C Spire Wireless 4G LTE Portable Wi-Fi Hotspot

R772

User Guide

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Get Started

Congratulations on your purchase of the R772, 4G LTE Portable Wi-Fi Hotspot. This section gives you all the information you need to set up your device and service the first time.

With the 4G LTE Portable Wi-Fi Hotspot, you can access C Spire Wireless 4G LTE network for faster uploads, downloads from your computer. Built-in Wi-Fi tethering function allows you to share up to 100Mbps LTE connection with other Wi-Fi equipped devices such as laptops, tablets, smart phones, and more.

Features

- Connect to 4G LTE high-speed wireless data with fall-back to 3G CDMA service
- Easy-to-use Web User Interface
- Graphic Color LCD User Interface
- Data Usage display
- Alert message (SMS MT)

Your Device at a Glance

Set Up Your Device

Insert USIM Card

Insert and Charge the Battery

Power the R772 On/Off

Activate Your Device

Account Information and Help

Your Device at a Glance

The 4G LTE Portable Wi-Fi Hotspot (R772) package includes:

R772 Main Set

Quick Start Guide

Travel Charger

Pouch

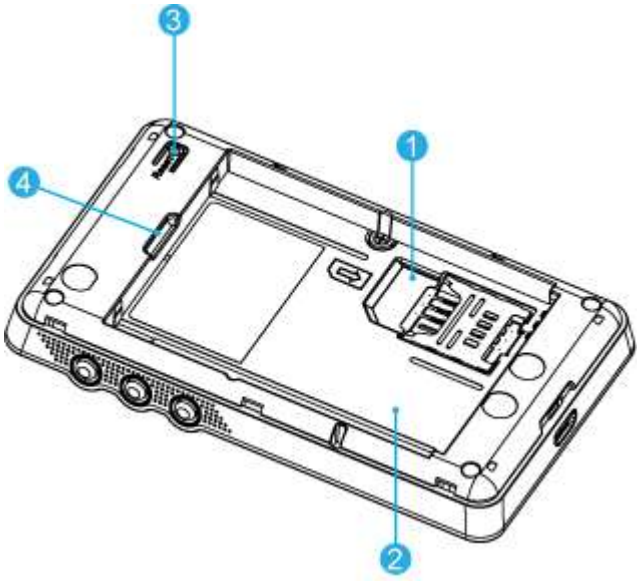
Battery Pack

USB Cable

The 4G LTE Portable Wi-Fi Hotspot (R772) Components:

Components	Functions	Description
① **Color LCD display**	6 icons / 4 display lines for alphanumeric character display	The display has 5 icons on the top, including signal strength, 4G/3G service indicator, alert message, roaming indicator, connected devices, and battery status. Under the icon line, the display has area for 4 line alphanumeric character display. For power save, the display automatically turns off in 10 seconds unless any function key is pressed by users.
② **Charging status LED**	Red/Green	When the battery is being charged, the LED is on in red. When the battery is fully charged, the LED color is changed to green.
③ **Micro USB Connector**		Connect the charger cable to the micro USB port of the device to charge the battery.

④	**Alert / Clear Button**	Press once Press & Hold	Press once to display alert messages. Press and hold the button to delete the message displayed.
⑤	**Usage Button**	Press once Press & Hold	Press once to display data usage information. Press and hold to reset the data usage information.
⑥	**Power Button**	Press & Hold	Press and hold the button to turn on or to turn off the device.



	Button/Connector	Description
①	**SIM card slot**	The 4G LTE SIM card is installed here.
②	**Battery compartment**	The battery comes in the compartment and locked with the battery cover.
③	**Master reset button**	Insert a paperclip in the small hole to reset the device to factory settings.
④	**Battery removal divot**	Insert a fingernail here and lift the battery to easily remove it.
⑤	**Network name and password label**	The pre-configured network name (SSID) and Wi-Fi Admin password are printed on a label inside the back cover of the device.

Insert USIM Card

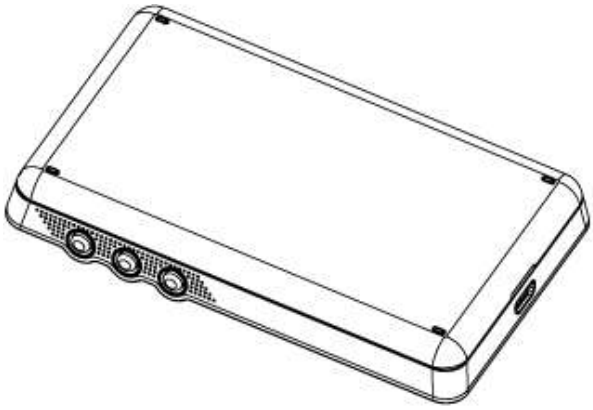
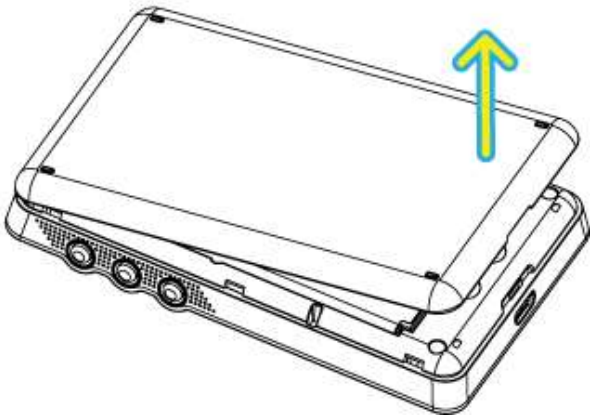
Please ensure that the C Spire USIM card has been inserted prior to use.

1. To open the USIM cover located on the back, press down firmly(1), and drag down(2) as indicated in the image below.
2. Insert the USIM card as shown in the picture.
3. Replace the cover by pressing down until you hear a click sound.

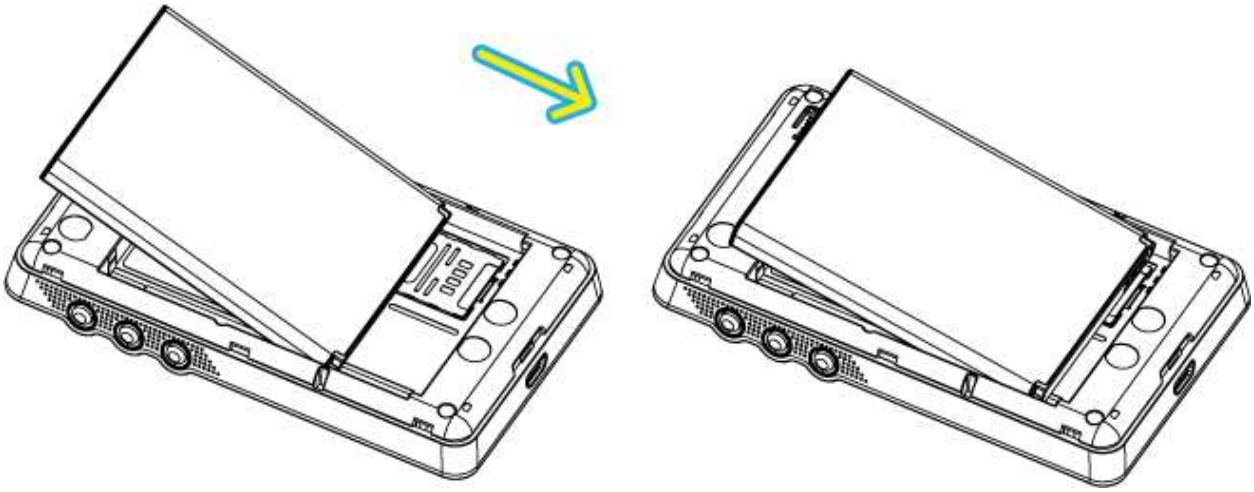
Insert and Charge the battery

To insert and charge the battery, follow the below steps.

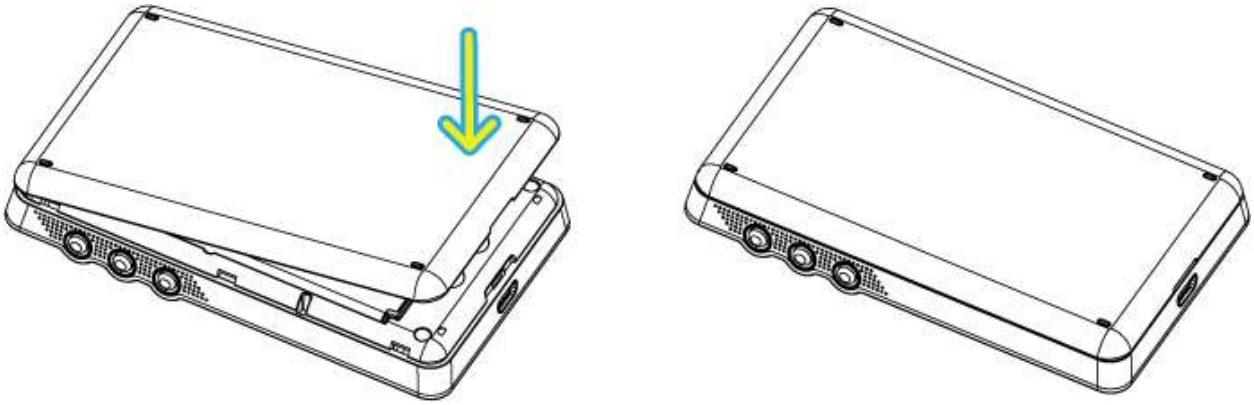
1. Use your fingernail into the hole on bottom side of the back cover and lift it to open the battery cover.

2. When inserting the battery, align the battery contacts with the contacts in the battery compartment and slide the battery into the battery compartment.



3. Replace the cover, and press the four sides of the battery cover until it clicks into each notch.



4. Connect the one end of the USB cable to the travel charger and also connect the other end of the USB cable to the micro USB port on the bottom side of the device.
5. Plug the travel charger into the appropriate electrical outlet to charge the battery. The charging status LED will be lit red while charging the battery. The LED color will be changed to green when the battery is fully charged.

Note: Before you use the device, be sure to charge the battery fully until the charging status LED turns green.

Important: Use the batteries and the chargers that have been approved by Franklin Wireless only for the device. The warranty is not valid with any damage caused by other batteries and chargers.

Power the R772 On and Off

Press and hold the Power Button on the side of the device until the LCD turns on and start displaying power-on animation.

To turn off the device, press and hold the Power Button again until the LCD start display power-off animation.

Activate Your Device

- When you receive your device, it may or may not be activated and ready to use. If you purchased your device at your service carrier store, it is probably activated and ready to use. Just insert C Spire SIM card into the SIM slot on the back side of the R772 device.
- If you received your device in the mail and it is for a new service account or a new line of service, it is designed to activate automatically. Just insert C Spire SIM card into the SIM slot on the back side of the R772 device.
- If you received your device in the mail and you are activating a new device for an existing number on your account (you're swapping devices), simply remove the SIM card from the old device and insert it into the SIM slot on the back side of the R772 device.

Note: If you are having any difficulty with activation, contact C Spire Customer Service by calling **1-855-CSPIRE5 (277-4735)** from any phone.

C Spire Account Information and Help

C Spire Account Passwords

As a C Spire customer, you enjoy unlimited access to your personal account information and your data services account. To ensure that no one else has access to your information, you will need to create passwords to protect your privacy.

Account User Name and Password

If you are the account owner, you will create an account user name and password when you sign on to cspire.com. (Click **My Account** to get started.)

Manage Your Account

Manage your C Spire account from your computer or any phone.

Online: cspire.com

- Access your account information.
- Check your data usage.
- View and pay your bill.
- Enroll in C Spire online billing and automatic payment.
- Purchase accessories.
- Shop for the latest C Spire phones and devices.
- View available C Spire service plans and options.

From Any Phone

- C Spire Customer Service: **1-855-CSPIRE5 (277-4735)**.

Using the R772, Portable Wi-Fi Hotspot

This section contains information on your device's connection and LCD user interface.

Connecting to the Device

Opening the Web Browser Interface

Device User Interface

Device UI Operation

Connecting to the Device

Now, you're ready to connect your computer or other Wi-Fi capable device to the R772 using Wi-Fi connection.

1. Turn your computer and the R772
   Power-on animation appears on the R772 LCD window. After playing power-on animation, the R772 will search for available 4G LTE or 3G services. R772 LCD window will display messages and service icons when it's connected to 4G or 3G network. Then, R772 broadcasts Wi-Fi network signal.

2. Use the Wi-Fi manager (Windows) or the AirPort menu bar (Mac OS) to connect to the Wi-Fi signal from the R772.

Note: The way to connect Wi-Fi network vary depending on your computer and its operation system. The typical way to do it for Windows is to select View Available Wireless Network in the notification area. For Mac OS, the AirPort icon in the menu bar is used. If you have any problem in setting up Wi-Fi connection on your computer, refer to the computer help system.

3. Select the Wi-Fi signal named "C Spire Portable WI-Fi Hotspot XXXX" where XXXX is the last four digit of Wi-Fi MAC ID found on the device sticker.
4. Once connected to the Wi-Fi network from the R772, you can open the internet browser in your computer and start surfing.

Important: There is no password pre-configured. Upon your first connection to the WI-Fi network from the R772, immediately change the Wi-Fi security settings to secure your connection security.

1. Type http://192.168.10.1 or http://cspire-admin into the address window and press Enter.
2. See "the Wi-Fi menu" on the page 16 of this manual.

Opening the Web Browser Interface

To use the Web browser interface, open the Web browser on your desktop and type http://cspire-admin or http://192.168.10.1 into the address window and press **Enter** or **Return**.

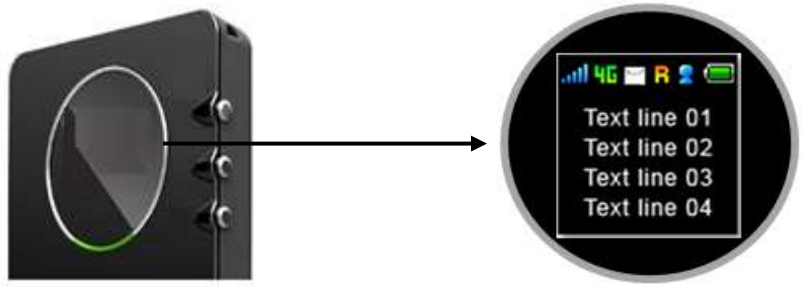
Go to “Your Device’s Web Browser Interface” on the page XX to see details of Web Browser Interface features.

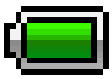
Device User Interface

The R772 has a graphic color LCD window and three functional buttons for user interaction. The LCD window displays various icons and text messages to show device status to the users. The three functional buttons allow the users to control the device functions and messages displayed on the LCD window.

Graphic Color LCD & Icons

The LCD window can display 6 different icons and 4 lines of text messages.

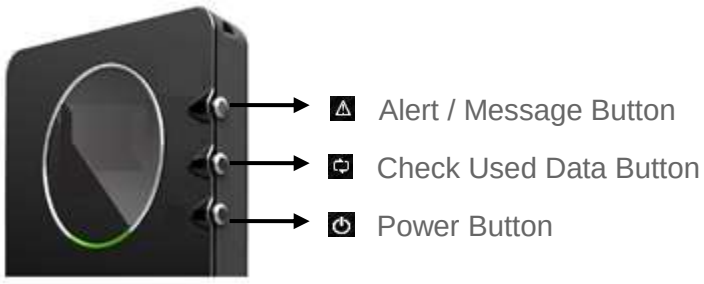


Icons	Name	Description
	Signal Strength	More bars indicate stronger signal.
	Battery	The longer green bar inside the battery outline indicates more battery power left. When the battery level gets very low, the battery outline will blinks and the warning message will be displayed.
	Connected Device	When multiple Wi-Fi devices are connected to the device, the number of connected devices is displayed next to the connected device icon.
	Alert / Message	The alert message icon will be on when there are messages from the network or alert messages from the device.
	4G/3G	4G icon or 3G icon appears on the same location in turns according to the network the device is currently getting service from.

	Roaming	This icon appears when the device is currently roaming.

Buttons

R772 has three buttons located on the right upper side of the device.



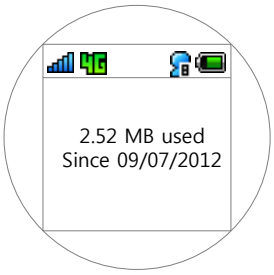
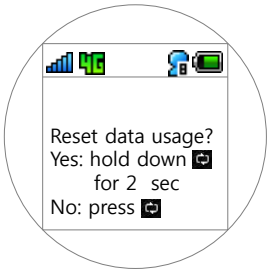
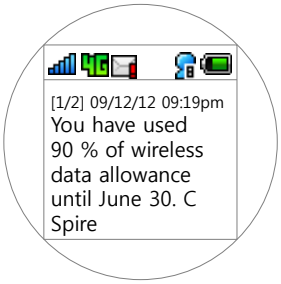
Buttons	Names	Description
	Alert / Message	This button is used to display or to control alert messages that were received or self-generated.
	Data Usage	This button is used to check wireless data usage and to reset the information.
	Power	This button is used to power on/off the device.

Device UI Operation

LCD window and function buttons operate combined and interactively to provide you with the device service status and information.

Device States	Buttons	Icons / Text	Description
Power on	Press and hold button for 3 seconds		C Spire animation logo is played, then the device starts searching for networks.

Power off	Press and hold button for 3 seconds		Power off animation displays for 2 seconds and goes off.
No 4G LTE SIM card or SIM card error			Insert or replace C Spire 4G LTE SIM card
Signal searching			The device is searching for service. Only connected device and battery icons appear.
Service status			When 4G LTE service is acquired, signal strength icon & 4G service icons appear. Date/Time/ Banner text appear. Default banner is C Spire Wireless. You can edit and personalize the banner from Web User Interface “Setting > Advanced Settings > General Settings > Banner Setting” menu.
			When 4G LTE is not available and 3G service is acquired, signal strength icon & 3G service icons appear. Date/Time/Banner text appears.

Data usage display	Press button once.		Press button once to display the data usage. "xxxx MB used since [date]" message appears for 10 seconds and return to main screen unless the button is pressed again to return to the main display.
Data usage reset	Press and hold button for 3 seconds.		While the data usage is displayed, press and hold button for 3 second. Upon warning message, press button once to keep current usage data and to return to main display or press and hold button for 2 seconds again to reset the data usage to zero. The data usage starts counting again from today. **Note:** The usage data is measured by your modem for your reference only. Your carrier's data usage accounting may differ.
Alert message display	Press button once.		The message icon appears when the device has self-generated alert message or network generated messages (SMS). Press button once to display the first message. Press button again to display the next message. Each message has the header in the form of [message no./ the total number of messages] [received date & time]
Alert message browsing	Press button once		Each time, button is pressed, messages keep displaying one by one in the order of occurrence or arrival. After displaying the final message, "End of Massage" is displayed. Press button again to returns to the main screen

Alert message delete	Press and hold ⚠ button for 3 seconds.		When a message is displayed, press and hold ⚠ for 2 seconds -> delete warning message -> press and hold ⚠ button for 2 second again to confirm deletion or press ⚠ button once to revert deleting and move to the next message or to the main screen.
Connected device icon display			When there are multi devices connected through Wi-Fi to your device, connected device icon appears with the number of connected devices on it.
Roaming icon display			When the device roams into other network than C Spire home network, roaming icon will appears.
Battery icon display			The longer the battery bar means the more battery power left. When the battery is very low, the battery outline blinks. Connect the charger immediately.

Your Device’s Web Browser Interface

This section contains information on your device’s browser interface.

The Browser Interface

Opening the Browser Interface

The Landing Page

Connecting to the Network

Device and network menu

The check usage menu

The Wi-Fi menu

The setting menu

The help menu

The Browser Interface

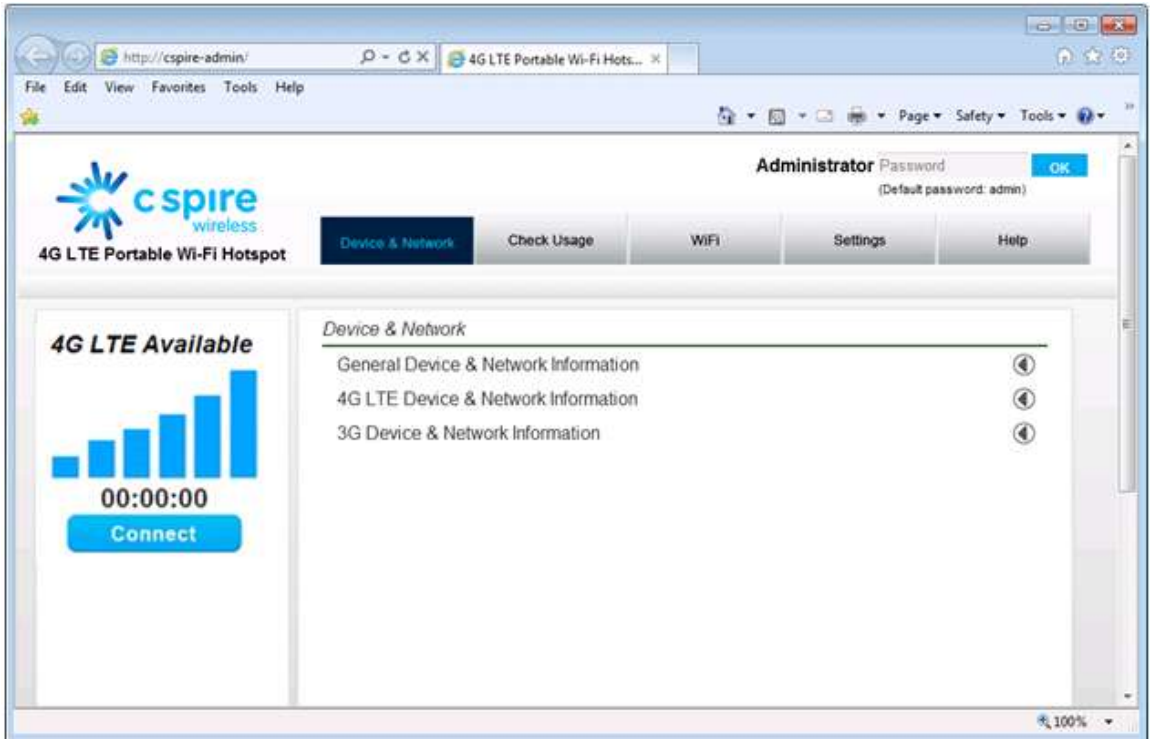
The Web browser interface is a Web-based connection manager for your device. It allows you to manage and monitor the Internet connection between your computer and the wireless network. It has a user-friendly interface and is equipped with many useful features that will enhance your Internet navigation experience.

Opening the Browser Interface

To use the Web browser interface, open the Web browser on your desktop and type http://cspire-admin or http://192.168.10.1 into the address window and press **Enter** or **Return**.

The Landing Page

The Web browser will open the main page for the 4G LTE Mobile Hotspot as shown below. From this page, you can see and manage available network connections, see your current connection state, and see signal strength at a glance. Detailed menus for status and settings are displayed across the top of the menu.



The main menu appears down across the top of the browser interface and allows for ease of Web browser interface navigation.

Information regarding your current network connection can be seen in the Network Connection Box displayed down the left side of the main page. This box displays both 3G and 4G service signals which are available. The box has the following items:

Service Type: Not Activated / 4G LTE Available / 4G Connected / 3G Available / 3G Connected
Signal Strength Bars: The more bars, the stronger is the service signal
Connection Time: Count starts when connected.
Connection button: Activate / Connect / Disconnect

Automatic connection mode and preferred service mode can be set from “Setting” menu in the main menu bar.

- **Service Type**: Displays service type your modem currently acquires.
- **Signal strength bar**: Displays your current signal strength. Supports 0- 6 levels of signal strength.
- **Connection time**: Displays the time after your device is connected.
- **Connection button**: Connects you to a network available.

The following table provides device status and connection button descriptions.

Status	Connection Button	Description
“Disconnected”	**Connect**	Radio power is on and device is disconnected. Ready to connect.
“Connected”	**Disconnect**	Device is connected and available to disconnect the connection.
“Not Activated”	**Activate**	Device activation is required.

Connecting to the Network

Once your device is properly configured, connecting to the Internet is as simple as clicking **Connect**. Once connected, **Connect** will change to **Disconnect**. Simply click **Disconnect** to end your current connection. To connect to any other network shown, select it, and then click **Connect**.

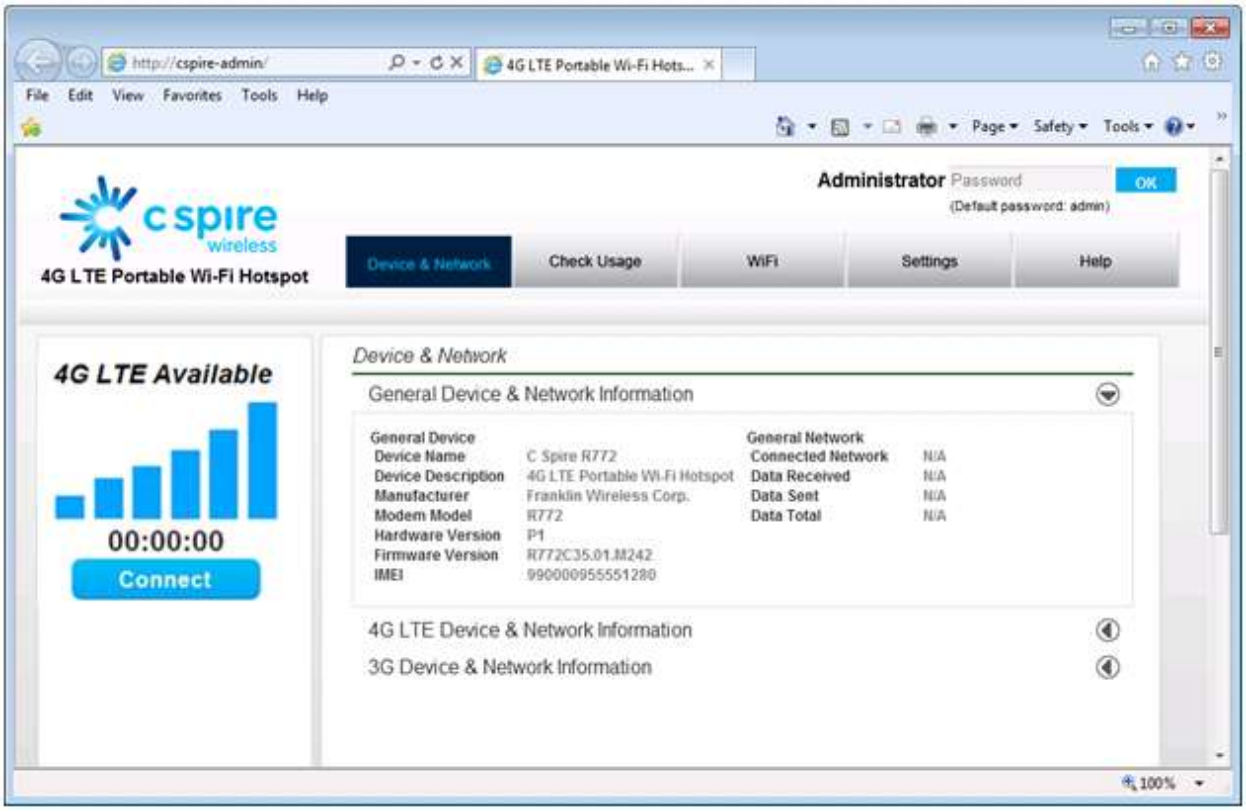
Navigating Web UI menu

The main menu appears down across the top of the browser interface. Simply click the menu in the main menu bar. The screen will display sub menus under each main menu item.

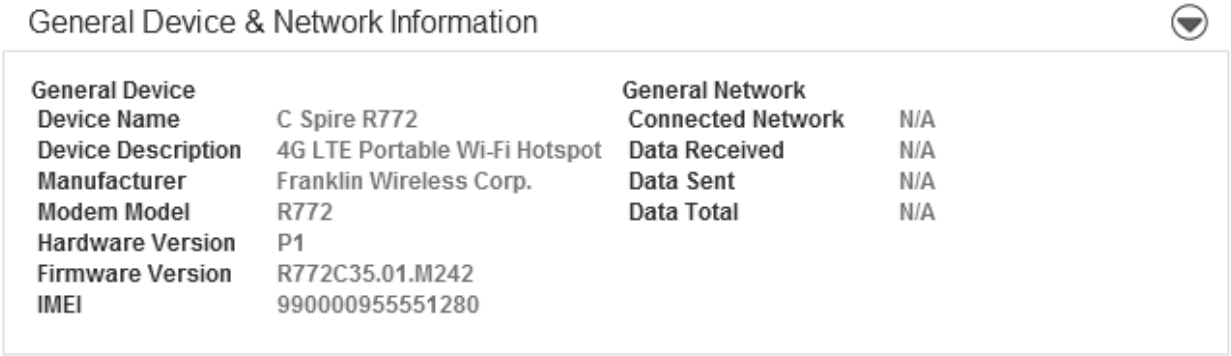
Click to open sub menu items. The icon will be changed to . Click to close the sub menu items.

The Device & Network Menu

The Device & Network menu allows you to view information about your device and network status.



General Device and Network Information



General Device

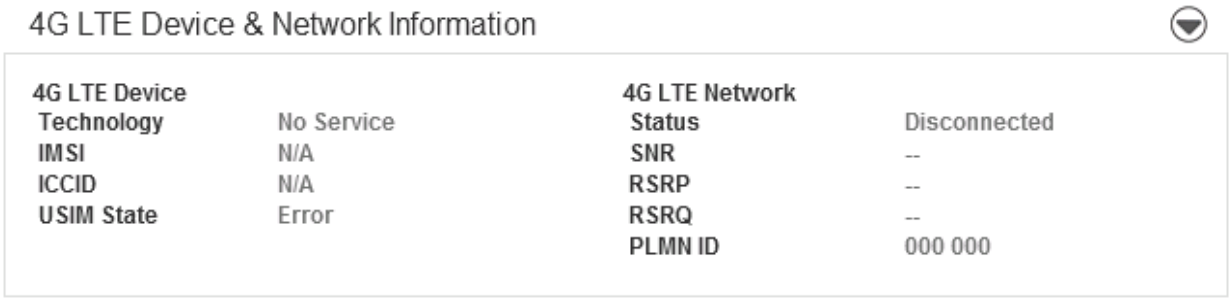
- **Device Name** – name of the device

- **Device Description** – description of the device
- **Manufacturer** – manufacturer of the device
- **Modem Model** – model name of the device
- **Hardware Version** – hardware version
- **CM Version** – current CM version

General Network

- **IP Address** – the current Internet Protocol address of the device
- **Gateway** – the current network point entrance address
- **DNS Server** – the current Domain Name Server system address
- **Data Received** – the number of bytes received
- **Data Sent** – the number of bytes sent
- **Data Total** – the total data received and sent

4G LTE Device and Network Information



4G LTE Device

- **Technology** – Long Term Evolution (LTE)
- **IMSI** – the International Mobile Subscriber Identity (IMSI) number
- **ICCID** – the Integrated Circuit Card ID (ICCID) number
- **USIM State** – the current state of the Universal Subscriber Identity Module (USIM)

4G LTE Network

- **Status** – current network status
- **SNR** – the current Signal-to-Noise Ration (SNR)

- **RSRP** – the current Reference Signal Received Power (RSRP)
- **RSRQ** – the current Reference Signal Received Quality (RSRQ)
- **PLMN ID** – the current state of Public Land Mobile Network ID

3G Device and Network Information

3G Device

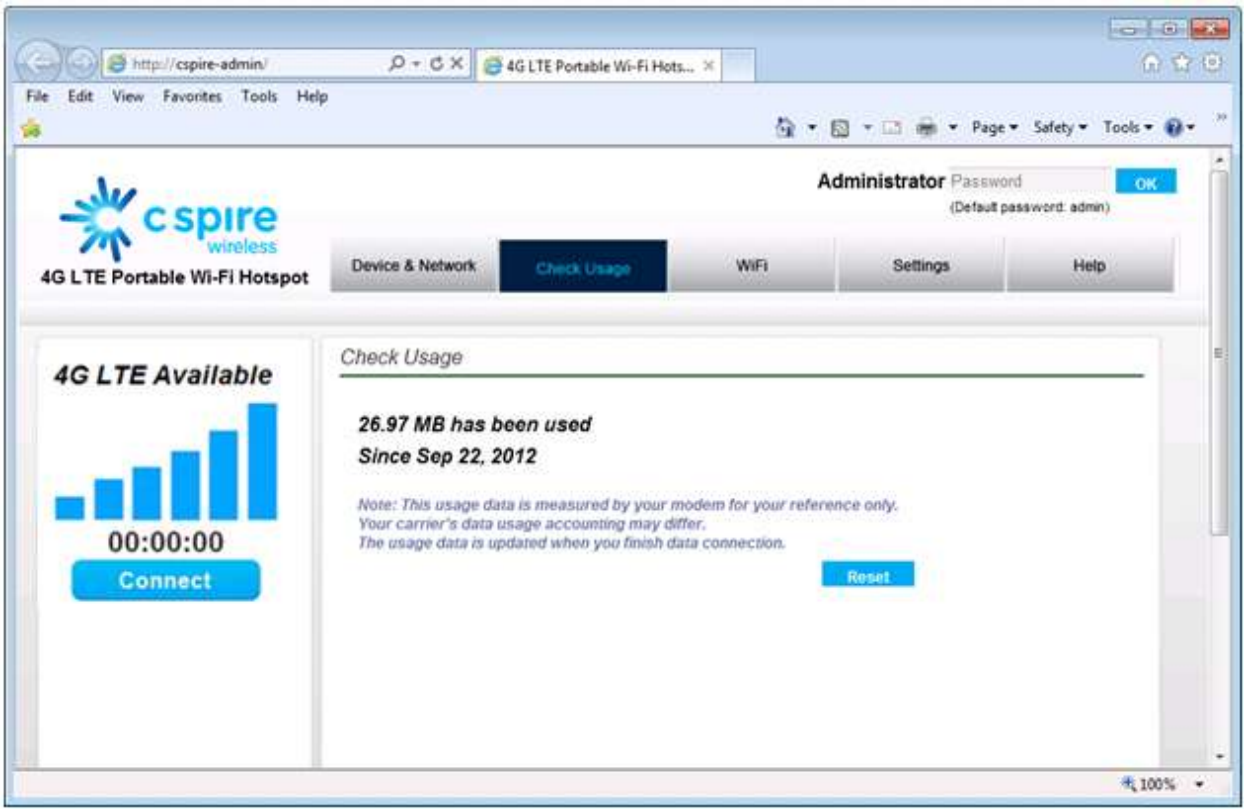
- **Technology** – type of network you are connected to
- **MEID** – unique number the network uses to identify your device
- **Firmware** – current internal software version
- **Phone Number (Mobile Data Number (MDN))** – the public ID for your specific wireless service
- **MSID (IMSI_S)** – internal ID C Spire uses to identify your account
- **Home Carrier ID** – ID of the network operator
- **PRL Version** – used to verify that your Preferred Roaming List is the most current

3G Network

- **Status** – current network status
- **Home Carrier Name** – name of the network operator
- **Ec/Io** – measurement in dB of current Ec/Io
- **RSSI** – measurement in dBm of current signal strength

The Check Usage Menu

The Check Usage menu allows you to review your usage history online. Please ensure that you have an Internet connection. Selecting the Check Usage menu displays your wireless data usage to date.

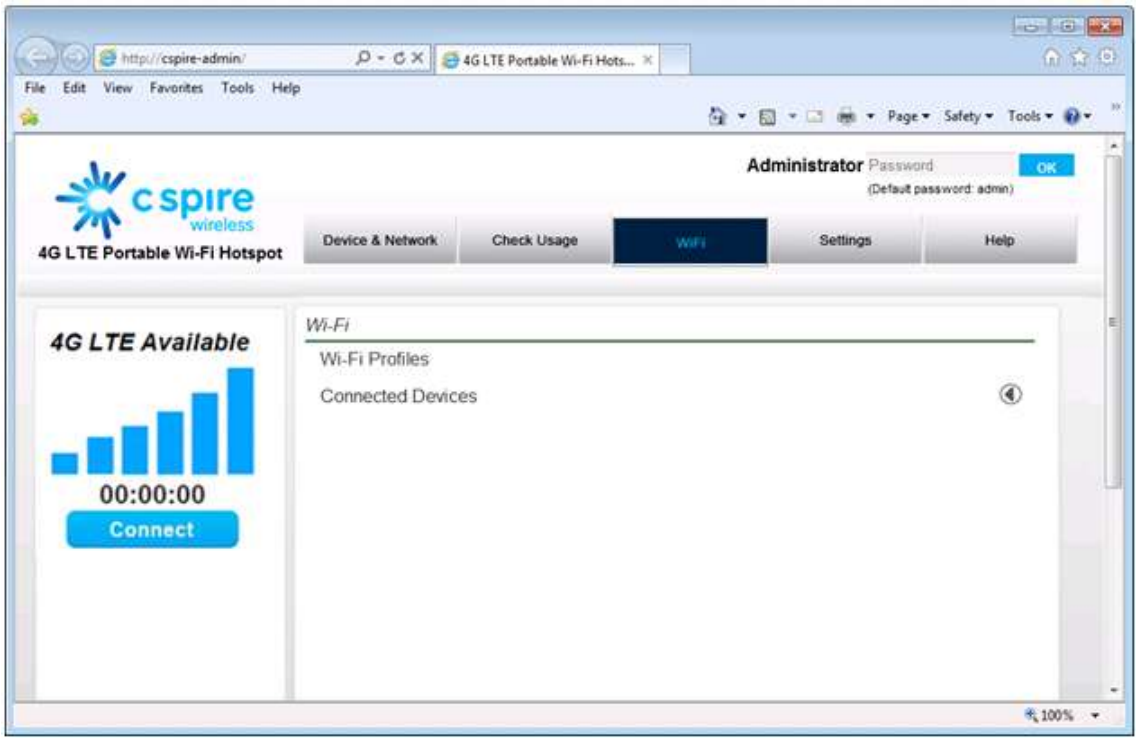


To reset usage data, click the reset button.

If “Yes” button is clicked, usage data will be reset to 0 and date will be set to the current date.

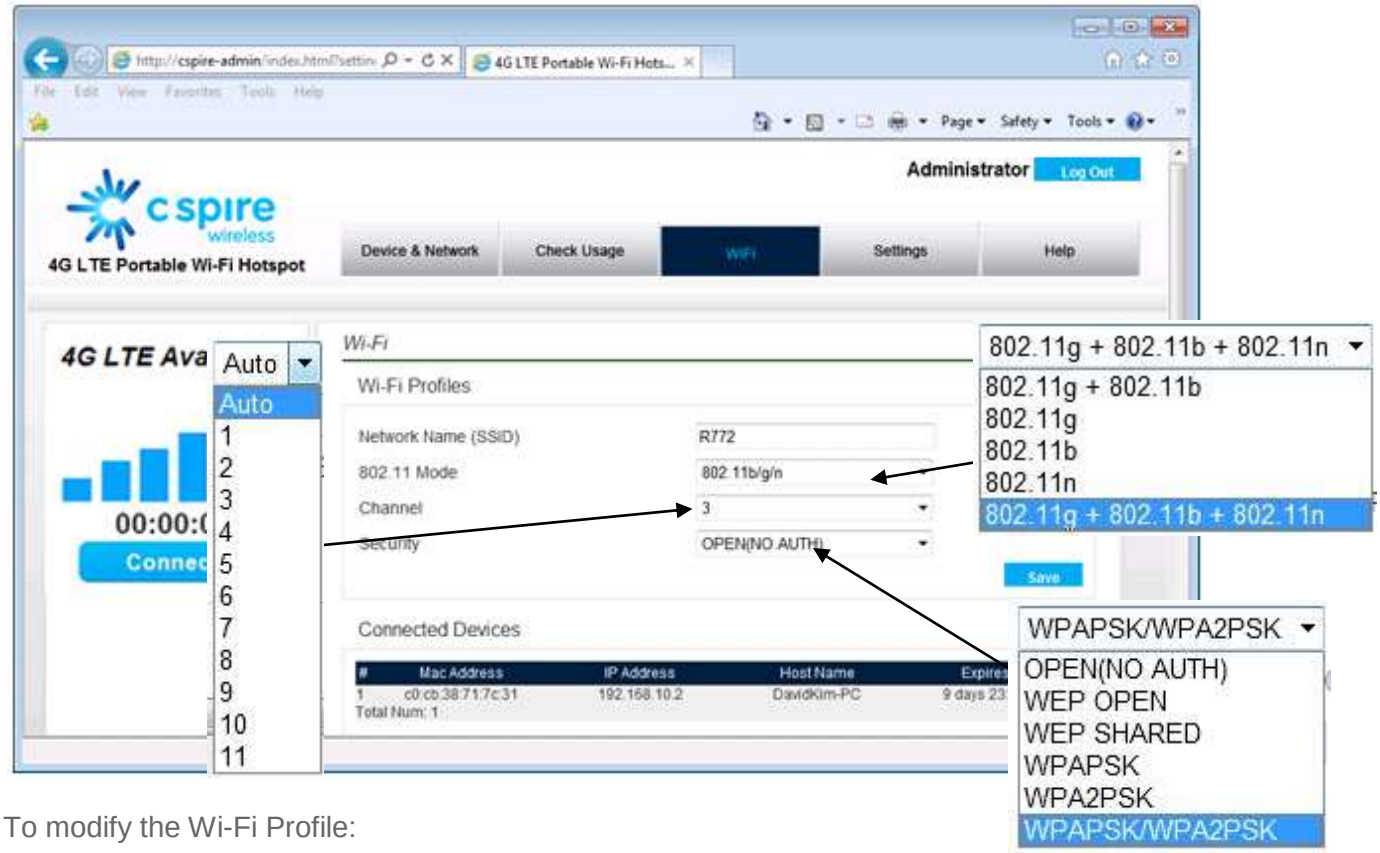
The Wi-Fi Menu

The Wi-Fi menu allows you to review and change your 4G LTE Mobile Hotspot Wi-Fi tethering configuration. In order to see the Wi-Fi menu, login as Administrator Administrator Password OK. The default administrator password is “admin”. You can change the default Administrator password from the Setting menu.



Wi-Fi Profile

When you open the Wi-Fi Profile menu, the following choices are available:



To modify the Wi-Fi Profile:

1. Enter new Network Name (SSID). Default SSID is C Spire 4G LTE Portable Wi-Fi Hotspot.
2. Click arrow button and select proper 802.11 Mode. Default mode is 802.11b/g/n.
3. Click Wi-Fi channel number. Default setting is Auto.
4. Enter your Wi-Fi security level. Default setting is Open (NO AUTH)
5. Enter your Wi-Fi password. Password requires at least 8 characters. For greater security, use a mixture of digits, upper case, lower case and other symbols.
6. Click **Save**

Connected Devices

When you open the “Connected Devices” you can see the devices currently connected to R772 through Wi-Fi connection. The Connected device section has the following ;

- **MAC Address** – The Media Access Controller or physical address of the device
- **IP Address** – The IP address assigned to the device by R772
- **Hostname** – The network name for the connected device (if available)

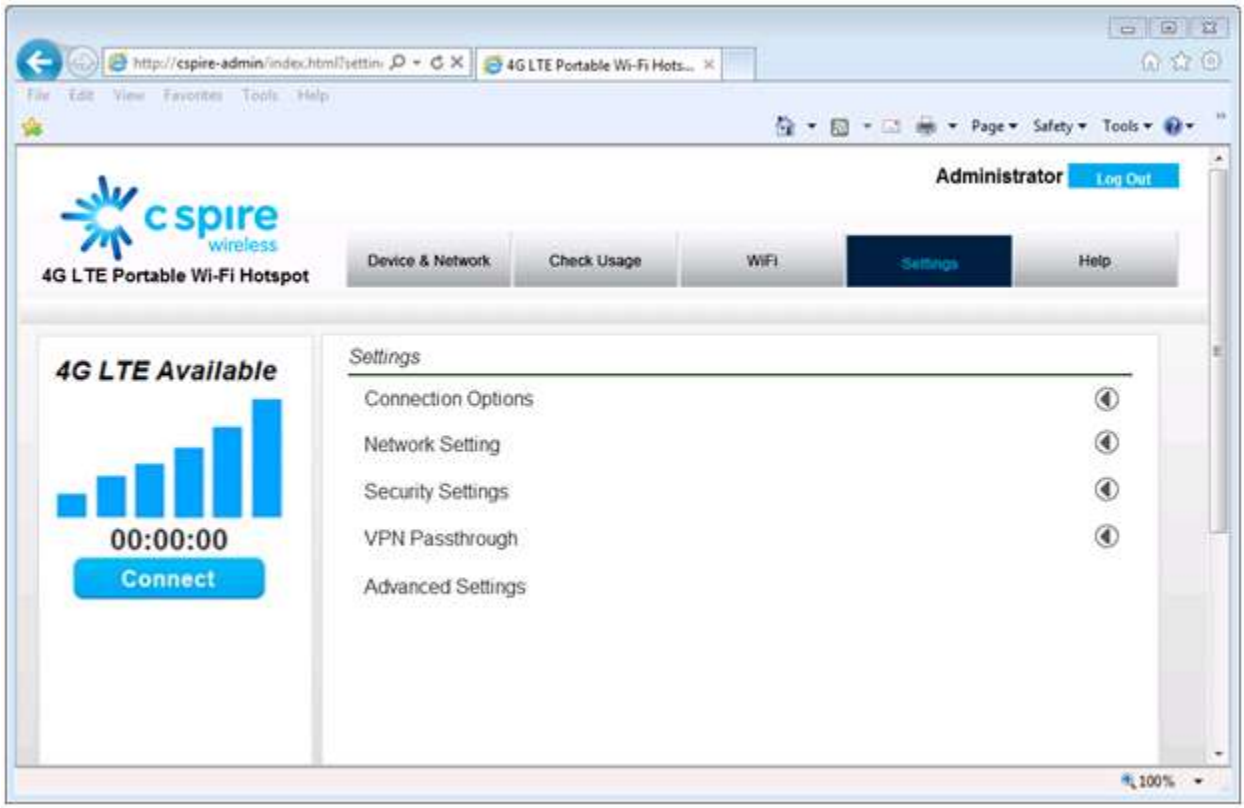
- **Date/Time** – The date/time the device was detected by the network.

Click Refresh button to renew the connected device list.

The Settings Menu

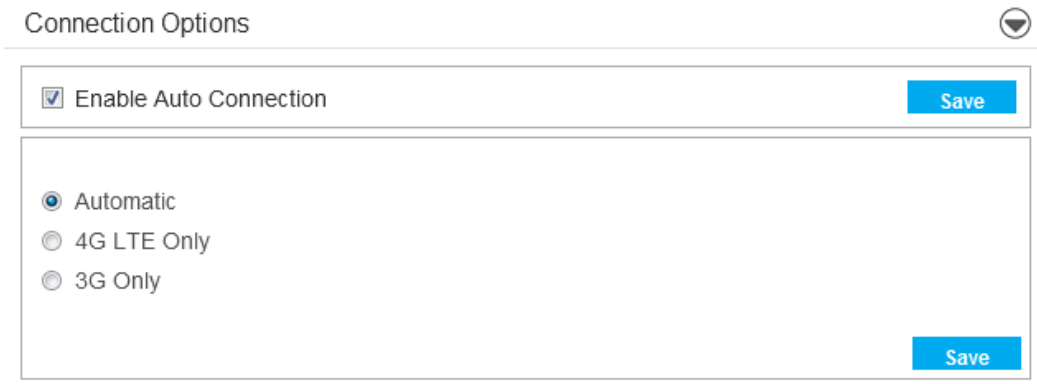
The Settings menu allows you to set various setting options including Connection Options, Network Setting, Security Settings, VPN Passthrough, and Advanced Settings. In order to see all setting menu except for Connection Options, you have to login Admin with the password

first. Default password is “admin”. You can change Admin password from the Advanced Setting menu.



Connection Options

When you open the Connection Options menu, the following choices are available:



Enable Auto Connection

1. Select or clear the **Enable Auto Connection** check box.
2. Click **Save.**

Note: If you click **Connect**, **Enable Auto Connection** will be cleared automatically regardless of whether **Enable Auto Connection** was selected before rebooting the device.

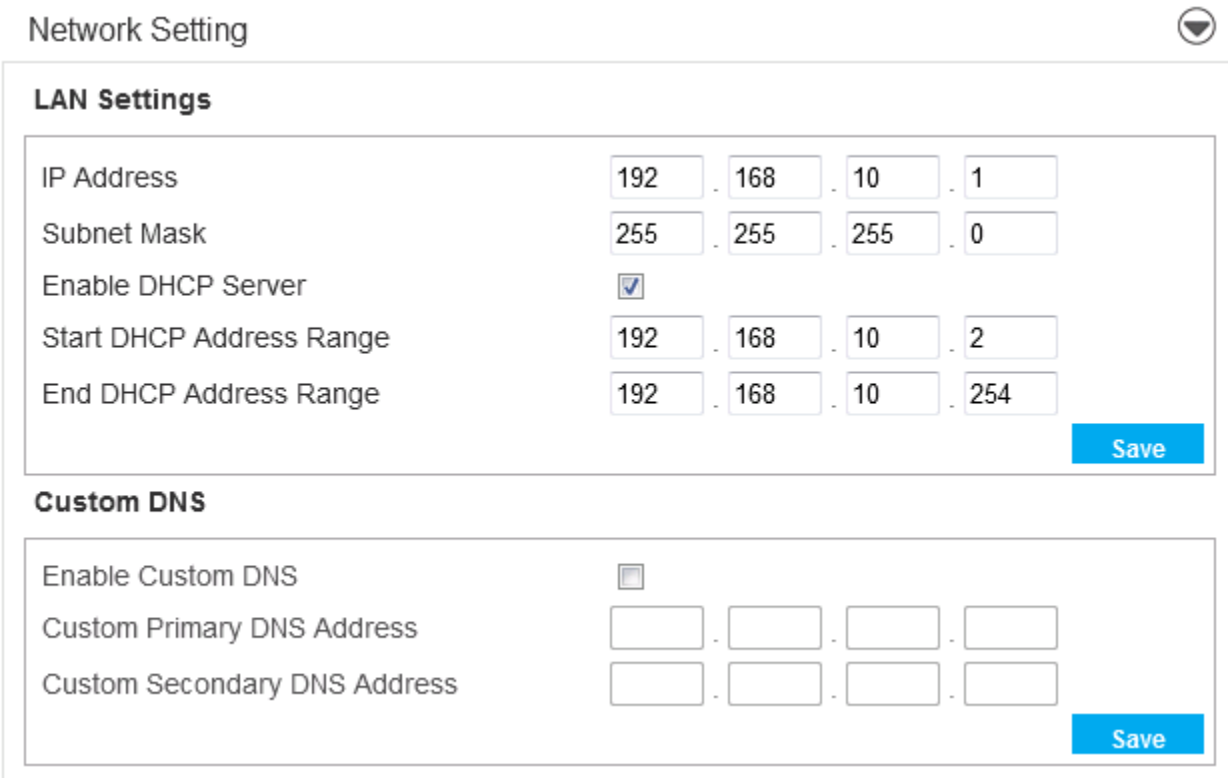
Change Your Connection Options

1. Select a connection option.
2. Click **Save**.

Note: If the device is not activated, the options will be unavailable (grayed out).

Network Setting

When you open the Network Setting menu, the following choices are available:



LAN Setting

- **IP Address** – IP Address that your PC is assigned by your device
- **Subnet Mask** – Subnet Mask that your PC is assigned by your device

- **Enable DHCP Server** – Enable it to automatically assign IP address to other Wi-Fi client devices.
- **Start DHCP Address** – Your device will assign IP address form this IP address
- **End DHCP Address Range** – The range of IP addresses that your device can assign to other Wi-Fi client devices.

Customer DNS

- **Custom DNS** - allows you to use a customized DNS rather than the one assigned by your network.

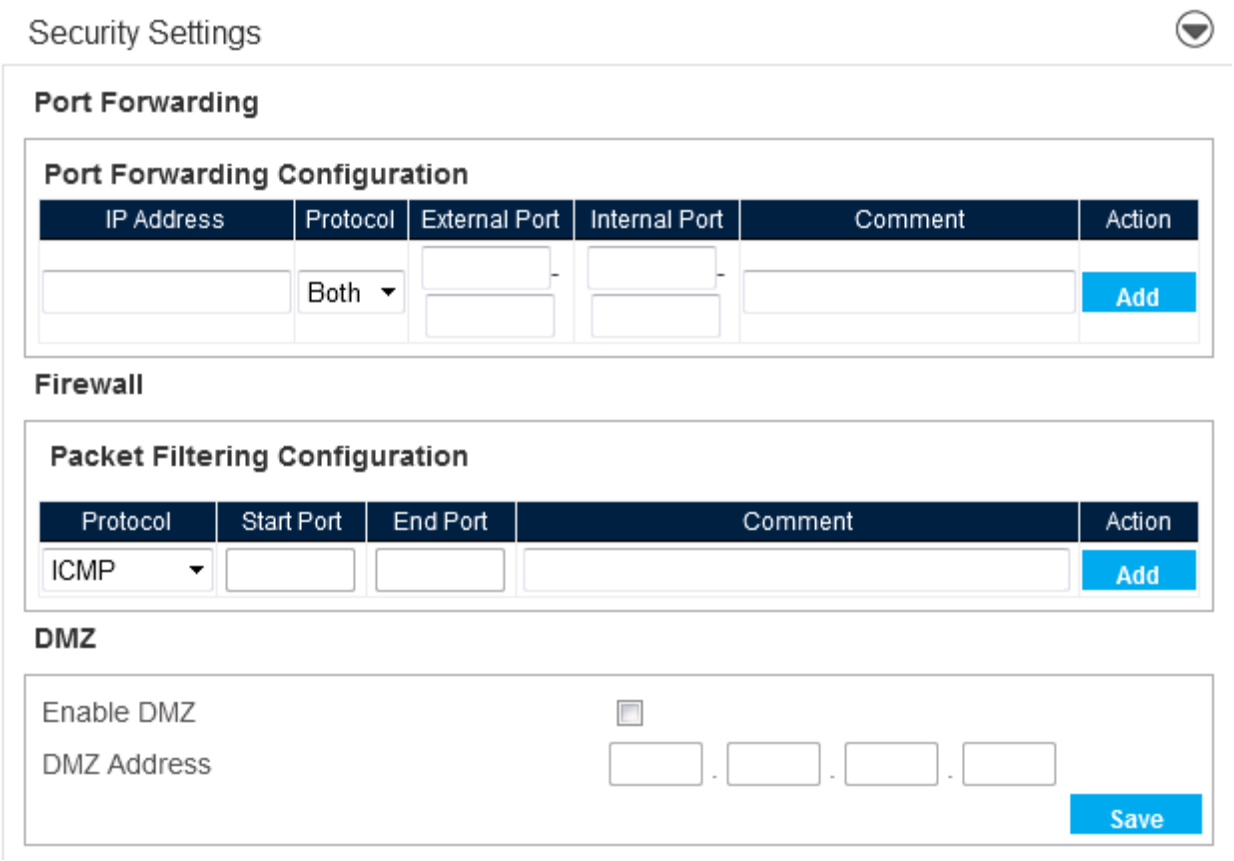
  To set the custom DNS:

  1. Select **Enable Custom DNS**.
  2. Enter your Custom DNS IP address.
  3. Click **Save**.

Important: Changing LAN settings can result in connection malfunction. Please refer to your service provider's recommendation.

Security Setting

When you open the Security Setting menu, the following choices are available:



Port Forwarding

- **IP Address –** Enter IP address to forward
- **Protocol**– Both / UDP / TCP
- **External Port** – Enter external port range
- **Internal Port** – Enter internal port range
- **Comment** – Enter comments for the port forwarding setting

Firewall

- **Protocol**– Select protocol to use for Firewall. ICMP/ TCP / UDP / ICMPv6 / TCP UDP
- **Start Port** – Enter Start Port
- **End Port** – Enter End Port
- **Comment** – Enter comments for the firewall setting
- **Custom DNS** - allows you to use a customized DNS rather than the one assigned by your network.

DMZ

- **Enable DMZ** – check to enable DMZ feature
- **DMZ Address** – enter DMZ address
- Click **Save**.

Important: Changing security settings can result in connection malfunction. Please refer to your service provider's recommendation.

VPN Passthrough

When you open the VPN Passthrough, the following choices are available:

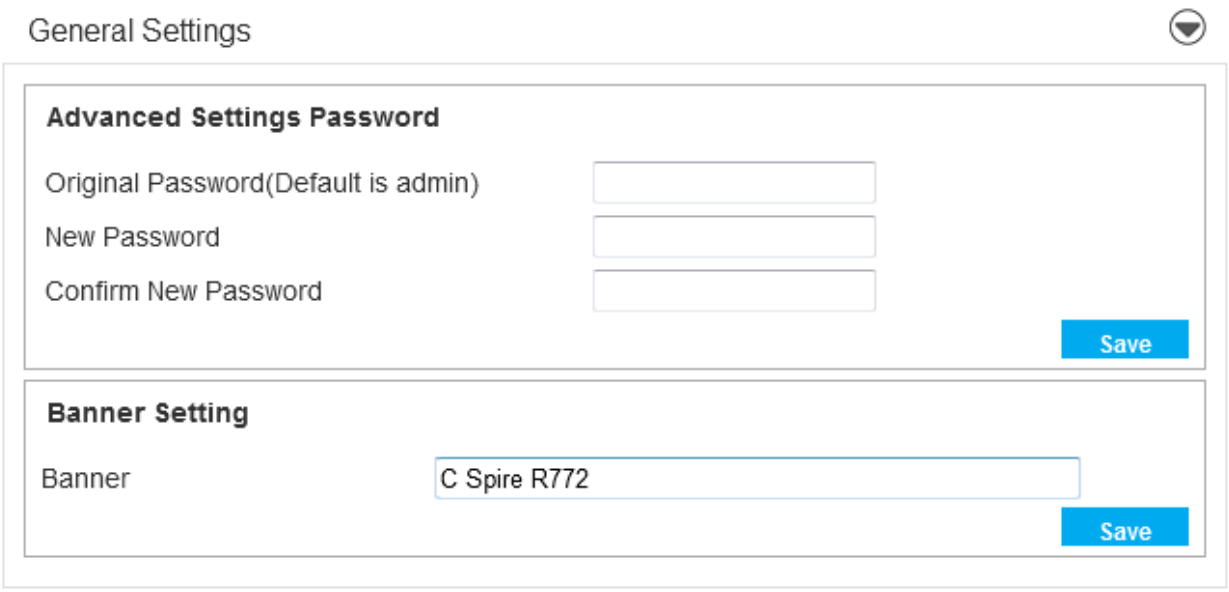
- **IPsec passthough** – Enable IPsec passthrough
- **PPTP passthrough** – Enable PPTP passthrough
- **L2TP pssthrough** – Enable L2TP passthrough

Advanced Settings

When you open the Advanced Settings, the following choices are available:

General Settings

Selecting the General Settings tab displays the following options:



Advanced Settings Password

The Advanced Settings Password allows you to change the Administrator login password.

To change your password:

4. Enter the original password in the **Original Password** field. (factory default password is admin)
5. Enter your new password in the **New Password** field.
6. Re-enter your new password in the **Confirm New Password** field.
7. Click **Save**.

Banner Setting

The Banner Settings allows you to change the banner displayed in the LCD window of the device.

To change your banner:

1. Click current banner window and edit it as you like (For example, your name)
2. Click Save button.

Manual Configuration

Selecting the Manual Configuration tab displays the following options:

Manual Configuration consists of two submenus (**LTE Configuration / 3G Configuration**).

LTE Configuration

The **LTE Configuration** box allows you to change the 4G LTE profile.

To modify the LTE profile:

3. Select proper profile in the list.
4. Click Save button.

Important: Changing LTE profile can result in 4G connection malfunction. Please refer to your service provider's recommendation.

3G Configuration

The **3G Configuration** box allows you to modify the 3G device configuration.

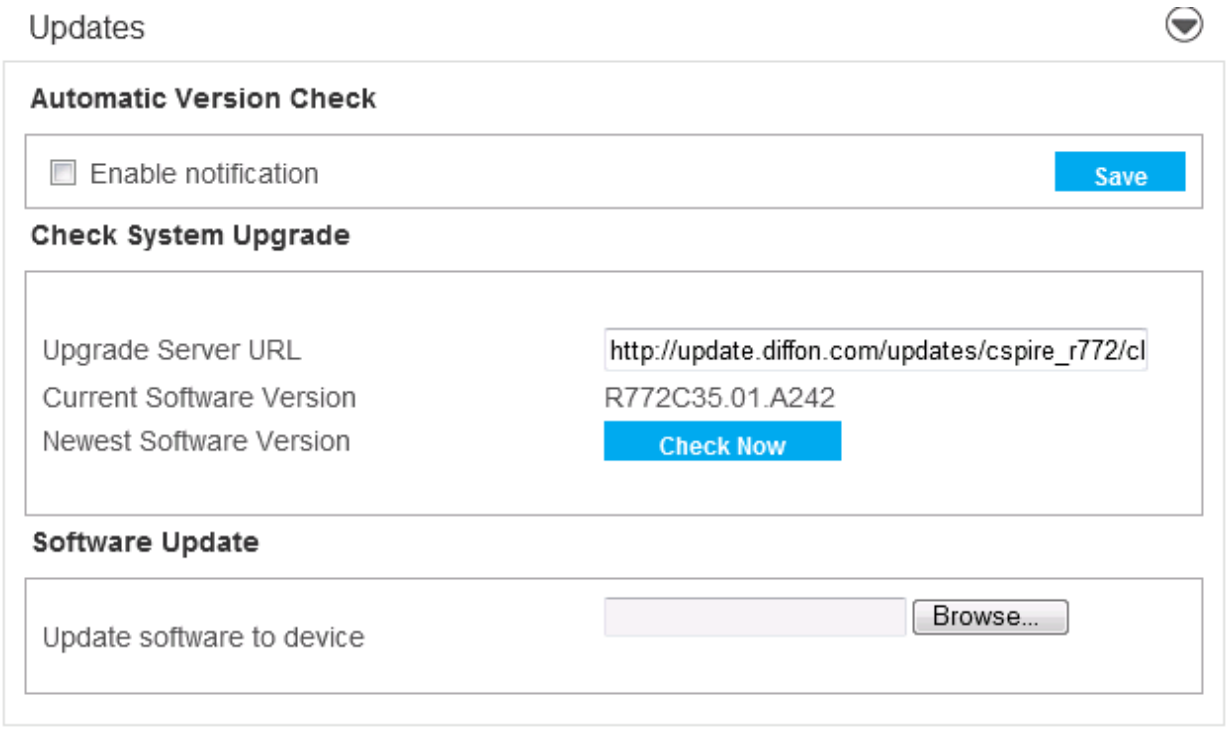
To modify the 3G configuration:

5. Select Profile Number
6. Click **Save**

Important: Changing 3G profile can result in 3G connection malfunction. Please refer to your service provider's recommendation.

Updates

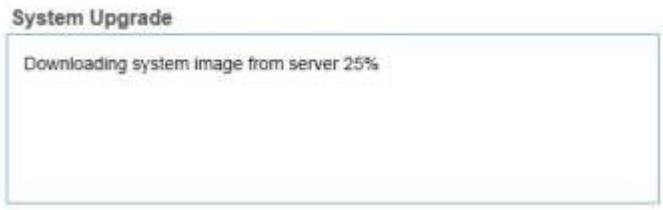
When you open the Updates menu, it displays the following options:



Automatic Version Check

If the box "Enable notification" is checked, the Web User Interface will provide the pop up dialog notification for new SW update available.

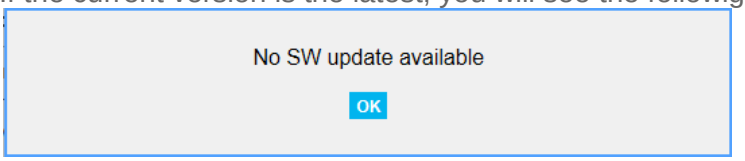
If you click Yes, it will start downloading and automatically update the Web User Interface SW to the latest version.



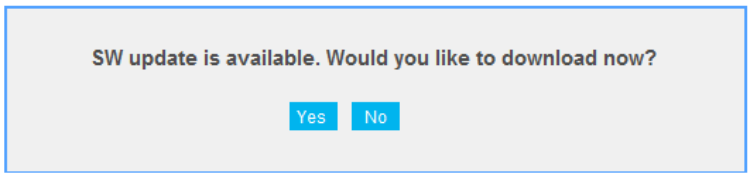
Check System Upgrade

The Check System Upgrade box reflects your current software version and allows you to upgrade the Web browser interface as needed. To get the latest Web browser interface:

1. Click **Check Now**.
2. If the current version is the latest, you will see the followign dialog: click OK.



If a newer version is available, you will see the following dialog:



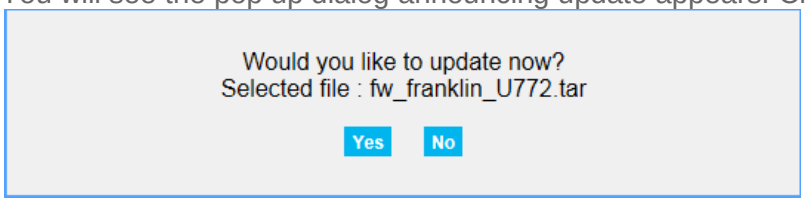
3. Click **Yes** and select a folder your want to save the SW update file in your computer.

Software Update

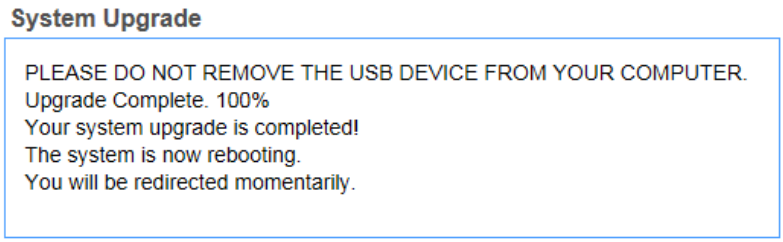
To update:

1. Click **Browse..** button and select the SW update file you downloaded. Then, click Open.

2. You will see the pop up dialog announcing update appears. Click **Yes** to update.



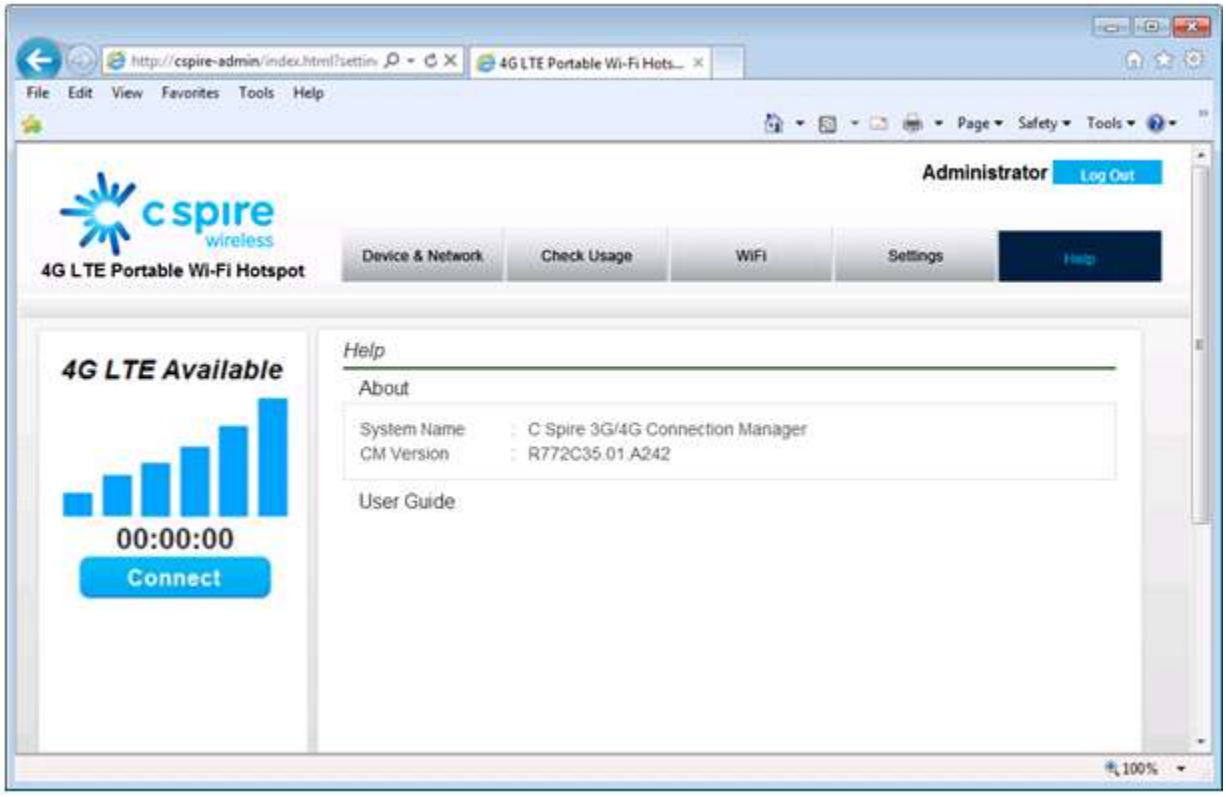
3. You will see the dialog showing update progress.



Important: The SW upgrade takes a few minutes. DO NOT unplug the device before the browser refreshes the page automatically or if the refresh dialog is still open.

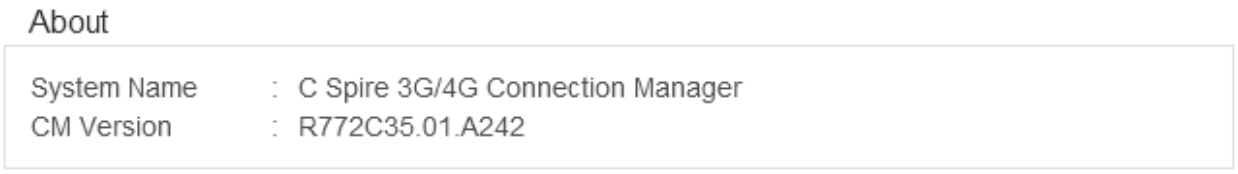
The Help Menu

The Help menu allows you to view system information and the online user guide.



About

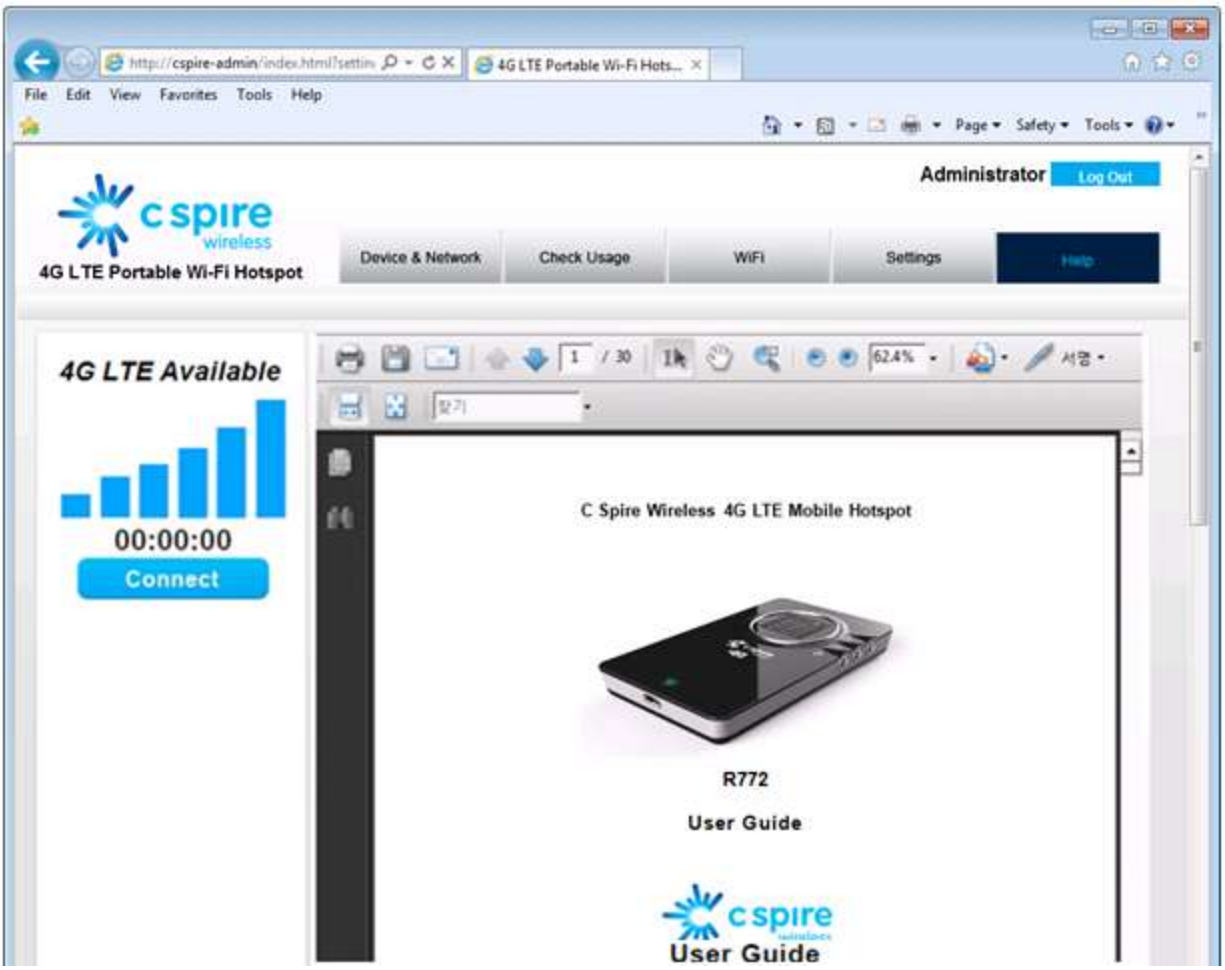
When you open the **About**, it displays the following device information:



- **System Name** – the current system name
- **CM Version** – the current Web browser interface version

User Guide

When you open **User Guide**, it downloads the user guide on the host system.


File Edit View Favorites Tools Help
Page Safety Tools
Administrator
Log Out
c spire wireless
4G LTE Portable Wi-Fi Hotspot
Device & Network
Check Usage
WiFi
Settings
Help
4G LTE Available
00:00:00
Connect
C Spire Wireless 4G LTE Mobile Hotspot
R772
User Guide
User Guide

Regulatory Information

WARRANTY

Manufacture's Limited One-Year Warranty:

Franklin Wireless (the company) warrants to the original retail purchaser of this device, that should product or any part thereof, during normal consumer usage conditions, be defective in material or workmanship that results in product failure within the first twelve (12) month period from the date of purchase, such defects will be repaired or replaced (with new or refurbished) product at the Company's discretion, without charge for parts and labor directly related to the defect(s). This warranty extends to consumers who purchase the product in the United States or Canada and it's not transferable or assignable. This warranty does not apply to:

(a) Product subject to abnormal use or conditions, accident, mishandling, neglect, unauthorized alteration, misuse, improper installation or repair or improper storage;

(b) Products whose mechanical serial number or electronic serial number has been removed, altered, or defaced;

(c) Damage from exposure to moisture, humidity, excessive temperature or extreme environment conditions;

(d) Damage resulting from connection to, or use of any accessory or other product not approved or authorized by the company;

(e) Defects in appearance, cosmetic, decorative or structural items such as framing and non-operative parts;

(f) Product damaged from external causes such as fire, flooding, dirt, sand, weather conditions, battery leakage, blown fuse, theft or improper usage of any electrical source.

The Company disclaims liability for removal or reinstallation of the product, for geographic coverage, for inadequate signal reception by the antenna or for communications range or operation of the cellular system as a whole.
When sending your wireless device to Franklin Wireless' authorized distributions for repair or service, please note that any personal data or software stored on the device may be inadvertently erased or altered. Therefore, we strongly recommend you make a back up copy of all data and software contained on your device before submitting it for repair or service. This includes all contact lists, downloads (i.e. third-party software applications, games and graphics) and any other data added to your device. Franklin Wireless is not responsible for and does not guarantee restoration of any third-party software, personal information or memory data contained in, stored on, or integrated with any wireless device, whether under warranty or not, returned to Franklin Wireless" authorized distributors for repair or service. To obtain repairs or replacement within the terms of this Warranty, the product should be delivered with proof of Warranty coverage (e.g. dated bill of sale), the consumer's return address, daytime phone number and/or fax number and complete description of the problem, transportation prepaid, to the Company at the address shown below or to the place of purchase for repair or replacement processing. In addition, for reference to an authorized Warranty station in your area, please call (800)959-3558 in the United States.

The extent of the company's liability under this warranty is limited to the repair or replacement provided above and, in no event, shall the company's liability exceed the purchase price paid by purchaser for the product.

Any implied warranties, including any implied warranty of merchant ability or fitness for a particular purpose, shall be limited to the duration of this written warranty. Any action for breach of any warranty must be brought within a period of 18 months from date of original purchase, but in no case shall the company be liable for a special consequential or incidental damages for breach of this or any other warranty, express or implied, whatsoever. The company shall not be liable for the delay in pending service under this warranty or loss of use during the time the produce is being repaired or replaced. No person or representative is authorized to assume for the Company any liability other than expressed herein in connection with the sale of this product. Some states or provinces do not allow limitations on how long an implied warranty lasts on the exclusion or limitation of incidental or consequential damage so the above limitation or exclusions may not apply to you. This Warranty gives you specific legal rights, and you may also have other rights, which vary from state to state or province to province.

Franklin's Authorized Service Center Address:
6205 Lusk Blvd., San Diego, CA 92121, U.S.A.

SAR INFORMATION

THIS MODEL MODEM MEETS THE GOVERNMENT'S REQUIREMENTS FOR EXPOSURE TO RADIO WAVES.

Your wireless modem is a radio transmitter and receiver. It is designed and manufactured not to exceed the emission limits for exposure to radiofrequency (RF) energy set by the Federal Communications Commission of the U.S. Government. These limits are part of comprehensive guidelines and establish permitted levels of RF energy for the general population. The guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The standards include a substantial safety margin designed to assure the safety of all persons, regardless of age and health. The exposure standard for wireless mobile modem employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 1.6 W/kg. * Tests for SAR are conducted with the modem transmitting at its highest certified power level in all tested frequency bands. Although the SAR is determined at the highest certified power level, the actual SAR level of the modem while operating can be well below the maximum value. This is because the modem is designed to operate at multiple power levels so as to use only the power required to reach the network. In general, the closer you are to a wireless base station antenna, the lower the power output. Before a modem model is available for sale to the public, it must be tested and certified to the FCC that it does not exceed the limit established by the government adopted requirement for safe exposure. The tests are performed in positions and locations (e.g., at the ear and worn on the body) as required by the FCC for each model. The highest SAR value for this model modem when tested for use near the body, as described in this user guide, is 1.32W/Kg. While there may be differences between the SAR levels of various modems and at various positions, they all meet the government requirement for safe exposure. The FCC has granted an Equipment Authorization for this model modem with all reported SAR levels evaluated as in compliance with the FCC RF exposure guidelines. SAR information on this model modem is on file with the FCC and can be found under the Display Grant section of http://www.fcc.gov/oet/fccid after searching on FCC ID: RB2-R772. Additional information on Specific Absorption Rates (SAR) can be found on the Cellular Telecommunications Industry Association (CTIA) web-site at http://www.wow-com.com. * In the United States and Canada, the SAR limit for mobile modems used by the public is 1.6 watts/kg (W/kg) averaged over one gram of tissue. The standard incorporates a substantial margin of safety to give additional protection for the public and to account for any variations in measurements.

SAFETY INFORMATION

SAFETY INFORMATION FOR FIXED WIRELESS TERMINALS POTENTIALLY EXPLOSIVE ATMOSPHERES
Turn your modem OFF when in any area with a potentially explosive atmosphere and obey all signs and instructions. Sparks in such areas could cause an explosion or fire resulting in bodily injury or even death.

INTERFERENCE TO MEDICAL DIVICES
Certain electronic equipment may be shielded against RF signal from your wireless modem (pacemakers, Hearing Aids, and so on). Turn your modem OFF in health care facilities when any regulations posted in these areas instruct you to do so. RF signals may affect improperly installed or inadequately shielded electronic system in motor vehicles.

EXPOSURE TO RF ENERGY
Use only the supplied or an approved replacement antenna. Do not touch the antenna unnecessarily when the modem is in use. Do not move the antenna close to, or couching any exposed part of the body when making a call.

NEAR BODY OPERATION
This device was tested for typical near body operations with the back of the modem kept 0.5 cm from the body. To maintain compliance with FCC RF exposure requirements, it must have a minimum distance including the antenna of 0.5 cm from the body during normal operation

U.S.A.

U.S. FEDERAL COMMUNICATIONS COMMISSION RADIO FREQUENCY INTERFERENCE STATEMENT INFORMATION TO THE USER
NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful Interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if Not installed

and used in accordance with the instructions, may cause harmful Interference to radio communications. However, there is no guarantee that interference will not occur in a particular Installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: Reorient or relocate the receiving antenna. Increase the separation between the equipment and receiver. Connect the equipment into an outlet of a circuit different from that to which the receiver is connected. Consult the dealer or an experienced radio/TV technician for assistance.

Changes or modification not expressly approved by the party responsible for Compliance could void the user's authority to operate the equipment. Connecting of peripherals requires the use of grounded shielded signal cables.

FCC Compliance Information

This device complies with Part 15 of FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and
(2) This device must accept any interference received, including interference that may cause undesired operation.

Appendix 1: Glossary

- **1X:** Internet at lower speed than EV-DO. Technical max speed is 153kbps.
- **3G:** Third generation, referring to the 3rd generation wireless cellular technology.
- **4G**: Fourth Generation, referring to the 4th generation of wireless celluar technology.
- **802.11 b/g/n:** A set of WLAN communication standards.
- **bps:** Bits per second. The rate of data speed.
- **Broadband:** High-capacity transmission channel with a wider bandwidth than conventional modem lines.
- **CDMA:** Code Division Multiple Access.
- **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.
- **EV-DO Rev 0:** CDMA EV-DO Rev. 0 is a wireless technology with higher data rates and higher system capacity. Rev 0 provides access to mobile devices with forward link speeds of up to 2.4 Mbps, and reverse link speeds up to 152 kbps.
- **EV-DO Rev A:** CDMA EV-DO Rev. A is a wireless technology with higher data rates and higher system capacity.Rev A provides access to mobile devices with forward link speed of up to 3.1 Mbps, and reverse link speeds up to 1.8 Mbps.
- **Firmware:** A computer program embedded in an electronic device.
- **Hotspot:** A Wi-Fi (802.11) access point or the area covered by an access point.
- **HTTP:** Hypertext Transfer Protocol. An application-level protocol for accessing the World Wide Web over the Internet.
- **IEEE:** Institute of Electrical and Electronics Engineers. An international technical / professional society that promotes standardization in technical disciplines.
- **IMEI:** International Mobile Equipment Identity. Used in LTE networks to identify the device.
- **IP address:** Internet Protocol address. The address of a device attached to an IP network (TCP/IP network).
- **ISP:** Internet Service Provider.
- **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.
- **MAC Address:** Media Access Control. A number that uniquely identifies each network hardware device. MAC addresses are 12-digit hexadecimal numbers. This is also known as the physical or hardware address.
- **Mbps:** Megabits per second. The rate of data flow.
- **MSID:** Mobile Station Identifier. A number for a mobile phone that identifies that phone to the network. These numbers are carrier specific.
- **Network Technology:** The technology on which a particular network provider's system is built; such as CDMA or EVDO.
- **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.
- **Router:** A device that directs traffic from one network to another.
- **SSID:** Service Set Identifier. The name assigned to a Wi-Fi network.
- **TCP/IP:** Transmission Control Protocol/Internet Protocol. The set of communications protocols used for the Internet and other similar networks.
- **USB:** Universal Serial Bus. A connection type for computing device peripherals such as a printer, mobile modem, etc. USB connectors may be used for data transfer or charging.
- **USIM:** Universal Subscriber Identification Module. Found in LTE and GSM network technology, the USIM is a card containing identification information for the subscriber and their account. The USIM card can be moved to different devices
- **WWAN** — Wireless Wide Area Network. A public network that extends beyond architectural, geographical, or political boundaries (unlike a LAN, which is usually a private network located within a room, building, or other limited area).
- **WEP:** Wired Equivalent Privacy. An IEEE standard security protocol for 802.11 networks. Superseded by WPA and WPA2.
- **Wi-Fi:** Wireless Fidelity. Any system that uses the 802.11 standard developed and released in 1997 by the IEEE.
- **Wi-Fi Client:** A wireless device that connects to the Internet via Wi-Fi.

- **WPA/WPA2:** Wi-Fi Protected Access. A security protocol for wireless 802.11 networks from the Wi-Fi Alliance.