User Guide



Wireless-AC1900 Dual Band Gigabit Router





E8119 First Edition March 2013

Copyright © 2013 ASUSTeK Computer Inc. All Rights Reserved.

No part of this manual, including the products and software described in it, may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated into any language in any form or by any means, except documentation kept by the purchaser for backup purposes, without the express written permission of ASUSTeK Computer Inc. ("ASUS").

Product warranty or service will not be extended if: (1) the product is repaired, modified or altered, unless such repair, modification of alteration is authorized in writing by ASUS; or (2) the serial number of the product is defaced or missing.

ASUS PROVIDES THIS MANUAL "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL ASUS, ITS DIRECTORS, OFFICERS, EMPLOYEES OR AGENTS BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES (INCLUDING DAMAGES FOR LOSS OF PROFITS, LOSS OF BUSINESS, LOSS OF USE OR DATA, INTERRUPTION OF BUSINESS AND THE LIKE), EVEN IF ASUS HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES ARISING FROM ANY DEFECT OR ERROR IN THIS MANUAL OR PRODUCT.

SPECIFICATIONS AND INFORMATION CONTAINED IN THIS MANUAL ARE FURNISHED FOR INFORMATIONAL USE ONLY, AND ARE SUBJECT TO CHANGE AT ANY TIME WITHOUT NOTICE, AND SHOULD NOT BE CONSTRUED AS A COMMITMENT BY ASUS. ASUS ASSUMES NO RESPONSIBILITY OR LIABILITY FOR ANY ERRORS OR INACCURACIES THAT MAY APPEAR IN THIS MANUAL, INCLUDING THE PRODUCTS AND SOFTWARE DESCRIBED IN IT.

Products and corporate names appearing in this manual may or may not be registered trademarks or copyrights of their respective companies, and are used only for identification or explanation and to the owners' benefit, without intent to infringe.

Table of contents

1	Getting to know your wireless router	6
1.1	Welcome!	6
1.2	Package contents	6
1.3	Your wireless router	7
1.4	Positioning your router	9
1.5	Setup Requirements	10
1.6	Router Setup	
	1.6.1 Wired connection	11
	1.6.2 Wireless connection	12
2	Getting started	14
2.1	Logging into the Web GUI	14
2.2	Quick Internet Setup (QIS) with Auto-detection	15
2.3	Connecting to your wireless network	19
3	Configuring the General settings	20
3.1	Using the Network Map	20
	3.1.1 Setting up the wireless security settings	21
	3.1.2 Managing your network clients	22
	3.1.3 Monitoring your USB device	23
3.2	Creating a Guest Network	
3.3	Using the Traffic Manager	
	3.3.1 Managing QoS (Quality of Service) Bandwidt	h28
	3.3.2 Monitoring Traffic	31
3.4	Setting up Parental Control	32
3.5	Using the USB Application	
	3.5.1 Using AiDisk	33
	3.5.2 Using Servers Center	35
	3.5.3 3G/4G	41

Table of contents

3.6	Using	AiCloud	
	3.6.1	Cloud Disk	44
	3.6.2	Smart Access	46
	3.6.3	Smart Sync	47
4	Config	guring the Advanced Settings	48
4.1	Wirele	2SS	
	4.1.1	General	48
	4.1.2	WPS	51
	4.1.3	Bridge	53
	4.1.4	Wireless MAC Filter	55
	4.1.5	RADIUS Setting	56
	4.1.6	Professional	57
4.2	LAN		59
	4.2.1	LAN IP	59
	4.2.2	DHCP Server	60
	4.2.3	Route	62
	4.2.4	IPTV	63
4.3	WAN .		64
	4.3.1	Internet Connection	64
	4.3.2	Port Trigger	67
	4.3.3	Virtual Server/Port Forwarding	69
	4.3.4	DMZ	72
	4.3.5	DDNS	73
	4.3.6	NAT Passthrough	74
4.4	IPv6		75
4.5	VPN S	erver	76
4.6	Firewa	all	77
	4.6.1	General	77
	4.6.2	URL Filter	77
	4.6.3	Keyword filter	78

Table of contents

	4.6.4 Network Services Filter	79
4.7	Administration	
	4.7.1 Operation Mode	81
	4.7.2 System	82
	4.7.3 Firmware Upgrade	83
	4.7.4 Restore/Save/Upload Setting	83
4.8	System Log	
5	Utilities	85
5.1	Device Discovery	85
5.2	Firmware Restoration	
5.3	Setting up your printer server	
	5.3.1 ASUS EZ Printer Sharing	
	5.3.2 Using LPR to Share Printer	91
5.4	Download Master	96
	5.4.1 Configuring Bit Torrent download settings.	
	5.4.2 NZB settings	
6	Troubleshooting	99
6.1	Basic Troubleshooting	
6.2	Frequently Asked Questions (FAQs)	102
App	pendices	112
Noti	ces	112
ASU:	S Contact information	126
Netv	vorks Global Hotline Information	

1 Getting to know your wireless router

1.1 Welcome!

Thank you for purchasing an ASUS RT-AC68U Wireless Router! The ultra-thin and stylish RT-AC68U 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; a capability to handle 300,000 sessions; and the ASUS Green Network Technology, which provides up to 70% power-saving solution.

1.2 Package contents

☑ RT-AC68U Wireless Router

Network cable (RJ-45)Quick Start Guide

- Power adapter
- Support CD (Manual)

- 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



7	WI-FI On/Off button Press this button to turn on /off the Wi-Fi connection.
8	Power button Image: Comparison of the stystem. Press this button to power on or off the stystem. Image: Comparison of the stystem.
9	Power (DC-IN) port Insert the bundled AC adapter into this port and connect your router to a power source.
10	USB 3.0 / 2.0 ports Insert USB 3.0 / 2.0 devices such as USB hard disks or USB flash drives into these ports. Insert your iPad's USB cable into one of these ports to charge your iPad.
1	WAN (Internet) port Connect a network cable into this port to establish WAN connection.
12	LED On/Off button Press this button to turn on/off the backlight LED on the panel.
13	LAN 1 ~ 4 ports Connect network cables into these ports to establish LAN connection.
14	Reset button This button resets or restores the system to its factory default settings.

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

DC Power adapter	DC Output: +19V with max 1.75A 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 three 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/ 1000BaseTX)
- 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 blinking.

- 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:

- 1. On your web browser, manually key in the wireless router's default IP address: **192.168.1.1** 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.



Top command buttons

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.



- 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
(D) Check Connection	Host Name(optional): 3
Internet Setup	MAC Address(optional) 2 MAC Clone
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 duallow Internet connection for new MAC addresses. To fix this issue, you can do either of the following:
	 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 ward again. Conce or change the MAC address of the new devec to match the MAC address of the original device. If you just replaced an oil nouter, you will find the oil router's MAC address from its label. If you previously connected your computer to the modem, you will need to enter your computer's and the matching of the modem of the point of the modem you will need to enter your computer's If you previously connected your computer to the modem you will need to enter your computer's and the matching of the modem you will need to enter your computer's and the modem of the modem you will need to enter your computer's If you previously connected your computer to the modem you will need to enter your computer's the matching of the modem you will need to enter your computer's and the set of the modem you will need to enter your computer's If you previously connected your computer to the modem you will need to enter your computer's If you previously connected your computer to the modem you will need to enter your computer's If you previously connected your computer to the modem you will need to enter your computer's If you previously connected your computer to the modem you will need to enter your computer's If you previously connected your computer to the modem you will need to enter your computer's If you previously connected your computer to the modem you will need to enter your computer's If you previously connected you computer to enter you previously connected you computer you computer to the your previously connected you computer to the modem you will need to enter your computer's If you previously connected you computer to the modem you previously connected you previously connected you computer to the modem you previously connected you previously connected you previously connected your previously connected you previously conn
	MAC address of dick MAC Clone to done your computer's MAC address. Previous Next

for PPPoE, PPTP, and L2TP

/ISUS Router	1000		
Quick Internet Setup	Account Setting		
Check Connection Thernet Setup	Please enter the requ	uired information below.	
3 Router Setup	Password	€ 2 ■ Show password	
	Obtain the account na	ime and password from your ISP.	
	-	Previous Next	

for Static IP

Please refer to your ISP setting	ng, and	l input the related informa	tion.	
Use the following IP addres	ss:			
IP Address				
Subnet Mask				
Default Gateway				
DNS Server1 DNS Server2	2			
MAC Address(option	al) 😨		MAC Clone	
	_			

- 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.

/ISUS		
Quick Intetnet Setup	Tireless Setting	
Check Connection	Assign a unique name or SSID (Service Set Identifier) to help identify your wireless networ	k.
Internet Setup	2.4GHz - Security Network Name(SSID) 2 ASUS	
3 Router Setup	Security Key 2	
	SGHz - Security Copy 2.4GHz to 5GHz settings.	
	Security Key 2 ·····	
	Apply	

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

	Completed Network Configuration Sur	nmary
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
		Novt

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 two USB ports for connecting USB devices or USB printer to allow you to share files and printer with clients in your network.



- 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 3.0/2.0 ports 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>
- The USB ports support two USB drives or one printer and one USB drive at the same time.

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**.
- 2. In the upper right corner, click \leq > **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-AC68U 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 Internel your Intranet.	t connection for guests but n	estricts access to
Parella	Freshla	Proble
Enable	Enable	enable
Enable	Enable	Enable

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

	ing vour
private network.	
Network name: ASUS_Guest1	
Security key: None Create C	Create
Access Time: Limitiess	
Modify	
Network name: ASUS_5G_Guest1	
Security key: None Create C	Greate
Access Time: Limites	
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	3						
	General	Tra	offic Manager -	QoS				Automatic mo	de 🚽	
8	Network Map				The Quality of Service (QoS) ensures the network's speed performance. The default rule sets online gaming and web surfing as the highest providy and are not influenced by P2P applications (peer-to-peer applications such as BitTorent). To enable QoS					
*	Guest Network			se P2						
₫	Traffic Manager				function, Click the QoS alide switch, and fill in the upload and download bandwidth fields. Get the bandwith information from your ISP. If you want to prioritize specific network applications and network devices, select your					
£	Parental control			IL pro Qe	preferred priority from the User-defined QoS rules. <u>QoS FAQ</u>					
٠	USB application	ſ	008	-		DEE				
<u></u>	A iCloud	Save								
۸	dvanced Settings			-	_					
0	Wireless		User Specify Rule	List				_		
~	14.0		Service Name	•	Source IP or MAC	Destination Port	Protocol	Transferred	Priority	
ស	D.M		Web Surf						Highest	
۲	WAN		HTTPS			443	tcp	0~512	Highest	
	IPv6		File Transfe				tcp		Low	
væ	VPN Server								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.

accup	QoS Traffic Monitor							
General	Traffic Manager	Traffic Manager - Traffic Monitor						
Retwork Map	Traffic Monitor allows you t	Traffic Monitor allows you to monitor the incoming or outgoing gaplets of the following:						
🔉 Guest Network		nternet	Wired	Wireless				
🚧 Traffic Manager	Reception I				kets from wireless			
Parental control	Transmission C			network Outgoing pac	sets from wireless			
USB application	NOTE: Packets from the In	ternet are evenly transmitted to the v	wired and wireless devices.					
🙈 AiCloud	Traffic Monitor FAQ	Wireless (2.4GHz)	Wireless (SGHz)					
Advanced Settings	36.62 KB/s			Tu	e 04:52 am / 12.24 KB/s			
🤿 Wireless								
🟠 LAN	25.63 KB/s							
() w an	18.31 KB/s							
IPv6								
VPN Server	9.16 KB/s							
C Firew all								
Administration	Network	Current	Alerace	Maximum	Total			
System Log	Reception	0.10 mm	0.01 kala	0.90 KZ/w	5976			
	Transmission	0.00 res-	0.00 km s	0.31 kan	1920			
	Help & Support	anual <u>Utility</u>		FAQ	2			

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 Internet	Operation Mode: <u>Wireless reater</u> Firmware Version: <u>3.0.0.4.250</u> SSID: <u>Asus Asus SC</u>	ē 🔶 🖲				
General	Parental control					
Hetwork Nap	Parental control allows you to set the time limit for a client's network usage. parental control:	To use				
🚨 Guest Network	1. In the [Clients Name] column, select the client whose network usage to control. You may also key in the clients MAC address in the [Client	you want ts MAC				
Manager Traffic Nanager	Address] column. 2. In the (Add / Delete) column, click the Edit icon. 3. So to a silvarial time limit in the Tare Measurement and Data and de	an fa				
Parental control	OFF 0. Use up advices use with a time (the mean geneen) map. Day and un desired day/time. 4. Click (OK) to save the settings made.	<i>,p</i> 10				
USB application	5. <u>Click to open tutorial video.</u>					
AiCloud	Ctients Name Ctients MAC Address Time Management	Add / Delete				
Advanced Settings		Ð				
🛜 Wireless	No data in table.					
	Acety					

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.

Setup	~							
General	1	\bigcirc						
品 Network Map	_							
🞊 Guest Network 🛛 M	My FTP server is shared.: Decide how to share your folders.							
🚧 Traffic Manager								
Parental control	Imitiess access rights							
USB application	admin rights							
AiCloud	Account	Paseword	Read	Write				
Advanced Settings	admin			M				
🛜 Wireless	Family	Family						
🞧 LAN —								
💮 was		Previous Next						

 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	
Retwork Map	
😹 Guest Network	Create your domain name via the ASUS DDNS services.
Manager Traffic Manager	○ I will use the service and accept Terms of service
Parental control	test assistomm.com
USB application	Disable DDNS.
A iCloud	
Advanced Settings	Previous Next
🤝 Wineless	

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-AC68U's network.

semp	Media Server Network Place(Samba) Share	e / Cloud Disk FTP Share Miscellaneous setting
General	Media Server	$\overline{\bullet}$
Retwork Map	Set up the DLNA, iTunes, FTP and Network Place	e (Samba) server.
😹 Guest Network		
Manager	Enable DLNA Media Server	ON
	Enable iTunes Server?	OFF
Parental control	Media server directory	/tmp/mnt Apply
use application	Media Server Status	ldie
AiCloud	1 1000	
Advanced Settings	1 1000	
察 Wireless	1/	: **
🔂 LAN		
💮 wan	4	Dinital Madia Playor
🚳 ІРV6		олунан меча науел
VPN Server		
Firewall	Digital Media Server	
Administration		
System Log	No. Come	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.

/15U5	Logout Reboot English 🔻
*** Quick Internet	Operation Mode: <u>Wireless router</u> Firmware Version: SSID: <u>ASUS ASUS SG</u>
Setup	Media Server Network Place(Samba) Share / Cloud Disk FTP Share Miscellaneous setting
General	
Han Network Map	USB Application - Network Place(Samba) Share / Cloud Disk
•	Set the account and permission of network place(samba) service.
Guest Network	Disable Share Share with account Refresh page
Manager Traffic Manager	
Parental control	admin Router R/W R No
usb application	Kingston DT 101 G2
AiCloud	Αριγ

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	lace(Samba) Share / Clouc <mark>X</mark> Disi
New account h	as no read/write access rights.
Ac	count:
Pass	word:
Retype pass	word:
	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: sdate (Samba) Share / Cloud DXI
The default access rights for a new folder is read/write.
Folder Name:
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.

78	SLIS	Logout	Reboot			English	•
**	Quick Internet	Operation Mode: Wireless	router Firmware Version:	SSID: ASUS ASU	IS_5G	8 9	🕂 🖪
	Setup	Media Server Network Pla	ce(Samba) Share / Cloud Disk	FTP Share Mis	cellaneous setti	ing	
	General						
品	Network Map	USB Application - FTP	Share				
*	Guest Network	Enable FTP Si	h or FTP' service. hare with account Refre	sh page			
<u> </u>	Traffic Manager	⊕ ⊝ ∅				4 2	
D	Parental control	admin	Router	1	R/W W	R No	
*	USB application				_		
8	AiCloud			Арріу	-		
A	dvanced Settings						

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.

uick Internet	Operation Mod	e: <u>Wireless router</u>	Firmware Version:	SSID: ASUS	ASUS_5G	8 🕂 🖻
etup	Media Server	Network Place(Samba)	Share / Cloud Disk	FTP Share	Miscellaneous setting	
General						
etwork Map	USB Applic	ation - Miscellaneou	s setting			
	More detailed s	ttings for the USB Disk.				
uest Network	Maximum Log	n User	5			
raffic Manager	Device Name					
arental control	Work Group		WORKGROUP			
	Character set	on FTP Server				
SB application				••		
iCloud			App	ny		
	seneral stop stop stwork Map set Network affic Manager arental control se application cloud	Appendion Mod Operation Mod Media Server General Stwork Mop More detailed sr Madimum Log affic Manager Device Name work Croup Character set SB application	aidk Internet tity Operation Mode: Wireless router Media Server Network Place(Samba) stwork Map USB Application - Miscellaneour More detailed settings for the USB Disk. More detailed settings for the USB Disk. affic Henager Device Name work Cloud Work Cloup Be application Charader set on FIP Server	aick Internet tip Operation Mode: WireLess. route: Firmware Version: Media Server Network Place(Samba) Share / Cloud Disk Stwork Map USB Application - Miscellaneous setting More detailed settings for the USB Disk. Marinum Login User Affic Manager TT-AC660 Work Group MoreCacion* Choud Charader set on FTP Sever UTE-8	aick Internet tip Operation Mode: WireLess_router Firmware Version: SSID: Adustic SSID: Adustic SSID: Adustic Media Server Version: SSID: Adustic SSID: Adustic Media Server Network Place(Samba) Share / Cloud Disk FTP Share stwork Map USB Application - Miscellaneous setting Import Settings More detailed settings for the USB Disk. Import Settings Settings Import Settings Settings affic Manager arrental control SB application Import Settings Settings Import Settings Settings Import Settings Settings SB application Charader set on FTP Server UTF-8 Import Settings	arkk internet tip Operation Mode: Kircless_router Firmware Version: SSID: Adus Adus_SG display Media Server Network Place(Samba) Share / Cloud Diak FITP Share Miscellaneous setting stwork Map USB Application - Miscellaneous setting Miscellaneous setting Miscellaneous setting stwork Map Madmum Login User 5

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-AC68U 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-AC68U to allow Internet access.

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

***	Quick Internet Setup	Operation Mode: <u>Wireless router</u> Fi SSID: ASUS ASUS_SG	mware Version: <u>3.0.0.4.260</u> 🔏 🕤 🔫 🖻
	General	USB Modem	5
晶	Network Map	The current 3G/4G setting is set to 3G/4G Ba turn to 3G/4G mode.	ackup mode. If WAN port was disconnected, the network mode will automatically
*	Guest Network	Basic Config	
<u> </u>	Traffic Manager	Enable USB Modem	© Yes ● No
		Location	Manual 🗸
	Parental control	USB Modem	WCDMA (UMTS)
*	USB application	APN service(optional)	internet
<u>a</u>	AiCloud	Dial Number	~99#
-		PIN code	
Ac	lvanced Settings	Usemame	
	Wireless	Password	
ជ	LAN	USB Adapter	auto
۲	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**.

C' () () () () () C' () () () () () () () () () () () () ()		
	AiCloud	
	Welcome, Who's coming home?	
	Your Name.	
	Your Password.	
	Θ	

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 Rou × ▲ AiCloud AiCloud AiCloud AiCloud	et
AiCloudھ	Welcome home, admin
	/ RT-AC66U
•🚭 RT-AC66U	KINSTON

3.6.2 Smart Access

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



- 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

/iSUS	Logo	ıt Rel	boot		English 🔻			
Quick Internet	Operation Mode	: <u>Wireless router</u>	Firmware Versi	n: SSID: ASUS ASUS 5G	8 @ 4 8			
Setup	AiCloud Smart	Sync Settings Log						
General								
Retwork Map	AiCloud - Sm	AiCloud - Smart Sync						
🚵 Guest Network	To start smart sync, you need to sign up for an <u>ASUS webstorage</u> accou							
Manager Traffic Manager	B storage device into this router. Launch ACoud, choose the specific folder in cloud disk that you want to synchronize with ASUS WebStorage, then follow the succeeding instructi ons.							
Parental control								
USB application								
AiCloud	Cloud List							
	Provider	User Name	Rule	Folder	Status Delete			
Advanced Settings	No data in table.							
🛜 Wireless								
			Add	ew account				

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.