# **NETGEAR**°

# User Manual

# Nighthawk M6 Pro, Nighthawk M6

## Model

- MR6110
- MR6150
- MR6400
- MR6450
- MR6500
- MR6550

**NETGEAR, Inc.** 

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See the regulatory compliance document before connecting the power supply.

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Do not use this device outdoors.

Applicable to 6 GHz devices only: Only use the device indoors. The operation of 6 GHz devices is prohibited on oil platforms, cars, trains, boats, and aircraft, except that operation of this device is permitted in large aircraft while flying above 10,000 feet. Operation of transmitters in the 5.925-7.125 GHz band is prohibited for control of or communications with unmanned aircraft systems.

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## Compliance

FCC regulations restrict operation of this device to indoor use only when it is operating in the 6 GHz band (5.92-7.125GHz). The operation of 6 GHz band devices is prohibited on oil platforms, cars, trains, boats, and aircraft, except that operation of this device is permitted in large aircraft while flying above 10,000 feet. Operation of transmitters in the 5.925-7.125 GHz band is prohibited for control of or communications with unmanned aircraft systems.

FCC regulations restrict the operation of this device in the 5.925-7.125 GHz band to indoor use only.

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6 GHz is available only when the device is powered by AC adapter connected to AC mains.

The device cannot be used outdoors on 6 GHz, as required by FCC/IC rules.

When using external antennas, their net gain (antenna + cable loss) must be less than what is specified in Table 3 and Table 4 in <u>LTE and 5GNR transmission specifications</u> on page 87 in Chapter 7, "Specifications" as required by FCC.

ISED regulation requires device shall not be used for control of or communications with unmanned aircraft systems. Operation shall be limited to indoor use only. Operation on oil platforms, automobiles, trains, maritime vessels and aircraft shall be prohibited except for on large aircraft flying above 3,048 m (10,000 ft).

In the Singapore market, only 2-pin EU (Type C) and 3-pin UK (Type G) plug adapters are approved and suitable for use with this device.

# Restrictions applicable in AT/BE/BG/CZ/DK/EE/FR/DE/IS/IE/IT/EL/ES/CY/LV/LI/LT/LU/HU/MT/NL/NO/PL/PT/RO/SI/SK/TR/FI/SE/CH/UK(NI)/HR/HK:

Operation in 5150-5350MHz and 5470-5875MHz is restricted to indoor use only. This device is restricted to indoor use only when operating in the 5945 to 6425 MHz band (to the extent that these frequencies are made available).

This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and your body.

SAR is measured with the device at 5 mm from the body, while transmitting at the highest certified output power level in all frequency bands of the device. The maximum SAR value is 1.652 W/kg (body) averaged over 10 gram of tissue.

#### **Revision History**

Publication Part Number	Publish Date	Comments
202-12621-04	March 2024	Complete rewrite of all manual content for better user experience.
202-12621-03	May 2023	Add compliance information for APAC SKUs. Updated band tables in the Specifications section. Added new UM content regarding charging best practices, Power Manager settings, performing a factory reset, WiFi and Ethernet offloading, and no-battery operation.
202-12621-02	February 2023	Add information on additional M6 SKUs (MR6150, MR6450, MR6550) and compliance information for CE document submission. Replaced some tables in Specifications section with QR codes linking to website. Added GPS support table.
202-12621-01	June 2022	Initial release.

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# Overview and Setup

This user manual is for the NETGEAR Nighthawk M6 5G WiFi 6 Mobile Hotspot Router and M6 Pro 5G mmWave WiFi 6E Mobile Hotspot Router.



Figure 1. Nighthawk M6 Pro mobile hotspot router

This manual describes how to manage your mobile hotspot router from the device user interface and web user interface.

(I) **NOTE:** This manual might refer to the M6 5G WiFi 6 Mobile Hotspot Router and M6 Pro 5G mmWave WiFi 6E Mobile Hotspot Router as the *mobile hotspot*.

The devices in the Nighthawk M6 family provide dual-band concurrent radio operation with different levels of radio frequency band and Ethernet port support.

The following table summarizes the WiFi band and Ethernet support that the M6 series devices provide:

Table 1. Nighthawk M6 WiFi band and Ethernet support

Device	WiFi band support	mmWave support	Ethernet support
MR6500, MR6550 (M6 Pro)	2.4 GHz, 5 GHz, 6 GHz (WiFi 6E)	Yes	2.5G Multi-Gig
MR6400, MR6450 (M6 Pro)	2.4 GHz, 5 GHz, 6 GHz (WiFi 6E)	No	2.5G Multi-Gig
MR6110, MR6150 (M6)	2.4 GHz, 5 GHz (WiFi 6)	No	Gigabit

(I) NOTE: WiFi 6E is restricted to indoor use only. The power adapter must be plugged in to activate the 6 GHz band.

This chapter contains the following sections:

- Nighthawk M6 hardware overview
- Install or replace a SIM card
- Set up for travel or fixed use
- Power on your hotspot and finish setup
- Power off or restart your mobile hotspot
- Manage your mobile hotspot with NETGEAR Insight Pro

For more information about the topics covered in this manual, visit the support website at <u>netgear.com/support</u>.

# Nighthawk M6 hardware overview

The Nighthawk M6 package includes your mobile hotspot, a battery, a USB-C charging cable, and a power adapter. Packages in some regions might include additional plug adapters.

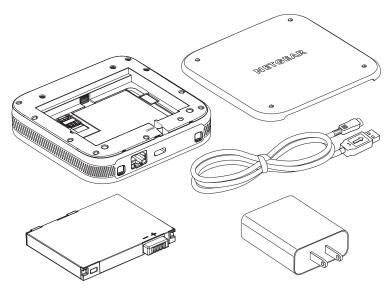


Figure 2. Nighthawk M6 package contents

The Nighthawk M6 has a touch screen, a Home button, a Back button, and a Power button.

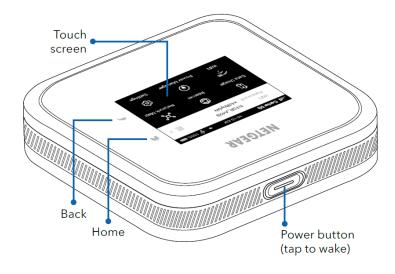


Figure 3. Nighthawk M6 device

The Nighthawk M6 connectors are located on the rear panel. The connectors include a USB Type-C connector, an RJ45 Ethernet port, and two antenna ports.

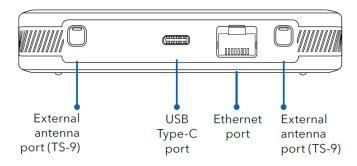


Figure 4. Nighthawk M6 connectors

# Install or replace a SIM card

To use your mobile hotspot, you need to install a valid, activated nano SIM card with a data plan from your mobile provider. If you change your mobile data provider or plan, you might need to replace the SIM card that you previously installed.

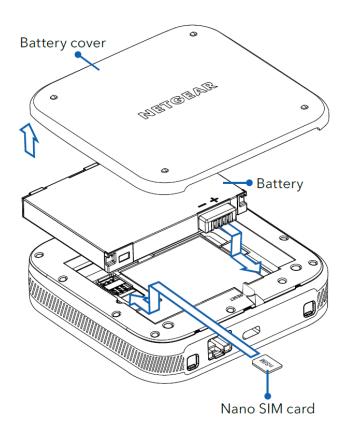


Figure 5. Nighthawk M6 SIM card installation

### To replace a SIM card:

- 1. Remove the mobile hotspot back cover by lifting the corners.
- 2. Remove the battery.
- 3. If a SIM card is already installed, slide the SIM card out of its slot.
- 4. Insert the replacement SIM card in the slot.
- 5. Reinstall the battery.
- 6. Reinstall the back cover.

# Set up for travel or fixed use

You can set up your mobile hotspot for travel usage using battery power, or you can set it up for fixed usage inside a home or office using wall power for extra performance.

# Travel setup

To set up your mobile hotspot for travel usage, install and fully charge the battery before turning the device on.

## Charge the battery

Your mobile hotspot battery comes partially charged. We recommend that you fully charge the battery before using your mobile hotspot away from home.

(!) NOTE: For the fastest possible charging, use the USB power adapter and cable included with your mobile hotspot. Third-party USB power adapters and computer USB ports typically do not provide the same amount of current as the included USB power adapter and will not charge your battery as quickly. Third-party cables can also limit battery charging speed.

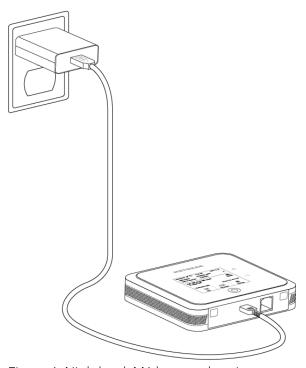


Figure 6. Nighthawk M6 battery charging

## To charge your battery:

- 1. Connect the USB charging cable to your mobile hotspot.
- 2. Connect the other end of the charging cable to the USB power adapter.
- 3. Plug the USB power adapter into a wall outlet.

## Charging best practices

Charging your mobile hotspot properly is important to ensure its longevity and maintain its performance. Here are some best practices to follow when charging your mobile hotspot:

- **Use the provided charging cable**: To ensure the safety and performance of your mobile hotspot, always use the charging cable that came with the device. Using third-party cables might result in slower charging, and can damage your device. Do not use damaged or frayed charging cables.
- **Plug the cable into a power source:** Plug the charging cable into a wall adapter (recommended) or a computer USB port to charge the device. Make sure that the power source is stable and reliable.
- **Check the charging status:** When you plug in the charging cable, check the device's charging status. The charging indicator in the status bar shows a lightning bolt over the battery icon if the device is charging. If the charging indicator does not appear, try unplugging the cable and plugging it back in.
- **Charge the device fully:** We recommend that you charge the mobile hotspot fully before using it for the first time, and that you let the device recharge fully before using it again when you discharge the battery. This helps to maintain the battery's lifespan and overall performance.
- **Avoid overcharging:** Overcharging the device can damage the battery and shorten its lifespan. When the device is fully charged, unplug it from the power source. Don't leave it plugged in overnight or for long periods of time. Remove the battery and use **Plugged-In Mode** if you are using the device in a fixed location.
- **Charge in a well-ventilated area:** Charging your mobile hotspot in a well-ventilated area can prevent overheating and ensures that the device charges efficiently. Avoid charging the device in an enclosed space or in direct sunlight.

By following these best practices, you can ensure that your mobile hotspot stays charged and performs optimally for years to come.

# Fixed setup

Depending on your needs, you might want to use your mobile hotspot in a fixed location as a replacement for a conventional modem or a modem router/gateway. You can set up your hotspot for fixed use either by itself, or connected to a conventional WiFi router with the included Ethernet port.

• NOTE: Only use the included USB cable and power adapter with your mobile hotspot. Using other cables or power adapters can cause your hotspot to function improperly or display error messages.

## Set up Plugged-In Mode for fixed usage

Removing your Nighthawk M6's battery and plugging it into wall power enables **Plugged-In Mode**, which boosts performance and improves WiFi coverage. On M6 Pro models, the max Ethernet port speed is increased as well. See the following table for differences between models and regions when Plugged-In Mode is activated.

Model	Region	WiFi Range	WiFi 6E	Ethernet Port Speed
M6	US	Up to 2000 sq. feet	Not Supported	1 Gbps
M6	EU/AU/NZ/HK	Up to 90 sq. meters	Not Supported	1 Gbps
M6 Pro	US	Up to 2000 sq feet	Supported*	2.5 Gbps
M6 Pro	EU/AU/NZ/HK	Up to 90 sq. meters	Supported	2.5 Gbps

\*WiFi 6E is restricted to indoor use only in the US. You can only use the 6 GHz band by connecting your mobile hotspot to the power adapter and enabling 6 GHz WiFi from the device or web user interface. For more information, see <u>Change WiFi bands or enable dual-band WiFi</u> on page 38.

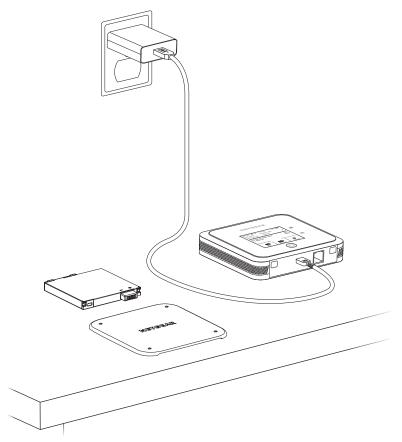


Figure 7. Nighthawk M6 fixed setup

### To enable Plugged-In Mode for fixed usage:

- 1. Remove the mobile hotspot back cover by lifting the corners.
- 2. Remove the battery.
  - (1) **NOTE:** When using Plugged-In Mode, we recommend that you do not reinstall the back cover after removing the battery for better device cooling performance.
- 3. Connect the USB charging cable to your mobile hotspot.
- 4. Connect the other end of the charging cable to the USB power adapter.
- 5. Plug the USB power adapter into a wall outlet.

# Power on your hotspot and finish setup

After configuring your mobile hotspot for travel or fixed usage, power on the device to complete the setup process.

**NOTE:** When idle, the touch screen goes dark to save power. Quickly press and release the **Power** button to wake the screen.

## To power on your hotspot and finish setup:

- 1. Press and hold the **Power** button for two seconds.
  - The NETGEAR logo displays and your mobile hotspot starts up.
  - The welcome screen displays.
- 2. Tap Let's go.
- 3. Follow the onscreen instructions to set up a unique WiFi network name, WiFi password, and admin password.
  - Customizing your WiFi settings helps to protect your mobile hotspot's WiFi network.
  - NOTE: If you don't customize your the settings, your device uses the WiFi network name, WiFi password, and admin password printed on the label underneath the battery.
- 4. Tap **Got it**.

The You're all set! screen displays to confirm your configuration.

5. Tap Go to my dashboard.

The home screen displays.

Your mobile hotspot is set up.

## View the home screen

From your mobile hotspot's home screen, you can view your connection status, configure WiFi settings, view data usage details, and more.

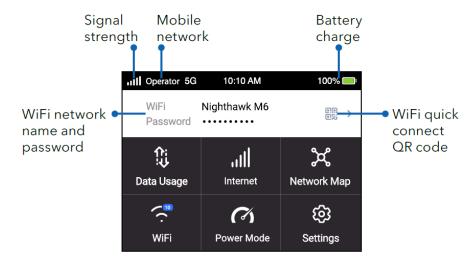
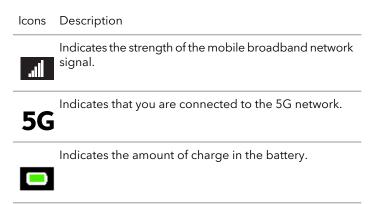


Figure 8. Home screen

Table 2. Icons



# Power off or restart your mobile hotspot

When you are done using your mobile hotspot, power it off to preserve battery life. You can also restart your mobile hotspot.

#### To power off or restart your mobile hotspot:

- Hold down the **Power** button for 5 seconds.
   The Shut down/Restart menu appears and you are prompted to power off or restart the device.
- 2. Tap **Shut down** to power off the device, or tap **Restart** to restart the device.

# Manage your mobile hotspot with NETGEAR Insight Pro

You can manage your mobile hotspot with NETGEAR Insight Pro. Insight Pro is a cloud-based management platform that allows you to remotely manage, deploy, and configure enterprise mobile hotspot devices with complete visibility. Device profiles can be configured and centrally applied to large quantities of devices simultaneously, with any profile configuration changes propagated to all devices that are assigned that profile. Additionally, mobile hotspots can be monitored individually, and access can be enabled or disabled to specific devices or to all devices that share a profile.



Figure 9. NETGEAR Insight app icon

When a mobile hotspot is running under Insight Pro, the Insight icon is shown in the dashboard status bar.

For instructions on adding a mobile hotspot to an Insight Pro account, scan the following QR code or visit <a href="https://kb.netgear.com/00063752/">https://kb.netgear.com/00063752/</a>.



For more information about NETGEAR Insight Pro, visit <a href="https://www.netgear.com/insight/mobile-hotspot">https://www.netgear.com/insight/mobile-hotspot</a> .
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# 2

# Connect devices to the Internet

When you turn on your mobile hotspot, it automatically connects to the mobile broadband network in your area. To access the Internet on other devices, connect them to your mobile hotspot's WiFi or wired network.

This chapter contains the following sections:

- Connect to WiFi using the SSID and password
- Connect to WiFi using the QR code
- Connect to WiFi using Wi-Fi Protected Setup (WPS)
- Connect a computer to the Internet using tethering
- Connect a computer to the Internet using Ethernet

# Connect to WiFi using the SSID and password

When your mobile hotspot is powered on, it broadcasts a WiFi network name (SSID) and password. You can connect to the Internet by selecting your hotspot's SSID and entering the password on your WiFi devices.

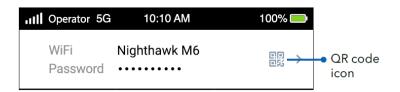


#### To connect to WiFi using the SSID and password:

- Quickly press and release the **Power** button to wake your mobile hotspot.
   The lock screen displays.
- Swipe up to unlock your mobile hotspot.
   The home screen displays, with your mobile hotspot SSID in the WiFi field and your hotspot password in the Password field.
- 3. From your WiFi device, open your WiFi network connection manager.
- 4. Select or enter the SSID shown on your mobile hotspot's home screen.
- 5. Enter the password shown on your mobile hotspot's home screen. Your WiFi device connects to your mobile hotspot's WiFi network.

# Connect to WiFi using the QR code

Your mobile hotspot's home screen displays a QR code icon. You can tap the QR code icon to display a larger code that enables mobile devices like smartphones and tablets to connect to WiFi without manually entering an SSID and password.



#### To connect to WiFi using the QR code:

- Quickly press and release the **Power** button to wake your mobile hotspot.
   The lock screen displays.
- 2. Swipe up to unlock your mobile hotspot.

The home screen displays, with a QR code icon displayed to the right of the SSID and password.

3. Tap the QR code icon.

A larger QR code displays.

4. Open your mobile device's camera application and aim the camera at the QR code.

Depending on your mobile device, you might need to tap the QR code in your camera app to proceed.

Your mobile device connects to your mobile hotspot's WiFi network.

# Connect to WiFi using Wi-Fi Protected Setup (WPS)

If your client devices support Wi-Fi Protected Setup (WPS), you can connect to your mobile hotspot's WiFi network with WPS instead of using the SSID and password.

## To connect to WiFi using WPS:

- Quickly press and release the **Power** button to wake your mobile hotspot.
   The lock screen displays.
- 2. Swipe up to unlock your mobile hotspot.

The home screen displays.

3. Tap WiFi > WPS.

The WPS page displays.

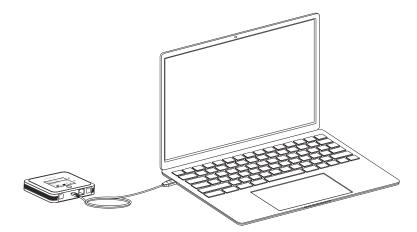
- 4. Check the WPS instructions for your client WiFi device.
- 5. Press the **Pair** button on your mobile hotspot.
- 6. Within two minutes, on your WPS-enabled client device, press its **WPS** button or follow its instructions for WPS connections.

Your client device connects to your mobile hotspot's WiFi network.

# Connect a computer to the Internet using tethering

You can connect a computer to your mobile hotspot using the included USB cable instead of connecting with WiFi or over Ethernet. This kind of cable connection is called *tethering*.

(I) **NOTE:** There might be a brief delay when your computer's operating system detects the mobile hotspot the first time you use the USB cable to connect your mobile hotspot to your computer.



## To connect a computer to the Internet using tethering:

- 1. If your mobile hotspot is powered on, press and hold the Power button for two seconds, then select **Shut down** to power it off.
- Connect your mobile hotspot to your computer using the included USB cable.
   The mobile hotspot powers on and your computer detects the mobile hotspot.
   Your computer connects to the Internet.

# Connect a computer to the Internet using Ethernet

You can connect a computer to your mobile hotspot using an Ethernet cable instead of connecting with WiFi or tethering.

(1) **NOTE:** Your device must be set to Performance Mode or Plugged-In Mode to enable the Ethernet port. For more information about Power Mode settings, see Change power mode to optimize performance and battery life on page 40.

#### To connect a computer to the Internet using Ethernet:

- Quickly press and release the **Power** button to wake your mobile hotspot.
   The lock screen displays.
- 2. Swipe up to unlock your mobile hotspot.
  - The home screen displays.
- 3. Using an Ethernet cable, connect your mobile hotspot to your computer. Your computer detects the Ethernet connection.
  - **NOTE:** If your computer does not automatically switch to the Ethernet connection, you might need to manually select the Ethernet connection from your computer's network connection manager.

Your computer connects to the Internet.

# View alerts, SMS messages, and usage information

This chapter contains the following sections:

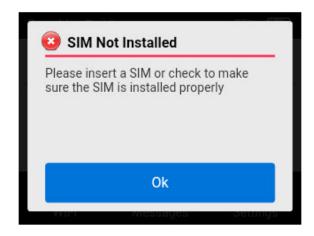
- View alerts from your mobile hotspot
- View SMS messages from your mobile hotspot
- Delete an SMS message from your mobile hotspot
- View data usage from your mobile hotspot
- View mobile broadband network status from your mobile hotspot
- View a network map of connected devices
- View a list of connected devices
- View details about your mobile hotspot
- View the current firmware version

# View alerts from your mobile hotspot

Your mobile hotspot displays alerts on the LCD screen to inform you of device status changes. Alerts display as long as the cause of the alert is present. When the cause of an alert is resolved, the corresponding alert is removed automatically.

### To view alerts from your mobile hotspot:

- Quickly press and release the **Power** button to wake your mobile hotspot.
   The lock screen displays.
- Swipe up to unlock your mobile hotspot.
   If any alerts are active, your mobile hotspot displays them.
   For example, if no SIM card is installed, the following alert appears:



# Update software and firmware from an Update Available alert

Your mobile hotspot automatically checks for new software and firmware updates. If an update becomes available, your hotspot displays an alert. Because software and firmware updates typically improve device performance and usability, we recommend that you update your hotspot whenever possible.

(1) **NOTE:** Updating your mobile hotspot temporarily interrupts your network connection. Make sure that you are prepared to lose connectivity before starting the update process.

#### To update software or firmware from an Update Available alert:

- Quickly press and release the **Power** button to wake your mobile hotspot.
   The lock screen displays.
- Swipe up to unlock your mobile hotspot.
   The home screen displays an Update Available alert.
- 3. Tap Install/Update.

The update process runs, and your mobile hotspot restarts.

Your mobile hotspot software and firmware is updated.

**NOTE:** Some updates might restore default mobile hotspot settings. You might need to reconfigure any settings that you previously changed.

# View SMS messages from your mobile hotspot

Your mobile hotspot can receive text (SMS) messages. The display notifies you if you have any unread messages, and you can view them directly from your mobile hotspot.

## To view SMS messages from your mobile hotspot:

- Quickly press and release the **Power** button to wake your mobile hotspot.
   The lock screen displays.
- 2. Swipe up to unlock your mobile hotspot. The home screen displays.
- 3. Tap Messages.

A list of received SMS messages displays.

4. Tap a message to read the full text.

# Delete an SMS message from your mobile hotspot

You can delete SMS messages from your mobile hotspot when you are done reading them.

#### To delete an SMS message from your mobile hotspot:

- Quickly press and release the **Power** button to wake your mobile hotspot.
   The lock screen displays.
- 2. Swipe up to unlock your mobile hotspot.
  - The home screen displays.
- 3. Tap Settings > Messages.
- 4. Select the message to delete.
- 5. Tap **Delete**.

The message is deleted.

# View data usage from your mobile hotspot

Your mobile hotspot displays the amount of data that you have used and the days remaining in your monthly billing cycle on the lock screen. You can also view your data usage and reset the counter from the touch screen.

## To view data usage from your mobile hotspot:

- 1. Quickly press and release the **Power** button to wake your mobile hotspot. The lock screen displays your data usage and days remaining.
- 2. Swipe up to unlock your mobile hotspot.

The home screen displays.

3. Tap Data Usage.

Your data usage and days remaining display.

4. (Optional) To reset your data usage counter, tap **Reset.** 

The data usage counter is reset to zero.

# View mobile broadband network status from your mobile hotspot

You can view the status of your mobile broadband network from your mobile hotspot. This might provide helpful information if you think you are experiencing a network outage or other connectivity problems.

#### To view network status from your mobile hotspot:

- Quickly press and release the **Power** button to wake your mobile hotspot.
   The lock screen displays.
- 2. Swipe up to unlock your mobile hotspot.

The home screen displays.

3. Tap **Settings > Mobile > Status**.

The Network Status screen displays.

# View a network map of connected devices

Your mobile hotspot's network map displays your connection status, along with all of the devices connected to your hotspot and any devices that you have blocked from connecting.

### To view a network map of connected devices:

- Quickly press and release the **Power** button to wake your mobile hotspot.
   The lock screen displays.
- 2. Swipe up to unlock your mobile hotspot.

The home screen displays.

3. Tap **Network Map**.

The network map displays information about your connection status and devices.

# View a list of connected devices

In addition to the network map of connected devices, you can also view a basic list of connected devices.

#### To view a list of connected devices:

- Quickly press and release the **Power** button to wake your mobile hotspot.
   The lock screen displays.
- Swipe up to unlock your mobile hotspot.The home screen displays.
- 3. Tap WiFi > Devices.

A list of connected devices displays.

# View details about your mobile hotspot

You can view details about your device, such as the model number, software version, and IMEI (International Mobile Station Equipment Identity).

## To view details about your mobile hotspot:

- Quickly press and release the **Power** button to wake your mobile hotspot.
   The lock screen displays.
- 2. Swipe up to unlock your mobile hotspot. The home screen displays.
- 3. Tap **Settings > More > Device Information**.
- 4. Scroll down to view additional device information.

# View the current firmware version

You can view the current firmware version that your mobile hotspot uses. You might need this information if you are experiencing problems with your mobile hotspot.

#### To view the current firmware version:

1. Quickly press and release the **Power** button to wake your mobile hotspot.

The lock screen displays.

2. Swipe up to unlock your mobile hotspot.

The home screen displays.

3. Tap **Settings > More > Software**.

The current firmware version displays.

# 4

# Adjust network, security, and performance settings

This chapter contains the following sections:

- Connect through local WiFi or Ethernet to conserve data
- Change the WiFi network name and password
- Enable or disable Guest WiFi
- Change WiFi bands or enable dual-band WiFi
- Disable or re-enable WiFi
- Change WiFi range
- Change WiFi standby time
- Change power mode to optimize performance and battery life
- Enable or disable Airplane Mode
- Enable or disable Screen Lock
- Enable or disable a WiFi schedule
- Configure access point names (APNs)
- Disable or re-enable domestic data
- Enable or disable roaming data
- Select a cellular band
- Adjust screen brightness
- Change screen timeout
- Hide or show WiFi credentials on the Home screen
- Change user interface language

- Manually check for software and firmware updates
- Enable or disable Ethernet
- Enable or disable IP passthrough
- Perform a factory reset
- Change the displayed date format
- Change the displayed time format
- Change USB tethering settings
- Enable or disable GPS

# Connect through local WiFi or Ethernet to conserve data

Your mobile hotspot supports WiFi offloading and Ethernet offloading, which can lower your device's cellular data usage and power consumption, along with other benefits:

- **WiFi offloading** lets your mobile hotspot use a local WiFi Internet connection for data instead of your cellular network. WiFi offloading can extend your battery life, prevent connection interruptions when switching between networks, and enable consistent Internet access in areas where cellular coverage is weak or unavailable.
- **Ethernet offloading** lets your mobile hotspot use a local Ethernet Internet connection for data instead your cellular network. Ethernet offloading can improve data transfer rates when cellular service is weak. It also provides a more reliable connection by dynamically switching between Ethernet and cellular connections when outages occur.

You might want to use WiFi or Ethernet offloading in locations where a public Internet connection is available, but you get poor cellular reception on your hotspot or want to conserve cellular data usage.

For example, if you need to use the Internet at an airport that provides public WiFi or workstations with Ethernet connections, you can set up your mobile hotspot to offload data to the airport WiFi or Ethernet. In addition to conserving your cellular data, using offloading to connect through your hotspot to public Internet connections provides an extra layer of security for your devices.

You can enable either feature from the **Internet** menu on your mobile hotspot.

# Enable WiFi or Ethernet offloading

## To enable WiFi or Ethernet offloading:

- Quickly press and release the **Power** button to wake your mobile hotspot.
   The lock screen displays.
- 2. Swipe up to unlock your mobile hotspot. The home screen displays.
- 3. Tap Internet.
- 4. Tap **WiFi + Cellular** to enable WiFi offloading, or tap **Ethernet + Cellular** to enable Ethernet offloading.
  - A pop-up notification displays.
- 5. Follow the instrustions displayed on the pop-up notification.

WiFi or Ethernet offloading is active.

# Change the WiFi network name and password

The WiFi network name (SSID) identifies your WiFi network and is visible to other WiFi-enabled devices.

### To change the WiFi network name and password from your mobile hotspot:

- Quickly press and release the **Power** button to wake your mobile hotspot.
   The lock screen displays.
- 2. Swipe up to unlock your mobile hotspot.

The home screen displays.

3. Tap **WiFi > WiFi**.

The WiFi settings page displays.

4. Tap the **Pencil** (Edit) icon beside the name or password.

A message displays telling you that currently connected devices must re-authenticate to the network with the updated information.

- 5. Tap **Continue**.
- 6. Enter a new WiFi network name and password.
- 7. Tap **Done**.

Your settings are saved.

# Enable or disable Guest WiFi

You can turn on Guest WiFi to share your Internet connection with temporary visitors on a separate connection from your personal WiFi devices. Guest WiFi is disabled by default.

#### To enable or disable Guest WiFi:

- Quickly press and release the **Power** button to wake your mobile hotspot.
   The lock screen displays.
- 2. Swipe up to unlock your mobile hotspot.

The home screen displays.

## 3. Tap WiFi > Guest WiFi.

The Guest WiFi page displays.

4. Tap the **OFF** button.

A pop-up informs you that the WiFi is restarting to enable Guest WiFi.

## 5. Tap **Ok**.

Guest WiFi is enabled. Tap the Guest WiFi icon to view the Guest WiFi connection QR code and login credentials. Additional settings also display.

- 6. To disable Guest WiFi after enabling it, tap the **ON** button on the Guest WiFi page. A pop-up informs you that the WiFi is restarting to disable Guest WiFi.
- 7. Tap **Ok**.

Guest WiFi is disabled.

## Change Guest WiFi settings

When Guest WiFi is enabled, your mobile hotspot displays additional settings for the Guest WiFi network. You can change the Guest WiFi network name and password. You can also choose to randomly generate a Guest WiFi password.

**NOTE:** Your mobile hotspot's web user interface displays advanced Guest WiFi settings like encryption type and channel selection. For more information, see Change Guest WiFi settings from the web user interface on page 63.

### To change Guest WiFi settings:

- Quickly press and release the **Power** button to wake your mobile hotspot.
   The lock screen displays.
- 2. Swipe up to unlock your mobile hotspot.

The home screen displays.

3. Tap WiFi > Guest WiFi.

The Guest WiFi page displays.

4. Tap the **Pencil** (Edit) icon beside the name.

A message displays telling you that currently connected devices must re-authenticate to the network with the updated information.

- 5. Tap **Continue**.
- 6. Enter a new guest WiFi network name.
- 7. Tap Done.

Your settings are saved.

8. Clear or select the **Generate Passphrase** check box.

If you clear the check box, you must enter your own WiFi password for the guest network.

9. Tap the **Pencil** (Edit) icon beside the password.

A message displays telling you that currently connected devices must re-authenticate to the network with the updated information.

- 10. Tap Continue.
- 11. Enter a new guest WiFi password.
- 12. Tap **Done**.

## Change WiFi bands or enable dual-band WiFi

By default, your mobile hotspot only broadcasts a WiFi signal on the 5 GHz band. Depending on your WiFi needs, you can also broadcast on the 2.4 GHz band, which is slower but has better range. If your device supports 6 GHz WiFi, you can also enable 6 GHz WiFi.

### To change WiFi bands or enable dual-band WiFi:

- Quickly press and release the **Power** button to wake your mobile hotspot.
   The lock screen displays.
- 2. Swipe up to unlock your mobile hotspot.

The home screen displays.

3. Tap WiFi > Band.

The Band page displays.

- 4. Tap the band setting that you want your device to broadcast.

  Your mobile hotspot temporarily pauses WiFi to change the settings.
- -

5. Tap **Ok**.

Your WiFi band settings are saved.

## Disable or re-enable WiFi

If you use your mobile hotspot to access the Internet with an Ethernet or tethering connection, or if you are in an area where WiFi broadcasting is restricted, you might want to disable WiFi. Disabling WiFi will reduce your mobile hotspot's power consumption and increase the battery life.

#### To disable or re-enable WiFi:

- Quickly press and release the **Power** button to wake your mobile hotspot.
   The lock screen displays.
- 2. Swipe up to unlock your mobile hotspot.

The home screen displays.

3. Tap WiFi > Options > WiFi Signal.

The WiFi Signal page displays.

4. To disable WiFi, tap **ON > Ok**.

WiFi is disabled.

To re-enable WiFi after disabling it, tap OFF > Ok.
 WiFi is enabled.

## Change WiFi range

Broadcasting WiFi at a longer range requires more power from your mobile hotspot's battery. Depending on how you use your mobile hotspot, you might not need the maximum possible WiFi range. You can increase your battery life by reducing the WiFi broadcast range.

### To change WiFi range:

- Quickly press and release the **Power** button to wake your mobile hotspot.
   The lock screen displays.
- 2. Swipe up to unlock your mobile hotspot.

The home screen displays.

3. Tap WiFi > Options > WiFi Range.

The WiFi Range page displays.

- 4. Tap a WiFi range option:
  - **Standard:** shorter range, but consumes less power.
  - **Long:** longer range, but consumes more power.

A pop-up informs you that the WiFi is restarting to save your changes.

5. Tap **Ok**.

Your WiFi range setting is saved.

## Change WiFi standby time

By default, your mobile hotspot disables its WiFi after a period of inactivity to increase your battery life. Depending on how you use your mobile hotspot, you might want to set a specific WiFi standby time, or disable WiFi standby so that WiFi is always broadcasted to your devices.

### To change WiFi standby time:

The lock screen displays.

2. Swipe up to unlock your mobile hotspot.

The home screen displays.

3. Tap WiFi > Options > WiFi Standby.

The WiFi Standby page displays.

4. Tap a WiFi standby option.

The minimum setting is Never, and the maximum setting is 60 minutes.

5. Tap **Ok**.

Your WiFi standby setting is saved.

## Change power mode to optimize performance and battery life

You can change your mobile hotspot's power mode to quickly prioritize either performance or battery life without changing individual settings one-by-one.

Balanced: Best battery life.

• **Performance**: Best performance on battery.

• **Plugged In**: Max performance with battery removed.

Table 3. Power Mode profile settings

	Balanced	Performance	Plugged In
LCD on time	1 minute	1 minute	1 minute
WiFi range	Short	Long	Extended
WiFi standby	5 minutes	60 minutes	Never
Ethernet port	Off	On	On
Ethernet speed	100Base-T	1000Base-T	2.5GBase-T (M6 Pro only)

## To change the power mode to optimize performance and battery life:

The lock screen displays.

2. Swipe up to unlock your mobile hotspot.

The home screen displays.

3. Tap Power Mode.

The Power Mode menu displays.

4. Select a power mode that suits your needs.

## Enable or disable Airplane Mode

You can turn on Airplane Mode to disable cellular service, but keep your WiFi or Ethernet connection active. Airplane Mode is disabled by default.

### To enable or disable Airplane Mode:

- Quickly press and release the **Power** button to wake your mobile hotspot.
   The lock screen displays.
- 2. Swipe up to unlock your mobile hotspot.

The home screen displays.

3. Tap Settings > Airplane Mode.

The Airplane Mode page displays.

4. Tap **OFF > Ok**.

Airplane Mode is enabled.

5. To disable Airplane Mode after enabling it, tap **ON > Ok** from the Airplane Mode page.

Airplane Mode is disabled.

## Enable or disable Screen Lock

Depending on how you use your mobile hotspot, you might want to prevent other people with physical access from accessing your mobile hotspot or changing its settings. You can enable the Screen Lock feature to require a four-digit passcode to access the device and change its settings. Screen Lock is disabled by default.

#### To enable or disable Screen Lock:

#### Nighthawk M6 Pro, Nighthawk M6

The lock screen displays.

2. Swipe up to unlock your mobile hotspot.

The home screen displays.

3. Tap Settings > Security > Screen Lock.

The Screen Lock page displays.

4. Tap **OFF**.

Your mobile hotspot prompts you to enter and confirm a four-digit passcode.

5. Using the on-screen keypad, enter and confirm a four-digit passcode of your choice, then tap **Ok**.

Screen Lock is enabled.

6. To change your Screen Lock passcode after enabling it, tap the **Pencil** icon from the Screen Lock page.

Your mobile hotspot prompts you to enter the current four-digit passcode, then enter and confirm a new passcode.

Your Screen Lock passcode is changed.

7. To disable Screen Lock after enabling it, tap **ON** from the Screen Lock page.

Your mobile hotspot prompts you to enter the current four-digit passcode. Screen Lock is disabled.

## Enable or disable a WiFi schedule

You can configure your mobile hotspot to broadcast its WiFi connection only at certain times during the day, or only on certain days. The WiFi Schedule is disabled by default.

• NOTE: To set up the WiFi Schedule details, you must connect to your mobile hotspot's web user interface. From the hotspot, you can only turn a previously configured schedule on or off. For more information, see <a href="Configure a WiFi schedule from the web user interface">Configure a WiFi schedule from the web user interface</a> on page 66.

#### To enable or disable a WiFi Schedule:

Quickly press and release the **Power** button to wake your mobile hotspot.
 The lock screen displays.

2. Swipe up to unlock your mobile hotspot.

The home screen displays.

3. Tap Settings > Security > Schedule.

The Schedule page displays.

4. Tap **OFF > Ok**.

Your WiFi schedule is enabled.

5. To disable a WiFi schedule after enabling it, tap **ON > Ok** from the Schedule page. Your WiFi schedule is disabled.

## Configure access point names (APNs)

Your mobile hotspot comes preconfigured with the access point name (APN) for most cellular network service providers. You can add additional APNs and select among the configured APN for use by the mobile hotspot. The mobile hotspot checks the APN to determine the type of network connection to establish.

## Select an APN

#### To select an APN:

- Quickly press and release the **Power** button to wake your mobile hotspot.
   The lock screen displays.
- 2. Swipe up to unlock your mobile hotspot.

The home screen displays.

3. Tap **Settings > Mobile > APN**.

The APN page displays.

4. Tap the APN to use.

The selected APN is active.

## Add a new APN

(I) **NOTE:** Your carrier determines its own APN information and must provide you the information for its own data plan. APN settings can also vary depending on the type of plan that you subscribe to. We recommend that you contact your carrier for the correct APN settings and only use the APN that your carrier instructs you to use for your specific plan.

#### To add a new APN:

1. Quickly press and release the **Power** button to wake your mobile hotspot.

The lock screen displays.

2. Swipe up to unlock your mobile hotspot.

The home screen displays.

3. Tap **Settings > Mobile > APN**.

The APN page displays.

4. Tap **+ Add**.

The Add APN page displays.

5. Specify the APN name.

The APN name is a label for display in the UI.

6. Specify the APN

This step specifies the APN as defined by the carrier.

- 7. Select the network authentication mode:
  - None
  - PAP
  - CHAP
  - PAPCHAP
- 8. Enter the name and password, if they are required for the network.
- 9. Change the PDP (data protocol), if necessary:
  - IPV4
  - IPV6
  - IPV4V6
- 10. Change the PDP roaming protocol, if necessary:
  - None
  - IPV4
  - IPV6
  - IPV4V6
  - (I) NOTE: PDP roaming protocol is the IP protocol used while you are roaming (for example when you are traveling and the roaming network does not support IPv6).
- 11. Click or tap **Save**.

The entry is added to the table.

## Edit an APN entry

### To edit an APN entry:

- 1. Quickly press and release the **Power** button to wake your mobile hotspot.
  - The lock screen displays.
- 2. Swipe up to unlock your mobile hotspot.
  - The home screen displays.
- 3. Tap Settings > Mobile > APN.
  - The APN page displays.
- 4. Tap **Edit** for an APN entry.
- 5. Tap any field to make changes.
- 6. Click or tap **Save**.
  - Your changes are saved.

## Disable or re-enable domestic data

By default, your mobile hotspot uses the domestic cellular data plan linked to your SIM card. In some cases, you might want to disable domestic data usage. For example, if you have Ethernet offloading enabled and access to a reliable Ethernet Internet connection, you might want to disable domestic data to ensure that you do not use any of your cellular data plan's monthly allowance.

#### To disable or re-enable domestic data:

- Quickly press and release the **Power** button to wake your mobile hotspot.
   The lock screen displays.
- Swipe up to unlock your mobile hotspot.
  - The home screen displays.
- 3. Tap Settings > Mobile > Domestic Data.
  - The Domestic Data page displays.
- 4. Tap **ON > Ok**.
  - Domestic data is disabled.
- 5. To re-enable domestic data after disabling it, tap **ON > Ok** from the Domestic Data page.
  - Domestic data is disabled.

## Enable or disable roaming data

By default, your mobile hotspot does not use roaming data on the cellular data plan linked to your SIM card. Roaming data might be subject to additional fees or costs from your cellular carrier. However, you might want to enable roaming data in situations where a consistent cellular data connection is more important than paying any additional fees or costs.

### To enable or disable roaming data:

- Quickly press and release the **Power** button to wake your mobile hotspot.
   The lock screen displays.
- 2. Swipe up to unlock your mobile hotspot.

The home screen displays.

3. Tap Settings > Mobile > Roaming Data.

The Roaming Data page displays.

4. Tap **OFF > Ok**.

Roaming data is enabled.

5. To disable roaming data after enabling it, tap **ON > Ok** from the Roaming Data page. Roaming data is disabled.

## Select a cellular band

Your mobile hotspot has both 4G and 5G cellular band connectivity. By default, your mobile hotspot connects to the fastest available band. However, you can limit connectivity to the 4G band if you prefer.

#### To select a cellular band:

- 1. Quickly press and release the **Power** button to wake your mobile hotspot.
  - The lock screen displays.
- 2. Swipe up to unlock your mobile hotspot.

The home screen displays.

3. Tap **Settings > Mobile > Band Region**.

The Band Region page displays.

4. Select a band option:

- **4G + 5G**: Your mobile hotspot connects to the best available band, whether 4G or 5G.
- **4G**: Your mobile hotspot only connects to the 4G band.
- 5. Tap **Ok**.

Your band setting is saved.

## Adjust screen brightness

You can adjust how bright your mobile hotspot's screen is. A brighter setting might make the display easier to see in bright environments, but uses more of the device's battery power.

### To adjust screen brightness:

- Quickly press and release the **Power** button to wake your mobile hotspot.
   The lock screen displays.
- 2. Swipe up to unlock your mobile hotspot.

The home screen displays.

3. Tap Settings > Screen > Screen Brightness.

The Screen Brightness page displays.

4. Use the slider to adjust the screen brightness to your desired setting.

## Change screen timeout

By default, your mobile hotspot disables its screen after a period of inactivity to increase your battery life. Depending on how you use your mobile hotspot, you might want to set a specific screen timeout period, or disable screen timeout so that the screen is always active.

### To change screen timeout:

- Quickly press and release the **Power** button to wake your mobile hotspot.
   The lock screen displays.
- 2. Swipe up to unlock your mobile hotspot.

The home screen displays.

3. Tap Settings > Screen > Screen Timeout.

The Screen Timeout page displays.

4. Tap a screen timeout option.

The minimum setting is Never, and the maximum setting is 10 minutes.

5. Tap **Ok**.

Your screen timeout setting is saved.

## Hide or show WiFi credentials on the Home screen

By default, your mobile hotspot displays its WiFi network name (SSID) and password on the Home screen for convenient reference when connecting your WiFi devices. However, you might want to hide this information when using your mobile hotspot in some public areas to prevent unauthorized access to your device.

#### To hide or show WiFi credentials on the Home screen:

- Quickly press and release the **Power** button to wake your mobile hotspot.
   The lock screen displays.
- 2. Swipe up to unlock your mobile hotspot.

The home screen displays.

3. Tap Settings > Screen > WiFi Info on Home.

The WiFi Info on Home page displays.

4. Tap **Hide** to mask your WiFi credentials on the Home screen, or tap **Show** to display them.

The default setting is Show.

5. Tap **Ok**.

Your WiFi Info on Home setting is saved.

## Change user interface language

Your mobile hotspot supports multiple user interface languages. You can change the language your mobile hotspot uses.

(I) **NOTE:** The languages that your mobile hotspot supports might vary depending on what region you purchased your device in.

### To change the user interface language:

- Quickly press and release the **Power** button to wake your mobile hotspot.
   The lock screen displays.
- 2. Swipe up to unlock your mobile hotspot.

The home screen displays.

3. Tap Settings > Screen > Default Language.

The Default Language page displays.

- 4. Tap a language for your mobile hotspot user interface to display.
- 5. Tap **Ok**.

Your mobile hotspot restarts and displays its user interface in the language that you selected.

## Manually check for software and firmware updates

Your mobile hotspot will notify you when it detects the availability of new software or firmware. However, you can also check for updates manually. Because software and firmware updates typically improve device performance and usability, we recommend that you update your hotspot whenever possible.

(1) **NOTE:** Updating your mobile hotspot temporarily interrupts your network connection. Make sure that you are prepared to lose connectivity before starting the update process.

### To manually check for software and firmware updates:

- Quickly press and release the **Power** button to wake your mobile hotspot.
   The lock screen displays.
- 2. Swipe up to unlock your mobile hotspot.

The home screen displays.

3. Tap **Settings > More > Software**.

The Firmware Update page displays.

4. Tap the Check for updates now button.

The screen refreshes, showing any available update.

5. Do one of the following:

#### Nighthawk M6 Pro, Nighthawk M6

- If an upgrade is available and you want to install it, tap the **Update now** button to install the update.
- To postpone the update, tap **Postpone**.

If you tap Update now, the update proceeds.

If you tap **Postpone**, a message displays indicating that the update will be postponed for 4 hours. You can then click **Apply** to accept the postponed update.

When the wait period is complete, after you are prompted to continue the update, tap **Continue Update**.

If the battery is low, a message displays indicating that the battery is low.

6. To continue, connect the device to the charger and click **Apply**.

After the update is complete, your mobile hotspot restarts.

## Enable or disable Ethernet

You can manually enable or disable your mobile hotspot's Ethernet port independently of the power mode that you currently have selected. Depending on the power mode that you are currently using, your Ethernet port might already be enabled or disabled. For more information, see <u>Change power mode to optimize performance and battery life</u> on page 40.

#### To enable or disable Ethernet:

- 1. Quickly press and release the **Power** button to wake your mobile hotspot. The lock screen displays.
- 2. Swipe up to unlock your mobile hotspot.

The home screen displays.

3. Tap **Settings > More > Ethernet**.

The Ethernet page displays.

The icon in the top right corner displays ON or OFF to indicate the current Ethernet status.

4. Tap the **ON** or **OFF** icon.

Your mobile hotspot asks you to confirm that it must restart to enable or disable Ethernet.

5. Tap **Continue**.

Your mobile hotspot restarts with Ethernet enabled or disabled.

## Enable or disable IP passthrough

Depending on how you use your mobile hotspot, you might want to enable IP passthrough. When IP passthrough is enabled, your mobile hotspot takes the IP address that your cellular service provider assigned to your device and passes it through to a connected device. Enabling IP passthrough allows you to configure the LTE subnet mask from the web user interface, which might be necessary for some use cases.

#### To enable or disable Ethernet:

- Quickly press and release the **Power** button to wake your mobile hotspot.
   The lock screen displays.
- 2. Swipe up to unlock your mobile hotspot.

The home screen displays.

3. Tap Settings > Mobile > Roaming Data.

The Roaming Data page displays.

4. Tap the **ON** or **OFF** icon.

Your mobile hotspot asks you to confirm that it must restart to enable or disable IP passthrough.

5. Tap Continue.

Your mobile hotspot restarts with IP passthrough enabled or disabled.

## Perform a factory reset

In some cases, you might want to reset your mobile hotspot to factory settings. Performing a factory reset clears all settings from your mobile hotspot and initiates the first-time setup process.

### To perform a factory reset:

- 1. Quickly press and release the **Power** button to wake your mobile hotspot.
  - The lock screen displays.
- 2. Swipe up to unlock your mobile hotspot.
  - The home screen displays.
- 3. Tap Settings > More > Factory Reset.

The Factory Reset page displays.

4. Tap Reset Now.

Your mobile hotspot prompts you to confirm the factory reset.

5. Tap **Confirm**.

Your mobile hotspot restarts with factory settings.

## Change the displayed date format

Your mobile hotspot is initially set to display a date format that is common for your region. However, if you prefer to use a different date format, you can change the format that your device uses.

### To change displayed date format:

- 1. Quickly press and release the **Power** button to wake your mobile hotspot.
  - The lock screen displays.
- 2. Swipe up to unlock your mobile hotspot.
  - The home screen displays.
- 3. Tap Settings > More > Date Format.
  - The Date Format page displays.
- 4. Tap a date format, then tap **Ok**.
  - Your mobile hotspot uses the new date format.

## Change the displayed time format

By default, your mobile hotspot's clock displays a time format that is common for your region. However, if you prefer to use a different time format, you can change the clock format.

### To change displayed time format:

- 1. Quickly press and release the **Power** button to wake your mobile hotspot.
  - The lock screen displays.
- 2. Swipe up to unlock your mobile hotspot.
  - The home screen displays.
- 3. Tap **Settings > More > Time Format**.
  - The Time Format page displays.
- 4. Tap a time format, then tap **Ok**.
  - Your mobile hotspot uses the new time format.

## Change USB tethering settings

By default, your mobile hotspot has USB tethering enabled so that you can connect computers to the Internet with a USB cable instead of WiFi or Ethernet. You can optionally disable USB tethering entirely, or restrict Internet connections exclusively to USB tethering.

### To change USB tethering settings:

- Quickly press and release the **Power** button to wake your mobile hotspot.
   The lock screen displays.
- 2. Swipe up to unlock your mobile hotspot.

The home screen displays.

3. Tap Settings > More > USB Tethering.

The USB Tethering page displays.

- (I) NOTE: Depending on the power mode that you are currently using, USB tethering might be enabled or disabled when you reach the USB Tethering page.
- 4. Select the USB tethering options:
  - To enable or disable USB tethering entirely, tap the **ON** or **OFF** button.
  - To allow Internet connections via WiFi or USB tether, tap **USB Tether**.
  - To restrict Internet connections to a USB tethered device, tap **USB Tether Only** (**Disables WiFi**).
  - (I) **NOTE:** Your mobile hotspot might need to restart.

## Enable or disable GPS

You can enable GPS location services on some mobile hotspot models. When GPS is enabled, users can turn on location services to launch GPS-enabled apps on connected devices and use the NMEA port to obtain a GPS location.

**NOTE:** For a list of mobile hotspot models that support GPS, see <u>GPS support</u> on page 92 in the Specifications appendix.

#### To enable or disable GPS:

#### Nighthawk M6 Pro, Nighthawk M6

The lock screen displays.

2. Swipe up to unlock your mobile hotspot.

The home screen displays.

3. Tap **Settings > More > GPS**.

The GPS page displays.

4. Tap the slider button to enable or disable GPS.

## 5

## Access the web user interface

This chapter contains the following sections:

- Log in to the web user interface
- View SMS messages from the web user interface
- Delete an SMS message from the web user interface
- View details about your mobile hotspot from the web user interface
- Enable WiFi or Ethernet offloading from the web user interface
- Change WiFi band settings from the web user interface
- Change WiFi network name, password, encryption, or channel settings from the web user interface
- Change WiFi standby, range, bandwidth, and info display settings from the web user interface
- Enable or disable Guest WiFi from the web user interface
- Change power mode from the web user interface
- Configure access controls from the web user interface
- Configure website filters from the web user interface
- Configure a WiFi schedule from the web user interface
- Enable SIM security from the web user interface
- Change the web user interface login password
- Back up mobile hotspot settings from the web user interface
- Restore backed up settings from the web user interface
- Factory reset your mobile hotspot from the web user interface
- Enable or disable IP passthrough from the web user interface
- Disable or re-enable the DHCP server feature from the web user interface

- View data usage from the web user interface
- Configure cellular settings from the web user interface
- Configure access point names (APNs) from the web user interface
- Configure port forwarding from the web user interface
- Configure port filtering from the web user interface
- Change display settings from the web user interface
- Enable or disable VPN passthrough from the web user interface
- <u>Disable or re-enable UPnP from the web user interface</u>
- Configure a DMZ server from the web user interface

## Log in to the web user interface

Your mobile hotspot comes configured and ready to use. In addition to using the LCD touch screen to change basic settings, you can use the web user interface to manage advanced settings.

### To log in to the web user interface:

- 1. From a computer or WiFi device that is connected to the mobile hotspot, launch a web browser.
- 2. Enter http://192.168.1.1.

The mobile hotspot web page displays.

3. Log in using your admin password.

The default admin login password is printed on the product label in the battery compartment. The password is case sensitive.

The web user interface dashboard displays. The dashboard displays any active alerts.

## View SMS messages from the web user interface

Your mobile hotspot can receive text (SMS) messages. You can view them from the web user interface.

### To view SMS messages from the web user interface:

- From the web user interface dashboard, select **Messages**.
   A list of messages displays, showing the first portion of the text.
- 2. Click or tap a message to read the full text.

## Delete an SMS message from the web user interface

You can delete SMS messages from the web user interface when you are done reading them.

### To delete an SMS message from the web user interface:

- From the web user interface dashboard, select **Messages**.
   A list of messages displays, showing the first portion of the text.
- 2. Select a message and click or tap **Delete**. The message is deleted.

## View details about your mobile hotspot from the web user interface

You can view details about your mobile hotspot from the web user interface.

### To view details about your mobile hotspot from the web user interface:

- From the web user interface dashboard, select **Settings > Status**.
   The Status menu expands.
- 2. Select one of the following pages to view additional information:
  - **Account**: Displays cellular account info, such as your service number, IMEI, and MAC address.
  - **Network**: Displays network connection info, such as your time connected, data transfer totals, and IP addresses.
  - **Device**: Displays mobile hotspot info, such as the hardware and software versions.
  - **WiFi Details**: Displays WiFi network info, such as your encryption type, connected devices, and broadcast mode.
  - **Diagnostics**: Displays diagnostic info, such as cellular band technical info, device temperature, and battery voltage.

## Enable WiFi or Ethernet offloading from the web user interface

### To enable WiFi or Ethernet offloading from the web user interface:

1. From the web user interface dashboard, select **Settings > Internet**.

The Internet page displays.

- 2. Click or tap **WiFi + Cellular** to enable WiFi offloading, or **Ethernet + Cellular** to enable Ethernet offloading.
- 3. Click or tap Apply.

A message displays telling you that to save this change, your device must restart WiFi connections.

4. Click or tap Continue.

Your settings are saved.

## Change WiFi band settings from the web user interface

Your mobile hotspot can broadcast WiFi signals on two WiFi bands simultaneously. Depending on your specific model, you might be able to use 2.4 GHz, 5 GHz, or 6 GHz. Note that the overall throughput speed could decrease when WiFi dual-band is enabled.

### To change WiFi band settings from the web user interface:

- From the web user interface dashboard, select Settings > WiFi Band.
   The WiFi Band page displays.
- 2. Select a WiFi band option.

Depending on your mobile hotspot model, the following options might be available:

- Dual-Band (2.4 & 6 GHz)
- Dual-Band (2.4 & 5 GHz)
- 6 GHz Only
- 5 GHz Only
- 2.4 GHz Only
- Turn Off WiFi
- 3. Click or tap **Apply**.

A message displays telling you that to save this change, your device must restart WiFi connections.

4. Click or tap **Continue**.

# Change WiFi network name, password, encryption, or channel settings from the web user interface

The WiFi network name (SSID) identifies your WiFi network and is visible to other WiFi-enabled devices. From the web user interface, you can change the SSID, password, WiFi encryption type, and broadcast channel settings.

(I) NOTE: In some regions, not all channels are available. Do not change the channel unless you experience interference (shown by lost connections or slow data transfers). If this happens, experiment with different channels to see which is the best.

## To change the WiFi network name, password, encryption, or channel settings from the web user interface:

- From the web user interface dashboard, select Settings > General > WiFi Band.
   The WiFi Band page displays.
- 2. Click or tap More.
  - Additional settings display.
- 3. Enter a WiFi Name and WiFi Password.
- 4. Select an Encryption Type and Channel.

Your WiFi client devices must support the encryption type that you select for your mobile hotspot, or they will not be able to connect.

- (1) **NOTE:** On WiFi 6E mobile hotspots, the encryption for the 6 GHz WiFi network is set to WPA3-Personal. This security option enables WiFi devices that support WPA3 to join the 6 GHz WiFi network. WPA3 is the latest security standard, uses SAE encryption, and is required to join the 6 GHz WiFi network.
- 5. Clear or select the **Broadcast WiFi Name SSID** check box.
  - If you clear the check box, you must manually enter your SSID when connecting your WiFi devices.
- 6. Click or tap Apply.
  - A message displays telling you that to save this change, your device must restart WiFi connections.
- 7. Click or tap **Continue**.
  - Your settings are saved.

If you changed the SSID or password, your previously connected WiFi devices must reconnect using the new credentials.

## Change WiFi standby, range, bandwidth, and info display settings from the web user interface

## To change WiFi standby, range, bandwidth, and info display settings from the web user interface:

- From the web user interface dashboard, select Settings > General > WiFi Band.
   The WiFi Band page displays.
- 2. Click or tap **More**.

Additional settings display.

3. Select Global Settings.

The Global Settings page displays.

- 4. Select a WiFi Standby time period and WiFi Range setting.
- 5. Select a **Bandwidth** (channel frequency) option for each WiFi band that your device supports.
- 6. To allow the WiFi information to be displayed on your mobile hotspot home screen, leave the **WiFi Info on Home** check box selected.
- 7. To allow Wi-Fi Protected Setup (WPS) connections to your mobile hotspot, leave the **Enable WPS** check box selected.
- 8. Click or tap Apply.

A message displays telling you that to save this change, your device must restart WiFi connections.

9. Click or tap Continue.

## Enable or disable Guest WiFi from the web user interface

You can turn on Guest WiFi to share your Internet connection with temporary visitors on a separate connection from your personal WiFi devices. Guest WiFi is disabled by default.

#### To enable or disable Guest WiFi from the web user interface:

- From the web user interface dashboard, select Settings > General > Guest Network.
   The Guest Network page displays.
- 2. Select the **Enable** check box to enable Guest WiFi, or clear the check box to disable Guest WiFi.
- 3. Click or tap Apply.

A message displays telling you that to save this change, your device must restart WiFi connections.

4. Click or tap Continue.

Guest WiFi is enabled.

A QR code for devices to connect with displays on the Guest Network page. Additional settings also display.

## Change Guest WiFi settings from the web user interface

When Guest WiFi is enabled, your mobile hotspot's web user interface displays additional settings for the Guest WiFi network. You can change the Guest WiFi network name, password, encryption, and channel settings. You can also choose to randomly generate a Guest WiFi password or disable Guest WiFi SSID broadcast.

### To change Guest WiFi settings from the web user interface:

- From the web user interface dashboard, select Settings > General > Guest Network.
   The Guest Network page displays.
- 2. Enter a WiFi Name and WiFi Password.
- 3. Select an **Encryption Type** and **Channel**.

Your WiFi client devices must support the encryption type that you select for your mobile hotspot, or they will not be able to connect.

4. Clear or select the **Generate Passphrase** check box.

If you clear the check box, you must enter your own WiFi password for the guest network.

5. Clear or select the **Broadcast WiFi Name SSID** check box.

If you clear the check box, you must manually enter the guest SSID when connecting your WiFi devices.

6. Click or tap Apply.

A message displays telling you that to save this change, your device must restart WiFi connections.

7. Click or tap **Continue**.

Your settings are saved.

If you changed the SSID or password, your previously connected WiFi devices must reconnect using the new credentials.

## Change power mode from the web user interface

You can change your mobile hotspot's power mode to quickly prioritize either performance or battery life without changing individual settings one-by-one.

• Balanced: Best battery life.

• **Performance**: Best performance on battery.

• Plugged In: Max performance with battery removed.

Table 4. Power Manager Profile Settings

	Balanced	Performance	Plugged In
LCD on time	1 minute	1 minute	1 minute
WiFi range	Short	Long	Extended
WiFi standby	5 minutes	60 minutes	Never
Ethernet port	Off	On	On
Ethernet speed	100Base-T	1000Base-T	2.5GBase-T (M6 Pro) or 1000Base-T (M6)

### To change power mode from the web user interface:

- From the web user interface dashboard, select Settings > General > Power Mode.
   The Power Mode page displays.
- 2. Click or tap to select a power mode that suits your needs.
- 3. Click or tap **Apply**.

A message displays telling you that to save this change, your device must restart WiFi connections.

4. Click or tap **Continue**.

Your settings are saved.

## Configure access controls from the web user interface

You can use access control to set up a list of specific devices to be allowed access or blocked from accessing your mobile hotspot's Internet connection.

### To configure access controls from the web user interface:

1. From the web user interface dashboard, select **Settings > Security > Access Controls**.

The Access Controls page displays.

- 2. Select the **Enable** check box.
- Using the Filter Type drop-down, select Allow List or Block List.
   Depending on your selection, the page displays an Allow List or a Block List.
- 4. To add a device to the list, click or tap **Add**.

The Add Device window displays.

- 5. Enter a **Device Name** and **MAC Address**.
- 6. Click or tap **Add**.

The device is added to the list.

7. To remove a device from the list, select the device and then click or tap **Delete**. The device is removed from the list.

## Configure website filters from the web user interface

You can set up a filter to block or allow access to websites that you specify. You can also set up a list of devices that are unrestricted. The website filtering does not apply to unrestricted devices.

### To configure website filters from the web user interface:

1. From the web user interface dashboard, select **Settings > Security > Website Filters**.

The Website Filters page displays.

- 2. Select the **Enable** check box.
- 3. In the **Filter Type** menu, select **Block List** or **Allow List**.

Depending on your selection, a Blocked Websites list or an Allowed Websites list displays.

4. To add a website to the list, click or tap **Add** and enter the website.

The website is added to the list.

5. To edit an entry in the list, do the following:

- a. Select its check box.
- b. Click the **Edit** icon.
- c. Enter the changes.
- 6. To remove a website from the list, select its check box and then click or tap **Delete**.

The website is removed from the list.

- 7. To create a list of unrestricted devices, do the following:
  - a. In the Unrestricted Devices section, click or tap Add.
  - b. Select the device.

The device is added to the list.

8. Click or tap **Apply**.

Your settings are saved.

## Configure a WiFi schedule from the web user interface

You can configure rules that determine time periods when your mobile hotspot's Internet connection is accessible to devices.

### To configure a WiFi schedule from the web user interface:

- From the web user interface dashboard, select Settings > Security > Schedule.
   The Schedule page displays.
- 2. Select the **Enable** check box.
- 3. To add a schedule rule, click or tap **Add**.

The New Rule page displays.

- 4. Specify the name of the rule and the days and times for the rule.
- 5. Select the **Enable** check box.
- 6. Click or tap **Save**.

## Enable SIM security from the web user interface

You can create another level of security by configuring a PIN that you must enter each time that you power on your mobile hotspot.

### To enable SIM security from the web user interface:

- From the web user interface dashboard, select Settings > Security > SIM Security.
   The SIM Security page displays.
- 2. Click or tap **ACTIVATE**.
- 3. Enter a PIN to use for your device and click or tap **Apply**. Your PIN is saved.
  - NOTE: If you enter an incorrect PIN three times, the SIM is blocked. If the SIM is blocked, contact your cellular data service provider to receive a PUK number to unblock the SIM.

## Change the web user interface login password

Your mobile hotspot is set up to use a default web user interface login password. The default password is printed on a label in the battery compartment. You can optionally change the default password to your own password.

### To change the web user interface login password:

1. From the web user interface dashboard, select **Settings > Administration > Set Password**.

The password settings are displayed.

2. In the **New Password** field, enter the password that you want to use.

The maximum password length is 31 characters.

3. Click or tap **Apply**.

## Back up mobile hotspot settings from the web user interface

You can back up and restore settings. Backing up and restoring is useful if you use more than one device and you want the same settings on all of your devices.

You can also save your settings before resetting to factory defaults or changing the settings.

### To back up mobile hotspot settings from the web user interface:

- 1. From the web user interface dashboard, select **Settings > Administration > Backup Settings**. The Backup Settings page displays.
- 2. Click or tap **Backup**. By default, the file (export.cfg) is saved to your Downloads folder.

## Restore backed up settings from the web user interface

### To restore backed up settings from the web user interface:

1. From the web user interface dashboard, select **Settings > Administration > Backup Settings**.

The Backup Settings page displays.

- 2. Select the export.cfg file to restore using one of the following methods:
  - To browse and select a local file, click the Choose File button.
  - To select a backup file from the network, click or tap **Upload**.

By default, mobile hotspot setting files are saved to your Downloads folder.

3. Click or tap **Open**.

Your mobile hotspot is restored with the uploaded file's settings.

## Factory reset your mobile hotspot from the web user interface

### To factory reset your mobile hotspot from the web user interface:

 From the web user interface dashboard, select Settings > Administration > Factory Reset.

The Factory Reset page displays.

- 2. Click or tap Factory Reset.
- 3. Click or tap **Yes** to confirm.

Your mobile hotspot resets and returns to its factory settings.

## Enable or disable IP passthrough from the web user interface

When IP passthrough is enabled, your mobile hotspot takes the IP address that your cellular service provider assigned to your device and passes it through to a connected device. Enabling IP passthrough allows you to configure the LTE subnet mask from the web user interface, which might be necessary for some use cases.

### To enable or disable IP passthrough from the web user interface:

1. From the web user interface dashboard, select **Settings > Advanced > Mobile Router Setup**.

The Mobile Router Setup page displays.

2. Select the IP Passthrough **On** button to enable IP passthrough, or select the **Off** button to disable it.

IP passthrough is disabled by default.

3. Click or tap **Apply**.

A message displays telling you that to save this change, your device must restart.

4. Click or tap Continue.

# Disable or re-enable the DHCP server feature from the web user interface

By default, your mobile hotspot acts as a DHCP server. The server assigns IP, DNS server, and default gateway addresses to all computers connected to the LAN. The assigned default gateway address is the LAN address of the router.

You can use another device on your network as the DHCP server, or specify the network settings of all your computers.

#### To disable or re-enable the DHCP server feature from the web user interface:

1. From the web user interface dashboard, select **Settings > Advanced > Mobile Router Setup**.

The Mobile Router Setup page displays.

- 2. Clear the **Use mobile router as DHCP server** check box to disable the DHCP server feature, or select the check box to re-enable it.
- 3. Click or tap **Apply**.

A message displays telling you that to save this change, your device must restart.

4. Click or tap Continue.

Your settings are saved.

## View data usage from the web user interface

## To view data usage from the web user interface:

1. From the web user interface dashboard, click or tap **See data usage**, or select **Settings > Advanced > Data Usage**.

The Data Usage page displays.

2. (Optional) To reset the data usage counter, click or tap **Reset**.

The counter is reset.

- 3. (Optional) To set a regular reset date or data plan limit, select the appropriate check box and enter or select your desired values.
- 4. Click or tap **Apply**.

Your settings are saved.

## Configure cellular settings from the web user interface

### To configure cellular settings from the web user interface:

- From the web user interface dashboard, select Settings > Advanced > Cellular.
   The Cellular page displays.
- 2. Change the data, band region, and network mode settings as needed.

## Configure access point names (APNs) from the web user interface

Your mobile hotspot comes preconfigured with the access point names (APNs) for most cellular network service providers. You can add additional APNs and select among the configured APNs for use by the mobile hotspot. The mobile hotspot checks the APN to determine the type of network connection to establish.

• NOTE: Your carrier determines its own APN information and must provide you the information for its own data plan. APN settings can also vary depending on the type of plan that you subscribe to. We recommend that you contact your carrier for the correct APN settings and only use the APN that your carrier instructs you to use for your specific plan.

## Add an APN for another network

#### To add an APN for another network:

- From the web user interface dashboard, select Settings > Advanced > Cellular.
   The Cellular page displays.
- 2. Click or tap **Add**.

The APN page displays.

3. Specify the APN name.

The APN name is a label for display in the UI.

4. Specify the APN.

This step specifies the APN as defined by the carrier.

- 5. Change the PDP (data protocol), if necessary:
  - IPV4
  - IPV6
  - IPV4V6
- 6. Change the PDP roaming protocol, if necessary:
  - None
  - IPV4
  - IPV6
  - IPV4V6
  - (I) NOTE: PDP roaming protocol is the IP protocol used while you are roaming (for example when you are traveling and the roaming network does not support IPv6).
- 7. Select the network authentication mode:
  - None
  - PAP
  - CHAP
  - PAPCHAP
- 8. Enter the name and password, if they are required for the network.
- 9. Click or tap Add.

The entry is added to the table.

## Select an APN to use

#### To select an APN to use:

- From the web user interface dashboard, select Settings > Advanced > Cellular.
   The Cellular page displays.
- 2. Select the **Active** radio button next to the APN entry.

The APN is selected.

## Remove an APN entry

#### To remove an APN entry:

- From the web user interface dashboard, select Settings > Advanced > Cellular.
   The Cellular page displays.
- 2. Select the box to the left of the APN.
- 3. Click or tap **Delete**.

The APN is removed.

# Configure port forwarding from the web user interface

Port forwarding is an advanced feature. If your computer is hosting a server, you can enable port forwarding so that other users can access the server.

**NOTE:** Port forwarding creates a security risk. When not required, disable port forwarding.

#### To configure port forwarding from the web user interface:

 From the web user interface dashboard, select Settings > Advanced > Port Forwarding.

The Port Forwarding page displays.

2. Click or tap to select the **Enable** check box.

The Port Forwarding list displays.

Incoming traffic is forwarded to specific ports and devices on your network using their local IP addresses.

3. To add a port forwarding address, click or tap **Add**.

The Add Service page displays.

- 4. Enter the following port forwarding information:
  - **Rule Name**. Enter a descriptive name.
  - IP Address. Enter the IP address of the connected device.
  - **Port**. Enter the port number or range of port numbers that the application uses.
  - **Protocol**. If you are unsure, select **TCP**.
- 5. Click or tap **Add**.

Your settings are saved.

# Configure port filtering from the web user interface

You can select which applications (for example, HTTP, FTP, email servers) can access the Internet. Used with other security measures such as a firewall, port filtering can enhance network security.

#### To configure port filtering from the web user interface:

- From the web user interface dashboard, select Settings > Advanced > Port Filtering.
   The Port Filtering page displays.
- 2. Click or tap to select the **Enable** check box.
  - The Port Filtering list displays.
- 3. From the **Port Filtering** list, select one of the following:
  - **Block List**. Specific applications and services are not allowed to access the Internet (block list).
  - **Allow List**. Only specific applications and services are allowed to access the Internet (allow list).

Only one list at a time can be active, either a block list or an allow list.

- 4. Identify the ports to filter.
  - Enter a meaningful label that describes the application or service.
- 5. Enter the port being used.
- 6. Enter the communication protocol being used.
- 7. Click or tap **Save**.

Your settings are saved.

# Change display settings from the web user interface

You can change your mobile hotspot's display settings from the web user interface. Lowering the LCD screen's brightness level or reducing the screen time-out to a shorter period reduces power consumption and might increase your mobile hotspot's battery life.

#### To change display settings from the web user interface:

- From the web user interface dashboard, select Settings > Advanced > Device.
   The Device page displays.
- 2. Adjust the following settings:
  - **Screen Brightness**: From the menu, select the screen brightness level.
  - **Screen Timeout**: From the menu, select a time period.
- 3. Click or tap Apply.

Your settings are saved.

# Enable or disable VPN passthrough from the web user interface

To connect to a corporate network using VPN, you must first enable VPN connections (passthrough).

#### To enable or disable VPN passthrough from the web user interface:

- From the web user interface dashboard, select Settings > Advanced > Other.
   The Other page displays.
- 2. In the VPN Passthrough section, clear the **Enable** check box to disable VPN passthrough, or select the check box to re-enable it.
  - VPN passthrough is enabled by default.
- 3. Click or tap **Apply**.

Your settings are saved.

# Disable or re-enable UPnP from the web user interface

Universal Plug and Play (UPnP) helps devices and computers access the network and connect to other devices as needed. UPnP devices can automatically discover the services from other registered UPnP devices on the network.

If you use applications such as multiplayer gaming, peer-to-peer connections, or real-time communications such as instant messaging, keep UPnP enabled, which is its default setting.

When UPnP is disabled, the router does not allow any device to automatically control router resources, such as port forwarding.

#### To disable or re-enable UPnP from the web user interface:

- From the web user interface dashboard, select Settings > Advanced > Other.
   The Other page displays.
- 2. In the UPnP section, clear the **Enable** check box to disable UPnP, or select the check box to re-enable it.
  - UPnP is enabled by default.
- 3. (Optional) If you enabled UPnP, select a **UPnP IGD Version** from the drop-down menu.
  - This setting typically does not need to be changed unless a specific application or device requires it.
- 4. Click or tap **Apply**.

Your settings are saved.

# Configure a DMZ server from the web user interface

In a demilitarized zone (DMZ) network configuration, a computer runs outside the firewall in the DMZ. This computer intercepts incoming Internet traffic, providing an extra layer of protection for the rest of the network and sending all incoming data to a particular IP address.

#### To configure a DMZ server from the web user interface:

- From the web user interface dashboard, select Settings > Advanced > Other.
   The Other page displays.
- 2. In the DMZ section, select the **Enable** check box.
- 3. In the **DMZ Address** field, enter the IP address of the computer to which you want all data sent.

If your mobile hotspot is tethered using a USB cable, this address is 192.168.1.4. If your mobile hotspot is connected using WiFi, the first WiFi client's IP address is usually 192.168.1.XX. You can check connected device IP addresses from the mobile hotspot <u>Connected Devices</u> on page 30 or <u>Network Map</u> on page 29 pages.

- **! NOTE:** IPv6 addresses are not supported.
- 4. Click or tap **Apply**.

Your settings are saved.

## 6

## Troubleshooting

This chapter provides suggestions for troubleshooting problems that might arise when you are using your mobile hotspot. This chapter covers the following topics:

- <u>View alerts</u>
- Extend battery life
- Improve reception with an external antenna
- Factory reset your mobile hotspot

### View alerts

Your mobile hotspot displays alerts to advise you of device status changes.

### SIM Error – Check SIM or SIM Not Installed

Ensure that your cellular data carrier's SIM card is fully inserted in your mobile hotspot's SIM card slot. If a problem still exists, contact your carrier's customer service. The SIM card might be damaged and need replacement.

### SIM Locked

If your SIM card is locked, you can unlock the SIM.

#### To unlock the SIM card:

- 1. If you did not add a PIN for the SIM, contact your cellular data carrier's customer service for the PIN to unlock the SIM card.
- 2. From a computer or WiFi device that is connected to the mobile hotspot, launch a web browser.
- 3. Enter http://192.168.1.1.

The mobile hotspot web page displays.

4. Log in using your admin password.

The default admin login password is printed on the product label in the battery compartment. The password is case sensitive.

The web user interface dashboard displays.

- 5. Enter the SIM PIN when prompted.
- 6. Click or tap **Apply**.

Your settings are saved.

## Temperature-related alerts

To get the best performance and longest life from your mobile hotspot, managing the device's temperature is important. As your mobile hotspot's temperature increases, its performance is reduced, while overheating the device will cause it to shut down entirely. Considering thermal management when you use your mobile hotspot can prevent it from overheating and ensure that you have the best experience with your device.

Your mobile hotspot has specific heat limits for each operating mode. Removing the battery and plugging your mobile hotspot in raises its temperature limits, as it doesn't need to limit heat as much to protect the battery. Exceeding these limits results in reduced performance, stability issues, or even automatic shutdown.

#### Understanding temperature limits

#### Battery Powered mode

- Level 1: Battery is slow charging. Carrier 4G, 5G, and 5G mmWave connections are limited to fewer bands. Device speed is reduced.
- Level 2: Battery stops charging. Carrier 4G connections are limited to one band.
   5G bands stop operating. Device speeds are reduced further, and data connection errors might occur.
- o Level 3 (Critical): Device shuts down to protect itself.

#### Plugged In mode (no battery)

- Level 1: Carrier 4G, 5G, and 5G mmWave connections are limited to fewer bands.
   Device speed is reduced.
- Level 2: Carrier 4G connections are limited to one band. 5G bands stop operating.
   Device speeds are reduced further, and data connection errors may occur.
- o Level 3 (Critical): Device shuts down to protect itself.

#### Managing Temperature for Best Performance

The following tips can help you manage your mobile hotspot's heat to get the best performance:

- **Ensure proper ventilation:** Use your mobile hotspot in a well-ventilated area to help keep it cool. Avoid using the device on soft surfaces like beds or couches, because they can block airflow and trap heat.
- **Avoid extreme temperatures:** The mobile hotspot is designed for safe operation in the 0°C to 35°C (32° F to 95°F) ambient air temperature range. Avoid exposing the device to direct sunlight, high-temperature environments, or extremely cold conditions, because they can reduce performance and cause device problems.
- Remove the battery/battery cover and use Plugged In mode: When using your mobile hotspot continuously for long periods of time, we recommend that you remove the battery and battery cover and plug your mobile hotspot in to enable Plugged In mode. Plugged In mode allows your mobile hotspot to safely operate at higher temperatures with increased performance. This mode is particularly beneficial for applications that require heavy data usage, such as online gaming, video streaming, or large file downloads. Removing the battery enables Plugged In mode and removing its cover helps your hotspot stay cool.

- Reduce load on the device: When using your mobile hotspot in higher temperature
  environments, limit the number of simultaneous connections and bandwidth-intensive
  activities. This can help reduce the heat generated by the device.
- **Install firmware updates:** Keep your mobile hotspot's firmware up to date. NETGEAR firmware updates can include performance optimizations and thermal management improvements, ensuring the best performance for your device.

## Extend battery life

By default, your mobile hotspot is configured to optimize battery life. The following factors can affect battery life:

- Screen brightness
- Standby time
- Data throughput
- Mobile broadband signal strength (the better the signal, the longer the battery life)
- WiFi range

To extend the battery life, we recommend that you set the Power Mode to Balanced. Then you can continue to adjust other settings. For example, you can increase battery life by reducing the LCD screen's brightness level, or set the screen time-out to a shorter period.

You might want to try the following to improve your battery life:

- Change WiFi range on page 39
- Change WiFi standby time on page 39
- Adjust screen brightness on page 47
- Change screen timeout on page 47

## Improve reception with an external antenna

Using an external antenna can improve the reception of your mobile hotspot if you have less than 2 bars of reception. Improving your reception can increase your data transfer speeds. The NETGEAR <u>Omnidirectional MIMO Antenna</u> is compatible with all recent NETGEAR mobile hotspots and fixed wireless devices.

**NOTE:** If you have more than 2 bars of reception, using an external antenna might decrease your reception due to interference.

NETGEAR mobile hotspots and fixed wireless devices are all equipped with two TS-9 connectors for use with external antennas. The NETGEAR <u>Omnidirectional MIMO Antenna</u> comes with two SMA to TS-9 adapters so that it can work with devices that have either SMA or TS-9 connectors.



- 1. SMA to TS-9 adapters
- 2. SMA connectors

**CAUTION:** Be gentle when plugging and unplugging the TS-9 connectors from your device because they can be delicate.

#### Tips on improving your reception with an external antenna:

- The positioning and aiming of your antenna can have a large impact on its performance.
- Aim your antenna towards your closest cell tower. Contact your carrier for information on where your closest cell tower is located.
- Finding the best location for your antenna might require some trial and error. Move it around your space while monitoring the reception on your device to find the best location.

## Factory reset your mobile hotspot

You can reset your mobile hotspot to the factory settings. This is useful if you reset the admin login password for the web user interface and forgot the new password, or if you want to set up your mobile hotspot in a different way.

(I) **NOTE:** When you reset your mobile hotspot, any currently connected devices lose access and must be reconnected after the mobile hotspot restarts.

For more information, see the following sections:

- Perform a factory reset on page 51
- Factory reset your mobile hotspot from the web user interface on page 69

## А

## Specifications

This appendix covers the following topics:

- Battery specifications
- Nighthawk M6 and M6 Pro LCD display specifications
- Mechanical specifications
- LTE and 5GNR transmission specifications
- Features for Nighthawk M6 product family
- GPS support
- Package contents
- Port specifications
- Security specifications
- <u>WiFi specifications</u>
- Environmental specifications

## Battery specifications

#### Battery specifications:

- Removable Li-ion battery
- Up to 9 hours of continuous usage
  - (I) NOTE: 9 hours of battery life was tested by streaming YouTube for 1 hour, followed by 30 minutes of idle time, repeated for over 9 hours.

# Nighthawk M6 and M6 Pro LCD display specifications

The following table indicates the Nighthawk M6 and M6 Pro LCD display specifications.

Table 5. Display specifications

Device	Display Type
Nighthawk M6 (MR6100, MR6110, MR6150)	2.4 in. (6.1 cm) LCD touch screen
Nighthawk M6 Pro (MR6400, MR6450, MR6500, MR6550)	2.8 in. (7.1 cm) LCD touch screen

## Mechanical specifications

Table 6. Physical dimensions

Parameter	Dimension
Weight	250 g (.55 lb) with battery
Length	105 mm (4.15 in.)
Width	105 mm (4.15 in.)
Thickness	21mm (0.84 in.) excluding the feet, which are 0.55 mm high (0.2 in.)

# LTE and 5GNR transmission specifications

## Transmission specifications

The following tables indicate the LTE and 5GNR transmission characteristics.

Table 7. LTE transmission characteristics for MR6150 and MR6550

Frequency (MHz)	Bands	Ext Ant Gain (dBi)
1850-1910	B2	4
1710-1755	B4	4
824-849	B5	4
2500-2570	B7	4
698-716	B12	4
777-787	B13	4
788-798	B14	4
1850-1915	B25	4
814-849	B26	4
2305-2315	B30	1.05
2496-2690	B41	4

Table 7. LTE transmission characteristics for MR6150 and MR6550 (Continued)

Frequency (MHz)	Bands	Ext Ant Gain (dBi)
3400-3600	B42	-0.23
3550-3700	B48	0.17
1710-1780	B66	4
663-698	B71	4

Table 8. LTE transmission characteristics for MR6400

Frequency (MHz)	Bands	Ext Ant Gain (dBi)
1850-1910	B2	4
1710-1755	B4	4
824-849	B5	4
2500-2570	B7	4
698-716	B12	4
777-787	B13	4
788-798	B14	4
1850-1915	B25	4
814-849	B26	4
2305-2315	B30	1.05
2496-2690	B41	4
3400-3600	B42	-0.23
3550-3700	B48	0.17
1710-1780	B66	4
663-698	B71	4

Table 9. LTE transmission characteristics for MR6500

Frequency (MHz)	Bands	Ant1 Gain (dBi)	Ant2 Gain (dBi)	Ext Ant Gain (dBi)
1850-1910	B2	0.67	0.45	4
1710-1755	B4	0.67	0.54	4
824-849	B5	-0.88	-1.60	4
2500-2570	В7	0.39	-0.53	4
698-716	B12	-0.83	-1.60	4
788-798	B14	-0.83	-1.60	4
717-728	B29	-0.83	-1.60	4
2305-2315	B30	1.03	1.05	1.05
3550-3700	B48	0.17	1.66	0.17
1710-1780	B66	0.67	0.54	4

Table 10. 5GNR transmission characteristics for MR6150

Frequency (Mhz)	Bands	Ext Ant Gain (dBi)
1850-1919	n2	4
824-849	n5	4
698-716	n12	4
788-798	n14	4
1850-1915	n25	4
2305-2315	n30	1.05
2496-2690	n41	4
3550-3700	n48	0.17
1710-1780	n66	4
663-698	n71	4
3300-3550, 3700-4200	n77	4

Table 11. 5GNR transmission characteristics for MR6400

Frequency (Mhz)	Bands	Ext Ant Gain (dBi)
1850-1919	n2	4
824-849	n5	4
698-716	n12	4
788-798	n14	4
1850-1915	n25	4
2305-2315	n30	1.05
2496-2690	n41	4
3550-3700	n48	0.17
1710-1780	n66	4
663-698	n71	4
3300-3550, 3700-4200	n77	6

Table 12. 5GNR transmission characteristics for MR6500

Frequency (Mhz)	Bands	Ext Ant Gain (dBi)
1850-1919	n2	4
824-849	n5	4
698-716	n12	4
788-798	n14	4
2305-2315	n30	1.05
1710-1780	n66	4
3300-3550, 3700-4200	n77	6

Table 13. 5GNR transmission characteristics for MR6550

Frequency (Mhz)	Bands	Ext Ant Gain (dBi)
1850-1919	n2	4
824-849	n5	4
2500-2570	n7	4
698-716	n12	4
788-798	n14	4
1850-1915	n25	4

Table 13. 5GNR transmission characteristics for MR6550 (Continued)

Frequency (Mhz)	Bands	Ext Ant Gain (dBi)
2305-2315	n30	1.05
2570-2620	n38	4
2496-2690	n41	4
3550-3700	n48	0.17
1710-1780	n66	4
663-698	n71	4
3300-3550, 3700-4200	n77	4 (FCC), 0.17 (ISED)
3300-3800	n78	4 (FCC), 0.17 (ISED)

# Features for Nighthawk M6 product family

## Insight Pro Feature Support

- MR6110-1A1NAS
- MR6110-1TLAUS
- MR6150-100NAS
- MR6220-111NAS
- MR6450-100EUS
- MR6500-1A1NAS
- MR6500-1TLAUS
- MR6520-111PAS
- MR6550-100APS
- MR6550-100PAS

## WiFi 6E (6 GHz) and 2.5G BaseT Ethernet Feature Support

To view tables that show the WiFi 6E (6 GHz) and 2.5G BaseT Ethernet feature support for Nighthawk M6 devices, visit <a href="https://kb.netgear.com/00065402/">https://kb.netgear.com/00065402/</a> or use the camera app on your mobile device to select the following QR code.



## GPS support

Some Nighthawk M6 devices provide GPS support. When using these devices, you can enable GPS from the Nighthawk M6 device as described in <u>Enable or disable GPS</u> on page 53.

The following table indicates which Nighthawk M6 devices support GPS.

Table 14. Nighthawk M6 and M6 Pro GPS support

Device	GPS support
MR6110	Yes
MR6400	Yes
MR6500	Yes
MR6150	No
MR6450	No
MR6550	No

## Package contents

Your Nighthawk M6 package includes the following:

- Nighthawk M6 Pro or Nighthawk M6 mobile hotspot
- Removable lithium ion battery
- AC power adapter
- USB Type-C cable
- Quick Start Guide
- Safety leaflet
- (I) NOTE: Packages in some regions might include additional plug adapters.

## Port specifications

The Nighthawk M6 provides one USB 3.2 Type-C port, one RJ45 Ethernet port, and two TS-9 external antenna ports.

## Security specifications

Supported security features:

- WiFi security encryption
- VPN pass-through
- NAT firewall
- Password-protected administration UI
- Passcode lock
- SIM security

## WiFi specifications

## WiFi support

- WiFi 802.11a/b/g/n/ac/ax/axe, 2x2 MIMO
- 2.4/5/6 GHz Standalone

The following restrictions apply in

AT/BE/BG/CZ/DK/EE/FR/DE/IS/IE/IT/EL/ES/CY/LV/LI/LT/LU/HU/MT/NL/NO/PL/PT/RO/SI/SK/TR/FI/SE/CH/UK(NI)/HR/HK:

- Operation in 5150MHz to 5350MHz is restricted to indoor use only.
- This device is restricted to indoor use only when operating in the 5945MHz to 6425MHz band (to the extent that these frequencies are made available).
- This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and your body.
- SAR is measured with the device at 5 mm to the body, while transmitting at the highest certified output power level in all frequency bands of the device. The maximum SAR value is 1.652 W/kg (body) averaged over 10 gram of tissue.

Table 15. GHz specifications

GHz	Range
5GHz	5150-5350MHz, 5470-5875MHz
6GHz	5945-6425MHz

## Environmental specifications

Table 16. Recommended operating and storage temperatures

Environment	Temperature
Operating temperature	0°C to 35°C (32°F to 95°F)
Storage temperature	-10°C to +60°C (14°F to 140°F)