MiFi® 2372

Intelligent Mobile Hotspot

NOVATEL WIRELESS

product user guide

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1

Getting Started

MiFi Device Overview
Using the Device for the First Time
Installing the SIM Card, Battery, and Drivers
Wi-Fi Setup
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MiFi Device Overview

The Novatel Wireless MiFi Intelligent Mobile Hotspot device (model 2372) is your access point to the Internet anywhere you are. It acts as an Intelligent Mobile Hotspot for up to five Wi-Fi-enabled devices with a MiFi Landing Page fo quick and easy information.

You can connect any 802.11 b/g wireless device to your MiFi device. You can establish a secure profile so that others cannot use your MiFi device unless you allow them. [See Wi-Fi Setup (page 12).] You can also establish temporary settings to allow up to five devices to connect with your MiFi device without you having to give them your security settings. [See Setting Up a Temporary Hotspot (page 21).]

Package Contents

- MiFi Intelligent Mobile Hotspot device
- USB cable
- Rechargeable battery
- AC mains charger
- Quick Start Guide

System Requirements

To connect your MiFi device to the mobile broadband network using a Wi-Fi connection and to manage your MiFi device through the MiFi Landing Page, you need the following:

- A device supporting Wi-Fi 802.11 b/g
- Internet browser software. For example: Microsoft Internet Explorer 6.0 or higher, Firefox, Safari, Opera, Chrome

MiFi Landing Page

Your MiFi device has a built-in web page to manage your MiFi device's Wi-Fi network, set up a temporary hotspot, share files on your MiFi device's Wi-Fi network, and more.

[See MiFi Landing Page (page 28).]

Using the Device for the First Time

To get started, follow these steps.

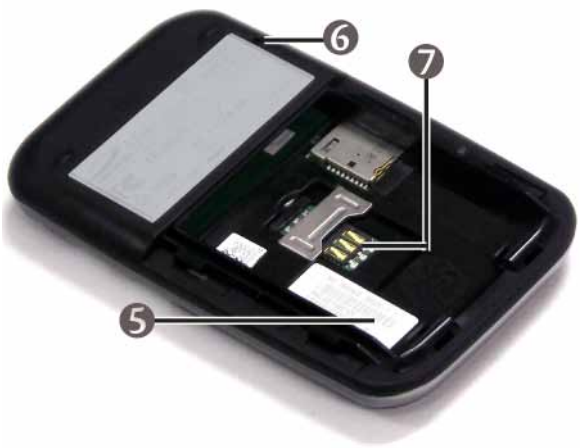
❶ Install the SIM card, then insert and charge the battery. [See Install the SIM Card and Battery (page 7).]

❷ Turn on your MiFi device, then connect to it using your computer's Wi-Fi connection. [See Wi-Fi Setup (page 12).]

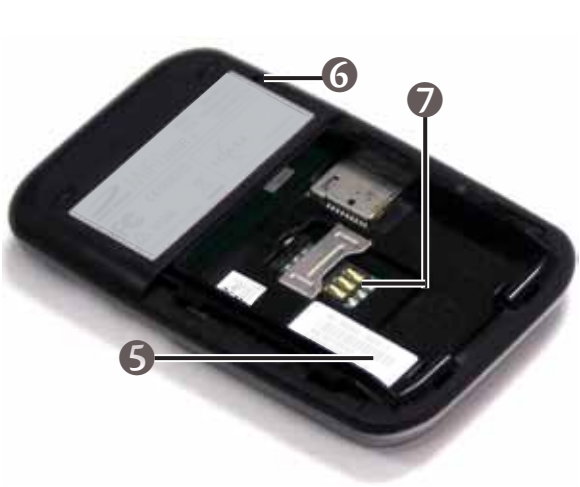
❸ After you connect your computer with Wi-Fi, log in to the MiFi Landing Page. [See Login to the MiFi Landing Page (page 13).]

❹ After you log in to the MiFi Landing Page, click **Connect** to connect your MiFi device to the Mobile Broadband network.

Components



1. **microUSB Port** — The AC charger, USB cable, and optional car charger connect here.
2. **microSDHC Slot** — Removable memory storage slot supports microSDHC cards (microSDHC card not included).
3. **Wi-Fi LED** — Indicates Wi-Fi connection status. [See LED States (page 6).]
4. **Power Button / Connection LED** — Powers on and off the device. The Connection LED provides connection and battery status. [See LED States (page 6).]



❺ **Battery / SIM Compartment** — The battery and SIM card are placed here.

❻ **Master Reset Button** — Resets the device to factory default settings. [See Using the Master Reset Button (page 73).]

❼ **SIM Card Slot** — The SIM card is inserted here.

❽ **SSID Label** — The SSID is located on the inside of the battery door.

Power Sources for Your MiFi Device

Your device will work from its battery or when plugged into a power source.

- **Battery** — The battery lasts up to four hours. Charge the battery by plugging in the AC adapter or optional car charger. While the battery is charging the Power/Connection LED flashes amber. When the battery is fully charged, the LED is solid amber.
- **Wall power or car charger** — Use the device by plugging it into either a wall socket or a vehicle using the optional car charger accessory. The MiFi device battery charges while it is plugged in.
- **USB power from a computer** — The battery charges while it is plugged in to a computer. Charging the battery through the USB port is slower than charging it with AC or vehicle power. The device must be turned off when charging through the USB port to ensure an adequate charge increase.

LED States

Connection LED

LED Color		Status	Description
No light		Off, and the Power Button LED is also off	The device is powered off or otherwise not receiving power.
Red		Blinking:	Low battery.
		Solid:	Device error. [See Common Problems and Solutions (page 70).]
Amber		Blinking:	The battery is charging.
		Solid:	The battery is fully charged.
Green		Blinking:	A GPRS or EDGE network is available, but not connected.
		Solid:	Connected to a network using GPRS or EDGE service.
Blue		Blinking:	A UMTS network is available, but not connected.
		Solid:	Connected to a network using UMTS service.
Violet		Blinking:	An HSPA network is available, but not connected.
		Solid:	Connected to a network using HSPA service.

Wi-Fi LED

LED Color		Status	Description
No light		Off:	Wi-Fi is off or disabled.
Blue		Blinking:	On with users connected.
		Solid:	On with no users connected.

Installing the SIM Card, Battery, and Drivers

Install the SIM Card and Battery

Insert the SIM card, and then insert and charge the battery.

IMPORTANT The battery must be fully charged (for a minimum of four hours) before using your MiFi device for the first time. After the initial use and set up, you may use the device with the battery or AC mains charger.

The battery door cover on your MiFi device slides open and closed. No tools are required to remove or install the battery or battery door. Using any type of tool could result in damage to the device and to the battery. If excessive force appears necessary to move the door or remove the battery, please return the MiFi device to your carrier or where you purchased your MiFi device.

1. Place your MiFi device on a flat surface with the battery door side up.

2. Hold the MiFi device in both hands with the label end of your MiFi device near the palms of your hands.
3. Place each thumb on the triangle-shaped traction bars near the corners of the MiFi device battery door.
4. Using normal thumb pressure on the traction bars, slide the battery door away from you.

5. The door should move approximately 0.6 cm (1/4 inch) before it clicks and stops moving.

❻ Remove the door by picking up the edge of the battery door that moved over your fingers.

❼ Insert the SIM card into the SIM slot as shown.

❽ Insert the battery, lining up the contact points as shown, and then replace the door.

❾ Connect the AC mains charger to your MiFi device and **charge at least four hours** before use. The power button LED flashes while charging and glows solid when charging is complete.

Remove the Battery

WARNING! 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 MiFi battery.

1. Place your MiFi device on a flat surface with the battery door side up.

2. Hold the MiFi device in both hands with the label end of your MiFi device near the palms of your hands.
3. Place each thumb on the triangle-shaped traction bars near the corners of the MiFi device battery door.
4. Using normal thumb pressure on the traction bars, slide the battery door away from you.

5. The door should move approximately 0.6 cm (1/4 inch) before it clicks and stops moving.
6. Remove the door by picking up the edge of the battery door that moved over your fingers.

❼ Pull the battery up slightly so that it will move over the edge of your MiFi device.

❽ Slide the battery out of the battery well.

Battery Tips

WARNING! Use only batteries and chargers with your device that have been approved by your network operator or by Novatel Wireless. Always use Novatel Wireless original batteries and chargers. The warranty does not cover damage caused by non-Novatel Wireless batteries and/or chargers.

- It normally takes at least four hours to fully charge the battery.
- Do not use sharp objects to access the battery well, this may damage the device and the battery.
- Do not use excessive force to remove the battery or to access the battery well.
- If your MiFi device is connected to a computer using a USB cable, the battery charges.
- When one device is accessing mobile data while your MiFi device is using battery power, the device lasts up to four hours.
- The battery discharges more rapidly as additional devices access your MiFi device.
- Battery life depends on the network, signal strength, temperature, features, and accessories you use.
- You can use your device while the battery is charging, however it will take longer to charge the battery.
- Your device also works with an approved car charger.
- 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 -10°C (14°F) or above 45°C (113°F).
- Never leave the device in an unattended vehicle due to uncontrollable temperatures that may be outside the desired temperature for this device.
- Some batteries perform best after several full charge/discharge cycles.
- 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 either the battery or the SIM card, ensure your MiFi device 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 MiFi device battery.

WARNING! The failure to use approved batteries and chargers may increase the risk that your device will overheat, catch fire, or explode, resulting in serious bodily injury, death, or property damage.

Wi-Fi Setup

To properly set up your MiFi device, you need to do both of the following tasks:

- Set Up a Wi-Fi Connection
- Set Up Wireless Security

IMPORTANT Your MiFi device is pre-configured with your network operator settings. If your MiFi device is unable to pre-configure your settings, you need the Access Point Name (APN) from your network operator plus any username, password, or other information they may have given you. If you do not have this information, contact your network operator before attempting to set up your MiFi device.

Set Up a Wi-Fi Connection

Your MiFi device should be pre-configured for your network operator right out of the box and you can connect to the default Network Name (SSID) found on the sticker inside the battery door. [See Connect to your MiFi device: (page 12).]

If it is not pre-configured, setting up the Wi-Fi connection requires two steps:

- Connect to your MiFi device
- Configure your MiFi device for your network operator (Not required for most users.)

NOTE The battery should be fully charged before using MiFi device the first time.
To connect in Wi-Fi Mode, your MiFi device must be powered with a charged battery, with an AC mains charger, or car charger.

Connect to your MiFi device:

1. Press the power button.

   Your MiFi device powers on and starts up. When the power LED is flashing and the Wi-Fi LED solid, the device is ready for you to connect another device (such as your computer) to it.

2. Use your normal Wi-Fi manager on your computer to locate the MiFi device network name (SSID) and select it.

NOTE If your device was pre-configured, the network name was printed on the inside of the battery door.
If your device was not pre-configured, select the network name that has MiFi_2372 in the name.

Tip! **Windows only**: The steps to connect to a Wi-Fi network vary depending on your operating system version and whether you use the native application or third-party software.

❸ **Windows**: Click **Connect**.

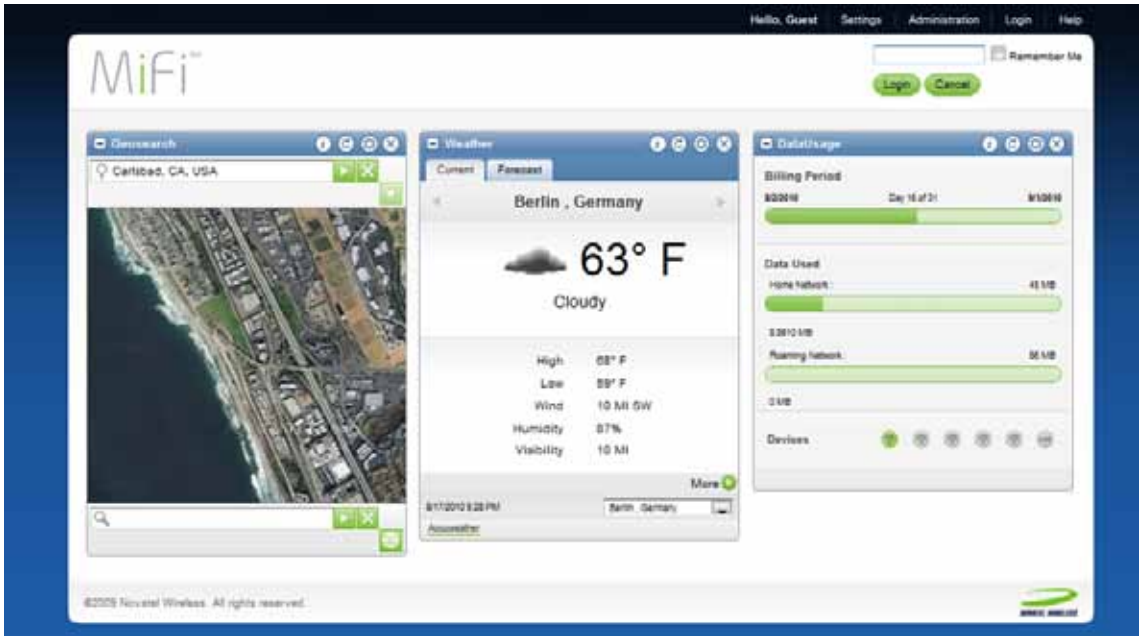
Mac OS X: Click the MiFi device network name.

If your unit was **not** pre-configured, the Wi-Fi LED flashes to show the connected status. Continue to "Configure your MiFi device for your network operator:" on page 15.

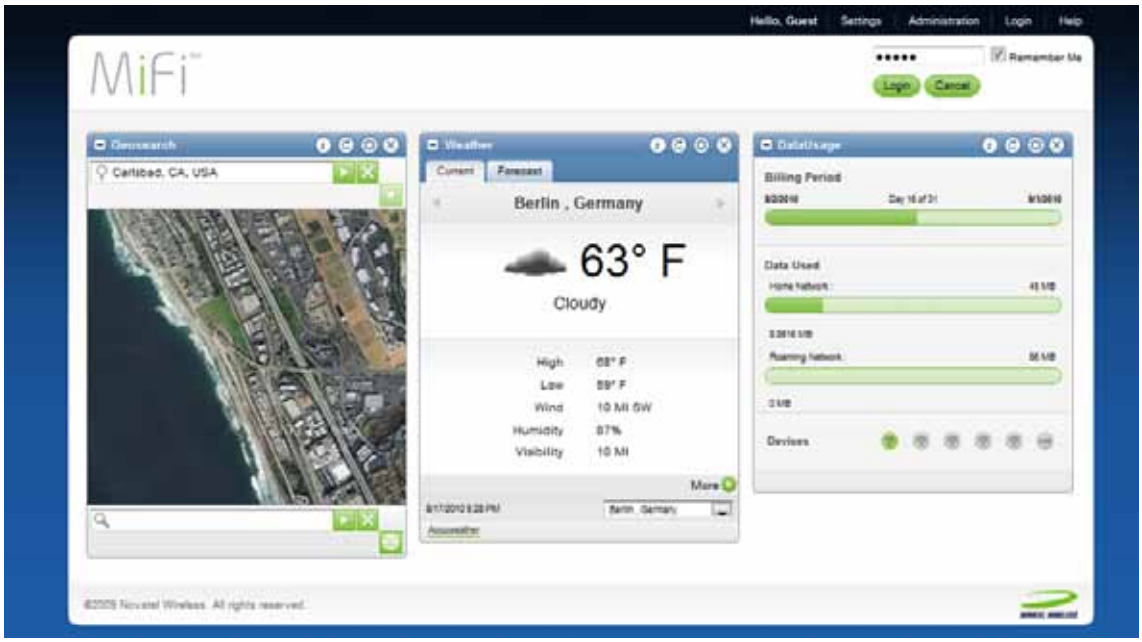
Login to the MiFi Landing Page

❶ From your computer's Web browser, type http://mifi.mlp (alternatively, http://192.168.1.1) in the address bar and press the **Enter** or **Return** key.

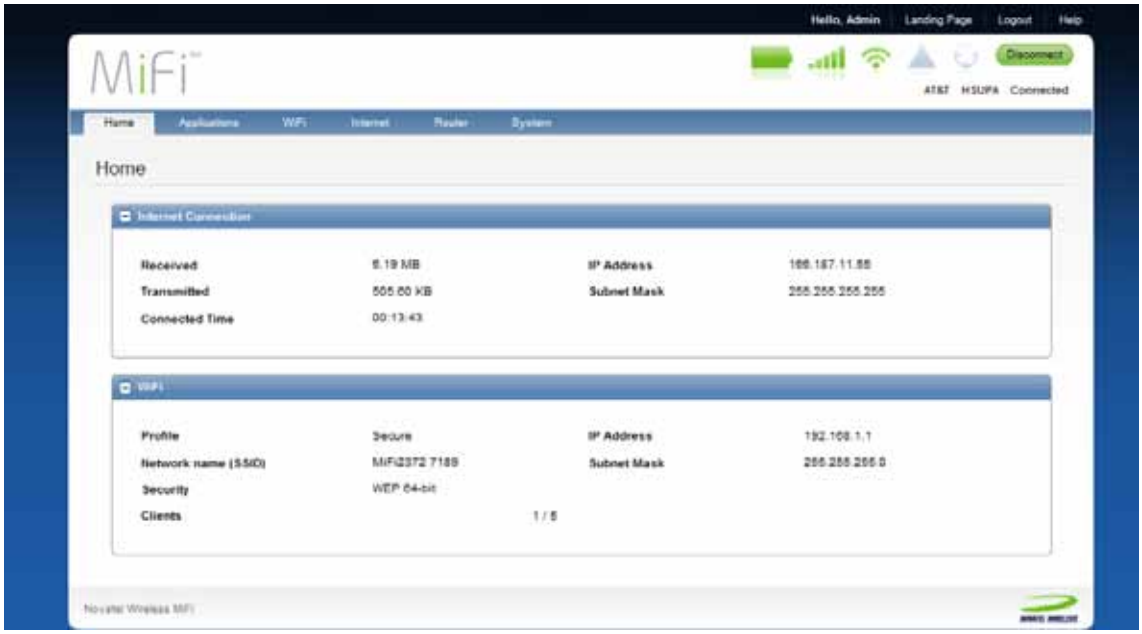
Your MiFi device's Landing page opens. This is the login page to the MiFi Administration section and it also provides access to your microSDHC card.



❷ Click **Login**, type **admin** into the field in the upper right corner of the window, check the **Remember Me** box, and then click **Login**.



The Home page for the Administration section opens.



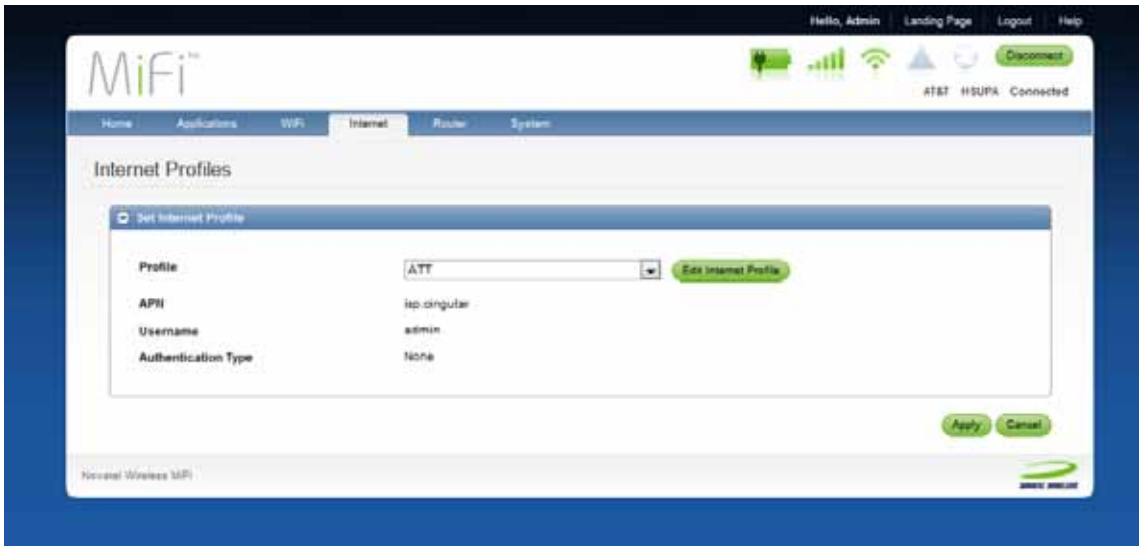
Configure Your MiFi Device

IMPORTANT Your network should be preconfigured on your device. If your network is not preconfigured, follow these steps to configure your MiFi device for your network operator. Your network operator should have given you instructions with your APN (and user name and password, if required). Be sure you have and follow those instructions.

Configure your MiFi device for your network operator:

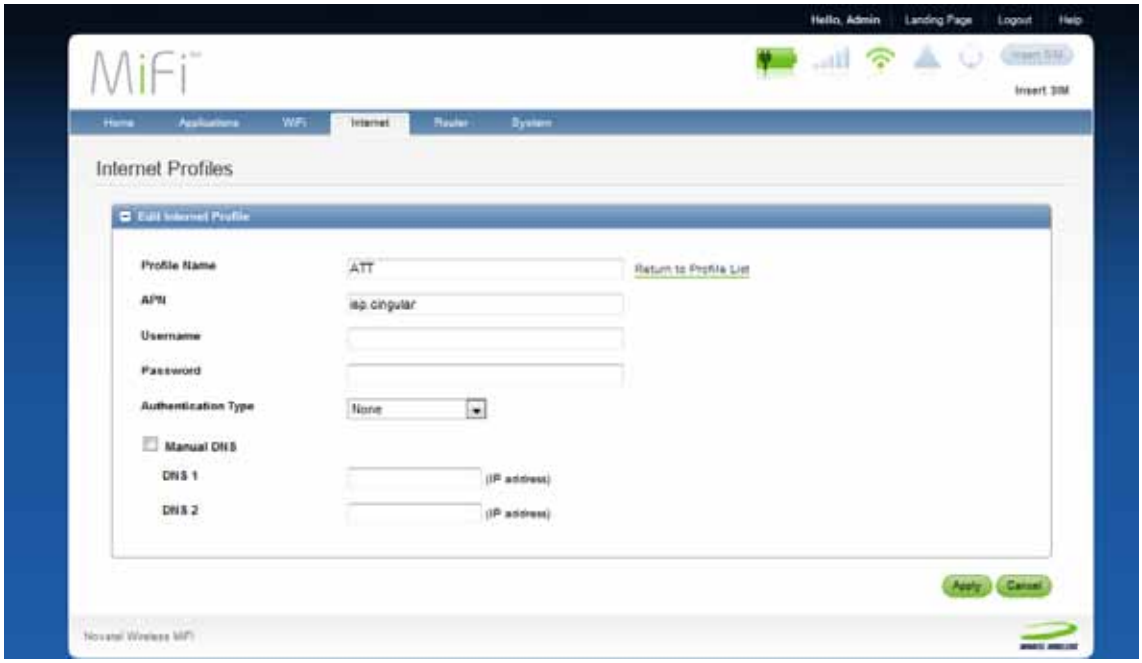
1. Log in and then click **Settings**. [See Login to the MiFi Landing Page (page 13).]
2. Select **Settings** > **Internet** > **Profiles**.

   The Internet Profiles – Set Internet Profile page opens.



❸ Select the profile for your network operator from the Profile list and click the **Edit Internet Profile** button.

The Internet Profiles – Edit Profile page opens.



❹ If you wish, change the Profile Name to something more descriptive, for example, **My MiFi**.

❺ Enter the APN, Username, Password, and other information you were given by your network operator .

❻ Click **Apply**.

❼ Click the **Return to Profile List** link.

❽ Click **Apply** on the Internet Profiles – Set Internet Profile screen to activate the settings.

Tip! You may want to set Autoconnect to have your MiFi device connect to the network whenever it is powered on.

❾ Set up wireless security for your MiFi device network. [See Set Up Wireless Security (page 17).]

WARNING! It is highly recommended that you set up security for your MiFi device at this time. If you do not configure security for your wireless network, data on your network will be easily accessible to others.

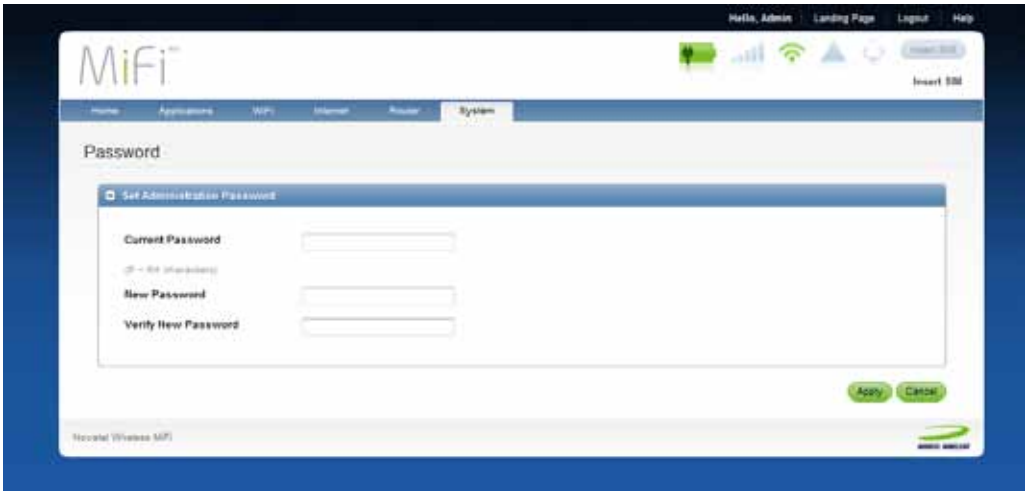
Set Up Wireless Security

Using security with your wireless network is very important. If your network was not pre-configured, Novatel Wireless recommends that you set up security immediately by following these steps:

- Change the Administrative Password
- Establish a Secure Profile

Change the Administrative Password

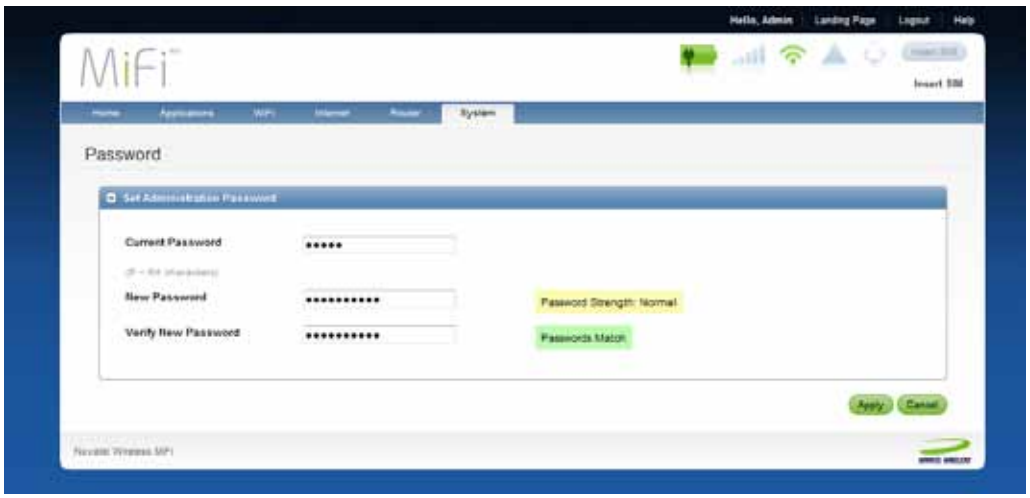
1. Go to http://mifi.mlp and then click **Login**. [See Login to the MiFi Landing Page (page 13).]
2. Enter the administrative password and then click Login.
3. Choose Administration on the menu bar and then select **System > Password**.



4. Type your current administrative password into the Current Password field.

NOTE There are two types of passwords:
The WiFi Key (also called the Network Security Key or Network Key) that you will need to connect your MiFi device to your computing device(s), and the MiFi Administration password that you will need to log into http://mifi.mlp and configure the MiFi device settings.

❺ Select a new administrative password and enter it into both New Password fields.



❻ Click **Apply**.

This is the new administrative password you use when you log in to the browser interface.

NOTE Be sure to record the new password. You will have to reset the device using the Master Reset button if you lose the administrative password. [See Using the Master Reset Button (page 73).]

Establish a Secure Profile

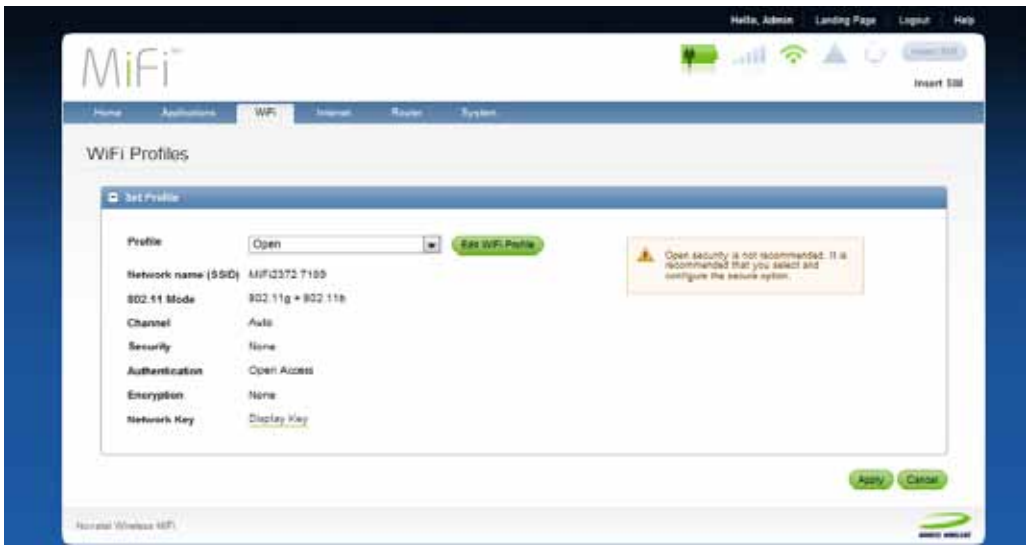
You can use WEP (64- or 128-bit), WPA-PSK, WPA2-PSK, or WPA/WPA2 mixed mode security.

IMPORTANT Record your Wi-Fi Key (also referred to as the Networkk Key or Network Security Key, depending on your operating system).

❶ Go to http://mifi.mlp and then click **Login**. [See Login to the MiFi Landing Page (page 13).]

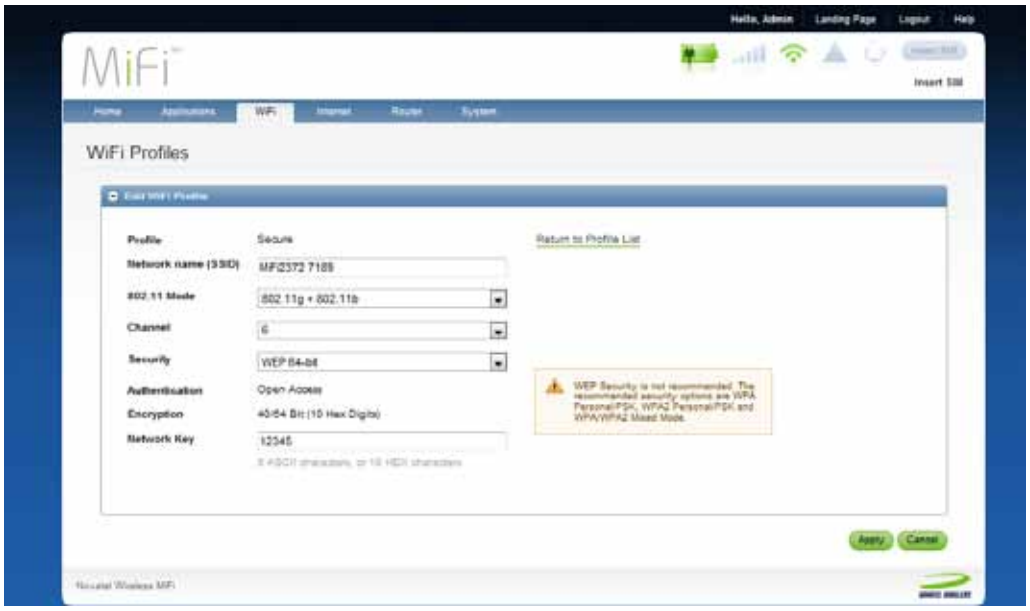
❷ Enter the administrative password and then click **Login.**

❸ Choose Administration on the menu bar and then select **WiFi > Profiles**.



❹ From the Profile list, select **Secure** and click the **Edit WiFi Profile** button.

The Edit WiFi Profile page opens.



❺ Choose the type of security you want to use from the Security list.

❻ Type the Network Key you want to use.

❼ Click **Apply**.

❽ Wait for the device to automatically restart, and the blue Wi-Fi light to come on.

❾ Access your computing device's Wi-Fi Manager and login to the wireless network with the new network name and/or new password.

IMPORTANT Your wireless connection will be disabled when you click **Apply**. You must reconnect with the new network key you just established.

You can customize your MiFi Landing Page. [See MiFi Landing Page (page 28).].

2

Using MiFi and Sharing Files

Setting Up a Temporary Hotspot
Using a microSDHC Card With Your MiFi Device

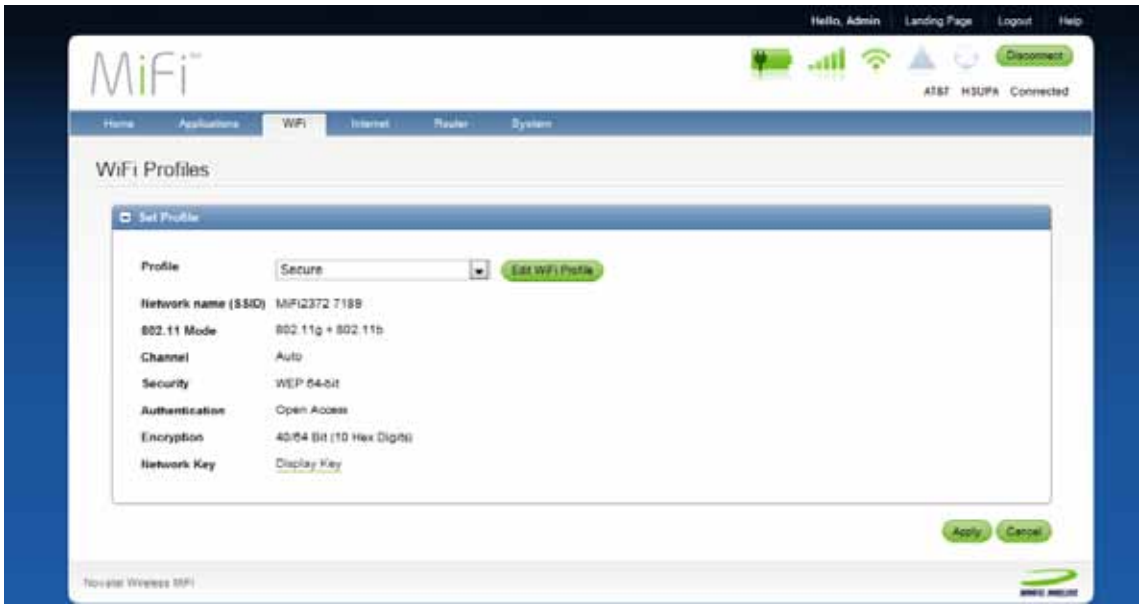
Setting Up a Temporary Hotspot

Your MiFi device allows you to set up a temporary network name and network key so you can allow people to connect to it without having to share your security information. Your MiFi device can have up to five devices connected at any one time.

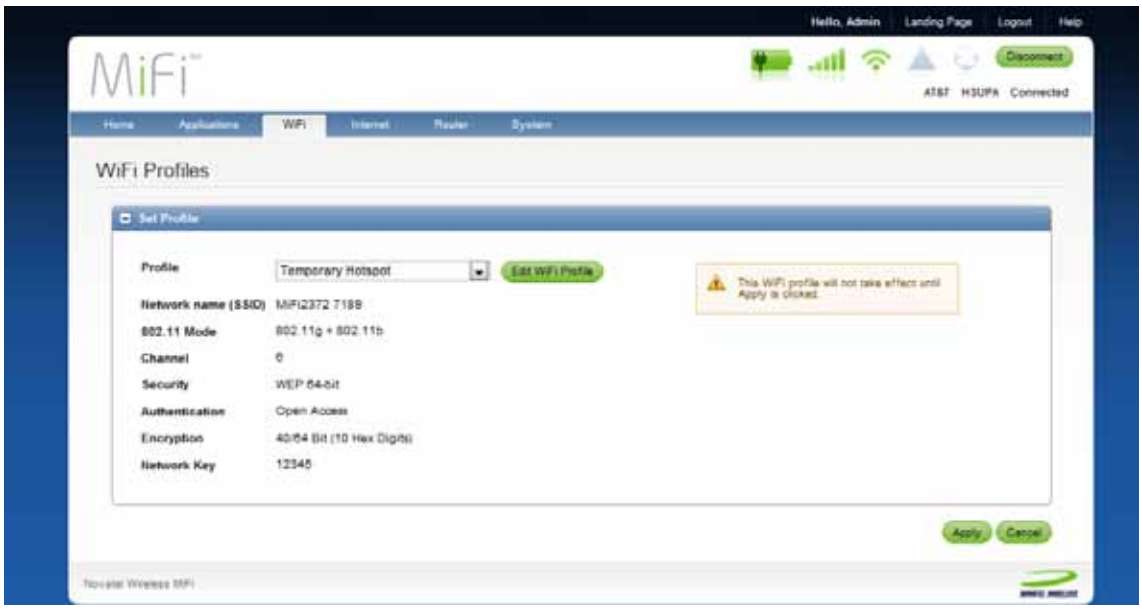
To set up a temporary hotspot:

1. Log in and then click **Settings**. [See Log In to the Home Page (page 13).]
2. Choose **WiFi > Profiles** from the menu bar.

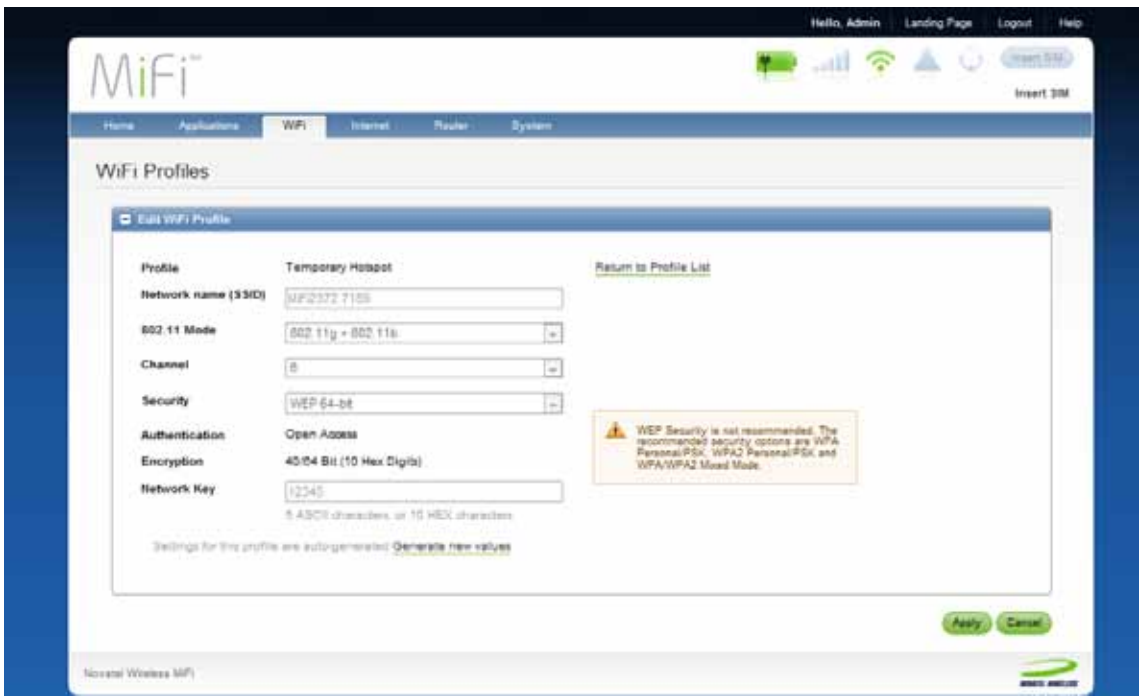
   The WiFi Profiles – Set Profile page opens.



❸ Choose **Temporary Hotspot** from the Profile list and click **Edit WiFi Profile**.



❹ Click the **Generate new values** link at the bottom.



The Network Name and Network Key (Wi-Fi Key) change to a new temporary network name (SSID) and network key.

Note the temporary hotspot network name and network key. In the example, they are "MiFi 16FA" and "12345".

Tip! You can click the **Generate new values** link again to have a different network name and network key generated.

5. Click **Apply**.
6. Click the **Return to Profile List** link.
7. Click **Apply** on the WiFi Profiles – Set Profile page.

IMPORTANT Your wireless connection will be disabled at this point. You must reconnect with the new settings you just established.

You can now share the generated temporary network name and network key with others so they can connect to the device.

Tip! Do not forget to change your profile back to Secure when you are done sharing your temporary hotspot.

Using a microSDHC Card With Your MiFi Device

Your MiFi device comes with a microSDHC card slot that allows you to bring files with you without having to carry an additional flash drive.

IMPORTANT microSDHC cards are **not** hot-swappable. You need to power down your MiFi device before you insert or remove the card.

Insert the microSDHC Card

➤ Insert the microSDHC card into the microSDHC slot.

NOTE
- Be careful not to touch the contacts.
- Do not force the card into the slot. Check the orientation if you have difficulties.

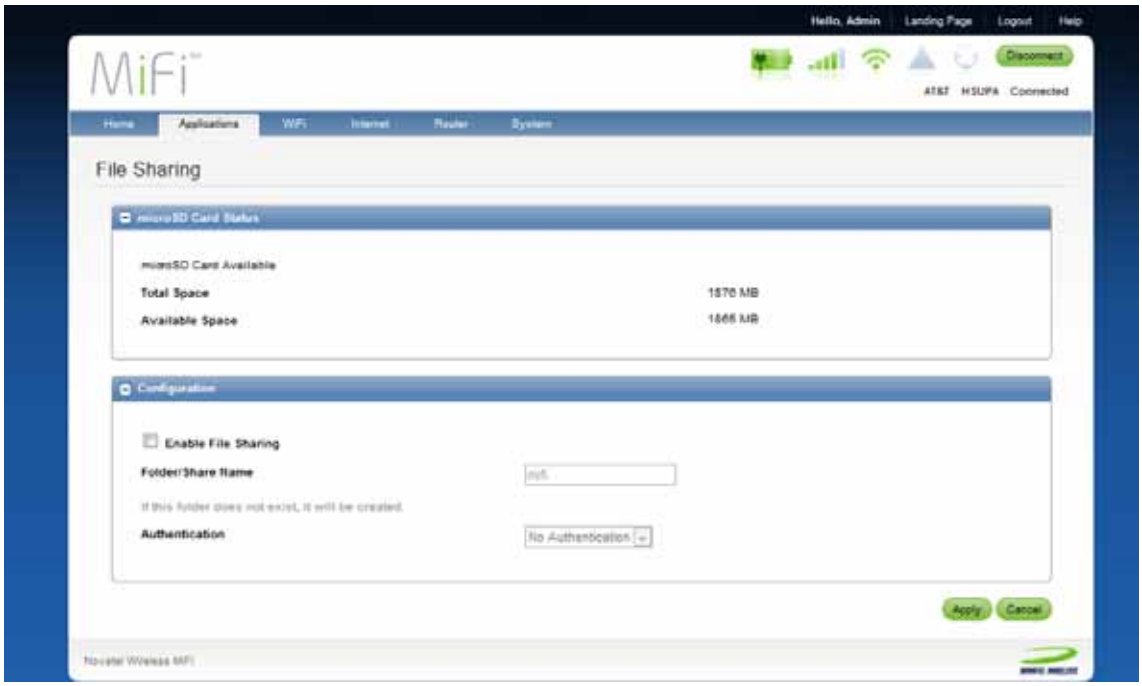
Enable File Sharing on Your MiFi Device

Insert a microSDHC card before you turn on your MiFi device. The microSDHC card is **not** hot-swappable.

File sharing is not enabled by default. If you establish file sharing on your MiFi device, others connected to your MiFi device can access the files on your microSDHC card.

1. Log in and then click **Settings**. [See Log In to the Home Page (page 13).]
2. Choose **Applications** > **File Sharing** from the menu bar.

   The File Sharing page opens.



From here you can enable file sharing and see how much free space you have available on the microSDHC card. You can also decide to protect your files with a password or make them available to everyone connected to your MiFi device.

Access Shared Files on the microSDHC Card Wirelessly

Once you enable file sharing, you can access the shared files on your computer. [See Enable File Sharing on Your MiFi Device (page 25).]

Windows

1. Insert a microSDHC card before you turn on your MiFi device. The microSDHC card is **not** hot-swappable.
2. Connect your computer to your MiFi device using Wi-Fi.
3. Open **My Network Places**. This might vary depending on your version of Windows.
4. In the Address bar, type the MiFi IP address and the MiFi Share name (for example: **\\192.168.1.1\mifi**, if your share name is the default name).

   You can set the MiFi Share name and authentication (username and password) on the File Sharing screen. [See Enable File Sharing on Your MiFi Device (page 25).]
5. If authentication is enabled, you will be prompted for a username and password. Use the username and password set on the File Sharing screen.

You can now browse the folders and files on the microSD card inserted in your MiFi device.

Mac OS X (v10.4 and later)

1. Insert a microSDHC card before you turn on your MiFi device. The microSDHC card is **not** hot-swappable.
2. Connect your computer to your MiFi device using Wi-Fi.
3. Select **Go** > **Connect to Server**.
4. In the Address field, type **smb://** and the MiFi address (for example: **smb://192.168.1.1/mifi**, if your share name is the default name).

   You can set the MiFi Share name and authentication (username and password) on the File Sharing screen. [See Enable File Sharing on Your MiFi Device (page 25).]
5. Click **Connect**.
6. **Mac OS X v10.4 only**: An authentication window opens. If you set authentication (password) on the File Sharing screen, type the username and password in the window. If you did not set authentication, click **OK** to access the MiFi Share.

   NOTE If no password is set, but you are prompted for a name, use the name **guest**.

   Mac OS X v10.5 and later: If you set authentication (username and password) on the File Sharing screen, type the username and password when prompted. If you did not set authentication, a Finder window opens.

You can now browse the folders and files on the microSD card inserted in your MiFi device.

3

Accessing MiFi Features

MiFi Landing Page
MiFi Settings
Wi-Fi Configuration
Internet Configuration
Router Configuration
System Configuration

MiFi Landing Page

The MiFi Landing Page is part of your MiFi device. It's an on-device web page that contains customizable widgets with frequently-used information. Your widgets may vary; the examples in this guide describe generally how widgets work.

Open the Administration Section

You can find this information previously in the guide. [See Login to the MiFi Landing Page (page 13).]

Navigation Bar

At the top of the Home page in the browser interface is the navigation bar. These buttons are dynamic according to the page you visit. These buttons are also dynamic according to your carrier settings, and might include additional options.

The following images are some examples of the navigation bar:

- The navigation prior to logging in.

  Hello, Guest | Settings | Administration | Login | Help

- The navigation after you log in, but before you go to the Settings section of the site.

  Hello, Admin | Settings | Administration | Logout | Help

- The navigation in the Settings section of the site.

  Hello, Admin | Landing Page | Logout | Help

Status Icons

Below the Navigation Bar, at the top right corner of the window, icons indicate the device status.

	Battery life; this icon indicates the amount of battery life remaining, and also indicates when the device is connected to power.
	Mobile Broadband network signal strength
	WiFi signal strength
	Network roaming status; this icon indicates whether the device is on its own network or roaming on another network.
	GPS status; this icon indicates whether the device has a GPS fix or not, and also indicates when the device is searching for a GPS fix.
Disconnect	Connection status; click this button to connect to or disconnect from the Moblie Broadband network.

The appearance of each icon varies according to the current device status.

Landing Page

The Landing page is the page you see when you first connect to your MiFi device with your browser. It is the main point of entry for all your work with your MiFi device. This is the page where you first find the Connect button with which you can connect to the Mobile Broadband network. You can also set your MiFi device to auto-connect to the network. [See Internet Settings (page 51).]

The Landing page is where guests can see and interact with widgets. [See Widgets (page 31).] They can drag and drop widgets around the screen and arrange them as they like; each guest's browser stores the widget locations. Generally the widget settings are limited or not available to guests. Guests also cannot initiate a connection to the network. You can change this setting. [See Internet Settings (page 51).]

NOTE If you connect to the Landing Page and do not have an Internet connection, your landing page might look incomplete. For best results, log in to the page and connect to the Internet.

Widgets

Widgets are little programs that give you information really quickly. For example, your MiFi device can give you the weather where you are right now or anywhere in the world. Another example is a widget that can help you track your data usage and visibly show you how much data you have left this period.

The example pages shown in this guide include a Weather widget, a Data Usage widget, and a Geosearch widget. These widgets might or might not be part of your device's MiFi Landing Page, and are examples of typical widget types. Some widgets use Internet data and require a connection to the Internet (such as Weather). Other widgets get data from the device itself (such as Data Usage).

You can collapse a widget by double-clicking the bar at the top of the widget. The icons in the bar at the top of the widget provide additional functionality.

This icon provides more information about the widget.

This icon refreshes the widget content.

This icon opens the Settings pane. You can update the settings for the widget. Guest users might not see this icon, and if so do not have access to the Settings pane.

This icon closes the widget and removes it from the landing page. You can re-add widgets from the Settings page.

Your network operator can provide more information about how to get additional widgets.

While some widgets work with the device itself and store information on the device, most widgets work best when you have an active Internet connection.

Administration Page

The Administration page is a basic Internet Connection and WiFi status page that guest users can access.

MiFi Settings

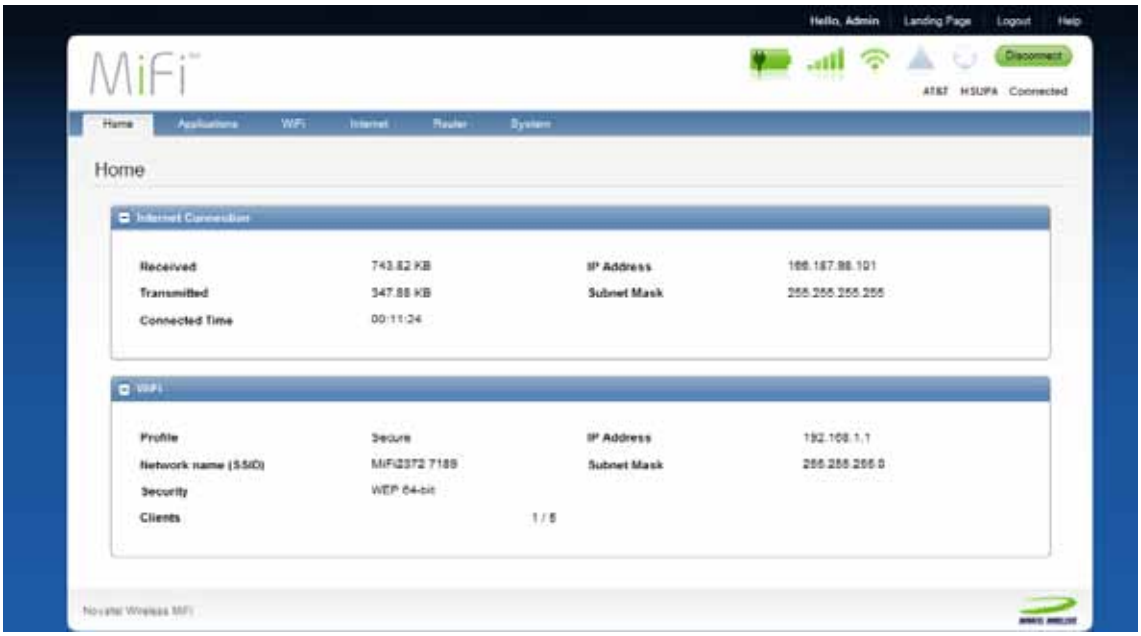
In addition to the Landing page, the MiFi Settings are included in this page. You can configure and customize your MiFi device as you like.

MiFi Settings Menu Bar

The MiFi Settings section contains a menu bar to help you configure your MiFi device, and includes Applications, WiFi, Internet, Router, and System options.

Except for the Home menu item, each menu bar item has a submenu with several additional items available.

The Home menu item returns you to the Home screen.



Applications Menu

The Applications Menu allows you to manage File Sharing and Landing Page Settings.

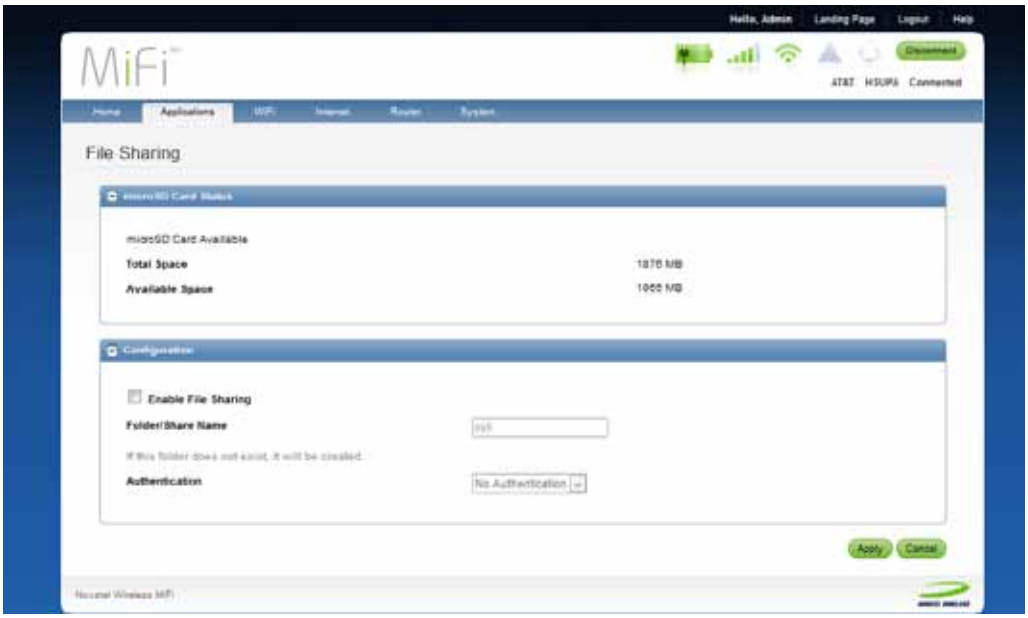
This section contains the following information:

- File Sharing
- Landing Page Settings

File Sharing

Insert a microSDHC card before you turn on your MiFi device. The microSDHC card is **not** hot-swappable.

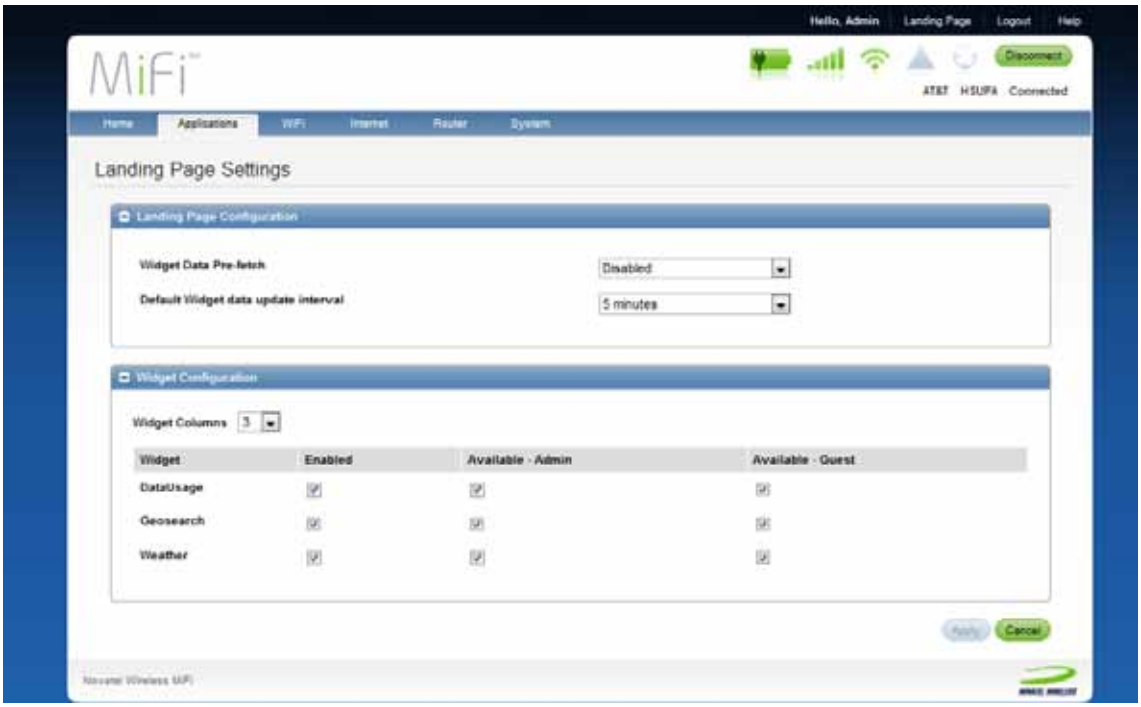
The microSDHC card section has additional information on how to use file sharing on your MiFi device. [See Enable File Sharing on Your MiFi Device (page 25).]



From here you can enable file sharing and see how much free space you have available on the microSDHC card. You can also decide to protect your files with a password or make them available to everyone connected to your MiFi device.

Landing Page Settings

You can configure how often your widgets connect to the network and which widgets appear on the Landing page. You can also configure who sees which widget. Guest users can only see the widgets you decide they should see.



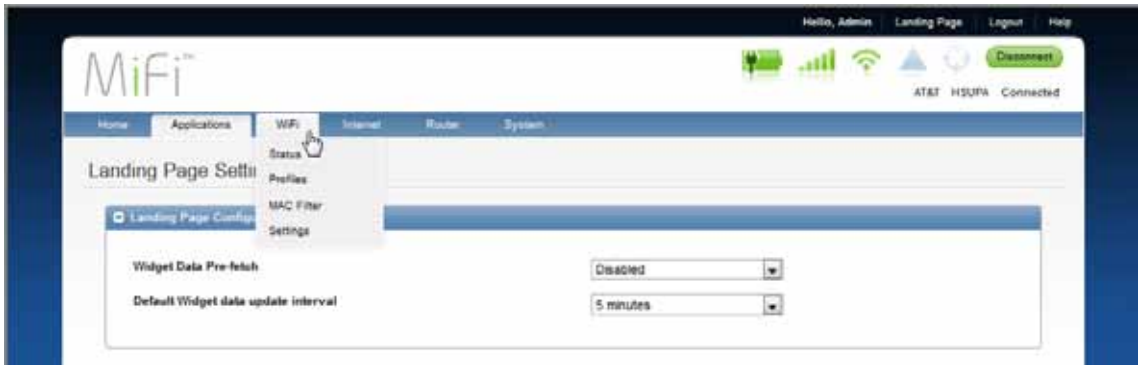
➤ Click **Apply** to save your changes.

WiFi Configuration

The WiFi menu allows you to work with profiles, set up a temporary hotspot, set MAC filters, view the WiFi log, and view status information for the WiFi network.

This section contains the following information:

- WiFi Status
- WiFi Profiles
- MAC Filter
- WiFi Settings



WiFi Menu Options

1. Choose **WiFi** from the menu bar at the top of the Home page.
2. Select one of the following:
   - **WiFi Status** — to view profile information, see who is connected to the device, and view the WiFi Log. You can also retrieve your Network Key from this page.
   - **WiFi Profiles** — to view or change settings for your Secure profile or to set up a Temporary Hotspot.
   - **MAC Filter** — to allow only certain devices to connect to your MiFi device.
   - **WiFi Settings** — to enable or disable broadcasting the network name or enable or disable the WiFi log.

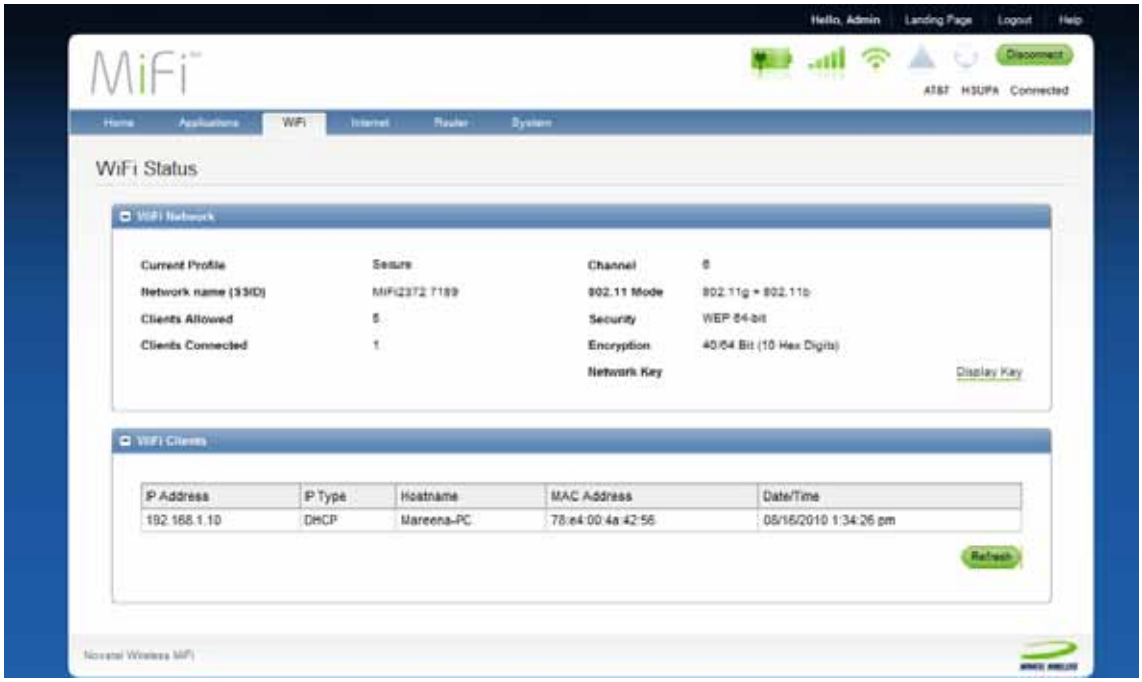
WiFi Status

The WiFi Status page provides you with information about your wireless network.

Opening the Page

➤ Choose **WiFi** > **Status** from the menu bar.

The WiFi Status page opens.



WiFi Status Sections

WiFi Network

The WiFi Network section of the WiFi Status page provides the following information:

- Profile that is currently in use.
- Name of the network (SSID) that you are connected to.
- Maximum number of clients that are allowed to connect to the device.
- Number of clients that are currently connected to the device.
- Channel that is being used.
- Current wireless mode.
- Security type and encryption for the current profile.
- Network Key link. (Click to retrieve the network key.)

WiFi Clients

The WiFi Clients section of the WiFi Status page shows the clients that are currently connected to your MiFi device. This is another way you can find the MAC address for a particular device when you are setting up MAC filtering.

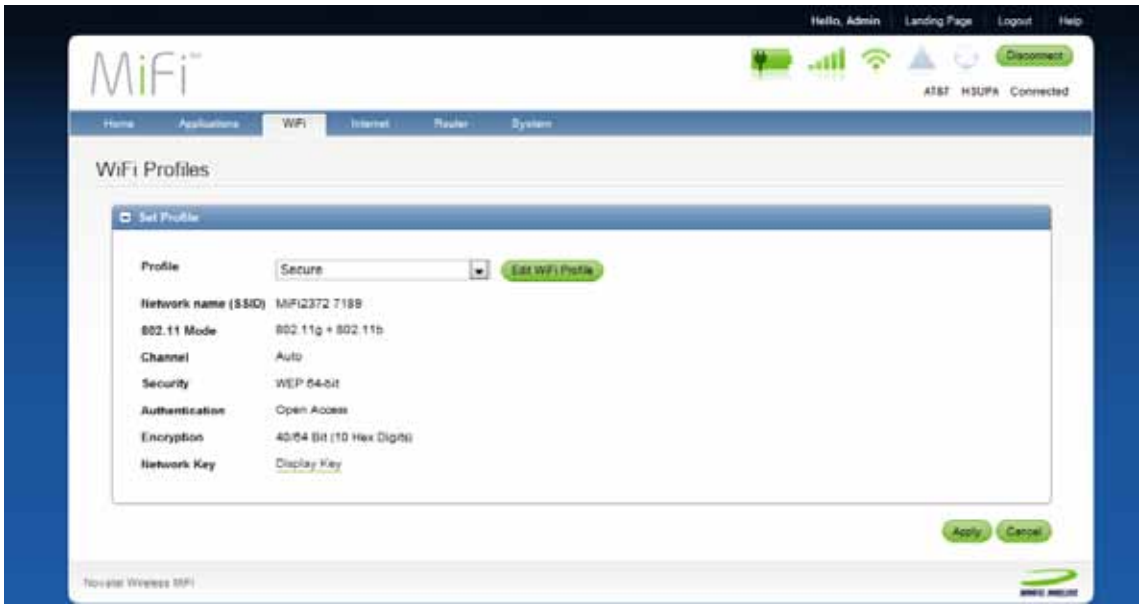
WiFi Profiles

The WiFi Profiles page allows you to configure your secure profile or set up a temporary hotspot.

Opening the Page

➤ Choose **WiFi** > **Profiles** from the menu bar.

The WiFi Profiles – Set Profile page opens.



WiFi Profiles Page

This page provides the following information:

- **Profile** — The profile currently being used. [See Choosing a Profile (page 38).]
- **Network Name (SSID)** — Name of the network you are connected to. You can change the name to something more descriptive if you want; for example, if there are several MiFi devices in your area you might put your name in the network name; for example, "Sarahs MiFi".
- **802.11 Mode** — The type of wireless networking you are currently using. The available modes are:
  - 802.11g+802.11b
  - 802.11g
  - 802.11b
- **Channel** — The radio channel that the device is using. This should be usually set to Auto and left unchanged. Available selections are Auto and 1 through 11.
- **Security** — The type of security the profile is using. This applies to both the Secure and the Temporary Hotspot profiles. [See Setting Security (page 39).]
- **Authentication** — Locked to Open Access for all profiles.
- **Encryption** — Shows the type of encryption used for the security type.
- **Network Key** — Passcode used to access the network. The required format varies by type of security. If the network key is not visible, click the **Display Key** link on the right.

Choosing a Profile

The browser interface allows you to select or modify a profile to use while browsing. You can choose one of three WiFi profiles.

- **Secure** — You can set up this profile with the security measures you need to use your device safely.
- **Temporary Hotspot** — This profile allows you set up a temporary hotspot that allows others in your immediate area (maximum of 5) to go online using your device.
- **Open** — This is a completely unsecure profile that should be avoided except during initial setup of your device.

➤ Select the profile from the Profile list and click **Apply** or **Edit WiFi Profile**.

Setting Security

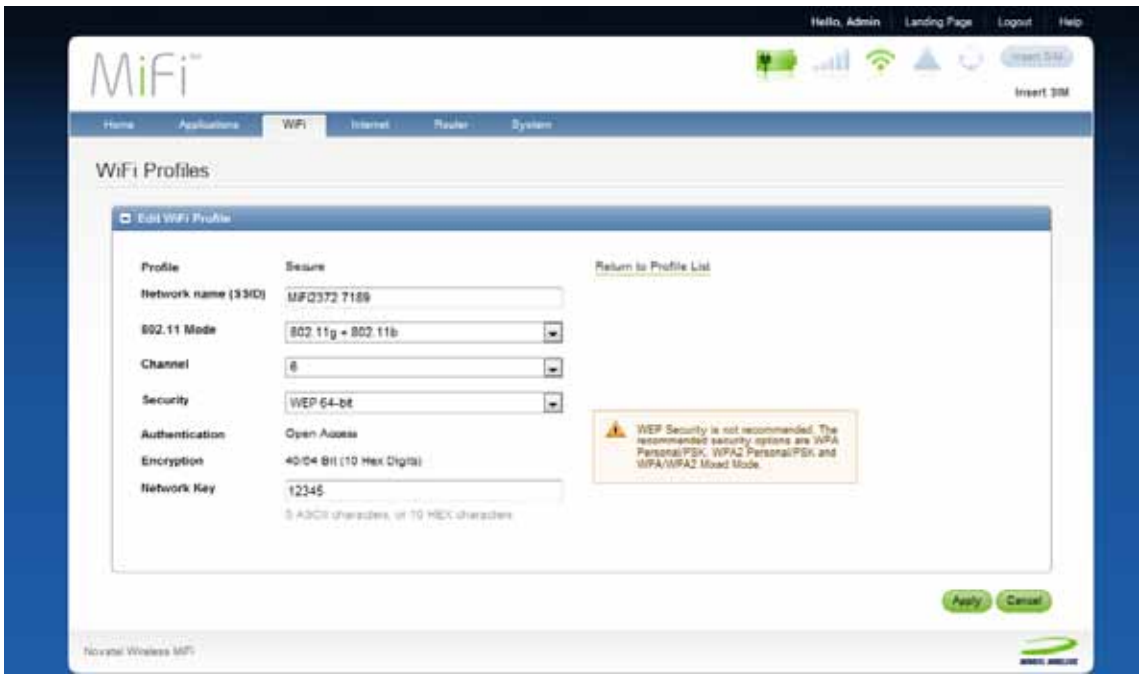
You can use WEP (64- or 128-bit), WPA, WPA2, or WPA/WPA2 Mixed Mode security.

Tip! Some WiFi clients become confused if the security is changed and the network name is not. If you change security settings and do not get asked for the new network key when you try to reconnect, delete the existing "old" network name from your "Preferred Networks" list. Then you can reconnect.

IMPORTANT Record your network key.

1. Choose **WiFi > Profiles** from the menu bar.
2. Select a profile and click **Edit WiFi Profile**.

   The WiFi Profiles – Edit WiFi Profile page opens.



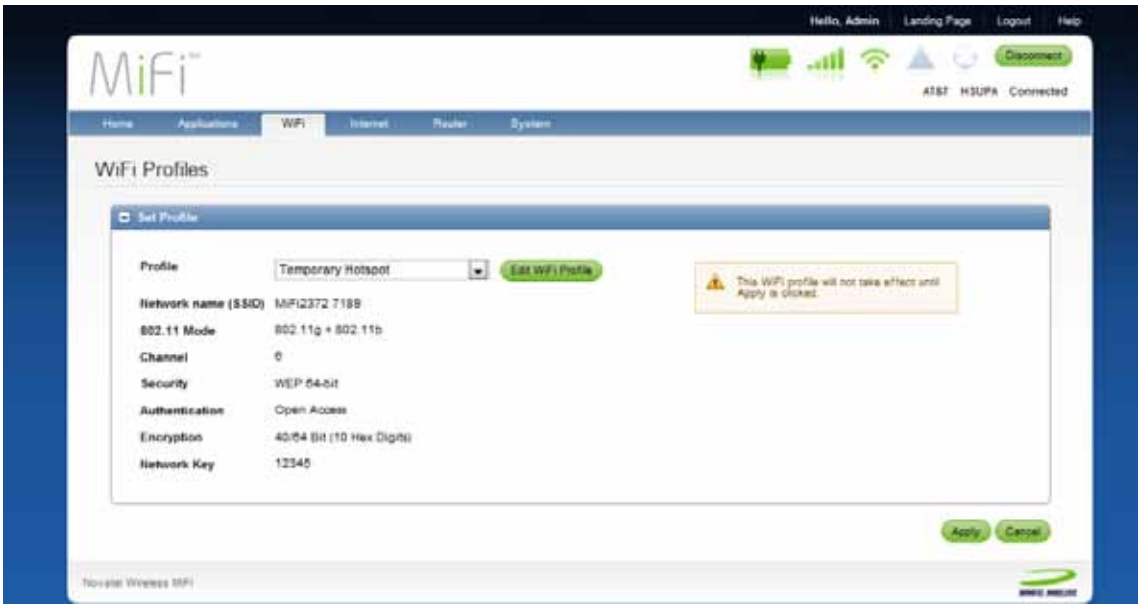
3. Select a security protocol from the Security list.

   The encryption type will display and the number and type of characters required for the network key will display under the Network Key box.
4. Type the network key you want to use in the Network Key box and then click **Apply**.
5. Click the **Return to Profile List** link.
6. Click **Apply** on the WiFi Profiles – Set Profile page.

IMPORTANT Your wireless connection will be disabled at this point. You must reconnect with the new settings you just established.

Setting Up a Temporary Hotspot

You can use the device to set up a temporary hotspot to allow a maximum of five connections to your MiFi device at one time.



You can read more about this setting. [See Setting Up a Temporary Hotspot (page 21).].

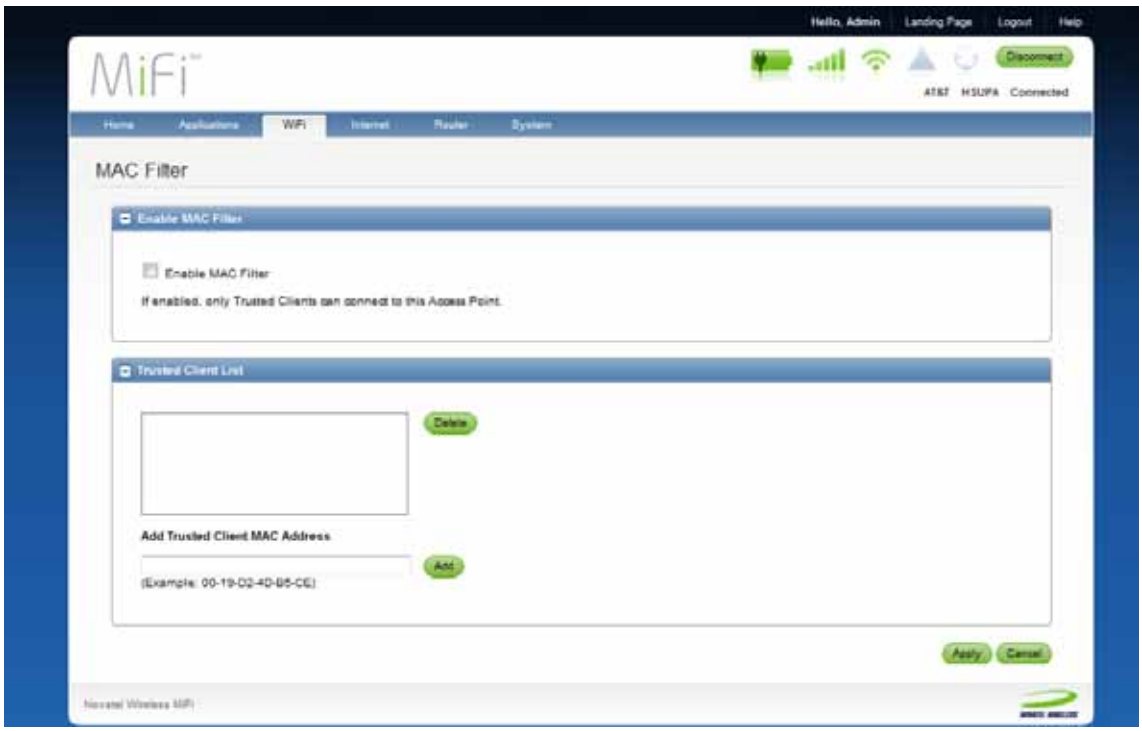
MAC Filter

MAC Filtering allows you to restrict access to your MiFi device to only those devices with a specific MAC address. The MAC address is a unique code specific to a particular piece of hardware such as a network adapter. [See Finding the MAC Address (page 41).]

Opening the Page

➤ Choose **WiFi > MAC Filter** from the menu bar.

The MAC Filter page opens.



Finding the MAC Address

The MAC Address is also known as a hardware or physical address for a device, usually a network adapter. It consists of 6 pairs of numbers and letters. The pairs of numbers may be separated by "-" or ":" (for example, 00-21-9B-1C-64-34 or 00:21:9B:1C:64:34).

You can view the MAC address of any device currently connected to your MiFi device in the WiFi Clients section of the WiFi Status page. [See WiFi Clients (page 37).]

- On a Windows PC, you can find the MAC address by running **ipconfig /all** from a command prompt window (cmd). The MAC address is referred to as the Physical Address.
- On a Mac, open **System Preferences > Network**. In the Show list, click **AirPort**, then click **Advanced**. The MAC address is the Airport ID.

IMPORTANT Make sure you get the MAC address for the wireless network adapter and not the Ethernet adapter.

Using MAC Filter

The MAC Filter page allows you to enable or disable MAC filtering and to add or delete MAC addresses from the trusted client list.

IMPORTANT Do not enable MAC filtering unless you have added your own MAC address to the trusted client list. Otherwise you will be unable to access your MiFi device until you use the Master Reset button. [See Using the Master Reset Button (page 73).]

1. Choose **WiFi > MAC Filter** from the menu bar.

2. Type the MAC address for your computer into the Add Trusted Client MAC Address box and click **Add**.

   Tip! You can copy and paste your computer's MAC address from the WiFi Clients section of the WiFi Status page. [See WiFi Clients (page 37).]

3. If desired, type the MAC address for other computers into the Add Trusted Client MAC Address box and click **Add**.

4. Select the Enable MAC Filter check box and click **Apply**.

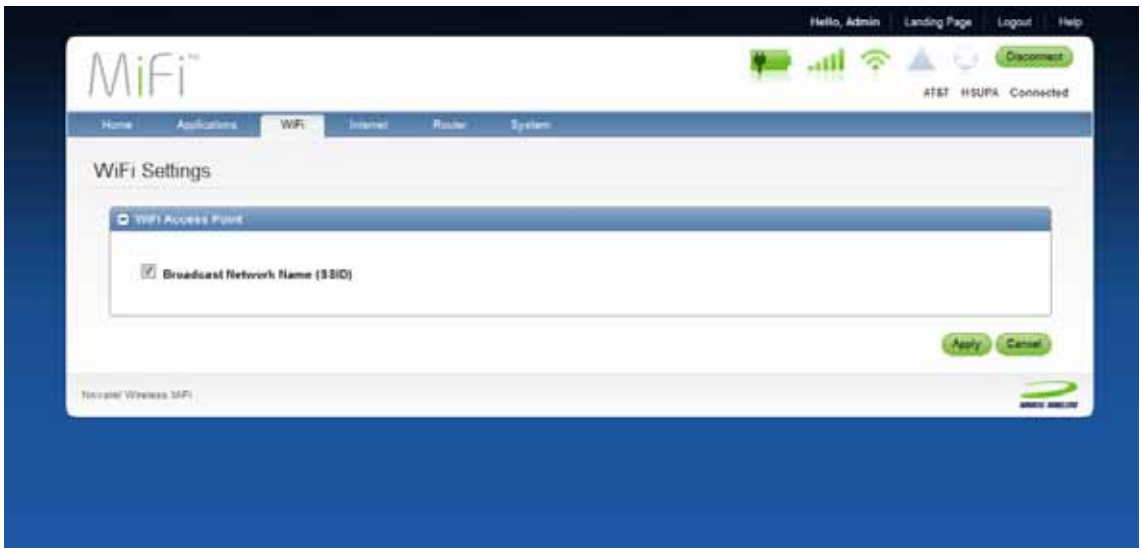
WiFi Settings

The WiFi Settings page allows you to enable or disable broadcasting the network name and the WiFi log.

Opening the Page

❶ Choose **WiFi > WiFi Settings** from the menu bar.

The WiFi Settings page opens.



WiFi Settings Page

Broadcast Network Name (also known as SSID broadcast) causes the device to send the Network Name (SSID) out where it can be picked up by nearby computers. This is what you see when you "View Available Wireless Networks" from your computer.

Disabling Network Name (SSID) broadcasting provides additional security, but you will have to re-enable it if you lose your automatic connection.

➤ Select or deselect the checkbox to enable or disable Broadcast Network Name and click **Apply**.

Internet Configuration

The Internet menu provides status information for your connection to the Internet, allows you to configure your MiFi device to work with your network operator , and view information about your MiFi device.

The section contains the following information:

- Internet Status
- Internet Profiles
- SIM
- Internet Diagnostics
- Internet Settings

Internet Menu

❶ Choose **Internet** from the menu bar.

❷ Select one of the following:

- **Status** — View information about the Internet connection, traffic counters, and TCP/IP information.
- **Profiles** — Configure your MiFi device for your network network operator .
- **SIM** — Lock or unlock the SIM or change the PIN.
- **Diagnostics** — View the device information and view the modem status.
- **Settings** — Allow your MiFi device to automatically connect, allow guests to establish the Internet connection, determine roaming and determine network technology.

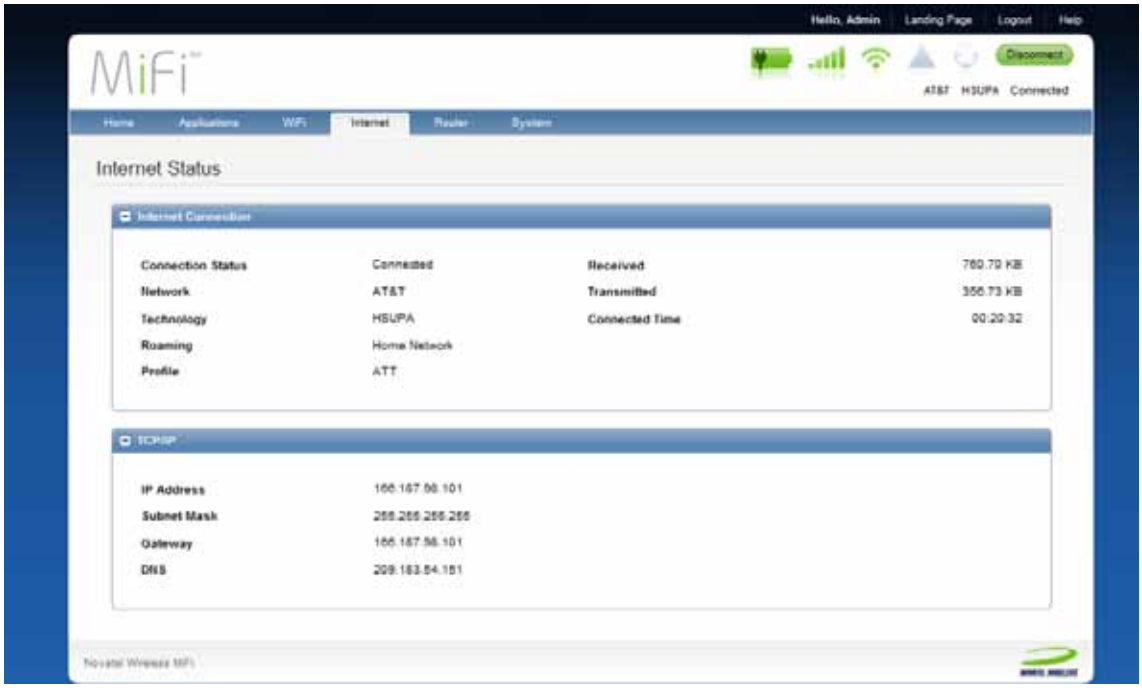
Internet Status

The Internet Status page provides information about the Internet connection.

Opening the Page

➤ Choose **Internet** > **Status** from the menu bar.

The Internet Status page opens.



Internet Connection

The Internet Connection section of the Internet Status page gives you the following information:

- Connection status
- Network connected to
- Connection technology
- Whether or not you are roaming
- The current profile
- The number of bytes received and transmitted
- The duration of the current connection

Roaming Settings

By default, the MiFi device automatically connects to the Internet when you are in the AT&T home coverage area. The MiFi device will automatically disconnect when you go outside of the AT& home coverage area. The roaming icon will display in the Status Icon Bar at that time but you will need to manually connect to the roaming network by clicking the main Connect button on the MiFi Landing Page.

NOTE You must be logged in to see the Connect button.

To enable Auto-Connect while Roaming:

1. Go to **http://mifi.mlp.**
2. Login and click **Administration.**
3. Click **Internet** and select **Home and Roaming** from the drop down-menu under Roaming.
4. Click **Apply.**

TCP/IP

The TCP/IP section of the Internet Status page gives you the following information about your MiFi device:

- Local IP address
- Subnet Mask
- Gateway IP address
- DNS server IP address

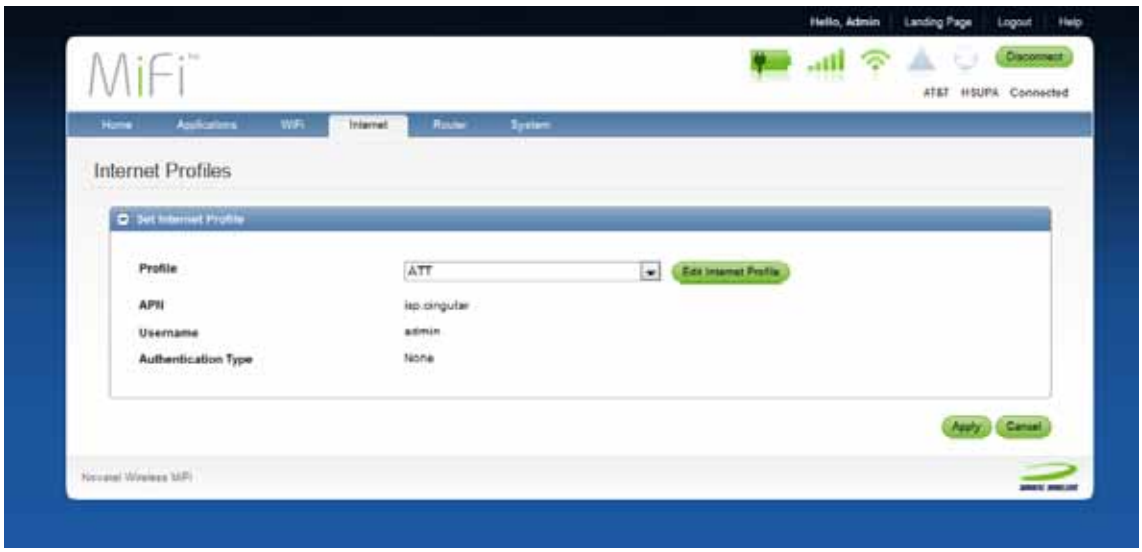
Internet Profiles

The Internet Profiles page allows you to configure your device to work with your network operator by entering the APN, username, and other information that your network operator requires and provides to you.

Opening the Page

➤ Choose **Internet** > **Profiles** from the menu bar.

The Internet Profiles – Set Internet Profile page opens. The details for the profile currently in use are shown.



Internet Profiles Page

This page allows you to select, edit, and create profiles used with your network operator .

To select a different profile:

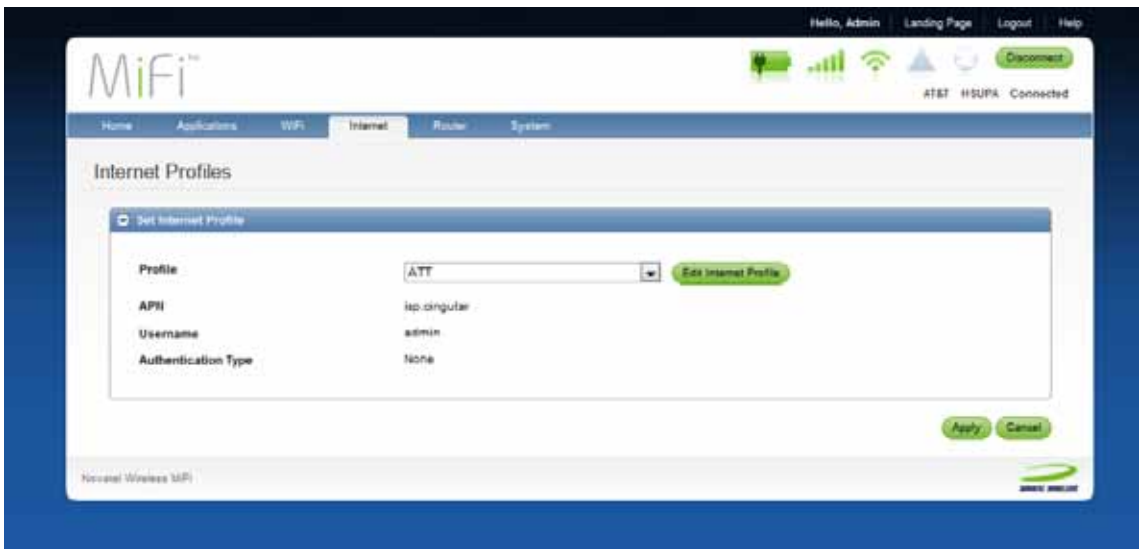
➤ Use the drop-down menu to select another profile name and click **Apply**.

To edit an existing profile or to create a new profile:

❶ Select an existing profile from the Profile list and click **Edit Internet Profile**.

NOTE
– The default profile cannot be edited.
– If the MiFi device is connected, the connected profile cannot be edited.

The Internet Profiles – Edit Internet Profile page opens.



❷ If you want to create a new profile, change the name on this page.

❸ Enter the information as provided by your network operator. Your operator may or may not require all of these fields.

- APN (Access Point Name)
- Username (optional)
- Password (optional)
- Authentication Type — None, PAP, or CHAP

❹ Click **Apply**.

❺ Click the **Return to Profile List** link.

❻ Click **Apply** on the Internet Profiles – Set Profile page.

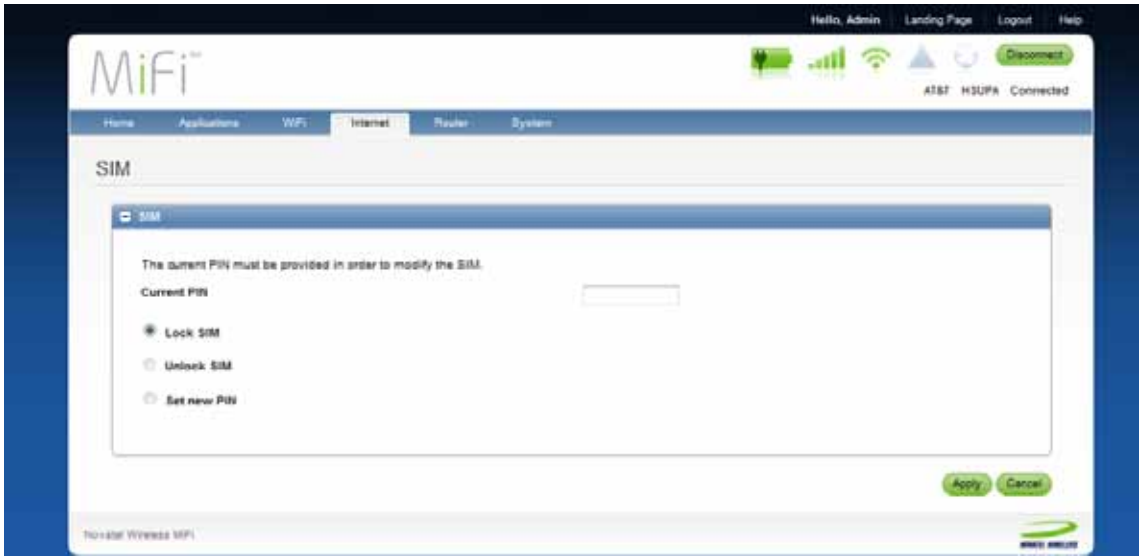
SIM

The SIM page allows you to change the password and to unlock your SIM.

Opening the Page

➤ Choose **Internet > SIM** from the menu bar.

The SIM page opens.



SIM Page

The following steps describe how to lock, unlock, or change your SIM lock code.

❶ Enter the current PIN (password) for the SIM.

❷ Choose **Lock SIM** and click **Apply**.

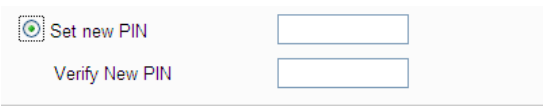
– OR –

Choose **Unlock SIM** and click **Apply**.

– OR –

Choose **Set new PIN**.

PIN entry boxes will appear on the page.



❸ Enter a new PIN in both boxes and click **Apply**.

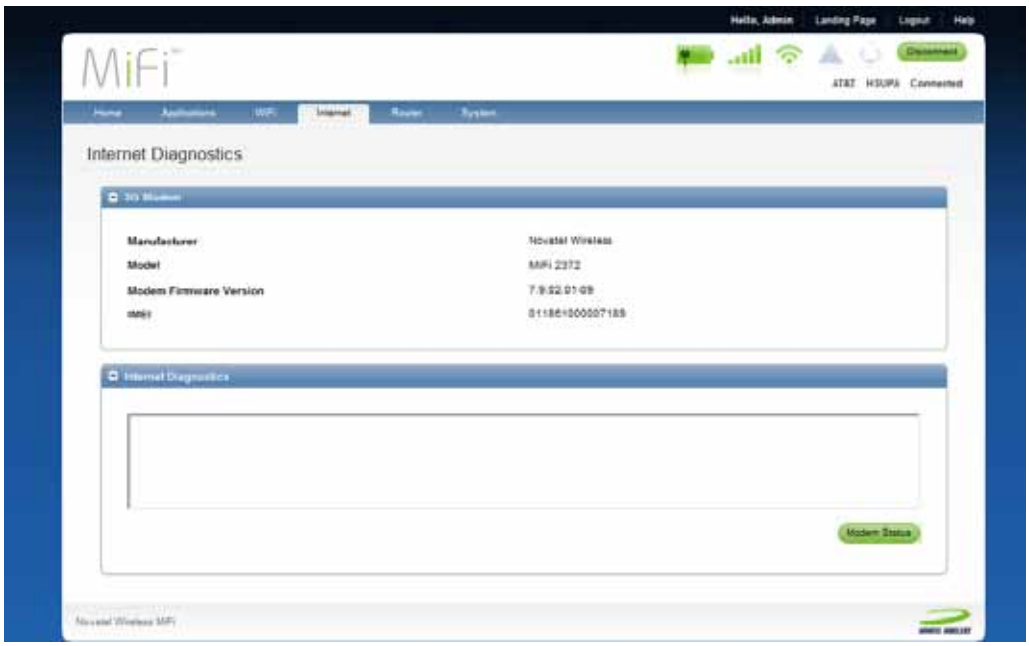
Internet Diagnostics

The Internet Diagnostics page provides status information about your Internet connection and your MiFi device.

Opening the Page

➤ Choose **Internet** > **Diagnostics** from the menu bar.

The Internet Diagnostics page opens.



Internet Diagnostics Page Sections

3G Modem

The 3G Modem section of the Internet Diagnostics page gives you the following information about your MiFi device:

- **Manufacturer** — manufacturer of this device
- **Model** — model name or number of the device
- **Modem Firmware Version** — current version of the internal software (firmware)
- **IMEI** — the International Mobile Equipment Identity for this modem. The IMEI is a 15 or 17 digit number used to identify an individual mobile station on a GSM or UMTS network. This number is associated with the device and does not change with the SIM.

Internet Diagnostics

The Internet Diagnostics display area can give you information about your device that can be useful for troubleshooting network problems. It is not intended for use during normal operations.

➤ Click **Modem Status** to view information about the status of the modem.

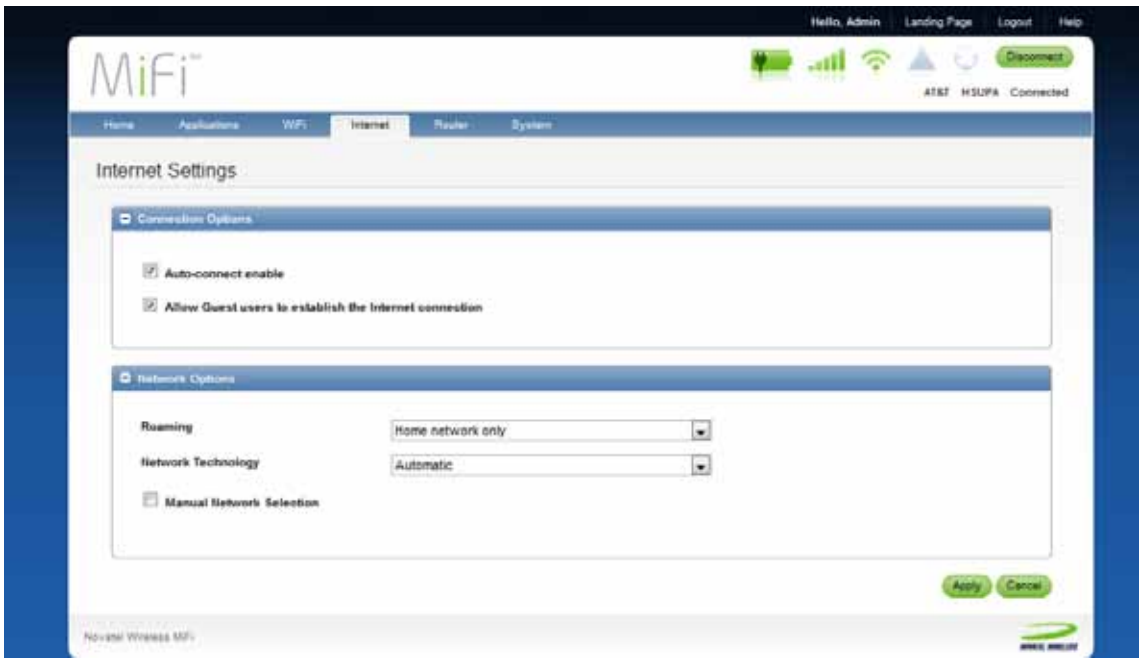
Internet Settings

Allow your MiFi device to automatically connect, allow guests to establish the Internet connection, determine roaming and determine network technology.

Opening the Page

➤ Choose **Internet** > **Settings** from the menu bar.

The Internet Settings page opens.



Internet Settings Page

Auto-connect enable

Auto-connect allows your MiFi device to connect to your network operator 's network automatically whenever it is turned on.

There are multiple options for auto-connect:

- **Home Network** — Your MiFi device only auto-connects to the home network when it is on.
- **Home and Roaming Network** — Your MiFi device connects to any available network when it is on.

IMPORTANT Additional charges may apply for international roaming. Please consult your network operator.

➤ Select the auto-connect mode you want to use and click **Apply**.

Allow Guest users to establish the Internet connection

Check this box to have the Connect button appear on the Landing page.

Network Technology

The Network Technology setting determines how your MiFi device accesses the network. There are three options:

- **Automatic** — It scans for 3G signals and looks for GPRS/EDGE signals if it cannot locate 3G.
- **GPRS/EDGE Only** — It only looks for GPRS/EDGE signals.
- **3G Only** — It only looks for 3G signals.

➤ Select the access method and click **Apply**.

Manual Network Selection

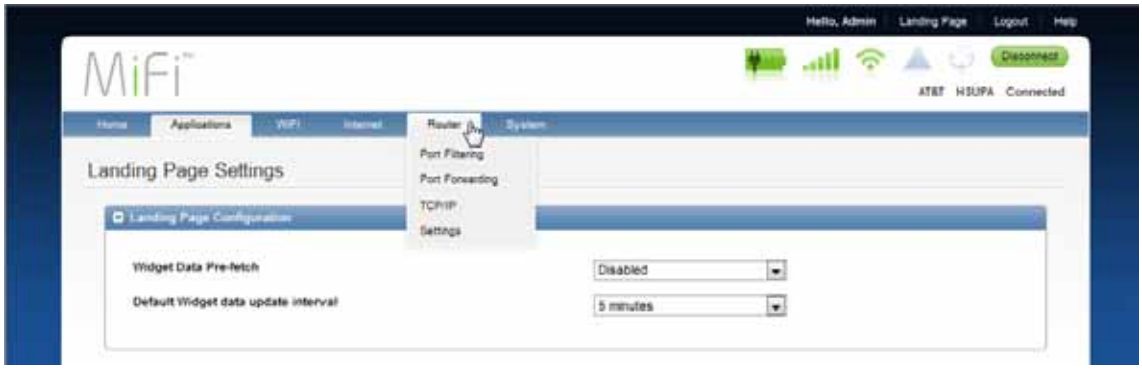
Check this box if you want to manually select your mobile broadband network.

Router Configuration

The Router Menu gives you access to options that allow you to configure traffic through your MiFi device.

The section contains the following information:

- Port Filtering
- Port Forwarding
- TCP/IP
- Router Settings



Router Menu

❶ Choose **Router** from the menu bar.

❷ Select one of the following:

- **Port Filtering** — Create a list of applications that are allowed to access the Internet.
- **Port Forwarding** — Create a list of applications that are allowed to access your computer from the Internet. You might use this if you have an FTP server on your system or play certain online games.
- **TCP/IP** — See your MiFi device IP address and MAC address.
- **Router Settings** — Enable DHCP and VPN passthrough.

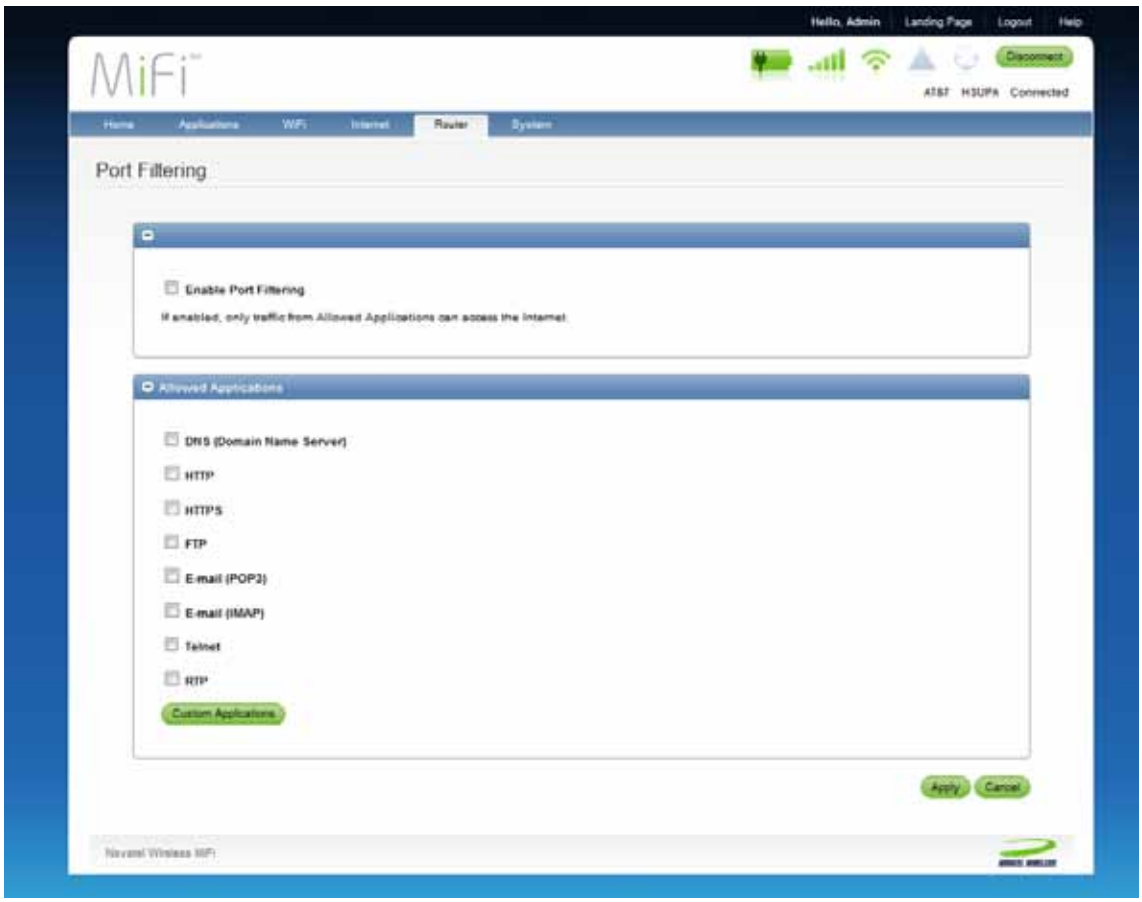
Port Filtering

Port Filtering allows you to enhance the security of your system by only allowing certain applications to reach the Internet.

Opening the Page

➤ Choose **Router** > **Port Filtering** from the menu bar.

The Port Filtering page opens.



Port Filtering Page

This page allows you to enable Port Filtering, select common applications to allow access to the Internet, and set up custom applications for access to the Internet.

To set port filtering for standard applications:

1. Open the page.
2. Select the **Enable Port Filtering** checkbox.
3. Select the check boxes for the applications you want to allow access to the Internet.
4. Click **Apply**.

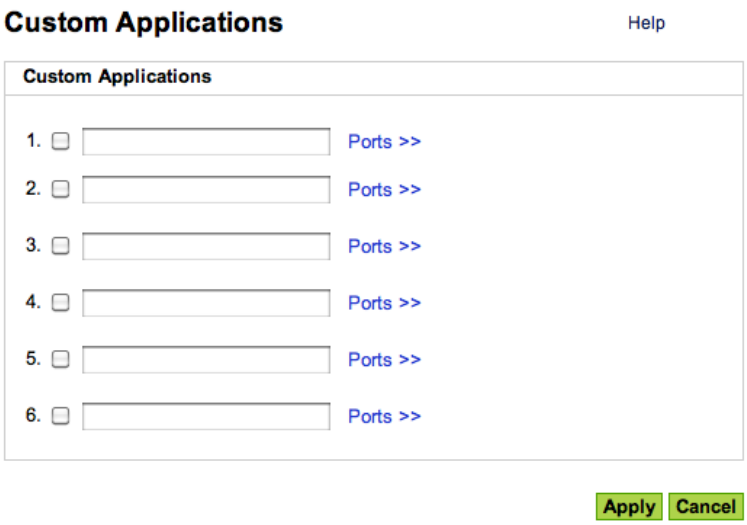
NOTE The device uses standard ports for these applications. If you have applications that do not use the standard ports or that are not listed under Allowed Applications, use Custom Applications.

To set port filtering for custom applications:

In order to set up port filtering for a custom application, you will need to know the port numbers (up to five ports or port ranges) and the protocol (TCP, UDP, or both) used by outgoing traffic.

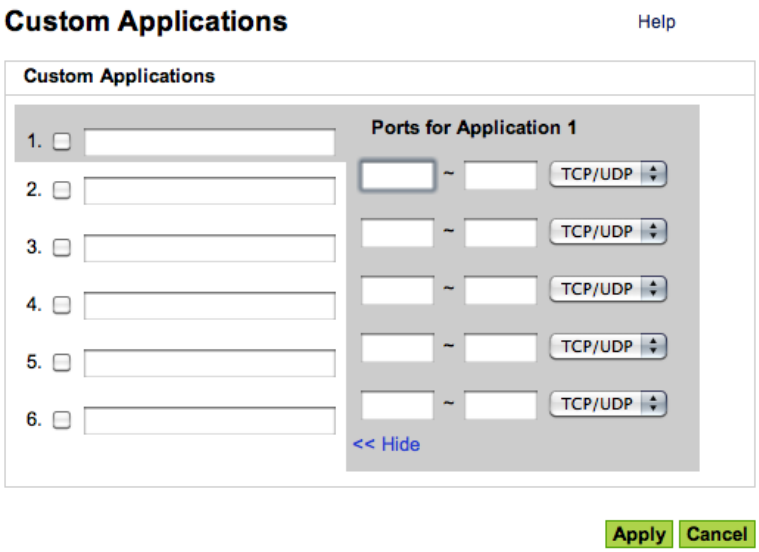
1. Open the page.
2. Select the **Enable Port Filtering** checkbox.
3. Click **Custom Applications**.

   The Custom Applications page opens.



❹ Enter a name for the application and click the **Ports** link.

The Ports for Application # entry area overlay the page.



❺ Enter the port number or port number range. You can enter up to five ports or port ranges for each application.

- **Single port** — enter the port number in both fields.
- **Port range** — enter the beginning port in the left field and the ending port in the right field.

❻ For each port row, select the protocol (TCP, UDP, or both) used by that port or port range.

❼ Click **Hide**.

❽ Click **Apply** on the Custom Applications page.

❾ Click **Apply** on the Port Filtering page.

Port Forwarding

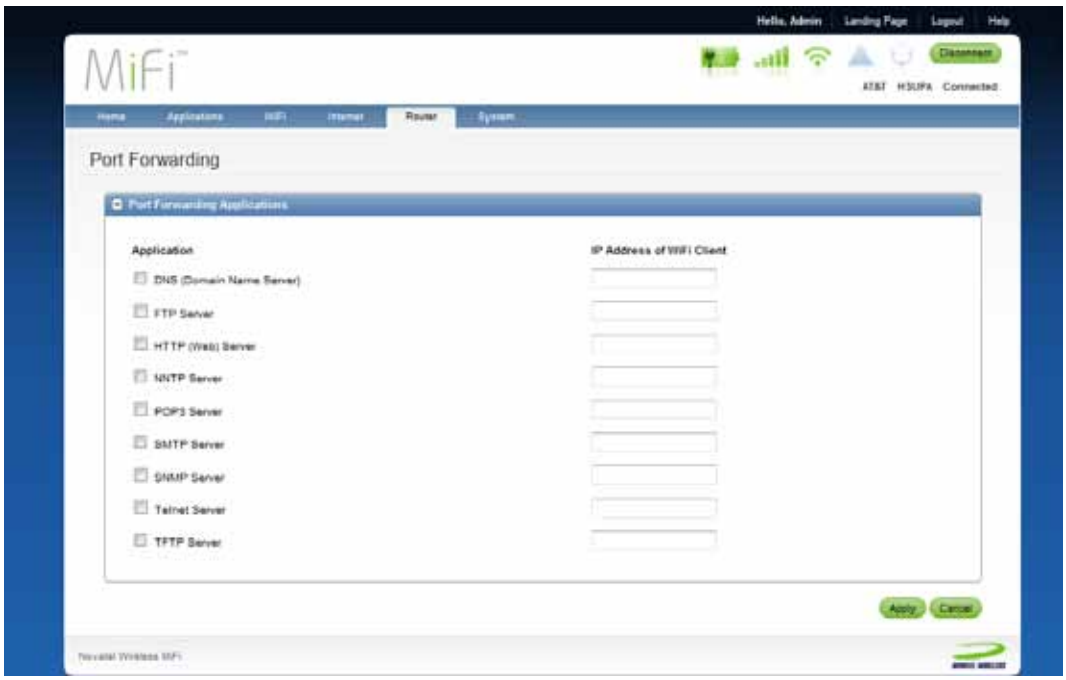
Incoming traffic from the Internet is normally prevented by the firewall from reaching devices on your local wireless network. Use port forwarding to allow Internet users to reach any server you are running on your computer, such as an FTP server. Also some online games require incoming access to work properly.

IMPORTANT You will need to set up static IP addresses on your WLAN for each device that has an application you want to forward to.

Opening the Page

➤ Choose **Router > Port Forwarding** from the menu bar.

The Port Forwarding page opens.



Port Forwarding Page

This page allows you to enter the local static IP address for each application that you want to receive traffic from the Internet.

❶ Select the checkbox for the application you want to enable.

❷ Enter the local static IP address of the device hosting the application in the **IP Address of WiFi Client** field.

❸ Click **Apply**.

IMPORTANT Port forwarding creates a security risk and should be disabled when not required.

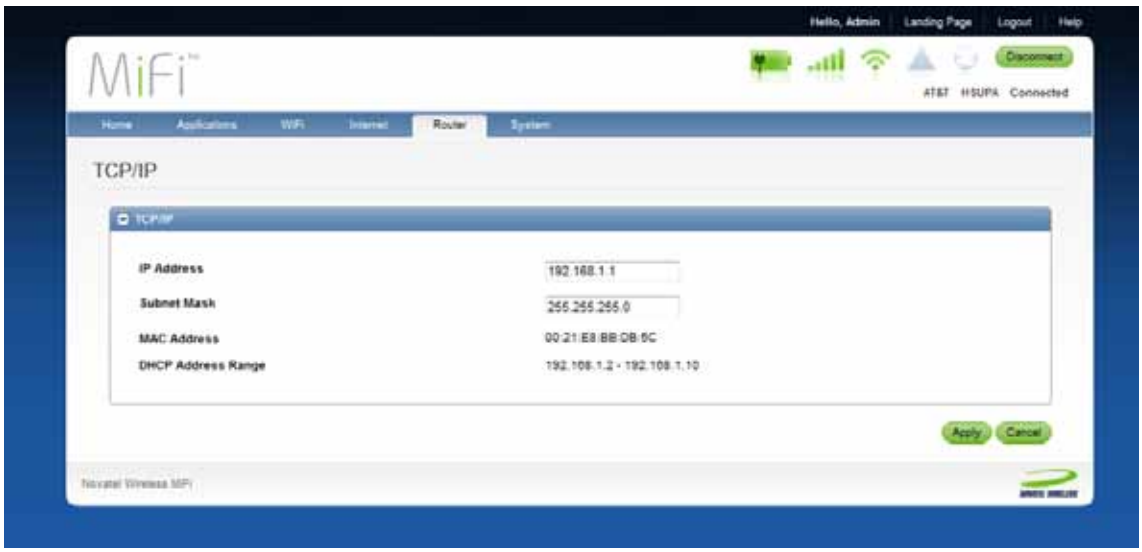
TCP/IP

The TCP/IP page allows you to view the local (WLAN) IP address and the MAC address for your MiFi device.

Opening the Page

➤ Choose **Router > TCP/IP** from the menu bar.

The TCP/IP page opens.



TCP/IP Page

This page gives you the following status information about your device:

- Local IP Address
- Subnet Mask
- MAC Address of your MiFi device
- DHCP Address Range used by the MiFi DHCP server

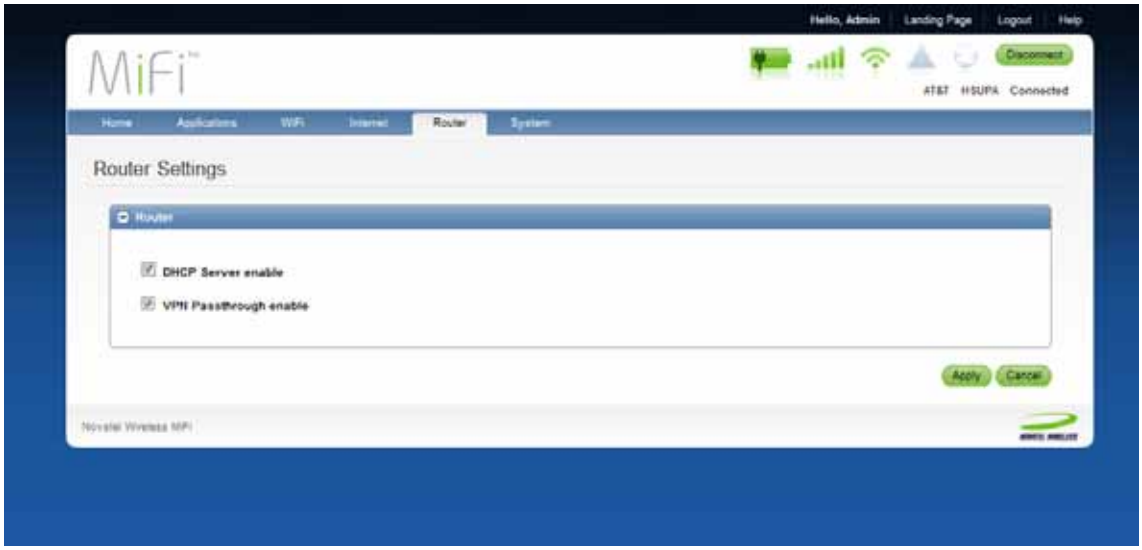
Router Settings

The Router Settings page allows you to enable DHCP and allow VPN passthrough.

Opening the Page

➤ Choose **Router > Settings** from the menu bar.

The Router Settings page opens.



Router Settings Page

DHCP Server enable

DHCP Server allows the device to automatically assign a local IP address to a new device joining your network (such as a wireless printer or additional laptop). Without DHCP Server enabled, you will have to assign static IP addresses to all devices on your network.

➤ Select or deselect the checkbox to enable or disable the DHCP server and click **Apply**.

VPN Passthrough enable

VPN Passthrough is required if you are going to connect to a VPN (such as to your office).

➤ Select or deselect the checkbox to enable or disable VPN Passthrough and click **Apply**.

System Configuration

The System Menu gives you access to settings and features that affect your MiFi device as a whole.

The section contains the following information:

- System Status
- Power Management
- Password
- System Settings

System Menu

❶ Choose **System** from the menu bar.

❷ Select one of the following:

- **Status** — to view information about your device and a system log.
- **Software Update** — to update the software.
- **Power Management** — to set power saving modes.
- **Password** — to set the administrative password.
- **Settings** — to set the interface language and date and time formats.

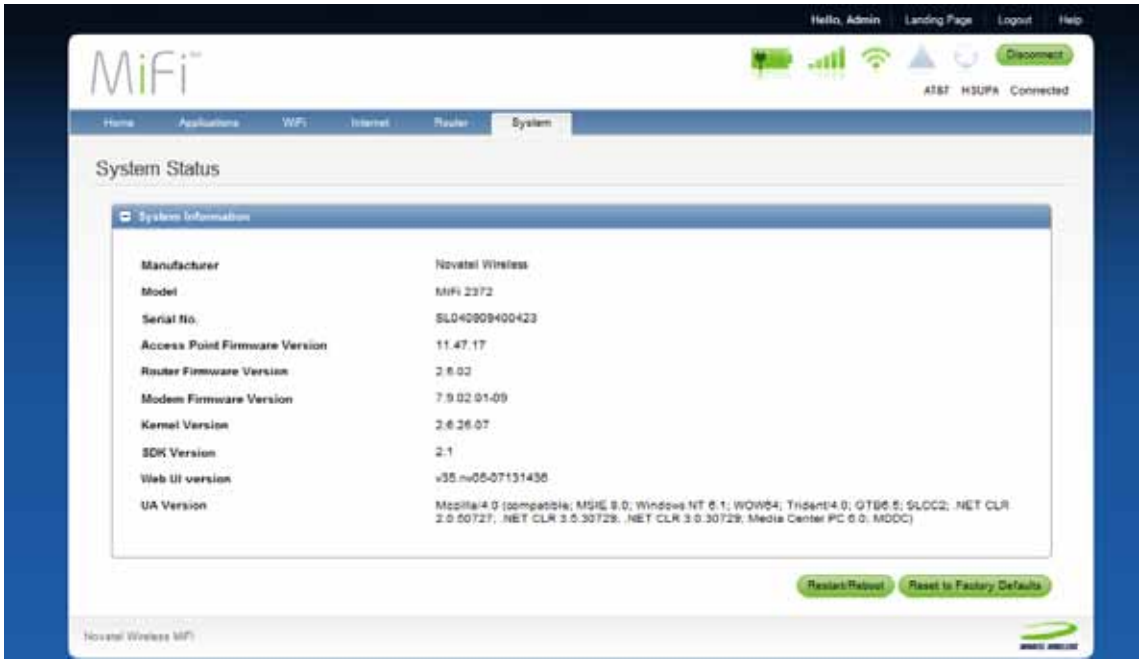
System Status

The System Status page provides you with information about your MiFi device.

Opening the Page

➤ Choose **System** > **System Status** from the menu bar.

The System Status page opens.



System Status Page

System Information

System Information includes the following:

- Manufacturer – Novatel Wireless
- Model Number
- Serial Number
- Access Point Firmware Version
- Router Firmware Version
- Modem Firmware Version
- Kernel Version
- SDK Version
- Web User Interface Version
- User Agent Version

Restart/Reboot

You can restart your MiFi device from this page.

➤ Click **Restart/Reboot** to reset your MiFi device (as if you turned the power off then on again).

IMPORTANT Your Internet and WiFi connections will be lost and you will have to reconnect.

Reset to Factory Defaults

➤ Click **Reset to Factory Defaults** to set all settings back to factory settings.

IMPORTANT

- Your Internet and WiFi connections will be lost and you will have to reconnect.
- In addition, you will have to reconfigure your profiles.

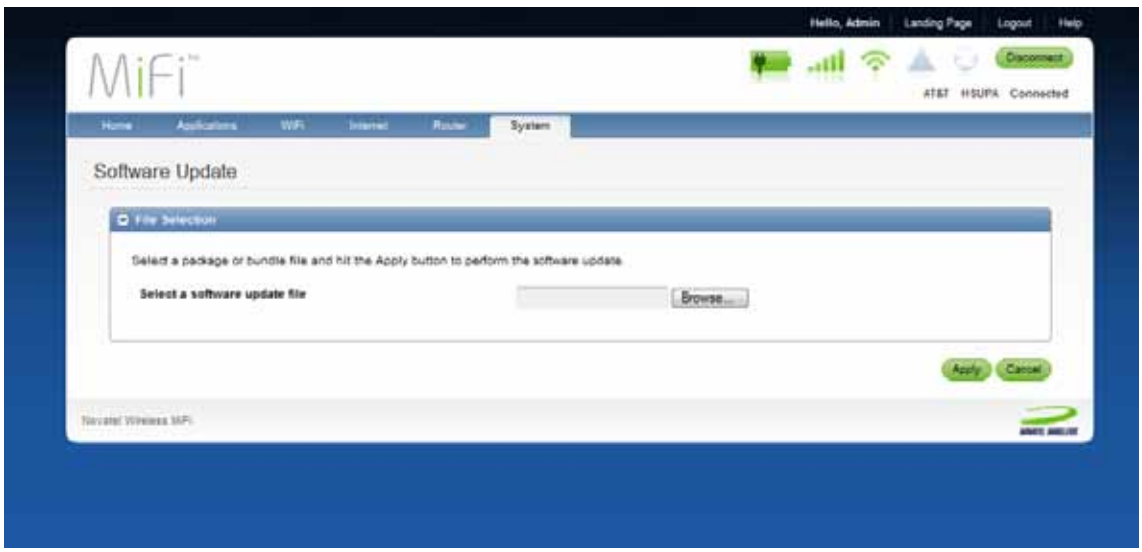
Software Update

The Software Update page allows you to upload a package or bundle file to update your software.

Opening the Page

➤ Choose **System > Software Update** from the menu bar.

The Backup/Restore page opens.



Software Update Page

➤ Click **Choose File** to upload a software update file.

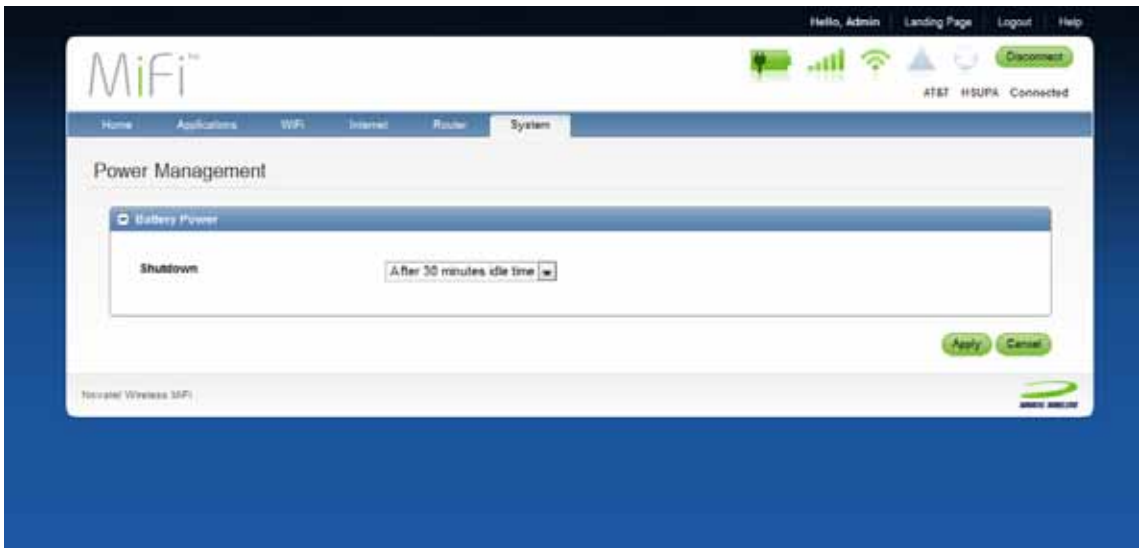
Power Management

Your MiFi device can turn itself off when it is idle and running on battery power. The Power Management page allows you to set the timing for when your MiFi device switches off.

Opening the Page

➤ Choose **System** > **Power Management** from the menu bar.

The Power Management page opens.



Power Management Page

The Power Management page allows you to set your MiFi device to turn itself off when it is idle and running on battery power.

➤ Select when you want your MiFi device to turn off when it is idle and running on battery power and click **Apply**.

The options range from Never to 60 minutes.

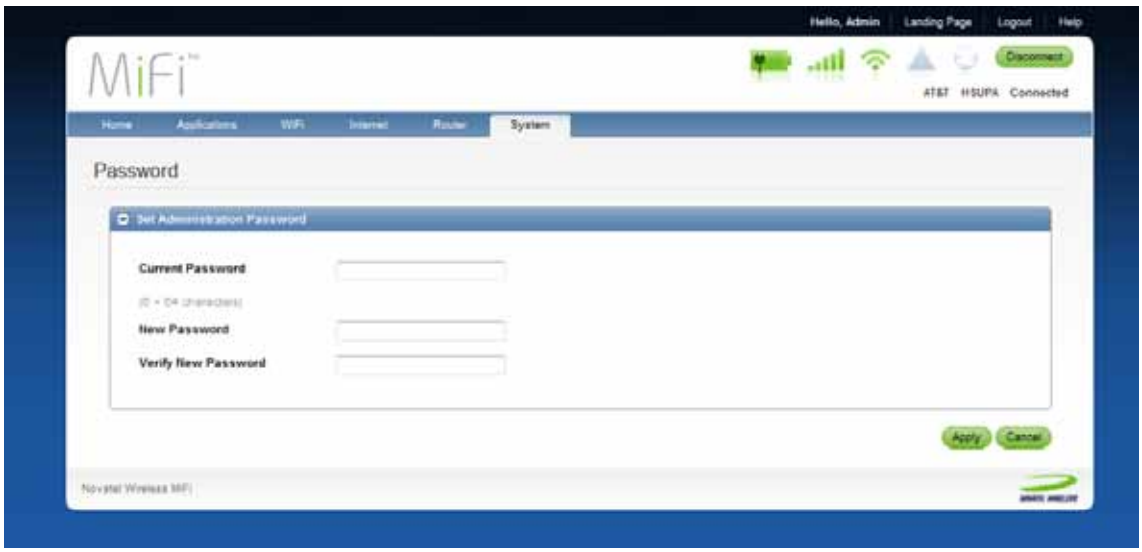
Password

The Password page allows you to change the administrative password that gives access to the browser interface.

Opening the Page

➤ Choose **System** > **Password** from the menu bar.

The Password page opens.



Password Page

This page allows you to create a new administrative password.

❶ Type your current password in the Current Password box.

❷ Enter the new password (must have 4 to 64 characters) in the New Password box and again in the Verify New Password box.

❸ Click **Apply.**

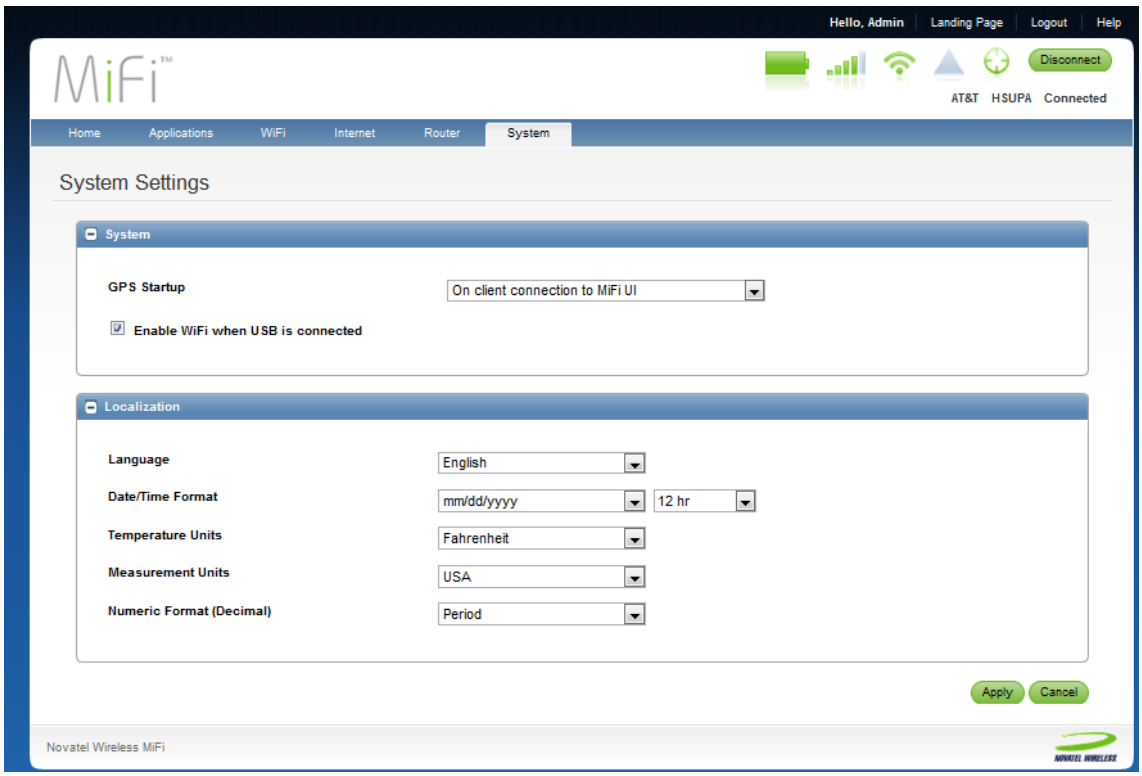
System Settings

The System Settings page allows you to change the interface language and the date and time format used in the browser interface. You can also enable the system log from this page. The system log is used for troubleshooting and should usually be left disabled.

Opening the Page

➤ Choose **System > System Settings** from the menu bar.

The System Settings page opens.



System Settings Page

GPS Startup

You can determine when GPS service starts:

- Never
- On power up
- On WiFi client connection
- On client connection to MiFi UI

Localization

This section allows you to set the language, date and time format, temperature and measurement units, and numeric format (decimal).

❶ Select the language you want to use from the list.

❷ Select the Date/Time format you want to use from the list.

You can choose between 24 and 12 hour time display and European (dd/mm/yyyy) and U.S. (mm/dd/yyyy) date formats.

❸ Select the Temperature units you want to use from the list.

❹ Select the Measurement units you want to use from the list.

❺ Select the Numeric Format you want to use from the list.

❻ Click **Apply.**

4

Troubleshooting

Overview
Common Problems and Solutions
Using the Master Reset Button

Overview

The following tips will help solve many common problems encountered while using your MiFi device.

- Ensure you are using your MiFi device in the correct geographic region.
- Ensure your network operator's wireless coverage extends to your current location.
- Ensure the SIM card is correctly installed.
- Ensure the battery is fully charged.

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

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

Common Problems and Solutions

Before you read on, all of the steps mentioned here are given in more detailed form elsewhere in the user guide. When a reference is given, click the link to go to the more detailed information.

The following are some common problems and solutions.

I get a "No service is available" or a "Limited or No Connectivity" message.

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

The device has no power.

The LED indicator is off and does not come on when the Power button is pressed.

- ➤ Ensure the battery is properly seated in the device.
- ➤ Ensure the battery is fully charged. Plug in the AC mains charger for at least 4 hours.

I forgot my password.

- ➤ You can reset the device to factory defaults using the master reset button. [See Using the Master Reset Button (page 72).]

I cannot connect to my MiFi device.

❶ Make sure the WiFi LED is on (it should be solid, not blinking).

If the LEDs are not on, check your battery.

❷ Make sure your Windows PC / Mac AirPort is turned on. (Check your computer's Help if you need assistance.)

❸ Open your wireless network connection list.

- **Windows**: Right-click the wireless icon and select **View Available Networks**.
- **Mac**: Click the AirPort icon in the menu bar and pull down the list of networks.

❹ Select the MiFi network name.

Mac: Connects automatically.

Windows: Click **Connect**.

When the your MiFi device is connected to the network, the WiFi LED begins to blink.

My network does not appear in the wireless network list.

➤ Verify the MiFi LEDs are on and are not showing an error condition. [See LED States (page 6).]

➤ Refresh your network list.

- **Windows**: Click **Refresh Network List** on the left side of the Wireless Network Connection screen. If that does not work you can try the following:
  1. Open **Network Connections**.
  2. Right-click **Wireless Network Connection** and select **Properties**.
  3. Click the **Wireless Networks** tab.
  4. Delete any unused wireless connections from the Preferred Networks list and click **OK**.
  5. Restart your computer.
- **Mac**: Click the AirPort icon in the menu bar and select **Turn AirPort Off**. Then click it again and select **Turn AirPort On**.

The LED is flashing red.

➤ See the complete list of LED states. [See LED States (page 6).]

➤ The SIM card might be locked. Enter your PIN code when prompted. If you enter the wrong PIN code 3 times, you will be prompted to enter your PUK code. If you enter the wrong PUK code 10 times, your SIM card will be disabled. Contact your network operator to obtain a new SIM card.

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

➤ Check the user name, password, and access point name (APN) in your connection profile. If any of these are wrong, you can not connect to the network.

How do I disconnect from the network?

➤ Log in to the MiFi Home page. Click **Disconnect**.

1. Open the MiFi Home page.
2. Then type your administrative password into the login field and then click **Login**.
3. Click the **Disconnect** button.

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

➤ Open the MiFi Home page. The number of clients (users) currently connected to your MiFi device is in the WiFi section at the bottom of the screen.

How can I set a new PIN for my SIM card?

➤ Set a new PIN using the MiFi browser interface. Go to **Internet** > **SIM**. [See SIM (page 48).]

Where can I find information about Internet connectivity and my WiFi setup?

➤ Log in to the MiFi Home page. Go to **WiFi** > **Settings**. [See WiFi Settings (page 43).]

How do I check the model number and firmware versions of my MiFi device?

➤ Log in to the MiFi Home page. Go to **System** > **Status**. [See System Status (page 60).]

How can I check the battery level of my MiFi device?

➤ Open the MiFi Landing page. The battery status icon is displayed in the upper right corner of the window. For more detailed information, login and choose **Internet** > **Diagnostics**. Then click **Modem Status**.

Where can I find my IMEI number?

➤ Log in to the MiFi Home page. Go to **Internet** > **Diagnostics**.

How do I check the available space on the microSDHC card?

➤ Log in to the MiFi Home page. Go to **Applications** > **File Sharing**.

How do I turn off my MiFi device?

➤ Press and hold the Power button for 5 seconds until the LEDs turn off.

What is the default administrative/login password?

➤ admin

How do I access information on the WiFi network and WiFi clients?

➤ Log in to the MiFi Home page. Go to **WiFi** > **Status**. [See WiFi Status (page 36).]

I am having trouble connecting to my office VPN.

➤ Log in to the MiFi Home page. Go to **Router** > **Settings**. Select the **VPN Passthrough enable** checkbox and then click **Apply**.

Using the Master Reset Button

Your MiFi device comes with a master reset button that allows you to return it to its factory default state.

The master reset button is recessed in a hole on the back of the device. You need a paperclip or similar object to push the button.

1. Make sure your MiFi device is powered on.
2. Locate the master reset button on the back of the device next to the label.

3. Insert a paper clip into the hole and hold the button down for five (5) seconds until the LED goes off.

   Your list of wireless networks will now show the original default network when you first configured your device.

4. Connect to your MiFi device again and reconfigure it. You will have to enter your APN and other information again.

5

Product Specifications and Regulatory Information

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

Product Specifications

Interface

microUSB	
microSDHC	Up to 32GB
SIM socket	1.8V and 3.0V standard USIM

Mechanical

Dimensions (W x D x H)	62 mm x 98 mm x 15.3 mm
Weight	81 g
LED	Two: status and WiFi indicators

Technology/Bands

Tri-band HSUPA/HSDPA	850/1900/2100 MHz
Quad-band GPRS/EDGE	850/900/1800/1900 MHz
WCDMA	3GPP Release 99
HSDPA	3GPP Release 5
HSUPA	3GPP Release 6
CE Marking	
GCF	
PTCRB	
GSM	Phase 2+
Microsoft WHQL	
Wi-Fi Alliance	
R&TTE	Directive 1999/5/EC (health,safety, EMC, spectrum) compliant
RoHS	Directive 2002/95/EC compliant
WEEE	Directive 2002/96/EC compliant
A-Tick	
ICASA	
Industry Canada	

Regulatory

CE Marking

This device has been tested to and conforms to the essential regulatory requirements of the European Union R&TTE directive 1999/5/EC and has attained CD Marking.

Federal Communications Commission Notice (FCC United States)

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 and Industry Canada ICES-003. 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 and Industry Canada ICES-003 for EMI compliance.

Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. 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 DEVICE IS FACTORY TUNED. NO CUSTOMER CALIBRATION OR TUNING IS REQUIRED. CONTACT TECHNICAL SUPPORT FOR INFORMATION ABOUT SERVICING YOUR WIRELESS COMMUNICATION DEVICE.

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

NOTE: The Radio Frequency (RF) emitter installed in your device must not be located or operated in conjunction with any other antenna or transmitter, unless specifically authorized by Novatel Wireless Technologies.

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

FCC Equipment Authorization ID:
NBZNRM-MIFI2372

This device is only authorized for use in Mobile applications. At least 20 cm (8 in.) of separation between the antenna and the user's body must be maintained at all times.

Limitation of Liability

The information in this manual is subject to change without notice and does not represent a commitment on the part of Novatel Wireless. NOVATEL WIRELESS AND ITS AFFILIATES SPECIFICALLY DISCLAIM LIABILITY FOR ANY AND ALL DIRECT, INDIRECT, SPECIAL, GENERAL, INCIDENTAL, CONSEQUENTIAL, PUNITIVE OR EXEMPLARY DAMAGES INCLUDING, BUT NOT LIMITED TO, LOSS OF PROFITS OR REVENUE OR ANTICIPATED PROFITS OR REVENUE ARISING OUT OF THE USE OR INABILITY TO USE ANY NOVATEL WIRELESS PRODUCT, EVEN IF NOVATEL WIRELESS AND/OR ITS AFFILIATES HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES OR THEY ARE FORESEEABLE OR FOR CLAIMS BY ANY THIRD PARTY.

Notwithstanding the foregoing, in no event shall Novatel Wireless and/or its affiliates aggregate liability arising under or in connection with the Novatel Wireless product, regardless of the number of events, occurrences, or claims giving rise to liability, be in excess of the price paid by the purchaser for the Novatel Wireless product.

Safety Hazards

Do not operate your MiFi device in an environment that may 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 your MiFi device (or the host device and remove the modem from the USB port) when instructed to do so, or when you suspect that it may cause interference or danger.

Where explosive atmospheres may be present

- Do not operate your modem in any area where a potentially explosive atmosphere may 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 modem 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 may be susceptible to any form of radio interference. In such areas, the host communications device must be turned off. The device may 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 your MiFi device (or the host device is turned off) and (if in USB Mode, your modem is removed from the USB port) 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.

Proper Battery Use and Disposal

CAUTION! Never dispose of batteries in a fire because they might explode.

WARNING!

In the 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.

Contact your local recycling center for proper battery disposal.

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 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 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 device or battery. If the device or the battery is dropped, especially on a hard surface, and the user suspects damage, take it to a service centre for inspection.
- Improper battery use may result in a fire, explosion, or other hazard.

Limited Warranty and Liability

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Glossary

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- **3G** — Third Generation. 3G refers to the third generation of mobile telephony technology..
- **802.11 (b, g, n)** — A set of WLAN communication standards in the 2.4, 3.6 and 5 GHz frequency bands.
- **Access Point** — A device that allows wireless communication devices to connect to a wireless network using a standard such as WiFi.
- **APN** — Access Point Name. The APN is an alphanumeric string that identifies the particular network service that is being accessed. These are used by GPRS and UMTS networks.
- **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.
- **CDMA** — Code Division Multiple Access. It is the underlying channel access method used by some mobile phone standards.
- **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.
- **EDGE** — Enhanced Data for GSM Environment or Enhanced Data rates for Global Evolution. A faster version of GSM wireless service, it allows data to be delivered at rates of 384 Kbps and enables the delivery of multimedia and other broadband applications. EDGE became available in 2001.
- **ESN** — Electronic Serial Number. A unique 32-bit number embedded in a wireless device that identifies the device.
- **Firewall** — A hardware or software boundary that protects a network or single computer from unwanted outside traffic.
- **Firmware** — A computer program embedded in an electronic device. Firmware usually contains operating code for the device.
- **FTP** — File Transfer Protocol. A network protocol for exchanging files over a TCP network.
- **Gateway** — A network point that acts as an entrance to another network that uses a different protocol.
- **GPRS** — General Packet Radio Services. A system used by GSM mobile phones for transmitting IP packets. It also provides support for WCDMA based 3G networks.
- **GSM** — Global System for Mobile communication. A digital mobile telephony system widely used in Europe and other parts of the world. GSM was first launched in 1991 and is the most widely used of the three digital wireless telephony technologies (TDMA, GSM, and CDMA). GSM uses a variation of TDMA.
- **GPS** — Global Positioning System. A radio-based navigation system that allows users to determine

their location. The device uses satellite data to calculate its position. Commonly used in mapping and navigation systems.

- **Host Name** — The unique name by which a network-attached device is known on a network.
- **Hotspot** — A WiFi (802.11) access point or the area covered by an access point. Used for connecting to the Internet.
- **Hot-Swappable** — The ability to safely remove and replace a component (for example, a memory card or USB device) from a device or computer while it is powered on.
- **HSDPA** — High Speed Downlink Packet Access. HSDPA is an enhanced version of WCDMA that supports broadband connections with download speeds up to 7.2 Mbps. This enhanced 3G technology enables the download of high-bandwidth multimedia files, high resolution graphics, and other complex files, and allows viewing email attachments at broadband-like speeds.
- **HSPA** — High Speed Packet Access. A family of 3G services that is available to GSM carriers. It is a major enhancement from WCDMA.
- **HSPA+** — HSPA Evolution or HSPA Evolved. A 3G mobile telephony protocol with up-link speeds up to 11 Mbps and downlink speeds up to 42 Mbps.
- **HSUPA** — High Speed Uplink Packet Access. A 3G mobile telephony protocol with up-link speeds up to 5.76 Mbps and downlink speeds up to 7.2 Mbps.
- **HTTP** — Hypertext Transfer Protocol. An application-level protocol for accessing the World Wide Web over the Internet.
- **ICCID** — Integrated Circuit Card IDentification. A serial number stored in and engraved or printed on a SIM card that internationally identifies the card.
- **IMEI** — International Mobile Equipment Identity. Used in GSM networks to identify the device. It is usually printed on the device and can often be retrieved using a USSD code.
- **IMSI** — International Mobile Subscriber Identity. Used in GSM networks to identify the subscriber Usually embedded in the SIM.
- **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)
- **Kbps** — Kilobits per second. The rate of data flow.
- **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.
- **LTE** — Long Term Evolution. A set of enhancements to UMTS that will provide high throughput, low latency, plug and play and seamless connection to existing networks such as GSM, cdmaOne, etc. LTE is one of the new emerging network technologies often referred to as 4G.

- **MAC Address** — Media Access Control. A number that uniquely identifies each network hardware device. MAC addresses are 12-digit hexadecimal numbers.
- **MEID** — Mobile Equipment IDentifier. A globally unique number for a physical piece of mobile station equipment.
- **Mbps** — Megabits per second.
- **microSD / microSDHC** — A small, removable flash memory card available in various storage sizes. Some products have a slot that allows them to utilize this external memory.
- **MSID** — Mobile Station IDentifier. A number for a mobile phone that identifies that phone to the network. These numbers are carrier specific.
- **MSL** — Master Subsidy Lock. A numeric code for accessing certain phone settings.
- **NAI** — Network Access Identifier. A standard way of identifying users who request access to a network.
- **NDIS** — Network Driver Interface Specification. NDIS is a Windows specification for how communication protocol programs (such as TCP/IP) and network device drivers should communicate with each other.
- **Network Mask** — A number that allows IP networks to be subdivided for security and performance.
- **Network Operator** — The vendor who provides your wireless access. Known by different names in different regions, some examples are: wireless provider, network operator, and service provider.
- **Network Technology** — The technology on which a particular network operator's system is built; such as GSM, HSPA, CDMA, EDGE, and EVDO.
- **NNTP** — Network News Transfer Protocol. An Internet application protocol for reading and posting Usenet (newsgroup) articles.
- **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.
- **Protocol** — A standard that enables connection, communication, and data transfer between computing endpoints.
- **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.
- **PUK code** (Pin Unlock Key) — A PUK is required when you enter an incorrect PIN 3 times. After entering the wrong PIN 3 times, the SIM card is disabled.

- **RAS** — Remote Access Service. A Windows NT/2000 Server feature that allows remote users access to the network from their Windows laptops or desktops via modem.
- **Rev A** — CDMA EV-DO Rev. A is a leading-edge wireless technology with higher data rates and higher system capacity. It is a fully backward compatible standard and remains interoperable with deployed EV-DO networks and devices around the world. The increased data rates on Rev. A's physical layer enable richer applications and services. For more information, visit www.cdg.org.
- **RFB** — Remote Frame Buffer. A protocol for remote access to graphical user interfaces.
- **Router** — A device that directs traffic from one network to another.
- **RTP** — Real-time Transport Protocol. A packet format for streaming multimedia over the Internet.
- **SIM** — Subscriber Identification Module. Found in GSM 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.
- **SMS** — Short Message Service. A service for sending short messages of up to 160 (224 in 5-bit mode) characters to mobile devices. SMS is also known as text messaging.
- **SSID** — Service Set IDentifier. The name assigned to a WiFi network.
- **TCP** — Transmission Control Protocol. A core protocol for transmitting and receiving information over the Internet.
- **TCP/IP** — Transmission Control Protocol/Internet Protocol. The set of communications protocols used for the Internet and other similar networks.
- **UI** — User Interface. The part of a software application or hardware device that a user sees and interacts with.
- **UMTS** — Universal Mobile Telecommunications Service. A third-generation broadband, packet-based transmission of text, digitized voice, video and multimedia at data rates up to 2 Mbps. UMTS offers a consistent set of services to mobile users all over the world. UMTS is based on the GSM standard. Until UMTS is fully implemented, users can use multi-mode devices that switch to currently available technology.
- **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).
- **USSD** — Unstructured Supplementary Service Data. A service found in HSPA/GSM networks that allows the user to retrieve information or implement certain types of call services.
- **VPN** — Virtual Private Network. A secure private network that runs over the public Internet. Commonly used to connect to an office network from elsewhere.
- **VPN Passthrough** — A feature that allows a client to connect to a VPN server.
- **WAN** — 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).

- **WCDMA** — Wideband Code-Division Multiple Access. A 3G mobile wireless technology that promises much higher data speeds to mobile and portable wireless devices. Another name for UMTS.
- **WEP** — Wired Equivalent Privacy. An IEEE standard security protocol for 802.11 networks. Superseded by WPA and WPA2.
- **Wi-Fi (R)** — Wireless Fidelity. Any system that uses the 802.11 wireless standard developed and released in 1997 by the IEEE.
- **WiFi Client** — A wireless device that connects to the Internet via WiFi.
- **WLAN** — Wireless Local Area Network. A typically low-power network that transmits a wireless signal over a span of a few hundred feet and usually only to stationary devices. Wi-Fi is the most common WLAN.
- **WPA/WPA2** — WiFi Protected Access. A security protocol for wireless 802.11 networks from the WiFi Alliance.
- **WWAN** — Wireless Wide Area Network. Wireless network technologies deployed over a large geographical area to a large number of users (see WLAN). This service is usually provided through cellular network operator s. WWAN connectivity allows a user with a laptop and a WWAN device to surf the Internet, check email, or connect to a virtual private network (VPN) from anywhere within the coverage area of the network operator.