

QMiroPlus-201W

User Guide

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1. Preface

About This Guide

This guide provides information about the device and step-by-step instructions on installing the hardware. It also provides instructions on basic operations and troubleshooting information.

Audience

This document is intended for consumers and network administrators. This guide assumes that the user has a basic understanding of network, storage, and backup concepts.

Document Conventions

Symbol	Description
e	Notes provide default configuration settings and other supplementary information.
	Important notes provide information on required configuration settings and other critical information.
	Tips provide recommendations or alternative methods of performing tasks or configuring settings.
	Warnings provide information that, when ignored, may result in potential loss, injury, or even death.

2. Product Overview

This chapter provides basic information about the QNAP device.

About the QMiroPlus-201W

The QMiroPlus-201W is QNAP's first tri-band wireless mesh network (WMN) router with built-in networkattached storage (NAS) capabilities. The QMiroPlus-201W features four internal antennas, four 1 GbE ports, and supports SD-WAN deployment. The router is equipped with NAS functions and two SATA drive bays for various application and expansion options.

You can create and manage wireless mesh networks with multiple QMiro and QMiroPlus routers using the QuRouter web interface, QTS application, or the QuRouter mobile application.

Hardware Specifications



Warning

If your QNAP product has hardware defects, return the product to QNAP or a QNAPauthorized service center for maintenance or replacement. Any attempt to repair or perform maintenance procedures on the product by you or an unauthorized third party invalidates the warranty.

QNAP is not responsible for any damage or data loss caused by unauthorized modifications and installation of unsupported third-party applications. For details, see the QNAP Warranty Terms and Conditions.



Tip

Model specifications are subject to change without prior notice. To see the latest specifications, go to https://www.gnap.com.

Component	QMiroPlus-201W	
	Router	Storage
Processor		
CPU	Qualcomm® IPQ4019 SoC	Intel® Celeron® J4125
Frequency	4-core 716.8 MHz	4-core 2.0 GHz
Architecture	ARM Cortex-A7	x86 64-bit
Memory		
Pre-installed memory	512 MB DDR3	4 GB DDR4
Flash memory	4 MB SPI NOR	4 GB eMMC
Storage		
Drive bays	2 x 2.5-inch SATA 3 Gbps	
Drive compatibility	• 2.5-inch SATA hard disk drives	
	• 2.5-inch SATA solid-state drives	
Hot-swapping	Supported	
Network		
Antennas	4 x internal antennas	
Gigabit Ethernet	• 1 x 2.5 GbE RJ45	
ports	• 4 x 1 GbE RJ45	

Component QMiroPlus-201W		us-201W
	Router	Storage
External I/O Ports &	Expansion Slots	
USB ports	2 x USB 3.2 Gen 1 Type-A ports	
Interface		
Buttons	 Power Reset Wi-Fi Protected Setup (WPS) Storage power button 	
Dimensions		
Dimensions (H x W x D)	143.5 × 105 × 183.5 mm (5.64 x 4.13 x 7.22 in)	
Net weight	1.44 kg (3.17 lbs)	
Others		
Fans	System: 1 x 60 mm, 12V DC smart fan	
Operating temperature	0°C to 40°C (32°F to 104°F)	
Maximum power consumption	60 W	
Relative humidity	Non-condensing relative humidity: 5% to 9	5%

Software Features

Feature	Description
System status and management	Device connection status
	Device health status
	WAN status
	Wireless status
	Firmware schedule management
Wired network management	WAN/LAN port configuration
	Network port connection status
	 IPv4 address routing management
Security	Network Address Management (NAT) and port forwarding
VPN	 Remote access support using L2TP, OpenVPN, and QBelt (QNAP proprietary VPN) protocols
	Client IP pool management
	VPN client management
	Connection logs
	Maximum VPN tunnels: 30

Feature	Description
Access control	Parental control
	Domain Name Filtering (DNS) and content filtering
System settings	Backup and restore
	Restart, reset
	Manage audio alerts
	Local account and QNAP ID management
	 USB settings: USB device user management, USB usage overview, FTP server management
QuWAN	Configure organization, region, site, device name, and device role

Wireless Specifications

Specification	Description
Standards	• IEEE 802.11b/g/n/ac 2.4 GHz
	• IEEE 802.11a/n/ac 5 GHz
Operating frequencies	• 2.4 GHz
	• 5 GHz-1
	• 5 GHz-2
Speeds	AC2200
	 5 GHz-1 (867 Mbps): 2 x 2 dual band (20/40/80 MHz)
	• 5 GHz-2 (867 Mbps): 2 x 2 single band (20/40/80 MHz)
	 2.4 GHz (400 Mbps): 2 x 2 dual band (20/40 MHz)
Modes	Router mode
	Access point (AP) mode
Guest wireless network	1 x 2.4 GHz
Encryption	• WPA2-PSK
	• WPA-PSK + WPA2-PSK
	WPA-Enterprise
	WPA2-Enterprise

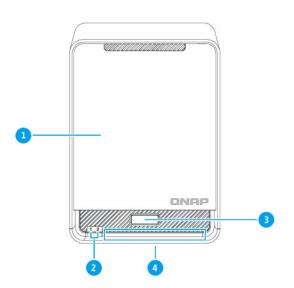
Specification	Description
Wireless network management	Supports MU-MIMO technology
	 Supports band steering for tri-band (2.4 GHz and 5 GHz band) access points
	 Transmission power (high, middle, and low)
	 20/40/80 MHz bandwidth
	Auto and custom DFS (Dynamic Frequency Selection) channels
	RTS/CTS (Request to Send/Clear to Send) functions
	Smart connect
	Wireless scheduler
	Wi-Fi Protected Setup (WPS)
Bluetooth	
Bluetooth version	Bluetooth® 5.0
Bluetooth antenna gain	3.42dBi

Package Contents

Item	Quantity
QMiroPlus-201W router	1
AC power adapter	1
Ethernet cable	1

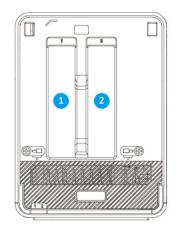
Components

Front Panel



No.	Component
1	Case cover
2	Drive LEDs For details, see LEDs
3	WPS button For details, see WPS Button.
4	Status LED For details, see LEDs

Front Panel without Case Cover



No.	Component
1	Drive bay 1
2	Drive bay 2

LEDs

LEDs indicates the overall status of the router, the drives, the storage, and the network ports.

LED	Status	Description	
System Status	Green	Router initialization is complete, and the storage status is one of the following:	
		Being initialized	
		Powered off	
		Starting up	
	Flashes green every 2 seconds	Router is starting up, and the storage status is one of the following:	
		Being initialized	
		Powered off	
		Starting up	
	Flashes blue every 2 seconds	Router initialization is complete and the storage is ready for initialization.	
	Blue	Both router and storage initializations are complete.	
	Off	The router is powered off.	
	Red	The router is not connected to a network.	
Wireless	Flashes orange every 0.5 seconds	A node in the mesh network has a weak signal.	
	Red	A node in the mesh network is out of range.	
	Flashes blue every 0.5 seconds	A node is being added to the mesh network.	
2.5 Gigabit	Green	The network connection is operating at 2.5 Gbps.	
Ethernet speed	Orange	The network connection is operating at 1 Gbps.	
	Off	The network connection is operating at 100 Mbps.The network connection is operating at 10	
	-	Mbps.	
2.5 Gigabit Ethernet activity	Orange	A network connection has been established.	
Ethernet activity	Flashes orange	The router is being accessed from the network.	
	Off	There is no network connection.	
Drive	Flashes red	A read/write error is occurring while data is being accessed.	
	Red	A drive read/write error occurred.	
	Flashes green	Data is being accessed.	
	Green	The drive is ready.	
	Off	No drive is detected.	

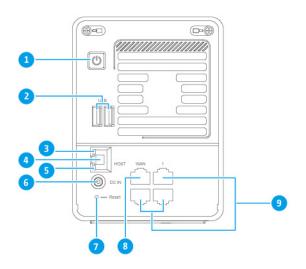
WPS Button

Wi-Fi Protected Setup (WPS) is a protocol that enables a simple wireless network setup. It allows users to set up a wireless network without the need to configure any network names, passwords, or other cryptographic information.

You can configure WPS by pressing the WPS button located on the front panel of the device (see Front Panel). Alternatively, you can configure WPS through QuRouter; for details, see Configuring Wi-Fi Protected Setup (WPS).

Operation	User Ac	tion	Result
Enable WPS	 Press the WPS button located on the router for 3 seconds. Enable WPS on the client device. 		The WPS protocol is enabled and the client device joins the network.
	Tip The WPS feature labelled differentl the product. The function is ty the Wi-Fi settings	y, depending on pically located in	

Rear Panel



No.	Component
1	Storage power button
2	USB 3.2 Gen 1 Type-A ports
3	2.5 Gigabit Ethernet activity LED
4	2.5 Gigabit Ethernet port
5	2.5 Gigabit Ethernet speed LED
6	Power input
7	Reset button
8	WAN port
9	LAN ports

Storage Power Button

Operation	User Action	Result
Power on	Press the button once.	The storage function is turned on.
Power off	Press and hold the button for 1.5 seconds.	The storage function is turned off.

Reset Button

QNAP routers can be reset to factory defaults using the reset button located on the rear side of the device.

For details on the component placement, see the rear side of the device (Rear Panel).

Operation	User Action	Result
Reset	Press and hold the button for 10 seconds.	The router resets and all default settings are restored. This will clear any statically assigned IP address information, WAN and LAN configurations, and security settings. The router is unbound from the QNAP ID.

Safety Information

The following instructions help ensure personal safety and environmental safety. Read these instructions carefully before performing any operations.

General Instructions

- The device should be stored in a secure location with restricted access, controlled through the use of a tool, lock and key, or any means of security.
- Only qualified, skilled, and authorized persons with knowledge of all restrictions, safety precautions, and installation and maintenance procedures should have physical access to the device.
- To avoid potential injury or damage to components, ensure that the drives and other internal system components have cooled before touching them.
- Observe electrostatic discharge (ESD) procedures to avoid potential injury or damage to components.

Power

• To reduce the risk of fire or electric shock, ensure that you only connect the power cord to a properly grounded electrical outlet.



Devices with redundant power supply may have one or more power supply unit (PSU) cords. To avoid serious injuries, a trained service technician must disconnect all PSU cords from the device before installing or replacing system components.

Moving Parts



Moving fan blades: Keep your body parts away from moving fan blades while the device is connected to a power source.



•

Moving components: Keep your body parts away from other moving components.

3. Installation and Access

This chapter provides specific hardware installation and router access steps.

Installation

Installation Requirements

Category	Item		
Environment	 Room temperature: 0°C to 40°C (32°F to 104°F) 		
	 Non-condensing relative humidity: 5% to 95% 		
	 Wet-bulb temperature: 27°C (80.6°F) 		
	 Flat, anti-static surface without exposure to direct sunlight, liquids, or chemicals 		
Hardware and peripherals	Network cable		
Tools	Anti-static wrist strap		

Installing 2.5-inch Hard Drives or Solid-State Drives on 2.5-inch Trays

For the list of compatible drive models, go to https://www.qnap.com/compatibility.



Warning

- Installing a drive deletes all data on the drive.
- Observe electrostatic discharge (ESD) procedures to avoid damage to components.

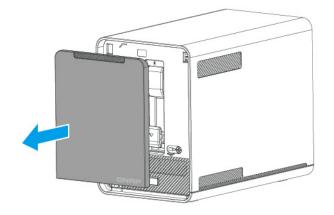


Moving fan blades: Keep your hands and other body parts away from moving fan blades.

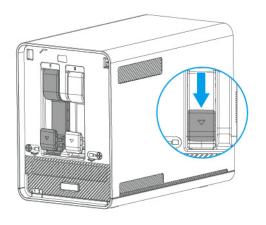


Other moving components: Keep your hands and other body parts away from other moving components.

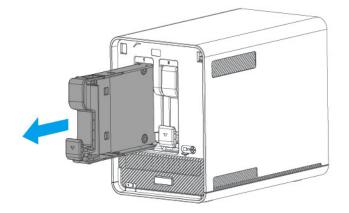
- **1.** Power off the device.
- 2. Remove the case cover.
 - a. Locate the handle beneath the case cover.
 - **b.** Pull the case cover handle forward.



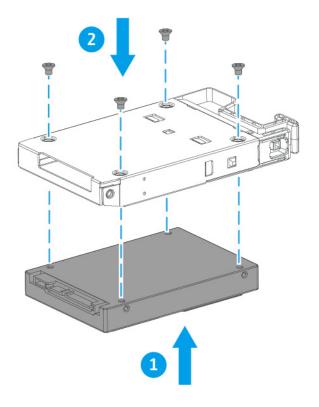
- **3.** Remove the drive tray.
 - **a.** Slide the lock down to release the tray.



b. Pull the tray out.

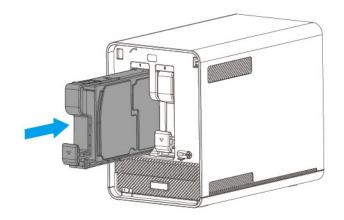


- 4. Install a drive on the tray.
 - **a.** Place the drive on the tray so that the holes on the bottom of the drive are aligned with the holes on the bottom of the tray.
 - **b.** Attach the screws.

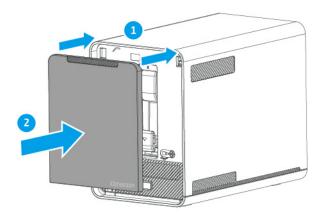


5. Load the tray into the bay.

a. Insert the tray into the bay.



- 6. Attach the case cover.
 - **a.** Align the case cover notch with the grooves on the router.
 - **b.** Push the case cover back into position.



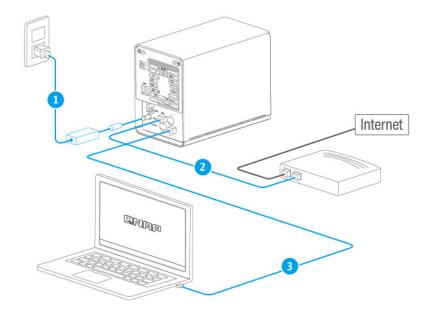
7. Power on the device.

Connecting the Router to the Internet

- **1.** Connect the router to the power source.
 - a. Connect the power cord to the router.
 - **b.** Connect the power adapter to the electrical outlet.

The router powers on and the front panel LED flashes green.

- 2. Connect the router to the internet.
 - a. Connect an Ethernet cable to the WAN port of the router.
 - **b.** Connect the other end of the Ethernet cable to the ISP gateway or the modem.
- **3.** Connect the router to the computer.
 - **a.** Connect an Ethernet cable to a LAN port of the router.
 - b. Connect the other end of the Ethernet cable to the Ethernet port of the computer.



- 4. Verify that the router is recognized by the computer.
 - a. Open Qfinder Pro on the host computer.



Note To download Qfinder Pro, go to https://www.qnap.com/utilities.

b. Locate the router in the list and double-click the name or IP address.



Note

Verify the router name by checking the MAC address or the SSID listed on the rear side of the router.

- 5. Open a web browser on your computer.
- **6.** Enter 192.168.100.1 in the address bar. The QuRouter login screen appears.
- 7. Follow the installation guide to configure the initial settings of the router.

Setting Up the Router

- **1.** Place your router in an environment that meets the requirements. For details, see Installation Requirements.
- 2. Install the drives. For details, see Installing 2.5-inch Hard Drives or Solid-State Drives on 2.5-inch Trays
- 3. Power on the router.
- **4.** Check if the LED status is green. For details, see LEDs.
- **5.** Connect the router to the network and the computer. For details, see Connecting the Router to the Internet.
- **6.** Configure the router settings. For details, see the following topics:
 - Configuring the QTS Quick Start Wizard
 - Configuring QuRouter
- 7. Log in with your QNAP ID or local account credentials. For details, see Binding the Router with a QNAP ID.

Router Access

Method	Description	Requirements
Web browser	Important Ensure that QuRouter Remote Management is enabled in System > Access Control > Access Control Settings .	 Computer that is connected to the same network as the router Web browser
	You can access the router using any computer on the same network if you have the following information:	
	Router IP address	
	Login credentials of a valid user account	
	Alternatively, you can access the router using the QTS IP address if you have the following information:	
	QTS IP address	
	Login credentials of a valid user account	
	Tip The QTS IP address is listed as the NAS IP address on the asset tag of the router.	
	• Default username: admin	
	 Default password: The NAS MAC address without any punctuation and all letters capitalized. 	
	For details, see Accessing the Router Using a Browser.	
Qfinder Pro	Qfinder Pro is a desktop utility that enables you to locate and access QNAP devices on a specific network. The utility supports Windows, macOS, Linux, and Chrome OS. To download Qfinder Pro, go to https:// www.qnap.com/utilities. For details, see Accessing the Router Using Qfinder Pro.	 Computer that is connected to the same network as the router Web browser Qfinder Pro

Accessing the Router Using a Browser

You can access the router using any computer on the network if you know its IP address and the login credentials of a valid user account.



If you do not know the IP address of the router, you can locate it using Qfinder Pro.

- **1.** Verify that your computer is connected to the same network as the router.
- 2. Open a web browser on your computer.

- 3. Enter the IP address of the router in the address bar.
- 4. Select the login interface.
 - QuRouter
 - QTS
- 5. Specify the default username and password.

Default Username	Default Password	
admin	 QuRouter: The router MAC address without any punctuation and all letters capitalized. 	
	QTS: The NAS MAC address without any punctuation and all letters capitalized.	
	Tip For example, if the MAC address is 00:0a:0b:0c:00:01, the default password is 000A0B0C0001.	

6. Click Login.

The QuRouter dashboard page appears.

Accessing the Router Using Qfinder Pro

Qfinder Pro is a desktop utility that enables you to locate and access QNAP devices on a specific network. The utility supports Windows, macOS, Linux, and Chrome OS.

- 1. Install Qfinder Pro on a computer that is connected to the same network as the router. To download Qfinder Pro, go to https://www.qnap.com/en/utilities.
- Open Qfinder Pro. Qfinder Pro automatically searches for all QNAP devices on the network.
- **3.** Locate the router in the list and then double-click the name or IP address. The default web browser page opens.
- 4. Select the login interface.
 - QuRouter
 - QTS
- 5. Specify the default username and password.

Default Username	Default Password	
admin	 QuRouter: The router MAC address without any punctuation and all letters capitalized. 	
	QTS: The NAS MAC address without any punctuation and all letters capitalized.	
	Tip For example, if the MAC address is 00:0a:0b:0c:00:01, the default password is 000A0B0C0001.	

6. Click Login.

The QuRouter dashboard page appears.

Accessing the Router Using the QuRouter App

- 1. Open QuRouter on your Android or iOS device.
- 2. Tap Existing Device Login.



Tip To configure a new router, see Configuring the Router Using the QuRouter App

- **3.** Select the region. The QNAP ID login page appears.
- 4. Specify your QNAP ID and password.
- 5. Tap Sign In.

The **Overview** page appears.

4. QuRouter

About QuRouter

QuRouter is a centralized management interface that comes with your QNAP router, accessible by visiting the router's IP address in a web browser. With its intuitive interface, QuRouter makes it easy to set up, secure, and configure the features of your router.

System Requirements

Category	Details	
Hardware	A QNAP router	
Software	Web browser:	
	Microsoft Edge 42 or later	
	Mozilla Firefox 60.0 or later	
	Apple Safari 11.1 or later	
	Google Chrome 70.0 or later	
	Qfinder Pro 6.9.2 or later	

Getting Started

- 1. Open a web browser on your computer.
- **2.** Enter 192.168.100.1 in the address bar. The QuRouter login screen appears.
- 3. Select the login interface.
 - QuRouter
 - QTS
- **4.** Log in with your QNAP ID or local account credentials. For details, see Binding the Router with a QNAP ID.
- **5.** Configure network settings. For details, see the following topics:
 - Configuring WAN Settings
 - Configuring LAN Settings
- **6.** Configure wireless settings. For details, see the following topics:
 - Configuring Wireless Network Settings
 - Configuring the Guest Wireless Network
 - Configuring Wi-Fi Protected Setup (WPS)
- 7. Configure system settings.

For details, see the following topics:

- Editing the Device Name
- Configuring Access Control Settings
- Restart, Reset, Backup, and Restore
- Configure audio alert settings.



For details, see the Hardware section of the QTS User Guide.

- **8.** Configure QVPN settings. For details, see the following topics:
 - Adding a VPN Client
 - Enabling QBelt VPN Server
 - Enabling L2TP VPN Server
 - Enabling OpenVPN VPN Server

Configuring QuRouter

This sections explains how to configure the router using the web management interface during the initial setup process.

- 1. Open a web browser.
- 2. Enter 192.168.100.1 in the address bar.
- 3. Alternatively, use Qfinder Pro to locate the router on the list.
- 4. Double-click on the name or IP address. The Smart Installation Guide page appears.
- Click Start. The Set Up and Access QuWAN page appears.
- 6. Click OK. The WAN Settings page appears.
- 7. Select one of the following WAN interface settings.

Setting	Description	
DHCP	Obtain IP address settings automatically via DHCP	
Static IP	Manually assign a static IP address. You must specify the following information:	
	Fixed IP address	
	Subnet mask	
	DNS server	
PPPoE	Select this option to specify a username and password for Point-to-Point Protocol over Ethernet (PPPoE).	

- 8. Click Apply.
- 9. Specify the current location of the device.
 - a. Click the drop-down list to select the country or region.

Note

If the selected location does not match with the IP geolocation of the device a confirmation message appears prompting you to use the router in basic wireless mode. The basic wireless mode has the following limitations:

- The only channels available are from 1 to 11 in the 2.4 GHz band
- 5 GHz bands are unavailable
- · The 2.4 GHz band operates on low output power
- b. Click Apply. QuRouter verifies the location of the device.
- 10. Select the Wi-Fi point of the router.

The Wi-Fi point is the physical location of the installed router.

11. Click Apply.

Note

12. Specify a new SSID and password for the router.

Note

You can find the default SSID and password on the rear side of the router.

Y ONOO I	iroPlus-201W_56DE word:9a3d43ee	Router IP :192.168.100.1 Account : admin Password : Router MAC
AI-Powered NAS with Tri-Band Mesh W 三頻網狀無線網絡智能儲存路由器 三频网状无线网络智能储存路由器	QuRouter app	NAS MAC:00AA11BC56DE
Input/输入/輸入: 12V 5A Model/型號/ 型号:QMiroPlus-201W Made in China/中国制造/中國製造		Router MAC:00AA11BC56DE
5GHz band (W52, W53): Indoor use onl 2F, No.22, ZhongXing Rd., Xizhi Dist., N		wan. S/N:Q202A00001

- 13. Click Apply.
- 14. Add another router to the mesh network.
 - a. Select a router from the list.
 - b. Click Apply.
 - c. Select the Wi-Fi point.
 - d. Click Apply.
- **15.** Update the firmware to the latest version. For details, see Firmware.

16. Click Apply.

A confirmation message appears.

- **17.** Select the login interface.
 - QuRouter
 - QTS
- **18.** Specify the default username and password.

Default Username	Default Password	
admin	QuRouter: The router MAC address without any punctuation and all letters capitalized.	
	QTS: The NAS MAC address without any punctuation and all letters capitalized.	
	For example, if the MAC address is 00:0a:0b:0c:00:01, the default password is 000A0B0C0001. The MAC address can be found on the asset tag on the rear side of the device.	

- **19.** Click Login. The Local Account window appears.
- **20.** Optional: You can log in to QuRouter using your QNAP ID and password. For details, see Binding the Router with a QNAP ID.
- **21.** Reenter or modify the local account username and password.
- **22.** Click **OK**. A confirmation message appears.

QuRouter saves the settings.

To verify if QuRouter is enabled, go to **More > Help > Quick Start** and then go to the **System Volume and QuRouter** page.

Binding the Router with a QNAP ID

- 1. Open QuRouter.
- 2. Log in with your QNAP ID and password.



Note

To create a new QNAP account, click Create Account.

- Click Login. The Local Account window appears.
- 4. Enter the local account credentials in order to complete the 2-step verification process.
- 5. Click OK. The QuRouter dashboard opens and the Edit Device Name window appears.
- 6. Specify a device name containing between 3 to 15 alphanumeric characters.

7. Click OK.

The router is bound to the QNAP ID.

Unbinding the Router from a QNAP ID

- 1. Log in to QuRouter.
- 2. Go to System > Access Control > Administrator .
- 3.

Below **Unbind QNAP ID**, click A confirmation message appears.

4. Click OK.



Note

The router is unbound from the QNAP ID and you are logged out of QuRouter.

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5. QuRouter Navigation

Taskbar

Sevent Ster QMiroPlus-201W

No.	Element	User Action
1	[USER_NAME]	Logout: Logs the user out of the current session
2	More	Click the button to view the following menu items:
		 Language: Opens a list of supported languages and allows you to change the language of the operating system
		About: Displays the following information:
		Operating system
		Hardware model
		Firmware version
3	QuWAN	Click the button to view QuWAN-related information.
		QuWAN Orchestrator connection status
		Organization
		QuWAN settings
		Link to QuWAN Orchestrator

Dashboard

🚆 RuRoôte	C QMiroPlus-201W	2 · ∃ ⊗ ·
ා Dashboard ණී QuWAN	Dashboard View the router's network status and other related information.	
 ☐ QMiro Devices 分 Clients → Network ~ (ŋ) Wireless ↔ NAT 	Overview 1 QMiroPlus-201W is healthy. System uptime: 19 day(s) 20:28:44 A new firmware version 1.2.6.0001 is available.	Clients
국가 이 이 이 이 이 이 이 이 이 이 이 이 이 이 이 이 이 이 이	WAN Overview 3 A Wireless 4 A Connected Devices WAN interface: DHCP WiFi Guest Wireless Network 1 Image: Connected Devices 1 IP address: 172.17.28.46 SSID: TWQMIROPLUS1 Image: Connected Devices 1	5 7
×		

No.	Section	Displayed Information	User Action
1	Overview	 Uptime (number of days, hours, minutes and seconds) 	-
		CPU temperature	
		 Firmware information 	
2	Device Connection	Internet status	-
	Status	Device status	
		Number of connected clients	
3	WAN Overview	WAN interface	Click to open Network >
		IP address	WAN .
		Traffic	
4	Wireless	Wireless / Guest Wireless Network	
		• SSID	Click to enable wireless or guest wireless network.
		Password	Тір
			Click ^C to make the password visible.
5	Connected Devices	Names of the connected devices	Click to open Clients.

6. System Configuration

System

Configuring Router Operation Modes

QuRouter provides access to two router operation modes.

- Wireless router: The default router mode where the device can connect to the internet and share the wireless network with its client devices. NAT and DHCP are enabled by default.
- Access point (AP): The router connects to a wireless router using a network cable to extend the coverage of the wireless signal to other network devices. Router-related features (DHCP server, NAT, QuWAN, and WAN) are disabled when the router operates as a wireless access point.
 For details on configuring access point mode, see Configuring Access Point (AP) Mode.
- 1. Go to System > Operation Mode .
- 2. Select a router operation mode.
- 3. Click Apply.

QuRouter applies the operation mode settings.

Configuring Access Point (AP) Mode

- 1. Log in to QuRouter.
- 2. Go to System > Operation Mode .
- 3. Select Access point (AP) mode.
 - a. Optional: Select Enable Spanning Tree Protocol (STP).
 - **b.** Select one of the following:
 - DHCP: Obtains the IP address information automatically from the DHCP server.
 - **Static IP**: Specify the IP address information manually. Configure the following static IP address settings:

Setting	User Action	
Fixed IP address	Specify a fixed IP address.	
	Tip Examine your network setup for guidance on how to best configure these settings.	
Subnet mask	Specify the subnet mask used to subdivide your IP address.	
Lease time	Specify the length of time that an IP address is reserved for a DHCP client. The IP address is made available to other clients when the lease expires.	
Default gateway	Specify the IP address of the default gateway for the DHCP server.	
DNS server	Specify a DNS server for the DHCP server.	

4. Click Apply.

A confirmation message appears.

5. Click OK.

Important

The following settings are changed when the router is switched to AP mode.

- The router is unbound from the QNAP ID.
- The router is removed from the QNAP organization and QuWAN. You must reconfigure the QuWAN settings if you enable the router mode again.
- 6. Run Qfinder Pro on a computer that is connected to the same local area network.



Note

To download Qfinder Pro, go to https://www.qnap.com/utilities.

- **7.** Locate the router in the list and double-click the name or IP address. The login screen appears.
- 8. Enter the local account credentials of the router.
- 9. Click Login.



Note

QuRouter displays only information related to access point settings such as network, wireless, firmware, and system settings.

Locating the Router

This section describes how to locate an on-premise router by remotely activating the LED indicator on the router.

- 1. Go to QMiro Devices.
- 2. Identify the router in the QMiro Device List.
- 3.

```
Click
```

The Settings - [Device_Name]-[Location] window appears.

4. Click Start.

The router LED flashes 5 times.

Enabling the Router LED

- 1. Go to QMiro Devices.
- 2. Identify the router in the QMiro Device List.

3.

```
Click
```

Click

The Settings - [Device_Name]-[Location] window appears.

4.

next to **LED status**.

The router LED is enabled.

Managing Logs

Important events, errors, or warnings are recorded for the router that can be used to diagnose issues or monitor router operations. Common events include enabling or disabling network services, configuring account and system settings, and configuring security settings.

1. Go to System > Event Logs .

2. Perform any of the following tasks.

Task	User Action
Search log files	a. Locate the search field.
	b. Enter search terms.
Export log files	 a. Click Export. A file explorer window opens. b. Specify the file name for saving the document. c. Click Save. QuRouter saves the CSV file.
Delete log files	 a. Click Clear. A confirmation message appears. b. Click Clear.

QuRouter performs the specified task.

System Settings

Editing the Device Name

1. Go to System > System Settings > Device Name Settings .

```
2.
```

Click . The **Edit Device Name** window appears.

- **3.** Specify device name that consists of 3 to 15 characters from any of the following group: Valid characters: A–Z, a–z, 0–9
- 4. Click OK.

QuRouter updates the device name.

Restart, Reset, Backup, and Restore

QuRouter system settings allows you to remotely control the restart, reset, backup, and restoration operations of the router.

Restarting the Router

- 1. Restart the router using one of the following methods.
 - System Settings

- 1. Go to System > System Settings > Restart / Reset / Backup / Restore .
- **2.** Click **Restart**. A confirmation message appears.
- 3. Click OK.
- QMiro Devices
 - 1. Go to QMiro Devices.
 - 2. Identify the router.
 - 3. Olick Click The Settings [Device_Name]-[Location] window appears.
 - **4.** Click **Restart**. A confirmation message appears.
 - 5. Click OK.

QuRouter restarts the device.

Resetting the Router

Reset the router to restore the device to its default state.

- **1.** Reset the router using one of the following methods.
 - System Settings
 - 1. Go to System > System Settings > Restart / Reset / Backup / Restore .
 - **2.** Click **Reset**. A confirmation message appears.
 - 3. Click OK.
 - QMiro Devices
 - 1. Go to QMiro Devices.
 - 2. Identify the router.

3. Click

The Settings - [Device_Name]-[Location] window appears.

- **4.** Click **Reset**. A confirmation message appears.
- 5. Click OK.

QuRouter resets the device to default settings and the router is unbound from the QNAP ID.



Important

Resetting the primary device resets all the nodes in the mesh network.

Backing Up System Settings

- 1. Go to System > System Settings > Restart / Reset / Backup / Restore .
- 2. Click Backup.

The device exports the system settings as a BIN file and downloads the file to your computer.

Restoring System Settings



Warning If the selected backup file contains user or user group information that already exists on the device, the system will overwrite the existing information.

- 1. Go to System > System Settings > Restart / Reset / Backup / Restore .
- 2. Under Restore, click Browse. A file explorer window opens.
- 3. Select a valid BIN file that contains the device system settings.
- 4. Click Restore.

QuRouter restores the router settings.

Configuring Access Control Settings

Access Control is a security feature that enforces security policies on devices that can access the router network to increase network security and minimize security threats.

1. Go to System > Access Control > Access Control Settings .

2. Enable the access control settings.

Setting	User Action
Local Management via HTTP	Enable to use encrypted browser communication via the Hypertext Transfer Protocol (HTTP). Note HTTP connections are faster than Hypertext Transfer Protocol Secure (HTTPS); however, the transferred content is not encrypted.
Remote Management	Enable to allow administrators remote access to the web interface of the router.

Configuring Local Account Settings



Note

The administrator account is the default router account. You cannot delete the administrator account.

- 1. Go to System > Access Control > Administrator .
- 2.

Click to configure local account credentials. The **Local Account** window appears. **3.** Configure the local account settings.

Description	User Action
Username	Specify a username that contains 5 to 32 characters. Valid characters: A–Z, a–z, 0–9
Current Password	Enter the current password of the local account.
New Password	Specify a password that contains 8 to 64 ASCII characters.
Confirm New Password	Enter the password again.

4. Click OK.

QuRouter updates the local account settings.

USB Settings

The **System > USB Settings** page allows you to access and manage USB-related settings, FTP access, and FTP users.

Configuring FTP Access

- 1. Go to System > USB Settings .
- 2. Enable FTP Server.
- 3.

Click (o)

The FTP Settings window appears.

4. Configure the FTP server settings.

Setting	User Action	
Concurrent Connections	Specify a number between 1 and 9.	
	QuRouter allows up to 9 concurrent connections.	
File Name Encoding	Select from the following options:	
	• utf-8	
	• big5	

5. Click Save.

QuRouter saves the FTP settings.

Note

Click the external link IP address to access the contents of the USB device connected to the router if you are accessing the network through the WAN port. Click the internal link IP address to access the contents of the USB device connected to the router if you are accessing the network through the LAN port.

Adding an FTP User

1. Go to System > USB Settings .

2. Click Add FTP User. The Add FTP User window appears.

3. Configure the FTP user settings.

Setting		User Action
Username		a username that contains 5 to 32 characters. characters: A–Z, a–z, 0–9
Password	Specif	 Fy a password that contains 8 to 63 characters. Note Passwords are case-sensitive. Click to make the password visible.

4. Click Add.

QuRouter saves the FTP user information.

Configuring an FTP User

- 1. Go to System > USB Settings .
- **2.** Identify an FTP user to configure.
- 3. Click . The Edit FTP User window appears.
- **4.** Configure FTP user settings. For details, see Adding an FTP User.
- 5. Click Edit.

QuRouter updates the FTP user information.

Deleting an FTP User

- 1. Go to System > USB Settings .
- 2. Identify an FTP user you want to delete.
- 3. Click A confirmation message appears.
- 4. Click OK.

QuRouter deletes the FTP user.

Firmware

QNAP recommends keeping your router firmware up to date. This ensures that your router can benefit from new features, enhancements, and bug fixes.

Checking for Live Updates

- 1. Go to Firmware.
- 2. Enable Live update.
- 3. Select one or more of the following options:
 - Update now
 - Schedule update at



Note

Select the date and time to schedule the firmware update.

- **4.** Click **Apply**. A confirmation message appears.
- 5. Click Apply.

QuRouter checks for firmware updates.

Updating the Firmware Manually

The update may require several minutes or longer, depending on your hardware configuration and network connection.

- 1. Download the router firmware.
- 2. Go to http://www.qnap.com/download.
 - a. Select your router model.
 - b. Read the release notes and confirm the following:
 - · The router model matches the firmware version.
 - · Updating the firmware is necessary.
 - c. Ensure that the product model and firmware are correct.
 - d. Download the firmware package.
 - e. Extract the firmware package file.
- 3. Go to Firmware.
- 4. Select Manual update.
- 5. Click Browse and then select the extracted firmware package file.
- 6. Click Apply.

The device is immediately restarted.

7. Network Settings

Configuring WAN Port Settings

- 1. Go to Network > WAN .
- **2.** Configure the port settings.
- 3. Select the WAN interface setting from the following options.

Setting	User Action
DHCP	Select to obtain IP address settings automatically via DHCP
Static IP	Manually assign a static IP address. You must specify the following information:
	Fixed IP address
	Subnet mask
	Default gateway
	DNS Server
PPPoE	Select to specify a username and password for Point-to-Point Protocol over Ethernet (PPPoE).

4. Specify an MTU value between 98 and 9000.



Note The Maximum Transmission Unit (MTU) is the largest packet size that is transmitted by a network.

5. Click Apply.

QuRouter updates the WAN settings.

Configuring LAN Port Settings

- 1. Go to Network > LAN .
- 2. Configure LAN IP settings.

Setting	User Action
Fixed IP address	Specify a fixed IP address.
	Tip Examine your network setup for guidance on how to best configure these settings.
Subnet Mask	Specify the subnet mask used to subdivide your IP address.

Setting	User Action
Enable DHCP server	Configure the DHCP server settings.
	 Start IP address: Specify the starting IP address in a range allocated to DHCP clients.
	 End IP address: Specify the ending IP address in a range allocated to DHCP clients.
	• Lease time: Specify the length of time that an IP address is reserved for a DHCP client. The IP address is made available to other clients when the lease expires.
	• DNS server 1 : Assign an IP address for the primary DNS server.
	• DNS server 2 : Assign an IP address for the secondary DNS server.
	Note QNAP recommends specifying at least one DNS server to allow URL lookups.
Reserved IP Table	Click Add to configure a reserved IP table. Specify the following:
	Device name
	IP address
	MAC address

3. Click Apply.

QuRouter updates the LAN port settings.

Routing Table

The **Network > Routing > Routing Table** page provides status information about configured route entries from the following sources:

- Directly connected networks
- · Dynamic routing protocols
- · Statically configured routes

Static Route

You can create and manage static routes in the **Static Route** section of network settings. Under normal circumstances, QuRouter automatically obtains routing information after it has been configured for internet access. Static routes are only required in special circumstances, such as having multiple IP subnets located on your network.

Adding a Static Route

- 1. Go to Network > Routing > Static Route .
- 2. Click Add Static Route. The Add Static Route window appears.

3. Configure the settings.

Setting	User Action
Destination	Specify a static IP address where connections are routed to.
Subnet Mask	Specify the IP address of the destination's subnet mask.
Next Hop	Select from the following next hop options:
	 WAN Port: Select an available WAN port IP address for the routing path.
	 IP Address: Specify the IP address of the closest or most optimal router in the routing path.
Metric	Specify the number of nodes that the route will pass through.
	Note Metrics are cost values used by routers to determine the best path to a destination network.
Description	Enter a description for the static route.

4. Click Apply.

QuRouter creates the static route.

Configuring a Static Route

- 1. Go to Network > Routing > Static Route .
- 2. Identify a route.
- 3.
 - Click

The Edit Static Route window appears.

- **4.** Configure the static route settings. For details, see Adding a Static Route.
- 5. Click Apply.

QuRouter updates the static route settings.

Deleting a Static Route

- 1. Go to Network > Routing > Static Route .
- 2. Identify a route.
- 3. Click A confirmation message appears.
- 4. Click Apply.

QuRouter deletes the route.

Wireless

Wireless settings allow you to deploy wireless networks using the 2.4 GHz and 5 GHz bandwidth, deploy the guest wireless network, configure advanced wireless settings, and enable the WPS function.

Configuring Wireless Network Settings

- 1. Go to Wireless.
- 2. Configure the wireless network settings.

Setting	User Action
Smart Connect	Enable to combine 2.4 GHz and 5 GHz networks and use a single SSID and password for all wireless connections.
SSID	Specify the wireless network SSID.
Security	Select one of the following security authentication methods:WPA2-PSK
	 WPA-PSK+WPA2-PSK WPA-Enterprise
	WPA2-Enterprise
	Note Enter a Remote Authentication Dial-In User Service (RADIUS) server IP address and server port number if the security authentication method is set to WPA- Enterprise or WPA2-Enterprise.
Password	Specify a password that contains 8 to 63 characters. Image: Specify a password that contains 8 to 63 characters. Image: Specify a password is case-sensitive.
Enable Wireless Scheduler	You can select specific days and time periods to enable the VAP group.
Enable Band Steering	Enable to automatically reroute the wireless client to a wireless network that is utilizing the best frequency band available.
Enable MU-MIMO	Enable multiple-input, multiple-output technology (MU-MIMO) to allow the router to communicate concurrently with multiple wireless devices.
Transmission Power	 Select a MU-MIMO transmission power. High Medium Low
Preamble Type	Specify the preamble type. • Short
	• Long
CTS/RTS	Specify a CTS/RTS value between 1 and 2347.

3. Configure the settings for 2.4 GHz and 5 GHz bands.

Setting	User Action
Bandwidth	Specify the bandwidth range for the following bands:
	• 2.4 GHz:
	• 20 MHz
	• 40 MHz
	• 5 GHz - 1 and 5 GHz - 2:
	• 20 MHz
	• 40 MHz
	• 80 MHz
Channels	Select the DFS channel that is less frequently used.
	Note The channel is set to Auto by default to avoid radio frequency interference.

4. Click Apply.

QuRouter updates the wireless network settings.

Configuring the Guest Wireless Network

- 1. Go to Wireless > Guest Wireless Network .
- 2. Select Enable.
- **3.** Configure the guest wireless network settings.

Setting	User Action
SSID	Specify a service set identifier (SSID) that can contain up to 32 characters.
	Note The SSID is case-sensitive.

Setting	User Action
Security	Select one of the following security authentication methods:
	• WPA2-PSK
	• WPA-PSK+WPA2-PSK
	WPA-Enterprise
	WPA2-Enterprise
	Note Enter a Remote Authentication Dial-In User Service (RADIUS) server IP address and server port number if the security authentication method is set to WPA- Enterprise or WPA2-Enterprise.
Password	Specify a password that contains 8 to 63 characters.
	Note The password is case-sensitive.
Guest wireless IP address	Specify a fixed IP address for the guest wireless network.
Subnet mask	Specify the subnet mask used to subdivide your IP address

4. Configure the guest wireless DHCP server settings.

Setting	User Action
Start IP address	Specify the starting IP address in a range allocated to DHCP clients.
End IP address	Specify the ending IP address in a range allocated to DHCP clients.
DNS server 1	Specify a DNS server for the DHCP server.
DNS server 2	Specify a secondary DNS server for the DHCP server.
	Important QNAP recommends specifying at least one DNS server to allow URL lookups.

5. Click Apply.

QuRouter saves the guest wireless network settings.

Configuring Wi-Fi Protected Setup (WPS)

- 1. Go to Wireless > WPS .
- 2.

Click . The WPS function is enabled.

- **3.** Configure the WPS settings.
 - **a.** Select the WPS SSID from the drop-down menu.
 - b. Click WPS.

Note

To enable WPS using the push button on the router, see WPS Button.

c. Enable the WPS function on the client device.

Note

- Ensure that the client device is equipped with the WPS function. Typically, this function is located in the Wi-Fi settings page.
- The location and feature name may differ depending on the product.

The client device joins the wireless network.

Clients and Blocked Clients List

The client list allows you to access wired and wireless clients connected to the router network. You can also add clients to or remove clients from the blocked list.

The blocked list controls the management of clients blocked from accessing wired and wireless services.

Adding a Device to the Blocked List

- 1. Go to Clients > Blocked List .
- Click Block client. The Add Device to Blocked List window appears.
- **3.** Configure the blocked list settings.

Setting	User Action
Description	Specify the device description.
	Note
	 The description must be between 1 to 20 characters.
	 Valid characters: A–Z, a–z, 0–9
	 Valid special characters: Hyphen (-), Underscore (_), Period (.)
MAC Address	Specify the MAC address of the device.

- 4. Select the interface.
- 5. Click Apply.

QuRouter adds the device to the blocked list.

Configuring a Device in the Blocked List

- 1. Go to Clients > Blocked List .
- 2. Identity a device.

3. Click

The Edit Blocked List Device window appears.

- **4.** Configure the device settings. For details, see Adding a Device to the Blocked List.
- 5. Click Apply.

QuRouter updates the device information.

Deleting a Device from the Blocked List

- 1. Go to Clients > Blocked List .
- **2.** Identity a device.

ш

```
3.
```

Click

A confirmation message appears.

4. Click Apply.

QuRouter deletes the device from the blocked list.

Wireless Mesh Network

QuRouter allows you to create wireless mesh networks by adding other QMiro devices to the local network topology. The primary router can connect to other nodes in the network and communicate with each other to route data from and to clients. Wireless mesh networks work dynamically to adjust user requirements and maintain user connectivity.

Mesh Network Components

- Primary: The primary device is the router that is first initialized in the local network topology. This device controls the communication protocols and data routing between other node devices in the network.
- · Node: Nodes are secondary devices added to the primary router in the local network topology.

Adding a Node to the Mesh Network

- 1. Go to QMiro Devices.
- 2. Click Add Node. The Add Node window appears.
- **3.** Select a router from the list.
- 4. Click Next.
- 5. Select a Wi-Fi point.
- 6. Click Apply.

QuRouter adds the node to the mesh network.

Removing a Node from the Wireless Mesh Network

You must reset the node in order to remove the node from the wireless mesh network and configure it as a standalone router.

- 1. Go to QMiro Devices.
- **2.** Identify the node.

3.

Click (o)

- 4. The Settings [Device_Name]-[Location] window appears.
- 5. Click Reset. A confirmation message appears.
- 6. Click OK.

QuRouter resets the node and removes the node from the wireless mesh network.

SD-WAN

About QuWAN

QuWAN is a QNAP cloud-based SD-WAN networking solution that provides a centralized control platform to manage network functions of devices within its private network topology. QuWAN can intelligently and securely direct traffic across the WAN network.

You can configure the SD-WAN settings on the router and access QuWAN Orchestrator to manage the SD-WAN overlay network.

Configuring QuWAN Settings

1. Log in to QuRouter.



If you are logging in with your QNAP ID for the first time, you are prompted to enter the local account credentials as part of the 2-step verification process.

- 2. Go to QuWAN.
- 3. Configure the QuWAN settings.

Setting	User Action
Organization	Select an organization associated with your QNAP ID. Note If there are no organizations associated with your QNAP ID, click Create or edit organization. QuRouter redirects you to QNAP Account website where you can create a new organization or edit an existing one.
Region	Select a region linked with the selected organization. Click Add Region to create a new region.

Setting	User Action
Site	Select a site from the drop-down menu. Note Click Create or edit site to create a new site associated with the selected organization or edit an existing site.
Device Role	 Select one of the following: Hub: Configure the device as an SD-WAN hub. A public IP address is required for the WAN connection to select the device as a hub. Edge: Configure the device as an SD-WAN edge.
Location	Select one of the following: Locate by IP address Update by GPS coordinates

4. Click Join the Organization and QuWAN.

Important

- The router is unbound from the QNAP ID once it is part of the QuWAN topology.
- The router can support a maximum of 30 VPN tunnels.

A confirmation message appears.

5. Click OK.

QuRouter adds the router to the QuWAN topology.

Accessing QuWAN Orchestrator

1. Open QuRouter.

2. Click located on the taskbar.

3. Click **Go to QuWAN Orchestrator**. QuWAN Orchestrator opens in a new browser tab.

QVPN

QVPN settings allow you to create and manage VPN servers, add VPN clients, and monitor VPN logs.

QVPN Settings

Enabling QBelt VPN Server

QBelt is QNAP's proprietary communications protocol that incorporates Datagram Transfer Layer Security (DTLS) protocol and AES-256 encryption.

- 1. Open QuRouter.
- 2. Go to QVPN > QVPN Settings .
- 3. Click
- 4.
 - Click
- 5. Configure the QBelt server settings.

Setting	Description
Client IP pool	 Specify a range of IP addresses available to connected VPN clients. Important By default, this server reserves the use of IP addresses from 10.6.0.0/24. If another connection is configured to use this range, an IP conflict error will occur. Before adding this server, ensure a VPN client ianth configured to use this range as well
Service Port (UDP)	 isn't configured to use this range as well. Select the port used to access the server. Tip Default port: 443
Pre-shared key	Specify a key (password) to verify connecting VPN clients.
DNS	Specify a DNS server for the QBelt server. Note The DNS server limitation is 1 by default.

6. Click Apply.

QuRouter saves the QBelt server settings.

Enabling L2TP VPN Server

- 1. Open QuRouter.
- 2. Go to QVPN > QVPN Settings .
- 3.

Click



Important

.

You cannot enable the L2TP server if the router is using the QuWAN service. To enable the L2TP server, you must first leave the organization and QuWAN service by clicking **Leave the organization and QuWAN** in QuWAN.

4. Click	0
Click	\sim

5. Configure the L2TP server settings.

Setting	Description
Client IP pool	Specify a range of IP addresses available to connected VPN clients.
	By default, this server reserves the use of IP addresses from 10.6.0.0/24. If another connection is configured to use this range, an IP conflict error will occur. Before adding this server, ensure a VPN client isn't configured to use this range as well.
Authentication	Select one of the following authentication methods:
	• PAP
	• MS-CHAPv2
Pre-shared key	Specify a key (password) to verify connecting VPN clients.
DNS	Specify a DNS server for the L2TP server.
	Note The DNS server limitation is 1 by default.

6. Click Apply.

QuRouter saves the L2TP server settings.

Enabling OpenVPN VPN Server

- 1. Open QuRouter.
- 2. Go to QVPN > QVPN Settings .
- 3. Click
- 4.

Click 📀

5. Configure the OpenVPN server settings.

Setting	Description
Client IP pool	Specify a range of IP addresses available to connected VPN clients. Important By default, this server reserves the use of IP addresses from 10.6.0.0/24. If another connection is configured to use this range, an IP conflict error will occur. Before adding this server, ensure a VPN client isn't configured to use this range as well.
Service Port	Select the port used to access the server. Image: Tip Default port: 443

Setting	Description
Encryption	Select from the following encryption methods:
	Medium (AES 128-bit)
	 High (AES 256-bit)
DNS	Specify a DNS server for the OpenVPN server.
	Note The DNS server limitation is 1 by default.

6. Enable Use this connection as a default gateway for remote devices.

Note

Enable to allow the default network gateway to be redirected across the OpenVPN server. All non-local traffic from the client is transferred through the VPN server.

7. Enable Enable compressed VPN link.

Note

This setting compresses data before transferring it over the VPN. This will increase data transfer speeds, but requires additional CPU resources.

- 8. Optional: Click 📥 to download configuration files to set up an OpenVPN server manually.
- 9. Click Apply.

QuRouter saves the OpenVPN server settings.

Adding a VPN Client

- 1. Open QuRouter.
- 2. Go to QVPN > Client List .
- 3. Click Add.
- 4. Specify the username and password.
- 5. Click Apply.

QuRouter adds the VPN client.

QVPN Connection Logs

Go to **QVPN** > **Logs** to view the record of connections to external VPN servers. Recorded information includes connection dates, connection duration, client names, source IP addresses, and protocol information.

8. Security

Network Address Translation (NAT)

NAT allows private networks that use unregistered IP addresses to connect to the internet. NAT translates private IP addresses in the internal network to public IP addresses before forwarding the packets onto another network.

Application Layer Gateway (ALG)

The ALG function allows you to implement transparent network translation on certain application layer protocols. NAT ALG supports the following protocols:

- File Transfer Protocol (FTP)
- Point-to-Point Tunneling Protocol (PPTP)
- Session Initiation Protocol (SIP)

You can enable the ALG function on these protocols by enabling the toggle switch located beside the protocol name.

Port Forwarding

You can configure port forwarding rules that can be used to direct incoming and outgoing traffic on your router to a device connected to your network.

Adding a Port Forwarding Rule

- 1. Go to NAT > Port Forwarding .
- 2. Click Add Rule. The Add Rule window appears.
- **3.** Configure the rule settings.

Setting	User Action
Protocol	Select from the following options:
	• All
	• TCP • UDP
WAN service port	Specify the service port for the rule.
Host IP address	Specify the LAN IP address.
LAN service port	View the LAN service port information.
Allowed remote IPs	Specify one or more remote IP addresses. Note Leaving this field blank will allow access from any remote IP address.
Description	Specify the rule description.

4. Click Apply.

QuRouter adds the rule.

Configuring a Port Forwarding Rule

- 1. Go to NAT > Port Forwarding .
- 2. Identify a rule.

```
3.
Click .
The Edit Rule window appears.
```

- **4.** Modify the port forwarding rule settings. For details, see Adding a Port Forwarding Rule.
- 5. Click Apply.

QuRouter updates the port forwarding rule.

Deleting a Port Forwarding Rule

- 1. Go to NAT > Port Forwarding .
- 2. Identify a rule.

3.

- Click . A confirmation message appears.
- 4. Click Apply.

QuRouter deletes the rule.

Parental Controls

QuRouter provides parental control functions to manage content filtering, safe search, web browsing schedules, and protect connected clients from inappropriate and harmful content. Network administrators can create custom parental control rules to limit several aspects of the internet, block websites, and add or remove devices from the created control rules.

Adding a Parental Control Role

- 1. Go to Parental Controls.
- 2. Click Add Role. The Add Role window appears.
- **3.** Configure the role settings.

Setting	User Action
Role name	Specify a name for the parental control role.
Enable website filter	Select this option to enable website filtering to prevent users from viewing certain URLs or websites.

Setting	User Action
Domain Name Filter	Enter an entire domain name or specific URLs. Separate multiple URLs with commas (,).
Safe Search	Enable safe search to filter out explicit content in the following sites:YouTube
	Note You can select from the following restriction modes:
	Restricted
	• Medium
	• Google
	• Bing

4. Click Apply.

QuRouter creates the parental control role.

Configuring a Parental Control Role

- 1. Go to Parental Controls.
- 2. Identify a role.
- 3.

Click . The **Edit Role** window appears.

- **4.** Configure the parental role settings. For details, see Adding a Parental Control Role.
- 5. Click Apply.

QuRouter updates the parental control role.

Deleting a Parental Control Rule

- 1. Go to Parental Controls.
- 2. Identify a rule.
- 3. Click A confirmation message appears.
- 4. Click Apply.

QuRouter deletes the rule.

Adding a Device to a Parental Control Role

1. Go to Parental Controls.

- 2. Identify the role to which you want to add a device.
- 3. Click Add Device. The Add Device window appears.
- 4. Select a wireless device from the list.
- 5. Click Add.

QuRouter adds the device to the parental control role.

Deleting a Device from a Parental Control Role

- 1. Go to Parental Controls.
- 2. Identify the device to delete.
- 3.

Click .

A confirmation message appears.

4. Click OK.

QuRouter removes the device from the parental control role.

9. QuRouter App

QuRouter

This section applies to QuRouter 1.0.0 (and later) for Android and iOS.

QuRouter is a QNAP mobile application that lets you configure and manage QMiro and QMiroPlus routers. Go to the Google Play Store or the App Store to download QuRouter for configuring your QNAP router through a mobile device.

To configure a new router, see Configuring the Router Using the QuRouter App.

To add a new node to the mesh network, see Adding a Node to the Mesh Network.

System Requirements

QuRouter is available on the following mobile platforms:

- Android 5.0 (or later)
- iOS 11 (or later)

Visit the Google Play Store or the Apple App Store to download the latest QuRouter version on your mobile device.

Configuring the Router Using the QuRouter App

- 1. Open QuRouter on your Android or iOS device.
- 2. Tap Set Up New Device. The Select a Device page appears.
- 3. Select the QMiro device.
- **4.** Tap **Start**. The **Power on the Device** page appears.
- 5. Tap Next. The Connect to the Internet page appears.
- 6. Tap Next.
- 7. Verify the LED status. For details, see LEDs.
- **8.** Press the storage power button. The storage functions are now accessible.
- 9. Tap LED Indications to check router LED indications and definitions.
- 10. Tap Next.
- **11.** Connect the mobile device to the router using one of the following:

Connection	User Action
Connect via Wireless	Connect the mobile device to the router wireless function.
	a. Go to Settings > Wi-Fi on your mobile device.

	b. Enable Wi-Fi.
	c. Scan for the router SSID.
	d. Tap the SSID.
	e. Enter the router password.
	Note The SSID and password are listed on the asset tag of the router.
	f. Tap Connect on Android devices or Join on iOS devices.
	g. Open the QuRouter app.
	h. Тар ОК .
Connect via Bluetooth	Connect the mobile device to the router Bluetooth.
	 a. Go to Settings > Bluetooth on your mobile device.
	b. Enable Bluetooth.
	c. Open the QuRouter app.
	d. Select the router from the list.
	e. Tap Next.
	Tip Tap to locate your router.

The mobile device connects to the router.

12. Enter the last 6 alphanumeric characters of the router MAC address.



Note

The MAC address is listed on the asset tag of the router.

- **13.** Tap **Next**.
- 14. Select the location.
 - a. Select the location of your router from the following:
 - Living Room
 - Bedroom
 - Office
 - Dining Room
 - Study
 - Others: Specify a customized name for the router location.

b. Tap Apply.

QuRouter saves the router location.

- 15. Tap Next.
- **16.** Configure the wireless domain settings.
 - a. If the router and mobile device locations are not the same, the **Incompatible Wireless Domain Settings** window appears.
 - b. Tap OK.
 - c. Select the current location of the router.
 - d. Tap Apply.
- 17. Specify a new SSID and password for the router.
- 18. Tap Apply.

A confirmation message appears informing you to connect to the updated router SSID in the Wi-Fi settings page of the mobile device.

- **19.** Tap **Finish**. The **Firmware Update** page appears.
- **20.** Tap **Next**. QuRouter updates the QTS firmware.
- 21. Click OK. The QTS Storage Settings page appears.
- **22.** Configure the QTS storage settings.



Tip Skip this step if the storage feature is not enabled or QTS is already configured.

- a. Click Start. The Install 2.5-inch Hard Drive page appears.
- Install 2.5-inch drives.
 For details, see Installing 2.5-inch Hard Drives or Solid-State Drives on 2.5-inch Trays.



Click **Drive compatibility list** for the list of compatible drive models.

The Check Drive Status page appears.

- c. Verify if the drive LED is green. For details, see LEDs.
- d. Click Next. QuRouter detects the installed dis

QuRouter detects the installed disks on the router and displays a drive formatting confirmation message.

- e. Click OK. QuRouter formats the installed disks and displays the Drive Storage Settings page.
- f. Specify the RAID type.

Tip

Tap the drive bay image to view the drive information.

g. Click Next.

The Storage Account Setup page appears.

h. Specify the storage information.

Setting	User Action
Storage name	Specify the QTS storage name. Valid characters: A–Z, a–z, 0–9
Username	Specify the username for the QTS account.
Password	Specify a QTS password that contains 8 to 14 characters.

i. Click Next.

The Completed QTS initialization page appears.

- j. Click **Next**. QuRouter updates the router firmware and a confirmation message appears.
- **k.** Click **OK**. The QuRouter login page appears.

23. Tap Log in with QNAP ID.

- 24. Select from the following:
 - Global
 - China
- 25. Specify your QNAP ID and password.
- 26. Tap Sign In. The Remote Access Settings page appears.
- **27.** Specify the following information.

Setting	Description	
Router	A unique Dynamic Domain Name System (DDNS) router name used for remote router management.	
Storage	A unique DDNS storage name used for remote storage management.	

28. Tap Next.

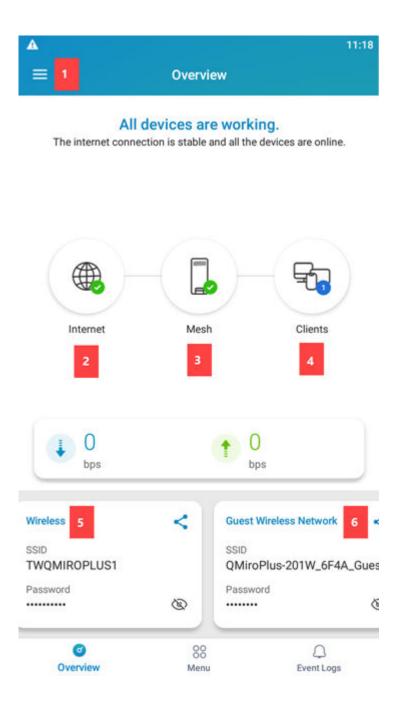
The Router Setup Complete page appears.

29. Tap Finish.

The **Overview** page appears.

Overview

The **Overview** screen shows the connection status of all the QMiro devices in the mesh network. On this screen, you can access the wireless settings, the guest wireless settings, and the network traffic of the primary device.



No.	Description	User Action
1	More	Tap and select an option.
		• [QNAP_ID]: Tap the QNAP ID to log out.
		 Install New Router: Tap to add a node to the mesh network.
		About: Select the following options:
		 Feedback: Access the QNAP Feature Request / Bug Report web page
		Support: Access the QNAP support page.
		• Disclaimer : Access the QNAP Disclaimer page.
2	Internet	Tap to access the network settings page.
3	Mesh	Tap to access the mesh network settings page.
4	Clients	Tap to access the wired and wireless clients connected to the router.
5	Wireless	Tap to access the wireless settings of the router.
6	Guest Wireless Network	Tap to access the guest wireless settings of the router.

10. QTS Management

The QuRouter web interface and QTS application allow you to remotely control the storage power features of the QMiroPlus-201W router.

You can remotely restart QTS or shut down the QTS web interface feature of the router using QuRouter.

Configuring the QTS Quick Start Wizard

This topic describes how to configure the Quick Start wizard to set up the storage and router functions of the QMiroPlus-201W router.

- 1. Open a web browser.
- **2.** Enter 192.168.100.1 in the address bar. The web browser opens the QuRouter landing page and displays a login confirmation message.
- Click Log in to QTS. The QTS login page appears.
- 4. Alternatively, access the QTS IP address using Qfinder Pro.
 - **a.** Locate the router on the list.
 - **b.** Identify the QTS IP address. You can locate the default QTS IP address listed on the asset tag of the router.
 - **c.** Double-click the IP address. The QTS login page opens on the default web browser.
- 5. Specify the default username and password.

Default Username	Default Password	
admin	The NAS MAC address without any punctuation and all letters capitalized.	
	For example, if the MAC address is 00:0a:0b:0c:00:01, the default password is 000A0B0C0001. The MAC address can be found on the asset tag on the rear side of the device.	

The QTS desktop page opens and the Quick Start wizard automatically opens.

6. Click Start.

The **QuMagie** information page opens.

- 7. Click QuMagie to start the QNAP photo management service.
- 8. Click Next. The Data Management Apps page opens.
- 9. You can click the data management hyperlink to initiate the QNAP data management service.
- **10.** Click **Next**. The **System Volume and QuRouter** page appears.
- **11.** Configure the storage volume settings.

To create a storage pool, see Creating a Storage Pool under Storage & Snapshots in the QTS User Guide.

a. Click Storage & Snapshots.

The Storage & Snapshots application opens and the Data Collection Agreement page appears.

- b. Click Yes. The Quick Start wizard opens.
- c. Click Skip to skip the quick start wizard.
- d. Click Next. The Use Snapshots in File Station page appears.
- e. Click Next. The Back up Data to Another NAS Using Snapshots page appears.
- f. Click Finish.

g. Go to Storage Manager > Storage > Storage Space .

h. Perform one of the following actions.

Router State	Action
No storage pools	Click New Storage Pool.
One or more storage pools	Click Create, and then select New Storage Pool.

The Create Storage Pool Wizard window opens.

- i. Click Next.
- j. Select an expansion unit from the Enclosure Unit list.

Important

- You cannot select disks from multiple expansion units.
- If the expansion unit is disconnected from the NAS, the storage pool becomes inaccessible until it is reconnected.
- **k.** Select one or more disks.

Warning

All data on the selected disks will be deleted.

Important

- For data safety, you cannot select disks that have the status Warning.
- The status In Use means that a disk is currently formatted as an external disk, and may contain current user data.
- I. Select a RAID type.

Number of disks	Supported RAID Types	Default RAID Type
One	Single	Single
Two	JBOD, RAID 0, RAID 1	RAID 1

Tip

Use the default RAID type if you are unsure of which option to choose.

- m. Click Next.
- **n.** Configure the alert threshold.
- o. Click Next.
- **p.** Verify the storage pool information.
- **q.** Click **Create**. A confirmation message appears.
- **r.** Click **OK**. QTS creates the storage pool and then displays the information on the **Storage Space** screen.

Warning

Clicking **OK** deletes all data on the selected disks.

- **12.** Create a static volume in the storage pool.
 - a. Go to Storage > Storage/Snapshots > Storage Space .
 - **b.** Select the storage pool.
 - c. Click Manage. The Volume Creation Wizard window opens.
 - d. Verify the volume location.
 - e. Click Next.
 - f. Specify the volume alias.
 - g. Specify the volume capacity.
 - h. Click Next. The Summary page opens.
 - Click Finish. QTS creates the volume and then displays the information on the [Volume_Name] Management screen.
 - j. Click Close.
- 13. Open Quick Start.
- 14. Verify the system volume is created on the System Volume and QuRouter page.
- **15.** Click **Next**. The **QuRouter** page appears.
- Click Next. The Uninitialized Router window appears.
- **17.** Click **OK**. The QuRouter application opens.
- **18.** Configure QuRouter.

For details, see Configuring QuRouter.

Performing QTS Power Actions

- 1. Select a method for accessing the QTS System Control feature.
 - In the QuRouter web interface, go to **Control Host**.
 - In the QTS web interface, open QuRouter and go to Control Host.
- 2. Perform the following actions on QTS.

Task	Description	Steps
Shut down QTS	Use this action to shut down the storage feature of the router.	 On the QTS System Control screen: Click Shut down QTS. A confirmation message appears. Click OK. The router powers off the storage feature.
Restart QTS	Use this action to restart the storage feature of the router. When QTS becomes unresponsive, you can manually restart it.	 On the QTS System Control screen: Click Restart QTS. A confirmation message appears. Click OK. The router restarts the storage feature.

QuRouter performs the specified action.

Viewing the QTS System Information

The **QTS System Control** page displays basic information regarding the storage feature of the QMiroPlus-201W router.

- 1. Select a method for accessing the QTS System Control feature.
 - In the QuRouter web interface, go to **Control Host**.
 - In the QTS web interface, open QuRouter and go to Control Host.
- 2. Check the following QTS system information:

Information	Description	
CPU temperature	The current temperature of the router CPU.	
Fan speed	The current fan speed of the router.	
QTS IP address	address The current QTS IP address of the router.	

11. Troubleshooting

Hot-swapping Failed Drives

The router supports hot-swapping of drives in the RAID 1 configuration.

RAID Type	Number of Disks	Situation
RAID 1	2	One member drive fails.

- **1.** Log on to QTS.
- 2. Go to Main Menu > Storage & Snapshots > Storage > Disks/VJBOD .
- **3.** Locate the failed drive.
- 4. Prepare a new hard drive with a capacity that is the same as or larger than the failed hard drive.
- 5. Remove the failed drive from the device.
- 6. Wait for 20 seconds or until the device beeps twice.
- 7. Remove the failed drive from the drive tray.
- 8. Insert the new drive into the drive tray.
- 9. Install the new drive.
- 10. Go to Main Menu > Storage & Snapshots > Storage Space .
- **11.** Locate the shared folder that contains the new drive and then verify that the status is Rebuilding.

Support and Other Resources

QNAP provides the following resources:

Resource	URL
Documentation	https://docs.qnap.com
Service Portal	https://service.qnap.com
Downloads	https://download.qnap.com
Community Forum	https://forum.qnap.com

12. Glossary

myQNAPcloud

Provides various remote access services such as DDNS and myQNAPcloud Link

Qfinder Pro

QNAP utility that lets you locate and access QNAP NAS devices in your local area network

QNAP ID

User account that enables you to use myQNAPcloud remote access and other QNAP services

QTS

QNAP NAS operating system

QuRouter

The QNAP web management interface that allows you to view and configure QNAP routers

QuWAN

QNAP SD-WAN management system

QuWAN Orchestrator

QNAP centralized management cloud platform for SD-WAN infrastructure

13. Notices

This chapter provides information about warranty, disclaimers, licensing, and federal regulations.

Limited Warranty

QNAP offers limited warranty service on our products. Your QNAP-branded hardware product is warranted against defects in materials and workmanship for a period of one (1) year or more from the date printed on the invoice. ("Warranty Period"). Please review your statutory rights at www.qnap.com/warranty, which may be amended from time to time by QNAP in its discretion.

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Back up the system periodically to avoid any potential data loss is recommended. QNAP disclaims any responsibility of all sorts of data loss or recovery.

Should you return any components of the package of QNAP products such as NAS (Network Attached Storage) for refund or maintenance, make sure they are carefully packed for shipping. Any form of damages due to improper packaging will not be compensated.

All the features, functionality, and other product specifications are subject to change without prior notice or obligation. Information contained herein is subject to change without notice.

Further, the \mathbb{R} or \mathbb{T} symbols are not used in the text.

CE Notice



This QNAP device complies with CE Compliance Class B.

FCC Notice

FCC Class B Notice



This device complies with Part 15 of the FCC Rules. Operation is subject to the

following two conditions:

Note

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



This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

Important

Any modifications made to this device that are not approved by QNAP Systems, Inc. may void the authority granted to the user by the FCC to operate this equipment.

Radio Equipment Directive (RED) 2014/53/EU Article 10



RED 2014/53/EU requires that for products which could potentially have an issue with a non-harmonized frequency in a specific EU country, the product documentation must list the restrictions, and the packaging must carry a label reflecting that country's code.

This QNAP router complies with RED 2014/53/EU article 10.

EU RoHS Statement

This equipment complies with the European Union RoHS Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment. The directive applies to the use of lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB), and polybrominated diphenyl ethers (PBDE) in electrical and electronic equipment.

ISED Compliance Statement

Industry Canada has been renamed Innovation, Science, and Economic Development Canada (ISED) following the issue of RSP-100 Issue 11 and DC-01 Issue 06. Equipment certifications previously issued by Industry Canada remain valid and do not require updating. Meaning you may see the names used interchangeably in documentation. The following statement is applicable to ASIR-pRRH which has Innovation, Science and Economic Development (ISED) approval: This device complies with ICES-003 of Industry Canada's license-exempt RSSs. Operation is subject to the following two conditions:

- 1. This device may not cause interference.
- 2. This device must accept any interference, including interference that may cause undesired operation of the device.

Radiation Exposure Statement

This product complies with the IC radiation exposure limits set for an uncontrolled environment. To comply with RSS 102 RF exposure compliance requirements, a separation distance of at least 27 cm must be maintained between the antenna of this device and all persons. The device for the band 5150-5350 MHz is only for indoor usage to reduce potential harmful interference to co-channel mobile satellite systems.

CCC Class B Notice

The following statement is applicable to products shipped to China and marked with "Class B" on the product's compliance label.

声明 这为 B 级产品。在生活环境下,它可能带来无线电干扰。如果此类情况发生,用户必须采取必 要措施。 此产品只用于室内。 消费者若使用电源适配器供电,则应购买配套使用满足相应全标准要求的电源适配器或 者是获得 CCC 认证的电源适配器