

Navigating Cellular Data Plans & Activation

WiFiRanger is pleased to provide LTE solutions that are not locked into a specific cellular carrier. This approach gives the customer increased flexibility over other competing offerings which are tied to singular carriers or data plans. The WiFiRanger LTE solution gives you the freedom to find the perfect plan for you. The cellular landscape is always evolving and advancing, so our goal is to assist you in making the most of the myriad of data options available. The following information is intended to help you navigate the data plan and activation topics that are applicable to our LTE solutions. The LTE solutions offered by WiFiRanger are subject to change based on the evolving cellular landscape.

Successful connection to a cellular network requires that certain parameters are passed from the LTE modem to the cellular carrier during the LTE connection process. The three key parameters are **SIM**, **IMEI**, and **APN** which are defined in the table below. These parameters may be automatically determined by the WiFiRanger depending on which WiFiRanger LTE router you own and which firmware version it is running. Note that the SIM and IMEI numbers are typically required during LTE activation by a cellular carrier in order to link the modem to your cellular account. More information is on the next page regarding how to find the SIM and IMEI numbers or how to set the APN if necessary.

Parameter	Purpose
SIM	<i>Subscriber Identity Module</i> which contains a number that is used to authenticate with cellular account
IMEI	<i>International Mobile Equipment Identity</i> which is a number used to identify a particular LTE device or modem
APN	<i>Access Point Name</i> which is presented to cellular carrier to determine type of LTE network connection

IMPORTANT CONSIDERATIONS

A. Data Plan Availability Varies by Region

Some cellular carriers offer certain data plans by region. As such, you may find that the data plan that you desire is available through a cellular reseller or representative in another area while your local representative has more limited options. Check around or call a representative in another region if you can't find what you want locally.

B. SIM Card Type May Affect Data Plan Options

WiFiRanger provides standard consumer SIM cards with their LTE modems. These SIM cards may not work on business data plans, but should support most consumer data plans. It is important to ask your cellular carrier if the SIM card you provide them is the right kind to meet your data needs.

C. Ease of Modem Activation Varies by Reseller / Carrier

In some cases, it can be difficult to activate the WiFiRanger LTE modem and SIM card depending on the representative you speak with. Some representatives work for a cellular reseller that does not have the offerings you desire, or you may need a more knowledgeable representative to handle your request. Ask different cellular stores, resellers, or a direct Carrier representative until you find the right person to activate your modem and SIM card on the desired plan. Always have your LTE modem's IMEI and SIM card numbers available when discussing data plans with representatives.

D. Data Plan Pricing Depends on Your Cellular Account

In large part, the price of data plans for the WiFiRanger LTE modem may be affected by your cellular account type and other data plan(s) on your account. In some cases, the WiFiRanger LTE modem will require having a data-only plan that is separate from the data plan attached to your smartphones or other devices. Checking with your carrier on costs will help you to understand how the carrier will handle the WiFiRanger LTE modem pricing and data amounts available.

E. Upgrading from Non-LTE WiFiRanger to LTE Modem May Require Additional Steps

If you are upgrading from a non-LTE WiFiRanger router to an embedded LTE modem, please be sure to click Check for Updates on the WiFiRanger Control Panel after installing the modem or upgrade kit. If you are experiencing problems or have questions about the new LTE modem, contact WiFiRanger to assist in getting your WiFiRanger configured to support the new modem. Our contact info is listed on the bottom of this guide.

F. Changing Cellular Carriers Should Only be Done After Verifying Supported Bands

If you plan on changing cellular carriers, ensure that your modem supports the necessary bands. Supported bands listed below:

	Legacy Category 4 Modem Nimblelink HL7588	Category 4 Modem Quectel EC25-AF	Category 6 Modem Quectel EP06-A
Bands	2 / 4 / 5 / 13 / 17	2 / 4 / 5 / 12 / 13 / 14 / 66 / 71	2 / 4 / 5 / 7 / 12 / 13 / 25 / 26 / 29 / 30 / 66

Identify modem model on Setup tab of Control Panel under Cellular settings (shown on next page). Note that the legacy modem may not show the model number, but there will be the unique options to switch the "Mode" to other carriers and the modem "Firmware" version will be listed. These two options will not display for the Quectel modems, so they are helpful in deducing which modem is embedded within your WiFiRanger.

LTE ACTIVATION

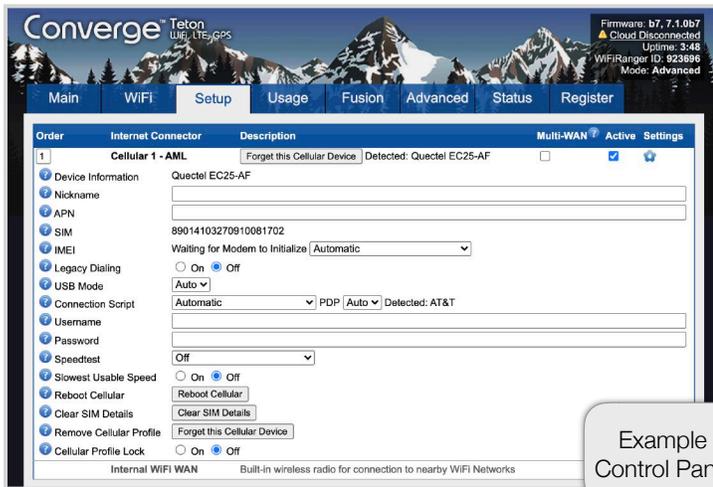
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ACCESSING CELLULAR SETTINGS

1. Ensure SIM card is inserted in appropriate slot of modem or router
2. Power up the WiFiRanger system with embedded LTE modem(s)
3. Connect over ethernet or wirelessly to the WiFiRanger's network
4. Access Control Panel of the WiFiRanger and select the "Setup" tab
5. Expand modem settings by clicking the **appropriate** gear icon:
 - a) Standalone WiFiRanger (indoor **or** outdoor unit):
 - (i) Click "Cellular" gear icon
 - b) Pack WiFiRangers (indoor **and** outdoor units):
 - (i) Click "Cellular" gear icon to access indoor unit modem
 - (ii) Click "WFRControl" gear icon to access outdoor unit modem
6. View SIM & IMEI numbers after expanding the modem settings
 - a) Provide these numbers to cellular carrier for modem activation

Ensure Correct SIM Card Size is Used

Most WiFiRanger LTE modems use the Standard SIM size, but the Micro SIM size is used on a few models. No WiFiRanger LTE modem uses the Nano SIM size. Note that SIM cards are easily down-sized by carefully breaking them loose using your fingers. If needing to increase the SIM size, purchase a SIM size adapter kit.



REFRESHING SIM NUMBER

Many WiFiRanger routers will automatically sense the presence of a SIM card. When viewing the SIM and IMEI numbers, it is typical to find that the SIM number is indeed correct. However, you may need to refresh the SIM number on the Control Panel if you've changed the SIM card in your WiFiRanger modem or the number appears to be incorrect. To refresh the SIM number, follow the steps below:

1. Follow steps for "Accessing Cellular Settings"
2. Click on "Clear SIM Details" then wait 30 seconds
3. Click on "Reboot Cellular" then wait 60 seconds
4. Refresh the Control Panel
5. Verify the new SIM number appears

MANUALLY SETTING AN APN (usually unnecessary on latest firmware since APN is **automatically** detected)

If you are unable to connect to the internet using the WiFiRanger modem even though your data plan is active, then there may be an issue with the APN. The APN tells the cellular carrier which LTE access point and network need to be used to properly authenticate and get online. Note that a few customers may need to use an APN other than the default options shown here if using unique data plans or if your account has a Global Static IP. If using the default APN does not work, then contact your cellular carrier to learn whether an alternate APN is required. To change the APN, follow the steps below:

1. Follow steps for "Accessing Cellular Settings"
2. Enter correct APN into the APN field:
 - a) **Default** APN shown in this table (**most common**)
 - b) **Unique** APN on your Cellular account (**only if applicable**)
3. Click "Save Changes"

Carrier	Default APN
Verizon	vzwinternet
AT&T	broadband
T-Mobile / Millenicom	fast.t-mobile.com

▼ ACTIVATION CONTACT INFORMATION ▼

CARRIER	CONSUMER PHONE	BUSINESS PHONE	WEBSITE
AT&T	888.333.6651	888.444.4410	att.wifiranger.com
Verizon	<i>Not Officially Supported (we cannot guarantee Verizon data plans at this time)</i>		
Millenicom	800.996.1285	800.996.1285	millenicom.wifiranger.com