

# Welcome to Using Regional BGAN

Dear Customer,

Thank you for selecting I-LINX for your satellite communication needs. In this guide you will find information that will help you set up and use your Regional BGAN. If you need further assistance please refer to our Customer Service Procedures below.

Best Regards,

I-LINX TEAM



## I-LINX Customer Service Procedure & Contacts

I-LINX has several customer service channels to ensure that your problem is addressed efficiently. If you are experiencing problems with your product, please follow the following trouble shooting procedure:

**Fill out a trouble ticket at [www.i-linx.net/customerservice](http://www.i-linx.net/customerservice)\***. This information will be reviewed by our customer service center and acknowledged within 24 hours. Please also email your IT department and inform them of the trouble ticket number that you have submitted.

**If you cannot access the internet form.** Please call your IT Department to report the problem Your IT support staff will complete the trouble ticket for you and will also attempt to resolve the issue.

In the event that the IT department is not able to resolve this issue, please call I-LINX Customer Service at 202-232-0620 and a representative will walk you through the form.

**After business hours in D.C.** Call MVS, I-LINX technical support partners at two global locations:

Cyprus Business Hours : 9 am—5 pm  
Technical Support: +357-25-879-256

Moscow Business Hours: 10 am—7 pm

Technical Support: +7.095.967.1237

If the problem persists and customer cannot resolve the issue, I-LINX will temporarily replace the hardware in the field via a procedure called "drop and swap."

## Setting Up Your RBGAN

**Unpack the Satellite IP Modem and accessories.** Battery, AC mains power adapter, USB and Ethernet cables are included with the modem. I-LINX will have provided a SIM card with the RBGAN package. To activate the SIM card, visit [I-LINX](http://www.i-linx.net) and click on R-BGAN. You will need 24 hours to receive confirmation that the activation process has been completed. Insert SIM in SIM holder, and then insert the SIM holder into the modem.

**Power.** Insert battery after the SIM has been installed. Plug in power cable and charge the battery for 3 hours.

**Connecting the Satellite IP Modem to your PC.** Place the modem outside on a flat surface with a clear view of the sky. Power up the modem by pressing the "power" button. Important: You must disconnect any existing LAN connections on your PC before proceeding with installation. You must verify that the proxy server settings in your browser are disabled. For Microsoft Internet Explorer, select Tools/Internet Options/Connections/LAN Settings and uncheck the box labeled 'Use a proxy server for your LAN.' For Netscape, go to Advanced Preferences and select 'Direct connection to the Internet'. When complete, please close your browser. Do not forget, you may need to re-check this box on return to your other internet connection.

### Contents:

How to Control Traffic	2
Trouble Shooting Check..	2
User Tips	3
RBGAN: Email Usage	5
RBGAN Q & A	5
Activation Request Form	6

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**Washington D.C 2001**

# How to Control Internet Traffic

By monitoring your internet traffic, you can cut down user cost. Down2Home is a free tool for monitoring user traffic that can be downloaded at: <http://jitserv.coolfreepage.com>.

Once you download and install Down2Home tracking software onto the computer used for RBGAN usage, the house shaped icon should appear in the toolbar at the bottom right corner of the screen. This will

allow you to check on total usage by clicking on Down2Home icon and selecting "Volume Static." The Volume Static window will show usage in graph or report form by day, week, month, etc.

Before each internet session, start the Down2Home. First click on the Down2Home icon and select the "Monitor On" option. The monitor will appear in the top right corner of screen. This will show real time sessions usage, both uploading and

downloading, in MB.

An average session (checking and downloading essential emails and sending) on two accounts, both an organization account (i.e. [employee@i-linx.net](mailto:employee@i-linx.net)) and a non-organization account (i.e. Yahoo!, etc) should be between 1.00 to 2.5 MB. Average e-mail without attachments is around 3-4 KB. Use your internet session wisely by reading the user tip section of this guide.

Continued..

## Customer Service Procedure

### Drop and Swap

If the problem persists and customer cannot resolve the issue, I-LINX will temporarily replace the hardware in the field via a procedure called "drop and swap".

**Manufacturer Fault** The hardware unit will be sent back to the manufacturer to determine if in fact it is a hardware malfunction or user error. If it is a malfunctioning unit, then I-LINX will permanently replace the unit at no extra cost.

**User Error or Damage** However, if the problem is determined to be a user error then the hardware will be returned to the customer who will be responsible for all shipping and handling charges. If the unit was permanently damaged in the field by the user then the customer may elect to repair, replace, or discard the unit. Any temporary hardware supplied under these circumstances, must be returned to I-LINX or purchased outright by the customer.

### General questions and information.

Visit our website at [www.i-linx.net](http://www.i-linx.net). Our website is packed with guides, downloads and useful product information. Call I-LINX Customer Service at +1-202-232-0620 or e-mail [customerservice@i-linx.net](mailto:customerservice@i-linx.net).

## First Time User Trouble Shooting Checklist

This checklist is a useful tool for first time users experiencing problems with there RBGAN. Our experience has demonstrated that often the problem can be easily resolved by following this list:

- √ That your PC Operating System is at least Windows 98 Second Edition (SE)
- √ Install Internet Explorer 6.0 has been installed on your PC (supplied on the CD)
- √ Check that the SIM Card is properly inserted and commissioned
- √ Check that the right interface is selected on the IP modem (USB, Ethernet or Bluetooth)
- √ Have a valid GPS fix stored in the IP modem, the LED next to the power button must flash green/yellow
- √ Check that the software version of the IP modem is 8.5.2.2 or higher. If not, update the software by connecting PC to the Internet:
  1. Start 'Upgrade Satellite IP Modem,' the program will check for the latest software version
  2. Wait for download to finish and follow instructions

3. Disconnect PC from Internet
4. Connect IP modem
5. Finish software upgrade according to screen instructions
6. Repeat whole procedure if upgrade not successful

Restart IP modem and point towards the satellite using the 'Antenna Pointing' Screen in the Launch Control Pad', not the LEDs on the IP modem. Try to get the highest possible value, it should reach at least 50.

- √ Check the settings in "Network Settings:

<b>Use Static Public Network IP Address: not ticked</b>
<b>Static Public Network Address: none (0.0.0.0)</b>
<b>DNS Host 1: 161.30.46.229</b>
<b>DNS Host 2: 161.30.46.235</b>
<b>Service Provide Security Enable: not ticked</b>
<b>APN Enable: ticked</b>
<b>APN Value: bgan-r.inmarsat.com</b>

- √ Check that the browser is not configured for a proxy server
- √ If you have another active LAN connection
- √ In severe cases reset IP modem properties settings to factory defaults.
- √ For outgoing mail the SMPT server [smtp.bgan-r.inmarsat.com](mailto:smtp.bgan-r.inmarsat.com) can be used.

Please fill out a trouble ticket if you are unable to resolve the problem.

# Tips for Limiting MB Usage

"How can we cut down our cost?" I-LINX is often asked this question by customers. In order to better serve our customers, I-LINX has gathered these tips for limiting MB usage. By following these tips you can cut cost:



- Disable images on web browser (Internet Explorer, etc.). Go to Start Menu/Settings/Control Panel/Internet/Options/Advanced/Multimedia. Uncheck Show Images box (and all others except for Enable Automatic Image Resizing).
- Disable automatic cookie handling by going to Start Menu/Settings/Control Panel/Select Internet Options/Select Privacy/Select Advanced/Select override automatic cookie handling box/Select prompt box for both third party Cookies.

It is suggest that users leave First-Party Cookies on Accept as non-organization accounts (i.e Yahoo! etc) can't be accessed without allowing cookies. Leave Allow Session Cookies blank. User will be prompted each time a cookie tries to enable a portion of a screen or image and can choose which ones to enable .

- Download address books from all accounts onto hard drive to avoid having to surf through address book while online.
- Delete signature or any other information at the bottom of composed screens for organization and non-organization accounts.
- Set up all e-mail accounts (both organization and non-organization) to use plain text instead of rich text or colored and graphics text.
- When using a web browser, for all screens, hit stop button as soon as minimum information needed has downloaded to avoid downloading unnecessary images, graphics, buttons, etc.
- Use back and forward arrows as often as possible when on a web browser to avoid refreshing the page.

- When signing in on the Satellite IP Modem (or any other web page) hit stop as soon as the sufficient amount of data has downloaded (i.e., once the prompts for username and password are visible). Unnecessary images or parts of screen will not be downloaded (or paid for).
- Check size of all attachments for size before downloading.
- Avoid web surfing or checking sites for e-mail sites. RBGAN usage can be affordable if limited to essential email traffic.
- Once you pass password and pointing screen, do not open Status Window screen on the Home page. Simply wait for the Home page, which shows signal quality, battery level, and network status, to signal that access to the web is now available.

The Home Page screen refreshes once a minute (40-60 KB per refresh) as opposed to once every two seconds for the Status Window screen (~60 KB every two second to refresh).

Once a web connection is available, shut down the Satellite IP Modem Home page as it is not needed to maintain a link to the web and it will refresh once every minute for your entire session (around 40-60 KB per refresh). Then proceed to access your organization or non-organization account.

## Continued from Page 1 Basic Set Up

**Connecting using USB.** Connect the white USB cable to your computer, and insert the other end of the connector into the Satellite IP Modem. To check the active interface, press and hold the SELECT button for a few seconds. If the USB light flashes red, the USB is already selected. If not, press the SELECT button once or twice as needed to change the selection to USB. After a short pause, the Modem will restart with the USB interface selected. If the Modem is under battery power, it will power down; press and hold "power" button to reapply power. Note: When plugging in the USB cable for the first time, you will see Windows installing a new driver for the device.

**Connecting using Ethernet.** Connect the blue Ethernet cable to your laptop's network interface and insert the other end of the connector into the Satellite IP Modem. To check the active interface, press and hold the SELECT button for a few seconds. If the Ethernet light flashes red, then Ethernet is already selected. After a short pause, the Modem will restart with the Ethernet interface selected. If the Modem is under battery power, it will power down; press and hold "power" button to reapply power.

**Connecting using Bluetooth.** To check the active interface, press and hold the SELECT button for a few seconds. If the Bluetooth light flashes red, then Bluetooth is already selected. After a short pause, the Modem will restart with the Bluetooth interface selected. If the Modem is under battery power, it will power down; press and hold "power" button to reapply power.

Continued on page 4

Continued from page 3...

## Setting Up Your RBGAN

Place your Bluetooth-enabled PC in proximity to the Satellite IP Modem so the PC can bond to it. Use the factory default Bluetooth passkey "blue" when prompted for it by the Bluetooth control application on your PC. Enter into the Bluetooth control application, the DNS values from the configuration instructions given to you by your service provider. This must be done even if those values are already entered into the Satellite IP Modem previously. You may need to consult with your PC's Bluetooth Device vendor regarding how DNS values can be entered into their Bluetooth Control application.

**GPS Location.** The Satellite IP Modem is now attempting to locate itself using GPS. This may take up to five minutes. It is important that the Satellite IP Modem is placed away from buildings, trees and other obstacles that might block a clear view of the sky. When the "power" light changes from a red/amber flash to an amber/green flash, proceed to the next step. If the "power" light is solid green or flashing green, the Satellite IP Modem is not in antenna pointing mode. Turn the Satellite IP Modem off and then back on.

**Rough Pointing to Satellite.** The Satellite IP Modem is controlled through a web browser interface called the Control Pad. To activate the Control Pad, click the 'Launch Control Pad' button. This will launch your browser with the correct page setting to access the Control Pad. Important: Before launching the Control Pad, you must verify that the proxy server settings in your browser are disabled. For Microsoft Internet Explorer, go to LAN Settings under the Connections tab and uncheck the box next to 'Use a proxy server for your LAN'. For Netscape, go to Advanced Preferences and select 'Direct connection to the Internet'. If you have PIN security enabled on your SIM, you will be prompted to enter your PIN before proceeding. The PIN default number is printed on the surround plastic of the SIM card. **Please note:** You must have a valid GPS location for the compass direction and Antenna Angle to be displayed. If the GPS is not valid, go back to GPS location and allow the Satellite IP Modem to obtain a GPS location. Note: The Compass Direction and Antenna Angle from the Control Panel can be used to assist you in roughly pointing the Satellite IP Modem antenna towards the satellite. Rough pointing consists of determining the rough direction and elevation angle that the antenna needs to "see" the Regional BGAN satellite. Rough Pointing to the Satellite – Compass Direction. Look at the Control Pad Pointing display and determine the Compass Direction needed for the antenna. Rotate the Satellite IP Modem left

and right to the correct compass direction. Rough Pointing to the Satellite – Antenna Angle. The Protractor should match the number on the Control Pad. Look at the Control Pad Pointing display and determine the elevation angle needed for the antenna. Tilt the antenna up and down to the correct antenna angle. The small arrow on the Satellite IP Modem Protractor should point to the number that was read off the Control Pad.



**Fine Pointing to the Satellite.** Important: The reliability and speed of your connection to the network will be adversely impacted unless the antenna is correctly pointed towards the satellite. Please follow these directions closely so that your Satellite IP Modem is optimally pointed. Use the Control Pad to optimally fine point the antenna. The Control Pad pointing screen has a signal strength bar graph and numeric value to assist in accurate antenna pointing. The orange peak-hold bar at the end of the blue bar identifies the highest signal strength measured during antenna pointing and will help you optimize the pointing direction. Note: The power light must be flashing red/amber or amber/green. If this is not the case, turn the Satellite IP Modem off and then back on to re-enter the pointing display.

**Fine Pointing to the Satellite.** To find the optimal antenna pointing direction, rotate the Satellite IP Modem slowly left and right a small amount. Once a peak has been found on the signal strength bar, keep the Satellite IP Modem pointing in that direction. To find the optimal antenna pointing elevation, tilt the antenna slowly up and down a small amount. Once a peak has been found on the signal strength bar, keep the Satellite IP Modem antenna at that angle. Exiting Pointing Mode. Your antenna is now optimally pointed. Exit the pointing mode by selecting "Exit pointing" option on your Control Pad. Your Modem is now acquiring the network.

**Open Status Screen.** Click on "Open status screen" to see the status of the acquiring network process. After 60 to 90 seconds, "Network Available" will be seen on the window. You are now connected and can begin your application.

# Email over satellite? Making smart decisions

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There are many different ways you can use email via Regional BGAN. The two most common is through either a web-based email account or through a common organization email program, such as Microsoft Outlook, Microsoft Outlook Express, Eudora, and Netscape Messenger.

I-LINX does not recommend web-based e-mail because such services add many images onto their web pages, which adds to the traffic volume. For example, logging into Hotmail, going to your inbox reading one small email, and then signing out, uses over 300 KB of traffic alone. This figure in-

creases if you wait for advertisements to pop up (some parts of the pages might be cached locally on your computer, so a second visit causes less traffic).

Organization e-mail accounts, such as Microsoft Outlook, are much more efficient than web-based email. For example, checking your mailbox

(without new messages in it) takes less than 2KB with the Pop3 protocol. There are several free tools available that can monitor your traffic levels via Regional BGAN. Please read the article on page two for more information.

## Regional BGAN: Q & A

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### How can I use the Satellite IP Modem with a Mac?

Solution:

To Download the Mac OS X compatible Launch Pad, please click on the following link: <http://www.hns.com>

You can still use the Satellite IP Modem with your Macintosh computer. After connecting the Satellite IP Modem to your Macintosh, enter the Modem's IP address (192.168.128.100) into your browser address window. This will allow you to view the all of the Control Pad pages, including the Pointing page.

Note: The Satellite IP Modem cannot be upgraded using a Macintosh without the Mac OS X compatible Launch pad.

Currently, Macintosh computers are only supported through the Ethernet Interface

### I would like to use the Bluetooth interface. Are there any Bluetooth cards that are recommended for use with the Satellite IP Modem?

The Satellite IP Modem has been successfully tested with following Bluetooth devices:

- IBM Bluetooth PC Card II
- TDK Systems Bluetooth PC Card
- TDK Systems Bluetooth USB Adapter

Compaq MultiPort Bluetooth Wireless Module for use with Compaq Evo Notebook PCs

Note: The Bluetooth control software on your computer must allow the direct entry of DNS information. Before purchasing a Bluetooth device for use with the Satellite IP Modem, consult your Bluetooth device vendor to confirm that DNS entry is possible with your device address.

### What procedures should I employ before using my Regional BGAN in a VPN connection?

Before using a VPN for the first time with the Regional BGAN system, please make sure that you have completed the following:

- Install the VPN client software, provided by your corporate IT staff, on the laptop or PC that will be connected to the Satellite IP Modem.
- During installation, ensure that the VPN driver is bound to the network adaptor which you will use to connect your PC to the Satellite IP Modem (USB, Ethernet or Bluetooth). If in doubt, bind the software to all adaptors on your PC. Contact the VPN provider or your corporate IT staff for specific installation instructions.
- If possible, configure and test your PC and VPN software using a LAN or dial-up connection to ensure that it is functioning correctly BEFORE you travel with the Satellite IP Modem.
- Verify that the Access Point Name (APN) assigned to the Satellite IP Modem by the Service Provider is a public APN. The APN Value can be viewed from the Properties screen on the Satellite IP Modem Control Pad

Please check with your Service Provider to ensure that the APN you are subscribed to provides a public IP address.



**Inmarsat RBGAN® SERVICE ACTIVATION REQUEST**

Please return to I-LINX: Attn. Sales Department

Sales Contact, if known: \_\_\_\_\_

This form is used to register and activate your RBGAN Satellite Equipment and SIM Card for service with I-LINX, LLC (hereinafter referred to as "I-LINX"). Customers are required to fill out ONLY the information pertaining to their chosen service options in Section A, B, D and E and fax it back to I-LINX, LLC. Upon activation, I-LINX will assign customers with numbers for the various services they have requested and insert them in section C of this form. I-LINX will then fax a Activation Confirmation form back to the customer. All new Customers must submit a completed Subscriber Credit Application and agree to be bound by the I-LINX terms and conditions governing RBGAN service. The Subscriber Credit Application is available from your authorized I-LINX reseller or by contacting your I-LINX Account Manager. Customers transferring their account to a new SIM card agree that they are responsible for any charges incurred on their previous account for up to 12 months. Service activation requests for new customers that do not have an attached Subscriber Credit Application will be returned to the customer.

Please Print Clearly & Complete All Sections That Apply

<b>Section A: CUSTOMER INFORMATION</b>	
Name: _____	Date: _____
Company Name (if applicable): _____	Telephone: _____
Address: _____ _____	Fax: _____

<b>RBGAN WORLD SATELLITE SERVICE INFORMATION (To be completed by customer if applicable)</b>	
IMEI (phone's serial #): _____ <small>(15-digit serial # located on handset's package)</small>	SIM Serial Number: _____ <small>(19-digit serial number on reverse side of SIM Card)</small>

<b>SECTION B: SELECTED RBGAN SERVICE RATE PLAN (Must be completed by customer)</b>
I-LINX Basic Airtime/Post Paid Plan: _____
I-LINX Airtime/Pre-Paid Package Plan:
Road Warrior Plan (400 MB) _____
Nomad Plan (300 MB) _____
Bushwhacker Plan (150 MB) _____
Wanderlust Plan (50 MB) _____

<b>SECTION C: ASSIGNED RBGAN SERVICE NUMBERS (To be completed by I-LINX)</b>
RBGAN MSISDN #: _____
RBGAN IMSI #: _____
RBGAN Default SIM Number (PIN): _____ 8888 _____

<b>SECTION D: CUSTOMER SERVICE ACCEPTANCE (Must be completed by customer)</b>
I understand and agree to pay all traffic charges and monthly fees associated with this account. I also understand that delinquent payments will result in finance charges of 1.5% and more in the deactivation of my account.
Customer Signature: _____

<b>SECTION E: CUSTOMER VERTICAL MARKET (Must be completed by customer)</b>		
International Development	Gas	Construction
Marine Recreational	Aviation	Forestry
Government	Disaster Relief	Rental
Media and Entertainment	Emergency Services	Mining
Oil	Utilities	Other: _____

Account will be activated and RBGAN phone/pager numbers sent to the customer within 24 hours of credit approval. For any customer support issues regarding your RBGAN Satellite Equipment and/or your I-LINX airtime service, please contact I-LINX Customer Care at: 1 202-232-0620 or [customerservice@i-linx.net](mailto:customerservice@i-linx.net)