



# BGAN from Stratos

Application Note

## Digigone Sat-Chat



Private Comms

Revision: 1.0 Jun-11  
AuthID: SE.AH

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**Purpose** This application note on the DigiGone Sat-Chat allows clients to communicate around the world, through fully encrypted means, with minimal encryption overhead.

**Summary** Sat-Chat provides the clients with Secure Video Teleconferencing, Voice over Internet Protocol (VoIP), IM Chat, and File Transfer capabilities, even from the most remote locations while using BGAN, Fleetbroadband or Swiftbroadband. Sat-Chat's plug & play feature provides you instant encrypted communication with other team members around the world.

**Description** DigiGone Sat-Chat is a software application that operates on Windows based computers, or MAC computers running the Windows Parallel software package. Sat-Chat installs and operates from a USB Flash Drive, providing you the ultimate in portability. Sat-Chat has been tested and approved to operate on all of Inmarsat's BGAN products.

### Features

Using National Institute of Standards and Technology (NIST) approved 256-bit AES encryption, DigiGone SatChat operates completely from your Flash Drive and provides you with:

- Encrypted video teleconferencing with multiple parties
- Encrypted Voice over Internet Protocol (VoTP)
- Encrypted instant messaging (IM)
- Encrypted file transfer
- Bandwidth consumption as low as 10-12 Kbps for voice only
- Adjustable bandwidth selection for video teleconference calls
- 40-150 Kbps (Video, Audio, and Overhead)
- Adjustable Frames Per Second (FPS) selection for quality of picture

### Benefits to BGAN Users

- Saves time and money by allowing you to be in two places at the same time, reducing travel costs, and increasing productivity
- Conduct secure video/voice calls and transfer critical information from remote areas
- Ability to conduct ad hoc meetings allowing you to discuss urgent matters securely to make immediate decisions
- Share any type of information quickly and securely

**Requirements** The DigiGone software can be accessed via the Private Access type offered by Stratos. The Digi Gone software can be installed on a USB stick or on the hard drive of the PC. Once the internet connection is opened in the BGAN terminal, the user can create a secure video conferencing chat session.

User Profile Details

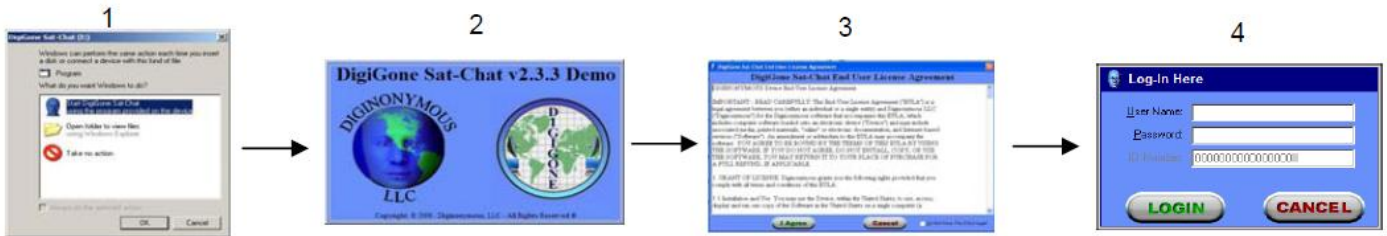
Hardware Requirements:

- PC Webcam
- PC Headset with Microphone
- USB Flash Drive media (on which to download DigiGone Sat-Chat).

Operation

DigiGone Sat-Chat

Insert your Sat-Chat Flash Drive into your PC, follow the prompts, and sign into Sat-Chat using the User Name and Password you chose during the registration process. After the update check, the select mode screen will appear. You can either select **"Host"** if you are initiating the Chat, or **"Guest"** if you are attending the Chat session. Only one person can host a Chat Session. Follow the on screen wizard below.



5. After the update check, the select mode screen will appear. You either select 'Host' if you are initiating the chat, or 'Guest' if you are attending the chat session.

In the **Server ID** Section:

- **Hosting:** Choose the name that you will call the Server ID/ meeting name.
- **Guest:** Type in the name that the host has provided you.

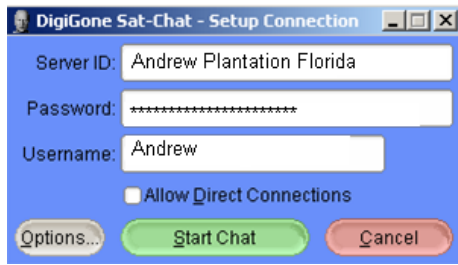
In the **Password** Section:

- **Hosting:** Choose the password that will be used to gain access to the session.
- **Guest:** Type in the password that the person hosting the chat session has provided you.

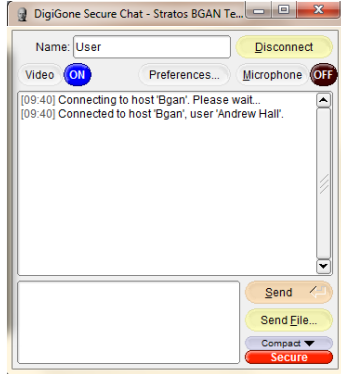
The **Username** Section:

- **Hosting:** Enter the name by which you want to be identified during the chat session.
- **Guest:** Enter the name by which you want to be identified during the chat session.

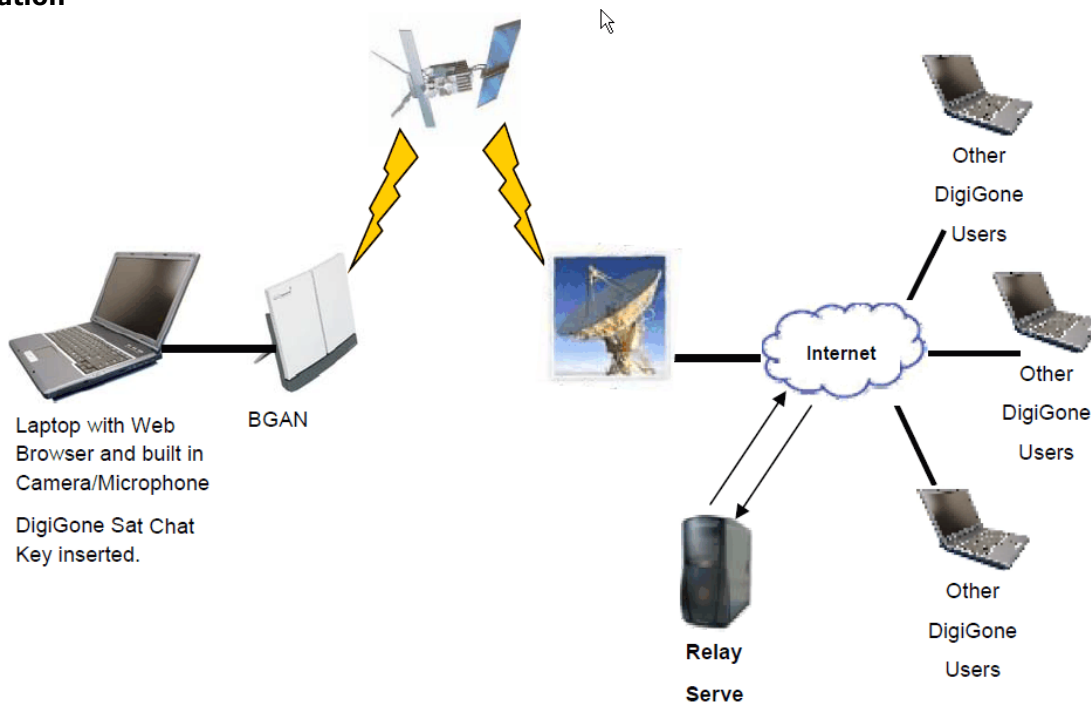
If the Host desires to directly Host the session without going through the secure relay server, then put a check mark in the **"Allow Direct Connection"** box. Once you have filled in the appropriate boxes, click on the green **"Start Chat"** button to initiate the Chat Session.



Once you press the **"Start Chat"** radio button the screen shot in Figure 9 will appear. In the right corner of the screen, you will see a radio button called "Video". If you press the radio button, the video will start. The Red light will turn to the Blue light when the video connection is selected.



## BGAN Configuration



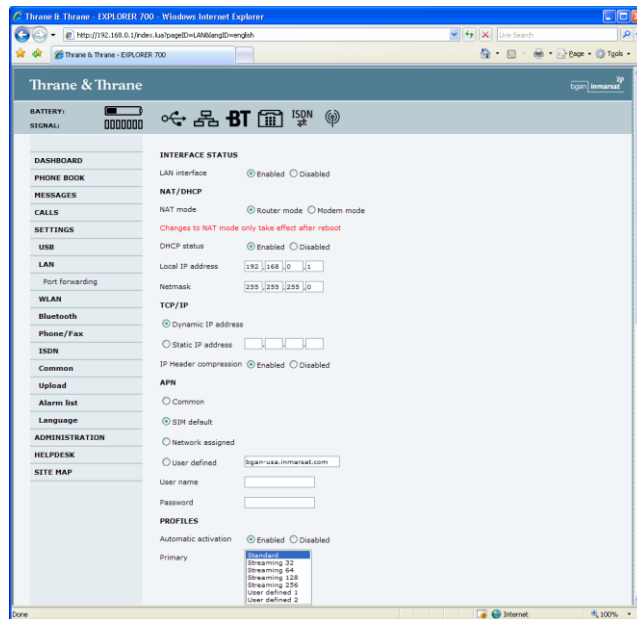
## Thrane Explorer 300/500/700 and 527

Background IP service should be initiated from the BGAN terminal and can be configured from either the EXPLORER built-in web server (via a laptop's web browser) or using the LCD MMI (user interface built into the Thrane terminals).

1. Open your internet web browser and type the following IP address in the address bar:  
192.168.0.1



2. Click on Settings and then LAN.
3. Now you should see the web server interface. The screenshot below shows the settings required as configured via the EXPLORER's web server interface, ensure you click apply before leave the web page. Please consult your EXPLORER manual for more detailed information.



4. Now your terminal is configured to start a Standard connection after you register on the network.
5. To use the LCD to start the connection manually, select "Disabled" under the "Automatic activation" option and follow the instructions below.
6. Restart your terminal and click OK after properly pointing the terminal. Once the Explorer is register on the BGAN network, you will be connected automatically with a Standard connection.

### Connecting to BGAN via LCD MMI:

1. To initiate a connection from the LCD MMI, go to the main view of the LCD.



2. Press Arrow Down button until CONNECT menu is selected Press OK.



3. Select Standard and press OK button



4. Select START and press OK button



5. Press OK button to confirm Standard connection and wait a minute or two to allow the EXPLORER to register the Packet Switched connection with the BGAN system. After registration, the LCD MMI main screen will show DATA ACTIVE. See LCD MMI screen shot below.



## Sabre 1 Configuration

Background Standard service should be initiated from the BGAN terminal and needs to be configured from the Wideye Sabre I's built-in web server (via a PC's web browser).

1. Open your internet web browser and type the following IP address in the address bar: **192.168.1.35**
2. Then you will prompt for the User Name: **sabre1** Password: **wideye**. Now you should see the screen below.



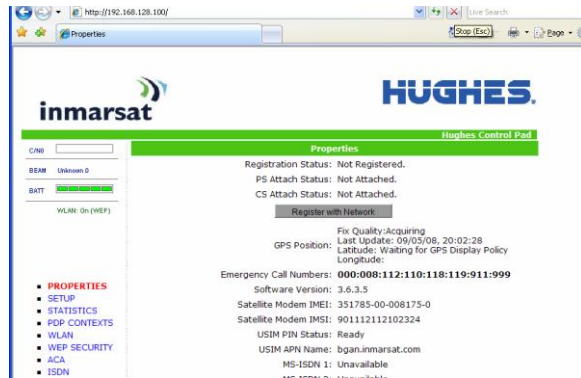
3. Click on the Data Icon.
4. Click on Primary Profiles.
5. Select the connection Type as Standard.
6. Check mark **"Set as default"**.
7. Click **"Update Settings"**.
8. Click on the Settings Tab.
9. Select **"Router Mode (Single User)"**.
10. Check the box for **"Auto PDP context Activation"** This will configure the terminal to start the Standard connection automatically after you register on the network.
11. Reboot the terminal.
12. Accept the signal strength by pressing **Enter** on the LCD screen. Now your Standard connection should start in a minute or so.

# Hughes Configuration

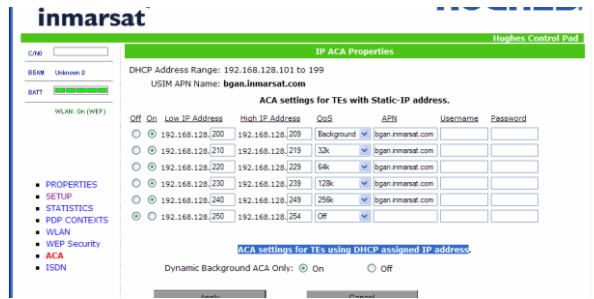
## HNS 9201 and 9350:

Standard service should be initiated from the BGAN terminal and needs to be configured from the Hughes HNS9201's built-in web server (via a PC's web browser).

1. Open your internet web browser and type the following IP address in the address bar: 192.168.128.100



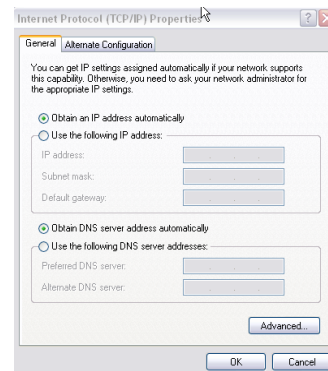
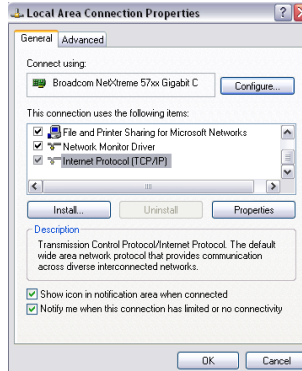
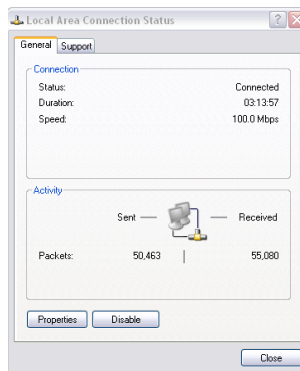
2. Click on ACA on the menu on the left.
3. Select ACA settings for TEs using DHCP assigned IP address "ON".
4. Click **Apply**
5. Then Click **Restart Terminal**



6. Next, configure the PC TCP/IP setting to Obtain an IP address Automatically. Click **Programs > Network Connections > Properties**

### LAN or High-Speed Internet

Local Area Connection 3	LAN or High-Speed Inter...	Disabled
Wireless Network Connection	LAN or High-Speed Inter...	Disabled
Local Area Connection	LAN or High-Speed Inter...	Connected



7. Now register the terminal by pressing the Audio button until the signal strength lights go off or by clicking the Register with the Network button on the Properties page of the web interface.

8. The terminal will automatically recognize the DHCP Request and start the Background service automatically.

**Specification**

Bandwidth Consumption/Video & Audio Performance (w/o Ethernet Overhead)

Upload Bandwidth

Feature	Bandwidth Consumption	XX per Second
Encrypted Video & Audio	40-150 Kbps (Selectable)	5-30 Frames (Selectable)
Encrypted Audio	10-12 Kbps	17 Packets
Encrypted IM Chat	2 Kb (per message)	N/A
Encrypted File Transfer	8-9% overhead above file size	N/A

Idle Bandwidth (in kilobits per hour)

Users	Bandwidth Consumption (Upload)	Bandwidth Consumption (Download)
1	167 Kbps	156 Kbps
2	261 Kbps	250 Kbps
3	354 Kbps	344 Kbps
4	448 Kbps	437 Kbps

Download Bandwidth

Video and audio download bandwidth is equal to the upload bandwidth times the number of other users seeding data

**Tested**

Product	Result	Comments
Wideye Sabre Ranger	Successful	Default Setup
Hughes 9201/9350	Successful	Default Setup
Thrane & Thrane EXPLORER 300/500/700/727	Successful	Default Setup
Windows XP	Successful	Default Setup
Vista, 2000 or MAC running Windows Parallels Desktop	Successful	Default Setup

**Vendor**

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