	nternet	Operation Mo SSID: ASUS	de: <u>Wireless</u> <u>ASUS_SC</u>	router	Firmware Version: 3.	0.0.4.260	8	ē 🔶 🖻	
Gen	eral	Parental	control						
品 Networ	k M ap				tal control allows you to tal control:	set the time limit for a client'	s network usage.	To use	
🔏 Guest M	ietw ork					olumn, select the client whos o key in the clients MAC add			
🚧 Traffic (	1 an ager		Address f column. 2. In the (Add / Delete) column, click the Edit icon.						
Parenta	l control		OFF 3. Set up allowed time limits in the [Time Management] map. Drag and drop to desired day/time.						
🤹 USB ap	plication		4. Click [Ok] to save the settings made. 5. <u>Click to open autorial video.</u>						
â AiCloud	I			Clients N	iame	Clients MAC Address	Time Management	Add / Delete	
Advanced	Settings	<b>W</b>			•			Ð	
🛜 Wireles	5				No data				
					Αρ	ply			

### To use the parental control function:

- 1. From the navigation panel, go to **General** > **Parental control**.
- 2. Click **ON** to enable Parental Control.
- 3. Select the client whose network usage you want to control. You may also key in the client's MAC address in the **Client MAC Address** column.

**NOTE:** Ensure that the client name does not contain special characters or spaces as this may cause the router to function abnormally.

- 4. Click 💿 or 🖸 to add or delete the client's profile.
- 5. Set up the allowed time limit in **Time Management** map. Drag and drop a desired time zone to allow client's network usage.
- 6. Click **OK**.
- 7. Click **Apply** to save the settings.

### 3.5 Using the USB Application

The USB Applications function provides AiDisk, Servers Center, Network Printer Server and Download Master submenus.

**IMPORTANT!** To use the server functions, you need to insert a USB storage device, such as a USB hard disk or USB flash drive, in the USB 2.0 port on the rear panel of your wireless router. Ensure that the USB storage device is formatted and partitioned properly. Refer to the ASUS website at <u>http://event.asus.com/2009/networks/disksupport/</u> for the file system support table.

### 3.5.1 Using AiDisk

AiDisk allows you to share files stored on a connected USB device through the Internet. AiDisk also assists you with setting up ASUS DDNS and an FTP server.

### To use AiDisk:

- 1. From the navigation panel, go to **General** > **USB application**, then click the **AiDisk** icon.
- 2. From the Welcome to AiDisk wizard screen, click Go.



3. Select the access rights that you want to assign to the clients accessing your shared data.



 Create your domain name via the ASUS DDNS services, read the Terms of Service and then select I will use the service and accept the Terms of service and key in your domain name. When done, click Next.

Setup	
General	$\bigcirc \bigcirc $
🔒 Net work Map	
😹 Guest Network	Create your domain name via the ASUS DDNS services.
Manager Traffic Manager	O I will use the service and accept Terms of service
Parental control	testasuscomm.com
USB application	Disable DDNS.
AiCloud	
Advanced Settings	Previous Next
S Wimless	

You can also select **Skip ASUS DDNS settings** then click **Next** to skip the DDNS setting.

- 5. Click **Finish** to complete the setting.
- To access the FTP site that you created, launch a web browser or a third-party FTP client utility and key in the ftp link (ftp://<domain name>.asuscomm.com) you have previously created.

### 3.5.2 Using Servers Center

Servers Center allows you to share the media files from the USB disk via a Media Server directory, Samba share service, or FTP share service. You can also configure other settings for the USB disk in the Servers Center.

#### **Using Media Server**

Your wireless router allows DLNA-supported devices to access multimedia files from the USB disk connected to your wireless router.

**NOTE**: Before using the DLNA Media Server function, connect your device to the RT-AC55U's network.

secup	Media Server	Network Place(Samba) Share (	Cloud Disk	FTP Share	Miscellaneous setting				
General	Media Serv	er				5			
Hetwork Map	Set up the DLN	Set up the DLNA, iTunes, FTP and Network Place (Samba) server.							
Ruest Network	Enable DLNA M	ledia Server	ON						
Manager Traffic Manager	Enable iTunes	Server?	OFF	•					
Parental control	Media server d	irectory			Apply				
USB application	Media Server S	Status							
AiCloud	1	1000	1						
Advanced Settings	2/								
🛜 Wireless	4.1				. ™ :				
🚮 LAN		1							
💮 wan		4			$\sim$				
🚳 IPv6	E				Digital Media Player				
VPN Server									
<b>Firewall</b>	Di	gital Media Server							
Administration									
System Log	1.4				Digital Media Player				

To launch the Media Server setting page, go to **General** > **USB application** > **Servers Center** > **Media Servers** tab. Refer to the following for the descriptions of the fields:

- Enable DLNA Media Server: Select ON/OFF to enable/ disable the DLNA Media Server.
- Enable iTunes Server?: Select ON/OFF to enable/disable the iTunes Server.
- **Media server directory**: Select your media server directory and click **Apply** to share files from the USB disk to media devices in the network.
- Media Server Status: Displays the status of the media server.

### Using Network Place (Samba) Share service

Network Place (Samba) Share allows you to set up the accounts and permissions for the Samba service.

78	کنا5	Logout	Reboot		English 🔻
+	Quick Internet	Operation Mode: Wireless	router Firmware Version:	SSID: ASUS ASUS_5G	<u>8</u> 🔁 < 🖻
-	Setup	Media Server Network Pla	ace(Samba) Share / Cloud Disk	FTP Share Miscellaneous setting	
	General				
品	Network Map		vork Place(Samba) Share /		
*	Guest Network		on of network place(samba) service	e. Ish page	
<u> </u>	Traffic Manager	$\oplus \Theta \oslash$			A E 🕅
ß	Parental control	admin	Router	R/W R	No
÷	USB application	•	Kingston DT 101 G2		
<u></u>	AiCloud			Apply:	

### To use Samba share:

1. From the navigation panel, go to **General** > **USB application** > **Servers Center**.

NOTE: Network Place (Samba) Share is enabled by default.

2. Follow the steps below to add, delete, or modify an account.

#### To create a new account:

- a) Click 🕑 to add new account.
- b) In the **Account** and **Password** fields, key in the name and password of your network client. Retype the password to confirm. Click **Add** to add the account to the list.

Add new account in the second	amba) Share / Clouc <sup>X</sup> D s
New account has no re	ead/write access rights.
Account:	
Password:	
Retype password:	
	Add
RT-AC66U	

#### To delete an existing account:

- a) Select the account that you want to delete.
- b) Click \varTheta.
- c) When prompted, click **Delete** to confirm the account deletion.

#### To add a folder:

- a) Click 🖳
- b) Enter the folder name, and click **Add**. The folder that you created will be added to the folder list.

Add new folder in sda	amba) Share / Cloud D <mark>X</mark> k
	ghts for a new folder is /write.
able Share Folder Name:	Share with account
	Add

- 3. From the list of folders, select the type of access permission that you want to assign for specific folders:
  - R/W: Select this option to assign read/write access.
  - R: Select this option to assign read-only access.
  - No: Select this option if you do not want to share a specific file folder.
- 4. Click **Apply** to apply the changes.

#### **Using the FTP Share service**

FTP share enables an FTP server to share files from USB disk to other devices via your local area network or via the Internet.

#### **IMPORTANT**:

- Ensure that you safely remove the USB disk. Incorrect removal of the USB disk may cause data corruption.
- To safely remove the USB disk, refer to the section **Safely removing** the USB disk under 3.1.3 Monitoring your USB device.



#### To use FTP Share service:

**NOTES:** Ensure that you have set up your FTP server through AiDisk. For more details, refer to the section **3.5.1 Using AiDisk**.

- 1. From the navigation panel, click **General** > **USB application** > **Servers Center** > **FTP Share** tab.
- 2. From the list of folders, select the type of access rights that you want to assign for specific folders:
  - R/W: Select to assign read/write access for a specific folder.
  - W: Select to assign write only access for a specific folder.
  - **R**: Select to assign read only access for a specific folder.
  - No: Select this option if you do not want to share a specific folder.
- 3. Click **Apply** to confirm the changes.
- 4. To access the FTP server, key in the ftp link ftp://<hostname>.asuscomm.com and your user name and password on a web browser or a third-party FTP utility.

## **Miscellaneous setting**

Miscellaneous setting allows you to configure other settings for the USB disk, including the maximum number of user logins, the device name, work group, and character set used on the FTP server.

## To configure Miscellaneous settings:

1. From the navigation panel, click **General** > **USB application** > **Servers Center** > **Miscellaneous setting** tab.

				/
+	Quick Internet Setup	Operation Mode: <u>Wireless router</u> Firmware Version: <u>3,0,0,4,374</u> 1822 SSID: <u>ASUS ASUS SG</u>		8 🔁 🔶 🖻
.A.tup		Media Server Network Place(Samba)	Share / Cloud Disk FTP Share Miscellaneous setting	
	General			
品	Network Map	USB Application - Miscellaneous setting		
		More detailed settings for the USB Disk.		
<u> </u>	Guest Network	Maximum number of concurrent connections		
₩.	Traffic Manager	Device Name		
A	Parental control	Work Group	WORKGROUP	
	USB application	Character set on FTP Server	UTF-8	
	use appreation		Apply	
<u></u>	AiCloud		Афра	

2. Configure the following settings:

## • Maximum Login User

Set the maximum number of concurrent connections of the Network Neighborhood or FTP Server.

**NOTE:** Some FTP clients may establish more than one connection. Setting this number too low will lead to login failures.

### Device Name

Assigns the name of the device as shown on the network. For example, for a device with the name ABC, enter //ABC on the Internet Explorer address bar to access the Network Place service.

#### Work Group

Assigns the name of the local RT-AC55U network as seen in Network Neighborhood.

**NOTE:** For **Device Name** and **Work Group**, the standard input characters include letters (a-z, A-Z), digits (0-9), space, underscores(\_), and hyphens(-). The first and last character should not contain any spaces. An invalid workgroup name makes it harder for other devices to find your device in the network.

#### Character set on FTP Server

Select the appropriate encoding used during data exchange on the FTP server.

## 3.5.3 3G/4G

3G/4G USB modems can be connected to RT-AC55U to allow Internet access.

**NOTE:** For a list of verified USB modems, please visit: <u>http://event.asus.com/2009/networks/3gsupport/</u>

Quick Internet	Operation Mode: <u>Wireless router</u> F SSID: <u>ASUS ASUS_SG</u>	imware Version: <u>3.0.0.4.260</u> & 🖻 🗲 🗷	
General	USB Modem		
🔠 Network Map	The current 3G/4G setting is set to 3G/4G Backup mode. If WAN port was disconnected, the network mode will automatically turn to 3G/4G mode.		
🞊 Guest Network	Basic Config		
Manager	Enable USB Modem	© Yes ● No	
Parental control	Location	Manua]	
Parental control	USB Modem	WCDMA (UMTS)	
USB application	APN service(optional)	internet	
aiCloud	Dial Number	*99#	
	PIN code		
Advanced Settings	Usemame		
🛜 Wireless	Password		
😭 LAN	USB Adapter	auto	
💮 wan		Apply	

#### To set up 3G/4G internet access:

- 1. From the navigation panel, click **General** > **USB application** > **3G/4G**.
- 2. In the Enable USB Modem field, select Yes.
- 3. Set up the following:
  - Location: Select your 3G/4G service provider's location from the dropdown list.
  - **ISP**: Select your Internet Service Provider (ISP) from the dropdown list.
  - **APN (Access Point Name) service (optional)**: Contact your 3G/4G service provider for detailed information.
  - **Dial Number and PIN code**: The 3G/4G provider's access number and PIN code for connection.

**NOTE:** PIN code may vary from different providers.

- Username / Password: The username and password will be provided by the 3G/4G network carrier.
- **USB Adapter**: Choose your USB 3G / 4G adapter from the dropdown list. If you are not sure of your USB adapter's model or the model is not listed in the options, select **Auto**.
- 4. Click Apply.

**NOTE:** The router will reboot for the settings to take effect.

# 3.6 Using AiCloud

AiCloud is a cloud service application that allows you to save, sync, share, and access your files.



#### To use AiCloud:

- 1. From Google Play Store or Apple Store, download and install the ASUS AiCloud app to your smart device.
- 2. Connect your smart device to your network. Follow the instructions to complete the AiCloud setup process.

## 3.6.1 Cloud Disk

#### To create a cloud disk:

- 1. Insert a USB storage device into the wireless router.
- 2. Turn on Cloud Disk.



3. Go to <u>https://router.asus.com</u> and enter the router login account and password. For better user experience, we recommend that you use **Google Chrome** or **Firefox**.

🔲 ASUS Wireless Router RT × 📝 AiCloud	x	OR PRODUCT TO DOT OR ADDA area
← → C 🕼 https://router.asus.com		옥☆ 🎫 🗉
← → C	AiCloud Welcome. Who's coming home? Your Name. Your Password.	Q 🏠 🕅 🧮
	U	

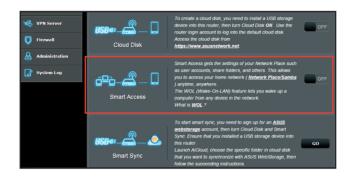
4. You can now start accessing Cloud Disk files on devices connected to the network.

**NOTE:** When accessing the devices that are connected to the network, you need to enter the device's user name and password manually, which will not be saved by AiCloud for security reason.

🖉 🚳 ASUS Wireless Router RT 🗙 🕅 AiCloud	× = = = = = = = = = = = = = = = = =	OR THROUGH BUILDING
← → C 🕼 https://router.asus.c	om	옥 ☆ 🔜 🔳
🖳 admin		English
ASUS AiCloud	/ ALEND2	Q #
	反 Ai Music 🔺 🎬 Ai Movie 🏾 🏹 Ai Photo	
국: Setting 🧭 Refresh		JSTeK Computer Inc. All rights reserved

## 3.6.2 Smart Access

The Smart Access function allows you to easily access your home network via your router's domain name.



#### NOTES:

- You can create a domain name for your router with ASUS DDNS. For more details, refer to section **4.3.5 DDNS**.
- By default, AiCloud provides a secure HTTPS connection. Key in <u>https://[yourASUSDDNSname].asuscomm.com</u> for a very secure Cloud Disk and Smart Access usage.

## 3.6.3 Smart Sync

/ISLIS	Logo	ut Re	boot		E	nglish 🔻
Quick Internet		e: <del>Wireless router</del> t Sync Settings Log		: SSID: <u>Asus</u> <u>Asus sg</u>	8	- <b>4</b> I
General	AiCloud - Sn					
🔠 Network Map		art oyne				
Guest Network	USB«	<u>a</u> <u>e</u>	nt, then turn Cloud	c, you need to sign up for an <u>A</u> I Disk and Smart Sync. Ensure		
Manager				nto this router. hoose the specific folder in clo SUS WebStorage, then follow		
Parental control	C C		ons.	sos websiola <del>ge, men lonon</del>	ine succeeding in	isii ucu
usb application						
AiCloud	Cloud List				_	_
AICIOUU	Provider	User Name	Rule	Folder	Status	Delete
Advanced Settings						
🛜 Wireless						
🔂 LAN			Add ne	waccount		

#### To use Smart Sync:

- 1. Launch AiCloud, click **Smart Sync** > **Go**.
- 2. Select **ON** to enable Smart Sync.
- 3. Click Add new account.
- 4. Enter your ASUS WebStorage account password and select the directory that you want to sync with WebStorage.
- 5. Click Apply.

# 4 Configuring the Advanced Settings

## 4.1 Wireless

## 4.1.1 General

The **General** tab allows you to configure the basic wireless settings.

Quick Internet	Operation Mode: <u>Wireless router</u> Firmware Version: SSID: <u>ASUS ASUS SG</u> <u>ASUS SG</u>		
setup	General WPS Bridge Wireless MA	C Filter RADIUS Setting Professional	
General			
Retwork Map	Wireless - General		
	Set up the wireless related information below		
😹 Guest Network	Frequency 2.4GHz •		
Manager Traffic Manager	SSID	ASUS	
Parental control	Hide SSID	● Yes © No	
📥	Wireless Mode	Auto 🥃 🗹 b/g Protection	
USB application	Channel bandwidth	20/40 MHz 💌	
AiCloud	Control Channel	Auto 💌	
Advanced Settings	Authentication Method	Open System	
🤿 Wireless	WEP Encryption	None	
🖒 LAN		Apply	

## To configure the basic wireless settings:

- From the navigation panel, go to Advanced Settings > Wireless > General tab.
- 2. Select 2.4GHz or 5GHz as the frequency band for your wireless network.
- 3. Assign a unique name containing up to 32 characters for your SSID (Service Set Identifier) or network name to identify your wireless network. Wi-Fi devices can identify and connect to the wireless network via your assigned SSID. The SSIDs on the information banner are updated once new SSIDs are saved to the settings.

**NOTE**: You can assign unique SSIDs for the 2.4 GHz and 5GHz frequency bands.

- 4. In the **Hide SSID** field, select **Yes** to prevent wireless devices from detecting your SSID. When this function is enabled, you would need to enter the SSID manually on the wireless device to access the wireless network.
- 5. Select any of these wireless mode options to determine the types of wireless devices that can connect to your wireless router:
  - Auto: Select Auto to allow 802.11ac, 802.11n, 802.11g, and 802.11b devices to connect to the wireless router.
  - **Legacy**: Select **Legacy** to allow 802.11b/g/n devices to connect to the wireless router. Hardware that supports 802.11n natively, however, will only run at a maximum speed of 54Mbps.
  - **N only**: Select **N only** to maximize wireless N performance. This setting prevents 802.11g and 802.11b devices from connecting to the wireless router.
- 6. Select the operating channel for your wireless router. Select **Auto** to allow the wireless router to automatically select the channel that has the least amount of interference.
- 7. Select any of these channel bandwidth to accommodate higher transmission speeds:

**40MHz:** Select this bandwidth to maximize the wireless throughput.

**20MHz (default):** Select this bandwidth if you encounter some issues with your wireless connection.

- 8. Select any of these authentication methods:
  - Open System: This option provides no security.
  - **Shared Key**: You must use WEP encryption and enter at least one shared key.

- WPA/WPA2 Personal/WPA Auto-Personal: This option provides strong security. You can use either WPA (with TKIP) or WPA2 (with AES). If you select this option, you must use TKIP + AES encryption and enter the WPA passphrase (network key).
- WPA/WPA2 Enterprise/WPA Auto-Enterprise: This option provides very strong security. It is with integrated EAP server or an external RADIUS back-end authentication server.
- Radius with 802.1x

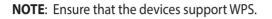
**NOTE:** Your wireless router supports the maximum transmission rate of 54Mbps when the **Wireless Mode** is set to **Auto** and **encryption method** is **WEP** or **TKIP**.

- 9. Select any of these WEP (Wired Equivalent Privacy) Encryption options for the data transmitted over your wireless network:
  - **Off**: Disables WEP encryption
  - 64-bit: Enables weak WEP encryption
  - **128-bit**: Enables improved WEP encryption.

10.When done, click **Apply**.

## 4.1.2 WPS

WPS (Wi-Fi Protected Setup) is a wireless security standard that allows you to easily connect devices to a wireless network. You can configure the WPS function via the PIN code or WPS button.



+s+ Quick Internet	Operation Mode: Wireless router F	irmware Version: SSID: ASUS ASUS_SG & 🕾 🔁 🔶 🚇	
Śctup	General WPS Bridge Wireless M	AC Filter RADIUS Setting Professional	
General			
Retwork Map	Wireless - WPS		
Guest Network	WPS (Wi-Fi Protected Setup) provides easy the PIN code or the WPS buttton.	and secure establishment of a wireless network. You can configure WPS here via	
Manager	Enable WPS	ON	
	Current Frequency	2.4GHz	
Parental control	Connection Status	Idle	
USB application	Configured	Yes Reset	
AiCloud	AP PIN Code	72013502	
Advanced Settings	You can easily connect a WPS client to the network in either of these two ways: • Method1: Click the WPS button on this interface (or press the physical WPS button on the router), then press the WPS button on the client's WLAH adapter for about three minutes. • Method2: Start the client' WPS process and get the client PN code. Enter the client's PN code on the Client PN code held and click Start. Please check the user manual of your writess client to see if it supports the WPS function. If your writeless client does not support the WPS function, you have to configure the wrieless client manually and set the same methods rand/SSBD.		
💮 wan			
🛞 IPv6	WPS Method	Push Button     Client PIN Code  Start	
VPN Server			

#### To enable WPS on your wireless network:

- From the navigation panel, go to Advanced Settings > Wireless > WPS tab.
- 2. In the Enable WPS field, move the slider to ON.
- WPS uses 2.4GHz by default. If you want to change the frequency to 5GHz, turn OFF the WPS function, click Switch Frequency in the Current Frequency field, and turn WPS ON again.

**NOTE:** WPS supports authentication using Open System, WPA-Personal, and WPA2-Personal. WPS does not support a wireless network that uses a Shared Key, WPA-Enterprise, WPA2-Enterprise, and RADIUS encryption method.

- 3. In the WPS Method field, select **Push Button** or **Client PIN** code. If you select **Push Button**, go to step 4. If you select **Client PIN** code, go to step 5.
- 4. To set up WPS using the router's WPS button, follow these steps:
  - a. Click **Start** or press the WPS button found at the rear of the wireless router.
  - b.Press the WPS button on your wireless device. This is normally identified by the WPS logo.

**NOTE:** Check your wireless device or its user manual for the location of the WPS button.

- c. The wireless router will scan for any available WPS devices. If the wireless router does not find any WPS devices, it will switch to standby mode.
- 5. To set up WPS using the Client's PIN code, follow these steps:
  - a. Locate the WPS PIN code on your wireless device's user manual or on the device itself.
  - b.Key in the Client PIN code on the text box.
  - c. Click **Start** to put your wireless router into WPS survey mode. The router's LED indicators quickly flash three times until the WPS setup is completed.

## 4.1.3 WDS

Bridge or WDS (Wireless Distribution System) allows your ASUS wireless router to connect to another wireless access point exclusively, preventing other wireless devices or stations to access your ASUS wireless router. It can also be considered as a wireless repeater where your ASUS wireless router communicates with another access point and other wireless devices.



To set up the wireless bridge:

- 1. From the navigation panel, go to **Advanced Settings** > **Wireless** > **Bridge** tab.
- 2. Select the frequency band for the wireless bridge.
- 3. In the **AP Mode** field, select any of these options:
  - AP Only: Disables the Wireless Bridge function.
  - **WDS Only**: Enables the Wireless Bridge feature but prevents other wireless devices/stations from connecting to the router.

• **HYBRID**: Enables the Wireless Bridge feature and allows other wireless devices/stations to connect to the router.

**NOTE:** In Hybrid mode, wireless devices connected to the ASUS wireless router will only receive half the connection speed of the Access Point.

- 4. In the **Connect to APs in list** field, click **Yes** if you want to connect to an Access Point listed in the Remote AP List.
- 5. In the **Control Channel** field, select the operating channel for the wireless bridge. Select **Auto** to allow the router to automatically select the channel with the least amount of interference.

**NOTE:** Channel availability varies per country or region.

 On the Remote AP List, key in a MAC address and click the Add button (()) to enter the MAC address of other available Access Points.

**NOTE:** Any Access Point added to the list should be on the same Control Channel as the ASUS wireless router.

7. Click Apply.

## 4.1.4 Wireless MAC Filter

Wireless MAC filter provides control over packets transmitted to a specified MAC (Media Access Control) address on your wireless network.

Quick Internet	Operation Mode: <u>Wireless router</u> Firmware Version: SSID: <u>ASUS</u> <u>ASUS</u> <u>SG</u>	8 id 🔶 🖻		
Setup	General WPS Bridge Wireless MAC Filter RADIUS Setting Professional			
General	Wireless - Wireless MAC Filter			
品 Network Map	Wheless - Wheless mad Phile			
Guest Network	<ul> <li>Wireless MAC filter allows you to control packets from devices with specified MAC address in you</li> </ul>	Wireless MAC filter allows you to control packets from devices with specified MAC address in your Wireless LAN.		
Guest Network	Basic Config	Basic Config		
Manager	Frequency 2.4GHz V			
Parental control	MAC Filter Mode Disabled 🚽			
	MAC filter list			
USB application	MAC filter list Add / Delete			
AiCloud	<b></b>	Ð		
	No data in table.			
Advanced Settings	Apply			

#### To set up the Wireless MAC filter:

- From the navigation panel, go to Advanced Settings > Wireless > Wireless MAC Filter tab.
- 2. In the **Frequency** field, select the frequency band that you want to use for the Wireless MAC filter.
- 3. In the MAC Filter Mode dropdown list, select either Accept or Reject.
  - Select Accept to allow devices in the MAC filter list to access to the wireless network.
  - Select **Reject** to prevent devices in the MAC filter list to access to the wireless network.
- 4. On the MAC filter list, click the **Add** 🙆 button and key in the MAC address of the wireless device.
- 5. Click Apply.

## 4.1.5 RADIUS Setting

RADIUS (Remote Authentication Dial In User Service) Setting provides an extra layer of security when you choose WPA-Enterprise, WPA2-Enterprise, or Radius with 802.1x as your Authentication Mode.

Quick Internet	Operation Mode: <u>Wireless router</u> Firmware Version: SSID: <u>ASUS ASUS SG</u>		
	General WPS Bridge Wireless MAC Filter RADIUS Setting Professional		
General			
品 Network Map	Wireless - RADIUS Setting		
-	This section allows you to set up additional parameters for authorizing wireless clients through RADIUS server. It is required while		
Guest Network	you select "Authentication Method" in "Wireless - General" as "WPA-Enterprise/ WPA2-Enterprise/ Radius with 802.1x".		
Traffic Manager	Frequency 2.4GHz -		
	Server IP Address		
Parental control	Server Port 1812		
USB application	Connection Secret		
AiCloud	Apply		
Advanced Settings			
🛜 Wireless			

### To set up wireless RADIUS settings:

1. Ensure that the wireless router's authentication mode is set to WPA-Enterprise, WPA2-Enterprise, or Radius with 802.1x.

**NOTE**: Please refer to section **4.1.1 General** section for configuring your wireless router's Authentication Mode.

- 2. From the navigation panel, go to **Advanced Settings** > **Wireless** > **RADIUS Setting**.
- 3. Select the frequency band.
- 4. In the **Server IP Address** field, key in your RADIUS server's IP Address.
- 5. In the **Connection Secret** field, assign the password to access your RADIUS server.
- 6. Click Apply.

## 4.1.6 Professional

The Professional screen provides advanced configuration options.

**NOTE:** We recommend that you use the default values on this page.

+ Quick Internet	Operation Mode: <u>Wireless router</u> Fi	rmware Version: SSID: <u>ASUS ASUS SG</u> 🔏 🔁 🔶 🗐		
Setup	General WPS Bridge Wireless MA	C Filter RADIUS Setting Professional		
General				
Hetwork Map	Wireless - Professional			
Suest Network	Wireless Professional Setting allows you to s	set up additional parameters for wireless. But default values are recommended.		
Glest Network	Frequency	2.4GHz 🚽		
Manager Traffic Manager	Enable Radio	© Yes ● No		
Parental control	Date to Enable Radio (week days)	🖾 Mon 🖾 Tue 🖾 Wed 🖾 Thu 🖾 Fri		
USB application	Time of Day to Enable Radio			
USB application	Date to Enable Radio (weekend)	20 Sat 12 Sun		
AiCloud	Time of Day to Enable Radio			
Advanced Settings	Set AP Isolated	● Yes O No		
🛜 Wireless	Multicast Rate(Mbps)	Disable 🔽		
<u></u>	Preamble Type	Long 🔽		
	RTS Threshold			
💮 WAN	DTIM Interval			
IPv6	Beacon Interval			
VPN Server	Enable TX Bursting	Enable 💌		
	Wireless Multicast Forwarding	Disable 🚽		
Firewall	Enable WMM APSD	Enable 💌		
Administration				
System Log	Tx power adjustment	Set the capability for transmission power. The maximum value is 200mW and the real transmission power will be dynamically adjusted to meet regional regulations		
		Apply		

In the **Professional Settings** screen, you can configure the following:

- **Frequency**: Select the frequency band that the professional settings will be applied to.
- Enable Radio: Select Yes to enable wireless networking. Select No to disable wireless networking.
- Date to Enable Radio (weekdays): You can specify which days of the week wireless networking is enabled.
- **Time of Day to Enable Radio**: You can specify a time range when wireless networking is enabled during the week.

- Date to Enable Radio (weekend): You can specify which days of the weekend wireless networking is enabled.
- **Time of Day to Enable Radio**: You can specify a time range when wireless networking is enabled during the weekend.
- Set AP isolated: The Set AP isolated item prevents wireless devices on your network from communicating with each other. This feature is useful if many guests frequently join or leave your network. Select **Yes** to enable this feature or select **No** to disable.
- **Multicast rate (Mbps)**: Select the multicast transmission rate or click **Disable** to switch off simultaneous single transmission.
- **Preamble Type**: Preamble Type defines the length of time that the router spent for CRC (Cyclic Redundancy Check). CRC is a method of detecting errors during data transmission. Select **Short** for a busy wireless network with high network traffic. Select **Long** if your wireless network is composed of older or legacy wireless devices.
- **RTS Threshold**: Select a lower value for RTS (Request to Send) Threshold to improve wireless communication in a busy or noisy wireless network with high network traffic and numerous wireless devices.
- **DTIM Interval**: DTIM (Delivery Traffic Indication Message) Interval or Data Beacon Rate is the time interval before a signal is sent to a wireless device in sleep mode indicating that a data packet is awaiting delivery. The default value is three milliseconds.
- **Beacon Interval**: Beacon Interval is the time between one DTIM and the next. The default value is 100 milliseconds. Lower the Beacon Interval value for an unstable wireless connection or for roaming devices.
- **Enable TX Bursting**: Enable TX Bursting improves transmission speed between the wireless router and 802.11g devices.

- Wireless multicast forwarding: Select Enable to allow the wireless router to forward multicast traffic to other wireless devices that support multicast. Select **Disable** to prevent the router from forwarding multicast transmissions.
- Enable WMM APSD: Enable WMM APSD (Wi-Fi Multimedia Automatic Power Save Delivery) to improve power management between wireless devices. Select **Disable** to switch off WMM APSD.

# 4.2 LAN

## 4.2.1 LAN IP

The LAN IP screen allows you to modify the LAN IP settings of your wireless router.

**NOTE:** Any changes to the LAN IP address will be reflected on your DHCP settings.

A Logout Reboo			English 7							
++++ 9	uick Internet Setup	Operation Mode: <u>Wireless router</u> Firmware Version: SSID: <u>ASUS</u> <u>ASUS_SG</u>					8 🖻 🔶 🗉			
• •	Setup	LAN IP DHCP	Server Route	ΙΡΤΥ	Switch Control					
	General									
	letwork Map	LAN - LAN IP								
<u>.</u>	Guest Network	Configure the LA	N setting of Route							
		IP Address			192.168.1.1					
🖄 т	raffic Manager	Subnet Mask								
D P	Parental control				Арг	ly				

#### To modify the LAN IP settings:

- 1. From the navigation panel, go to **Advanced Settings** > **LAN** > **LAN IP** tab.
- 2. Modify the IP address and Subnet Mask.
- 3. When done, click **Apply**.

## 4.2.2 DHCP Server

Your wireless router uses DHCP to assign IP addresses automatically on your network. You can specify the IP address range and lease time for the clients on your network.

Quick Internet	Operation Mode: Wireless router Firmware Version: SSID: ASUS ASUS_SG				8 0 4 0				
	LAN IP DHCP Sen	er Route	IPTV	Switch Control					
General									
品 Network Map	LAN - DHCP Server								
Suest Network	DHCP (Dynamic Host Configuration Protocol) is a protocol for the automatic configuration used on IP networks. The DHCP server can assign each client an IP address and informs the client of the of DNIS server IP and default gateway IP. Manual IV. Assigned _IP arround the _DNCP list(list_limit;22)_E40								
Manager Traffic Manager	Basic Config	Basic Config							
Parental control	Enable the DHCP Ser	ier.		© Yes ● No					
- -	Router's Domain Nan								
USB application	IP Pool Starting Addre	IP Pool Starting Address							
AiCloud	IP Pool Ending Address								
Advanced Settings	Lease Time								
🤿 Wireless	Default Gateway								
	DNS and WINS Serve	DNS and WINS Server Setting							
ស៊ LAN	DNS Server								
🜐 wan	WINS Server								
IPv6	Enable Manual Assig	Enable Manual Assignment							
	Enable Manual Assign	Enable Manual Assignment			● Yes ◎ No				
VPN Server	Manually Assigned IP	Manually Assigned IP around the DHCP list(list limit:32)							
Firewall	МА	MAC address			IP Address	Add / Delete			
Administration				-		Ð			
System Log	Apply								

### To configure the DHCP server:

- 1. From the navigation panel, go to **Advanced Settings** > **LAN** > **DHCP Server** tab.
- 2. In the Enable the DHCP Server field, tick Yes.

- 3. In the **Domain Name** text box, enter a domain name for the wireless router.
- 4. In the **IP Pool Starting Address** field, key in the starting IP address.
- 5. In the **IP Pool Ending Address** field, key in the ending IP address.
- 6. In the **Lease Time** field, specify in seconds when an assigned IP address will expire. Once it reaches this time limit, the DHCP server will then assign a new IP address.

#### NOTES:

- We recommend that you use an IP address format of 192.168.1.xxx (where xxx can be any number between 2 and 254) when specifying an IP address range.
- An IP Pool Starting Address should not be greater than the IP Pool Ending Address.
- 7. In the **DNS and Server Settings** section, key in your DNS Server and WINS Server IP address if needed.
- 8. Your wireless router can also manually assign IP addresses to devices on the network. On the **Enable Manual Assignment** field, choose **Yes** to assign an IP address to specific MAC addresses on the network. Up to 32 MAC Addresses can be added to the DHCP list for manual assignment.

## 4.2.3 Route

If your network makes use of more than one wireless router, you can configure a routing table to share the same Internet service.

**NOTE**: We recommend that you do not change the default route settings unless you have advanced knowledge of routing tables.

Quick Internet	Operation Mode: <u>Wireless router</u> F	irmware Version:	SSID: ASUS ASUS_SG & E +							
	LAN IP DHCP Server Route IPTV	Switch Control								
General										
Retwork Map	LAN - Route This function allows you to add routing rules into Router. It is useful if you connect several routers behind Router to share the same connection to the Internet.									
Guest Network										
Manager	Basic Config									
	Enable static routes	● Yes ◎ No	Yes ONo							
Parental control	Static Route List									
USB application	Network/Host IP	Netmask	Gateway	Metric Interface	Add / Delete					
				LAN 💌	Ð					
AiCloud	No data in table.									
Advanced Settings		Арр	ly							
🛜 Wireless										

### To configure the LAN Routing table:

- 1. From the navigation panel, go to **Advanced Settings** > **LAN** > **Route** tab.
- 2. On the Enable static routes field, choose Yes.
- 3. On the **Static Route List**, enter the network information of other access points or nodes. Click the **Add** or **Delete** button to add or remove a device on the list.
- 4. Click Apply.

## 4.2.4 IPTV

The wireless router supports connection to IPTV services through an ISP or a LAN. The IPTV tab provides the configuration settings needed to set up IPTV, VoIP, multicasting, and UDP for your service. Contact your ISP for specific information regarding your service.

Quick Internet	Operation Mode: <u>Wireless router</u> Firmware Version: SSID: <u>ASUS ASUS SG</u> <u>&amp;</u> <u>C</u> <u>C</u> <u>B</u>							
<ul> <li>Setup</li> </ul>	LAN IP DHCP Server Route IPTV Switch Control							
General								
Retwork Map	LAN - IPTV							
-	Configure the IPTV setting of Router.							
Guest Network	Port							
Manager	Select ISP Profile None							
Parental control	Choose IPTV STB Port None 💌							
	Special Applications							
USB application	Use DHCP routes Microsoft							
AiCloud	Enable multicast routing Disable 🔽							
Advanced Settings	Enable efficient multicast forwarding Disable 💌							
S Wireless	UDP Proxy(Udpxy) 0							
G LAN	Apply							

# 4.3 WAN

## 4.3.1 Internet Connection

The Internet Connection screen allows you to configure the settings of various WAN connection types.

+**	Quick Internet Setup	Operation Mode: <u>Wireless router</u> F	irmware Version: SSID: ASI	IS ASUS_SG	8 ē 🔶 🛙					
_		Internet Connection Port Trigger Vi	tual Server / Port Forwarding	DMZ DDNS	NAT Passthrough					
	General									
品	Network Map	WAN - Internet Connection								
*	Guest Network	Router supports several connection types to WAN (wide area network) These types are selected from the dropdown menu beside WAN Connection Type. The setting fields differ depending on the connection type you selected.								
1.1	Traffic Manager	Basic Config	Basic Config							
		WAN Connection Type	Automatic IP 💌							
D	Parental control	Enable WAN	🛛 Yes 🔍 No							
*	USB application	Enable NAT	O Yes ● No							
	AiCloud	Enable UPnP UPnP FAQ	O Yes 💿 No							
_		WAN DNS Setting								
A	lvanced Settings	Connect to DNS Server automatically	🛛 Yes 🔍 No							
00	Wireless	Account Setting		_						
ជ	LAN	Authentication	None							
	WAN	Password								
		Special Requirement from ISP								
1	IPv6	Host Name								
×	VPN Server	MAC Address		MAC Clor	e					
Q	Firewall		Apply							

### To configure the WAN connection settings:

- 1. From the navigation panel, go to **Advanced Settings** > **WAN** > **Internet Connection** tab.
- 2. Configure the following settings below. When done, click **Apply**.
  - WAN Connection Type: Choose your Internet Service Provider type. The choices are Automatic IP, PPPoE, PPTP, L2TP or fixed IP. Consult your ISP if the router is unable to obtain a valid IP address or if you are unsure the WAN connection type.
  - Enable WAN: Select Yes to allow the router Internet access. Select No to disable Internet access.

- Enable NAT: NAT (Network Address Translation) is a system where one public IP (WAN IP) is used to provide Internet access to network clients with a private IP address in a LAN. The private IP address of each network client is saved in a NAT table and is used to route incoming data packets.
- Enable UPnP: UPnP (Universal Plug and Play) allows several devices (such as routers, televisions, stereo systems, game consoles, and cellular phone), to be controlled via an IP-based network with or without a central control through a gateway. UPnP connects PCs of all form factors, providing a seamless network for remote configuration and data transfer. Using UPnP, a new network device is discovered automatically. Once connected to the network, devices can be remotely configured to support P2P applications, interactive gaming, video conferencing, and web or proxy servers. Unlike Port forwarding, which involves manually configuring port settings, UPnP automatically configures the router to accept incoming connections and direct requests to a specific PC on the local network.
- Connect to DNS Server: Allows this router to get the DNS IP address from the ISP automatically. A DNS is a host on the Internet that translates Internet names to numeric IP addresses.
- **Authentication**: This item may be specified by some ISPs. Check with your ISP and fill them in if required.
- Host Name: This field allows you to provide a host name for your router. It is usually a special requirement from your ISP. If your ISP assigned a host name to your computer, enter the host name here.

- MAC Address: MAC (Media Access Control) address is a unique identifier for your networking device. Some ISPs monitor the MAC address of networking devices that connect to their service and reject any unrecognized device that attempt to connect. To avoid connection issues due to an unregistered MAC address, you can:
  - Contact your ISP and update the MAC address associated with your ISP service.
  - Clone or change the MAC address of the ASUS wireless router to match the MAC address of the previous networking device recognized by the ISP.

## 4.3.2 Port Trigger

Port range triggering opens a predetermined incoming port for a limited period of time whenever a client on the local area network makes an outgoing connection to a specified port. Port triggering is used in the following scenarios:

- More than one local client needs port forwarding for the same application at a different time.
- An application requires specific incoming ports that are different from the outgoing ports.

***	Quick Internet Setup	Operation Mode: Wire	eless router	Firmware Ve	ersion: SSID	ASUS ASUS	<u>56</u>	8	È 🔶 🖻		
		Internet Connection	Port Trigger	Virtual Serve	r / Port Forward	ding DMZ	DDNS	NAT Passthroug	h		
	General										
品	Network Map	WAN - Port Trigger									
*	Guest Network	Pot Tragger allows you to temporarily open data ports when LAM devices require unrestricted access to the Internet. There are two methods for opening incoming data ports, port forwarding and port trigger. Port forwarding opens the specified data ports all the time and devices must use static IP addresses. Port trigger only opens the incoming port when a LAM device requests									
*	Traffic Manager	access to the trigger port. Unlike port forwarding, port trigger does not require static IP addresses for LAN devices. Port forwarding allows multiple devices to share a single open port and port trigger only allows one client at a time to access the open									
ß	Parental control	port. Port_Trigger_FAQ									
	USB application	Basic Config									
		Enable Port Trigger		O Yes 🤇	● Yes O No						
â	AiCloud	Well-Known Applications		Please select							
A	dvanced Settings	Trigger Port List		_	_	_					
6	Wireless	Description	Trigge	er Port	Protocol	Incoming Po	rt	Protocol Add	I/Delete		
					тср 💌			тср 💌	Ð		
ស	AN No data in table.										
٢	WAN	Apply									
8	IPv6										

## To set up Port Trigger:

- 1. From the navigation panel, go to **Advanced Settings** > **WAN** > **Port Trigger** tab.
- 2. Configure the following settings below. When done, click **Apply**.
  - Enable Port Trigger: Choose Yes to enable Port Trigger.
  - Well-Known Applications: Select popular games and web services to add to the Port Trigger List.
  - **Description**: Enter a short name or description for the service.

- Trigger Port: Specify a trigger port to open the incoming port.
- Protocol: Select the protocol, TCP, or UDP.
- **Incoming Port**: Specify an incoming port to receive inbound data from the Internet.
- **Protocol**: Select the protocol, TCP, or UDP.

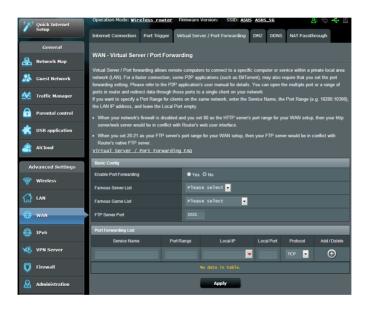
#### NOTES:

- When connecting to an IRC server, a client PC makes an outgoing connection using the trigger port range 66660-7000. The IRC server responds by verifying the username and creating a new connection to the client PC using an incoming port.
- If Port Trigger is disabled, the router drops the connection because it is unable to determine which PC is requesting for IRC access. When Port Trigger is enabled, the router assigns an incoming port to receive the inbound data. This incoming port closes once a specific time period has elapsed because the router is unsure when the application has been terminated.
- Port triggering only allows one client in the network to use a particular service and a specific incoming port at the same time.
- You cannot use the same application to trigger a port in more than one PC at the same time. The router will only forward the port back to the last computer to send the router a request/trigger.

## 4.3.3 Virtual Server/Port Forwarding

Port forwarding is a method to direct network traffic from the Internet to a specific port or a specific range of ports to a device or number of devices on your local network. Setting up Port Forwarding on your router allows PCs outside the network to access specific services provided by a PC in your network.

**NOTE:** When port forwarding is enabled, the ASUS router blocks unsolicited inbound traffic from the Internet and only allows replies from outbound requests from the LAN. The network client does not have access to the Internet directly, and vice versa.



### To set up Port Forwarding:

 From the navigation panel, go to Advanced Settings > WAN > Virtual Server / Port Forwarding tab.

- 2. Configure the following settings below. When done, click **Apply**.
  - **Enable Port Forwarding**: Choose **Yes** to enable Port Forwarding.
  - Famous Server List: Determine which type of service you want to access.
  - **Famous Game List**: This item lists ports required for popular online games to work correctly.
  - **FTP Server Port**: Avoid assigning the port range 20:21 for your FTP server as this would conflict with the router's native FTP server assignment.
  - Service Name: Enter a service name.
  - **Port Range**: If you want to specify a Port Range for clients on the same network, enter the Service Name, the Port Range (e.g. 10200:10300), the LAN IP address, and leave the Local Port empty. Port range accepts various formats such as Port Range (300:350), individual ports (566,789) or Mix (1015:1024,3021).

#### NOTES:

- When your network's firewall is disabled and you set 80 as the HTTP server's port range for your WAN setup, then your http server/web server would be in conflict with the router's web user interface.
- A network makes use of ports in order to exchange data, with each port assigned a port number and a specific task. For example, port 80 is used for HTTP. A specific port can only be used by one application or service at a time. Hence, two PCs attempting to access data through the same port at the same time would fail. For example, you cannot set up Port Forwarding for port 100 for two PCs at the same time.

• Local IP: Key in the client's LAN IP address.

**NOTE**: Use a static IP address for the local client to make port forwarding work properly. Refer to section **4.2 LAN** for information.

- Local Port: Enter a specific port to receive forwarded packets. Leave this field blank if you want the incoming packets to be redirected to the specified port range.
- Protocol: Select the protocol. If you are unsure, select BOTH.

#### To check if Port Forwarding has been configured successfully:

- Ensure that your server or application is set up and running.
- You will need a client outside your LAN but has Internet access (referred to as "Internet client"). This client should not be connected to the ASUS router.
- On the Internet client, use the router's WAN IP to access the server. If port forwarding has been successful, you should be able to access the files or applications.

#### Differences between port trigger and port forwarding:

- Port triggering will work even without setting up a specific LAN IP address. Unlike port forwarding, which requires a static LAN IP address, port triggering allows dynamic port forwarding using the router. Predetermined port ranges are configured to accept incoming connections for a limited period of time. Port triggering allows multiple computers to run applications that would normally require manually forwarding the same ports to each PC on the network.
- Port triggering is more secure than port forwarding since the incoming ports are not open all the time. They are opened only when an application is making an outgoing connection through the trigger port.

## 4.3.4 DMZ

Virtual DMZ exposes one client to the Internet, allowing this client to receive all inbound packets directed to your Local Area Network.

Inbound traffic from the Internet is usually discarded and routed to a specific client only if port forwarding or a port trigger has been configured on the network. In a DMZ configuration, one network client receives all inbound packets.

Setting up DMZ on a network is useful when you need incoming ports open or you want to host a domain, web, or e-mail server.

**CAUTION:** Opening all the ports on a client to the Internet makes the network vulnerable to outside attacks. Please be aware of the security risks involved in using DMZ.

#### To set up DMZ:

- From the navigation panel, go to Advanced Settings > WAN > DMZ tab.
- 2. Configure the setting below. When done, click **Apply**.
  - IP address of Exposed Station: Key in the client's LAN IP address that will provide the DMZ service and be exposed on the Internet. Ensure that the server client has a static IP address.

#### To remove DMZ:

- 1. Delete the client's LAN IP address from the **IP Address of Exposed Station** text box.
- 2. When done, click **Apply**.

## 4.3.5 DDNS

Setting up DDNS (Dynamic DNS) allows you to access the router from outside your network through the provided ASUS DDNS Service or another DDNS service.

78	SUS	Logout	Rel	boot			English	•
+	Quick Internet	Operation Mode: Mirel	ess_router	Firmware Version:	SSID: ASUS AS	US_5G	8 6	<del>¢</del> 🗉
_	Setup	Internet Connection	Port Trigger	Virtual Server / Port Fo	rwarding DM	DDNS	NAT Passthrough	
	General							
品	Network Map	WAN - DDNS						
-		DDNS (Dynamic Domain Name System) is a service that allows network clients to connect to the wireless router, even with a dynamic public IP address, through its registered domain name. The wireless router is embedded with the ASUS DDNS service and other DDNS services.						
<b>**</b>	Guest Network							
1	Traffic Manager	The wireless router currently uses a private WAN IP address (192.168 x.x, 10,x,x,x, or 172.16,x,x).						
		This router may be in the i						
D	Parental control	Enable the DDNS Client		● Yes O No				
	USB application							
				Apply				
<b>a</b>	AiCloud							

### To set up DDNS:

- 1. From the navigation panel, go to **Advanced Settings** > **WAN** > **DDNS** tab.
- 2. Configure the following settings below. When done, click **Apply**.
  - **Enable the DDNS Client**: Enable DDNS to access the ASUS router via the DNS name rather than WAN IP address.
  - Server and Host Name: Choose ASUS DDNS or other DDNS. If you want to use ASUS DDNS, fill in the Host Name in the format of xxx.asuscomm.com (xxx is your host name).
  - If you want to use a different DDNS service, click FREE TRIAL and register online first. Fill in the User Name or E-mail Address and Password or DDNS Key fields.

• **Enable wildcard**: Enable wildcard if your DDNS service requires one.

#### NOTES:

DDNS service will not work under these conditions:

- When the wireless router is using a private WAN IP address (192.168. x.x, 10.x.x.x, or 172.16.x.x), as indicated by a yellow text.
- The router may be on a network that uses multiple NAT tables.

### 4.3.6 NAT Passthrough

NAT Passthrough allows a Virtual Private Network (VPN) connection to pass through the router to the network clients. PPTP Passthrough, L2TP Passthrough, IPsec Passthrough and RTSP Passthrough are enabled by default.

To enable / disable the NAT Passthrough settings, go to the **Advanced Settings** > **WAN** > **NAT Passthrough** tab. When done, click **Apply**.

/ISUS	Logout Re	boot	English 🔻
**** Quick Internet	Operation Mode: Wireless router	Firmware Version: SSID: ASUS ASUS 5G	8 G 🔶 🛙
Setup	Internet Connection Port Trigger	Virtual Server / Port Forwarding DMZ DDNS	NAT Passthrough
General			
Han Network Map	WAN - NAT Passthrough		
	Enable NAT Passthrough to allow a Virtu	al Private Network (VPN) connection to pass through the	router to the network clients.
Guest Network	PPTP Passthrough	Enable 🗸	
Manager Traffic Manager	L2TP Passthrough	Enable 💌	
Parental control	IPSec Passthrough	Enable 🔽	
USB application	RTSP Passthrough	Enable 💌	
	Enable PPPoE Relay	Disable 🚽	
AiCloud		Apply	
Advanced Settings			

# 4.4 IPv6

This wireless router supports IPv6 addressing, a system that supports more IP addresses. This standard is not yet widely available. Contact your ISP if your Internet service supports IPv6.

/1545	Logout Reboo	t	English 🔻
Quick Internet Setup	Operation Mode: <u>Wireless router</u> Fi	irmware Version: SSID: <u>Asus Asus AG</u>	8 ÷ 4 0
General	10.0		
Retwork Map	IPv6		
Guest Network	Configure the IPv6 Internet setting of Router.		
Manager	Basic Config		
Tanc Malager	Connection type	Disable 🗾	
Parental control	Auto Configuration Setting		
usb application	Enable Router Advertisement	Enable 🔄	
AiCloud		Apply	

### To set up IPv6:

- 1. From the navigation panel, go to **Advanced Settings** > **IPv6**.
- 2. Select your **Connection Type**. The configuration options vary depending on your selected connection type.
- 3. Enter your IPv6 LAN and DNS settings.
- 4. Click **Apply**.

**NOTE**: Please refer to your ISP regarding specific IPv6 information for your Internet service.

# 4.5 VPN Server

VPN (Virtual Private Network) provides a secure communication to a remote computer or remote network using a public network such as the Internet.

**NOTE**: Before setting up a VPN connection, you would need the IP address or domain name of the VPN server you are trying to access.

/isus	Logout Reboo	t	English 🔻		
Quick Internet	Operation Mode: <u>Wireless router</u> F VPN Server VPN Details	rmware Version: SSID: <u>ASUS ASUS SG</u>	<u>8</u> 🔁 🗲 🖻		
General					
Hetwork Map	VPN Server - Basic Config				
Suest Network	The VPN server allows you to access your h To use the VPN server. Please follow these : (1) Enable the PPTP VPN server				
Manager Traffic Manager	<ol> <li>Enable the PP1P VPN server</li> <li>Set the IP pool for client IP. (Maximum 10)</li> <li>Set up the username and password for VI</li> </ol>				
Parental control	(4) Open the VPN connection program on yo (5) Add a new PPTP VPN connection and th	VPN server address is 0.0.0.0			
usb application	(6) If your WAN IP address is dynamic, <u>p</u> (7) <u>VPN_Server_FAQ</u>	ease click here to set the DDNS.			
AiCloud	Basic Config				
-	Enable PPTP Server	● Yes ❷ No			
Advanced Settings	Network Place (Samba) Support	● Yes O No			
察 Wireless	Username and Password				
🔂 LAN	User Name	Password	Add / Delete		
🖨 wan			Ð		
WAN					
IPv6		Арріу			
VPN Server					

#### To set up access to a VPN server:

- 1. From the navigation panel, go to **Advanced Settings** > **VPN Server**.
- 2. On the Enable PPTP Server field, select Yes.
- 3. On the Network Place (Samba) Support field, select Yes.
- 4. Enter the user name and password for accessing the VPN server. Click the 💮 button.
- 5. Click Apply.

**NOTE**: For advanced VPN server settings, click the **VPN Server** tab to configure broadcast support, authentication, MPPE Encryption, and Client IP address range.

# 4.6 Firewall

The wireless router can serve as a hardware firewall for your network.

NOTE: The Firewall feature is enabled by default.

## 4.6.1 General

#### To set up basic Firewall settings:

- 1. From the navigation panel, go to **Advanced Settings** > **Firewall** > **General** tab.
- 2. On the Enable Firewall field, select Yes.
- 3. On the **Enable DoS** protection, select **Yes** to protect your network from DoS (Denial of Service) attacks though this may affect your router's performance.
- 4. You can also monitor packets exchanged between the LAN and WAN connection. On the Logged packets type, select **Dropped**, **Accepted**, or **Both**.
- 5. Click Apply.

## 4.6.2 URL Filter

You can specify keywords or web addresses to prevent access to specific URLs.

**NOTE**: The URL Filter is based on a DNS query. If a network client has already accessed a website such as http://www.abcxxx.com, then the website will not be blocked (a DNS cache in the system stores previously visited websites). To resolve this issue, clear the DNS cache before setting up the URL Filter.

#### To set up a URL filter:

- From the navigation panel, go to Advanced Settings > Firewall > URL Filter tab.
- 2. On the Enable URL Filter field, select **Enabled**.
- 3. Enter a URL and click the 💮 button.
- 4. Click Apply.

## 4.6.3 Keyword filter

Keyword filter blocks access to webpages containing specified keywords.

/1545	Logout Rebo	t	English 🔻					
Quick Internet	Operation Mode: <u>Wireless router</u> F	rmware Version: SSID: ASUS ASUS_SG	8 G < A					
Setup	General URL Filter Keyword Filter	Network Services Filter						
General								
Retwork Map		Firewall - Keyword Filter						
Suest Network	Keyword Filter allows you to block the clients' access to webpages containing the specified keywords. Limitations of the keyword filtering function :							
Manager	<ol> <li>Compressed webpages that use HTTP 2. Https webpages cannot be filtered.</li> </ol>	compression technology cannot be filtered. <u>See here f</u>	or more details.					
Parental control	Basic Config							
discrete USB application	Enable Keyword Filter	Enabled O Disabled						
<u>م</u>	Keyword Filter List							
AiCloud	ĸ	eyword Filter List	Add / Delete					
Advanced Settings			Ð					
🛜 Wireless No data in table.								
🖧 LAN	Apply							

## To set up a keyword filter:

- 1. From the navigation panel, go to **Advanced Settings** > **Firewall** > **Keyword Filter** tab.
- 2. On the Enable Keyword Filter field, select **Enabled**.

- 3. Enter a word or phrase and click the **Add** button.
- 4. Click **Apply**.

#### NOTES:

- The Keyword Filter is based on a DNS query. If a network client has already accessed a website such as <u>http://www.abcxxx.com</u>, then the website will not be blocked (a DNS cache in the system stores previously visited websites). To resolve this issue, clear the DNS cache before setting up the Keyword Filter.
- Web pages compressed using HTTP compression cannot be filtered. HTTPS pages also cannot be blocked using a keyword filter.

## 4.6.4 Network Services Filter

The Network Services Filter blocks LAN to WAN packet exchanges and restricts network clients from accessing specific web services such as Telnet or FTP.



#### To set up a Network Service filter:

- 1. From the navigation panel, go to **Advanced Settings** > **Firewall** > **Network Service Filter** tab.
- 2. On the Enable Network Services Filter field, select Yes.
- 3. Select the Filter table type. **Black List** blocks the specified network services. **White List** limits access to only the specified network services.
- 4. Specify the day and time when the filters will be active.
- 5. To specify a Network Service to filter, enter the Source IP, Destination IP, Port Range, and Protocol. Click the 🕑 button.
- 6. Click Apply.

# 4.7 Administration

# 4.7.1 Operation Mode

The Operation Mode page allows you to select the appropriate mode for your network.



#### To set up the operating mode:

- 1. From the navigation panel, go to Advanced Settings > Administration > Operation Mode tab.
- 2. Select any of these operation modes:
  - Wireless router mode (default): In wireless router mode, the wireless router connects to the Internet and provides Internet access to available devices on its own local network.
  - Access Point mode: In this mode, the router creates a new wireless network on an exising network.
- 3. Click **Apply**.

NOTE: The router will reboot when you change the modes.

# 4.7.2 System

The **System** page allows you to configure your wireless router settings.

### To set up the System settings:

- 1. From the navigation panel, go to **Advanced Settings** > **Administration** > **System** tab.
- 2. You can configure the following settings:
  - **Change router login password**: You can change the password and login name for the wireless router by entering a new name and password.
  - **WPS button behavior**: The physical WPS button on the wireless router can be used to activate WPS or switch off wireless networking.
  - **Time Zone**: Select the time zone for your network.
  - **NTP Server**: The wireless router can access a NTP (Network time Protocol) server in order to synchronize the time.
  - Enable Telnet: Click Yes to enable Telnet services on the network. Click No to disable Telnet.
  - Authentication Method: You can select HTTP, HTTPS, or both protocols to secure router access.
  - Enable Web Access from WAN: Select Yes to allow devices outside the network to access the wireless router GUI settings. Select No to to prevent access.
  - **Only allow specific IP**: Click **Yes** if you want to specify the IP addresses of devices that are allowed access to the wireless router GUI settings from WAN.
  - **Client List**: Enter the WAN IP addresses of networking devices allowed to access the wireless router settings. This list will be used if you clicked **Yes** in the **Only allow specific IP** item.
- 3. Click Apply.

# 4.7.3 Firmware Upgrade

**NOTE**: Download the latest firmware from the ASUS website at <u>http://www.asus.com</u>

#### To upgrade the firmware:

- 1. From the navigation panel, go to Advanced Settings > Administration > Firmware Upgrade tab.
- 2. In the **New Firmware File** field, click **Browse** to locate the downloaded file.
- 3. Click **Upload**.

#### NOTES:

- When the upgrade process is complete, wait for some time for the system to reboot.
- If the upgrade process fails, the wireless router automatically enters rescue mode and the power LED indicator on the front panel starts flashing slowly. To recover or restore the system, refer to section **5.2 Firmware Restoration**.

## 4.7.4 Restore/Save/Upload Setting

#### To restore/save/upload wireless router settings:

- From the navigation panel, go to Advanced Settings > Administration > Restore/Save/Upload Setting tab.
- 2. Select the tasks that you want to do:
  - To restore to the default factory settings, click **Restore**, and click **OK** in the confirmation message.
  - To save the current system settings, click Save, navigate to the folder where you intend to save the file and click Save.
  - To restore from a saved system settings file, click **Browse** to locate your file, then click **Upload**.

**NOTE:** If issues occur, upload the latest firmware version and configure new settings. Do not restore the router to its default settings.

# 4.8 System Log

System Log contains your recorded network activities.

NOTE: System log resets when the router is rebooted or powered off.

#### To view your system log:

- 1. From the navigation panel, go to **Advanced Settings** > **System Log**.
- 2. You can view your network activities in any of these tabs:
  - General Log
  - DHCP Leases
  - Wireless Log
  - Port Forwarding
  - Routing Table

75	545	Logout Reboot English
+**	Quick Internet Setup	Operation Mode: <u>Wireless router</u> Firmware Version: SSID: <u>ASUS ASUS SG</u> <u>ASUS SG</u> <u>ASUS SG</u>
	General	General Log DHCP leases Wireless Log Port Forwarding Routing Table System Log - General Log
♣	Network Map	System Log - General Log This page shows the detailed system's activities.
*	Guest Network	System Time Sat, Jan 01 00:49:51 2011
<u> </u>	Traffic Manager	Uptime 0 days 0 hours 49 minutes 50 seconds
ß	Parental control	Jan 1 00:31:27 kernel: ethl: Broadcom BCH4331 802.11 Wireless Controller 6.30.102.9 (r366174) Jan 1 00:31:27 kernel: eth2: Broadcom BCH436 802.11 Wireless Controller 6.30.102.9 (r366174) Jan 1 00:31:27 kernel: etwice ethl entered promissouss mode
۲	USB application	Jan 1 00:31:27 kernel: br0: porz 2(ekbl) entering listening state Jan 1 00:31:27 kernel: br0: porz 4(ini: acpky: NOT Implemented Jan 1 00:31:27 kernel: br0: porz 2(ekbl) entering learning state Jan 1 00:31:27 kernel: br0: topology change detected, propagating
<u></u>	AiCloud	Jan 1 00:31:27 kernal: br0: porz 2[eshl) entering forwarding state Jan 1 00:31:27 kernal: device esh2 entered promiscous mode Jan 1 00:31:27 kernal: br0: porz 3[esh2] entering listening state Jan 1 00:31:27 kernal: br0: porz 3[esh4] entering lastning state
Ad	lvanced Settings	Jun 1 00.31.27 Kernel: hD: polt Stein/ intering setting for Jan 1 00.31.27 Kernel: bD: port 4(u20.1) entering listening state Jan 1 00.31.27 Kernel: bD: topology change distected, propagating
00	Wireless	Jan 1 00:31:27 kernel: br0: port S(mth2) entering forwarding state Jan 1 00:31:27 kernel: br0: port 4(w10.1) entering learning state Jan 1 00:31:27 kernel: br0: topDiogy change detected, progesting
ដ	LAN	Jan 1 00:31:27 kernel: br0: port 4(v10.1) entering forwarding state Jan 1 00:31:39 dnemacq-dhcp[510]: DHCPAEQUESTID:00 120:168.1.60 e-4:6e:b7:89:8f:97 Jan 1 00:31:39 dnemacq-dhcp[510]: DHCPAEX(br0) 132.168.1.60 e-4:6e:b7:89:8f:97 android-b5d80812df634223 Jan 1 00:32:12 dnemacq-dhcp[510]: DHCPAEX(br0) 132.168.1.97 0.06:4:64:b7:05:64:64:eb5:05 Jan 1 00:32:12 dnemacq-dhcp[510]: DHCPAEX(br0) 132.168.1.97 0.06:4:64:b7:05:64:4:eb5:05 Jan 1 00:32:12 dnemacq-dhcp[510]: DHCPAEX(br0) 132.168.1.97 0.06:4:64:b7:05:64:64:eb5:05 Jan 1 00:32:12 dnemacq-dhcp[510]: DHCPAEX(br0) 132.168.1.97 0.06:4:67:b7:05:64:64:b7:05:64:65:05:05:64:64:eb5:05 Jan 1 00:32:12 dnemacq-dhcp[510]: DHCPAEX(br0) 132.168.1.97 0.06:4:67:b7:05:64:65:05:05:64:65:05:05:64:65:05:05:64:65:05:05:05:64:65:05:05:64:65:05:05:64:65:05:05:64:65:05:05:64:65:05:05:64:65:05:05:64:65:05:05:05:64:05:05:05:64:65:05:05:05:65:05:05:65:05:05:05:64:65:05:05:64:65:05:05:05:64:65:05:05:05:64:05:05:05:05:05:05:05:05:05:05:05:05:05:
0	WAN	Jan 1 00:32:12 dnamasq=dhcp[510]: DHCPACK lbro) 192.168.1.197 10:54:48:4c:129:161 (JOUEZ-CHAVEZ Jan 1 00:33:08 dnamasq=dhcp[510]: DHCPACK lbro) 192.168.1.189 b0:cc:71:ac:77:96 Jan 1 00:33:08 dnamasq=dhcp[510]: DHCPACK lbro) 192.168.1.189 b0:cc:71:ac:77:96
(B)	IPv6	Jan 1 00:33:34 dnsmasq-dhcp[610]: DHCPARKQUEET(D:20) 132.168.1.3 3c:d0:f8:be:11:7d Jan 1 00:33:34 dnsmasq-dhcp[610]: DHCPARKUEET(D:192.168.1.3 3c:d0:f8:be:11:7d 1Phone4s
Ø	VPN Server	Clear Save Refresh
Q	Firewall	

# 5 Utilities

#### NOTES:

- Download and install the wireless router's utilities from the ASUS website:
  - Device Discovery v1.4.7.1 at <u>http://dlcdnet.asus.com/pub/ASUS/ LiveUpdate/Release/Wireless/Discovery.zip</u>
  - Firmware Restoration v1.9.0.4 at <u>http://dlcdnet.asus.com/pub/</u> <u>ASUS/LiveUpdate/Release/Wireless/Rescue.zip</u>
  - Windows Printer Utility v1.0.5.5 at <u>http://dlcdnet.asus.com/pub/</u> <u>ASUS/LiveUpdate/Release/Wireless/Printer.zip</u>
- The utilities are not supported on MAC OS.

# 5.1 Device Discovery

Device Discovery is an ASUS WLAN utility that detects an ASUS wireless router device, and allows you to configure the wireless networking settings.

#### To launch the Device Discovery utility:

From your computer's desktop, click
 Start > All Programs > ASUS Utility > Wireless Router > Device Discovery.

/ISUS	RT-AC55U			-×
Device	SSID	IP Address	Subnet Mask	USB Device
RT-AC55U	ASUS	192.168.1.1	255.255.255.0	ļ
	<u>C</u> on	figure	<u>S</u> earch	<u>E</u> xit
Number of device	ces found: 1			

**NOTE:** When you set the router to Access Point mode, you need to use Device Discovery to get the router's IP address.

# 5.2 Firmware Restoration

Firmware Restoration is used on an ASUS Wireless Router that failed during its firmware upgrading process. It uploads the firmware that you specify. The process takes about three to four minutes.

limware Restora	ation	×
<u>F</u> ilename:	Į.	Browse
Status — After locating th	e firmware file, click Upload.	
	<u>U</u> pload <u>C</u> lose	

**IMPORTANT:** Launch the rescue mode on the router before using the Firmware Restoration utility.

NOTE: This feature is not supported on MAC OS.

# To launch the rescue mode and use the Firmware Restoration utility:

- 1. Unplug the wireless router from the power source.
- 2. Hold the Reset button at the rear panel and simultaneously replug the wireless router into the power source. Release the Reset button when the Power LED at the front panel flashes slowly, which indicates that the wireless router is in the rescue mode.

3. Set a static IP on your computer and use the following to set up your TCP/IP settings:

**IP address**: 192.168.1.x

Subnet mask: 255.255.255.0

- From your computer's desktop, click
   Start > All Programs > ASUS Utility > Wireless Router > Firmware Restoration.
- 5. Specify a firmware file, then click **Upload**.

**NOTE**: This is not a firmware upgrade utility and cannot be used on a working ASUS Wireless Router. Normal firmware upgrades must be done through the web interface. Refer to **Chapter 4: Configuring the Advanced Settings** for more details.

# 5.3 Download Master

Download Master is a utility that helps you download files even while your laptops or other devices are switched off.

**NOTE:** You need a USB device connected to the wireless router to use Download Master.

#### To use Download Master:

1. Click **General** > **USB application** > **Download Master** to download and install the utility automatically.

**NOTE:** If you have more than one USB drive, select the USB device you want to download the files to.

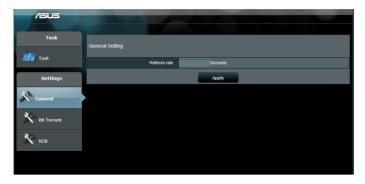
- 2. After the download process is finished, click the Download Master icon to start using the utility.
- 3. Click Add to add a download task.



4. Select a download type such as BitTorrent, HTTP, or FTP. Provide a torrent file or a URL to begin downloading.

**NOTE:** For details on Bit Torrent, refer to section **5.4.1 Configuring the Bit Torrent download settings**.

5. Use the navigation panel to configure the advanced settings.



## 5.3.1 Configuring Bit Torrent download settings

/isus		
Task	Bit Torrent Setting	
Task	Port	
Settings	Use the default port     Use the following port	
General	Incoming port Speed Limits:	
	Maximum download speed:	KB/S
Bit Torrent	Maximum upload speed:	KB/S
	BitTorrent Network setting	
🔊 мzв	BitTorrent protocol encryption	Encryption disabled
	Max peers allowed per torrent	100
	DHT network	Enable DHT to activate trackless torrent download.
		Apply

#### To configure BitTorrent download settings:

- 1. From Download Master's navigation panel, click **Bit Torrent** to launch the **Bit Torrent Setting** page.
- 2. Select a specific port for your download task.
- 3. To prevent network congestion, you can limit the maximum upload and download speeds under **Speed Limits**.
- 4. You can limit the maximum number of allowed peers and enable or disable file encryption during downloads.

## 5.3.2 NZB settings

You can set up a USENET server to download NZB files. After entering USENET settings, **Apply**.

/1545			
Task	NZB Setting		
🧾 Task	Setup USENET server to download NZB files:		
Settings	USENET Server		
<b>1</b> 22	USENET Server Port	119	
General	Maximum download speed	KB/S	
🔆 Bit Torrent	SSL/TLS connection only		
2.2	User name		
NZB	Password		
	Confirm Password		
	Number of connections per NZB tasks	2	
		Apply	
			2011 ASUSTeK Computer Inc. All rights reserved.

# 6 Troubleshooting

This chapter provides solutions for issues you may encounter with your router. If you encounter problems that are not mentioned in this chapter, visit the ASUS support site at:

<u>http://support.asus.com/</u> for more product information and contact details of ASUS Technical Support.

# 6.1 Basic Troubleshooting

If you are having problems with your router, try these basic steps in this section before looking for further solutions.

# Upgrade Firmware to the latest version.

 Launch the Web GUI. Go to Advanced Settings > Administration > Firmware Upgrade tab. Click Check to verify if the latest firmware is available.

Quick Internet	Operation Mode: <u>wireless router</u> Firmware Version: <u>3.0.0.4.260</u> SSID: <u>Asus</u> Asus B · · · · B						
Secup	Operation Mode System Firmware Upgrade Restore/Save/Upload Setting						
General							
品 Network Map	Administration - Firmware Upgrade						
Suest Network	Please visit the ASUS support site ( http://support.asus.com ) to get the latest firmware.						
	Product ID RT-AC68U						
Manager Traffic Manager	Firmware Version 3.0.0.4.260 Check						
Parental control	New Firmware File						
💼 USB application	Upload						
AiCloud	Note: 1. For a configuration parameter existing both in the old and new firmware, its setting will be kept during the upgrade process.						
Advanced Settings	<ol> <li>In case the upgrade process fails, RT-AC68U enters the emergency mode automatically. The LED signals at the front of RT- AC68U will indicate such situation. Use the Firmware Restoration utility on the CD to do system recovery.</li> </ol>						
察 Wineless							
🔂 LAN							
💮 WAN							
🚳 IPv6							
VPN Server							
<b>Firewall</b>							
& Administration							

- 2. If the latest firmware is available, visit the ASUS global website at <u>http://www.asus.com/Networks/Wireless\_Routers/RTAC55U/</u><u>#download</u> to download the latest firmware.
- 3. From the **Firmware Upgrade** page, click **Browse** to locate the firmware file.
- 4. Click **Upload** to upgrade the firmware.

#### Restart your network in the following sequence:

- 1. Turn off the modem.
- 2. Unplug the modem.
- 3. Turn off the router and computers.
- 4. Plug in the modem.
- 5. Turn on the modem and then wait for 2 minutes.
- 6. Turn on the router and then wait for 2 minutes.
- 7. Turn on computers.

#### Check if your Ethernet cables are plugged properly.

- When the Ethernet cable connecting the router with the modem is plugged in properly, the WAN LED will be on.
- When the Ethernet cable connecting your poweredon computer with the router is plugged in properly, the corresponding LAN LED will be on.

# Check if the wireless setting on your computer matches that of your computer.

• When you connect your computer to the router wirelessly, ensure that the SSID (wireless network name), encryption mehtod, and password are correct.

#### Check if your network settings are correct.

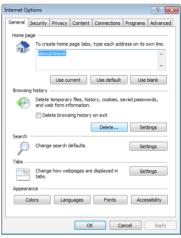
 Each client on the network should have a valid IP address. ASUS recommends that you use the wireless router's DHCP server to assign IP addresses to computers on your network.  Some cable modem service providers require you to use the MAC address of the computer initially registered on the account. You can view the MAC address in the web GUI, Network Map > Clients page, and hover the mouse pointer over your device in Client Status.



# 6.2 Frequently Asked Questions (FAQs)

## I cannot access the router GUI using a web browser

- If your computer is wired, check the Ethernet cable connection and LED status as described in the previous section.
- Ensure that you are using the correct login information. The default factory login name and password is "admin/admin".
   Ensure that the Caps Lock key is disabled when you enter the login information.
- Delete the cookies and files in your web browser. For Internet Explorer 8, follow these steps:
  - Launch Internet Explorer 8, then click Tools > Internet Options.
  - 2. In the **General** tab, under **Browsing history**, click **Delete...**, select **Temporary Internet Files** and **Cookies** then click **Delete**.



#### NOTES:

- The commands for deleting cookies and files vary with web browsers.
- Disable proxy server settings, cancel the dial-up connection, and set the TCP/IP settings to obtain IP addresses automatically. For more details, refer to Chapter 1 of this user manual.
- Ensure that you use CAT5e or CAT6 ethernet cables.

# The client cannot establish a wireless connection with the router.

**NOTE:** If you are having issues connecting to 5Ghz network, make sure that your wireless device supports 5Ghz or features dual band capabilities.

- Out of Range:
  - Move the router closer to the wireless client.
  - Try to adjust antennas of the router to the best direction as described in section 1.4 Positioning your router.
- DHCP server has been disabled:
  - Launch the web GUI. Go to General > Network Map> Clients and search for the device that you want to connect to the router.
  - If you cannot find the device in the Network Map, go to Advanced Settings > LAN > DHCP Server, Basic Config list, select Yes on the Enable the DHCP Server.

/ISUS	Logout Reb	pot	English					
Quick Internet	Operation Mode: <u>Wireless router</u>	Firmware Version: SSID: ASUS ASUS 5G	<u>8</u> 6 <del>4</del> 8					
General	LAN IP DHCP Server Route IPT	/ Switch Control						
Retwork Map	LAN - DHCP Server							
Guest Network	DHCP (Dynamic Host Configuration Protocol) is a protocol for the automatic configuration used on P networks. The DHCP server can assign each client an P address and informs the client of the of DNS server (P and default gateway IP. Manual JV, assigned _ P. a cound the URCP_INST(1511_1511_151_2)_ EMQ							
Manager Traffic Manager	Basic Config							
Parental control	Enable the DHCP Server	⊖ Yes ● No						
USB application	Router's Domain Name							
USB application	IP Pool Starting Address							
AiCloud	IP Pool Ending Address	192.168.1.254						
Advanced Settings	Lease Time	86400						
察 Wireless	Default Gateway							
🔂 LAN	DNS and WINS Server Setting		_					
	DNS Server							
WAN								
IPv6	Enable Manual Assignment Enable Manual Assignment	• Yes © No						
VPN Server	Manually Assigned IP around the DHCP list							
<b>Firewall</b>	MAC address	IP Address	Add / Delete					
Administration			Ð					
_	No data in table.							
System Log	Apply							

 SSID has been hidden. If your device can find SSIDs from other routers but cannot find your router's SSID, go to Advanced Settings > Wireless > General, select No on Hide SSID, and select Auto on Control Channel.

/1545	Logout Reboo	ot English 🔻
**** Quick Internet	Operation Mode: <u>Wireless router</u> F	irmware Version: SSID: ASUS ASUS SG 🐰 🕞 🔶 🖴
Setup	General WPS Bridge Wireless MA	AC Filter RADIUS Setting Professional
General	Wireless - General	
Retwork Map	Set up the wireless related information below	
😹 Guest Network	Frequency	2.4GHz 💌
Manager Traffic Manager	SSID	
Parental control	Hide SSID	● Yes © No
disc use application	Wireless Mode	Auto 💌 🖬 big Prolection
<u>~</u>	Channel bandwidth	20/40 мнz 💌
AiCloud	Control Channel	
Advanced Settings	Authentication Method	Open System 👻
察 Wireless	WEP Encryption	None
😭 LAN		Apply
💮 wan		
30 IPv6		
VPN Server		
<b>Firewall</b>		

- If you are using a wireless LAN adapter, check if the wireless channel in use conforms to the channels available in your country/area. If not, adjust the channel, channel bandwidth, and wireless mode.
- If you still cannot connect to the router wirelessly, you can reset your router to factory default settings. In the router GUI,click Administration > Restore/Save/Upload Setting and click Restore.

/ISUS	Logout Reboot	English
1 Quick Internet	Operation Mode: <u>Wireless router</u> Firmware Version: SSID: ASUS ASUS SG	8 🗣 🛠 🕯
Setup	Operation Mode System Firmware Upgrade Restore/Save/Upload Setting	
General		
Retwork Map	Administration - Restore/Save/Upload Setting	
-	This function allows you to save current settings of Router to a file, or load settings from a file.	
Guest Network	Factory default Restore	
Manager Traffic Manager	Save soung Save	
Parental control	Restore setting Upload Cheose File No file chosen	
dist use application		
AiCloud		

#### Internet is not accessible.

- Check if your router can connect to your ISP's WAN IP address. To do this, launch the web GUI and go to General> Network Map, and check the Internet Status.
- If your router cannot connect to your ISP's WAN IP address, try restarting your network as described in the section Restart your network in following sequence under Basic Troubleshooting.



 The device has been blocked via the Parental Control function. Go to General > Parental Control and see if the device is in the list. If the device is listed under Client Name, remove the device using the Delete button or adjust the Time Management Settings.



- If there is still no Internet access, try to reboot your computer and verify the network's IP address and gateway address.
- Check the status indicators on the ADSL modem and the wireless router. If the WAN LED on the wireless router is not ON, check if all cables are plugged properly.

#### You forgot the SSID (network name) or network password

- Setup a new SSID and encryption key via a wired connection (Ethernet cable). Launch the web GUI, go to **Network Map**, click the router icon, enter a new SSID and encryption key, and then click **Apply**.
- Reset your router to the default settings. Launch the web GUI, go to Administration > Restore/Save/Upload Setting, and click Restore. The default login account and password are both "admin".

#### How to restore the system to its default settings?

 Go to Administration > Restore/Save/Upload Setting, and click Restore.

The following are the factory default settings:

User Name:	admin
Password:	admin
Enable DHCP:	Yes (if WAN cable is plugged in)
IP address:	192.168.1.1
Domain Name:	(Blank)
Subnet Mask:	255.255.255.0
DNS Server 1:	192.168.1.1
DNS Server 2:	(Blank)
SSID (2.4GHz):	ASUS
SSID (5GHz):	ASUS_5G

# Firmware upgrade failed.

Launch the rescue mode and run the Firmware Restoration utility. Refer to section **5.2 Firmware Restoration** on how to use the Firmware Restoration utility.

### **Cannot access Web GUI**

Before configuring your wireless router, do the steps described in this section for your host computer and network clients.

#### A. Disable the proxy server, if enabled.

**NOTE:** The screenshots provided are for Windows<sup>®</sup> 7 only. The steps and options may be different for Windows<sup>®</sup> 8 and Windows<sup>®</sup> 8.1.

#### Windows<sup>°</sup> 7/8

- 1. Click **Start > Internet Explorer** to launch the browser.
- Click Tools > Internet options > Connections tab > LAN settings.

General	Security	Privacy	Content	Connections	Programs	Advanced
	To set up Setup.	an Interne	et connec	tion, dick	Set	up
Dial-up a	and Virtua	Private Ne	twork se	ttings		
a Ac	cess RD N	letwork Re	sources -	Go to vpn.as	Add	ł
					Add V	'PN
•	10			F	Remo	ve
server	for a conn	ection.	to config	jure a proxy	Sett	ings
-		connection	connect	tion is not pres	ent	
		y default c			con con	
Curre	ent	None			Set de	fault
Local Ar	ea Netwo	k (LAN) se	ttings -			
				connections.	LAN se	ttings
choose	e Settings	above for	alai-up se	ettings.		

- From the Local Area Network (LAN) Settings screen, untick Use a proxy server for your LAN.
- 4. Click **OK** when done.

#### MAC OS

- From your Safari browser, click Safari > Preferences
   Advanced > Change Settings...
- 2. From the Network screen, deselect **FTP Proxy** and **Web Proxy (HTTP)**.
- 3. Cllick **Apply Now** when done.

	Locatio Sho			÷ ÷
Select a	proxy server to		FTP Proxy Serve	
	Proxy Proxy (HTTP)	n		:
Sec	ure Web Proxy (H aming Proxy (RTS EKS Proxy oher Proxy			assword
	proxy settings fo osts & Domains:	or		
	assive FTP Mode			

**NOTE:** Refer to your browser's help feature for details on disabling the proxy server.

# B. Set the TCP/IP settings to automatically obtain an IP address.

#### Windows® 7/8

- 1. Click Start > Control Panel > Network and Internet > Network and Sharing Center > Manage network connections.
- 2. Select Internet Protocol Version 4 (TCP/IPv4) or Internet Protocol Version 6 (TCP/IPv6), then click Properties.

Networking Aut	hentication	
Connect using:		
🔮 Realtek F	PCIe GBE Family Controller	
		Configure
This connection	uses the following items:	Conligure
-	-	
	or Microsoft Networks	
	acket Scheduler d Printer Sharing for Micros	0 Material
	her NDIS 6.X SPR Protoco	
	t Protocol Version 6 (TCP/I	
	t Protocol Version 4 (TCP/I	
	ayer Topology Discovery Ma	
	ayer Topology Discovery Re	
Install	Uninstall	Properties
Description		1
	Control Protocol/Internet P	
	twork protocol that provides e interconnected networks	
derete artere		

3. To obtain the IPv4 IP settings automatically, tick **Obtain an IP address automatically**.

To obtain the IPv6 IP settings automatically, tick **Obtain an IPv6 address automatically**.

4. Click **OK** when done.

You can get IP settings assigned autor this capability. Otherwise, you need to for the appropriate IP settings.				
Obtain an IP address automatical	ly			
O Use the following IP address:				
IP address:				
Subnet mask:				
Default gateway:	£	147	1	
Obtain DNS server address autor	natically			
OUse the following DNS server add	resses:			
Preferred DNS server:				
Alternate DNS server:	e.			
Validate settings upon exit			Adva	anced

#### **MAC OS**

- Click the Apple icon located on the top left of your screen.
- 2. Click System Preferences > Network > Configure...
- From the TCP/IP tab, select Using DHCP in the Configure IPv4 dropdown list.
- 4. Cllick **Apply Now** when done.

ihow All Displays	Sound Network Startup Disk	
	Location: Automatic	•
	Show: Built-in Ethernet	;
T	CP/IP PPPoE AppleTalk Pro:	kies Ethernet
Configure IPv	4: Using DHCP	•
IP Addres	is: 192.168.182.103	Renew DHCP Lease
	s: 192.168.182.103 k: 255.255.255.0 DHCP CI	ient ID:
	k: 255.255.255.0 DHCP CI	
Subnet Mas Route	k: 255.255.255.0 DHCP CI	ient ID:
Subnet Mas Route	k: 255.255.255.0 DHCP Cl er: 192.168.182.250 rs: 192.168.128.10	ient ID: (If required)
Subnet Mas Route DNS Server Search Domair	k: 255.255.255.0 DHCP Cl er: 192.168.182.250 rs: 192.168.128.10	ient ID: (If required) (Optional) (Optional)

**NOTE:** Refer to your operating system's help and support feature for details on configuring your computer's TCP/IP settings.

#### C. Disable the dial-up connection, if enabled.

#### Windows® 7/8

- 1. Click **Start** > **Internet Explorer** to launch the browser.
- 2. Click Tools > Internet options > Connections tab.
- 3. Tick Never dial a connection.
- 4. Click OK when done.



**NOTE:** Refer to your browser's help feature for details on disabling the dial-up connection.

# **Appendices**

# Notices

# **ASUS Recycling/Takeback Services**

ASUS recycling and takeback programs come from our commitment to the highest standards for protecting our environment. We believe in providing solutions for you to be able to responsibly recycle our products, batteries, other components, as well as the packaging materials. Please go to <u>http://csr.asus.com/english/Takeback.htm</u> for the detailed recycling information in different regions.

# REACH

Complying with the REACH (Registration, Evaluation, Authorisation, and Restriction of Chemicals) regulatory framework, we published the chemical substances in our products at ASUS REACH website at

http://csr.asus.com/english/index.aspx

# **Federal Communications Commission Statement**

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

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection

against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

**IMPORTANT**! This device within the 5.15 ~ 5.25 GHz is restricted to indoor operations to reduce any potential for harmful interference to co-channel MSS operations.

**CAUTION**: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

#### **Prohibition of Co-location**

This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter

# **Safety Information**

To maintain compliance with FCC's RF exposure guidelines, this equipment should be installed and operated with minimum distance 20cm between the radiator and your body. Use on the supplied antenna.

# Declaration of Conformity for R&TTE directive 1999/5/EC

Essential requirements - Article 3

Protection requirements for health and safety - Article 3.1a

Testing for electric safety according to EN 60950-1 has been conducted. These are considered relevant and sufficient.

Protection requirements for electromagnetic compatibility – Article 3.1b

Testing for electromagnetic compatibility according to EN 301 489-1 and EN 301 489-17 has been conducted. These are considered relevant and sufficient.

Effective use of the radio spectrum – Article 3.2

Testing for radio test suites according to EN 300 328 & EN 301 893 have been conducted. These are considered relevant and sufficient.

Operate the device in 5150-5250 MHz frequency band for indoor use only.

# **CE Mark Warning**

This is a Class B product, in a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

This equipment may be operated in AT, BE, CY, CZ, DK, EE, FI, FR, DE, GR, HU, IE, IT, LU, MT, NL, PL, PT, SK, SL, ES, SE, GB, IS, LI, NO, CH, BG, RO, RT.

# Canada, Industry Canada (IC) Notices

This Class B digital apparatus complies with Canadian ICES-003 and RSS-210.

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

## **Radio Frequency (RF) Exposure Information**

The radiated output power of the ASUS Wireless Device is below the Industry Canada (IC) radio frequency exposure limits. The ASUS Wireless Device should be used in such a manner such that the potential for human contact during normal operation is minimized.

This device has been evaluated for and shown compliant with the IC Specific Absorption Rate ("SAR") limits when installed in specific host products operated in portable exposure conditions (antennas are less than 20 centimeters of a person's body).

This device has been certified for use in Canada. Status of the listing in the Industry Canada's REL (Radio Equipment List) can be found at the following web address: http://www.ic.gc.ca/app/sitt/reltel/srch/nwRdSrch.do?lang=eng

Additional Canadian information on RF exposure also can be found at the following web: http://www.ic.gc.ca/eic/site/smt-gst. nsf/eng/sf08792.html

# Canada, avis d'Industry Canada (IC)

Cet appareil numérique de classe B est conforme aux normes

canadiennes ICES-003 et RSS-210.

Son fonctionnement est soumis aux deux conditions suivantes: (1) cet appareil ne doit pas causer d'interférence et (2) cet appareil doit accepter toute interférence, notamment les interférences qui peuvent a ecter son fonctionnement.

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Version 2, June 1991

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(System/Notebook/Eee/LCD)	+49-2102-5789557
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Support Fax	+49-2102-959911
Online support	support.asus.com

# **Networks Global Hotline Information**

Region	Country	Hotline Number	Service Hours
	Cyprus	800-92491	09:00-13:00 ; 14:00-18:00 Mon-Fri
	France	0033-170949400	09:00-18:00 Mon-Fri
		0049-1805010920	
	Germany	0049-1805010923	09:00-18:00 Mon-Fri
	Germany	( component support )	10:00-17:00 Mon-Fri
		0049-2102959911 ( Fax )	
	Hungary	0036-15054561	09:00-17:30 Mon-Fri
	Italy	199-400089	09:00-13:00 ; 14:00-18:00 Mon-Fri
	Greece	00800-44142044	09:00-13:00 ; 14:00-18:00 Mon-Fri
	Austria	0043-820240513	09:00-18:00 Mon-Fri
	Netherlands/ Luxembourg	0031-591570290	09:00-17:00 Mon-Fri
	Belgium	0032-78150231	09:00-17:00 Mon-Fri
Europe	Norway	0047-2316-2682	09:00-18:00 Mon-Fri
	Sweden	0046-858769407	09:00-18:00 Mon-Fri
	Finland	00358-969379690	10:00-19:00 Mon-Fri
	Denmark	0045-38322943	09:00-18:00 Mon-Fri
	Poland	0048-225718040	08:30-17:30 Mon-Fri
	Spain	0034-902889688	09:00-18:00 Mon-Fri
	Portugal	00351-707500310	09:00-18:00 Mon-Fri
	Slovak Republic	00421-232162621	08:00-17:00 Mon-Fri
	Czech Republic	00420-596766888	08:00-17:00 Mon-Fri
	Switzerland-German	0041-848111010	09:00-18:00 Mon-Fri
	Switzerland-French	0041-848111014	09:00-18:00 Mon-Fri
	Switzerland-Italian	0041-848111012	09:00-18:00 Mon-Fri
	United Kingdom	0044-8448008340	09:00-17:00 Mon-Fri
	Ireland	0035-31890719918	09:00-17:00 Mon-Fri
	Russia and CIS	008-800-100-ASUS	09:00-18:00 Mon-Fri
	Ukraine	0038-0445457727	09:00-18:00 Mon-Fri

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	Australia	1300-278788	09:00-18:00 Mon-Fri
	New Zealand	0800-278788	09:00-18:00 Mon-Fri
	Japan	0800-1232787	09:00-18:00 Mon-Fri
		0000-1252/6/	09:00-17:00 Sat-Sun
		0081-473905630	09:00-18:00 Mon-Fri
		( Non-Toll Free )	09:00-17:00 Sat-Sun
	Korea	0082-215666868	09:30-17:00 Mon-Fri
	Thailand	0066-24011717	09:00-18:00 Mon-Fri
		1800-8525201	
	Singapore	0065-64157917	11:00-19:00 Mon-Fri
Asia-Pacific		0065-67203835	11:00-19:00 Mon-Fri
		(Repair Status Only)	11:00-13:00 Sat
	Malaysia	0060-320535077	10:00-19:00 Mon-Fri
	Philippine	1800-18550163	09:00-18:00 Mon-Fri
	India	1800-2090365	09:00-18:00 Mon-Sat
	India(WL/NW)	1800-2090303	09:00-21:00 Mon-Sun
	Indonesia	0062-2129495000	09:30-17:00 Mon-Fri
		500128 (Local Only)	9:30 – 12:00 Sat
	Vietnam	1900-555581	08:00-12:00 13:30-17:30 Mon-Sat
	Hong Kong	00852-35824770	10:00-19:00 Mon-Sat
	USA	1-812-282-2787	8:30-12:00 EST Mon-Fri
Americas	Canada	1-012-202-2/0/	9:00-18:00 EST Sat-Sun
	Mexico	001-8008367847	08:00-20:00 CST Mon-Fri
			08:00-15:00 CST Sat

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	Egypt	800-2787349	09:00-18:00 Sun-Thu	
	Saudi Arabia	800-1212787	09:00-18:00 Sat-Wed	
Middle	UAE	00971-42958941	09:00-18:00 Sun-Thu	
East +	Turkey	0090-2165243000	09:00-18:00 Mon-Fri	
Africa	South Africa	0861-278772	08:00-17:00 Mon-Fri	
	Israel	*6557/00972-39142800	08:00-17:00 Sun-Thu	
		*9770/00972-35598555	08:30-17:30 Sun-Thu	
	Romania	0040-213301786	09:00-18:30 Mon-Fri	
	Bosnia Herzegovina	00387-33773163	09:00-17:00 Mon-Fri	
	Bulgaria	00359-70014411	09:30-18:30 Mon-Fri	
Balkan		00359-29889170	09:30-18:00 Mon-Fri	
Countries	Croatia	00385-16401111	09:00-17:00 Mon-Fri	
	Montenegro	00382-20608251	09:00-17:00 Mon-Fri	
	Serbia	00381-112070677	09:00-17:00 Mon-Fri	
	Slovenia	00368-59045400	08:00-16:00 Mon-Fri	
		00368-59045401		
	Estonia	00372-6671796	09:00-18:00 Mon-Fri	
	Latvia	00371-67408838	09:00-18:00 Mon-Fri	
	Lithuania-Kaunas	00370-37329000	09:00-18:00 Mon-Fri	
	Lithuania-Vilnius	00370-522101160	09:00-18:00 Mon-Fri	

**NOTE**: For more information, visit the ASUS support site at: <u>http://support.asus.com</u>

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