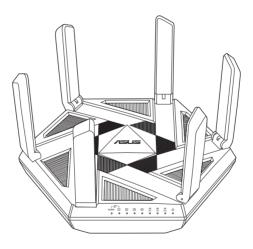
User Guide

RT-AXE7800

Wireless-AXE7800 Tri-band Gigabit Router





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1 Getting to know your wireless router

1.1 Welcome!

Thank you for purchasing an ASUS RT-AXE7800 Wireless Router! The strikingly designed black chassis with gaming-inspired red accents, RT-AXE7800 features 2.4GHz, 5GHz and 6GHz tri-band 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-AXE7800 Wireless Router

✓ Network cable (RJ-45)
 ✓ Ouick Start Guide

- ☑ Power adapter
- ☑ Warranty card

NOTES:

- 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

1	2.5G WAN/LAN1 LED Off: No 2.5G WAN/LAN1 port connection.
	On : Has physical connection to 2.5G WAN/LAN1 port.
2	1G WAN/LAN1 LED Off : No 1G WAN/LAN1 port connection. On : Has physical connection to 1G WAN/LAN1 port.
3	LAN 2~4 LEDs Off: No power or no physical connection. On: Has physical connection to a local area network (LAN).
4	6GHz LED Off: No 6GHz signal. On: Wireless system is ready. Flashing: Transmitting or receiving data via wireless connection.
5	5GHz LED Off: No 5GHz signal. On: Wireless system is ready. Flashing: Transmitting or receiving data via wireless connection.
6	 2.4GHz LED Off: No 2.4GHz signal. On: Wireless system is ready. Flashing: Transmitting or receiving data via wireless connection.
7	Power LED Off: No power. On: Device is ready. Flashing slow: Rescue mode.
8	Power (DCIN) port Insert the bundled AC adapter into this port and connect your router to a power source.
9	LAN 2~4 ports Connect network cables into these ports to establish LAN connection.
10	1G WAN/LAN1 port Connect a network cable into this port to establish 1G WAN/LAN1 connection.



2.5G WAN/LAN1 port

Connect a network cable into this port to establish 2.5G WAN/LAN1 connection.



USB 3.2 Gen 1 port

Insert a USB 3.2 Gen 1 device such as a USB hard disk or a USB flash drive into this port. Insert your iPad's USB cable into this port to charge your iPad.

NOTES:

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

• Specifications:

DC Power adapter	DC Output: +12V with 3A current			
Operating Temperature	0~40°C	Storage	0~70°C	
Operating Humidity	50~90%	Storage	20~90%	

1.4 Positioning your wireless router

For optimal wireless transmission between the wireless router and connected wireless devices, ensure that you:

- Place the wireless router in a centralized area for a maximum wireless coverage for the network devices.
- Keep the wireless router away from metal obstructions and away from direct sunlight.
- Keep the wireless router 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.
- Orient the 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/ax wireless capability
- An installed TCP/IP service
- Web browser such as Internet Explorer, Firefox, Safari, or Google Chrome

NOTES:

- If your computer does not have built-in wireless capabilities, you may
 install an IEEE 802.11a/b/g/n/ac/ax WLAN adapter to your computer
 to connect to the network.
- With its tri-band technology, your wireless router supports 2.4GHz, 5GHz and 6GHz 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.

IMPORTANT!

- Some wireless adapters might have connectivity issues to 802.11ax WiFi APs.
- If you're experiencing such issue, please ensure you update the driver to the latest version. Check your manufacturer's official support site where software drivers, updates, and other related information can be obtained.
 - Realtek: <u>https://www.realtek.com/en/downloads</u>
 - Mediatek: <u>https://www.mediatek.com/products/connectivity-and-networking/broadband-wifi</u>
 - Intel: <u>https://downloadcenter.intel.com/</u>

2 Getting started

2.1 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).



WARNING!

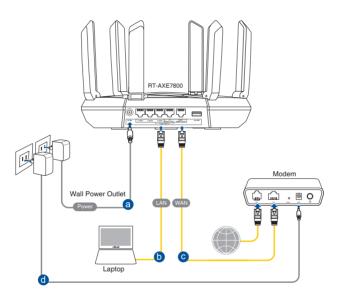
- The power supply cord(s) must be plugged into socket-outlet(s) that is /are provided with a suitable earth ground. Connect the equipment only to a nearby socket outlet that is easily accessible.
- If the Adapter is broken, do not try to fix it by yourself. Contact a qualified service technician or your retailer.
- DO NOT use damaged power cords, accessories, or other peripherals.
- DO NOT mount this equipment higher than 2 meters.
- Use this product in environments with ambient temperatures between 0°C (32°F) and 40°C (104°F).

A. 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. Plug your router into a power outlet and power it on. Connect the network cable from your computer to a LAN port on your router.



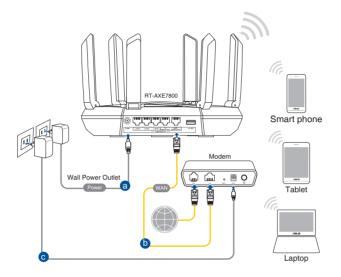
- 2. The web GUI launches automatically when you open a web browser. If it does not auto-launch, enter <u>http://www.asusrouter.com</u>
- 3. Set up a password for your router to prevent unauthorized access.

Ū'	Sign In RT-AXE7800 Sign in with your ASUS router account	
	Username	
1	Sign In	

B. Wireless connection

To set up your wireless router via wireless connection:

1. Plug your router into a power outlet and power it on.



2. Connect to the network name (SSID) shown on the product label on the back side of the router. For better network security, change to a unique SSID and assign a password.

Wi-Fi Name (SSID):	ASUS_XX
--------------------	---------

- * XX refers to the last two digits of 2.4GHz MAC address. You can find it on the label on the back of your router.
- 3. Once connected, the web GUI launches automatically when you open a web browser. If it does not auto-launch, enter <u>http://www.asusrouter.com</u>.
- 4. Set up a password for your router to prevent unauthorized access.

NOTES:

- 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 **3.1.1** Setting up the wireless security settings of this user manual.

Login Information Setup	
Change the router password to prevent unau	uthorized access to your ASUS wireless router.
Router Login Name	admin
New Password	
Retype Password	Show password

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:

 Launch a web browser. You will be redirected to the ASUS Setup Wizard (Quick Internet Setup). If not, key in <u>http://www.asusrouter.com</u> manually.

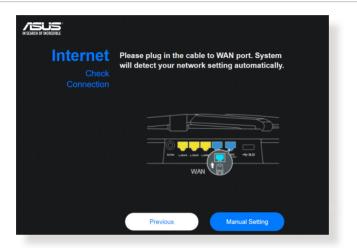


2. The wireless router automatically detects if your ISP connection type is **Dynamic IP**, **PPPoE**, **PPTP** and **L2TP**. Key in the necessary information for your ISP connection type.

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

NOTES:

- 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 **Manual Setting** and manually configure your connection settings.



3. Assign the wireless network name (SSID) and security key for your 2.4GHz, 5GHz and 6GHz wireless connection. Click **Apply** when done.

Wireless Settings	Assign a unique name or SSID (Service Set Identifier) to help Identify your wireless network. 2.4 GHz Network Name (SSID)	
	ASUS_Router_2G	
	2.4 GHz Wireless Security	ø
	5 GHz Network Name (SSID)	
	ASUS_Router_5G	
	5 GHz Wireless Security	8
	6 GHz Network Name (SSID)	
	ASUS_Router_6G	
	6 GHz Wireless Security	ø
	Separate 2.4 GHz, 5 GHz and 6 GHz	

4. On the **Login Information Setup** page, change the router's login password to prevent unauthorized access to your wireless router.

Login Username / Password Settings	Change the router password to prevent unauthorized access your ASUS wireless router. Router Login Name	to
	New password	
	Retype Password	
	Previous Next	

NOTE: The wireless router's login username and password is different from the 2.4GHz/5GHz/6GHz 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/6GHz network name (SSID) and security key allows Wi-Fi devices to log in and connect to your 2.4GHz/5GHz/6GHz network.

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.

NOTES:

- 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 and Advanced settings

3.1 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: <u>http://www.asusrouter.com</u>.
- 2. On the login page, key in the user name and password that you have set in **2.2 Quick Internet Setup (QIS) with Auto-detection**.

Q4	Sign In RT-AXE7800 Sign in with your ASUS router account
	Username
	Sign In

3. You can now use the Web GUI to configure various settings of your ASUS Wireless Router.



Top command buttons

* The image is for reference only.

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.

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, 5GHz and 6GHz bands.

	System Status	
Wireless	Status	
2.4 GH	z	
Network N	lame (SSID)	
ASUS_Roi	uter_2G	
Authentica	ation Method	
WPA2-Per	sonal 🗸	
WPA Encry	yption	
AES 🗸		
WPA-PSK	key	
5 GHz		
Network N	lame (SSID)	
ASUS_Roi	uter_5G	
Authentica	ation Method	
WPA2-Per	sonal v	
WPA Encry	/ption	
AES 🗸		
WPA-PSK I	kev	
-		
6 GHz		
Network N	lame (SSID)	
ASUS_Rou	uter_6G	
Authontica	ation Method	

2.4GHz/5GHz/6GHz security settings

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

4. From the **WEP Encryption** dropdown list, select the encryption method for your wireless network.

IMPORTANT! The IEEE 802.11n/ac/ax 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

* The image is for reference only.

To manage your network clients:

- 1. From the navigation panel, go to **General** > **Network Map**.
- 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 a USB device or a USB printer to allow you to share files and printer with clients in your network.

	External USB disk status
Internet status: Connected WAN IP: 192.168.66.8	Information Health Format
DDNS: GO	Model Name:
	Hitachi HDP725025GLAT80
	Available space:
	232.749 GB
	Total space:
Security level: WPA2-Personal	232.883 GB
WPA2-Personal W	Media Server: GO
	AiDisk Wizard: GO
	Safely Remove disk: Remove
	USB Mode USB 3.0 *
Clients: 1 USB 3.0 No Device	Apply
View List	
USB 3.0	
AiMesh Node: 0	

* The image is for reference only.

NOTE: To use this feature, you need to plug a USB storage device, such as a USB hard disk or a USB flash drive, to the USB 3.0 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 2.0. For more details, refer to the section **3.12 USB Application** and **3.4 AiCloud 2.0** 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.

NOTES:

- For more details, refer to the section 3.12.2 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.

Internet status: Connected WAN IP: 192.168.66.8 DDNS: <u>GO</u>	External Fiect USB disk Hitachi HD9725025GLAT80 Information Canner Format Model Name: Hitachi HD9725025GLAT80
Security level: WPA2-Personal	Available space: 232.749 GB Total space: 232.883 GB Media Server: GO
	AlDisk Wizard: CO Safely Remove disk: Remove
Clients: 1	USB Mode USB 3.0 v
View List View List Wo Device USB 3.0 Hitachi HDP725C V	

* The image is for reference only.

3.2 Adaptive QoS

3.2.1 Managing QoS (Quality of Service) Bandwidth

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

QoS - QoS to configuration	
Quality of s	Service (QoS) ensures bandwidth for prioritized tasks and applications.
wire and Tra para Bar	aptive QoS ensures inbound and outbound bandwidth on both wired and less connections for prioritized applications and tasks via pre-defined, drag- drop presets gaming, media streaming, Vol? web sufting and file transferring. ditional QoS ensures inbound and outbound bandwidth on both wired and less connections for prioritized applications and tasks via manual user-defined ameters indwidth Limiter lets you set limits on download and upload speeds. QoS function, click the QoS slide switch and fill in the upload and download.
Enable GeForce NOW QoS UPnP control	O Yes ● No
Enable QoS	OFF
	Арріу

To set up bandwidth priority:

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

NOTE: Get the bandwidth information from your ISP.

3. Click Apply.

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.

NOTES:

- 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 Administration

3.3.1 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.
- 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 existing network.
 - **Repeater mode**: This mode turns the router into a wireless repeater to extend the range of your signal.
 - **Media Bridge**: The Media Bridge mode provides the fastest Wi-Fi connection for multiple media devices simultaneously. To set up the Media Bridge mode, you need two RT-AXE7800: one configured as the Media station and the other as a router.
 - **AiMesh Node**: You can set RT-AXE7800 as an AiMesh node to extend an existing AiMesh routers WiFi coverage.

3. Click Save.

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

3.3.2 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**.
- 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.
 - 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 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.
- 3. Click Apply.

3.3.3 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.
- 2. In the **Firmware Version** field, click **Check** 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 4.2 Firmware Restoration.

3.3.4 Restore/Save/Upload Setting

To restore/save/upload wireless router settings:

- 1. From the navigation panel, go to Advanced Settings > Administration > Restore/Save/Upload Setting.
- 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 setting, navigate to the folder where you intend to save the file and click Save.
 - To restore from a saved system settings file, click **Upload** to locate your file, then click **Open**.

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

3.4 AiCloud 2.0

AiCloud 2.0 is a cloud service application that allows you to save, sync, share, and access your files.



To use AiCloud 2.0:

- 1. From Google Play Store or Apple Store, download and install the ASUS AiCloud 2.0 app to your smart device.
- 2. Connect your smart device to your network. Follow the instructions to complete the AiCloud 2.0 setup process.

3.4.1 Cloud Disk

To create a cloud disk:

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

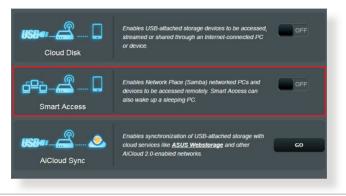


- 3. Go to <u>http://www.asusrouter.com</u> and enter the router login account and password. For better user experience, we recommend that you use **Google Chrome** or **Firefox**.
- 4. You can now start accessing Cloud Disk files on devices connected to the network.

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 2.0 for security reason.

3.4.2 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 **3.13.6 DDNS**.
- By default, AiCloud 2.0 provides a secure HTTPS connection. Key in <u>https://[yourASUSDDNSname].asuscomm.com</u> for a very secure Cloud Disk and Smart Access usage.

3.4.3 AiCloud Sync

USB≪ı_ı	0FF	Enables AiClou <u>FAQ</u>	d Sync functionality. For s	tep-by-step instructions,	go to
loud List	_	_	_	_	
Provider	Username	Rule	Folder Name	Connection Status	Delete
		No data	in table.		

To use AiCloud Sync:

- 1. Launch AiCloud 2.0, click **AiCloud Sync**.
- 2. Select **ON** to enable AiCloud 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.

3.5 AiProtection

AiProtection provides real-time monitoring that detects malware, spyware, and unwanted access. It also filters unwanted websites and apps and allows you to schedule a time that a connected device is able to access the Internet.

3.5.1 Network Protection

Network Protection prevents network exploits and secures your network from unwanted access.



Configuring Network Protection

To configure Network Protection:

- 1. From the navigation panel, go to **General** > **AiProtection**.
- 2. From the **AiProtection** main page, click on **Network Protection**.
- 3. From the Network Protection tab, click Scan.

When done scanning, the utility displays the results on the **Router Security Assessment** page.

	detect Router Security Assessment ore it	
- 1	Default router login username and password changed -	No
	Wireless password strength check -	Very Weak
	Wireless encryption enabled -	Strong
	WPS Disabled -	No
	UPnP service disabled -	No
	Web access from WAN disabled -	Yes
	PING from WAN disabled -	Yes
blei	DMZ disabled -	Yes
	Port trigger disabled -	Yes
	Port forwarding disabled -	Yes
	Anonymous login to FTP share disabled -	Yes
	Disable guest login for Network Place Share -	Yes Da
	Malicious Website Blocking enabled -	No
	Vulnerability Protection enabled -	No
	Infected Device Prevention and Blocking -	No
	Micro's database for always-up-to-date protection. Close	

IMPORTANT! Items marked as **Yes** on the **Router Security Assessment** page is considered to be at a **safe** status. Items marked as **No**, **Weak**, or **Very Weak** is highly recommended to be configured accordingly.

- (Optional) From the Router Security Assessment page, manually configure the items marked as No, Weak, or Very Weak. To do this:
 - a. Click an item.

NOTE: When you click an item, the utility forwards you to the item's setting page.

b. From the item's security settings page, configure and make the necessary changes and click **Apply** when done.

- c. Go back to the **Router Security Assessment** page and click **Close** to exit the page.
- 5. To automatically configure the security settings, click **Secure Your Router.**
- 6. When a message prompt appears, click **OK**.

Malicious Sites Blocking

This feature restricts access to known malicious websites in the cloud database for an always-up-to-date protection.

NOTE: This function is automatically enabled if you run the **Router Weakness Scan**.

To enable Malicious Sites Blocking:

- 1. From the navigation panel, go to **General** > **AiProtection**.
- 2. From the **AiProtection** main page, click on **Network Protection**.
- 3. From the Malicious Sites Blocking pane, click ON.

Two-Way IPS

Two-Way IPS (Intrusion Prevention System) protects your router from network attacks by both blocking malicious incoming packets and detecting suspicious outgoing packets.

NOTE: This function is automatically enabled if you run the **Router Weakness Scan**.

To enable Two-Way IPS:

- 1. From the navigation panel, go to **General** > **AiProtection**.
- 2. From the **AiProtection** main page, click on **Network Protection**.
- 3. From the **Two-Way IPS** pane, click **ON**.

Infected Device Prevention and Blocking

This feature prevents infected devices from communicating personal information or infected status to external parties.

NOTE: This function is automatically enabled if you run the **Router Weakness Scan**.

To enable Infected Device Prevention and Blocking:

- 1. From the navigation panel, go to **General** > **AiProtection**.
- 2. From the **AiProtection** main page, click on **Network Protection**.
- 3. From the **Infected Device Prevention and Blocking** pane, click **ON**.

To configure Alert Preference:

- 1. From the **Infected Device Prevention and Blocking** pane, click **Alert Preference**.
- 2. Select or key in the e-mail provider, e-mail account, and password then click **Apply**.

3.5.2 Setting up Parental Controls

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

To go to the Parental Controls main page:

From the navigation panel, go to **General** > **Parental Controls**.

Parental Controls - \	Web & Apps Filters
	Web & Apps Filters allows you to block access to unwanted websites and apps. To use web & apps Filters:
E	 In the [Clients Name] column, select the client whose network usage you want to control. The client name can be modified in network map client list. Check the unwanted content categories Click the plus (+) icon to add rule then click apply.
	If you want to disable the rule temporarily, uncheck the check box in front of rule.
	Parental Controls FAQ
Web & Apps Filters	OFF

Web & Apps Filters

Web & Apps Filters is a feature of **Parental Controls** that allows you to block access to unwanted web sites or applications.

To configure Web & Apps Filters:

- 1. From the navigation panel, go to General > Parental Controls.
- 2. From the Web & Apps Filters pane, click ON.
- 3. When the End Users License Agreement (EULA) message prompt appears, click **I agree** to continue.
- 4. From the **Client List** column, select or key in the client's name from the drop down list box.
- 5. From the **Content Category** column, select the filters from the four main categories: **Adult**, **Instant Message and Communication**, **P2P and File Transfer**, and **Streaming and Entertainment**.

- 7. Click 🕑 to add the client's profile.
- 8. Click **Apply** to save the settings.

Parental Controls - Web & Apps Filters				
Web & Apps Filters allows you to block access to unwanted websites and apps. To use web & apps Filters: In the [Cleints Name] column, select the cleint whose network usage you want to control. The cleint name can be modified in network map cleint list. Check the unwanted content categories Glick the plus (+) icon to add rule then click apply. If you want to disable the rule temporarily, uncheck the check box in front of rule. Parental Controls FAQ				
Web & Apps Filters	ON			
Client List (Max Limit : Client I	: C4) Name (MAC Address)	Content Category	Add / Delete	
8	Rabick	 Aduit Block adult/instature content to prevent children from violing alter shat contain material of a sexual, violent, and linguin nature. Instant Message and Communication Block instant communication software and messaging apps to prevent children from becoming addicated to social networking sites. P2P and File Transfer By blocking P2P and File Transfering you can make sure your network has a better quality of data transmission. Streaming and entertainment services you can limit the time your children spand online. 	Ð	
No data in table.				
Арріу				

Time Scheduling

Time Scheduling allows you to set the time limit for a client's network usage.

NOTE: Ensure that your system time is synchronized with the NTP server.

Parentai Controls - Time Scheduling			
By enabling Block All Devi	ces, all of the connected devices will be bloch	ked from Internet access	
Enable block all devices	OFF		
This feature allows you to set up a scheduled time for specific devices' Internet access. 1. In [Client Name] column, select a device you would like to manage. You can also manually key in MAC address in this column. 2. In the (Add / Deletel column, click the plus(+) icon to add the client. 3. In t[Time Management] column, click the edit icon to set a schedule. 4. Click (Apply) to save the configurations.			
Enable Time Scheduling			
System Time	Thu, Sep 21 12:34:41 202		
Client List (Max Limit : 64)			
Select all ✓	Client Name (MAC Address)	Time Management	Add / Delete
	Time		Ð
No data in table.			
Арріу			

To configure Time Scheduling:

- 1. From the navigation panel, go to **General** > **Parental Controls** > **Time Scheduling**.
- 2. From the Enable Time Scheduling pane, click ON.
- 3. From the **Clients Name** column, select or key in the client's name from the drop down list box.

NOTE: You may also key in the client's MAC address in the **Client MAC Address** column. Ensure that the client name does not contain special characters or spaces as these may cause the router to function abnormally.

- 4. Click 🙆 to add the client's profile.
- 5. Click **Apply** to save the settings.

3.6 Firewall

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

NOTE: The Firewall feature is enabled by default.

3.6.1 General

Firewall				
General				
Enable the firewall to protect your local area packets based on the filter rules. <u>DoS Protection FAQ</u>	a network against attacks from hackers.	The firewall filters the incomir	ig and outgoing	
Enable Firewall	O Yes O No			
Enable DoS protection	O Yes O No			
Logged packets type	None 🗸			
Respond ICMP Echo (ping) Request from WAN	• Yes • No			
Basic Config				
Enable IPv4 inbound firewall rules	🔍 Yes 🔍 No			
Inbound Firewall Rules (Max Limit : 1	28)			
Source IP	Port Range	Protocol	Add / Delete	
		тср 🗸	Ð	
IPv6 Firewall All outbound traffic coming from IPv6 hosts on your LAN is allowed, as well as related inbound traffic. Any other inbound traffic must be specifically allowed here. You can leave the remote IP blank to allow traffic from any remole host. A subnet can also be specified. (2001::1111:2222333046 for example)				
Basic Config				
Enable IPv6 Firewall	O Yes ● No			
Famous Server List	Please select 🗸			
Inbound Firewall Rules (Max Limit : 128)				
Service Name Remote IP/CIDR	Local IP	Port Range Protocol	Add / Delete	
		тср 🗸	 • 	
No data in table.				
Apply				

To set up basic Firewall settings:

- 1. From the navigation panel, go to **Advanced Settings** > **Firewall** > **General**.
- 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.

3.6.2 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.

Firewall - URL Filter				
Key in the keywords for the sites that you want to block. For example, enter "XXX" in the list The URL filter will block the http://www.abcXXX.com, http://www.XXXbbb.com and so on				
Basic Config				
Enable URL Filter	Enabled Disabled			
Filter table type				
URL Filter List: (Max Limit : 64)				
	URL Filter List:	Add / Delete		
		Ð		
Арріу				

To set up a URL filter:

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

3.6.3 Keyword filter

Keyword filter blocks access to webpages containing specified keywords.

Firewall - Keyword Filter			
Keyword Filter allows	s you to block the clients	access to webpages containing the specified keywords.	
Limitations of the filtering function : 1. Compressed webpages that use HTTP compression technology cannot be filtered. <u>See here for more details.</u> 2. Https webpages cannot be filtered.			
Basic Config	_		
Enable Keyword Filte	Enable Keyword Filter Enabled Disabled		
Keyword Filter Li	st (Max Limit : 64)		
	K	eyword Filter List	Add / Delete
			Ð
No data in table.			
Арріу			

To set up a keyword filter:

- From the navigation panel, go to Advanced Settings > Firewall > Keyword Filter.
- 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 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 Keyword Filter.
- Web pages compressed using HTTP compression cannot be filtered. HTTPS pages also cannot be blocked using a keyword filter.

3.6.4 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.

Firewall - Network Services Filter			
The Network Services filter blocks the LAN to WAN packet exchanges and restricts devices from using specific network services. For example, if you do not want the device to use the Internet service, key in 80 in the destination port. The traffic that uses port 80 will be blocked (but https can not be blocked). Leave the source IP field blank to apply this rule to all LAN devices.			
specified duration, all the clients in LAN can a	duration, clients in the Deny List cannot use the specified network services. After the access the specified network services. duration, clients in the Allow List can ONLY use the specified network		
NOTE : If you set the subnet for the Allow Lis Internet service.	st, IP addresses outside the subnet will not be able to access the Internet or any		
Network Services Filter			
Enable Network Services Filter	● Yes O No		
Filter table type	Deny List 🗸		
Well-Known Applications	User Defined 🗸		
Date to Enable LAN to WAN Filter	🗹 Mon 🗹 Tue 🗹 Wed 🗹 Thu 🗹 Fri		
Time of Day to Enable LAN to WAN Filter	00 : 00 - 23 : 59		
Date to Enable LAN to WAN Filter	🗹 Sat 🗹 Sun		
Time of Day to Enable LAN to WAN Filter	00 : 00 - 23 : 59		
Filtered ICMP packet types			
Network Services Filter Table (Max Limit : 32)			
Source IP Port Range	Destination IP Port Range Protocol Add / Delete		
	тср 🗸 🔂		
	No data in table.		
Арріу			

To set up a Network Service filter:

- 1. From the navigation panel, go to **Advanced Settings** > **Firewall** > **Network Service Filter**.
- 2. On the Enable Network Services Filter field, select Yes.
- 3. Select the Filter table type. **Deny** blocks the specified network services. **Allow** 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.

3.7 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-AXE7800 supports up to nine SSIDs (three 2.4GHz, three 5GHz and three 6GHz 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, 5GHz or 6GHz frequency band for the guest network that you want to create.
- 3. Click Enable.

Guest Network			
	The Guest Network provides , your local network.	Internet connection for guests b	ut restricts access to
Network Name (SS			
Authentication Method			
Network Key	Enable	Enable	Enable
Time Remaining			Default setting by Alexa/IFTTT
Access Intranet			
Network Name (SS	ID)		
Authentication Method			
Network Key	Enable	Enable	Enable
Time Remaining			Default setting by Alexa/IFTTT

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

Guest Network	Guest Network			
your loc	est Network provides Inter al network.	net connection for guests but	restricts access to	
Network Name (SSID)	ASUS_2G_Guest			
Authentication Method	Open System			
Network Key	None	Enable	Enable	
Time Remaining	Unlimited access		Default setting by Alexa/IFTTT	
Access Intranet	off			
	Remove			
Network Name (SSID)	ASUS 5G Guest			
Authentication Method	<u>Open System</u>			
Network Key	None	Enable	Enable	
Time Remaining	Unlimited access		Default setting by Alexa/IFTTT	
Access Intranet	off			
	Remove			

- 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**.

3.8 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.

IPv6	
Configure the IPv6 Internet setting. <u>TPv6_FAQ</u>	
Basic Config	
Connection type	Disable 🔻
	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.

3.9 LAN

3.9.1 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.

LAN - LAN IP			
Configure the LAN setting of ASUS Router.			
Host Name			
ASUS Router's Domain Name			
IP Address	192.168.50.1		
Subnet Mask			
Apply			

To modify the LAN IP settings:

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

3.9.2 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.

LAN - DHCP Server				
Basic Config				
Enable the DHCP Server	♥ Yes ● No			
ASUS Router's Domain Name				
IP Pool Starting Address	192.168.50.2			
IP Pool Ending Address	192.168.50.254			
Lease time	86400			
Default Gateway				
DNS and WINS Server Setting				
DNS Server 1				
DNS Server 2				
Advertise router's IP in addition to user- specified DNS	O Yes ● No			
WINS Server				
Manual Assignment				
Enable Manual Assignment	● Yes O No			
Manually Assigned IP around the DHCP list (Max Limit : G4)				
Client Name (MAC Address)	IP Address DNS Server (Optional) Host Name (Optional) Add / Delete			
ex: (8:77:54:12:69:C5				
	No data in table.			
Apply				

To configure the DHCP server:

- 1. From the navigation panel, go to **Advanced Settings** > **LAN** > **DHCP Server**.
- 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 192.168.50.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.

3.9.3 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.

his function allows you to the Internet.	add routing rules into. It	is useful if you connect several ro	uters behind	to share the sar	ne connection
Basic Config	_				
Enable static routes	•	Yes O No			
Static Route List (Max Network/Host IP	Limit : 32) Netmask	Gateway	Metric	Interface	Add / Delete
		-			Ð
		No data in table.			

To configure the LAN Routing table:

- 1. From the navigation panel, go to **Advanced Settings** > **LAN** > **Route**.
- 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.

3.9.4 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.

LAN - IPTV	
To watch IPTV, the WAN port must be conne assigned to primary WAN.	cted to the Internet. Please go to <u>WAN - Dual WAN</u> to confirm that WAN port is
LAN Port	
Select ISP Profile	None
Choose IPTV STB Port	None 🔻
Special Applications	
Use DHCP routes	Microsoft 🔹
Enable multicast routing (IGMP Proxy)	Disable v
UDP Proxy (Udpxy)	0
	Apply

3.10 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
 - Wireless Log
 - DHCP Leases
 - IРvб
 - Routing Table
 - Port Forwarding
 - Connections

his page shows the detailed system's acti	vities.
System Time	Thu, Aug 23 07:15:34 2018
Uptime	0 days 1 hours 18 minute(s) 11 seconds
Remote Log Server	Apply
Nap 23 06:58:52 kernel: (10:33;41 Nap 23 06:58:53 kernel: (10:33;41 Nap 23 06:58:53 kernel: (10:33;41 Nap 23 06:58:53 kernel: (10:33;41 Nap 23 06:58:55 kernel: (10:33;41 Nap 23 06:58:57 kernel: (10:33;41 Nap 23 07:07:14 nat: npp17(768); k Nap 23 07:07:14 nat: npp17(778); k	utting dom MinUPnRd es (rmp/mar_rules_eth) echo) rsion 1.9 started TF listening on port 60955 stening for MAT-PMP/FCF traffic on port 5351 mel: toutes utting down MinUPnPd rsion 1.9 started
	Clear Save

3.11 Traffic Analyzer

The traffic monitor feature allows you to access the bandwidth usage and speed of your Internet, wired, or wireless networks. It allows you to monitor network traffic in real-time or on a daily basis. It also offers an option to display the network traffic within the last 24 hours.

raffic Monito	or						
affic Monitor allow	/s you to monit	or the incoming or o	utgoing packe	ts of the following:			
	Internet		Wired		Wireless		
Reception							
Transmission							
ale KB 🗸							
TE: Packets from	n the Internet a	ire evenly transmitte	d to the wired	and wireless devices.			
ffic Monitor FA	Q						
nternet Conn	ection (WA	V) Wired V	Vireless				
.47 MB/s			WAN			Thu 02:44 pm / 0.03 M	IB/s
.63 MB/s							
.74 MB/s							
.37 MB/s							
					k		
Currer	nt	Averag	e	Maximum		Total	
0.07 M	3/s	0.16 ME	3/s	9.47 MB/s		98.32 MB	

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

3.12 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 a USB flash drive, in the USB 3.0 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.

USB Application	
To remove the hard disk from the router,	click the USB icon at the upper right corner of your screen.
	<u>AiDisk</u> Share files in the USB disk through the Internet.
	Servers Center Setup the UPnP, iTunes, FTP and Network Place (Samba).
	<u>Network Printer Server</u> The network printer server supports two methods: (1) ASUS EZ printer sharing (2) LPR to share printer.
	3G/4G Switch to USB mode to use a 3G/4G USB wireless dongle or Android phone as a USB modern. <u>Support</u>
	Time Machine Enable Time Machine functionality
	Download Master PC-free download manager Install

3.12.1 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.

(1)		2 3			
My FTP	server is sha	red.: Decide how to share your folders.			
• admir	n rights				
Iimite	d access rights				
Iimitle	ss access rights				
	Account	Password	Read	Write	
	admin				
		Previous Next			
			_		

4. 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.

$1 \boxed{2} \boxed{3}$
Create your domain name via the ASUS DDNS services.
O I will use the service
Key in the name .asuscomm.com
Disable DDNS.
Previous Next

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.

3.12.2 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 RT-AXE7800's network.



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

- Enable iTunes Server?: Select ON/OFF to enable/disable the iTunes Server.
- Enable UPnP Media Server?: Select ON/OFF to enable/ disable the UPnP Media Server.
- Media Server Status: Displays the status of the media server.
- Media Server Path Setting: Select All Disks Shared or Manual Media Server Path.

Using Network Place (Samba) Share service

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

USB Application - Network Place (Samba) Share / Cloud Disk			
Set the account and permission	of network place(samba) service.		
Enable Share	ON		
Allow guest login	OFF Username and password is necessary to log in network place(Samba)		
Device Name			
Work Group	WORKGROUP		
Maximum number of concurrent	connections 5		
	Арріу		
⊕ ⊝ ⊘			
	ASUS Router R/W R No		
	Saye		

To use Samba share:

1. From the navigation panel, go to General > USB application > Servers Center > Network Place (Samba) Share / Cloud Disk.

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	×
New account has no read/write access	rights. D
nd permission (Account:) e (camba) service	
Password:	
Retype password:	
Ad	d:(Samba

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:	1 ×
The default access righ	ts for a new folder is read/write.
nt and permission of networ	k place(samba) service.
Folder Name:	ON
nain	U: Add eand o

- 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.

USB Application - FTP	Share
Set the account and permissio	n of FTP service.
Enable FTP	OFF
Enable WAN access	OFF
Allow anonymous login	OFF Username and password is necessary to log in FTP service.
Enable TLS support	O Yes ● No
Maximum number of concurrent	connections 5
Character set on FTP Server	UTF-8 🗸
	Apply
$\odot \bigcirc $	a e 🔊
1100	AB878A175D4A6FD54D2E6 BD6195DB3EF7,asuscomm. R/W W R No com biogra

To use FTP Share service:

NOTE: Ensure that you have set up your FTP server through AiDisk. For more details, refer to the section **3.12.1 Using AiDisk**.

- 1. From the navigation panel, click **General** > **USB application** > **Servers Center** > **FTP Share**.
- 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.

3.12.3 3G/4G

3G/4G USB modems can be connected to RT-AXE7800 to allow Internet access.

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

USB Modem / USB Tethering					
Switch to USB mode to use a 3G/4G USB wireless dongle or Android phone as a USB modern.					
Basic Config					
Enable USB Mode					
Select USB Device	Auto 🗸 😧				
APN Configuration	Auto 🗸				
Telecommunications Standards	WCDMA (UMTS) / LTE V				
APN Service(optional)	internet				
Dial Number	*99#				
Username					
Password					
Authentication	None 🗸				
PIN code					
USB Adapter	Auto 🗸				
USB MTU	0				
Special Requirement from ISP					
Extend the TTL value	● Yes ^O No				
Spoof LAN TTL value	● Yes O No				

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.

3.13 WAN

3.13.1 Internet Connection

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

WAN - Internet Connection						
ASUS Router supports several connection ty menu beside WAN Connection Type. The set	vpes to WAN (wide area network). These types are selected from the dropdown ting fields differ depending on the connection type you selected.					
Configure the Ethernet WAN settings of ASUS Router.						
Basic Config						
WAN Connection Type	Automatic IP ~					
Enable WAN	O Yes ● No					
Enable NAT	O Yes • No					
Enable UPnP UPnP FAQ	O Yes ● No					
Enable WAN Aggregation	● Yes ● No WAN Aggregation combines two network connections to increase your WAN speed up to 2Gbps: Connect your rauter's WAN port and LAN 4 port to your modem's LAN ports (ensure you use two cables with the same specification) <u>WAN Aggregation FAQ</u>					
WAN DNS Setting						
DNS Server	Default status : Get the DNS IP from your ISP automatically Assign a DNS service to improve security, block Assign advertisement and gain faster performance. Assign					
Forward local domain queries to upstream DNS	• Yes • No					
Enable DNS Rebind protection	• Yes • No					
Enable DNSSEC support	• Yes • No					
Prevent client auto DoH						
DNS Privacy Protocol						
DHCP Option						
Class-identifier (Option 60):						
Client-Identifier (Option 61):						
Class-identifier (Option 60):						
Client-identifier (Option 61):						
Account Settings						
Authentication	None					
PPP Echo Interval						
PPP Echo Max Failures	10					
Special Requirement from ISP						
Host Name						
MAC Address	MAC Clone					
DHCP query frequency	Aggressive Mode 🗸					
Extend the TTL value	• Yes • No					
Spoof LAN TTL value	● Yes O No					
	Apply					

To configure the WAN connection settings:

- 1. From the navigation panel, go to **Advanced Settings** > **WAN** > **Internet Connection**.
- 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.
 - Enable WAN Aggregation: WAN Aggregation combines two network connections to increase your WAN speed up to 2 Gbps. Connect your router's WAN port and LAN 4 port to your modem's LAN ports.

- 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.

3.13.2 Dual WAN

The Dual WAN allows you to select two ISP connections to your router, a primary WAN and a secondary WAN.

To configure Dual WAN:

- 1. From the navigation panel, go to **Advanced Settings > WAN**.
- 2. Go to **Dual WAN** field, turn **ON**.
- 3. Choose your **Primary WAN** and **Secondary WAN**. There are WAN, USB, Ethernet LAN and 2.5G WAN for your options.
- 4. Choose Fail Over or Load Balance.
- 5. Click Apply.

NOTE: Detailed explanations are available on the ASUS Support Site FAQ <u>https://www.asus.com/support/FAQ/1011719</u>

WAN - Dual WAN						
ASUS Router provides Dual WAN support. Select Failover mode to use a secondary WAN for backup network access. Select Load Balance mode to optimize bandwidth, maximize throughput, minimize response time, and prevent data overload for both WAN connections. <u>Dual WAN FAQ</u>						
Basic Config						
Enable Dual WAN	OFF					
Primary WAN	1G WAN 🗸					
Auto USB Backup WAN	O Yes ● No					
Auto Network Detection						
Detailed explanations are available on the <u>ASUS Support Site FAQ</u> , which may help you use this function effectively.						
Detect Interval	Every 3 seconds					
Internet Connection Diagnosis	When the current WAN fails 2 continuous times, it is deemed a disconnection.					
Network Monitoring	DNS Query EPing					
	Αρρίγ					

3.13.3 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.

WAN - Port Trigger								
Port Trigger allows you to tempor two methods for opening incomin the time and devices must use sti to the trigger port. Unlike port forv multiple devices to share a single <u>Port_Trigger_FAQ</u>	g data ports: port forwarding atic IP addresses. Port trigg varding, port trigger does no	and port trigger er only opens the ot require static II	: Port forwarding opens e incoming port when a L P addresses for LAN dev	the specified da AN device requirices. Port forwa	uta ports all uests access			
Basic Config								
Enable Port Trigger	🔍 Yes 🔍 No	● Yes O No						
Well-Known Applications		Please select ∨						
Trigger Port List (Max Limit : 32) 🕀								
Description	Trigger Port	Protocol	Incoming Port	Protocol	Delete			
No data in table.								
Арріу								

To set up Port Trigger:

- 1. From the navigation panel, go to **Advanced Settings** > **WAN** > **Port Trigger**.
- 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.

3.13.4 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.

WAN - Virtual S	erver / Port For	warding					
Virtual Server / Port forwarding allows remote computers to connect to a specific computer or service within a private local area network (LAN). For a faster connection, some P2P applications (such as BiTiorrent), may also require that you set the port forwarding setting. Please refer to the P2P application's user manual for details. You can open the multiple port or a range of ports in router and redirect data through those ports to a single client on your network. 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 blank.							
			as the HTTP server's p er's web user interface		your WAN setup,	then you	r http
 When you set 20: ASUS Server's nat Virtual Server 			your WAN setup, then	your FTP ser	rver would be in co	onflict with	h
Basic Config							
Enable Port Forward	ling	OF					
Port Forwarding	List (Max Limit : 6	4)					
Service Name External Port Internal Port Internal IP Address Protocol Source IP Edit Delete							
		_	Add profile				

To set up Port Forwarding:

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

- 2. Configure the following settings below. When done, click ON.
 - Enable Port Forwarding: Turn ON 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 **3.9 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.

3.13.5 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.

WAN - DMZ	
	se one computer to the Internet, so that all the inbound packets will be redirected to the computer
you set. It is useful while you ru	in some applications that use uncertained incoming ports. Please use it carefully.
Special Applications:	
 Some applications requi 	ire special handler against NAT. These special handlers are disabled in default.
 Please <u>add a rule</u> to por 	t forwarding list for USB Disk access properly on FTP service.
DMZ_FAQ	
Enable DMZ	● Yes O No
	Apply

To set up DMZ:

- From the navigation panel, go to Advanced Settings > WAN > DMZ.
- 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**.

3.13.6 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.

WAN - DDNS			
dynamic public IP address, through its regist and other DDNS services.	service that allows network clients to connect to the wireless router, even with a ered domain name. The wireless router is embedded with the ASUS DDNS service ase go to <u>https://iploekup.asus.com/nsloekup.php</u> to reach your internet		
This router may be in the multiple-NAT envir			
WAN. Use "[hostname].asuscomm.com" to r	e the port forwarding or DMZ settings to allow other WAN clients to remotely access		
Server	WWW. ASUS. COM V Deregister		
Host Name	A8878A175D4A6FD54D2E6BD6195DB5EF7 .asuscomm.com		
DDNS Status			
DDNS Registration Result	Registration is successful.		
HTTPS/SSL Certificate	Free Certificate from Let's Encrypt Import Your Own Certificate ONONE		
	Арріу		

To set up DDNS:

- 1. From the navigation panel, go to **Advanced Settings** > **WAN** > **DDNS**.
- 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.

3.13.7 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**. When done, click **Apply**.

WAN - NAT Passthrough	
Enable NAT Passthrough to allow a Virtual Pr	ivate Network (VPN) connection to pass through the router to the network clients.
PPTP Passthrough	Enable 🗸
L2TP Passthrough	Enable 🗸
IPSec Passthrough	Enable 🗸
RTSP Passthrough	Enable 🗸
H.323 Passthrough	Enable 🗸
SIP Passthrough	Enable 🗸
PPPoE Relay	Disable 🗸
FTP ALG port	2021
	Арріу

3.14 Wireless

3.14.1 General

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

Wireless - General				
Set up the wireless related information below.				
Enable Smart Connect	OFF			
Band	2.4 GHz v			
Network Name (SSID)	LIAO			
Hide SSID	● Yes O No			
Wireless Mode	Auto 🗸 🗹 b/g Prolection 🗖 Disable 11b			
802.11ax / WiFi 6 mode	Enable If compatibility issue occurs when enabling 802.11ax / WIFI 6 mode, please check: FAQ			
WiFi Agile Multiband	Disable 🗸			
Target Wake Time	Disable 🗸			
Channel bandwidth	20/40 MHz 🗸			
Control Channel	Auto V Current Control Channet: 6			
Extension Channel	Auto 🗸			
Authentication Method	WPA2-Personal v 🕜			
WPA Encryption	AES 🗸			
WPA Pre-Shared Key	Weak			
Group Key Rotation Interval	3600			
	Арріу			

To configure the basic wireless settings:

- 1. From the navigation panel, go to **Advanced Settings** > **Wireless** > **General**.
- 2. Select 2.4GHz, 5GHz or 6GHz 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, 5GHz and 6GHz 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 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.

- 7. 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.
- 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**.

3.14.2 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.

NOTE: Ensure that the devices support WPS.

Wireless - WPS	
WPS (WiFi Protected Setup) provides easy a PIN code or the WPS buttton.	nd secure establishment of a wireless network. You can configure WPS here via the
Enable WPS	ON
Current Frequency	2.4 GHz
Connection Status	Idle
Configured	Reset Prossing the reset button resets the network name (SSID) and WPA encryption key
AP PIN Code	51246044
button on the client's WLAN adapter a • Method2: Start the client WPS process field and click Start. Please check the	s interface (or press the physical WPS button on the router), then press the WPS nd wait for about three minutes to make the connection. s and get the client PIN code. Enter the clients PIN code on the Client PIN code user manual of your wireless client to see if it supports the WPS function. If your PS function, you have to configure the wireless client manually and set the same
WPS Method:	Push button O Client PIN Code Start

To enable WPS on your wireless network:

- From the navigation panel, go to Advanced Settings > Wireless > WPS.
- 2. In the Enable WPS field, move the slider to ON.
- 3. WPS uses 2.4GHz by default. If you want to change the frequency to 5GHz or 6GHz, 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.

3.14.3 Bridge

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.

Wireless - Bridge					
Bridge (or named WDS - Wireless Distribution wirelessly. WDS may also be considered a rep	n System) function allows your ASUS Router to connect to an peater mode.	n access point			
Note:					
	NONE, Open System/WEP] security authentication metho ease select Legacy as your wireless mode first. EAQ for more details.				
To enable WDS to extend the wireless signal	I, please follow these steps :				
 Ensure that this wireless router and th Key in the remote AP mac in the remoter router's MAC address. To get the best performance, please g 	ind add MAC address of APs in Remote AP List. e AP you wan't to connect to use the same channel ste AP list and open the remote AP's WDS management int yo to Advanced Settings > Wireless > General and assign It sion channel to every router in the network.				
	You are carrently using the Auto channel bandwidth Click <u>Hone</u> to modify. You are carrently using the Auto channel. Click <u>Hone</u> to modify.				
Basic Config					
2.4 GHz MAC					
5 GHz MAC					
Band	2.4 GHz 🗸				
AP Mode	AP Only 🗸				
Connect to APs in list Ves No					
Remote AP List (Max Limit : 4)					
Remote AP List Add / Delete					
▼ •					
Арріу					

To set up the wireless bridge:

- 1. From the navigation panel, go to **Advanced Settings** > **Wireless** > **WDS**.
- 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 it o 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.

3.14.4 Wireless MAC Filter

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

Wireless - Wireless MAC Filter					
Wireless MAC filter allows you to control packets from devices with specified MAC address in your Wireless LAN.					
Basic Config					
Band	2.4GHz *				
Enable MAC Filter	O Yes ● No				
MAC Filter Mode					
MAC filter list (Max Limit : 64)					
	Client Name (MAC Address)	Add / Delete			
		Ð			
Apply					

To set up the Wireless MAC filter:

- 1. From the navigation panel, go to Advanced Settings > Wireless > Wireless MAC Filter.
- 2. Tick Yes in the Enable Mac Filter field.
- 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.

3.14.5 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.

Wireless - RADIUS Setting	
	arameters for authorizing wireless clients through RADIUS server. It is required while ess - General" as "WPA-Enterprise / WPA2-Enterprise".
Band	2.4GHZ •
Server IP Address	
Server Port:	1812
Connection Secret	
	Apply

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 **3.14.1 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.

3.14.6 Professional

The Professional screen provides advanced configuration options.

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

Vireless Professional Setting allows you	to set up additional parameters for wireless. But default values are recommended.
Band	2.4 GHz 🗸
Enable Radio	O Yes ● No
Enable wireless scheduler	● Yes O No
Set AP Isolated	● Yes O No
Roaming assistant	Enable V Disconnect clients with RSSI lower than : -70 dBm
Bluetooth Coexistence	Disable 🗸
Enable IGMP Snooping	Enable 🗸
Multicast Rate(Mbps)	Auto 🗸
Preamble Type	Long 🗸
AMPDU RTS	Enable 🗸
RTS Threshold	2347
DTIM Interval	
Beacon Interval	100
Enable TX Bursting	Enable 🗸
Enable WMM	Enable 🗸
Enable WMM No-Acknowledgement	Disable 🗸
Enable WMM APSD	Enable 🗸
Optimize AMPDU aggregation	Disable 🗸
Modulation Scheme	Up to MCS 11 (NitroQAM/1024-QAM) 🗸
Airtime Fairness	Disable 🗸
Multi-User MIMO	Enable 🗸
OFDMA/802.11ax MU-MIMO	Disable 🗸
Explicit Beamforming	Enable 🗸
Universal Beamforming	Enable 🗸
Tx power adjustment	Performance

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

- **Band**: 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.

• Enable wireless scheduler: You can choose clock format as 24-hour or 12-hour. The color in the table indicates Allow or Deny. Click each frame to change the settings of the hour of the weekdays and click **OK** when done.

minder: The Sys	stem time zone is o 24-hour ▼		ur locale setting,				
Format	Z4-nour ▼	Allow		Deny			
Active Sche	lule	_	_	_	_	_	-
System Time			Thu, Aug	23 06:59:27	2018		
Select All	Sun	Mon	Tue	Wed	Thu	Fri	Sat
$00 \sim 01$							
01 ~ 02							
02 ~ 03							
03 ~ 04							
04~05							
05 ~ 06							
06 ~ 07							
07~08							
08 ~ 09							
09~10							
10~11							
11 ~ 12							
12~13							
13~14							
14~15							
15~16							
16 ~ 17 17 ~ 18							
17~18 18~19			_				
18 ~ 19							
20~21							
21 ~ 22							
22~23							
23 ~ 24							

- 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.
- **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 Utilities

NOTES:

- Download and install the wireless router's utilities from the ASUS website:
 - Device Discovery v1.4.7.1 at <u>https://www.asus.com/</u> <u>Networking/RT-AXE7800/HelpDesk_Download/</u>
 - Firmware Restoration v1.9.0.4 at <u>https://www.asus.com/</u> <u>Networking/RT-AXE7800/HelpDesk_Download/</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.

4.1 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.

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

4.2 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.



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 3: Configuring the General and Advanced Settings** for more details.

4.3 Setting up your printer server

4.3.1 ASUS EZ Printer Sharing

ASUS EZ Printing Sharing utility allows you to connect a USB printer to your wireless router's USB port and set up the print server. This allows your network clients to print and scan files wirelessly.



NOTE: The print server function is supported on Windows[®] 10 and Windows[®] 11.

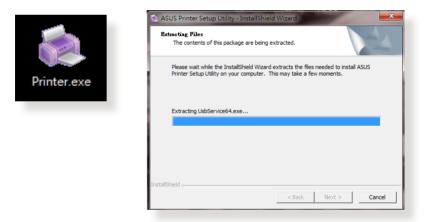
To set up the EZ Printer sharing mode:

- 1. From the navigation panel, go to **General** > **USB Application** > **Network Printer Server**.
- 2. Click Download Now! to download the network printer utility.



NOTE: Network printer utility is supported on Windows[®] 10 and Windows[®] 11 only. To install the utility on Mac OS, select **Use LPR protocol for sharing printer**.

3. Unzip the downloaded file and click the Printer icon to run the network printer setup program.



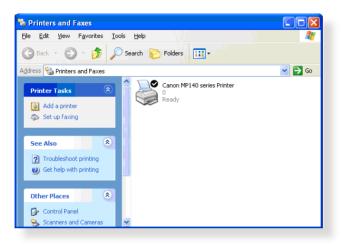
4. Follow the onscreen instructions to set up your hardware, then click **Next**.



- 5. Wait a few minutes for the initial setup to finish. Click Next.
- 6. Click **Finish** to complete the installation.
- 7. Follow the Windows[®] OS instructions to install the printer driver.

Found New Hardware Wiza	ırd
	Welcome to the Found New Hardware Wizard Windows will search for current and updated software by looking on your computer, on the hardware installation CD, or on the Windows Update Web site (with your permission). Read our privacy policy Can Windows connect to Windows Update to search for software? Yes, this time only Yes, now and every time I connect a device No, not this time
	< Back Next > Cancel

8. After the printer's driver installation is complete, network clients can now use the printer.

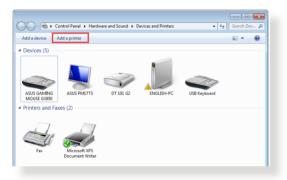


4.3.2 Using LPR to Share Printer

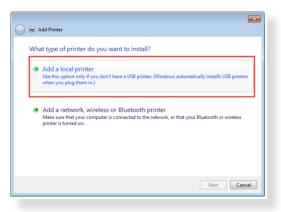
You can share your printer with computers running on Windows[®] and MAC operating system using LPR/LPD (Line Printer Remote/ Line Printer Daemon).

Sharing your LPR printer To share your LPR printer:

1. From the Windows^{*} desktop, click **Start** > **Devices and Printers** > **Add a printer** to run the **Add Printer Wizard**.



2. Select Add a local printer and then click Next.



3. Select Create a new port then set Type of Port to Standard TCP/IP Port. Click New Port.

🚱 🖶 Add	Printer		3		
Choose	Choose a printer port				
A printer port is a type of connection that allows your computer to exchange information with a printer.					
🖱 Use ar	n existing port:	LPT1: (Printer Port)			
Ocreate	a new port:		L		
Ту	pe of port:	Standard TCP/IP Port			
			'		
		Next Cancel)		

4. In the **Hostname or IP address** field, key in the IP address of the wireless router then click **Next**.

🕝 🖶 Add Printer					
Type a printer hostname or IP address					
Device type:	TCP/IP Device	Ŧ			
Hostname or IP address:	192.168.1.1				
Port name:	192.168.1.1				
☑ Query the printer and automatically select the driver to use					
	Next	Cancel			

5. Select **Custom** then click **Settings**.

Additional por	t information required	
The device is not	found on the network. Be sure that:	
 The address of If you think the a 	is connected. properly configured. on the previous page is correct. ddress is not correct, click Back to return orm another search on the network. If yc	to the previous page. Then correct the ou are sure the address is correct, select the
Device Type		
Standard	Generic Network Card	· · · · · · · · · · · · · · · · · · ·

6. Set **Protocol** to **LPR**. In the **Queue Name** field, key in **LPRServer** then click **OK** to continue.

ort Settings	
Port Name:	192.168.1.1
Printer Name or IP Addres	ss: 192.168.1.1
Protocol	
Raw	LPR
Raw Settings	
Port Number:	9100
LPR Settings	
Queue Name:	LPRServer
LPR Byte Counting E	inabled
SNMP Status Enable	d
Community Name:	public
SNMP Device Index:	1

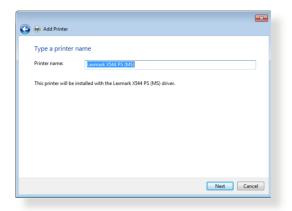
7. Click **Next** to finish setting up the standard TCP/IP port.

🕒 🌧 Add Printer	×
Additional port	information required
 The device is 1 The network i The device is The address o If you think the a 	s connected. n the previous page is correct. If diress is not correct, click Back to return to the previous page. Then correct the min another sareh: on the network. If you are sure the address is correct, select the
Device Type Standard	Generic Network Card
Custom	Settings
	Next Cancel

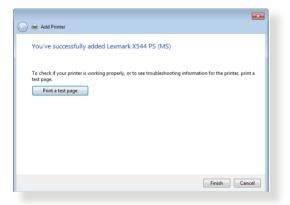
8. Install the printer driver from the vendor-model list. If your printer is not in the list, click **Have Disk** to manually install the printer drivers from a CD-ROM or file.

🌖 🖶 Add Pi	rinter		×
-		r from the list. Click Windows Update to see more models. from an installation CD, click Have Disk.	
		Pintes Pintes	•
		Next Cance	•

9. Click **Next** to accept the default name for the printer.



10. Click **Finish** to complete the installation.



4.4 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 **4.4.1 Configuring Bit Torrent download settings**.

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

Task General Setting			
	Download Schedule		
Settings	Onnmediately A Scheduled Time * Remind: The System time zone is different from your locale setting.		
General	Download to	/tmp/mnt/sda1/Download2/Complete Browse	
Bit Torrent	Refresh rate	5 Seconds	
NZB	DownloadMaster Port	8081	
N2B	Download Master Https Port	8481	
aMule	WAN network	OFF Enable/disable the WAN connection.	
	Keep seeding after task completed	ON	
	Apply		

4.4.1 Configuring Bit Torrent download settings

Task	BitTorrent Setting	
Task	Port	
Settings	OUse the default port Use the following port	
General	Incoming port: 51413	
Bit Torrent	Speed Limits:	
	Maximum download speed:	Dulimited
NZB	Maximum upload speed:	D Unlimited
aMule	BitTorrent Network setting	
~ •	BitTorrent protocol encryption	Encryption enabled *
	Maximum peers allowed per torrent	60
	Global Maximum connection	240
	DHT network	ON Enable DHT to activate trackerless torrent downloading activities.
	PEX network	
		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.

4.4.2 NZB settings

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

/1545		Logout	English
			0
Task	NZB Setting		
🛃 Task	N2B Setting		
7	Setup USENET server to download NZB files:		
Settings	USENET Server		
General	USENET Server Port		
3.5	Maximum download speed:	Unlimited	
Bit Torrent	SSL/TLS connection only	OFF	
NZB	User name		
aMule	Password		
	Confirm Password		
	Maximum number of simultaneous connections to this server		
		Apply	
		2018 4	ASUSTeK Computer Inc. All rights reserved.

5 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:

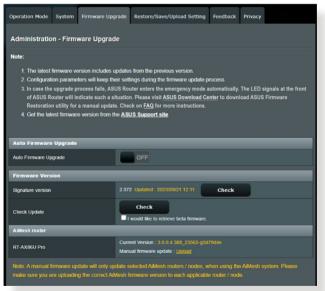
<u>https://www.asus.com/support/</u> for more product information and contact details of ASUS Technical Support.

5.1 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. Click Check to verify if the latest firmware is available.



- 2. If the latest firmware is available, visit the ASUS global website at <u>https://www.asus.com/Networking/RT-AXE7800/HelpDesk/</u> to download the latest firmware.
- 3. From the **Firmware Version** page, click **Check** 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 router.

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

Check if your network settings are correct.

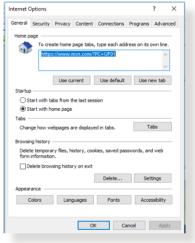
 Each client on the network should have a valid IP address. ASUS recommends that you use the wireless router's DHCP server to assign IP addresses to computers on your network. Some cable modem service providers require you to use the MAC address of the computer initially registered on the account. You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

Hternet status: connected wan IP: 192.168.66.8 DDWS: <u>co</u>	Client status Online Wired (1) Itesing-PC 192.168.59.129 09:09:09:09:09:09
Security level: WPA2-Personal	Refresh
Clients 1 View List View List Alfesh Node: 0	

5.2 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, follow these steps:
 - Launch Internet Explorer, then click Tools > Internet Options.
 - 2. In the General tab, under Browsing history, click Delete..., select Temporary Internet files and website files and Cookies and website data 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 wireless 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.

LAN - DHCP Server	
Basic Config	
Enable the DHCP Server	O Yes ● No
ASUS Router's Domain Name	
IP Pool Starting Address	192. 158. 50. 2
IP Pool Ending Address	192.168.50.254
Lease time	86400
Default Gateway	
DNS and WINS Server Setting	
DNS Server 1	
DNS Server 2	
Advertise router's IP in addition to user- specified DNS	O Yes ● No
WINS Server	
Manual Assignment	
Enable Manual Assignment	● Yes O No
Manually Assigned IP around the DHCI	P list (Max Limit : 64)
Client Name (MAC Address)	IP Address DNS Server (Optional) Host Name (Optional) Add / Delete
ex: C81771641121691C8	
	No data in table.
	Арріу

 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.

Wireless - General	
Set up the wireless related information belo	w.
Enable Smart Connect	OFF
Band	2.4 GHz ~
Network Name (SSID)	LIAO
Hide SSID	● Yes ^O No
Wireless Mode	Auto 🗸 🗹 big Protection 🖬 Disable 11b
802.11ax / WIFI 6 mode	Enable V If compatibility issue occurs when enabling 802.11ax / WIFI 6 mode, please check FAQ
WiFi Agile Multiband	Disable 🗸
Target Wake Time	Disable 🗸
Channel bandwidth	20/40 MHz 🗸
Control Channel	Auto V Current Control Channel: 5
Extension Channel	Auto 🗸
Authentication Method	WPA2-Personal v 🕜
WPA Encryption	AES 🗸
WPA Pre-Shared Key	Weak
Group Key Rotation Interval	3600
	Apply

- 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.

Administration - Restore/Save/Uplo	oad Setting	
This function allows you to save current settin	gs of ASUS Router to	a file, or load settings from a file.
Factory default	Restore	Initialize all the settings, and clear all the data log for AiProtection, Traffic Analyzer, and Web History.
Save setting	Save setting	Citck on this checkbox if you want to share the contig life for debugging. Since the original password in the contig file will be removed, please do not improfite the life into your router Transfer ASUS DONS name
Restore setting	Upload	

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 Controls 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.

Parental Controls - V	Neb & Apps Filters
	Web & Apps Filters allows you to block access to unwanted websites and apps. To use web & apps Filters:
E	1. In the [Clients Name] column, select the client whose network usage you want to control. The client name can be modified in network map client list. 2. Check the unwarled content categories 3. Click the plus (+) icon to add rule then click apply. If you want to disable the rule temporarily, uncheck the check box in front of rule. <u>Parental Controls FAQ</u>
Web & Apps Filters	OFF

- 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.

Firmware upgrade failed.

Launch the rescue mode and run the Firmware Restoration utility. Refer to section **4.2 Firmware Restoration** on how to use the Firmware Restoration utility.

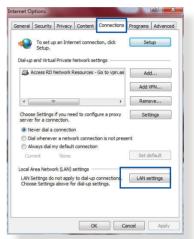
Cannot access Web GUI

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.

Windows®

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



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

se of manual set	ttings, disable au			gs. To ensure the tion.
	detect settings			
Use automatic	configuration se	ript		
Address				
roxy server				
Use a proxy si dial-up or VPN		AN (Thes	e settings	will not apply to
Address:		Port:	80	Advanced
	oxy server for lo	cal addre	sses	
Dypass pro				

MAC OS

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

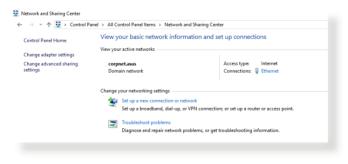
	Location:	Automatic	:	
	Show:	Built-in Ethernet	:	
Select a prox	TCP/IP PPPo		ies Ethernet	
✓ FTP Pro>	KY XY (HTTP)	n .		
	Veb Proxy (HTTPS) 1g Proxy (RTSP)	Prox)	Set Password	ord
		Ŭ,	Set Password	
	Proxv	Ŧ		
Gopher				
	y settings for			

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®

1. Click **Start > Control Panel > Network and Sharing Center**, then click the network connection to display its status window.



2. Click **Properties** to display the Ethernet Properties window.

3. Select Internet Protocol Version 4 (TCP/IPv4) or Internet Protocol Version 6 (TCP/IPv6), then click Properties.

4. 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**.

5. Click **OK** when done.

Ethernet Status		×
General		
Connection		-
IPv4 Connectivity:	Internet	
IPv6 Connectivity:	No network access	
Media State:	Enabled	
Duration:	03:29:31	
Speed:	1.0 Gbps	
Details		
Activity	Sent — 🐺 — Received	-
Bytes:	71,424,646 70,727,241	
Properties	Oisable Diagnose	
	Close	

Ethernet Properties	×
Networking Authentication	
Connect using:	
Intel(R) Ethernet Connection (2) I219-V	
Config	100
This connection uses the following items:	
GoS Packet Scheduler Internet Protocol Version 4 (TCP/IPv4)	^
Microsoft Network Adapter Multiplexor Protocol Microsoft LLDP Protocol Driver	
Internet Protocol Version 6 (TCP/IPv6) Internet Protocol Version 6 (TCP/IPv6) Internet Protocol Version 6 (TCP/IPv6)	
Link-Layer Topology Discovery Mapper I/O Driver	
<	>
Install Uninstall Proper	ties
Transmission Control Protocol/Internet Protocol. The del wide area network protocol that provides communication across diverse interconnected networks.	
OK	Cancel
OK	Caricer
Internet Protocol Version 4 (TCP/IPv4) Properties	×
General Alternate Configuration	
You can get IP settings assigned automatically if your network this capability. Otherwise, you need to ask your network admin for the appropriate IP settings.	
Obtain an IP address automatically	
Ouse the following IP address:	
IP address:	
Subnet mask:	
Default gateway:	
Obtain DNS server address automatically	
Use the following DNS server addresses:	
· ·	
Preferred DNS server:	
· ·	
Preferred DNS server:	anced
Preferred DNS server:	anced

MAC OS

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

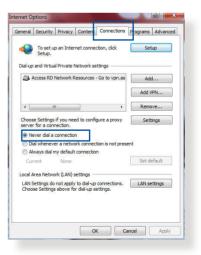
Show All	Displays Sou	nd Network	Startup Di	sk.			
	Le	ocation: A	utomatic			•	
		Show: B	uilt-in Eth	ernet		;	
	TCP/	IP PPPoE	Apple	alk Proxi	es Etł	ernet	
Con	igure IPv4:	Using DH	CP		•		
	P Address:				C	Renew DHO	Please
	bnet Mask:			DHCP Clie	_		
30		192.168.1		DHCF Cile	ant iD.	(If required)	
D	NS Servers:	192.168.1	28.10				(Optional)
Searc	n Domains:						(Optional)
IP	6 Address:	fe80:0000:	0000:000	0:0211:24ff:	fe32:b18	le	
		Configure	IPv6)				(?)
							U

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®

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

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- The power supply cord(s) must be plugged into socket-outlet(s) that is /are provided with a suitable earth ground. Connect the equipment only to a nearby socket outlet that is easily accessible.
- If the Adapter is broken, do not try to fix it by yourself. Contact a qualified service technician or your retailer.
- DO NOT use damaged power cords, accessories, or other peripherals.
- DO NOT mount this equipment higher than 2 meters.
- Use this product in environments with ambient temperatures between 0°C (32°F) and 40°C (104°F).
- Read the operational guidelines and the temperature range provided before using the product.
- Pay particular attention to the personal safety when using this device in airports, hospitals, gas stations and professional garages.
- Medical device interference: Maintain a minimum distance of at least 15 cm (6 inches) between implanted medical devices and ASUS products to reduce the risk of interference.
- Kindly use ASUS products in good reception conditions to minimize the radiation's level.
- Keep the device away from pregnant women and the lower abdomen of the teenager.
- DO NOT use this product if visible defects can be observed or it has been wet or damaged or modified. Seek servicing for assistance.



WARNING!

- DO NOT place on uneven or unstable work surfaces.
- DO NOT place or drop objects on the top of the product. Avoid exposing the product to mechanical shock such as crushing, bending, puncturing or shredding.
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- DO NOT expose to or use near liquids, rain, or moisture. DO NOT use the product during electrical storms.
- Connect the PoE output circuits of this product exclusively to PoE networks, without routing to external facilities.
- To prevent electrical shock hazard, disconnect the power cable from the electrical outlet before relocating the system.
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