# inseego

## MiFi 8000 4G LTE Wireless Mobile Hotspot



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#### Inseego Corp. Revision History

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# Overview

Overview About Your MiFi 8000 Power Management

## Overview

Congratulations on your purchase of the Inseego MiFi 8000<sup>®</sup>.

With the MiFi 8000 you can access 4G LTE networks for faster apps, uploads and downloads. Connect up to 15 Wi-Fi enabled devices to the Internet at once - laptops, tablets, e-readers, gaming consoles and more\* - and experience download speeds up to 10 times faster than with Inseego's 3G\*.

The MiFi 8000 is also backwards compatible to 3G networks, ensuring reliable connectivity when you need it most.

## Package Contents

The MiFi 8000 package includes:

- MiFi 8000
- Pre-installed 4400mAh Standard Lithium Ion Battery
- Pre-installed 4G LTE SIM Card (4FF)
- QuickCharge Charger
- Type A to Type C USB Cable
- Wireless Brochures

#### System Requirements

- Compatible with all major operating systems
- Works with the latest versions of browsers, including Google Chrome®, Firefox®, Internet Explorer®, Safari™ and Mobile Safari™.

To use Wi-Fi mode, your computer or other device needs Wi-Fi capability and Internet browser software. If your computer does not have Wi-Fi capability you can use Ethernet over USB tethering.

Your MiFi 8000 must have proper data service to function.

#### About MiFi 8000's Internet Connection

With LTE you can get the speed you require to work efficiently outside the home or office. You can connect to the Internet, access your corporate intranet, check your email and download attachments at speeds that are up to 10 times faster than 3G\*.

#### 4G Mobile Broadband with LTE\*

- Download: typical download speeds of 5-12 Mbps.
- Upload: typical upload speeds of 2-5 Mbps.

#### <u>Wi-Fi 802.11a/b/g/n/ac</u>

- 802.11a uses the 5.0 GHz frequency with speeds up to 12 Mbps.
- 802.11b uses the 2.4 GHz frequency with speeds up to 12 Mbps.

### Caring for Your MiFi 8000

Like any electronic device, the MiFi 8000 must be handled with care to ensure reliable operation. Inseego Corp recommends the following guidelines:

- Protect the MiFi 8000 from liquids, dust, and excessive temperatures.
- Do not apply adhesive labels to the MiFi 8000; they might cause the MiFi 8000 to potentially overheat and they might alter the performance of the antenna.
- Store the MiFi 8000 in a safe place when not in use.

<sup>\*</sup> Average download speeds of 5-12 Mbps/average upload speeds of 2-5 Mbps. Actual throughput speed and coverage may vary.

## About Your MiFi 8000



- Power Button Powers the MiFi 8000 on and off.
- Color Touchscreen (2.4 in) Displays device status, data usage, and number of users connected. Swipe left/right/up or down to access available menu options.
- Test Port
- **USB-C Port** Use to connect the QuickCharge charger, Internet over USB-C, to charge one additional wireless device, and MiFi Share file sharing via mass storage.
- **6** Test Port



- **6** Master Reset Hole Use to reset MiFi 8000 back to original factory settings.
- **Battery Compartment** The battery is pre-installed.
- **Battery Removal Divot** Insert a fingernail here and lift to remove the battery.

## Status Indicators

DISPLAY ICON		DESCRIPTION
No icons		The MiFi 8000 is powered off or not receiving power, or the screen is in power-saving mode.
Network Signal Strength	11	Network Signal Strength Indicator. More bars indicate more signal strength.
Activity Indicator	$\downarrow\uparrow$	Data is being transferred between the mobile network and your MiFi 8000.
Roaming		Roaming indicator.
Wi-Fi Indicator	((ċ	Your MiFi 8000 Wi-Fi network in turned ON.
Messages		You have unread messages.
Connected Devices	ዯ	Shows the number of Wi-Fi devices connected to your MiFi 8000.
Battery Charge Indicator	P	The battery is fully charged.
Battery Charge Indicator	!	the battery is critically low and the MiFi 8000 will shut down unless the battery is connected to the charger.
Battery AC Charging Indicator		Displays when the MiFi 8000 is connected to the AC charger.
Battery USB Charging Indicator		Displays when the MiFi 8000 is connected ia USB and is charging.

#### **OTHER ICONS**

SIM - Red	If this icon is displayed, there is no SIM card installed.
SIM - Red	If this icon is displayed, your SIM is locked. Real-time data usage meter will not display.
SIM - Red ?	If this icon is displayed, there is a SIM error. Check to be sure your SIM card is properly installed.
USB Tethered	If this icon is displayed, your MiFi 8000 is connected to Wi-Fi via USB.
Universal Charging	Tap the icon to display Universal Charging status. Options include Available, Charging, or Not available.
Software Update	Scroll and select the icon to display the current SW version, and to download and install an update.
MiFi Share	USB Mass storage device in use.

## **Power Management**

#### Charging Your MiFi 8000

IMPORTANT Before you use your MiFi 8000, be sure to charge the battery for at least three hours to ensure a full initial charge. When fully charged, the battery has up to 24 hours of life.

To charge the battery:

• Connect the USB end of the QuickCharge charger into the charging port of the MiFi 8000.



Before using your MiFi 8000, read the battery safety information in the "Safety Hazards" section of this guide. (See Proper Battery Use and Disposal on page 124.)

**CAUTION!** Use only batteries and chargers with your MiFi 8000 that have been approved by Inseego Corp for optimal performance and safe operation.

## Using Your MiFi 8000 to Charge Other Devices

The universal charging port allows you to charge an additional device such as a phone or tablet, using your MiFi 8000.

To charge an additional device:



Connect the USB cable to the device to be charged.





To check your MiFi 8000's battery level, from the Home screen, tap **Menu > Universal Charging.** 

### Replacing the Battery

To remove and replace the battery:

1 Insert your fingernail in the battery removal groove at the top edge of the battery cover, then lift and remove the battery cover. Set the cover aside.



**2** Insert your finger into the battery removal divot and lift the battery out of the battery compartment.



3 Align the gold contacts on the new battery with the gold contacts on the MiFi 8000 and gently slide the battery into place.







G Replace the cover by setting it on the MiFi 8000 where the notches align, then press on the cover until it clicks into place and is flat across the entire bottom surface.



#### **Battery Tips**

**WARNING!** Always use only approved batteries and chargers with your MiFi 8000. The warranty does not cover damage caused by non-approved batteries and/or chargers.

- Do not use sharp objects or use excessive force to remove the battery or to access the battery • well, this may damage the MiFi 8000 and the battery.
- The battery discharges more rapidly as additional devices access your MiFi 8000. •
- Battery life depends on the network, signal strength, temperature, features, and accessories you use.
- New batteries or batteries stored for a long time may take more time to charge. •
- When charging your battery, keep it near room temperature. •
- When storing your battery, keep it uncharged in a cool, dark, dry place. •
- Never expose batteries to temperatures below -20°C (4°F) or above 60°C (140°F). •
- Never leave the MiFi 8000 in an unattended vehicle where it can get too hot or too cold. •
- Some batteries perform best after several full charge/discharge cycles. ٠
- It is normal for batteries to gradually wear down and require longer charging times. If you • notice a change in your battery life, it is probably time to purchase a new battery.

**IMPORTANT** Whenever you remove or insert the battery, ensure your MiFi 8000 is not connected to any device or power source. Never use tools, knives, keys, pens or any type of object to force the door open or to remove the battery. Using any of these types of objects could result in puncturing the battery.

## Replacing the 4G LTE SIM Card

Your SIM (Subscriber Identity Module) card is a small rectangular plastic card that stores your phone number and important information about your wireless service. Your MiFi 8000 comes with the SIM card and battery already installed.

To remove the 4G LTE SIM card:



- **2** Remove the battery from the battery well.
- **6** Carefully slide the SIM card backwards to remove from the SIM card slot.



**NOTE** Should your 4G SIM card be lost or damaged, contact your network operator.

To install a new 4G LTE SIM card:



• Lift to open the battery cover located on the back of the MiFi 8000.

If necessary, remove the SIM card from the outer card, being careful not to touch the goldcolored contacts.

Hold the card with the gold-colored contact points facing down.

4 Insert the SIM card into the slot. The SIM card MUST remain in the SIM card slot when in use.



**CAUTION!** Do not bend or scratch your SIM card. Avoid exposing your SIM card to static electricity, water, or dirt.

2

# Using Your MiFi 8000's Touchscreen

Turning Your MiFi 8000 On and Off Using Your MiFi 8000's Touchscreen

# Turning Your MiFi 8000 On and Off

To turn your MiFi 8000 on, press and hold the **Power** button for 2 seconds. •







- To turn it off, press and hold the **Power** button for 3 seconds.. •
- To wake the MiFi 8000 display, press and release the Power button.

## Connecting to Your MiFi 8000

You can use the MiFi 8000 as a wireless mobile hotspot to connect your computer and up to a total of 15 Wi-Fi enabled devices to the mobile broadband network.

To connect to your MiFi 8000:

Turn on your Wi-Fi enabled device and your MiFi 8000. The MiFi 8000 will broadcast its own wireless network and name.



Tip!) The steps to connect to a Wi-Fi network vary depending on your device and software. See your device's User Guide for more information.

When prompted, enter your Wi-Fi Network password. The MiFi 8000 Home screen should now show an additional connected device. Your Wi-Fi enabled device is now connected to the Internet.



**3** You can view or change MiFi 8000 settings by connecting to the MiFi 8000 Admin website at http://my.MiFi 8000 or http://192.168.1.1.

**IMPORTANT** Charge the battery completely before you connect your computer to your MiFi 8000. (See Power Management.)

From the MiFi 8000's touchscreen, you can check your MiFi 8000's status, view your current data usage, see Wi-Fi and Connected Devices details, and more.

## The Home Screen

The Home screen lets you see what your MiFi 8000 is doing at a glance.



MiFi 8000 Home Screen

traffic activity  $\downarrow\uparrow$ , unread Inseego system messages  $\blacksquare$ , roaming  $\blacktriangle$ , and battery  $\blacksquare$ .

The Data Usage section shows how much of your monthly data you've used and how much time is left until the next billing cycle.



If SIM Lock is turned on, or if another device is connected to the Universal Charging port and being charged, the Data Usage meter won't be shown. Scroll and tap the Data Usage icon to view your current data usage details.

<	Unlock SIM	ŝ	<	< Menu
You car	rcreate a PIN code to lock yo	our MiFi's	Wi-Fi	Wi-Fi
SIM car SIM is lo the inte	d on the Admin Website. Wh ocked, your MiFi won't have ernet. To unlock, tap the Unlo	access to ock SIM	Connect	Connected Devices
option PIN.	on the Home screen and ent	er the	Data Usa	Data Usage
Note: Ye the corr	ou'll only have a few chance rect PIN. After that, you'll hav	s to enter ve to get a	Settings	Settings
	Unlock SIM			Retrieve Data Us

< Data Usage							
Estimated Usage as	of 03/26/2019						
10 GB Plan	0.00 GB 10 GB						
6 days left in cycle	(04/01/2019)						
? For account	t information						

**Retrieve Data Usage** 

Data Usage Display

The middle of the screen shows you if Wi-Fi is on or off, and how many devices are connected to your MiFi 8000's Wi-Fi network.

Your Wi-Fi Name and Password are next. For information on changing your Wi-Fi Name and Password, see (See <u>Managing MiFi 8000 Settings.</u>).

.al 4	4G LTE 98% 📑				
Data		0.00 GB 10 GB			
6 days left in cycle (04/01/2019)					
Wi-Fi - ON Guest - OFF	No Devices Wi-Fi Name/ Password				
Help		Menu			

< Connected Devices	ŵ
Primary Network (0)	>
Guest Network (0)	>
USB (0)	>
Blocked Devices (0)	>

<	Wi-Fi Settings	ŝ
Wi-Fi		
Band Selec	ction	>
Wi-Fi Nam	e/Password	>
Wi-Fi Prote	ected Setup (WPS)	>

Tap Menu to Open Menu Options

Swipe Up/Down to Desired Option

Tap to View Desired Option

3

# Managing Your MiFi 8000 Using the Touchscreen

About this Chapter Wi-Fi Connected Devices Data Usage Settings Universal Charging MiFi Share About MiFi 8000 Help

# Managing Your MiFi 8000 Using the Touchscreen

## About this Chapter

You can manage, monitor, and customize your MiFi 8000 settings directly on the MiFi 8000's touchscreen, or by using the MiFi 8000 Admin website.

In this chapter, we will show you what features you can manage on your MiFi 8000's touchscreen.

For website instructions, including features that can only be managed on the website, see Chapter 4, **Managing Your MiFi 8000 Using the MiFi 8000 Admin Website.** 

For general instructions on using your touchscreen, see Chapter 2, Using your MiFi 8000's Touchscreen.

#### Wi-Fi

Wi-Fi allows you to turn Wi-Fi ON/OFF, and select your Primary and Guest Network settings.



2 Select **Wi-Fi** to display the Wi-Fi options.

- Select Wi-Fi Band Selection to select your Primary and Guest Network settings.
- **NOTE** Use the Guest Network to temporarily share Internet access with guests. It creates a separate Wi-Fi network with a different name and password, and provides the same configuration options as the Primary network. Users on the Guest network are isolated from users on your primary network. You can choose to use the Guest Network under either the **2.4 GHz** Band or **5 GHz** Band or don't select either band to turn it off.
- Select **Wi-Fi Name/Password** to display your current Primary and Guest Network Wi-Fi Name and Passwrd settings.
- Select **Wi-Fi Protected Setup (WPS)** to allow compatible Wi-Fi devices to easily connect to your MiFi 8000's Primary or Guest network.

atl -	4G LTE	98%	< Men	u 🖓	< Wi-Fi Settings	ŝ	< Ban	d Selection	â
Data 6 days left in	n cycle (04/01/	0.00 GB 10 GB 2019)	Wi-Fi	>	Wi-Fi		Band	2.4 GHz	5 GHz
((ŕ.		í	Connected Devices	>	Band Selection	>	Primary network:	$ \bigcirc $	ullet
Wi-Fi - ON Guest - OFF	No Devices	Wi-Fi Name/ Password	Data Usage	>	Wi-Fi Name/Password	>	Guest network:	$\bigcirc$	$\bigcirc$
Help		Menu	Settings	>	Wi-Fi Protected Setup (WPS)	>	011		
Tap Menu		Select	Wi-Fi	Select Wi-Fi opt	tion	Display Wi-	Fi Optio	n Details	

## **Connected Devices**

From the Home screen, tap the number of Wi-Fi enabled devices currently connected to your MiFi 8000 networks to see the **Connected Devices** screen.

From here you can tap **Primary Network, Guest Network** or **USB** to see the DNS and MAC details for each device connected to the MiFi 8000, and to block or unblock each device.

You can also tap to see a list of **Blocked Devices** and unblock devices from that screen.



### Data Usage

To see your estimated data usage from the Menu, from the Home screen tap **Menu > Data Usage**.



## Settings

You can change various MiFi 8000 Settings or reset your MiFi 8000 to the original factory settings.

From the Home screen, tap **Menu > Settings**, then choose from one of the following to see the options for that setting:

- Airplane Mode
- Stealth Mode
- Audio Alerts
- Languages
- Screen Timeout
- Network Settings
- Sleep Mode
- Factory Reset
- Advanced Settings

atl -	4G LTE	98%	< Menu	ŝ	< Settings	合	< Audio Alerts	ŝ
Data 6 days left in	n cycle (04/01/.	0.00 GB 10 GB 2019)	Wi-Fi	>	Airplane Mode		All Audio Alerts	
		(j)	Connected Devices	>	Stealth Mode	$\bigcirc$	Individual Audio Alerts	
Wi-Fi - ON Guest - OFF	No Devices	Wi-Fi Name/ Password	Data Usage	>	Audio Alerts	>	Startup/Shutdown	
Help		Menu	Settings	>	Languages	>	Low battery	
Tap Menu		Select Se	ttings	Select Desi	red Setting	Display Setting O	ptions	

#### **Universal Charging**

To see your MiFi 8000 battery charging status and universal charging information, from the Home screen tap Menu > Universal Charging.

atl -	4G LTE	98%	< Menu	ŝ	< Universal Charging		
Data 6 days left in	ata         0.00         GB 10         GB           days left in cycle (04/01/2019)		Universal Charging	>	MiFi Battery 99%		
((i	Å	í	USB File Share	>	stop when the MiFi's battery is below 25%.		
Wi-Fi - ON Guest - OFF	No Devices	Wi-Fi Name/ Password	Update Device	>			
Help		Menu	About MiFi	>	Our Charging		
	Tap Menu		Select Universal Charging		Battery Charging Information		

## **USB** File Share

USB File Share lets you share files and folders with connected devices on the MiFi 8000's Wi-Fi network when a USB mass storage device is connected to the USB C port.

To set-up your MiFi settings:







**NOTE** To see instructions on how to access shared folders, sign in to the MiFi 8000 Admin Website and go to USB File Share > How do I access the shared folders?

all	4G LTE	98%	<	Menu	ŝ	<	USB File Share	ŝ	<	USB File Shai	re 🖧
Data 6 days left i	n cycle (04/01/	0.00 GB 10 GB	Settinas		>	Share wit	th primary network		All fold	ers and files	$(\bullet)$
	08	(	Universal	Charging		Share wit	h guest network		Only sp	ecified folders	$\bigcirc$
↔ Wi-Fi - ON	No Devices	Wi-Fi Name/		charging		Connect	ed Devices have		í	Specified folders can using the MiFi's Admi	be changed in website.
Guest-OFF		Manu	USB FILE SI	hare	>	Read-on	ly access	$\bigcirc$	Current	t folders shared	
пер		Menu	Update De	evice	>			$\sim$	Public,	Shared	
			•					$\frown$	T dbile,	Juica	

Tap Menu

Select USB File Share

Select Content to Share Select Access and Access Type

Т

## **Update Device**

**Update Device** allows you to view the current software version and when the last check was made for updates, lists available updates, and provides an update history. You can also update your device profile.

To check for an update:

On the Home screen, tap Menu and select Update Device to display the current Software and Configuration versions. Select Profile Update or Software Update, then tap Continue to view your update options.

If a Software update is available, you can choose to download and install the update using your MiFi 8000.

**3** Tap **OK** to return to the Update Device page.



## **About MiFi**

**About MiFi** displays information about your MiFi 8000, including Internet and roaming status, model and version, wireless and IMEI number, and battery charge level.



On the Home screen tap **Menu**, then select **About MiFi** to display model number, software and configuration versions, and wireless number.

Swipe up or down to see the IMEI, battery level, internet status, technology, network, signal strength, SNR, and roaming status.

4G LTE	98%	< Menu	ŝ	< Ak	out MiFi
ata davs left in cycle (04	0.00 GB 10 GB	USB File Share	>	Model: MiFi 8000	
	(	Update Device	>	Software version: 1Q	1
Wi-Fi - ON No Devi	ces Wi-Fi Name/ Password	About MiFi	>	Wireless Number 913.309.2139	:
Help	Menu	Help	>	IMEI: 9900 1244 0000 07	'0
Tap Mc		Salact Abou	+ \/;E;		2000 Dotail

## Help

You can get help right from your MiFi 8000's touchscreen.

**1** On the Home screen, tap **Help** to open the Help screen options. Help options include **Admin** Website, Guest Wi-Fi, Wi-Fi Protected Setup (WPS), Tutorial, Unlock SIM, Universal Charging, MiFi Share and GPS.

**2** Swipe up/down to highlight the desired Help option, then press to display option choices and information.

**3** Tap < to return to the Menu screen, or the Home icon  $\triangle$  to return to the Home screen.

all	4G LTE	98%	<	Help	ŝ	< Admin Website	ŝ	<	Unlock SIM	ŝ	
Data 6 days	left in cycle (04/0	0.00 GB 10 GB 1/2019)	Customer S	upport	>	Your MiFi has its own website, where y configure advanced features and setti	you can ings.	You can cro SIM card o	eate a PIN code to lock y n the Admin Website.W	your MiFi's	
ŝ	· ~	í	Admin Web	osite	>	From a device that's connected to this	MiFi	SIM is lock the interne	ed, your MiFi won't hav t. To unlock, tap the Un	e access to lock SIM	
Wi-Fi - Guest - G	ON No Devices	Wi-Fi Name/ Password	Guest Wi-Fi		>	and sign in. Note: The Admin password is	spor	option on the Home screen and enter the PIN.			
	Help Menu		Wi-Fi Prote	cted Setup (WPS)	>	6a221fb7		Note: You'll only have a few chances to ent the correct PIN. After that, you'll have to ge PLIK code and enter it into the Admin			
	Tap Help O <sub>l</sub>	ption	Se	elect Help Opti	on	Admin Website Hel	p		Unlock SIM		
<	Universal Cha	nrging 🖓	<	GPS	ŝ						
Conversal Charging     Image: Charging       This feature can charge devices, like your mobile phone, when connected to your MiFi's USB-C port.     Your MiFi can provide to connected devide the settings on the Addition of the settings on the Addition of the settings on the Addition of the setting setting setting settings or the Addition of the setting setting setting settings or the Addition of the setting setting setting settings or the Addition of the setting seting setting setting setting seting setting setting setti		an provide location ini ed devices. To configur the Admin website, g GPS.	ormation e GPS o to								
U	Iniversal Ch	arging	I L	GPS							

4

# Managing Your MiFi 8000 Admin Website

About this Chapter The MiFi 8000 Admin Website Home Screen Checking Data Usage Managing Wi-Fi Managing Connected Devices Managing USB File Share Settings Managing Settings About Getting Help

# Managing Your MiFi 8000 Using the Admin Website

## **About this Chapter**

In this chapter, we will show you how to manage your MiFi 8000 using the MiFi 8000 Admin website.

From the MiFi 8000 Admin website, you can customize settings including Wi-Fi settings, passwords, GPS options, and more. You will also find links to the My Inseego website and other online tools to help you get the most out of your MiFi 8000.



**NOTE** For instructions on managing your MiFi 8000 using it's touchscreen, see Chapter 3, Managing Your MiFi 8000 Using the Touchscreen.

## Accessing the MiFi 8000 Admin Website

To connect to the MiFi 8000 Admin website:



**NOTE** You must be connected to your MiFi 8000's Wi-Fi network to access the Admin website.

Open a web browser on your connected device and enter <a href="http://my.MiFi 8000/">http://my.MiFi 8000/</a> or http://192.168.1.1.

- Click **Sign In** in the upper right corner of the screen and sign in with your MiFi 8000 Admin password. When you first get your MiFi 8000, this will be the same as your Wi-Fi password.
- You can also check your messages, change your Admin password, restart your MiFi 8000, or sign out from the Sign In drop down menu.

#### The MiFi 8000 Admin Website Home Screen

My MiFi 8000 Home page allows you to quickly access commonly used links and all available menu options for your MiFi 8000, and contains the following quick link menu options:

- Data Usage
- Wi-Fi
- Connected Devices
- USB File Share
- Settings
- About
- Help



## **Checking Data Usage**

Current estimated data usage displays on the Home page, including data used, data remaining, days to go and billing cycle end date.



Roaming charges or roaming minutes may not be included in your estimate. Credits and adjustments to your account may not appear until your next billing statement, and may not be reflected in your current balance. Payments are applied to your account on the same day they are made.

## **Changing Your MiFi 8000 Admin Password**

The Admin Password is used to sign in to Settings. To change your Admin Password:

On the Admin website Home screen, select Admin Settings from the Sign In drop down menu. Enter your current Admin password in the Enter current password box, then click Continue.

2 Enter your new password in the **Enter new password** box, then re-enter your new password in the **Confirm new password** box.

Select a security question from the drop down menu and enter the answer in the **Answer Security Question** field. Click Save Changes.

New Admin Password	Select a Socurity Question What is your date of birth? Answer	<u>}</u>	$\sim$
New Admin Password			$\odot$
	New Admin Password		~



The next time you sign in to MiFi 8000 Settings, you will need to use the new password.

#### Managing Wi-Fi

The Wi-Fi page lets you manage your MiFi 8000's Wi-Fi settings. This page is divided into 3 tabs:

- Settings
- Primary Network
- Guest Network

#### **Settings**

From the Settings tab, you can turn your MiFi 8000's Wi-Fi ON/OFF, change Network and Wi-Fi ON/OFF, change Network and Wi-Fi Connections Settings, and customize Band Settings.

To turn Wi-Fi ON/OFF, use the switch and then click Save Changes at the bottom of the screen.

To select or turn off **Band Selections** for the Primary and Guest networks, mark the buttons for 2.4 GHz Band and 5 GHz Band. Choose **Off**, **Primary network**, or **Guest network**.

To change the maximum number of Wi-Fi devices that can connect to the MiFi 8000 (the default is set to 15), make your selection from the **Limit connected devices to** dropdown menu.

To customize the **Band Settings**:



**1** Click on the **2.4 GHz Band Settings** or **5 GHz Band Settings** link to display the available Band Settings options.

**2** Make your **Mode**, **Channel**, and **Bandwidth** selections from the dropdown menus and then click Save Changes.

			all 4GLTE	89% 🔲 Sign Ou
Wi-Fi				
Settings Primary Net	work Guest Network			
These settings apply regardless of v	which network (Primary, Guest, or both	) is in use. Changes made to the	e Wi-Fi settings may prevent some Wi-F	i devices from connecting to this N
Wi-Fi				
Allow Wi-Fi devices to connec	ct to this MiFi			
Allow Wi-Fi setting changes fi display	rom the MiFi's touchscreen			
Limit number of connected device	es to			
15		~		
Band Selection				
	(i) 2.4 GHz Band	(i) 5 GHz Band		
Primary network	۲	۲		
Guest network	0	0		
Off	0	0		
2 4GHz Band Settings				
802.11 Mode	802.11bqn			
Channel	5			
Automatic		~		
5GHz Band Settings				
802.11 Mode				
802.11acn		~		
Bandwidth		1		
Bandwidth 80 MHz		~		
Bandwidth 80 MHz Channel		~		

#### **Primary Network**

From the Primary Network tab, you can change your Wi-Fi Name (SSID) and Password (Key), select the type of security, and turn Options ON/OFF for your primary network.

Wi-Fi				
Settings	Primary Network	Guest Netwo	rk	
NOTE: For added	l security, share your guest n	etwork instead of y	our primary network.	
Settings				
Primary network	k name (SSID)			_
MiFi8000-				
Security				
WPA2 Personal	I PSK (AES)		~	
Password				
			Generate new password	
				-
Options				
Hide primary ne	twork name (SSID) on the te	ouchscreen display	у 🗌	
Hide password o	on the touchscreen display			
Broadcast prima	ary network name (SSID)			
Wi-Fi privacy se	paration			
WPS				
Sav	ve Changes			

To change the Primary Network **Wi-Fi Password (SSID)** enter the new Wi-Fi name into the field.

To change the type of Wi-Fi security for the Primary Network, choose an option from the **Security** dropdown menu.

To change the Primary Network **Wi-Fi Password (Key)**, enter the new password into the field or click Generate New Key. Then click **Save Changes.** 

To turn **Options**, such as **Broadcast Wi-Fi Name (SSID)** and **WPS**, ON/OFF for the Primary Network:

Click the **Options** link to display available options. Options currently turned ON will display with a checkmark in a red box.

**2** Click the checkboxes to turn options ON or OFF and then click **Save Changes**.

#### **Guest Network**

The same settings described above for the Primary Network are available for the Guest Network..

## **Managing Connected Devices**

The **Connected Devices** page lets you view, edit, and block devices that are currently connected to your MiFi 8000 and also unblock devices.

For the **Primary Network** and **Guest Network**, you can see the IP Address, MAC Address, and Link Local of all devices connected to the Wi-Fi network. The Wi-Fi network name is displayed after the heading.

You can also see information on **Blocked Devices**, including the name and MAC address of any blocked devices.

Mifisooo		.all 4GLTE	87% 🔳 Sig	n Out 🖌
Home	Connected Devices			0
Data Usage	Connected (1)			
Wi-Fi	Device	Network	Block	
Connected Devices	CESKTOP.	Primary	~	
USB File Share			Change Wi-Fi connection	n limit (15)
Settings	Blocked (0)			
About	Device	Block		
Help	No blocked devcies.			

The Primary Network and Guest Network sections list all devices connected to your MiFi 8000 via Wi-Fi including:

- **Change Max Wi-Fi Connections** Allows you to set how many devices can simultaneously connect to the MiFi 8000's Wi-Fi network.
- Wi-Fi The first column indicates the type of connected device. You can use the Edit option to set or change the type. If the type has not been set, no icon is displayed. Once you set the device type, an appropriate icon is displayed.
- **Band Selection** This will show either the default hostname of the connected device or the name you choose using the **Edit** option.
- **2.4GHz Band Settings** option Allows you to change the name of any connected device.
- **5.0GHz Band Settings** Displays an icon to indicate the connection type for each connected device.

#### Editing a Connected Device

To edit a connected device:

- Click the drop down menu for the connected device to open a page where you can edit the device.
- **2** Select the appropriate changes and click **Save.**

#### Changing the Maximum Number of Connected Devices

To change the maximum number of connected devices:

Click **Change Max Connections** on the **Connected Devices** page to open the Wi-Fi Settings page. Select the number of devices from the **Maximum Wi-Fi connected devices** dropdown menu and click **Save Changes**.

#### **Blocked Devices**

The Blocked Devices section lists any devices you have blocked. Note that since these devices are not currently connected, and are blocked from connecting, they do not have an IP address. Instead, they are identified by their name and MAC address.

Click **Unblock** to unblock a previously blocked device, freeing it to connect again. The unblocked device is deleted from the **Blocked Devices list**, and will reappear in the **Connected Devices** list when it connects.

### Managing USB File Share

Share folders and files, over your primary and guest networks, when you connect your USB mass storage device to the MiFi 8000's USB port. From USB File Share you can:

- Enable USB File Share Turn ON/OFF.
- Allow users to change the USB File Share setting from the MiFi's touchscreen display Turn ON/OFF.
- **Settings** Enter Share name, select Share content and connection devices permission from the dropdown menu options.

Home	USB File Share	0
Data Usage	Share folders and files over your primary and guest networks when you connect your USB File storage device to your MIFI's USB-C port.	
Wi-Fi	Enable USB file sharing	
Connected Devices	Allow users to change the USB file sharing settings below on the MiFi's touchscreen display	
USB File Share		
Settings	Settings	
About	Share name	
Help	MIFI8000	
	Share these folders	
	All folders and files	
	Connected devices have	
	Read-write 🗸	
	Network access	
	Share with primary network	
	Share with guest network	
	How do I access the shared folders? Save Changes	

### **Managing Settings**

The **Settings** page allows you to make administration password and preference changes; obtain software update information; backup and restore files to your MiFi 8000; and set GPS preferences. The MiFi 8000 Settings page is divided into 5 tabs:

- Preferences
- Notifications & Alerts
- Software Update
- Backup and Restore
- GPS
- Advanced

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/ V \   -   MiFi 8000		all 4GLTE	86% 🗐 Sign Out 🗸
Home	Settings		0
Data Usage	Preferences Notifications & Alerts Software Update Backup & Restore	GPS Advanced	
Wi-Fi			
Connected Devices	Device Preferences		
USB File Share	Enable physical reset button		
Settings	Sleep		
About	After 5 minutes		
About	Shutdown		
Help	Never 🗸		
	When connected to charger via USB-C port, stop charging your device when battery is at		
	25%		
	Touchscreen Display Preferences		
	Hide Admin password on touchscreen display		
	Allow settings changes from touchscreen display		
	Show USB connection prompt on touchscreen display		
	Show Data Usage on touchscreen display		
	Turn off touchscreen		
	USB mode when connected to a computer		
	Internet access via USB and WI-FI		
	Date, Time, Number Format Preferences		
	Date		
	mm/dd/yyyy		
	Time		
	12 hr 🗸		
	Number format		
	3,234.00		
	Save Changes		
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#### The Preferences Tab

From the Preferences tab, you can manage your MiFi 8000's Preference settings. This tab is divided into 3 sections:

- Device Preferences
- Notifications
- User Preferences

#### **Device Preferences**

From the Device Preferences settings, you can turn your MiFi 8000's Wi-Fi ON/OFF, change Network and Wi-Fi ON/OFF, change Network and Wi-Fi Connections Settings, and customize Band Settings.

- **Device Preferences** Set the behaviour of the MiFi 8000.
- Allow Settings Changes Allow settings to be changed from the MiFi 8000 display.
- Allow Reset Button Allow settings to be changed from the MiFi 8000 display
- **Universal Charging** Charge your cellphone or similar device.

#### **Notifications & Alerts**

From the Notifications & Alerts settings, you can turn ON/OFF listed notifications, and turn ON/OFF for selected alerts.notifications.

#### **User Preferences**

From the User Preferences settings, you to customize the date, time, distance and number formats.

#### The Software Update Tab

From Software Update settings, you can:

- **Current software version** Display information for the current software version, date of last check for updates and the number of updates currently available.
- Checked for New System Update Display the date of the last software update.
- Last System Update Display most recent software update information.
- **System Update History** Display the software version update history.
| Home              | Settings   |  |                  |              | 0                     |
|-------------------|--|--|------------------|--------------|-----------------------|
| Data Usage        | Proforman  | ifications & Alorta Software Undate    | Packup & Postoro | GPS Advanced |                       |
| Wi-Fi             | Preferences Not  | software opdate                        | Backup & Restore | GPS Advanced |                       |
| Connected Devices | Current Software   |  |                  |              |                       |
| USB File Share    | Software Version   | 1R                                     |                  |              |                       |
| Settings          |  | 04-03 08:34:16]                        |                  |              |                       |
| About             |  |  |                  |              |                       |
| Help              | Profile Update   |  |                  |              |                       |
|                   | Update Status  |  |                  |              | Update device profile |
|                   |  |  |                  |              |                       |
|                   |  |  |                  |              |                       |
|                   | Check for New System U   | Jpdate                                 |                  |              |                       |
|                   | Check for New System U<br>   | Jpdate<br>04/10/2019 7:37:58 AM        |                  |              |                       |
|                   | Check for New System U<br>Checked for Update<br>Update Status  | <b>Jpdate</b><br>04/10/2019 7:37:58 AM |                  |              |                       |
|                   | Check for New System U<br>Checked for Update<br>Update Status  | <b>Jpdate</b><br>04/10/2019 7:37:58 AM |                  |              | Check for Update      |
|                   | Check for New System L<br>Checked for Update<br>Update Status  | <b>Jpdate</b><br>04/10/2019 7:37:58 AM |                  |              | Check for Update      |
|                   | Check for New System U<br>Checked for Update<br>Update Status<br>Last System Update                        | <b>Jpdate</b><br>04/10/2019 7:37:58 AM |                  |              | Check for Update      |
|                   | Check for New System U<br>Checked for Update<br>Update Status<br>Last System Update<br>No updates applied. | Jpdate<br>04/10/2019 7:37:58 AM        |                  |              | Check for Update      |

#### The Backup and Restore Tab

From Backup and Restore settings you can:

- **Backup** Save your MiFi 8000 settings to your computer. You must enter your Admin Password in the **Admin Password** field and click **Download** to save settings to your computer.
- **Restore Settings** Upload a previously saved backup file from your computer to your MiFi 8000. Click **Browse** and select a file, then enter the Admin Password you were using when the backup file was saved in the **Admin Password** field and click **Restore Now**.
- **Restore to Factory Defaults** Restore all settings on your MiFi 8000 to the factory default values. Click **Restore Factory Defaults** to restore all such settings. If prompted for a password, use the default Admin Password which is **admin**.
- Restart MiFi 8000 Restart your MiFi 8000.
- Turn Off MiFi 8000 Shutdown your MiFi 8000.

Mifimifi 8000	.iti 4GLTE 86% (III	Sign Out 🗸
Home	Settings	0
Data Usage	Desferences Matifications & Alexter Cafevore Hadda Backup & Dasters CDC Advanced	
Wi-Fi	Preferences Notifications & Alerts Software Opdate Backup & Restore GPS Advanced	
Connected Devices	Badan Carlamatian	
USB File Share	backup Conngurations	
Settings	Admin password	
About	Note: You'll be locked out if an incorrect password is used too many times.	d
Help		
	Restore Settings	
	Restore backed up settings from a file on your computer.	
	Admin password	
	Note: You'll be locked out if an incorrect password is used too many times.	
	Select a file	
	No file selected Browse Restore no	<b>w</b>
	Restore to Factory Defaults	
	Restore all settings to the factory default values.	
	Restore factory	defaults
	Restart	
	Restart the MiFi. Restart	
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#### The GPS Tab

From GPS settings you can:

- **GPS ON/OFF** Turn ON/OFF the GPS feature.
- **Turn off** Set when the GPS receiver will turn off, once it is on.
- **Current Location** Display current latitude and longitude.
- **GPS over Wi-Fi (NMEA)** Download and install the GPS over Wi-Fi driver to your computer.

#### The Advanced Tab

**IMPORTANT!** Changing the MiFi 8000's Advanced settings can adversely affect stability, performance and security of the MiFi 8000.

	atil 4GLTE 86% (III Sign Out 🗸
Home	Settings
Data Usage	Preferences Notifications & Alerts Software Undate Backun & Bestore GDS Advanced
Wi-Fi	
Connected Devices	Warning!
USB File Share	Changing these advanced settings may be harmful to the stability, performance, and security of this MiFi.
Settings	
About	Continue
11-1-	

From Advanced settings you can:

- **Networks** Turn off cellular data to prevent all internet traffic from using the MiFi 8000 mobile broadband connection.
- **Manual DNS** Automatically select a Domain Name Server (DNS). From the Manual DNS settings, you can select up to two DNS (Domain Name Server) IP addresses.
- **SIM** Find settings and information about the MiFi 8000's Subscriber Identity Module (SIM) card. The SIM card inside your MiFi 8000 can be locked with a PIN code for additional security. If locked, the PIN code must be entered before the MiFi 8000 can connect to the Internet.
- Firewall Determine which Internet traffic is allowed.
- **MAC Filter** Determine which Internet traffic is allowed.
- LAN Manage your MiFi 8000's IPv4 and IPv6 network settings.
- **Port Filtering** Block outgoing Internet connections and permit only allowed applications to access the Internet. You can also customize a list of allowed applications which permits only certain programs to connect to the Internet.
- **Port Forwarding** Allow incoming traffic from the Internet to be forwarded to a particular computer or device on your Wi-Fi network. Normally, the built-in firewall blocks incoming traffic from the Internet. Use Port Forwarding to allow Internet users to access any server you are running on your computer, such as a Web, FTP, or E-mail server. For some online games, Port Forwarding must be used in order for the games to function correctly.
- **VPN** Establish a tunnel connection to an OpenVPN server and route all traffic on connected devices through the tunnel.

#### Networks

From Networks settings, you can manage:

- **Mobile Network** Allows you to turn off cellular data to prevent all internet traffic from • using the MiFi 8000 mobile broadband connection.
- **Preferred network technology** Allows you to select the network technologies which will be used.
- **APN Settings** Displays the network carrier APN.

To turn off cellular data and prevent all internet traffic from using the MiFi 8000 mobile broadband connection:

• Slide the Mobile Network ON/OFF button to **OFF**, then click **Confirm**.



Home	Settings					
Data Usage	j-					
Wi-Fi	Preferences Notification	s & Alerts Software Up	odate Backup & F	Restore GPS	Advanced	
Connected Devices	Networks Manual DNS SI	A Firewall MAC Filter	LAN Port Filtering	Port Forwarding	VPN	
USB File Share						
Settings	Network Selection					
About	Allow MiFi to connect to the mo	bile network				
Help	Enable automatic network selection	LTE/UMTS are the automa networks	atically selected			
	Manually selected network	Available				
	Select network manually					
	APN					
	r.ispsn					
	Caution: Changing the MiFi's APN setti	ng may cause loss of data conne	ectivity.			
	Domestic Roaming					
	Allow data roaming	On	Off			
	Alerts for data roaming	On	Off			
	International Roaming					
	Allow data roaming	On	Off			
	Alerts for data roaming	On	Off			

#### **Manual DNS**

The MiFi 8000 automatically selects a Domain Name Server (DNS). From the Manual DNS settings, you can select up to two DNS (Domain Name Server) IP addresses.

To manually select a Domain Name Server:



Click the box next to Enable manual DNS.

Enter the IP address for the first DNS in the DNS 1 IP address field, then enter the IP address for the second DNS in the DNS2 IP address field. Click Save Changes.

Mifisooo		.ıli 4GLTE	84% 🔳 Sign Out 🗸
На	ome	Settings	0
Da	ata Usage	S CDC Advanced	>
W	′i-Fi		
Cc De	onnected evices	Setworks Manual DNS SIM Firewall MAC Filter LAN Port Filtering Port Forwardin Port Forwardin	>
US	SB File Share	Your MiFi automatically selects a Domain Name Server (DNS) or you can manually set one.	
Se	ettings	Turn on manual DNS	
At	bout	DNS 1 IP address	
He	elp	Either IPv4 or IPv6	
		DNS 2 IP address	
		Either IPv4 or IPv6	
		Save Changes	
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#### <u>SIM</u>

In the SIM settings, you'll find settings and information about the MiFi 8000's Subscriber Identity Module (SIM) card. The SIM card inside your MiFi 8000 can be locked with a PIN code for additional security. If locked, the PIN code must be entered before the MiFi 8000 can connect to the Internet. SIM settings include:

- **SIM PIN Lock feature** If ON, the PIN lock has been turned on, and the SIM PIN must be entered in order to connect to the mobile network. If OFF, the PIN lock feature is not turned on, and the SIM PIN is not required.
- **SIM status** Indicates the current status of the SIM card. Possible values include:
  - **Ready** This is the normal state. The SIM PIN is not used.
  - **PIN Locked** The SIM PIN must be entered before you can use the mobile network.
  - **PUK Locked** The PUK for the SIM must be entered in order to continue. The PUK can be obtained from your service provider.
  - **Unlocked** The SIM PIN is needed, but has already been entered.
  - No SIM No SIM was detected. If you do have a SIM, check that it is inserted correctly.
  - **SIM Error** A SIM was detected, but it did not respond as expected, and cannot be used.
- **Desired action** Allows you to turn the PIN lock feature ON/OFF.
- Enter current PIN Type the desired PIN in the Enter current PIN field. The default PIN is 1111.

#### **IMPORTANT!** Entering an incorrect PIN will lock the SIM. **The default PIN is 1111**.

ΛΛ: <b>C</b> :										
							ul 4	IGLTE	84%	Sign Out 🗸 🗸
Home	Settings								0	
Data Usage	6 606								``	
Wi-Fi	> GPS	Advanced								
Connected Devices	< Networks	Manual DNS	SIM F	irewall	MAC Filter	LAN	Port Filtering	Port Forwardin	>	
USB File Share	For additional se	curity the SIM card i	nside vour Mil	Fi can be l	ocked with a P	IN code W	/hen locked the	PIN code must be en	tered	
Settings	before the MiFi will connect to the internet.									
About	Status (i) Ready									
Help			_							
	Ch	ange PIN					т	urn on SIM PIN Lock	٤ – L	
	SIM Restrictio	ns								
	SIM Restrictions		Your devi SIM cards	ice is conf s, please ci	igured only to u ontact custome	use your c er support.	arriers's network.	To use other carrier	s	
							U	nlock SIM restriction	1	
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#### **Firewall**

The MiFi 8000 firewall determines which Internet traffic is allowed. Firewall settings include:

- VPN Passthrough Turns ON/OFF the VPN feature and allows or disallows connected devices to establish a VPN tunnel.
  - If **ON**, this feature allows VPN clients to connect through the MiFi 8000 to remote VPN Servers. Normally, this option should be turned on.
  - If OFF, VPN clients are not allowed to connect.
- IPv6 Transparent Mode Allows connected devices to be accessible from the Internet.
- **DMZ (IPv4)** Allows the connected device specified as the DMZ IP address to receive all traffic which would otherwise be blocked by the firewall.
  - DMZ (checkbox) Use the checkbox to turn ON/OFF the DMZ feature.
  - **DMZ IP Address** Enter the IP address of the connected device you wish to become the DMZ device.

Mifi	8000	.ili 4GLTE	83% 🔳 Sign Out 🗸
	Home	Settings	0
	Data Usage	S CDC Advanced	>
	Wi-Fi	Advanced	
	Connected Devices	Networks Manual DNS SIM Firewall MAC Filter LAN Port Filtering Port Forwarding	>
	USB File Share		
	Settings	Allow connected devices to establish a VPN tunnel (VPN Passthrough)	
	About	Allow connected devices to be accessible from the internet (IPv6 Transparency)	
	Help	DMZ destination IP address	

#### MAC Filter

The MAC Filter allows you to specify which devices can access the MiFi 8000 Wi-Fi network.

**ON/OFF** — Turns the MAC Filter ON/OFF. Before turning on, make sure that the **Allowed Devices** list is not empty. When turning on, any Connected Device which is not in the Allowed Devices list will immediately be disconnected.

- **Refresh** Use to refresh the screen and delete any unsaved changes.
- Add Device Use to add a new device to the devices list.
- Save Changes Use to activate and save new settings.

Mifi 8000		.ıll 4QLTE 83% (	Sign Out 🗸
Home	Settings	0	
Data Usage		>	
Wi-Fi	- GPS Advanced		
Connected Devices	< <u>Networks</u> <u>Manual DNS</u> <u>SIM</u> <u>Firewall</u> MAC Filter	LAN Port Filtering Port Forwardin >	
USB File Share	Enable MAC filter to limit access to the MiFi's Primary		
Settings	Wi-Fi networks to the devices you choose from the list below		
About	Note: MAC filter has no effect on the Guest Wi-Fi network.		
Help	Name MAC Address Status	MAC address filter Delete	
	DESKTOP- Your device		
	Add new device	Save Changes	
	Refresh list		
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To add a device to the device list:

- **1** Click **Add Device** and enter the device name in the **Name** field.
- Select the device type from the Type dropdown menu and the MAC Address in the MAC Address field.
- Select the **Blocked** and/or **MAC Address Filter** check box as required, then click **Save Changes**.

#### LAN

From LAN settings, you can manage your MiFi 8000's network. These settings include:

- IPv4
  - IP address The IP address for the MiFi 8000.
  - Subnet mask The subnet mask network setting for the MiFi 8000. The default value 255.255.255.0 is standard for small (class "C") networks. If you change the LAN IP Address, make sure you use the correct Subnet Mask for the IP address range containing the LAN IP address.
  - MAC address The Media Access Controller (MAC) or physical address for the MiFi 8000.
  - Turn On DHCP server The Turn On DHCP Server checkbox turns the DHCP Server

feature on or off. Normally this should be left turned on.

- Start DHCP address range at The start range of IP addresses reserved for use by the MiFi 8000's DHCP server table.
- **DHCP address range** The current range of IP addresses reserved for use by MiFi 8000's DHCP server table. If a device with a static IP address wants to connect to MiFi 8800L's network, the static IP should be outside of the DHCP address range. Most devices do not have a static IP.
- **DHCP lease time** Use to determine how often connected devices must renew the IP address assigned to them by the DHCP server. Normally this is left at the default value, but if you have special requirements you can change the value.
- IPv6
  - Enable IPv6 The Enable IPv6 checkbox turns ON/OFF the IPv6 feature.

Mifisooo		.ıll 4GLTE ↓ 839	6 🔲 Sign Out 🗸
Home	Settings		0
Data Usage		>	
Wi-Fi	- GPS Advanced		
Connected Devices	Ketworks Manual DNS SIM Firewall MAC Filter	LAN Port Filtering Port Forwardin >	
USB File Share			
Settings	IPv4		_
About	IP Address         Subnet Mask           192.168.1.1         255.255.255.0		
Help	MAC Address 00:15:ff:0c:4f:66		
	Turn on DHCP Server		
	DHCP Lease Time 1440		
	Start DHCP address range at         End DHCP address range at           192.168.1.2         192.168.1.102		
	IPv6		_
	Turn on IPv6         ✓ Note: When on, connected dev           Use is a set if defense         6:00:10:04#ff:00:0-50	rices can make IPv6 connections to the Internet.	
	Link-Local Address Te80240483117160228859 Save Changes		
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• Link-Local address — Displays the local address when IPv6 is turned on.

#### Port Filtering

Port Filtering allows you to block outgoing Internet connections and permit only allowed applications to access the Internet. You can also customize a list of allowed applications which permits only certain programs to connect to the Internet.

Slide the **ON/OFF** button to **ON** to turn on Port Filtering. When the feature is **turned on** you must select a port filtering application in the **Applications** list to allow that application to connect to the Internet. For example, if you select VPN in the Applications list but do not select HTTP, you can connect to a VPN server but you cannot connect to a web page using your Internet browser.

Port Filtering settings include:

- **Applications** Turn on each port filtering application that needs to be able to access the Internet by checking the box next to one or more applications. When port filtering is turned on, all other applications are blocked.
- **Custom Applications** You can define your own applications, and then turn them ON/ OFF as needed. To define an application, you need to know the outgoing ports used by the application.
  - Add Custom Application Use to define your own applications, and then turn them on or off as needed.

Mifi 8000		.ııli 4QLTE s	33% 🔳 Sign Out 🗸
Home	Settings		0
Data Usage			,
Wi-Fi	<ul> <li>GPS Advanced</li> </ul>		
Connected Devices	< Networks Manual DNS SIM Firewall MAC Filter LA	AN Port Filtering Port Forwardin >	>
USB File Share	Feeble Dort Filtering		
Settings	If Port Filtering is on, only traffic from selected		
About	applications can access the internet.		
Help	Select which applications can access the internet		
	On       Application Name         Email (POP3, IMAP, SMTP)         FTP         HTTP         HTTP         Telnet	: internet from defined ports	
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To select the applications you want to allow:



#### NOTE

The **Add Custom Application** option is only available when port filtering is turned **ON**. You can add up to ten custom applications.

The Custom Port Filtering page uses check boxes to turn on port filtering for custom applications. Similar to the Applications list, you must turn on custom applications so they can connect to the Internet.



2 Enter the beginning of the range of port numbers used by outgoing traffic for the custom application being added in the **Start Port** field, and the end of the range of port numbers in the **End Port** field. If the port is a single port instead of a range, type the same value for both the **Start Port** and the **End Port**.



**O** Select the **Delete** checkbox next to any custom application you wish to delete and click **Save** Changes.

#### **Port Forwarding**

Port Forwarding allows incoming traffic from the Internet to be forwarded to a particular computer or device on your Wi-Fi network. Normally, the built-in firewall blocks incoming traffic from the Internet. Use Port Forwarding to allow Internet users to access any server you are running on your computer, such as a Web, FTP, or E-mail server. For some online games, Port Forwarding must be used in order for the games to function correctly. Port Forwarding settings include:

- **ON/OFF** Slide the ON/OFF button to ON to activate Port Forwarding.
  - **Default Applications** The IP address for the selected application. Choose from DNS, FTP, HTTP, POP3, SMTP, SNMP Telnet and TFTP.
- Custom Applications
  - Add Custom Application Allows you to define your own applications. Once defined,

Mifi			.ıll <b>4GLTE</b> 839	6 🔳 Sign Out 🗸
н	lome Se	ettings		0
D	Data Usage		\[         \]     \[         \[         \]     \[	
W	Vi-Fi	GPS Advanced		
C	ionnected <	Port Forwarding VPN	>	
U	ISB File Share En	able Port Forwarding	C	
Se	ettings Por add	rt forwarding sends specific incoming traffic to a connected device. The conn dress.	ected device is specified using its IP	
A	bout			
н	lelp Se	lect which incoming application traffic is allowed		_
		DNS IP Address		
	Γ	FTP		
	Г	нттр/нттр		
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	De	efine your own custom applications to allow incoming traffic allo Add custom application Save Changes	wed through certain ports	_
insee <b>go</b>		© 2019 All rights reserved.		www.inseego.com

#### <u>VPN</u>

VPN allows you to establish a tunnel connection to an OpenVPN server and route all traffic on connected devices through the tunnel. When an OpenVPN tunnel is established, Port Filtering and Port Forwarding settings will not be effective.

- **ON/OFF** Slide the ON/OFF button to ON to automatically establish a VPN tunnel. Select OFF to establish a tunnel manually.
- **VPN Connection** Displays Connection status and Connection time, and allows you to Connect and view VPN Connection logs.
- VPN Settings Provides VPN Connection Setting options.
  - Setup files Allows you to drag and drop setup files from your VPN provider.
  - **Username** Enter your Username in the field.
  - **Password** Enter your Password in the field.
- **Clear all VPN Settings** Click to delete all VPN Settings.
- Save Changes Click to save all changes.

Mifi	000	.ıli 4GLTE	83% 🔳 Sign Out 🗸
	Home	Settings	0
	Data Usage	- S CDS Advanced	>
	Wi-Fi		
	Connected Devices	< Port Forwarding VPN	>
	USB File Share	When an OpenVPN tunnel is established, traffic from all connected devices are sent through the tunnel and as such Po	rt Filtering
	Settings	and Port Forwarding settings will not be effective. There is no need for connected devices to use their own OpenVPV o	lient.
	About	VPN Connection	
	Help	You have not configured this mill for OpenVPN yet.	

### About

Click **About** on the Menu panel to see detailed information about your MiFi 8000. This information is divided into 5 tabs:

- Internet Status
- Internet Sessions
- Diagnostics
- Device Info
- Logs

	About			0
Data Usage	10001			
Wi-Fi	Internet Status	Internet Sessions Diagnostic	cs Device Info Logs	
Connected	General			
USB File Share	Status	Connected		
Settings	Network Name			
About	Technology	4G LTE		
Help	Received	5.12 MB		
	Transmitted	1.13 MB		
	IPv4			
	IP address			
	Mask			
	Gateway			
	DNS			
	IPv6			

#### Internet Status

From the Internet Status tab, you can find:

#### Internet Status

- **Status** The status of the Internet connection, usually **Connected** or **Disconnected**.
- **Network name** The name of the network to which this MiFi 8000 is currently connected.
- **Technology** The type of technology used to connect to the Internet.
- **Time connected** How long the MiFi 8000 has been connected to the network.
- **Transmitted** The amount of data sent to the network.
- **Received** The amount of data received from the network.

#### <u>IPv4</u>

- IP Address The IP address for the MiFi 8000.
- **Mask** The subnet mask network setting for the MiFi 8000. The default value 255.255.255.0 is standard for small (class "C") networks. If you change the LAN IP Address, ensure you use the correct Subnet Mask for the IP address range containing the LAN IP address.
- **Gateway** The address of the server used to access the Internet.
- **DNS** The address of the Domain Name Server (DNS).

#### <u>IPv6</u>

• IP address — The IP address for the MiFi 8000.

#### Diagnostics

The Diagnostics tab shows information about the MiFi 8000 firmware and other system-level information. You can also view the system log. This tab is used mostly for troubleshooting and is not required for normal operation. The Diagnostics page contains the following information:

- Modem
- 4G LTE Network
- UMTS/HSPA Network
- 3G Network (eHRPD/EVDO/RTT)
- Field Test

#### Device Info

The Device Info tab contains detailed information about your MiFi 8000 icluding:

- Manufacturer
- Model
- My MiFi 8000 version
- Configuration version
- Software Components:
  - **MiFi OS version** The MiFi 8000 operating system (OS), including its components, version.
  - **Modem FW version** The current modem firmware version.
  - Wi-Fi FW version The current Wi-Fi firmware version.
  - Web UI version The web user interface version.
  - **Display UI version** The current user interface version.
  - **PRI version** The configuration version currently applied to the MiFi 8000.

#### <u>Modem</u>

Modem information includes:

- **Phone number (MDN)** The Phone Number or Mobile Directory Number (MDN) is used by the mobile data network to identify this particular data service.
- **MEID** The Mobile Equipment Identifier (MEID) is used by the mobile data network to identify this particular modem.
- IMEI The International Mobile Equipment Identity (IMEI) number for the MiFi 8000.
- **IMEISV** The International Mobile Equipment Identity (IMEI) combined with an approval number for the MiFi 8000.
- **FW version** The modem firmware version.
- **SIM status** Status of the SIM card. If the SIM card is missing, or this field indicates some form of SIM error, the MiFi 8000 will not be able to connect to the mobile network.
- **ICCID** The ID number assigned to the SIM Card.
- **MIN (MSID)** The Mobile Identification Number (MIN) or Mobile Station ID (MSID) is the number associated with the home service provider and the wireless phone number.
- **ESN** The Electronic Serial Number, which is either blank or a pseudo-ESN which is not guaranteed to be unique for devices that use an MEID.
- Home SID System identifier for the home network.
- **ERI version** The Enhanced Roaming Indicator version that is currently installed.
- **PRL version** The version of the Preferred Roaming List (PRL), which tells the modem which non-home carrier towers should provide roaming coverage.

#### 4G LTE Network

The 4G LTE Network section has the following options:

- **Status** Status of the network (Disabled, Not available, or Available).
- **Network operator** The vendor that currently provides wireless access.
- **Signal strength** Indicates the signal strength for LTE.
- **SNR** A measure of signal quality; the higher the number the better the signal.

#### UMTS/HSPA Network

The UMTS/HSPA Network information includes:

- Status Status of the network (Disabled, Not available, or Available).
- **Network operator** The vendor that currently provides wireless access.
- **Technology** The current technology in use for the UMTS/HSPA network. Possible values, from slowest to fastest are UMTS/HSPA+.
- **PLMN ID** The name and/or ID of the Public Land Mobile Network.
- **Cell ID** The value identifies the cell tower currently in use.

- **RSSI** Indicates the RSSI for the UMTS/HSPA signal. RSSI is a measure of signal strength in decibels, relative to one milliwatt.
- **Roaming** Indicates if the current connection is a roaming connection.

#### Field Test

Click **Field Test** to see a list of low-level network parameters which can be helpful for technical support staff when they troubleshoot network connectivity issues.

#### Logs

From the Logs tab, you can turn logs ON/OFF, and to delete system logs.



**NOTE** Logs record various operations and are used for troubleshooting and are not needed for normal MiFi 8000 operation.

#### Turn on Logs

To turn on system logs on or off, click the **Turn on logs** checkbox and then click **Save Changes**:

#### **Delete System Log**

To delete a system log:



• Select the checkbox next to **Turn on logs**.

2 Select the appropriate time period for the deletion of system logs from the dropdown menu next to **Delete system log**. The choices are after 1 - 4 days. If the system log is full, then the oldest data is discarded, regardless of this setting. Click Save Changes.

### **Getting Help**

The **Help** page provides links to detailed information about using your MiFi 8000 and the MiFi 8000 Admin Website, as well as links to access MiFi 8000 Advanced Features. The Help section provides links to **Using Your MiFi**, **MiFi Admin Web Site Help**, and **Advanced Features**, and contains the following menu options:

- Using Your MiFi
  - Overview
  - Setup
  - Tips
- MiFi Admin Web Site Help
- Advanced Features

	Home	Help			
	Data Usage				
	Wi-Fi	MiFi Help Customer Support			
	Connected				
	Devices				
	USB File Share	Setup			
	Settings About	Tips			
		MiFi Admin Web Site Help	Advanced Features		
Help	Admin Password Data Usage Wi-Fi - General Wi-Fi - Guest Network Wi-Fi - Guest Network Connected Devices USS File Share Preferences Notifications & Alerts Software Update Backup and Restore GPS Intermet status Device info	Networks Manual network selection Manual DNS SIM Firewall MAC Filter LAN Port Filtering Port Forwarding VPN			

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# Troubleshooting

Overview Common Problems and Solutions Technical Support

## Overview

When properly installed, the MiFi 8000 is a highly reliable product. Most problems are caused by one of these issues:

- System resources required by the MiFi 8000 are being used by other devices.
- Network coverage is unavailable due to coverage area, an account problem, or a network problem.

The following tips can help solve many common problems encountered while using the MiFi 8000.

#### **First Steps**

- Make sure you are using the MiFi 8000 in the correct geographic region.
- Ensure that your wireless coverage extends to your current location.
- Ensure you have an active data plan.

**IMPORTANT** Before contacting support, be sure to restart both your computer and your MiFi 8000 MiFi 8000, and ensure that your SIM card is inserted correctly.

# **Common Problems and Solutions**

The following are some common problems and solutions.

#### My MiFi 8000 just powered off without my pressing the power button. Why?

This may occur under any of the following circumstances.

- Pressing the Master Reset button •
- MiFi 8000 automatically restarting after configuration changes ٠
- Switching profiles
- Restoring the configuration settings
- **Battery depletion**

To restore battery power, follow these steps.



2 If the battery is depleted, charge the MiFi 8000 with the wall charger.

#### How do I reset the MiFi 8000 back to factory settings?

The master reset button is in a small hole located on the bottom of the MiFi 8000, underneath the battery cover. This button returns the MiFi 8000 to factory settings, including re-setting the Wi-Fi Name (SSID) and Wi-Fi Password. To reset the MiFi 8000, follow these steps.



Place one end of an unfolded paper clip into the master reset button hole.

Press the reset button with the unfolded paper clip until the display shows "MiFi Powering" Off" (about five to six seconds), then your MiFi 8000 will restart.



WARNING! Resetting your MiFi 8000 overwrites ALL existing settings. If the Wi-Fi settings change, you will lose this connection, and need to reconnect using the new settings.

#### How do I reset the Access Point and Router settings back to factory settings?

To reset the access point and router settings, follow these steps.

Connect to the MiFi 8000 Admin Website (<u>http://my.MiFi 8000</u> or <u>http://192.168.1.1</u>) and go to MiFi 8000 Settings > MiFi 8000 > Backup and Restore.

**2** The Backup and Restore page has a **Restore to Factory Defaults** button. This button resets all Access Point and Router settings to their factory default values. All existing settings are lost.

#### No service is available.

- Reorient your device. If you are inside a building or near a structure that may be blocking the signal, change the position or location of the device. For example, try moving your device close to a window.
- You are outside your coverage area, or there may be a problem with your account. Check with your network operator.

#### The MiFi 8000 has no power or the device screen does not display when the power button is pressed.

- Make sure the battery is properly seated in the device.
- Make sure the battery is fully charged. Plug in the AC charger for at least 3 hours.

#### I forgot my Wi-Fi Password.

• Tap Wi-Fi Name/Password to display your Wi-Fi Name (SSID) and Wi-Fi Password.

#### I forgot my MiFi 8000 Admin website Password.

• Your MiFi 8000 Admin website Password is the same as your WI-Fi Password.

#### I cannot connect to my MiFi 8000.

- Make sure the Network Signal Strength indicator displays at least one bar and that the type of network is displayed on the MiFi 8000's Home screen.
- Make sure your Windows Wi-Fi adapter/Mac AirPort is turned on. (Refer to your computer's Help if you need assistance.)
- Open your wireless network connection list:

Windows: Right-click icon and select View Available Networks.

Mac: Pull down list from AirPort icon.



Windows: Click **Connect**.

Mac: Select the network name.

When your device is connected to the network, the Connected Devices icon in the status bar will show a connected device.

#### I see the network name but cannot connect to my MiFi 8000.

• Go to Wi-Fi Name/Password to check that you are using the correct Wi-Fi password.

#### How do I disconnect from the network?

From the MiFi 8000 device:

• To disconnect from the Wi-Fi network, select **Settings > Wi-Fi > Turn Off**.

From the MiFi 8000 Admin website:

• Click Sign Out.

#### How can I find out how many users are connected to my MiFi 8000?

From the MiFi 8000 touchscreen:

• Check the **Connected Devices** icon in the status panel on the Home page of your MiFi 8000. The number of connected devices is displayed to the right of the icon.

From the MiFi 8000 Admin website:

• Check the **Connected Devices** icon in the status panel on the My MiFi 8000 Home page. The number of connected devices is displayed to the right of the icon. To get detailed information on connected and block devices, click **Connected Devices** on the navigation panel.

#### How can I get detailed information about the devices that are connected to my MiFi 8000?

From the MiFi 8000 touchscreen:

- Select Connected Devices > Wi-Fi Devices to display the type, name, and IP address of each device connected to the MiFi 8000 Network.
- Select Connected Devices > USB Tethering to display the type, name, and IP address of any device connected to the MiFi 8000 via the Universal Charging port.
- S From the MiFi 8000 Admin Website, click **Connected Devices** on the Menu panel to see more detailed information for connected devices.

#### How do I check the firmware version installed on my MiFi 8000?

• Select **Software Update** to display the current version installed. To check for new update, select **Software Update > Next > Yes**.

#### How do I check the battery level of my MiFi 8000?

• Check the battery icon on the status panel on the Home page of the MiFi 8000 device.

#### How do I turn off my MiFi 8000?

• Press and hold the Power button until the display shows MiFi Powering Off.

#### How can I tell that my MiFi 8000 is still on after the device screen goes off?

• When the display is off (sleep mode) and the MiFi 8000 is turned on, the white Power indicator on the front panel of the MiFi 8000 blinks.



**IMPORTANT** Before contacting support, be sure to re-start both your computer and the MiFi 8000.

### **Technical Support**

Contact your service provider for assistance. When calling, you may be asked for the wireless number of your MiFi 8000. To find your MiFi 8000's wireless number, go to **About MiFi 8000 > MiFi 8000 Info** on your MiFi 8000, or go to **About** on the MiFi 8000 Admin website.

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# Product Specifications and Regulatory Information

Product Specifications Regulatory Statements Wireless Communications Limited Warranty and Liability Safety Hazards Proper Battery Use and Disposal

# **Product Specifications**

### General

Name:	Inseego MiFi 8000®
Model:	MIF18000
Approvals:	FCC (US)
Weight:	163 g / 5.75 oz
Dimensions:	113 mm x 71 mm x 19 mm, 4.45 in x 2.79 in x 0.75 in
Wireless Network	LTE, UMTS
Wireless Network –	Real simultaneous Dual Band
WI-FI MODE	802.11 b/g/a/n/ac
	2.4 GHz/5.0 GHz
Display	2.4 in color touchscreen LCD
Default SSID	MIFI8000-XXXX
Battery	
<ul><li>Size</li><li>Time required for full charge</li><li>Usage</li></ul>	4400 mAh Li-Ion 3 hours (when not in use) Up to 24 hours
Chip Set:	QUALCOMM <sup>®</sup> SDx20
Interface Type:	Type C USB Port for Quick Charge charging port, Universal charging feature, Internet over USB, content access
Memory:	RAM = 128MB, LPDDR $FLASH = 256MB, NAND$

### Technology/Bands

Technology:	LTE, HSPA+/UMTS
Band Designation:	CAT 18 LTE w/5-Carrier CA
Bands:	LTE Bands: B1*/B2/B3/B4/B5/B7/B8*/B12/B13/B14/B17/ B18*/B19*/B20/B25/B26/B28/B29*/B30*/B38*/B39*/B40*/ B41/B42*/B46/B48/B66 HSPA+/UMTS Bands: B1/B2/B4/B5/B8
	* Not included in launch software. Future software update to activate these bands.

### Environmental

Operating Temperature:	-10° C to 55° C (14°F to 131° F)
Storage Temperature:	-30° C to 70° C (-22° F to 158° F)
Battery Charging	0° C to 40° C (32° F to 104° F)
Relative Humidity	The device shall be fully operational up to a maximum of 93% relative humidity (non-condensing).
Drop:	The device accessories (battery and charger) shall withstand drop from 1.5m onto hard surface (stone, concrete, metal) without mechanical, electrical, or functional damage, except for slight scratches or mars.
	The housing will withstand drop from 1.25m onto hard surface stone, concrete, metal) without mechanical, electrical, or functional damage, except for slight scratches or mars
Electrostatic Discharge	The device shall be able to withstand the following ESD: 8kV contact / 15kV air discharge.
Vibration Stability:	The device shall be able to withstand the following vibration profile: 10-2000Hz, 1.5G acceleration, 3 axes.

#### Federal Communications Commission Notice (FCC – United States)

Electronic devices, including computers and wireless modems, generate RF energy incidental to their intended function and are therefore subject to FCC rules and regulations.

This equipment has been tested to, and found to be within the acceptable limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential environment.

This equipment generates radio frequency energy and is designed for use in accordance with the manufacturer's user manual. However, there is no guarantee that interference will not occur in any particular installation. If this equipment causes harmful interference to radio or television reception, which can be determined by turning the equipment off and on, you are encouraged to try to correct the interference by one or more of the following measures.

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

This device complies with Part 15 of the Federal Communications Commission (FCC) Rules. Operation is subject to the following two conditions.

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

#### WARNING: DO NOT ATTEMPT TO SERVICE THE WIRELESS COMMUNICATION DEVICE YOURSELF. SUCH ACTION MAY VOID THE WARRANTY. THE MIFI 8000 IS FACTORY TUNED. NO CUSTOMER CALIBRATION OR TUNING IS REQUIRED. CONTACT INSEEGO CORP TECHNICAL SUPPORT FOR INFORMATION ABOUT SERVICING YOUR WIRELESS COMMUNICATION DEVICE.

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

**MODIFICATIONS:** The FCC requires that you be notified that any changes or modifications made to this device that are not expressly approved by Inseego Corp. may void your authority to operate the equipment.

**NOTE:** The Radio Frequency (RF) emitter installed in your modem must not be located or operated in conjunction with any other antenna or transmitter, unless specifically authorized by INSEEGO CORP.

#### **RF Exposure Content**

#### FCC Equipment Authorization ID: PKRISGMIFI8000

This device is authorized for use in mobile and portable applications.

This product has been evaluated for SAR and meets the FCC Guidelines for exposure to radio waves.

For better signal reception, coverage range and data throughput, do not place the router near any physical obstruction, including in a pocket or in close proximity of any object. For RF Safety, a mandatory minimum of 10 mm (1 cm) should be maintained between the device and any part of a human body when using the device. Increasing the separation between the device and the body will result in better reception and reduced exposure to radio energy.

#### **ISEDC RSS-Gen Notice**

#### IC: 3229A-MIFI8000

This device complies with Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions:

(1)This device may not cause interference; and

(2)This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

1)l'appareil ne doit pas produire de brouillage;

2)l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptibled'en compromettre le fonctionnement.

ISED ICES-003 Notice: CAN ICES-3 (B)/NMB-3(B)

## Wireless Communications

**IMPORTANT** Due to the transmission and reception properties of wireless communications, data occasionally can be lost or delayed.

This can be due to the variation in radio signal strength that results from changes in the characteristics of the radio transmission path. Although data loss is rare, the environment where you operate the modem might adversely affect communications.

Variations in radio signal strength are referred to as fading. Fading is caused by several different factors including signal reflection, the ionosphere, and interference from other radio channels.

INSEEGO CORP or its partners will not be held responsible for damages of any kind resulting from the delays or errors in data transmitted or received with the MiFi 8000 device, or failure of the MiFi 8800L device to transmit or receive such data.

## Limited Warranty and Liability

Inseego Corp. warrants for the 12-month period immediately following receipt of the Product by Purchaser that the Product will be free from defects in material and workmanship under normal use. THESE WARRANTIES ARE EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

The exclusive remedy for a claim under this warranty shall be limited to the repair or replacement, at INSEEGO CORP' option, of defective or non-conforming materials, parts or components. The foregoing warranties do not extend to (I) non conformities, defects or errors in the Products due to accident, abuse, misuse or negligent use of the Products or use in other than a normal and customary manner, environmental conditions not conforming to INSEEGO CORP' specification, of failure to follow prescribed installation, operating and maintenance procedures, (II) defects, errors or nonconformities in the Product due to modifications, alterations, additions or changes not made in accordance with INSEEGO CORP' specifications or authorized by INSEEGO CORP, (III) normal wear and tear, (IV) damage caused by force of nature or act of any third person, (V) shipping damage, (VI) service or repair of Product by the purchaser without prior written consent from INSEEGO CORP, (VII) products designated by INSEEGO CORP as beta site test samples, experimental, developmental, reproduction, sample, incomplete or out of specification Products, or (VIII) returned products if the original identification marks have been removed or altered.

# Safety Hazards

Do not operate the MiFi 8000 in an environment that might be susceptible to radio interference resulting in danger, specifically:

#### Areas where prohibited by the law

Follow any special rules and regulations and obey all signs and notices. Always turn off the host device when instructed to do so, or when you suspect that it might cause interference or danger.

#### Where explosive atmospheres might be present

Do not operate your device in any area where a potentially explosive atmosphere might exist. Sparks in such areas could cause an explosion or fire resulting in bodily injury or even death. Be aware and comply with all signs and instructions.

Users are advised not to operate the device while at a refueling point or service station. Users are reminded to observe restrictions on the use of radio equipment in fuel depots (fuel storage and distribution areas), chemical plants or where blasting operations are in progress.

Areas with a potentially explosive atmosphere are often but not always clearly marked. Potential locations can include gas stations, below deck on boats, chemical transfer or storage facilities, vehicles using liquefied petroleum gas (such as propane or butane), areas where the air contains chemicals or particles, such as grain, dust or metal powders, and any other area where you would normally be advised to turn off your vehicle engine.

#### Near medical and life support equipment

Do not operate your device in any area where medical equipment, life support equipment, or near any equipment that might be susceptible to any form of radio interference. In such areas, the host communications device must be turned off. The device can transmit signals that could interfere with this equipment.

#### On an aircraft, either on the ground or airborne

In addition to FAA requirements, many airline regulations state that you must suspend wireless operations before boarding an airplane. Please ensure that the modem is turned off prior to boarding aircraft in order to comply with these regulations. The modem can transmit signals that could interfere with various onboard systems and controls.

#### While operating a vehicle

The driver or operator of any vehicle should not operate a wireless data device while in control of a vehicle. Doing so will detract from the driver or operator's control and operation of that vehicle. In some countries, operating such communications devices while in control of a vehicle is an offense.

#### Electrostatic discharge (ESD)

Electrical and electronic devices are sensitive to electrostatic discharge (ESD). Macintosh native connection software might attempt to reinitialize the device should a substantial electrostatic discharge reset the device. If the software is not operational after an ESD occurrence, then restart your computer.

## Proper Battery Use and Disposal

#### **IMPORTANT** In event of a battery leak:

- Do not allow the liquid to come in contact with the skin or the eyes. If contact has been made, wash the affected area with large amounts of water and seek medical advice.
- Seek medical advice immediately if a battery has been swallowed.
- Communicate the appropriate steps to be taken if a hazard occurs. Due to the transmission and reception properties of wireless communications, data occasionally can be lost or delayed.

Please review the following guidelines for safe and responsible battery use.

- Do not disassemble or open, crush, bend or deform, puncture, or shred.
- Do not modify or remanufacture, attempt to insert a foreign object into the battery, immerse or expose to water or other liquids, or expose to fire, explosion, or other hazard.
- Only use the battery for the system for which it was specified.
- Only use the battery with a charging system that has been qualified with the system per this standard. Use of an unqualified battery or charger may present a risk of fire, explosion, leakage, or other hazard.
- Do not short circuit a battery or allow a metallic or conductive object to contact the battery terminals.
- Replace the battery only with another battery that has been qualified with the system per this standard. Use of an unqualified battery may present a risk of fire, explosion, leakage, or other hazard.
- Promptly dispose of used batteries in accordance with local regulations.
- Battery usage by children should be supervised.
- Avoid dropping the MiFi 8000 or battery. If the MiFi 8000 or the battery is dropped, especially on a hard surface, and the user suspects damage, take it to a service center for inspection.
- Improper battery use may result in a fire, explosion, or other hazard.

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# Glossary

## Glossary

**3G** — Third Generation. 3G refers to the third generation of mobile telephony technology. 3G telecommunication networks support services that provide an information transfer rate of at least 200 kbit/s. However, many services advertised as 3G provide higher speed than the minimum technical requirements for a 3G service. 3G finds application in wireless voice telephony, mobile Internet access, fixed wireless Internet access, video calls and mobile TV.

● 4G LTE — Fourth Generation Long Term Evolution. LTE is a standard for wireless data communications technology and an evolution of the UMTS standards. The goal of LTE is to increase the capacity and speed of wireless data networks using new DSP (digital signal processing) techniques and modulations that were developed around the turn of the millenium. A further goal is the redesign and simplification of the network architecture to an IP-based system with significantly reduced transfer latency compared to the 3G architecture. The LTE wireless interface is incompatible with 2G and 3G networks, so that it must be operated on a separate wireless spectrum.

802.11 (a, b, g, n) — A set of WLAN communication standards in the 2.4, 3.6 and 5 GHz frequency bands.

**bps** — Bits per second. The rate of data flow.

Broadband — High-capacity high-speed transmission channel with a wider bandwidth than conventional modem lines. Broadband channels can carry video, voice, and data simultaneously.

DHCP — Dynamic Host Configuration Protocol. Software found in servers and routers that automatically assigns temporary IP addresses to clients logging into an IP network.

**DHCP Server** — A server or service with a server that assigns IP addresses.

DNS — Domain Name System. A system for converting host names and domain names into IP addresses on the Internet or on local networks that use the TCP/IP protocol.

Firmware — A computer program embedded in an electronic device. Firmware usually contains operating code for the device.

GB — Gigabyte. A multiple of the unit byte for digital information storage. Usage depends on context. When referring to disk capacities it usually means 10<sup>9</sup> bytes. It also applies to data transmission quantities over telecommunication circuits.

**Hotspot** — A Wi-Fi (802.11) access point or the area covered by an access point. Used for connecting to the Internet.

HTTP — Hypertext Transfer Protocol. An application-level protocol for accessing the World Wide Web
over the Internet.

**IEEE** — Institute of Electrical and Electronics Engineers. An international technical/professional society that promotes standardization in technical disciplines.

IMEI — International Mobile Equipment Identity. Used in LTE networks to identify the device. It is usually printed on the device and can often be retrieved using a USSD code.

**IP** — Internet Protocol. The mechanism by which packets are routed between computers on a network.

● IP Type — The type of service provided over a network.

- IP address Internet Protocol address. The address of a device attached to an IP network (TCP/IP network).
- ISP Internet Service Provider. Also referred to as the service carrier, an ISP provides Internet connection service. (See Network Operator)



LAN — Local Area Network. A type of network that lets a group of computers, all in close proximity (such as inside an office building), communicate with one another. It does not use common carrier circuits though it can have gateways or bridges to other public or private networks.

MAC Address — Media Access Control. A number that uniquely identifies each network hardware device. MAC addresses are 12-digit hexadecimal numbers. This is also known as the physical or hardware address.

Mbps — Megabits per second. The rate of data flow.

MSID — Mobile Station IDentifier. A number for a mobile phone that identifies that phone to the network. These numbers are carrier specific.

Network Operator — The vendor who provides your wireless access. Known by different names in different regions, some examples are: wireless provider, network provider, and service provider.

Network Technology — The technology on which a particular network provider's system is built; such as EVDO.

Port — A virtual data connection used by programs to exchange data. It is the endpoint in a logical connection. The port is specified by the port number.

Port Forwarding — A process that allows remote devices to connect to a specific computer within a private LAN.

Port Number — A 16-bit number used by the TCP and UDP protocols to direct traffic on a TCP/IP host. Certain port numbers are standard for common applications.

PRL — Preferred Roaming List. A list that your wireless phone or device uses to determine which networks to connect with when you are roaming. (Network operator specific).

Protocol — A standard that enables connection, communication, and data transfer between computing endpoints.

Proxy — A firewall mechanism that replaces the IP address of a host on the internal (protected) network with its own IP address for all traffic passing through it.

**Router** — A device that directs traffic from one network to another.

SIM — Subscriber Identification Module. Found in LTE network technology, the SIM is a card containing identification information for the subscriber and their account. The SIM card can be moved to different devices.

**SSID** — Service Set IDentifier. The name assigned to a Wi-Fi network.

• **TCP/IP** — Transmission Control Protocol/Internet Protocol. The set of communications protocols used for the Internet and other similar networks.
USB — Universal Serial Bus. A connection type for computing device peripherals such as a printer, mobile modem, etc. USB connectors may be used for data transfer or charging. **USB Port Types** — The USB ports on computers and hubs have a rectangular Type A socket, and peripheral devices have a cable with a Type A plug. Peripherals that do not have an attached cable have a square Type B socket on the device and a separate cable with a Type A and Type B plug. Ports and connectors are available in different sizes (for example, standard, mini, and micro). **VPN** — Virtual Private Network. A secure private network that runs over the public Internet. Commonly used to connect to an office network from elsewhere. WWAN — Wireless Wide Area Network. A public network that extends beyond architectural, geographical, or political boundaries (unlike a LAN, which is usually a private network located within a room, building, or other limited area). Wi-Fi — Wireless Fidelity. Any system that uses the 802.11 standard developed and released in 1997 by the IEEE. Wi-Fi Client — A wireless device that connects to the Internet via Wi-Fi. WPA/WPA2 — Wi-Fi Protected Access. A security protocol for wireless 802.11 networks from the Wi-Fi Alliance.