

# Setting up **EXPLORER® 100/110** with **BGAN** **LaunchPad**

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# 1 Introduction

## 1.1 About this guide

This document introduces the EXPLORER 100/100 terminal and explains how to set up the terminals for use on the BGAN network, register with the network and set up data, voice and text connections.

It is intended for first time end-users, Distribution Partners, Service Providers and anyone who wants to use a BGAN terminal to connect to the BGAN network and use network services. A previous knowledge of satellite communications is useful, but not essential.

The sections include:

- Introducing the terminal – a brief overview of the physical features and interfaces of the terminal, and the available services.
- Setting up the terminal – includes installing the battery and SIM card, connecting to a computer and registering with the network
- Making voice, data and text connections – an explanation of how to make a voice call, how to make IP data connections, how to set up and open Bluetooth connections and how to send and receive a text message.
- Configuring terminal interfaces – how to set up the Ethernet interface and how to select single or multi-user mode.
- Telephony settings – includes viewing telephone numbers, call barring and setting the quality for outgoing and incoming calls.

## 1.2 Other sources of information

- This is one of a series of PDF documents in the BGAN Solutions Guide. The Solutions Guide is designed to help you make the most of your BGAN terminal. Other documents in the series are available for download from [www.inmarsat.com/support](http://www.inmarsat.com/support): click on **BGAN**, then click on **User guides**.

This Web site also gives further information on the BGAN service, including Industry solutions.

- For help in using BGAN LaunchPad, refer to “BGAN LaunchPad User Guide”, available for download from [www.inmarsat.com/support](http://www.inmarsat.com/support), click on **BGAN**, then click on **LaunchPad guides**.
- For further information on the EXPLORER 100/110 terminal, refer to the documents available for download from [www.thrane.com](http://www.thrane.com).

## 1.3 Upgrading software

- To download the latest USB drivers and BGAN LaunchPad software, go to [www.inmarsat.com/bgan-updates](http://www.inmarsat.com/bgan-updates).
- To download the latest terminal firmware, select **Update > Versions and Availability** from BGAN LaunchPad, or go to the Thrane & Thrane web site at [www.thrane.com](http://www.thrane.com).

# Getting Started

## 2 Introducing the terminal

This section introduces the physical characteristics, interfaces and services available on the Thrane & Thrane EXPLORER™ 100/110 (also referred to as the “terminal” throughout this document).

### 2.1 Physical characteristics

Item	Specification
Manufacturer	Thrane & Thrane
Physical dimensions	200 mm x 144 mm (7.9 in. x 5.7 in.)
Weight (including battery)	<1kg (2.2 lbs)
External power	12 Volts DC, 110-240 Volts AC
Battery life	Transmit time: 5 hours Stand-by time: 36 hours
Ingress protection	IP 44

### 2.2 Interfaces

Interface	Equipment needed
USB v1.1 (adapter required for EXPLORER 110)	IP data device, USB-enabled
Ethernet RJ45 (EXPLORER 110 only)	IP data device, LAN-enabled
Phone/fax RJ45	RJ45/ISDN handset
Bluetooth v1.2	Bluetooth handset, or Bluetooth data device

### 2.3 Services

Services	Specification
Standard IP data	Up to 384kbps (receive) and 240kbps (send)
Streaming IP data	32kbps, 64kbps (symmetrical)
Phone/fax	4kbps voice
Text	To other BGAN terminals or cellular mobile phones. From other BGAN terminals, and some mobile phones, depending on service provider.

### 3 Setting up the terminal

This section explains how to set up the EXPLORER 100/110 terminal, and connect to the BGAN network. The steps described are:

- a. Installing BGAN LaunchPad on your computer.
- b. Installing the SIM card and battery.
- c. Obtaining power and charge the battery.
- d. Connecting the terminal to your computer, using USB or Ethernet (EXPLORER 110 only). For a USB connection, you must first install the supplied drivers.
- e. Obtaining a GPS fix.
- f. Pointing the terminal and registering with the BGAN network.

#### Pre-requisites

Before you start, make sure that you have:

- The BGAN terminal.
- The AC mains power adapter, supplied with the terminal.
- The rechargeable battery, supplied with the terminal.
- A USIM card, supplied by your Service Provider.
- The BGAN LaunchPad installation CD, supplied with the terminal. Make sure that the PC or Mac has the minimum system requirements for BGAN LaunchPad (refer to page 4 for details).
- The USB cable supplied with the terminal, and the USB drivers supplied on the installation CD.
- The Ethernet cable supplied with the terminal (EXPLORER 110 only).
- A Bluetooth-enabled computer with a supported profile, if you intend to connect using Bluetooth.

#### Minimum system requirements for BGAN LaunchPad

**The following are the minimum hardware and software requirements for using BGAN LaunchPad to manage the EXPLORER 100/110 on your computer.**

Hardware requirements

**You must have the following on your computer:**

- **Support for one of the following: USB, Bluetooth or Ethernet (EXPLORER 110 only).**
- **Intel Pentium III CPU, or equivalent.**
- **100Mb of free hard disk space.**
- **128Mb of RAM.**
- **CD-ROM drive.**

**Operating systems: You must have one of the following operating systems on your computer:**

- **Microsoft Windows 2000 with SP4.**
- **Microsoft Windows XP with SP2.**
- **Linux Red Hat 9 - KDE 3.1.10 (Kernel Version 20.4.20-8).**
- **Mac 10.x. or Mac 9.2 or Mac 9.2.**

### 3.1 Installing BGAN LaunchPad

To install BGAN LaunchPad on your computer:

- a. Insert the BGAN LaunchPad Installation CD into your computer's CD-ROM drive.
- b. Follow the on-screen instructions.

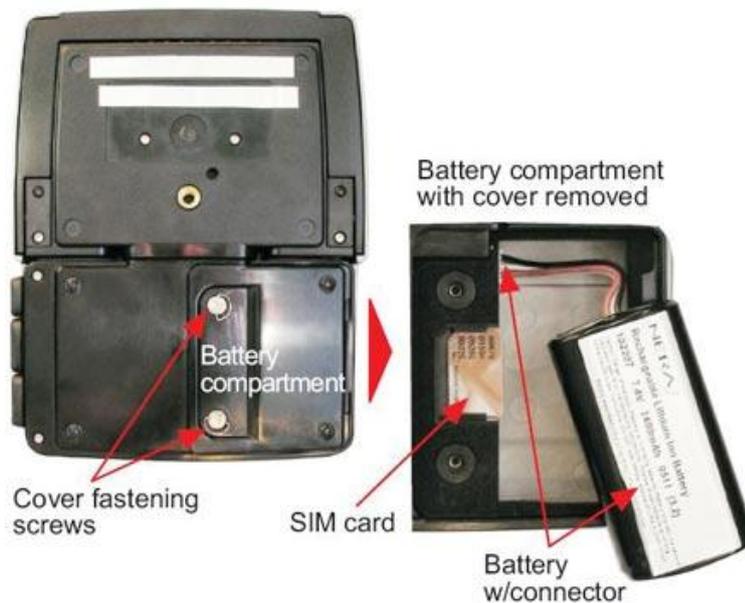
A step-by-step guide to the installation of BGAN LaunchPad is given in "BGAN LaunchPad User Guide" available for download from [www.inmarsat.com/support](http://www.inmarsat.com/support).

### 3.2 Installing the SIM card and battery

To prepare the terminal for connection:

- a. Remove the battery compartment cover by loosening the two fastening screws.

Tip If you do not have a screwdriver to hand, use a coin to loosen the fastening screws.



- b. If you have already installed the battery, release and then remove it.
- c. Install the SIM card with the gold contacts facing inwards.
- d. Install the battery supplied with the terminal.
- e. Replace the battery cover by tightening the two fastening screws

### 3.3 Powering on and charging the battery

To power on the terminal:

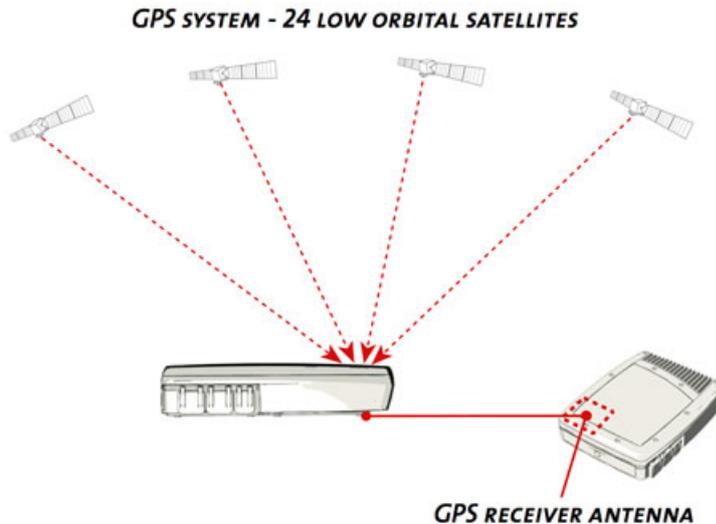
- a. Insert the power adapter output connector to the DC power input jack on the back of the terminal.
- b. Insert the plug end into any AC outlet between 110 and 240 VAC.

Note The battery automatically charges whenever the terminal is connected to a power source. The first time you install the battery, it must be charged for 24 hours before use.

#### Obtaining a GPS fix

The BGAN network requires a valid GPS fix to successfully register the BGAN terminal. To obtain a GPS fix:

- a. Power on the terminal by pressing and holding the Activate button. During start up, all the indicators light green for approximately 15 seconds and the buzzer in the antenna beeps slowly. When the Signal indicator blinks red (or yellow if it has a stored GPS fix), the terminal is ready to obtain a GPS fix.
- b. Take the EXPLORER 100/110 outside and open the stand so that the terminal is facing upwards with an unobstructed view of the sky. The following diagram shows the location of the GPS antenna in the terminal:



- c. Check the signal to see if the terminal has a GPS fix. The table below gives possible statuses:

**Indicator panel**

All indicators light <b>GREEN</b> for approx. 30 secs when powering ON			All indicators light <b>RED</b> for approx. 10 secs when powering OFF	
<b>Signal</b> 		<b>Antenna pointing</b>	No satellite signal: no GPS fix stored GPS fix new GPS fix Satellite signal OK: no GPS fix stored GPS new GPS	Blink rate 2secs Beep rate 2secs Blink rate 0.3sec Continuous sound varying with received signal strength.
		<b>Operational mode</b>	Registration in progress or lost satellite sync Attached to BGAN Network rejection	Beep every 1 sec during registration

- d. If the terminal does not have a GPS fix, leave the terminal to acquire a GPS fix. This may take a few minutes. While the interface unit is searching for a GPS fix, the Signal indicator flashes green and red alternately and the audio buzzer emits a high-pitched tone.

**Note** If the Signal indicator lights yellow, the terminal has a stored GPS fix. You may be able to use this GPS fix if you have not changed location since you last registered with the network. However, Thrane & Thrane recommends that you wait for a new GPS fix.

## About GPS

The Global Positioning System (GPS) uses 24 orbital satellites to fix the position of the terminal anywhere on the globe.

- In normal operation, a GPS receiver, such as that built in to the Terminal, needs to be able to receive signals from at least three satellites so that it can then calculate latitude, a longitude and an altitude – this position fix is referred to as a 3-dimensional or 3-D fix. If only two GPS satellites can be seen by the GPS receiver, then the last available altitude measurement is assumed and the GPS receiver calculates a position fix based on latitude and longitude only. This simpler position fix is referred to as a 2-dimensional or 2-D fix and is quicker and easier to obtain than a 3-D fix, but may be less accurate.

**Note:** You can register with the BGAN network with a 2-D or a 3-D fix.

- The GPS receiver may take between a few seconds and 20 minutes to obtain a GPS fix, depending on how frequently the GPS receiver is being used. The frequency of use determines the how quickly the GPS Terminal is able to start.
  - Hot start - if the GPS receiver is being used frequently, (that is, at least every two to six hours), it is regularly updated with data from the GPS satellites, and so only takes a short time to obtain a GPS fix after being switched on.
  - Warm start - if a GPS receiver has not been used for more than six hours, then it will take longer to obtain a GPS fix, perhaps up to 45 seconds.
  - Cold start - if the GPS receiver has not been used for some time or is 300 km or more from where it was last used, it can take between 10 and 20 minutes to obtain a valid position fix.
- Following successful registration and providing the Terminal is left switched on and remains stationary, the GPS is no longer needed. Periodically, the BGAN terminal contacts the BGAN network to inform the network that it is still switched on. In addition, the BGAN network periodically checks each terminal for activity, and if there has been no traffic through the terminal, and the terminal has not automatically contacted the BGAN network as described above, then the terminal will be de-registered from the network.

### 3.5 Connecting the terminal to your computer

When you first connect the terminal to your computer, Inmarsat recommends that you use either the USB interface (EXPLORER 100, or EXPLORER 110 with a USB adapter), or the Ethernet interface (EXPLORER 110 only).

#### Connecting over USB

To connect your computer to the terminal using the USB port:

- a. Install the USB drivers from the supplied installation CD, following the instructions provided. Two USB drivers are installed, creating two COM ports for the computer.

**Tip** To check if the installation was successful, display the list of modems on your operating system (refer to the documentation supplied with your operating system for details on how to do this). If the installation was successful, two ports called Thrane dual port 1 and Thrane dual port 2 are displayed.

- b. Connect the supplied USB cable between the USB port on your computer and the USB port on the interface unit (or the USB adapter port on the EXPLORER 110).

The first time an EXPLORER 100/110 is connected to a computer, it is detected as new hardware.

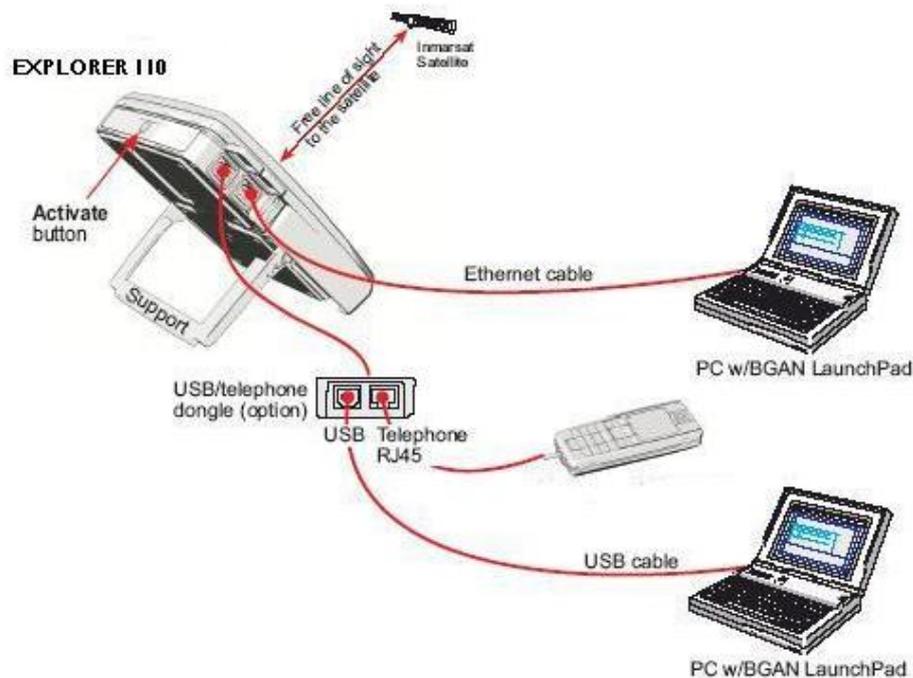
- c. Click on **Found new hardware** and follow the on-screen prompts.

Note USB drivers are provided with your BGAN terminal. You can also download the latest USB drivers from the Inmarsat Web site. Go to [www.inmarsat.com/support](http://www.inmarsat.com/support), click on **BGAN** and then click on **Software drivers**.

### Connecting over Ethernet

For the Ethernet interface to work without further configuration, you must set up a network connection on your computer using the static IP address information supplied by your Internet Service Provider. To do this, refer to the documentation supplied with your computer's operating system.

To connect your computer to the EXPLORER 110 using the Ethernet port:



- a. Connect one end of the supplied Ethernet cable to the Ethernet connector on your terminal.
- b. Connect the other end of the cable to the LAN port on your computer.

The default IP address of the terminal is 192.168.0.1. If you want to test connectivity between your computer and the terminal, ping 192.168.0.1 from your computer. If a reply is received, your computer is connected to the terminal. If a reply is not received, you may need to enable the Ethernet interface. See [“Setting up the Ethernet Interface”](#) on page 29.

Tip Some corporate computers are configured with a static IP address. If your computer has a static IP address, you must go into the IP Properties option, and change your computers settings to obtain an IP address automatically.

This is only necessary the first time you connect. You can then change the IP settings to use a static IP address, if required.

#### IP addressing on the Explorer 110

- In normal operation, the terminal uses its built-in DHCP server to allocate IP addresses automatically. If you want to manually set up IP addressing, you can use the terminal's default range of IP addresses, as shown below:

**Terminal IP address**                      **192.168.0.1**

Default IP address                      192.168.0.100

Subnet mask                              255.255.255.0

DNS

If you use BGAN.INMARSAT.COM as your APN, the default DNS addresses are 172.30.66.7 and 172.30.34.7

If you use another APN, your Distribution Partner supplies you with a DNS address for your APN.

- To test connectivity between your computer and the terminal, ping 192.168.0.1 from your computer. If a reply is received, your computer is connected to the terminal.

Refer to the Solutions Guide document "BGAN and IP data connections" for further details.

#### Interfacing with the BGAN terminal

You have two ways of interfacing with the BGAN terminal when using the EXPLORER 100/110.

- **BGAN LaunchPad** – Inmarsat's easy-to-use software interface, that provides step-by-step instructions on connecting to the BGAN network and setting up satellite connections. You can use BGAN LaunchPad to manage data connections, send and receive text messages, monitor telephone usage and upgrade software. The interface can be installed on any computer connected to the terminal and accessed by double-clicking on a desktop icon. With BGAN LaunchPad, you have access to all the latest customisation options and features of the BGAN service. You can also update firmware automatically using BGAN LaunchPad.

**Note:** If you use only the USB connection, you must install the USB drivers before you can use BGAN LaunchPad.

- The EXPLORER ISDN handset (optional) has a display and keypad that enables you to point the antenna and monitor signal strength, enter the SIM PIN, monitor phone and data interfaces and log files, as well as make and receive a telephone call and send and receive a text message.

Inmarsat recommends that only one interface be used to ensure that settings and configurations are not overwritten. This guide assumes use of BGAN LaunchPad.

### 3.6 Registering with the network

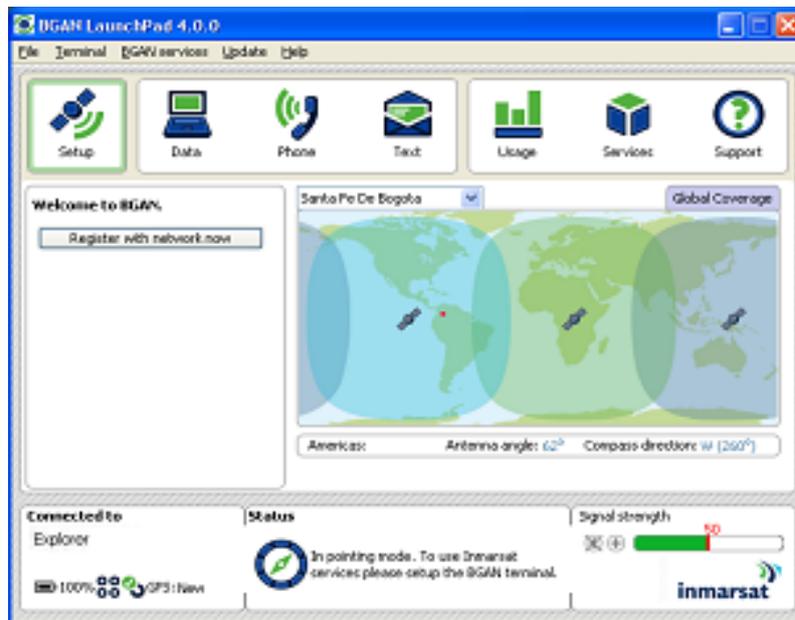
Establishing a connection and registering successfully with the network requires careful orientation of the terminal towards the satellite, a process called pointing. Accurate and precise pointing is important, because a badly-pointed antenna can reduce the data rate achievable over the network, or even restrict access to services. When pointing is complete, you can register the terminal with the BGAN network.

Use BGAN LaunchPad to step through the process of pointing the terminal and registering with the network. In addition, you can use the BGAN terminal's signal strength indicator lights and, optionally, the terminal's audio buzzer to point the terminal. To do this:

- a. Open BGAN LaunchPad, by clicking on the BGAN LaunchPad icon on your desktop.



The following screen is displayed:

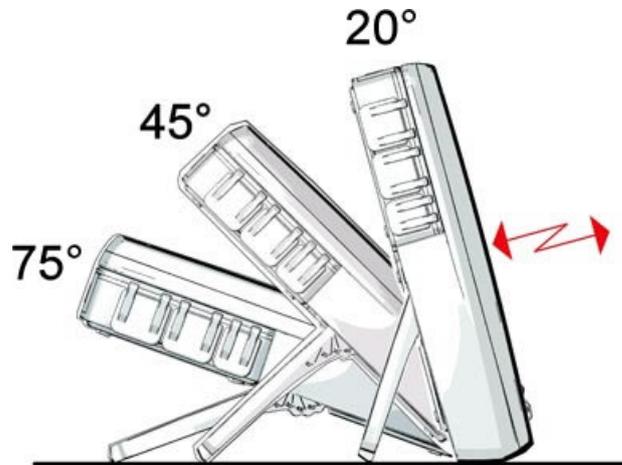


The status bar displays the message **In Pointing Mode**.

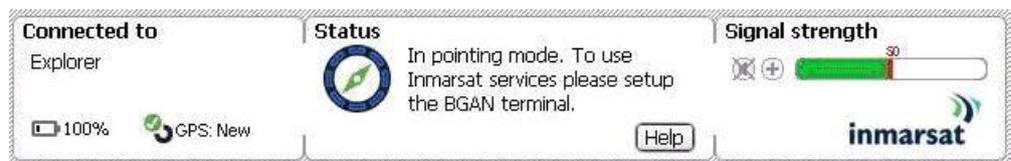
**Note** The coverage map and "Welcome to BGAN" area are provided to assist you in pointing, but the location shown may not correspond to your GPS fix. This does not affect network registration.

- b. BGAN LaunchPad suggests the recommended pointing angle and direction to correctly position the terminal.
  - Rotate the terminal left or right until it points in the correct horizontal direction, known as the azimuth.

Set the vertical angle of the terminal to the recommended position (the angles 75°, 45° or 20° are shown below). Unobstructed line of sight to the satellite is required.



- c. Monitor the signal strength on the status bar:



Use this information to further adjust the antenna position to obtain optimal signal strength. Remember not to touch the antenna.

In addition, you can use the satellite Signal indicator on the terminal to monitor the signal strength. It flashes green when searching for the signal, flashes more rapidly as the signal improves and lights solid green when the signal strength is acceptable. At the same time, the alignment buzzer in the antenna unit sounds with increasing pitch as the signal improves.

**Note** If the signal strength is not sufficient, registration may not be possible and the terminal may not be able to open a data connection.

- d. When you have positioned the terminal to obtain the optimal signal strength, you are ready to register with the network. Click on **Register with Network now**.

**Tip** You can also register with the network by pressing the Activate button at any stage in the pointing process.

By default, BGAN LaunchPad opens a standard IP data connection after successful registration. The status zone reads **Standard Data Connection Open. Ready for Phone, Text and Data**.

Using BGAN LaunchPad during pointing and registration

**Note the following about BGAN LaunchPad during pointing and registration:**

- During pointing, the location shown on the coverage map is based on your previous location. The coverage map displays your current position only after you exit pointing and register with the network.
- During pointing, signal strength information is provided by the satellite's global beam. Once you have registered, the signal strength is provided by the satellite's regional beam. Therefore the signal strength bar shown in BGAN LaunchPad may change after registration. Once you have opened a data connection, signal strength is provided by the spot beam.
- To check the actual signal strength, select Help > Diagnostic Report in BGAN LaunchPad. The actual signal strength is given in the dialog box that is displayed.

Tip You can make or receive phone calls, or send and receive a text message even if you do not have an IP data connection.

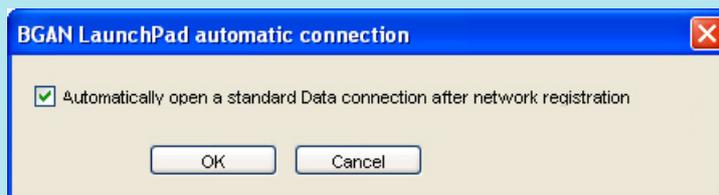
Automatic mode

The EXPLORER 100/110 offers the following automatic features.

By default, the terminal automatically opens a data connection after you register with the network. However, there is a minimum charge for opening an IP data connection (unless you are on a lease package) and data may be transferred across the connection even if you are not actively using an application (for example, your computer may be receiving automatic updates).

If you do not want to incur these charges, you can switch off the automatic connection feature using BGAN LaunchPad, as follows:

- a. Select BGAN Services > LaunchPad Automatic Connection. The BGAN LaunchPad automatic connection window is displayed:



- b. Uncheck Automatically open a standard Data connection after network registration and click on OK

### **3.7 Split operation of the EXPLORER 100/110**

The EXPLORER 100/110 can be operated with the Interface Unit (or Indoor unit) separated from the Antenna Unit (Outdoor unit). The Thrane & Thrane split cable (not supplied) interconnects the two units, allowing for example, the Interface Unit to be placed inside a building and the Antenna Unit outside. The split cable is a specially designed 9-pin RS232 cable and operates over a distance of up to 20 m.

**Note** The Thrane split cable is designed for use with the EXPLORER 100/110. Other 9-pin cables will not work optimally with the terminal, and may affect performance.

**Note** Turn the terminal off before separating the Interface Unit and the Antenna Unit.

**Note** EXPLORER 100/110 terminal units are interchangeable. You can use any Indoor unit with any Outdoor unit.

## Voice and Data Connections

### 4 Making voice, data and text connections

You can connect to the terminal using any of the following interfaces:

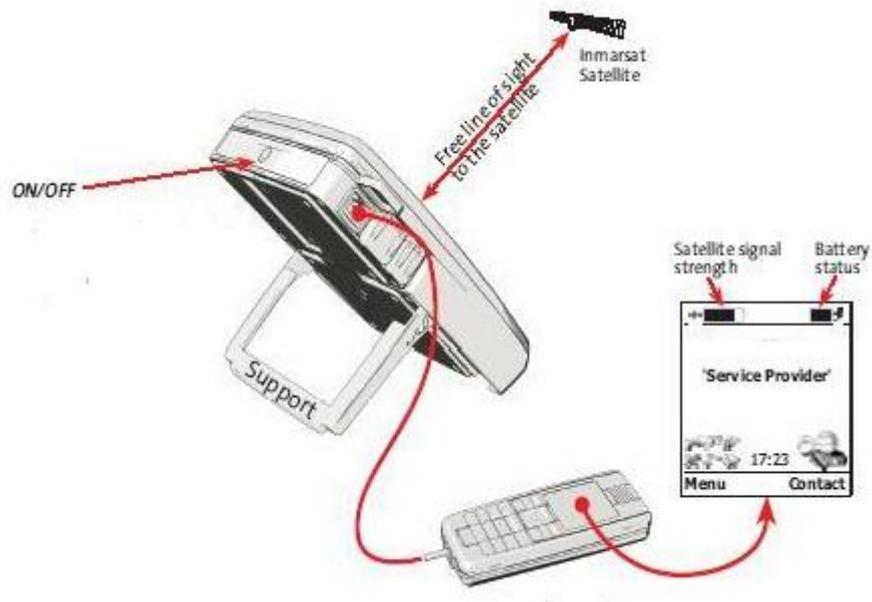
- USB, for IP data connections (you require an adapter for the EXPLORER 110).
- Ethernet, for IP data connections (EXPLORER 110 only).
- Telephone, for voice connections at 4kbps (ISDN handset required).
- Bluetooth, for Bluetooth voice or data connections.

If required, you can connect to more than one interface simultaneously.

#### 4.1 Making a voice call

You must be registered with the network before you can make a telephone call.

To make a telephone call on the terminal, connect the EXPLORER ISDN handset (or another ISDN handset) to the terminal's telephone port using an ISDN cable, as shown below:

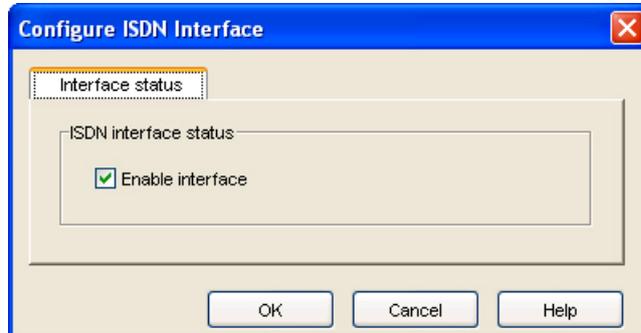


You are now ready to make or receive telephone calls.

#### **If you can't make a telephone call:**

If you can't make a 4kbps voice call with an ISDN or RJ45 handset, check that the interface is enabled in BGAN LaunchPad. To do this:

- a. Select **Terminal > ISDN Interface Settings**. The **Configure ISDN Interface** dialog box is displayed:



- b. Check **Enable Interface** to activate the ISDN interface and click on **OK**.

Tip To check your MSISDN number(s) and SIM card details whilst connected to the terminal . select **Help > Diagnostic Report** from the BGAN LaunchPad main menu.

## 4.2 Making an IP Data Connection

### Pre-requisites

**Before you can open an IP data connection, ensure that you have done the following:**

- **Installed a provisioned SIM card, supplied by your Service Provider. The SIM card contains Access Control Point (APN) information, therefore Inmarsat recommends that you do not change the APN after installing the SIM card.**
- **Connected your computer to the BGAN terminal using one of the terminal's interfaces.**
- **Pointed the terminal to obtain the maximum possible signal strength.**
- **Registered with the BGAN network.**

You can make an IP data connection using either of these interfaces:

- USB (EXPLORER 100, and EXPLORER 110 with an adapter).
- Ethernet (EXPLORER 110 only).
- Bluetooth.

### Opening a standard data connection



By default, when you first register with the BGAN network, the terminal opens a standard data connection. The standard connection is an always-on, best effort connection and is suitable for most basic data requirements. It is charged by the amount of data sent and received.

To check that the standard connection is open, select the Data tab in BGAN LaunchPad.



The following screen is displayed:



If the standard connection is open, the words **Disconnect Standard** display below the connection icon.

**Note** If the standard connection is closed, the words **Connect Standard** display below the connection icon. Click on the icon to open the standard connection.

You can now browse the Internet, send and receive email and use other IP applications. All traffic is transferred across the standard connection.

#### 4.4 Opening a streaming data connection



If you require a guaranteed data rate for your connection (if, for example, the application is time critical), you can connect using one of the two dedicated streaming connections, at the following data rates:

- 32kbps streaming
- 64kbps streaming

**Tip** By default, error correction (also called network packet retransmission) is switched on. Inmarsat recommends that you turn error correction off for UDP/IP connections, as this feature is not required for this connection type. Refer to "BGAN and IP data connections" for details.

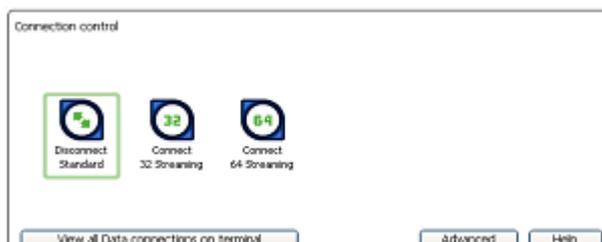
Each streaming class connection is charged by the length of time that the connection is live. When you open a streaming connection, the standard connection is closed.

To open a streaming connection:

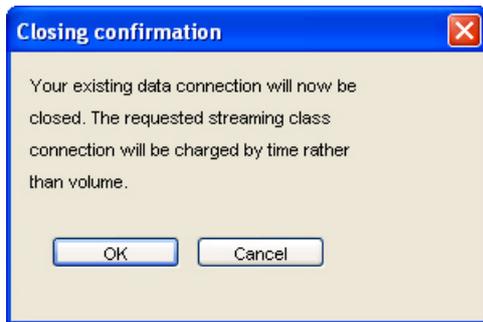
- a. Select the **Data** tab in BGAN LaunchPad:



The following screen is displayed:



Select the required streaming connection, for example **64 Streaming**. The following message is displayed, asking you to confirm that you want to close your current connection and open a new connection, charged by time:



b. Click on **OK**. The new data connection opens, and the following screen is displayed:



The **Standard** connection is closed and the **64 Streaming** connection is open. All traffic is transferred across the selected streaming connection.

**Note** If you subsequently want to close the streaming connection and open another streaming connection, or reopen the standard connection, repeat steps 1 to 3.

**Note** If you want to close all connections, click on the currently open connection.

#### 4.5 Opening a dedicated streaming connection



In addition to the default connections, BGAN LaunchPad enables you to configure and open one or more dedicated streaming connections (you can associate one of the icons shown above with a dedicated streaming connection). These are assigned to specific applications, for example **Win Media**, to ensure that the connection for this application's data is not shared with any other application.

You must have a pre-configured standard or streaming connection open before you can open a dedicated streaming connection. This is because each dedicated streaming connection creates a virtual IP data connection which shares the IP address of the pre-configured standard or streaming connection.

For details on configuring dedicated streaming connections using **Win Media** as an example, refer to the document "BGAN LaunchPad User Guide", available for download from [www.inmarsat.com/support](http://www.inmarsat.com/support).

## Traffic Flow Templates

Each dedicated streaming connection is associated with a Traffic Flow Template (TFT). A TFT, also called an Application Template, assigns a priority to a selected type of traffic in order to maximize performance.

BGAN LaunchPad supports the following pre-configured TFTs, any one of which can be selected when you configure a dedicated streaming connection to ensure that the defined traffic has its own dedicated connection:

- FTP
- QuickLink
- QuickTime
- Real Media
- Streambox
- WinMedia

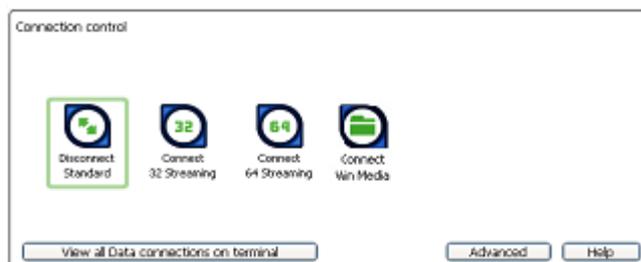
If you wish to want to define your own TFT for another application, contact your Service Provider for assistance.

To open a dedicated streaming connection:

- a. Select the **Data** tab in BGAN LaunchPad.



The following screen is displayed:

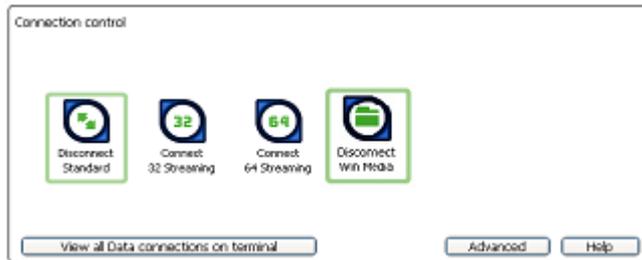


In this scenario, you have set up a dedicated streaming connection for **Win Media**. The Standard connection is currently open.

- b. Select the required dedicated streaming connection, for example **Win Media**. The following message is displayed, asking you to confirm that you want to open a dedicated connection in addition to your current connection:



- c. Click on **OK**. The new data connection opens and the following screen is displayed:



The **Standard** and **Win Media** connections are both open. All traffic other than **Win Media** data continues to use the standard connection.

You can open up to 10 dedicated streaming connections in addition to your default connection.

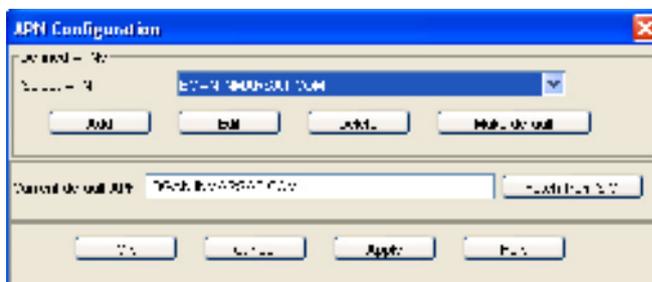
**If you can't make a data connection:**

If you can't open a data connection, check that the default Access Point Name (APN) is set correctly. The APN is stored on your SIM and must be configured as the access point for each of your data connections for the data connection to open successfully.

**Tip** If you want to open a dedicated streaming connection, the APN of the dedicated streaming connection must be the same as that of the standard or streaming connection already open.

**To check the default APN is set correctly:**

- a. Select **BGAN Services > LaunchPad APN Options**. The **APN Configuration** screen is displayed



- b. Verify that the **Current Default APN** text box contains the correct APN. If not, either
- Click on **Fetch from SIM**, or.
  - Select the required APN from the **Select APN** drop-down list and click on **Make default**.

**To check that the APN for a specific data connection is set to the default:**

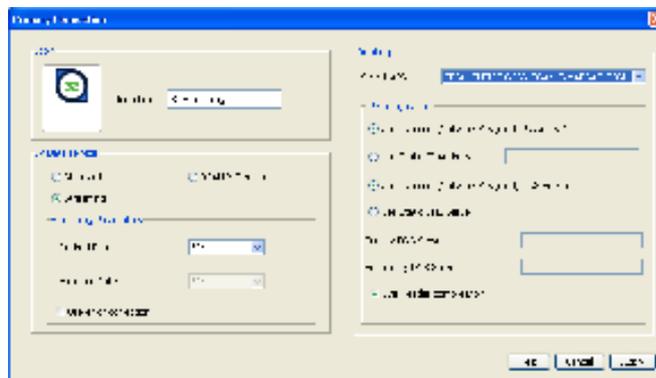
- a. Select the **Data** tab in BGAN LaunchPad:



The following screen is displayed:



Right-click on the connection you want to verify and select **Edit**. The **Primary Connection Connection** screen is displayed:



- c. **Verify** the APN displayed in the **Select APN** field. If it is not correct, select the required APN from the drop-down list and click on **OK**.

**Tip** Some Distribution Partners assign usernames and passwords to the APN. You may need to enter these when accessing or changing APN details.

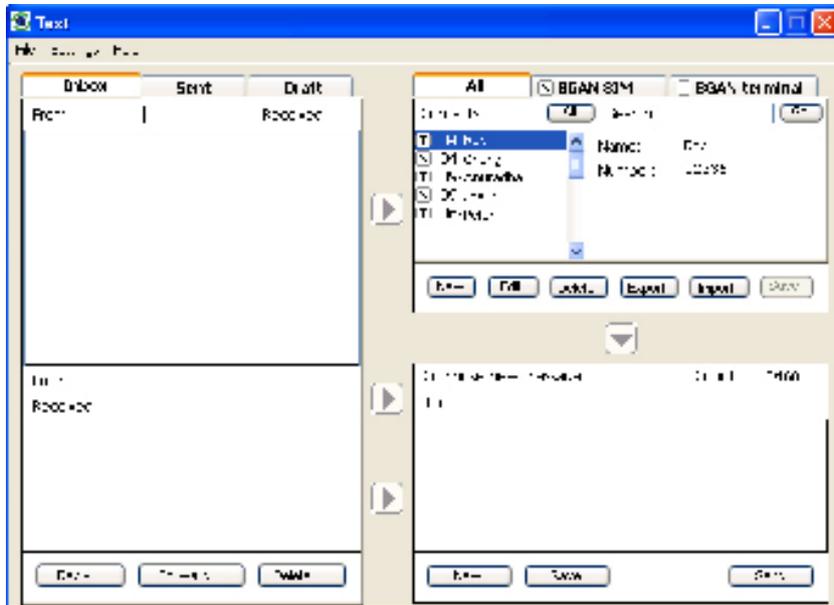
### **Sending or receiving a text message**

You can send text messages from a BGAN terminal to another BGAN terminal and from a BGAN terminal to a mobile phone. You can also send a text messages from a mobile phone to a BGAN terminal, but only on those networks with which Inmarsat has an agreement.

To access text features, select the **Text** tab in BGAN LaunchPad:



The following screen is displayed:



Refer to the document "BGAN LaunchPad User Guide" for details on using this screen.

Note LaunchPad advises you with a pop-up message when a new text has been received.

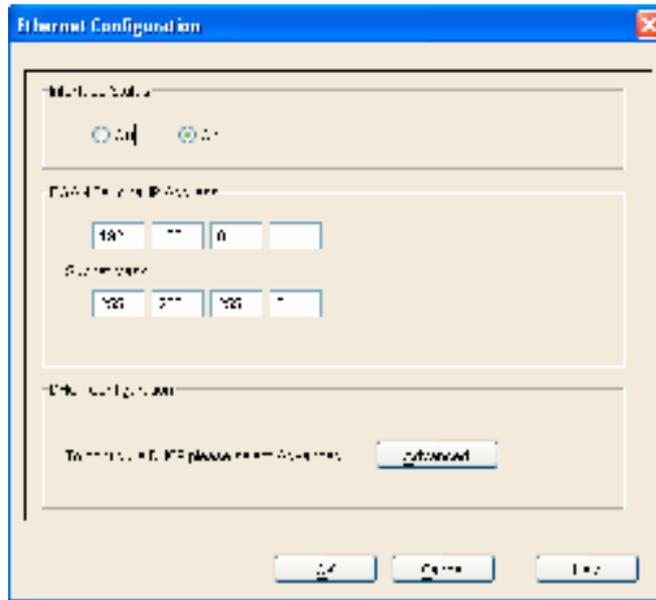
## Terminal interface settings

### 5 Setting up the Ethernet interface

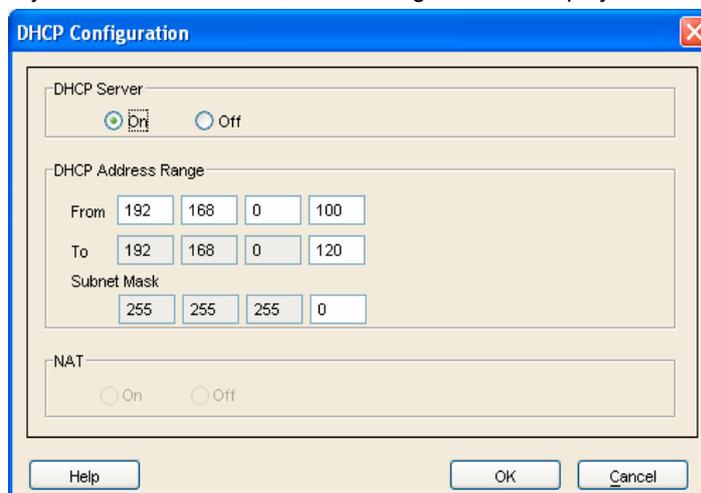
Note: The EXPLORER 100 does not have an **Ethernet interface**.

To set up the **Ethernet interface** on the EXPLORER 110:

- a. Click on **Terminal > Configure Ethernet**. The **Ethernet Configuration** screen is displayed:



- b. To enable the **Ethernet interface**, check **On**.
- c. The BGAN Terminal IP address information is displayed. The default IP Address of the terminal is **192.168.0.1**, and the Subnet Mask is **255.255.255.0**. If required, you can change one or both of these this by typing in a new IP address or subnet mask.
- d. If you want to set up DHCP information, click on **Advanced**. Alternatively, click on **OK** to save any changes and exit, or click on **Cancel** to exit without saving.
- e. If you click on **Advanced**, the following screen is displayed:



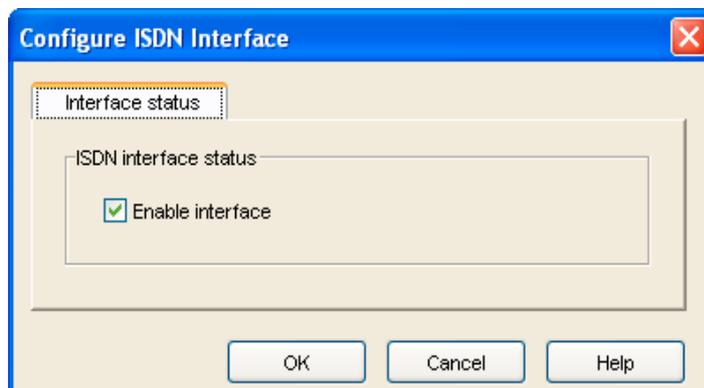
- f. Turn the DHCP Server **On**, if required. The screen displays the current DHCP Address Range and subnet mask.
- g. If required, edit the DHCP address range by typing in a new start IP address in the **From** fields and a new end IP address in the **To** fields. If required, edit the subnet mask.
- h. Turn NAT **On** or **Off** as required.
  - If the terminal is operating in NAT mode, and multiple users are connected to the Ethernet interface over a hub or switch, all users share the standard or streaming IP data connection. Only one session of BGAN LaunchPad is required. Other users can open a dedicated connection, if required.
  - If the terminal is not operating in NAT mode, and multiple users are connected to the Ethernet interface over an external router, only one user can request a standard or streaming IP connection. Dedicated connections are not supported.
- i. Click on **OK** to save any changes and exit, or click on **Cancel** to exit without saving.

## 6 Setting up the ISDN Interface

You can establish ISDN communication by connecting your handset to the BGAN terminal's ISDN port.

To activate ISDN, do the following:

- a. Select **Terminal > ISDN Interface Settings**. The **Configure ISDN Interface** dialog box is displayed:



- b. Check **Enable Interface** to activate the ISDN interface, or uncheck the box to deactivate the interface.
- c. Click on **OK** to save the changes, or on **Cancel** to exit without saving.

## 7 Setting up the Bluetooth interface

### 7.1 Introduction

#### Bluetooth and the EXPLORER 100/110

Interface	Built-in antenna, Bluetooth class 1 v1.2
Supported Profiles	Cordless Telephone Profile (CTP)
	Serial profile
	Dial-up networking
Distance to device	Maximum 20m

**Your Bluetooth device must be paired with the terminal's built-in Bluetooth modem before you can make Bluetooth calls or transmit Bluetooth data. If you want to pair your device with the terminal, the default device name is "NERA-GW", and the default passkey is 0000 (four zeroes).**

### 7.2 Connecting from your device to the terminal

The Bluetooth device must be placed within a maximum distance of 20 m from the BGAN terminal. Note that this is the absolute maximum distance; the actual maximum distance may be shorter, depending on the conditions.

To pair with the terminal and open a connection using the Bluetooth software on your Bluetooth device:

Make sure the Bluetooth interface in the terminal is enabled (the interface is enabled by default). To do this, you must be connected to the terminal via the LAN or USB interface.

- Select **Terminal > Bluetooth Interface Settings** to display the **Configure Bluetooth Interface** dialog box. Make sure **Enable** is checked and click on **OK**.
- Enable your Bluetooth device, and search for devices in range. The terminal's default **Device Name** is NERA-GW.
- Enter the terminal's passkey when prompted to pair with the terminal. By default, the passkey is 0000 (four zeroes). When you have paired the device and the terminal, the Bluetooth software automatically installs two Bluetooth modems on your computer, one for BGAN LaunchPad and one for dial-up networking.
- Open BGAN LaunchPad. BGAN LaunchPad automatically detects the Bluetooth connection and you can use your device to access Bluetooth services.

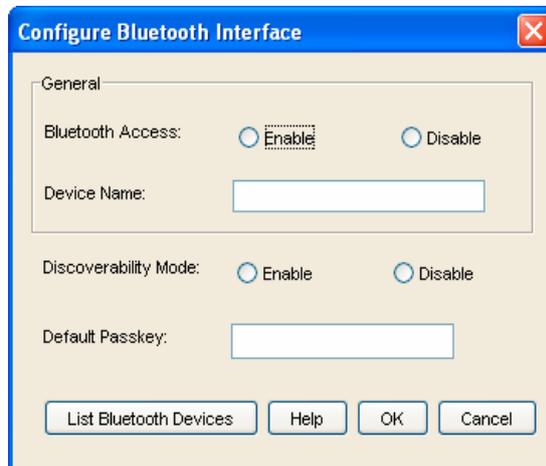
**Tip:** If you want to open an IP data connection over Bluetooth using BGAN LaunchPad, you must un-pair from all other devices, so that your computer is paired only with the BGAN terminal. You can now open BGAN LaunchPad and access terminal services over BGAN LaunchPad.

### 7.3 Connecting from the terminal to your device

The Bluetooth device must be placed within a maximum distance of 20m from the BGAN terminal. Note that this is the absolute maximum distance; the actual maximum distance may be shorter, depending on the conditions.

To search for and pair with your Bluetooth-enabled device from the terminal using BGAN LaunchPad:

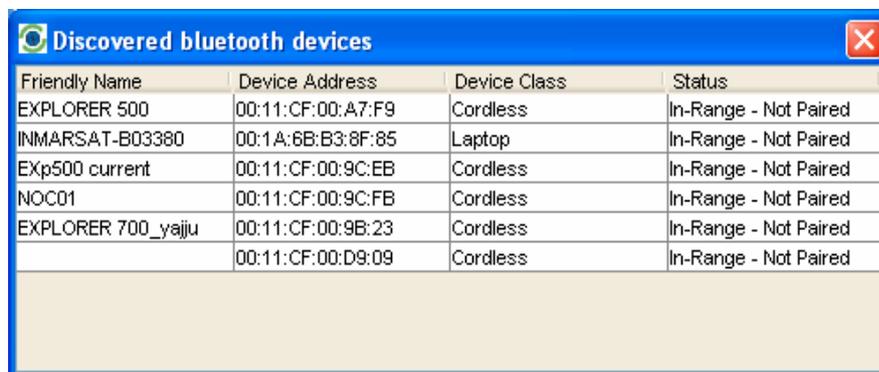
- a. Select **Terminal > Bluetooth Interface Settings**. The **Configure Bluetooth Interface** dialog box is displayed:



- b. If the Bluetooth interface is not enabled, check **Enable**.

Note: The Bluetooth device that you want to pair with must also be enabled.

- c. Click on **List Bluetooth Devices** to list all Bluetooth devices within range. A screen similar to the following is displayed, giving the device address and current status, including pairing information.



Friendly Name	Device Address	Device Class	Status
EXPLORER 500	00:11:CF:00:A7:F9	Cordless	In-Range - Not Paired
INMARSAT-B03380	00:1A:6B:B3:8F:85	Laptop	In-Range - Not Paired
EXp500 current	00:11:CF:00:9C:EB	Cordless	In-Range - Not Paired
NOC01	00:11:CF:00:9C:FB	Cordless	In-Range - Not Paired
EXPLORER 700_yajju	00:11:CF:00:9B:23	Cordless	In-Range - Not Paired
	00:11:CF:00:D9:09	Cordless	In-Range - Not Paired

If required, either:

- **Pair** a device by right-clicking on an unpaired device and selecting **Pair**. Enter the passkey when prompted, or
- **Unpair** a device by right-clicking on a paired device and selecting **Un-pair**.

- d. Click on **OK** to save the configured settings, or click on **Cancel** to exit without saving. When you have paired the device and the terminal, the Bluetooth software automatically installs two Bluetooth modems on your computer, one for BGAN LaunchPad and one for dial-up networking.

BGAN LaunchPad automatically detects the Bluetooth connection and you can use your device to access Bluetooth services.

You cannot make a local call between two Bluetooth handsets using the EXPLORER 100/110. You can make a local call from a Bluetooth handset or headset to an analogue phone, or from an analogue phone to a Bluetooth handset or headset.

Tip: If you want to open an IP data connection over Bluetooth using BGAN LaunchPad, you must un-pair from all other devices, so that your computer is paired only with the BGAN terminal.

You can now open BGAN LaunchPad and access terminal services across the Bluetooth connection.

**If you can't make a Bluetooth data connection:**

If you can't make a standard data connection over Bluetooth, check the Dial-up networking properties on your operating system to ensure that the Bluetooth standard modem is selected. Refer to the documentation for your operating system for details.

## Managing the terminal

### 8 Enabling or disabling audio and lights

The terminal has built-in audio and lights which you can use to assist you in pointing the terminal. The terminal has a number of indicator lights (also called LEDs) on its external antenna unit and its interface unit, that indicate the status of various terminal features.

To manage these features:

- a. Select **Terminal > Audio and Lights**. The **BGAN Terminal Audio and Lights** dialog box is displayed:



- b. Set the **Buzzer volume** to the required level by clicking in the arrow and sliding it up or down. When you point the satellite, the buzzer increases in pitch as the satellite signal gets stronger.
- c. To turn the **Indicator lights** on or off for the **Indoor unit** (interface) or **Outdoor unit** (antenna), click on **Enable** or **Disable** as required. You may want to disable these lights for security or other reasons.
- d. Click on **OK** to save the settings and close the window, click on **Apply** to save the setting and continue to edit this window, or click on **Cancel** to exit without saving.

## 9 Enabling auto start and automatic registration

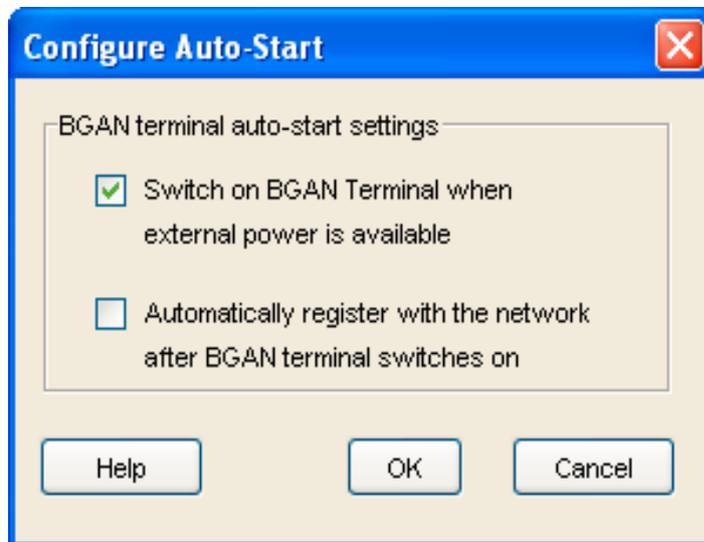
The auto start feature can be used in conjunction with automatic registration to allow the terminal to automatically recover from a power outage. This is useful if the terminal is mounted in a fixed location where the power switch cannot easily be reached, for example on a pole.

In normal operation, the terminal does not turn back on when power is reapplied after a power failure. If you activate the auto start feature, the terminal turns back on automatically.

You can also enable automatic registration, in which case the terminal bypasses the pointing procedure and automatically reconnects to the network. Automatic registration should only be used for fixed installations, where pointing is not required after initial setup.

To activate auto start and/or automatic registration:

- a. Select **Terminal > Auto Start Mode**. The **Configure Auto Start** dialog box is displayed:



- b. Check **Switch on BGAN terminal when external power is available** to turn on auto start.
- c. If required, check **Automatically register with the network after BGAN terminal switches on** to bypass pointing in the event of power failure.
- d. Click on **OK** to save the settings, or on **Cancel** to exit without saving.

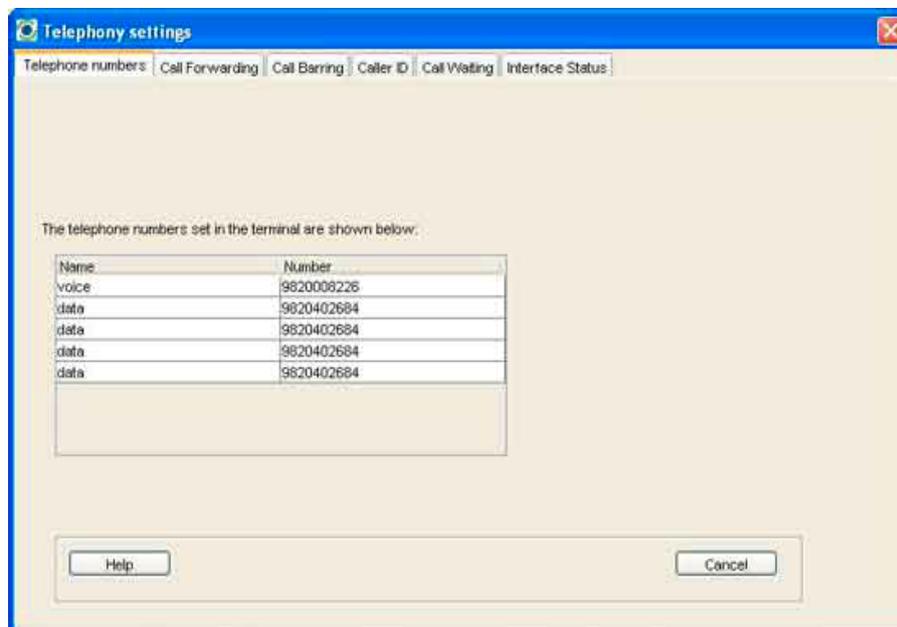
## Telephony settings

You can use BGAN LaunchPad to set up phone settings such as call forwarding and call barring. Each of the available options are described in the following sections.

### 10 Viewing telephone numbers

You can display the terminal's telephone numbers and ISDN numbers in BGAN LaunchPad, if they have been supplied by your service provider. To do this:

- a. Select **BGAN services > Telephony Settings**: (or click on **Advanced** in the **Phone** window). The **Telephony Settings** window is displayed.
- b. Select the **Telephone numbers** tab. The following window is displayed:



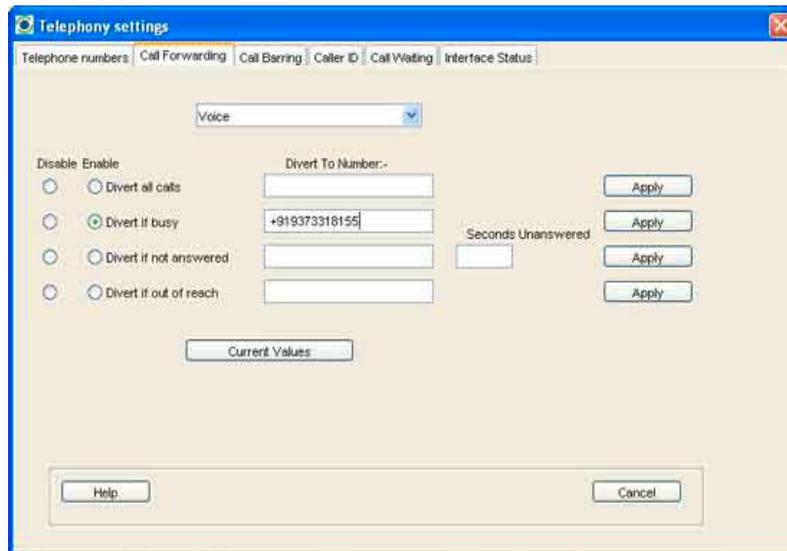
The telephone numbers and ISDN numbers available to you are displayed in the **Telephone numbers** tab.

## 11 Setting up call forwarding

You can forward incoming calls to another phone using the **Call Forwarding** options.

To select call forwarding options:

- a. Select **BGAN services > Telephony Settings**: (or click on **Advanced** in the **Phone** window). The **Telephony Settings** window is displayed.
- b. Select the **Call Forwarding** tab. The following window is displayed:



The screenshot shows the 'Telephony settings' window with the 'Call Forwarding' tab selected. At the top, there are tabs for 'Telephone numbers', 'Call Forwarding', 'Call Barring', 'Caller ID', 'Call Waiting', and 'Interface Status'. A dropdown menu is set to 'Voice'. Below this, there are four rows of settings, each with a 'Disable' and 'Enable' radio button, a text box for 'Diver To Number:-', and a 'Seconds Unanswered' text box. The first row is 'Diver to all calls' with an empty number box and an 'Apply' button. The second row is 'Diver to busy' with the number '+919373318155' and an 'Apply' button. The third row is 'Diver to not answered' with an empty number box and an empty 'Seconds Unanswered' box, and an 'Apply' button. The fourth row is 'Diver to out of reach' with an empty number box and an empty 'Seconds Unanswered' box, and an 'Apply' button. At the bottom, there is a 'Current Values' button, a 'Help' button, and a 'Cancel' button.

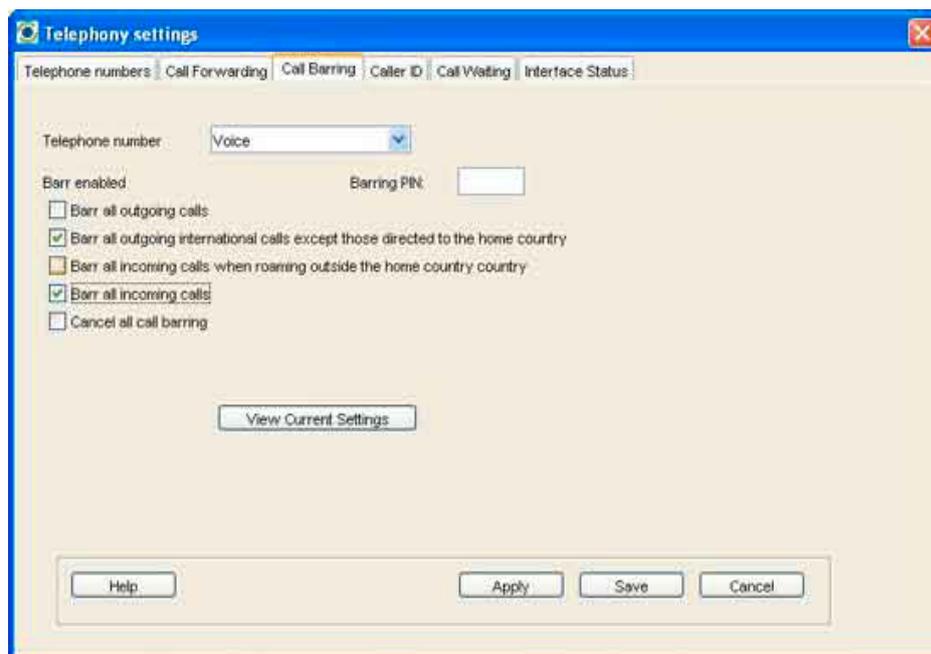
- c. From the drop-down list, select the service on which you want to set up call forwarding, either **Voice**, **Data** or **Fax**.
- d. Check **Enable** or **Disable** for each call forwarding option as required. If you enable a call forwarding option, enter the number of the telephone to which you want to forward the call in the text box alongside your selection. If you check **Diver to not answered**, enter the amount of time you want the phone to ring unanswered before the call is diverted, in the **Seconds unanswered** text box.
- e. If required, click on **Current Values** to display the current network settings for this service.
- f. Click on **Apply** to save the displayed configuration and select another **Telephony settings** tab, click on **Save** to save the displayed configuration and exit the **Telephony settings** screen, or click on **Cancel** to exit without saving.

## 12 Setting up call barring

You can bar selected types of outgoing or incoming call using the **Call Barring** options. Before you can do this, you must enter the PIN supplied by your Service Provider.

To select call barring options:

- a. Select **BGAN services > Telephony Settings**: (or click on **Advanced** in the **Phone** window). The **Telephony Settings** window is displayed.
- b. Select the **Call Barring** tab. The following window is displayed:



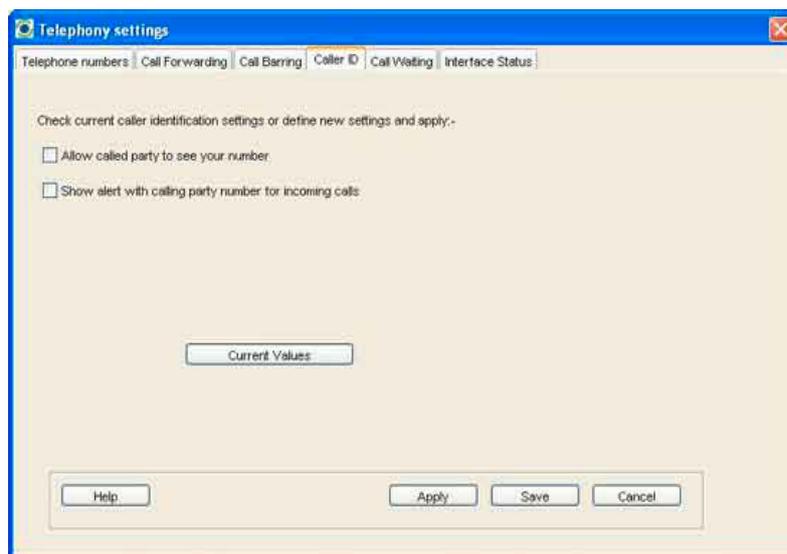
- c. In the **Telephone number** drop-down list, select the service on which you want to set up call barring: either **Voice**, **Data** or **Fax**.
- d. In the **Barring PIN** text box, enter the PIN supplied by your Service Provider. You cannot set up call barring options unless you enter the correct PIN.
- e. Check any box if you want to activate a call barring service. If you choose **Cancel all call barring**, no other services are available to you. You must uncheck this box again to have access to the other services.
- f. If required, click on **Current Values** to display the current network settings for this service.
- g. Click on **Apply** to save the displayed configuration and select another **Telephony settings** tab, click on **Save** to save the displayed configuration and exit the **Telephony settings** screen, or click on **Cancel** to exit without saving.

## 13 Setting up caller ID

You can enable **caller ID** if you want to see the number of an incoming caller, or allow a caller to see your number.

To set up **caller ID**:

- a. Select **BGAN services > Telephony Settings**: (or click on **Advanced** in the **Phone** window). The **Telephony Settings** window displays.
- b. Select the **Caller ID** tab. The following window is displayed:



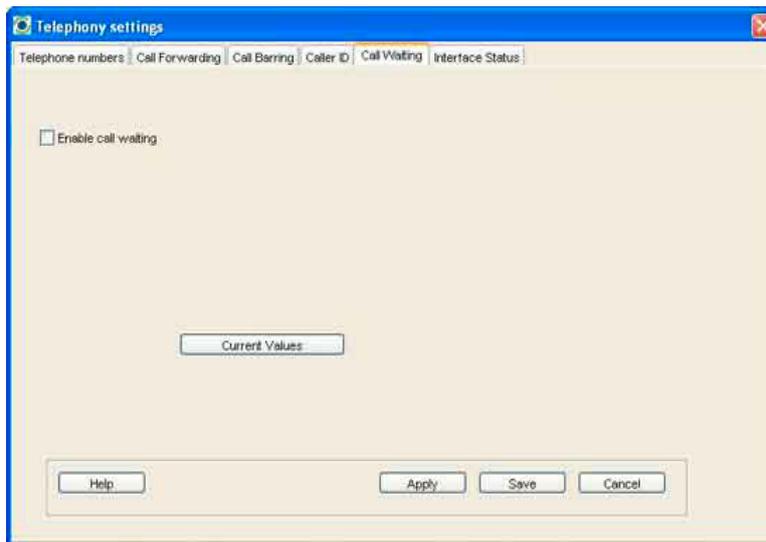
- c. Check **Allow Called Party to see your number** if you want to allow the caller to see your number.
- d. Check **Show alert with calling party number for incoming calls** if you want to see the number of an incoming caller.
- e. If required, click on **Current Values** to display the current network settings for this service.
- f. Click on **Apply** to save the displayed configuration and select another **Telephony settings** tab, click on **Save** to save the displayed configuration and exit the **Telephony settings** screen, or click on **Cancel** to exit without saving.

## 14 Setting up call waiting

You can enable call waiting if you want to be notified that another caller is waiting which you are on a call.

To set up call waiting:

- a. Select **BGAN services > Telephony Settings**: (or click on **Advanced** in the **Phone** window). The **Telephony Settings** window is displayed.
- b. Select the **Call Waiting** tab. The following window is displayed:



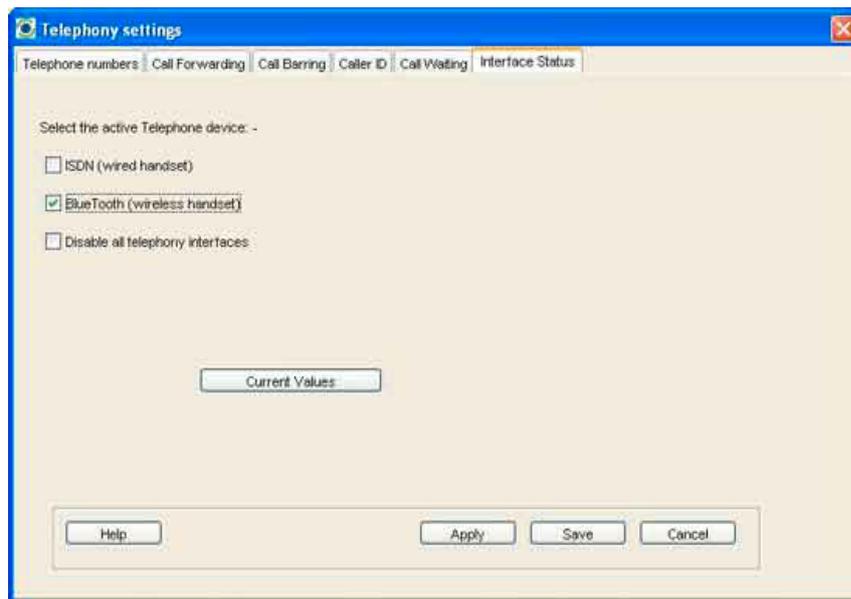
- c. Check **Enable Call Waiting** to activate call waiting, or uncheck to turn call waiting off.
- d. If required, click on **Current Values** to display the current network settings for this service.
- e. Click on **Apply** to save the displayed configuration and select another **Telephony settings** tab, click on **Save** to save the displayed configuration and exit the **Telephony settings** screen, or click on **Cancel** to exit without saving.

## 15 Setting up interface status

You can set the active telephone interface as ISDN, Bluetooth, ISDN and Bluetooth together, or you can disable all telephony interfaces.

To set the interface status:

- a. Select **BGAN Services > Telephony Settings** (or click on **Advanced** in the **Phone** window). The **Telephony settings** window is displayed.
- b. Click on **Interface Status**. The following window is displayed:



- c. Check the available options as required. If you choose **Disable all telephony interfaces**, no other services are available to you. You must uncheck this box again to have access to the other services.
- d. If required, click on **Current Values** to display the current network settings for this service.
- e. Click on **Apply** to save the displayed configuration and select another Phone settings tab, click on **Save** to save the displayed configuration and exit the Phone settings screen, or click on **Cancel** to exit without saving.