





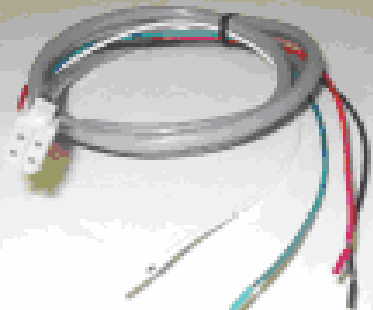

Quick Start Guide

Telus

4600A/5600A CDMA EVDO-A
4600/5600 CDMA EVDO-0
4200/5200 CDMA 1XRTT

Package contents

The BlueTree modem package should contain the following:

1	BlueTree modem	 A black, rectangular BlueTree modem with a vented top and various ports on the front panel. The front panel features the BlueTree logo, '5000 GPS Series', and 'BLUE TREE 5600 EV-DO'.
2	5-foot Ethernet Cat5 crossover cable	 A coiled yellow Ethernet Cat5 crossover cable with RJ45 connectors on both ends.
3	15-foot power cable with 2A in-line fuse	 A grey power cable with a 2A in-line fuse and a three-prong AC power plug. The other end has several colored wires (red, green, blue, black) for connection.
4	Extra serial number label	 A grey label with four barcode sections and corresponding text: Serial #: BTW-123456789012, ESN (H): A5A5A5A5, ESN (D): 12345678901, RJ-45: 00:13:47:00:00:00, USB: 00:13:47:00:00:01, Model: BT5200 CDMA, Part #: F-MO-W4-5200-XX, Made in Canada.

If any of these items are missing, please contact your local representative.

Overview

The BlueTree 4000/5000 series modems are rugged wireless modems built to provide simple and reliable communication over the CDMA wireless data network.

This Quick Start Guide covers the initial activation and configuration of the following models: 4200, 5200, 4600/A, and 5600/A.

Features

- Dual-band 800 and 1900 MHz
- (*EvDO models*) EvDO antenna diversity option
- Data interfaces: Ethernet, Serial, and USB
- I/O sensors
- AT Command software interface
- (*5000 models*) Embedded GPS receiver supporting TAIP and NMEA
- Event reporting engine
- DHCP Server
- VPN pass-through

LED Indicators

LED	State	Description
PWR	On solid	Modem is powered ON
TX	Flashing	Terminal is transmitting data to modem
RX	Flashing	Terminal is receiving data from modem
DTR	On solid	Terminal host is detected
REG	Flashing On solid	Registered to network Searching for network
LNK	On solid	In a packet-switched call
ACT	Flashing	Tx/Rx data on the air interface
GPS	Flashing On solid	(<i>5000 models</i>) GPS fix available (<i>5000 models</i>) No GPS fix available
SER	Any	(<i>4000 models</i>) Reserved for future use

STEP 1

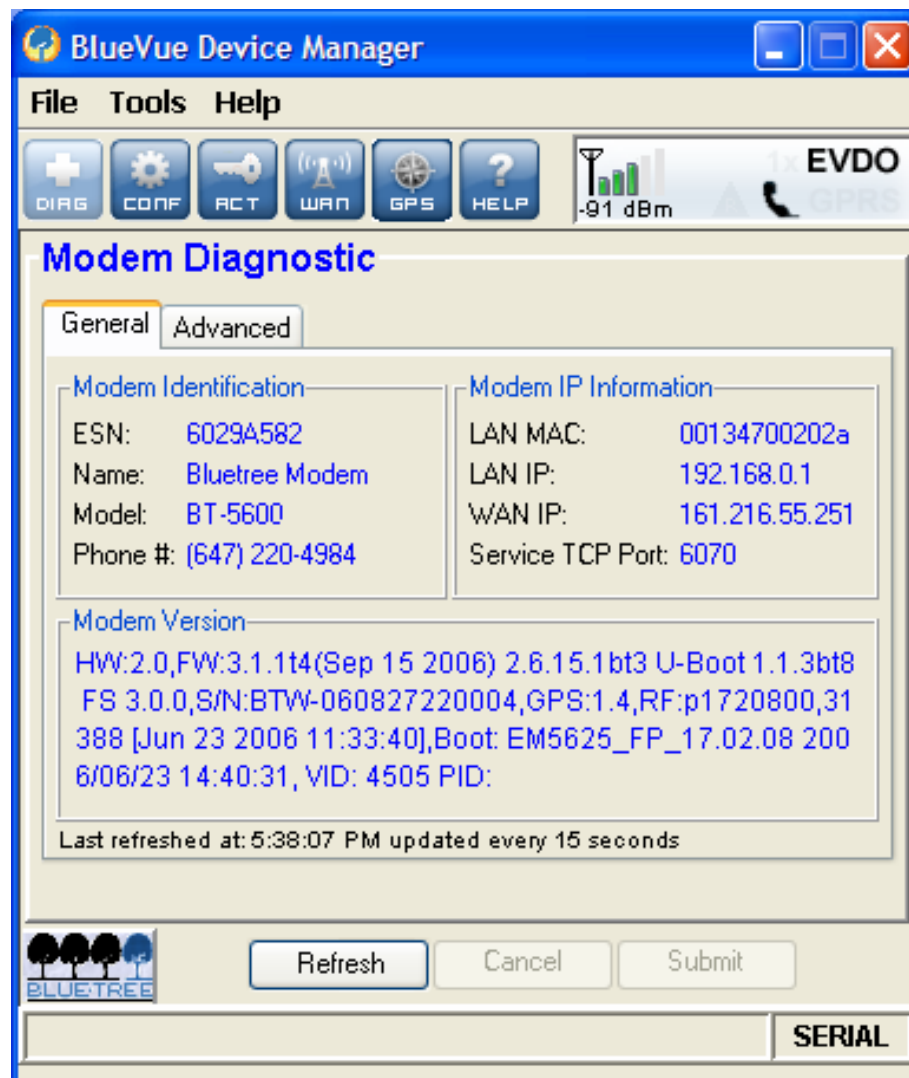
BLUEVUE SOFTWARE DOWNLOAD

The BlueVue Device Manager software is required to activate and configure the modem.

Download it from BlueTree's website at:

<http://www.bluetreewireless.com/support/downloads/software>

Install it on the PC that will be used to configure the modem.



STEP 2

PHYSICAL INSTALLATION

The modem requires a power supply, an antenna, and at least one data interface (crossover Ethernet, USB, or serial).

The 4600/5600 models can be activated using a crossover Ethernet cable (included in package), or a USB cable (not included in package), or a serial cable (not included in package).

The 4200/5200 models require a serial cable (not included in the package) in order to be activated. They cannot be activated using an Ethernet or USB cable.

Serial cable

Connect the modem to the PC using a straight 9-pin RS232 serial cable. A null modem cable will not work.

Crossover Ethernet cable

Connect the modem to the PC using a crossover Ethernet cable. Straight or "standard" Ethernet cables will not work.

USB cable

The Windows RNDIS driver must be installed before USB connectivity can be used. The USB driver is available for download on the BlueTree website. Once the driver is installed, connect the modem to the PC using a TypeA/TypeB male USB cable.

Antenna

4200/5200 models: connect a TNC antenna to the TNC connector.

4600/5600 models: connect an SMA antenna to the RF1 connector. A 2nd antenna may also be connected to the RF2 connector to improve signal reception in some cases.

Power

If using an AC-DC power supply adapter provided by BlueTree, then simply connect it to the modem's POWER input.

Otherwise, use the power cable included in the package. Power the modem according to the following pin assignment:

Pin	Label	Color	Description
1	GND	Black	Ground
2	POS	Red	Power supply: 7 to 30V
3	IGN	White	Ignition sense: 7 to 30V
4	OUT3	Green	Digital Output

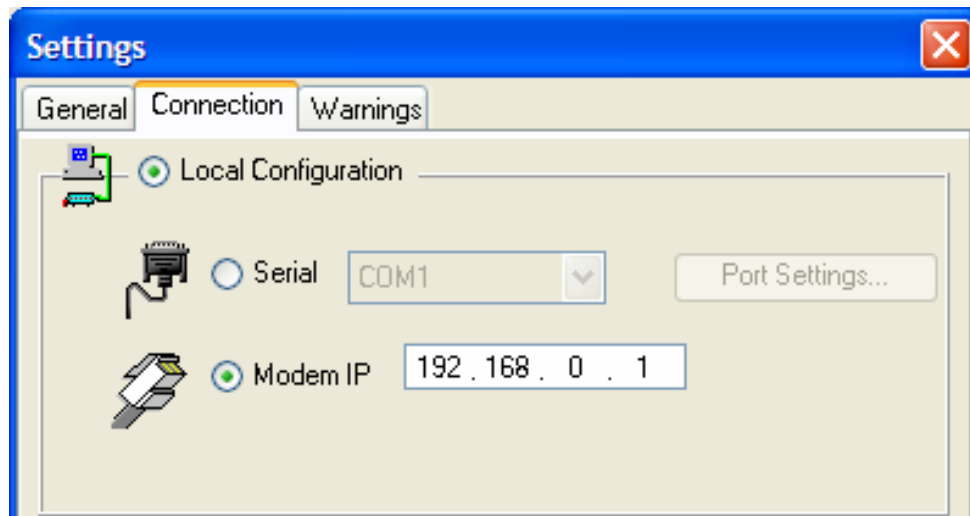
Further wiring instructions are available in the *4000/5000 CDMA Modem User's Guide* which is available on the BlueTree website.

STEP 3

MODEM ACCESS

BlueVue Device Manager must now establish a link to the modem.

Start BlueVue, and then click on *Tools > Settings > Connection*.



Under *Local Configuration*, select *Serial* or *Modem IP* depending on the type of modem, as explained at step 2.

- If connecting over Ethernet, the default LAN IP is **192.168.0.1**
- If connecting over USB, the default LAN IP is **192.168.111.1**
- If connecting over serial, select the COM port that the modem is connected to in the list of available COM ports.

Click OK when done. BlueVue will detect and access the modem. Once this is done, the *Modem Diagnostic* screen will automatically be displayed.

If BlueVue does not detect the modem, then refer to the 4000 & 5000 Series Troubleshooting Guide for help. It is available on the BlueTree website.

STEP 4

MODEM ACTIVATION

Modem activation programs the telephone number and other Telus-specific settings into the modem so that it may be used on the Telus wireless network. Your wireless service provider should have provided you with the account information.

Confirm the modem is ready for activation

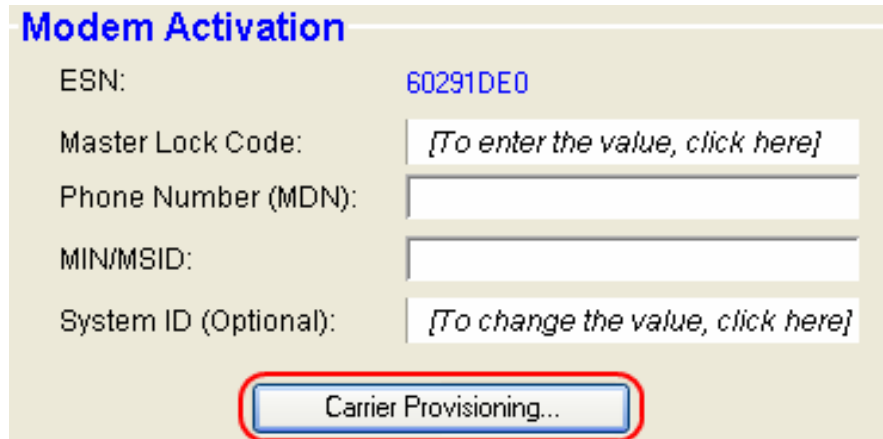
The modem's REG LED will always be flashing when it has a good enough signal to see the wireless network. Additionally, the signal strength is displayed in the information box in the top right of the BlueVue window. The minimum required for communication is -98 dBm, or 1 signal strength bar; however, such a weak signal would likely not provide a stable connection.



If the REG LED is flashing, proceed with activation. If it is solid on then there may be an issue with the antenna or no coverage in your current location.

Activate the modem

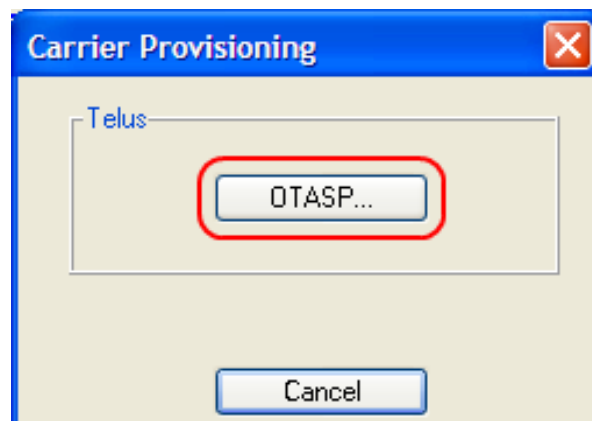
Click on *File > Activation* to navigate to the *Modem Activation* screen.



The **Modem Activation** dialog box contains the following fields and controls:

- ESN: 60291DE0
- Master Lock Code: [To enter the value, click here]
- Phone Number (MDN): [Empty text box]
- MIN/MSID: [Empty text box]
- System ID (Optional): [To change the value, click here]
- Carrier Provisioning... button (highlighted with a red circle)

Click on *Carrier Provisioning* to open the Carrier Provisioning dialog.



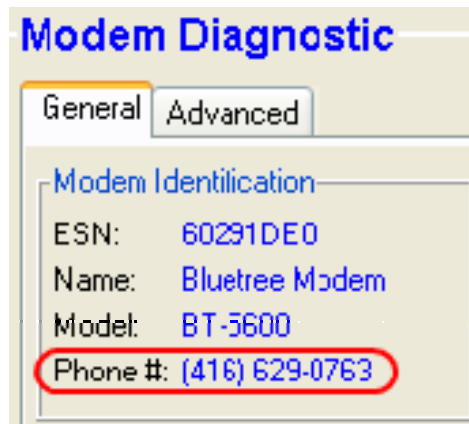
The **Carrier Provisioning** dialog box shows the carrier name "Telus" and the following controls:

- OTASP... button (highlighted with a red circle)
- Cancel button

Click *OTASP*, and then click *OK* at the warning prompt. Wait for the activation process to complete.

Confirm the success of the number's programming

Click on *File > Diagnostic* to navigate to the *Modem Diagnostic* screen. Check the phone number reported by the modem: it should match the MDN provided by the wireless service provider.



STEP 5

WAN SETTINGS CONFIGURATION

Even though the modem has been activated, it must be configured before it can access the wireless network or Internet. Click on *File > WAN Settings* to navigate to the *WAN Settings* screen.

BlueVue Device Manager

File Tools Action Help

DIAG CONF ACT WAN GPS HELP

-88 dBm EVDO

Modem WAN Settings

Phone #: (416) 629-0763 Dial String: #777

User Profile

User Name: x

Password: x

Connection Initiation

Disconnect After: 0 sec

On Demand

Always On

Re-Connect Delay: 0 sec

IP Settings...

Initialization String:

Refresh Cancel Submit

BLUETREE

TCP-IP

Dial String

Enter **#777** as the dial string.

User name/Password

These are supplied by the wireless service provider. If the account does not require a user name or a password, use **x** for both.

On Demand/Always on

When in "Always On" mode, the modem will connect automatically to the network when powered up. Additionally, it will always try to re-establish the connection if the connection is dropped.

When in "On Demand" mode, the modem will only establish a connection when the attached terminal requests it.

For most users, the modem should be in **Always On** mode.

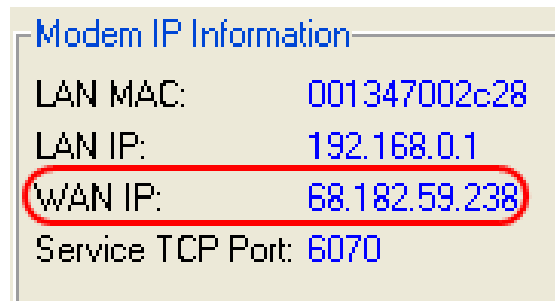
Save the settings

Click Submit to save the changes. They should take effect immediately, and the modem should be ready for use on the Telus network. If it was set to Always On, then it will connect immediately.

Test the connection

If the connection to the Telus network is successful, then:

1. The LNK light will turn ON and stay ON
2. In BlueVue's *Modem Diagnostic screen*, under *Modem IP information*, the WAN IP the modem has been assigned by Telus will be displayed as shown below.



Modem IP Information	
LAN MAC:	001347002c28
LAN IP:	192.168.0.1
WAN IP:	68.182.59.238
Service TCP Port:	6070

If the above does not occur, then the modem most likely has no account. Contact the wireless service provider who provided you with the account and ask them to confirm that the phone number and MIN/MSID assigned correspond to the modem's ESN (electronic serial number), and that the account is ready to be used.

STEP 6

MODEM CONFIGURATION

The modem should be ready for use as a basic internet access point. To use the modem in a specific application (such as serial-over-IP or GPS reporting), or use modem features such as dynamic IP registration, additional configuration is required.

Consult the *4000 & 5000 CDMA Modems User's Guide* for an in-depth overview of the modem's features and capabilities, as well as configuration help. This document is available on the BlueTree website.

Customer support and contact info

Visit the Support section of the BlueTree website to download product manuals, BlueVue software updates and modem firmware updates.

Documents of note include the 4000/5000 CDMA Modem User's Guide, the 4000/5000 CDMA Modem Troubleshooting Guide, and the I/O and Event Management Guide.

- The *4000 & 5000 Series Modem Troubleshooting Guide* provides step-by-step solutions to the most common issues users face when setting up the modem, including activation failure
- The *4000 & 5000 Series CDMA Modems User's Guide* describes the modem and its features in detail, as well as provide detailed physical installation/power information
- The *I/O Management and Event Reporting Guide* details the use of the modem's inputs and outputs, as well as the programming of event-triggered reports for both I/O and GPS

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