

Using BGAN LaunchPad on the Hughes 9201

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Introduction

1 Introducing BGAN LaunchPad on the Hughes 9201

1.1 Purpose of this manual

This document describes the functions of BGAN LaunchPad that are specific to the Hughes 9201.

It is intended for first time end-users, Distribution Partners, Service Providers and anyone who wants to use the Hughes 9201 to connect to the BGAN network and manage network services using LaunchPad. A previous knowledge of satellite communications is useful, but not essential.

1.2 Scope

This document gives detailed instructions on every function or menu option available in BGAN LaunchPad that is specific to the Hughes 9201. It does not describe how to use menu options that are common to all terminals. For this information, refer to the document "Using BGAN LaunchPad", available for download from www.inmarsat.com/support

This document also does not describe how to use specific applications over the BGAN network. For this information refer to the BGAN solutions guides and solutions sheets, available for download from www.inmarsat.com/support

1.3 Assumptions

- You have installed your Hughes 9201, as described in the documentation supplied with your terminal.
- You have a connection already setup between the terminal and your computer.

1.4 Useful references

- Other documentation on BGAN and LaunchPad is available for download from the BGAN web site at www.inmarsat.com/support

2 Menu options

The following table shows the menu options specific to the Hughes 9201, and where in this guide to look for information on the options. If you want information on a menu option other than those listed, refer to the supplementary guide for your particular terminal.

Menu > Sub menu	Refer to
Terminal > WLAN Interface Settings	"Setting up the WLAN interface" on page 3.
Terminal > ISDN Interface Settings	"Setting up the ISDN interface" on page Error! Bookmark not defined.
Terminal > Antenna Audio	"Enabling or disabling antenna audio" on page 7
Terminal > Interface Lights	"Enabling or disabling indicator lights" on page 7.
Terminal > Auto-Start Mode	"Enabling auto start and automatic registration" on page 8.
Terminal > Restart Terminal	"Restarting the terminal" on page 8.
BGAN services > Telephony settings	"Viewing telephone numbers" on page 9.

Terminal interface settings

3 Setting up the WLAN interface

3.1 Introduction

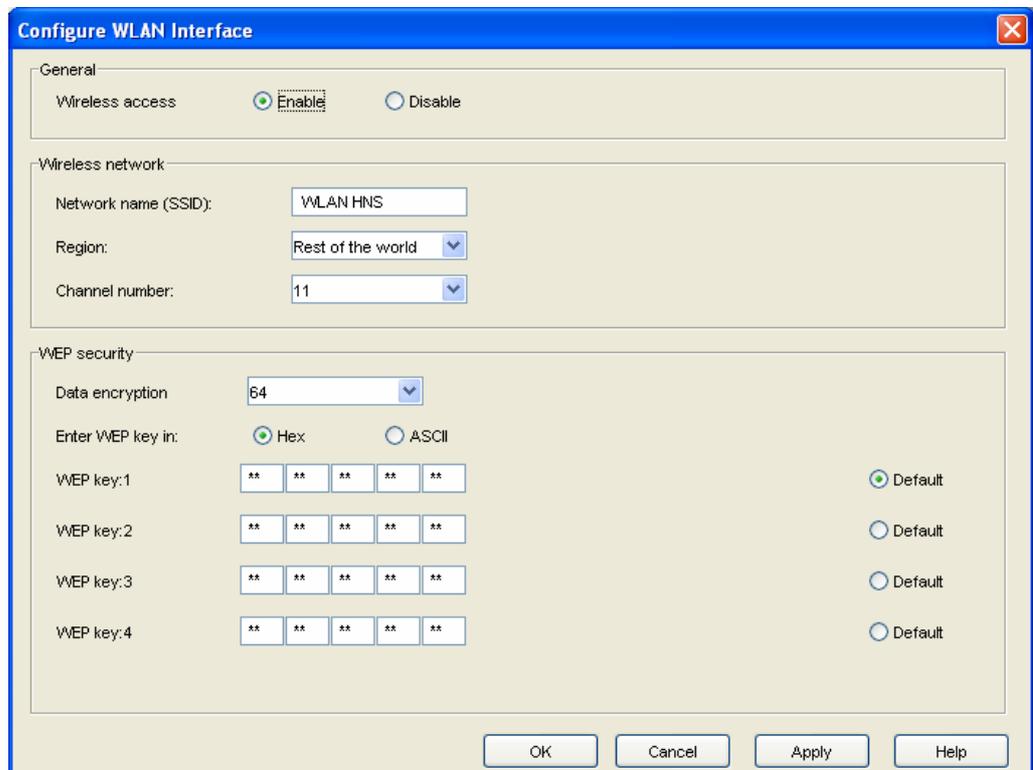
For the WLAN to work, you must configure the Hughes 9201 and your computers with the same channel, network name and WEP security settings. Note the following about WLAN channels:

- The WLAN channels you may legally use vary in different regions of the world. In some countries, certain channels are not available. Please be sure to select your Region from the drop down menu before selecting one of the available channels.
- Channel 11 is common to almost all regions and so it is used as the default channel.
- Inmarsat recommends that you observe any local regulations regarding the use of radio transmitting devices. In particular, note that if you are in France or Spain the channels available for selection are limited.

3.2 Setting up a WLAN data connection

The HNS 9201 has a built-in WLAN 802.11b Access Point. By default, the WLAN interface is disabled. Use BGAN LaunchPad to enable and set up the WLAN interface after registration as follows:

- a. Select **Terminal > WLAN Interface Settings** from the BGAN LaunchPad main menu. The **Configure WLAN Interface** dialog box is displayed, as shown below:



- b. Select **Enable** to activate the WLAN interface.
- c. Enter a **Network Name (SSID)**. The default is BGAN, but you can change this if required.

- d. Select a **Region** from the drop-down list.
 - e. Select a **Channel number** from the drop-down list. This controls the channel number (1-14) used by the access point. Depending on the country only certain options are available for selection. Channel 11 is common to almost all regulatory options and so is the default.
 - f. Select a **Data encryption** rate from the drop-down list. There are two levels available, 64 bit and 128 bit. 128 bit offers a higher level of security, but may cause a slight degradation in performance.
 - g. Select an encryption type at the Enter WEP key in: text box. This can be either **Hex** or **ASCII**. Hex keys use hexadecimal numbers (0-9, A-F) to encrypt and decrypt data and are the most widely supported format. Plain text (ASCII) keys are supported on some operating systems (check that your operating system supports ASCII before you select this option).
 - h. Enter up to four WEP Key numbers. The format depends on whether you selected Hex or ASCII.
 - **Hex**. Enter a two digit hexadecimal number (0-9, A-F) in each box on the WEP Key 1 row. You can enter up to four keys in total.
 - **ASCII**. Enter a string of 5 characters for 64 bit encryption or 13 characters for 128 bit encryption. You can enter up to four keys in total.
- Note:** Check that each key that you set up here is exactly the same as each key on your Access Point. That is, WEP Key 1 on the LaunchPad must be the same as Key 1 on the Access Point and so on.
- i. Select the key that you want to use as the **Default**. You can change the default key periodically for added security.
 - j. Click on **OK** to save the changes, **Cancel** to exit without saving, or **Apply** to apply the settings for this WLAN session only.

Any computer with WLAN capability and in range of the terminal can detect the terminal's WLAN SSID and connect to it automatically using BGAN LaunchPad. Up to 11 WLAN users can connect to the terminal simultaneously.

4 Setting up the ISDN interface

4.1 Introduction

You can use the HNS 9201 to make any of the following ISDN connections:

- Voice, for example using an ISDN handset.
- 3.1kHz audio, for example using a fax machine.
- Data, for example using an ISDN card on your computer, an ISDN AudioVideo camera or an ISDN fax machine.

Only one device at a time can make a call since only one B channel is supported. However, up to four ISDN phones can be utilized on the one ISDN connection. Note that this limit is imposed by the terminal's power limit in order to protect Ethernet devices in case they are accidentally connected to the ISDN port.

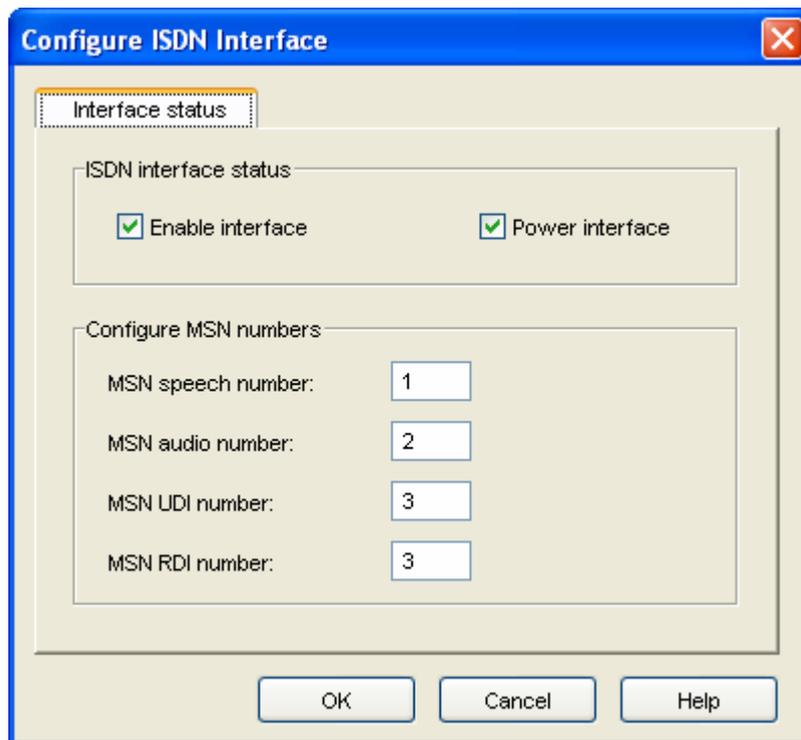
4.2 Setting up an ISDN voice or data connection

Before you can use your ISDN handset or ISDN data equipment, you must program its MSN (Mobile Subscriber Number). The MSN identifies the equipment type and call quality required to the terminal. The available MSNs are follows:

- For a 4kbps voice call, use MSN 1.
- For a 3.1kHz voice call, use MSN 2. This is a higher quality voice call, charged at a higher rate than a 4kbps call.
- For equipment that sends and receives data as 3.1KHz audio, such as Group 3 fax machines, use MSN 2.
- For equipment that sends and receives data as Unrestricted Digital Information (UDI) or as Restricted Digital Information (RDI), use MSN 3.

In addition, make sure that the ISDN interface is set up in BGAN LaunchPad. To do this:

- a. Select **Terminal > ISDN Interface Settings** from the BGAN LaunchPad main menu. The **Configure ISDN Interface** dialog box is displayed, as shown below:



Select the **Enable Interface** check box to activate the ISDN interface or uncheck the check box to deactivate the interface.

- b. Do one of the following:
 - Enter **1** in the **MSN speech number:** text box for a 4kbps call.
 - Enter **2** in the **MSN speech number:** text box for a 3.1kHz call.
 - Enter **2** in the **MSN audio number:** text box for a 3.1 KHz audio call. Typically, this is the option you use if you are connecting a Group 3 fax machine to the ISDN port.

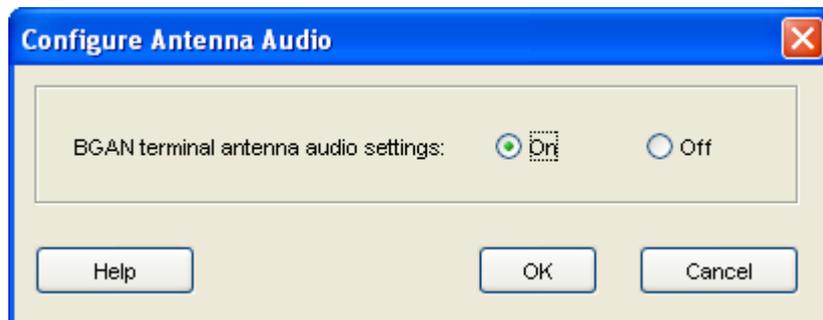
- Enter **3** in the **MSN UDI number**: for an Unrestricted Digital Information (UDI) call (64kbps ISDN). Check the documentation supplied with your device for details on whether it is a UDI device.
 - Enter **3** in the **MSN RDI number**: text box for a Restricted Digital Information (RDI) call (56kbps ISDN). Check the documentation supplied with your device for details on whether it is an RDI device.
- c. Click **OK** to save the changes, or **Cancel** to exit without saving.
- d. Connect the ISDN equipment to the ISDN port on the BGAN terminal using the ISDN cable supplied with the terminal.
- Tip: To check your MSISDN number(s) and SIM card details whilst connected to the terminal, open the diagnostic report from BGAN LaunchPad. To do this, select **Help > Diagnostic Report** from the BGAN LaunchPad main menu.

Managing the terminal

5 Enabling or disabling antenna audio

The terminal has a built in audio buzzer which you can use to assist you in pointing the terminal. The higher the pitch of the buzzer and the shorter the interval between tones, the stronger the satellite signal. To turn the audio buzzer on or off:

- a. From the BGAN LaunchPad main menu, select **Terminal > Antenna Audio**. The **Configure Antenna Audio** dialog box displays:



- b. Click either the **On** or **Off** radio button to switch the audio buzzer on or off as required.
- c. Click on **OK** to save the setting, or **Cancel** to exit without saving.

6 Enabling or disabling indicator lights

The terminal has a number of indicator lights (also called LEDs) on its side panel, that indicate the status of various terminal features. You can turn these lights off if required – for example, you may need to turn them off for security reasons. To turn the indicator lights off:

- a. From the BGAN LaunchPad main menu, select **Terminal > Indicator Lights**. The **Configure Indicator Lights** dialog box displays:



- b. Click either the **Enable** or **Disable** radio button to switch the indicator lights on or off as required.
- c. Click on **OK** to save the setting, or **Cancel** to exit without saving.

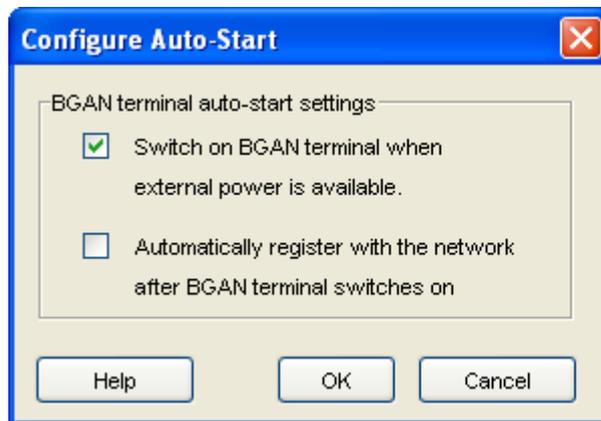
7 Enabling auto start and automatic registration

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. From the BGAN LaunchPad main menu, select **Terminal > Auto-Start Mode**. The Configure Auto Start dialog box displays:



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

8 Restarting the terminal

If required, you can turn the terminal off and back on again from BGAN LaunchPad. To do this:

- a. From the BGAN LaunchPad main menu, select **Terminal > Restart Terminal**. The **Restart Terminal** dialog box displays:

<SCREEN SHOT REQUIRED>

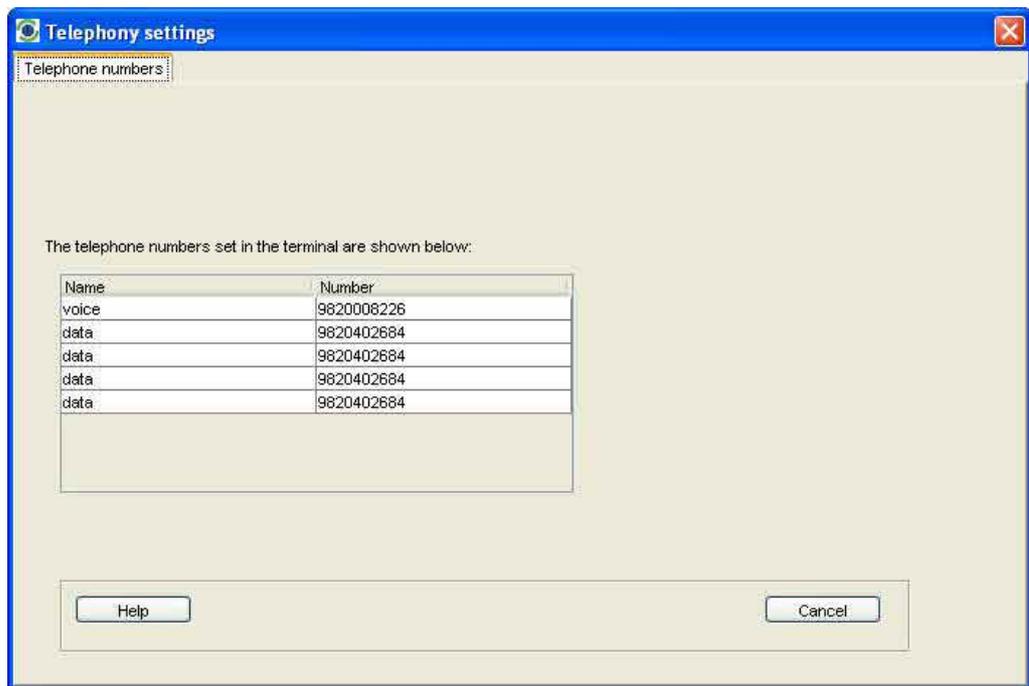
- b. Click on **OK** to restart the terminal.

Telephony settings

9 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. From the BGAN LaunchPad main menu, select **BGAN services > Telephony Settings**: (You can also click on **Advanced** in the Phone window). The Telephony settings window displays:



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