LTE Cell Service Activation for the Signature® Flowmeter

Overview

This instruction sheet will cover setting up Verizon or AT&T LTE service for your modem. With LTE service, a Subscriber Identity Module (SIM) card is used to input the service into your cellular device.

SIM Cards

In order to use this device, you will have to establish service with your carrier and obtain a SIM card. Teledyne ISCO LTE modems work with Micro SIM cards (Figure 1).

Micro SIM card
15 x 12 mm

Nano SIM card
8.8 x 12.3 mm

Figure 1: Types of SIM cards

☑ *Note*

Read the entire instruction sheet before contacting your service provider.

Contact Service Provider

Contact your service provider to get a SIM card (Micro SIM card is required).

1. Inform your service provider that you need an **M2M plan with text messaging enabled**.
2. If you want to contact the modem via IP address, request an **Unrestricted Static IP Address**.
3. They will ask you to provide them with the **IMEI number** of the unit. This number is specific to each unit and the location can be found on the unit (Figure 2).

Figure 2: Location of IMEI number

The M2M plan, with text messaging enabled, will use bytes, not minutes, and will allow for alarm text messages to be sent from the sites if you wish to set up alarm conditions. If your provider asks, the hardware for these units will be: Nimbelink Skywire NL-SW-LTE-TC4NAG modem. Typical usage would be less than 5MB per month.

- For **Signature** cell phone packages also consider how you will use it and the service options:
    - If you desire to contact the unit remotely from your desk, you will also need to inform your provider that you need an **UNRESTRICTED STATIC IP ADDRESS** assigned to the line of service. This will keep the IP address the same at all times. You will connect to the unit by entering the IP address in the menu in Flowlink. There is an additional charge for this feature. Text message alarming can also be sent.
    - If you only plan to push the data to a server with Flowlink Pro installed on that server, the **dynamic IP address**, included with the telemetry/data plan, is all you will need. The IP address will change each time the cell phone powers up inside the unit. You cannot contact units with this type of service remotely. Text message alarming can still be sent with this type of service.
    - Key point is that **if you plan on contacting the site remotely, you will NEED an unrestricted static IP address**.

SIM Card Installation

The LTE modem is installed inside the Signature meter.

1. Remove the two screws on the right side of the case to access the inside of the Signature and the LTE modem.
2. Once you access the interior of the Signature, you will find the SIM card holder is attached to the bottom of the LTE modem (Figure 3).

Figure 3: Location of the SIM card holder

3. Insert the SIM card (Figure 4).
4. Once the SIM card installation is complete (Figure 4), close the Signature and tighten the case screws again. Note the location of the SIM card notch.

Figure 4: SIM card inserted into holder

LTE Antenna

The new LTE modems operate on a different frequency than the old 2G 1xRTT modems; therefore, they need a different antenna. The new antenna (604804035) looks visually the same as the previous antenna except for the connector being white (Figure 5). This new antenna operates from 700 MHz – 2500 MHz so it can be used for all Teledyne ISCO cellular products.

Figure 5: LTE antenna

Modem Configuration in Signature LTE Modems

After the modem service is setup and the SIM card is installed into the Signature LTE modem, the Access Point Name (APN) must to be programmed. For 4G LTE it is required to make a connection to the network.

Your service provider will provide a specific APN for your network. Once you determine the APN you will be using, you will need to navigate to the MODEM SETUP in the Signature.

1. Press or click on MENU, then HARDWARE SETUP.
2. Choose the MODEM SETUP option.
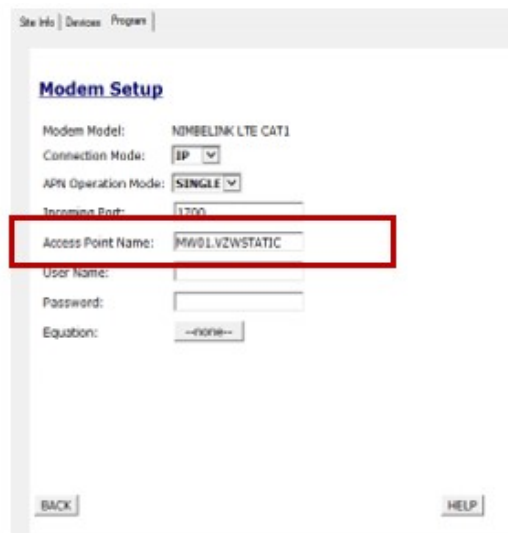3. In the MODEM SETUP screen you need to type the APN in the field highlighted (Figure 6).

Figure 6: Modem setup screen

4. Click NEXT to save the changes.
5. Then cycle power ON to the Signature meter to allow the modem to provision on the correct APN.
6. The modem will now be ready to operate correctly on the network.

☑ *Note*

Actual connection with the network may take up to 45 minutes after cycling power.

If you have questions about APN set up, please contact the Product Support Group at 1- 866-298-6174.

Verizon Configuration

The APN you will use depends on the area code of the modem phone number and if the modem has a static or dynamic IP address. Please consult this map (Figure 7) to find which APN used by your area. If a private network is being used, Verizon will provide a specific APN for your network.

If you are using an unrestricted, static IP, please use one of the following APNs:

- `WE01.VZWSTATIC`
- `MW01.VZWSTATIC`
- `SO01.VZWSTATIC`
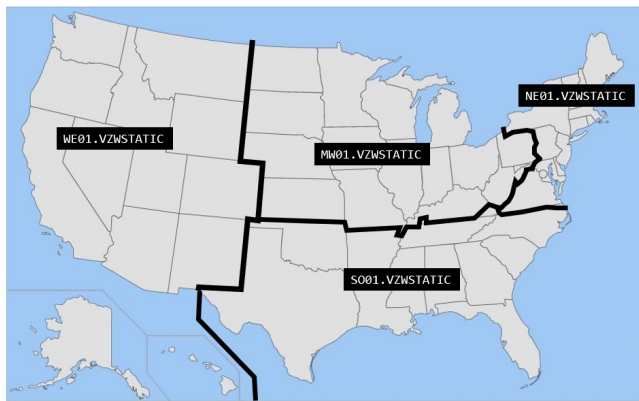- `NE01.VZWSTATIC`

☑ *Note*

The third digit of the APN is a zero.

Figure 7: APN location map

☑ *Note*

If you are using a dynamic IP, please use the following APN: **VZWINTERNET**

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