



**SATTRANS**

USA & Americas: +1 877 688 4635

Europe: +48 17 71 58 100

Asia & Africa: +971 44 356 105

Russia: +7 495 981 0477

Ukraine: +380 44 490 3900

**support@sattrans.com**

**www.sattrans.com**

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**EN** **Operating and Installation Manual**  
**Sattrans Wi-Fi CommStation**  
for Thuraya XT satellite phone



# Sattrans Wi-Fi CommStation

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## 1. Important Notes

Dear Customer,

Thank you for choosing this high-quality product manufactured by BURY and exclusively distributed worldwide by SATTRANS Group. Please read this user manual before installing and using this product.

### Safety information

- This product should be installed so its components do not interfere with operation and safety features of your vehicle, such as airbags, safety belts, windshield, etc.
- Do not attempt to operate this product if the cables, plugs or other components are defective.
- Please do not attempt to open, disassemble or repair the product as it could damage its components and make the warranty void.

### Important Notes

- Product's functionality and its performance should be tested when powered on.
- If the satellite phone is inserted correctly into the cradle, charging of the phone's battery starts as soon as the power is turned on.

### Installation Note

- All components for installation of this product are supplied with the retail box. No tools are provided with the product.

### Operating Notes

- Thuraya satellite communications have several specific features, which are different from GSM communications. Obstructions such as tall buildings, trees, hills or mountains can block the reception and transmission of signals between the vehicle antenna and the satellites, thus decreasing the quality of calls or making them impossible. It is therefore recommended to make satellite calls in open areas, far from any obstructions. Before starting the call, please make sure the satellite signal level is sufficient.
- Sattrans Wi-Fi CommStation allows to get an access to wireless network virtually from each place which is within a reach of up to 20 m. However, the impact range (effective distance) can vary substantially depending on the placement of Sattrans Wi-Fi CommStation. For instance, thickness and number of walls which sound signals must go through will have an influence on shortening this distance.
- In order to get the best effects Sattrans Wi-Fi CommStation should be placed:
  - More or less in the middle of the area containing computers and other devices which will connect via Sattrans Wi-Fi CommStation, preferably "on the eye level" of these devices.
  - In the vicinity of AC socket and Ethernet cable ends of computers which connect wirelessly.
  - Away from electrical appliances which are potential sources of interference such as valve ceiling rails, home security systems, microwave ovens or bases of the wireless phones.

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- Away from big metal surfaces such as door made of solid metal plate or big concentration of aluminium rivets. The strength of signal is also influenced by big surfaces of other materials, e.g. glass, insulated walls, aquariums, mirrors, bricks or concrete.

**Important:**

► Failure to obey these recommendations may cause substantial deterioration of quality of communication or complete lack of possibility of connecting to the Internet.

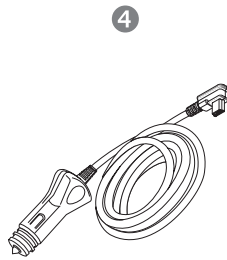
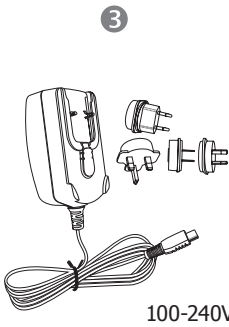
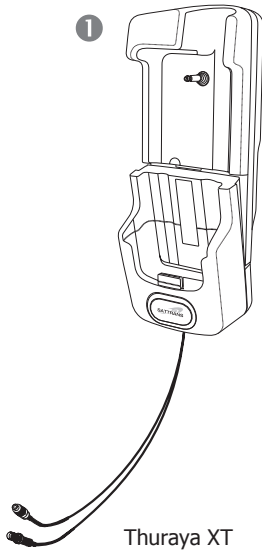
**Warranty & Liability Notes**

- This product is covered by a 2-year worldwide warranty from date of purchase with proof of purchase submitted.
- SATTRANS shall not be liable for any damages resulted from misuse, abuse, neglect, accident, repair, alteration or maintenance by any person or party other than our own service facility or the modification of this product in any way.
- Obligations of SATTRANS and its affiliates shall be limited to repair or replacement with the same or similar unit, at our option. When returning the product for repair, please pack it carefully and include an explanatory note.

**We hope you will be satisfied with the use of your Sattrans Wi-Fi CommStation and wish you a pleasant ride.**

# 4 Installation of Sattrans Wi-Fi CommStation

## 2. Box Contents

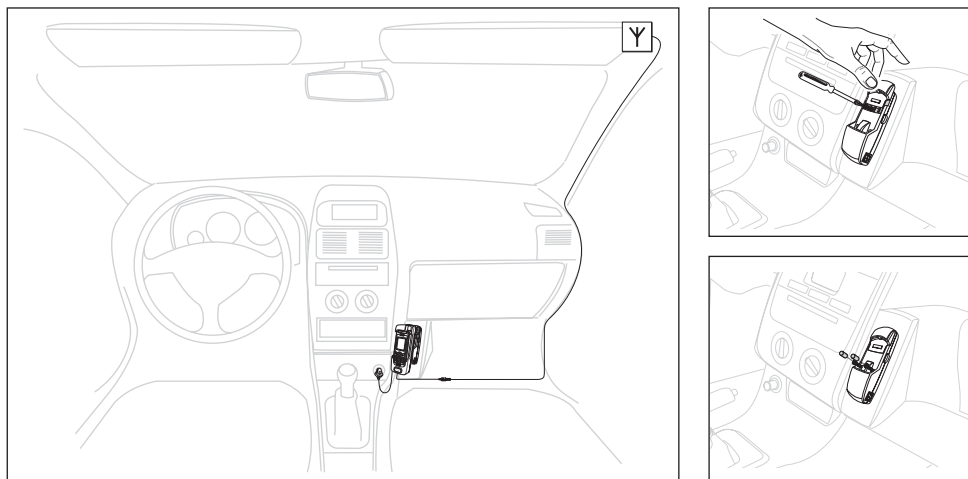


### Description of components:

- 1) Phone cradle only for Sattrans Wi-Fi CommStation
- 2) Sattrans Wi-Fi CommStation (baseplate)
- 3) Power supply adapter
- 4) Car power supply
- 5) Operating and Installation Manual

### 3. Positioning and mounting

#### Example of installation in the car:



After having installed Sattrans Wi-Fi CommStation device one should connect it to power supply. Connect power supply adapter (100-240 V) to source of power supply or car power supply adaptor to a cigarette lighter socket in a car on a yacht, and then to USB power supply of Sattrans Wi-Fi CommStation device.

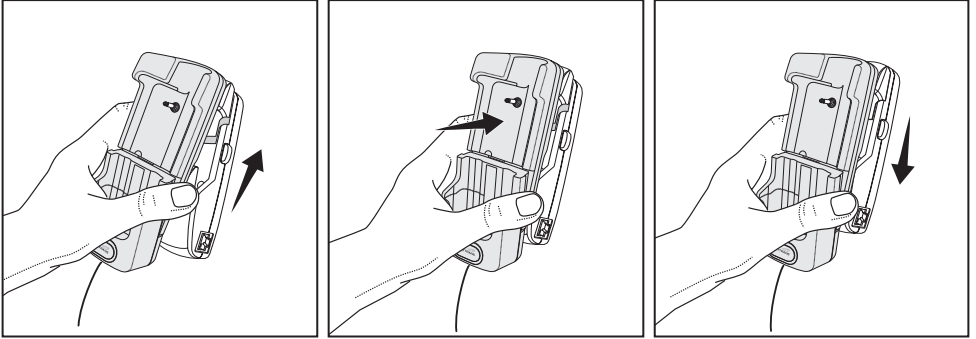
#### **Note:**

► Using power supply adapter having different voltage can lead to permanent damage to Sattrans Wi-Fi CommStation device. It is recommended that one should use original power supply adapter which is added to the product.

## 6 Installation of Sattrans Wi-Fi CommStation

### 4. Installing the Satellite Phone in the vehicle

Place the Satellite Phone cradle in the Sattrans Wi-Fi CommStation.



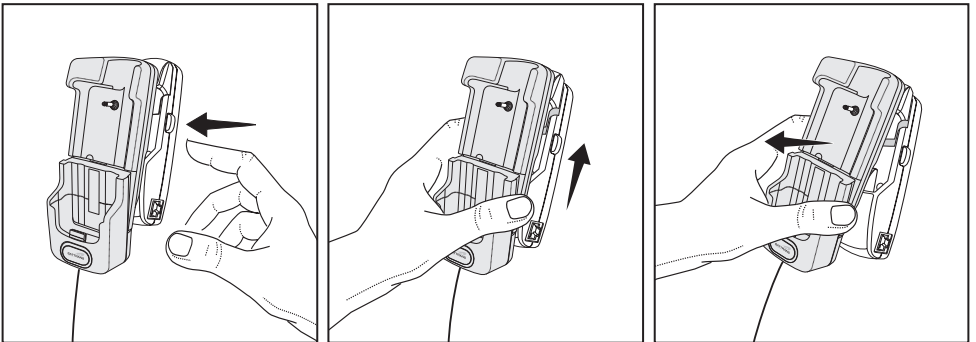
**Important:**

► The correct mounting of the cradle in the Sattrans Wi-Fi CommStation is signalled by a perceptible 'clicking' sound.

Removing the cradle from the Sattrans Wi-Fi CommStation.

**Important:**

► Before you remove the cradle from the Sattrans Wi-Fi CommStation you will have to remove the blocking mechanism by pressing the locking button on the right hand side of the Sattrans Wi-Fi CommStation.





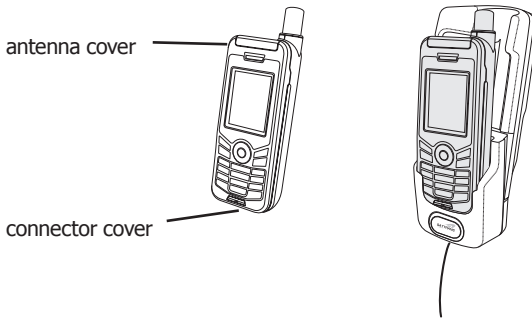
## 5. Inserting and removing the satellite phone

### Insert the satellite phone in the cradle.

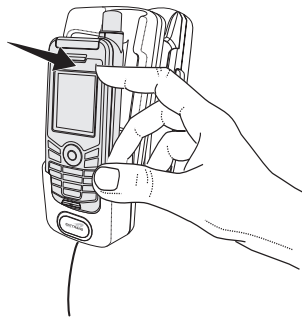
If necessary, remove the protective cover from your satellite phone. Place the satellite phone in the cradle from above.

#### **Important:**

► Please remove the antenna cover and compact connector cover from the satellite phone before inserting the phone to the cradle.



Press the top part of the satellite phone downwards and you will hear the satellite phone click into the cradle. The correct positioning of the satellite phone in the cradle is signalled by a perceptible 'clicking' sound.



## 8 Installation of Sattrans Wi-Fi CommStation

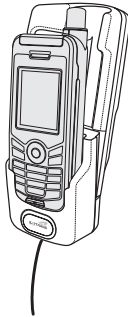
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### Removing the satellite phone from the cradle.

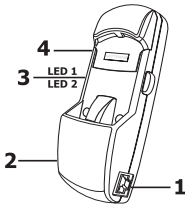
To release the locking mechanism press the button on the left hand side of the cradle.



Now remove the satellite phone by lifting it out of the cradle.



## 6. Functions of Sattrans Wi-Fi CommStation device



**1** - LAN port (RJ-45)

It enables connection of such devices as a router, PC or a laptop by means of Ethernet cable in order to configure Sattrans Wi-Fi CommStation.

**2** - Power supply socket

**3** - Signalling diodes

**4** - Reset button

Baseplate for Thuraya XT satellite phone, which will include the following main features:

- **router** with AP (Access Point)
- **PBX** (Private Branch Exchange) - private branch exchange offers all functions which are necessary for the users in small offices for conducting daily voice communication and data exchange:
  - **VoIP** gateway (Voice over Internet Protocol) allowing to receive/make voice calls inside and outside the network (via satellite phone) between sip client and Thuraya network.
  - **sms** functionality (sms message from sip client to Thuraya networks and redirect sms from network to sip client)
- receiving/sending e-mail messages
- browsing websites

### Led indicator light (Green and Red)

LED 1 - for VoIP and WAN status:

Blinking red	<b>WAN_CONNECTING:</b> the device will try connect to internet using satellite phone. This may take a while. (it strongly depends from external conditions)
Red	<b>WAN_CONNECTED:</b> the device will provide connection to internet by Thuraya phone
Green	<b>VoIP_GATEWAY_READY:</b> the device works as VoIP gateway for Thuraya network, PBX ready
Blinking green	<b>VoIP_GATEWAY_ACTIVE:</b> internal or external call

LED 2 - for Wi-Fi status:

Red	<b>Wi-Fi AP not ready</b> , device powered
Green/Blinking green	<b>Wi-Fi data transfer</b>

**Note:**

► After insertion of the satellite phone into the cradle, the phone should register itself in the network. Operation of the device (phone calls, data transfer) is conditional on satellite signal strength.

You can use device in two ways:

- **without data compression** – direct connection to the Internet without necessity of installing additional applications
- **with data compression** – it requires installation of additional application

### Direct connection to the Internet – without data compression

The standard built-in applications for sending e-mails and browsing the Internet websites are used in the connected devices (e.g. PC, smartphone, tablet, notebook). The appropriate application for handling voice calls and sending text messages e.g. XGate Phone must be installed.

**Important:**

- It does not require subscription of Thuraya services for Internet connections.
- We recommend using dedicated tariffs or data packets which enable using data transmission and which will allow to avoid additional costs related to that.
- In order to obtain detailed information one should contact network operator or Service Partner.

In order to establish direct connection to the Internet one should:

Select: **Satellite Phone/Connect to the Internet**

System	
Hostname	Sattrans_Wi-Fi_CommStation
Model	am335x_bury2
Firmware Version	OpenWrt Barrier Breaker SWCS v0.03 - squashfs / LuCI Trunk (git-3b3dc65)
Kernel Version	3.2.57+
Local Time	Fri Sep 12 13:24:47 2014
Uptime	0h 31m 55s
Load Average	0.14, 0.18, 0.20

193.168.1.1/cgi-bin/?admin=175007641a6b12464ea71aa30c07091a6ba3a9a\_corvnet1

Status ▾ System ▾ Network ▾ Satellite Phone Logout

## Satellite Phone Internet connection manager

**Choose action:**

**Connection status:**

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Powered by LuCI Trunk (git-3b3dc65) OpenWrt Barrier Breaker SWCS v0.03 - squashfs

OpenWrt 192.168.1.1

Status ▾ System ▾ Network ▾ Satellite Phone Logout

## Satellite Phone Internet connection manager

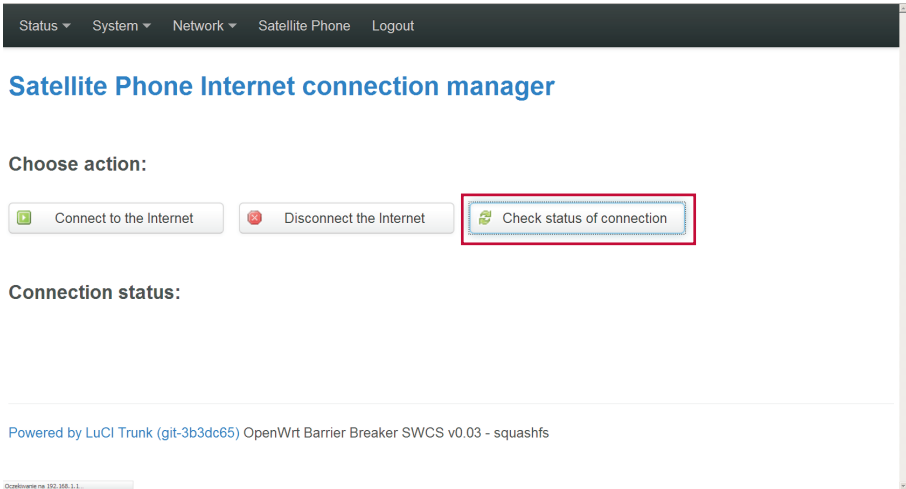
**Choose action:**

**Connection status:**

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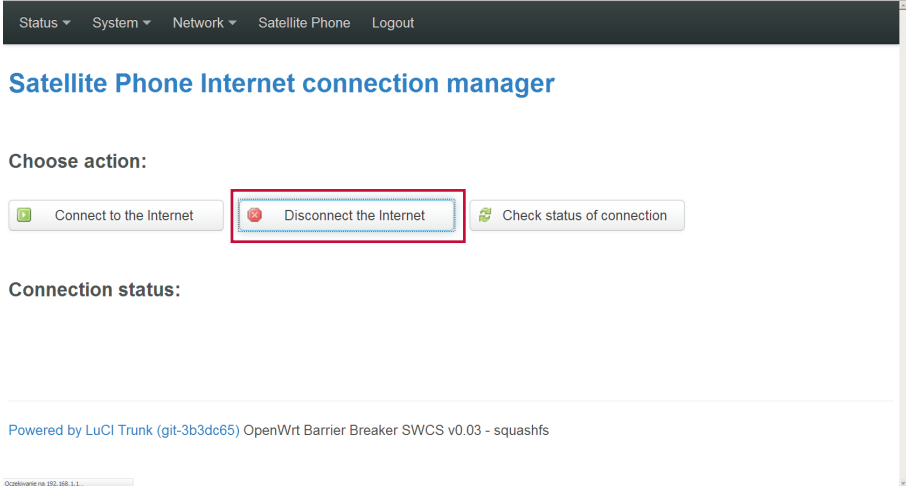
Powered by LuCI Trunk (git-3b3dc65) OpenWrt Barrier Breaker SWCS v0.03 - squashfs

In order to check the status of the connection choose **“Check status of connection”**.



The screenshot shows the 'Satellite Phone Internet connection manager' interface. At the top, there is a dark navigation bar with links for 'Status', 'System', 'Network', 'Satellite Phone', and 'Logout'. Below this, the title 'Satellite Phone Internet connection manager' is displayed in blue. Under the heading 'Choose action:', there are three buttons: 'Connect to the Internet' (with a green plus icon), 'Disconnect the Internet' (with a red minus icon), and 'Check status of connection' (with a green refresh icon). The 'Check status of connection' button is highlighted with a red rectangular border. Below the buttons, the 'Connection status:' section is currently empty. At the bottom of the page, there is a footer that reads 'Powered by LuCI Trunk (git-3b3dc65) OpenWrt Barrier Breaker SWCS v0.03 - squashfs' and a small status bar at the very bottom indicating 'Oscilloscope nr. 192.168.1.1'.

In order to end the Internet connection, press **“Disconnect the Internet”** button.



The screenshot shows the same 'Satellite Phone Internet connection manager' interface. In this view, the 'Disconnect the Internet' button (with a red minus icon) is highlighted with a red rectangular border. The other elements, including the navigation bar, title, 'Choose action:' section with the other two buttons, and the footer, remain the same as in the previous screenshot.

## Connection to the Internet with data compression

### - it requires installation of additional applications

One should install additional applications used for serving phone calls, sending text messages and e-mails on the devices which are connected (e.g. PC, smartphone, tablet, notebook).

With this aim in view, please download and install XGate, XGate Phone, XWeb (devices with Android) or Firefox (PC) applications available on:

**[www.play.google.com](http://www.play.google.com)** for Android (for the devices with Android)

**[www.itunes.apple.com](http://www.itunes.apple.com)** for Apple iOS (for iPhone)

**[www.google/global/morim.net.com](http://www.google/global/morim.net.com)** for Windows

or from the website: **[www.globalmarinenet.com/downloads.php](http://www.globalmarinenet.com/downloads.php)**

The Android app is a free download in the Google Play store. Its use requires an active XGate subscription.

#### **Important:**

- ▶ It requires subscription of Thuraya services for Internet connections.
- ▶ We recommend using dedicated tariffs or data packets which enable using data transmission and which will allow to avoid additional costs related to that.
- ▶ In order to obtain detailed information one should contact network operator or Service Partner.

Install according to the instruction manual which can be found on the website and register:

**[www.globalmarinenet.com/xgate\\_registration.php](http://www.globalmarinenet.com/xgate_registration.php)**

#### **Important:**

- ▶ Your username and password will be sent to the email address you entered on the registration form.
- ▶ Remember user name and a password which will be assigned to You.

The voucher can be used for activation of XGate account. During registration one should give MAC Address as an activation code of XGate Voucher which is placed on the label at the back of Sattrans Wi-Fi CommStation. Voucher is valid for the period of 30 days from the moment of registration. Information on expiry of validity will be sent to e-mail address provided during registration. For purposes of subscription of XGate service one should contact their seller.

#### **Important note:**

- ▶ This Prepaid Voucher can be extended.

## 7. Connecting to Sattrans Wi-Fi CommStation

**The following conditions must be met to ensure that the connection is successful.**

Wi-Fi is switched on in the device to be connected (e.g. PC, smartphone, tablet, notebook).  
Sattrans Wi-Fi CommStation is connected to power supply.

**Note:**

▶ The scope of WiFi signal can be limited.

### Establishing the connection

**Step 1.** Search for available Wi-Fi networks in the device that is to be connected (refer to the operating instructions for the device that is to be connected).

**Step 2.** In the menu for the networks that are found, select the connection to the "Sattrans Wi-Fi CommStation" network and enter "sattrans" password.

**Step 3.** Select the "Connect".

### Disconnecting from the network

You can disconnect from Sattrans Wi-Fi CommStation using one of the following methods.

1. By disconnecting from Sattrans Wi-Fi CommStation in the connected device.
2. By switching off the Wi-Fi in the connected device.
3. By cutting off source of power supply for Sattrans Wi-Fi CommStation.

### Automatic connection

The connection to Sattrans Wi-Fi CommStation is re-established under the following conditions:

1. Wi-Fi is switched on in the device to be connected.
2. Sattrans Wi-Fi CommStation is connected to power supply.
3. The device to be connected saves the password that is required to check the connection.

**Note:**

▶ With Sattrans Wi-Fi CommStation, can be connected up to ten devices at the same time.



## Configuration of Sattrans Wi-Fi CommStation

Enter the following address in the web browser (e.g. Mozilla Firefox) of the device that is connected **http://192.168.1.1**

Enter the following information; Username: **admin**

Password: **admin**

### **Note:**

► After logging onto Sattrans Wi-Fi CommStation for the first time, due to safety reasons, it is recommended that the change of the user name and password should be done immediately.

There are different configuration options on the website such as: update of software, statistics, information about Sattrans Wi-Fi CommStation connection.

Manual modifications of the settings performed by incompetent staff can cause limitation of functioning and even makes it impossible to use the device.

### **Saving changes to the settings**

Changes to the settings will be applied only after taking the following steps.

The changes are saved by pressing the "Save&Apply" button.

Reboot of Sattrans Wi-Fi CommStation is performed after selecting System -> Reboot -> Perform reboot.

## **Password management**

The passwords can be managed on the Sattrans Wi-Fi CommStation website via the connected device (see above for the address).

Any changes made will only be noticeable after they have been saved and Sattrans Wi-Fi CommStation has been restarted ("Saving changes to the settings" – see above).

### **Changing the password**

In the "Configuration" menu item, enter a new password. The password must contain 8-17 characters without diacritics or special characters (e.g. +, -, /, etc.).

Select: **Network/Wifi/Edit/Interface Configuration/Wireless Security/Encryption**

This screenshot shows the top navigation bar with 'Status', 'System', 'Network', 'Satellite Phone', and 'Logout'. A dropdown menu is open under 'Network', listing 'Interfaces', 'Wifi', 'DHCP and DNS', 'Hostnames', 'Static Routes', 'Firewall', 'Diagnostics', 'Configure Diagnostics', 'MAC Device Info', and 'Overrides'. The 'Wifi' option is highlighted with a red box.

Status	System	Network	Satellite Phone	Logout
<b>Status</b>	Interfaces	Wifi	DHCP and DNS	Hostnames
System	Static Routes	Firewall	Diagnostics	Configure Diagnostics
Hostname	MAC Device Info	Overrides		
Model				
Firmware Version				
Kernel Version				
Local Time				
Uptime				
Load Average				

This screenshot shows the 'Wireless Overview' page for 'radio0: Master "Sattrans\_Wi-Fi\_CommStation"'. It displays details for a 'Generic MAC80211 802.11bgn (radio0)' on channel 1 (2.412 GHz) with a bitrate of ? Mbit/s. The SSID is 'Sattrans\_Wi-Fi\_CommStation' and the mode is 'Master'. Encryption is 'mixed WPA/WPA2 PSK (TKIP, CCMP)'. There are buttons for 'Scan', 'Add', 'Disable', 'Edit', and 'Remove'. The 'Edit' button is highlighted with a red box.

### Wireless Overview

radio0: Master "Sattrans\_Wi-Fi\_CommStation"

**Generic MAC80211 802.11bgn (radio0)**  
Channel: 1 (2.412 GHz) | Bitrate: ? Mbit/s

SSID: Sattrans\_Wi-Fi\_CommStation | Mode: Master  
0% BSSID: 5C:31:3E:0C:20:9F | Encryption: mixed WPA/WPA2 PSK (TKIP, CCMP)

Buttons: Scan, Add, Disable, Edit, Remove

### Associated Stations

SSID	MAC-Address	IPv4-Address	Signal	Noise	RX Rate	TX Rate
No information available						

Status ▾ System ▾ Network ▾ Satellite Phone Logout

## Interface Configuration

General Setup **Wireless Security** MAC-Filter

Encryption **WPA-PSK/WPA2-PSK Mixed Mod...**  
 ⓘ WPA-Encryption requires wpa\_supplicant (for client mode) or hostapd (for AP and ad-hoc mode) to be installed.

Cipher Force TKIP and CCMP (AES)

Key ●●●●●●

Save & Apply Save Reset

Select **.../Interface Configuration/General Setup/ESSID** in order to select/ change network name


Status ▾ System ▾ Network ▾ Satellite Phone Logout

## Interface Configuration

**General Setup** Wireless Security MAC-Filter

ESSID **Sattrans\_Wi-Fi\_CommStation**

Mode Access Point

Network  lan:   
 create:

ⓘ Choose the network(s) you want to attach to this wireless interface or fill out the *create* field to define a new network.

Hide ESSID

WMM Mode

Save & Apply Save Reset

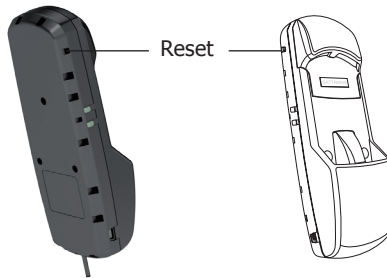
After introduction of changes, press **"Save&Apply"** button.

## Forgotten password

If the password is forgotten one should restore the factory settings by pressing and holding "Reset" button for 10 seconds. This button is on the left hand side of the device. Restart of the device will be signaled by diodes becoming red.

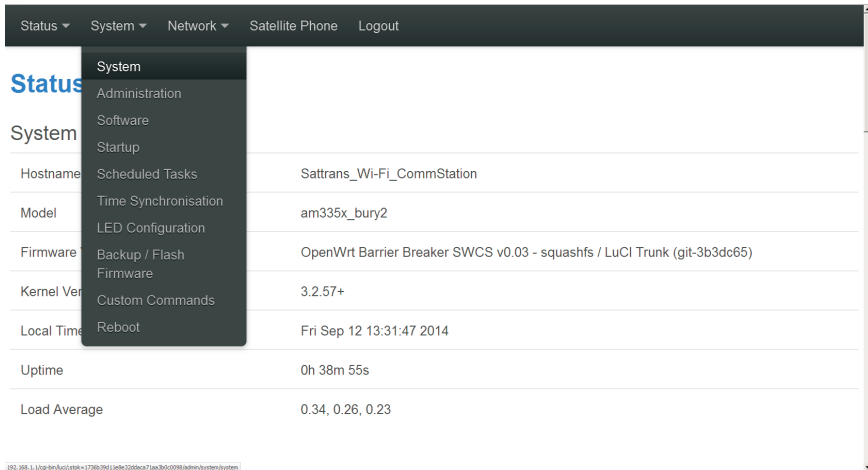
### **Important:**

▶ All user settings will be lost.



## Changing the language

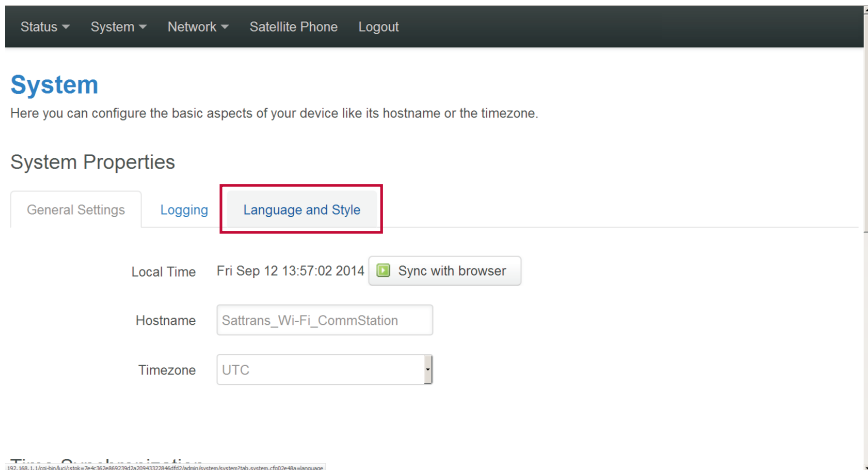
Select: **System/System/Language and Style**



The screenshot shows the OpenWrt Status page. The top navigation bar includes 'Status', 'System', 'Network', 'Satellite Phone', and 'Logout'. The 'System' menu is open, showing options: System, Administration, Software, Startup, Scheduled Tasks, Time Synchronisation, LED Configuration, Backup / Flash, Firmware, Custom Commands, and Reboot. The main content area displays system information in a table:

Hostname	Sattrans_Wi-Fi_CommStation
Model	am335x_bury2
Firmware	OpenWrt Barrier Breaker SWCS v0.03 - squashts / LuCI Trunk (git-3b3dc65)
Kernel Version	3.2.57+
Local Time	Fri Sep 12 13:31:47 2014
Uptime	0h 38m 55s
Load Average	0.34, 0.26, 0.23

At the bottom, a small URL is visible: `192.168.1.1/cgi-bin/luci/1736/2611/101e12d8bca7aa30c0098/admin/system/system`

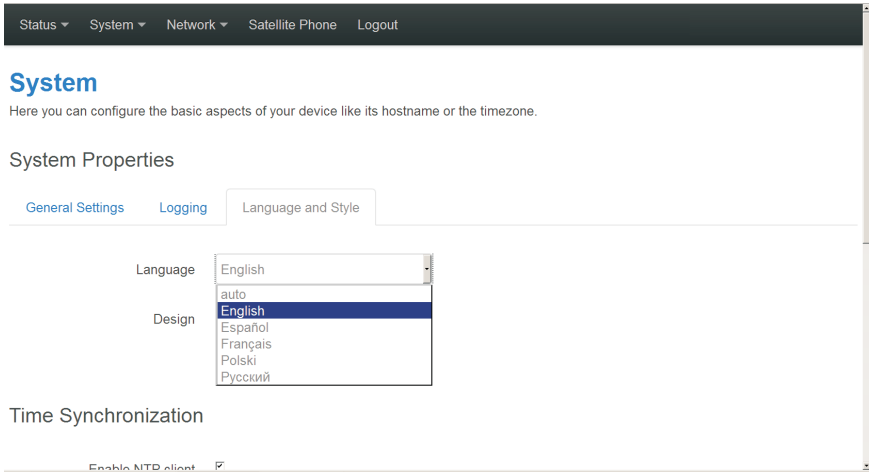


The screenshot shows the OpenWrt System configuration page, specifically the 'Language and Style' tab. The top navigation bar is the same as in the previous screenshot. The page title is 'System' and the subtitle is 'Here you can configure the basic aspects of your device like its hostname or the timezone.' The 'System Properties' section has three tabs: 'General Settings', 'Logging', and 'Language and Style' (which is selected and highlighted with a red box). The configuration options are:

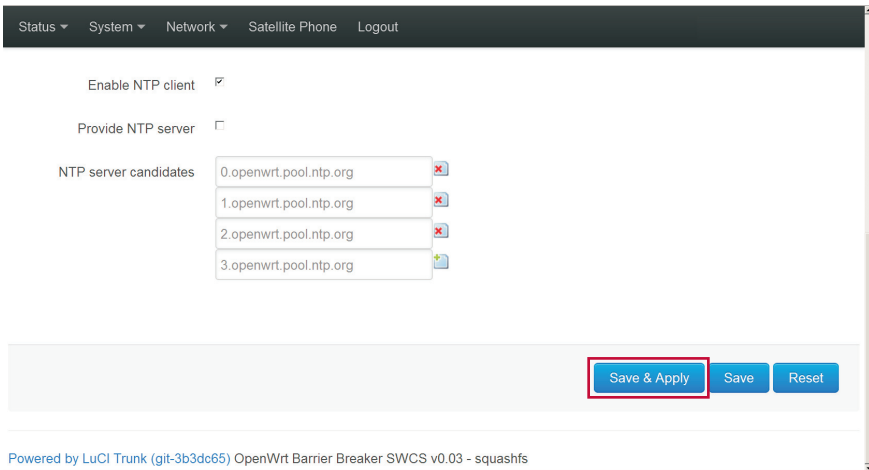
- Local Time: Fri Sep 12 13:57:02 2014, with a 'Sync with browser' button.
- Hostname: Satrans\_Wi-Fi\_CommStation
- Timezone: UTC

At the bottom, a small URL is visible: `192.168.1.1/cgi-bin/luci/1736/2611/101e12d8bca7aa30c0098/admin/system/system/hub/system_cf92e4fa-language`

The following user languages are available: English, Spanish, French, Polish and Russian.



After introduction of changes, press **“Save&Apply”** button.



## Configuration of XGate application

You can use this application for sending text messages and e-mails as well and for browsing the Internet websites. The configuration in Android system has been described by way of illustration.

### Step 1. Download XGate app

Download and install the app on your smartphone or tablet running Android 2.3 or higher (see page 10.)

### Step 2. Register for a XGate (GMN) account

Navigate to [www.globalmarinenet.com/xgate\\_registration.php](http://www.globalmarinenet.com/xgate_registration.php) URL to fill out the registration form, follow the instructions and register for a username and password.

#### Note:

► You must register the service prior to launching the application.

Wait for confirmation that the Registration is Complete. Make note of the username and the password assigned to the account.

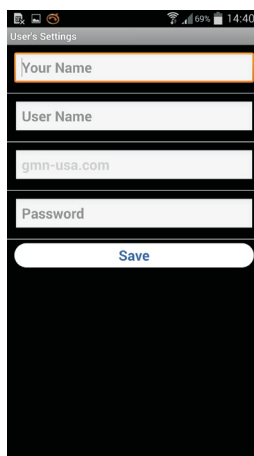
### Step 3. Login to the application

Open the XGate app and enter the following information: **Username**, **Password** and click on **"Save"** to gain access to the application.

#### Important:

► Connected device (PC, smartphone, tablet, notebook) must be connected to Sattrans Wi-Fi CommStation.

► Enter the username and password used for registration on [www.globalmarinenet.com/xgate\\_registration.php](http://www.globalmarinenet.com/xgate_registration.php).



The screenshot shows the 'User's Settings' screen of the XGate application. The interface is dark-themed. At the top, the status bar displays signal strength, Wi-Fi, 69% battery, and 14:40. Below the title 'User's Settings', there are four input fields: 'Your Name' (highlighted with an orange border), 'User Name', 'gmni-usa.com', and 'Password'. At the bottom, there is a white 'Save' button.

## Step 4. Configure device connection type

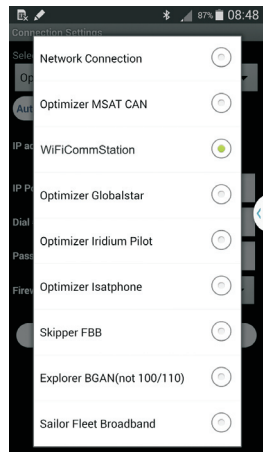
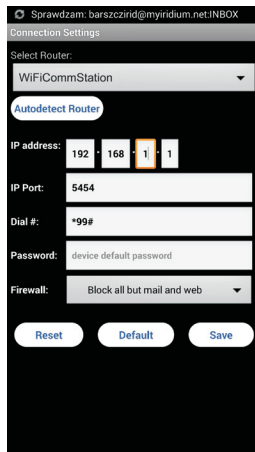
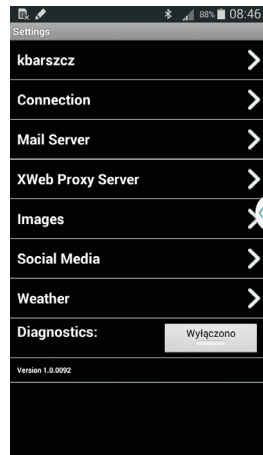
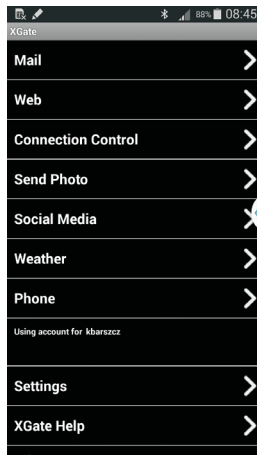
After logging in to the application for the first time, the app will guide you to configure the device connection type. Click OK to be redirected to the device selection screen. Select "Sattrans Wi-Fi CommStation" as your connection type and click the back button. Alternatively, you can run the device auto-detection capability by selecting "AutoDetect Router" button.

Data for settings can be also entered manually.

Wybierz **Settings** -> **Connection**

### Note:

► Ensure that the "Diagnostics" is turned off. This is an advanced option and is used Thuraya support personnel to troubleshoot device connection & detection issues with the user.



Enter the password: **webxaccess**



**Step 5.** In order to save these settings, please press “**Save**” button.

**Note:**

- ▶ In the case of Apple iOS operational system one should act in the same way.
- ▶ Instruction manuals are available on the following website <http://www.globalmarinenet.com/>

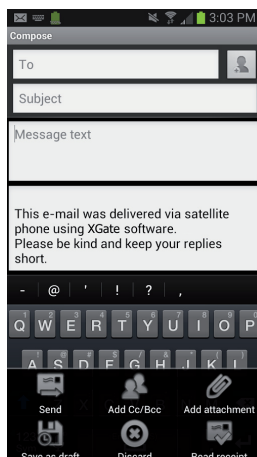
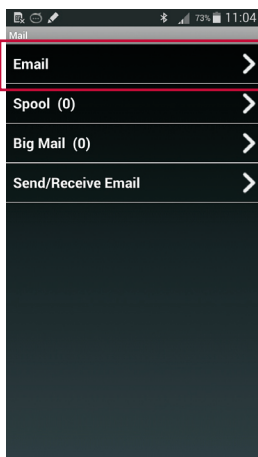
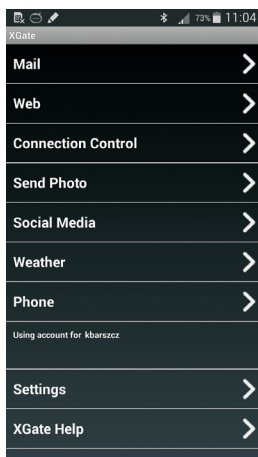
## Sending and receiving e-mail messages

**Step 1.** Open the XGate.

**Step 2.** Select **Mail** -> **Send/Receive Email**

**Important:**

- ▶ Satellite telephone must be connected and registered in the network.



## Configuration of Web surfing

The fast web compression technology reduces typical pictures down to 5% of their original size, dramatically reducing download times. In addition to compressing all the images, XWeb also compresses all text streams, removes obnoxious pop-ads, and removes all backgrounds and animations. Faster download times mean greater savings for you.

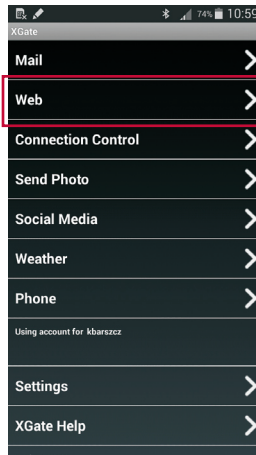
### To access web pages using XGate:

**Step 1.** Open the XGate.

**Step 2.** Click on the “Web” icon on the home screen. The app will start dialing a connection.

#### **Important:**

► Satellite telephone must be connected and registered in the network.



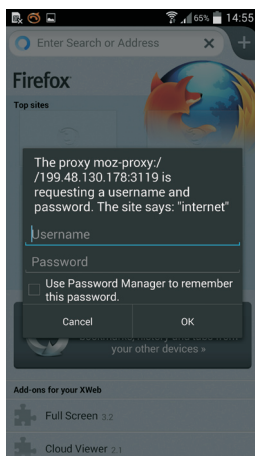
After the connection is up, the app will automatically open the XWeb browser.

**Step 3.** Enter a mobile website in the browser and press “Enter”.

**Step 4.** Enter the following information; username and password.

#### **Note:**

► Enter the username and password used for registration on [www.globalmarinenet.com/xgate\\_registration.php](http://www.globalmarinenet.com/xgate_registration.php).

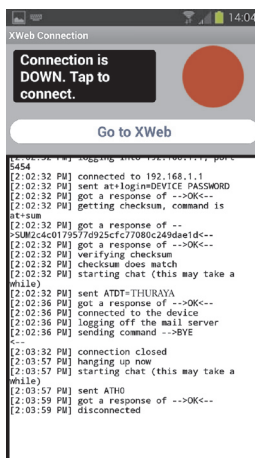
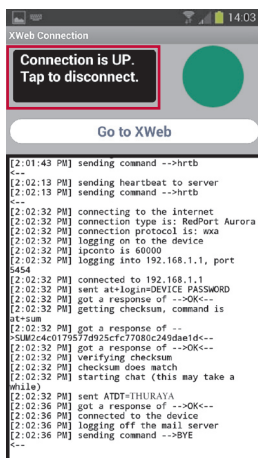


### Note:

► Airtime charges will continue while the connection is active. Do not visit standard Internet pages as videos and graphic-heavy pages designed for broadband networks will not download properly using XWeb.

**Step 5.** When finished, close your XWeb app and return to the XGate app.

**Step 6:** Select **"Tap to disconnect"**. Now disconnection from the network starts.



## Configuration of Asterisk through www

### Adding the new user (SIP client)

#### Step 1.

Connect to the website **192.168.1.1:8088/static/config/index.html**

Enter the following information; Username: **admin**

Password: **admin**

#### Step 2.

Mark **Users**



The screenshot shows the Asterisk web interface. On the left sidebar, the 'Users' menu item is highlighted with a red box. The main content area displays the 'System Status' page, which includes sections for 'Trunks' and 'Extensions'. The 'Extensions' section is active, showing a table of user extensions with columns for Extension, Name/Label, Status, and Type.

Extension	Name/Label	Status	Type
6001	Jack Strong	Messages : 0/0	SIP User
6002	Skipper	Messages : 0/0	SIP User
6003	Kowalski	Messages : 0/0	SIP User
6004	Rico	Messages : 0/0	SIP User
6005	Tesowy	Messages : 0/0	SIP User
6020	Mr. Bean	Messages : 0/0	SIP User

Choose **Create New User**



The screenshot shows the 'User Extensions on PIX' page. The 'Create New User' button is highlighted with a red box. Below the button is a table listing existing user extensions with columns for Extension, Full Name, Port, SIP, IAX, DialPlan, and Outbound CID. Each row includes 'Edit' and 'Delete' buttons.

Extension	Full Name	Port	SIP	IAX	DialPlan	Outbound CID
6001	Jack Strong	--	Yes	--	DialPlan_bury	6001
6002	Skipper	--	Yes	--	DialPlan_bury	6002
6003	Kowalski	--	Yes	--	DialPlan_bury	6003
6004	Rico	--	Yes	--	DialPlan_bury	6004
6005	Tesowy	--	Yes	--	DialPlan_bury	6005
6020	Mr. Bean	--	Yes	--	DialPlan_bury	6020

Enter the following information:

**Create New User**

General :

Extension: 6007 CallerID Name: Brown DialPlan: DiaPlan\_bury  
 Internal CallerID: 6007 CallerID Number: 6007

Enable Voicemail for this User  
 Voicemail Access PIN code: Email Address:

Technology

SIP  IAX Analog Station: None flash: 750 rxf flash: 1250  
 Codec Preference : First u-law Second GSM Third None Fourth None Fifth None

VoIP Settings

MAC Address : 6007 Line Number : 1 LineKeys: 1  
 SIP/IAX Password: IAX: Require Call Token:  
 IAX: Max Call Numbers:  
 NAT:  Can Reinvite:  DTMF Mode: RFC2833 insecure: no

Other Options

3-Way Calling (analog)  In Directory  Call Waiting (analog)  
 ADA User  Is Agent Pickup Group: 1

Cancel Update

**Note:**

- ▶ Only one number can be assigned to one user. Numbers must be between 6000 - 6299.
- ▶ Field Technology-**IAX** should remain empty.
- ▶ VoIP Settings **MAC Address** – enter the same number as in Extension field.
- ▶ VoIP Settings **SIP/IAX** Password – enter any password.

**Important:**

- ▶ MAC Address and SIP/IAX Password will be required for configuration of XGate Phone, which is described on page 29 in the chapter “Configuration of XGate Phone application”.

**Step 3.** After completing all data press **“Update”** button.

**Step 4.** The added user will be displayed on the list.

Extension	Full Name	Port	SIP	IAX	DialPlan	Outbound CID	Edit	Delete
6001	Jack Strong	--	Yes	--	DiaPlan_bury	6001	Edit	Delete
6002	Skipper	--	Yes	--	DiaPlan_bury	6002	Edit	Delete
6003	Kowalski	--	Yes	--	DiaPlan_bury	6003	Edit	Delete
6004	Rico	--	Yes	--	DiaPlan_bury	6004	Edit	Delete
6005	Tesowy	--	Yes	--	DiaPlan_bury	6005	Edit	Delete
6007	Brown	--	Yes	--	DiaPlan_bury	6007	Edit	Delete
6020	Mr. Bean	--	Yes	--	DiaPlan_bury	6020	Edit	Delete

**Step 5.** In order to save the introduced changes press **„Apply Changes”**

Apply Changes Logout

Extension	Full Name	Port	SIP	IAX	DialPlan	Outbound CID	Edit	Delete
6001	Jack Strong	--	Yes	--	DiaPlan_bury	6001	Edit	Delete
6002	Skipper	--	Yes	--	DiaPlan_bury	6002	Edit	Delete
6003	Kowalski	--	Yes	--	DiaPlan_bury	6003	Edit	Delete
6004	Rico	--	Yes	--	DiaPlan_bury	6004	Edit	Delete
6005	Tesowy	--	Yes	--	DiaPlan_bury	6005	Edit	Delete

More details on website: [www.asterisk.org](http://www.asterisk.org)

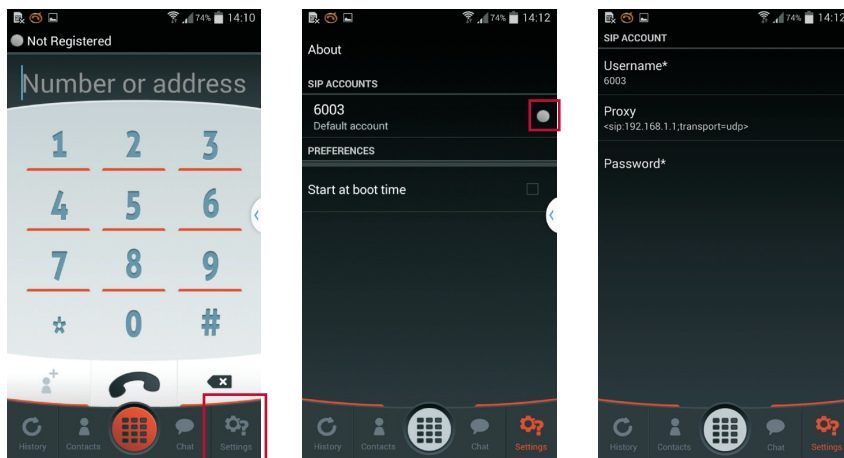
## Configuration of XGate Phone application

Use this application in order to start and take a phone call and to send and receive a text message (SMS) inside the network and send a text message outside the network.

**Step 1.** Open XGate Phone application.

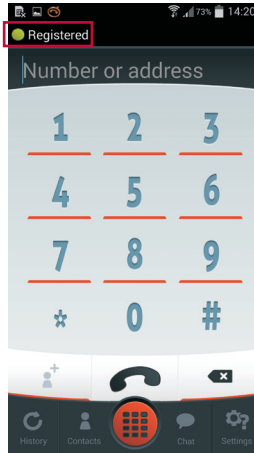
**Step 2.** Select "Settings" buttons.

Enter the following information; Username, Password, Proxy



### Note:

- ▶ Enter the username and password used when setting up your account on Asterisk - MAC Address i SIP/IAX Password.
- ▶ In Proxy entry choose the same IP of router as is found in XGate (IP address 192.168.1.1 see page 18, step 4.) This field must contain the full entry <sjp: 192.168.1.1;transport=udp>



**Note:**

- ▶ Correct configuration is signaled by the change of the status of the device for “Registered” and by the green symbol.
- ▶ Test of connection can be performed by choosing 600-echo test.

**Making connections inside the network**

After correct configuration one can make the phone call or send text messages to the user name assigned inside network (e.g. 6000) using XGate Phone application.

**Making connections outside the network**

**Important:**

- ▶ Satellite phone must be connected and registered in the network.

For external calls, dial 00 followed by the country code and phone number (e.g. 0048xxxxx), then press icon of the handset.

**Sending text messages (SMS) outside network**

While sending text message (SMS) outsider network select “+”, country code and phone number (e.g. +48xxxx), and then press “Sand”.

Accepting internal and external phone calls is performed in an identical way by pressing the icon of the handset.



## 8. Configuration of Wi-Fi repeater

Repeater, that is wireless Wi-Fi signal extender which is within the reach of Wi-Fi router receives network signal and distributes it further and at the same time it amplifies and conditions this signal. Thus, the effective range of Wi-Fi is increased.

In our case, the second device (slave device) of Sattrans Wi-Fi CommStation will serve the function of the repeater. The "Master" device is the first device of Sattrans Wi-Fi CommStation with connected satellite phone.

**Step 1.** During the first start-up connect repeater (slave device of Sattrans Wi-Fi CommStation) to LAN port in the computer by means of RJ45 cable (ultimately via Wi-Fi).

**Step 2.** Log onto administration interface.

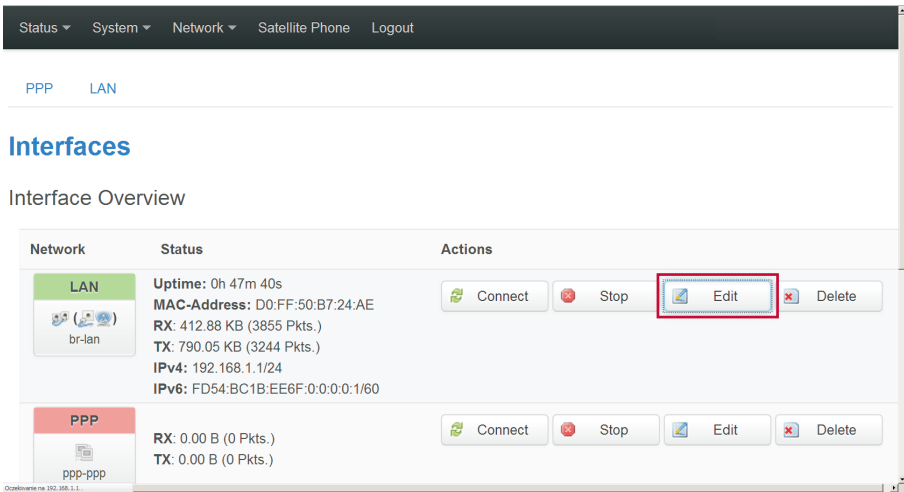
**Step 3.** Select from the menu **Network -> Interfaces**.

The screenshot shows the administration interface of the Sattrans Wi-Fi CommStation. The top navigation bar includes 'Status', 'System', 'Network', 'Satellite Phone', and 'Logout'. The 'Network' menu is open, and the 'Interfaces' option is highlighted with a red box. The main content area displays system information:

Status	
System	
Hostname	trans_Wi-Fi_CommStation
Model	35x_bury2
Firmware Version	enWrt Barrier Breaker SWCS v0.03 - squashfs / LuCI Trunk (git-3b3dc65)
Kernel Version	57+
Local Time	Fri Sep 12 13:40:43 2014
Uptime	0h 47m 50s
Load Average	0.08, 0.12, 0.18

At the bottom left, there is a small URL: `192.168.1.1/cgi-bin/luci?token=173603641a6e72d6dec77aee50c0705&admin/network/interfaces`

**Step 4.** Select **"Edit"** at LAN interface.




The screenshot shows a web interface for network management. At the top, there are navigation tabs: Status, System, Network, Satellite Phone, and Logout. Below this, there are sub-tabs for PPP and LAN. The main heading is "Interfaces", followed by "Interface Overview". A table lists the interfaces:

Network	Status	Actions
LAN br-lan	Uptime: 0h 47m 40s MAC-Address: D0:FF:50:B7:24:AE RX: 412.88 KB (3855 Pkts.) TX: 790.05 KB (3244 Pkts.) IPv4: 192.168.1.1/24 IPv6: FD54:BC1B:EE6F:0:0:0:1/60	Connect Stop <b>Edit</b> Delete
PPP ppp-ppp	RX: 0.00 B (0 Pkts.) TX: 0.00 B (0 Pkts.)	Connect Stop Edit Delete

**Step 5.** Change IP address for another one which doesn't collide with DHCP range and with other devices in the network, e.g. PC from which we connect.

**Note:**

- ▶ Remember this address e.g. 192.168.1.11 because at this address the "slave" device-repeater will be available.
- ▶ If necessary, one can get access by resetting the device and restoring factory settings.



The screenshot shows the configuration page for the LAN interface. At the top, there are navigation tabs: Status, System, Network, Satellite Phone, and Logout. The main heading is "Interfaces", followed by "Interface Overview". The configuration page shows the following fields:

Protocol: Static address

IPv4 address: 192.168.1.11

IPv4 netmask: 255.255.255.0

IPv4 gateway: [Empty]

IPv4 broadcast: [Empty]

Use custom DNS servers: [Empty]

## Step 6. Select "Ignore interface" in section DHCP server.

Status ▾ System ▾ Network ▾ Satellite Phone Logout

PPP LAN

### Interfaces - LAN

On this page you can configure the network interfaces. You can bridge several interfaces by ticking the "bridge interfaces" field and enter the names of several network interfaces separated by spaces. You can also use VLAN notation `INTERFACE.VLANNR` (e.g.: `eth0.1`).

#### Common Configuration

General Setup Advanced Settings Physical Settings Firewall Settings

Status **br-lan**

**Uptime:** 0h 48m 8s  
**MAC-Address:** D0:FF:50:B7:24:AE  
**RX:** 433.34 KB (4075 Pkts.)  
**TX:** 860.01 KB (3481 Pkts.)  
**IPv6:** FD54:BC1B:EE6F:0:0:0:1/60

Protocol Static address ▾

IPv4 address 192.168.1.11

IPv4 netmask 255.255.255.0 ▾

IPv4 gateway

IPv4 broadcast

Use custom DNS servers

IPv6 assignment length 60 ▾  
 Assign a part of given length of every public IPv6-prefix to this interface

IPv6 assignment hint   
 Assign prefix parts using this hexadecimal suffix ID for this interface.

#### DHCP Server

General Setup

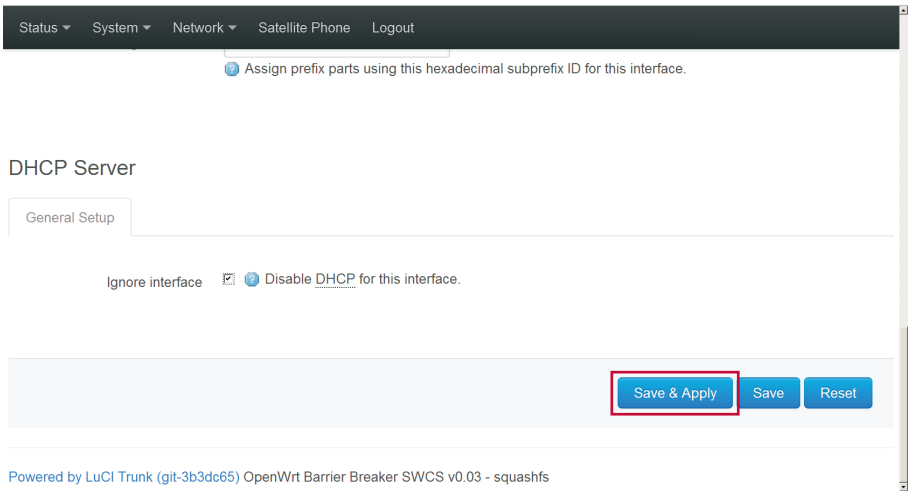
Ignore interface   Disable DHCP for this interface.

Save & Apply
Save
Reset

Powered by LuCI Trunk (git-3b3dc65) OpenWrt Barrier Breaker SWCS v0.03 - squasfhs

**Step 7.** Click "Save&Apply".

From then on the device will be available under new IP address-interface will stop working until entering new address in the web browser.

**Step 8.** Unplug PC and connect both devices with Ethernet cable.**Note:**

- ▶ If there are more devices, one should use standard Ethernet hub in order to connect them (so called switch).
- ▶ One should remember that IP addresses of slave devices (repeaters) should be different but the configuration diagram remains the same.

From then on one can log onto both devices via Wi-Fi in the same way.

Both devices are available under their IP addresses no matter which one we connect via Wi-Fi to. However, Asterisk settings are applicable only from the master device (connected to satellite phone).

**Note:**

- ▶ Coverage areas of all devices should not cover (stand next to one another)
- ▶ Switching of the phone from one to another AP doesn't have to be fluid and it may even end with disconnection of active VoIP connection- a lot depends on status, that is phone and its operating system. Therefore, one should not walk during phone call which should not be interrupted or one should not stay in the areas of multiple coverage area as long as it is possible.
- ▶ No other APs, onto which phone can be logged after losing coverage area, should be within station range because there is big probability that the phone will do that instead of logging onto repeater (or the other way round).

## 9. Firmware update

The current software version is available at...?

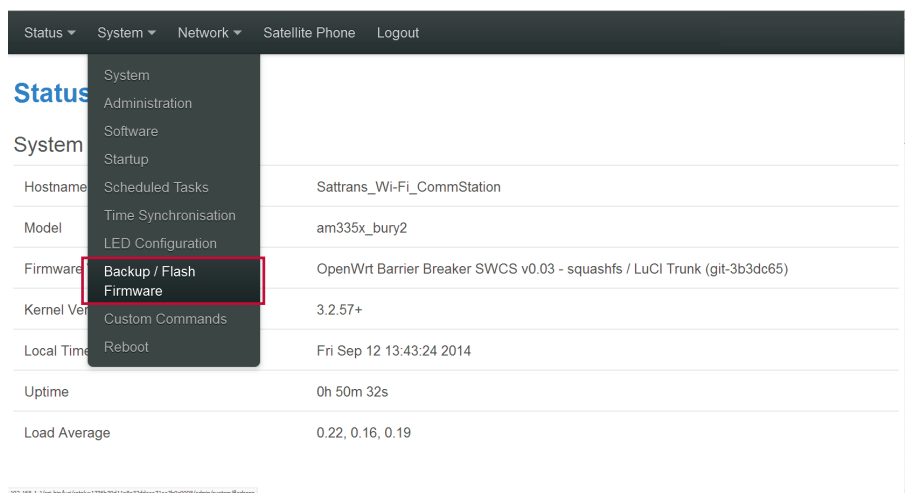
Please carry out the following steps on Sattrans Wi-Fi CommStation prepare the Sattrans Wi-Fi CommStation for the update:

**Notice:**

- ▶ The update is carried out at your own risk! We do not assume liability for any damages to the device arising from and during the update.
- ▶ The power supply of the kit may not be interrupted during the update procedure.

**Step 1:**

Select: **System/Backup / Flash Firmware** and follow the instructions (red rectangles):



The screenshot shows the web interface of the Sattrans Wi-Fi CommStation. The top navigation bar includes 'Status', 'System', 'Network', 'Satellite Phone', and 'Logout'. The 'System' menu is open, showing options: System, Administration, Software, Startup, Scheduled Tasks, Time Synchronisation, LED Configuration, **Backup / Flash Firmware** (highlighted with a red rectangle), Custom Commands, and Reboot. The main content area displays system information:

Hostname	Sattrans_Wi-Fi_CommStation
Model	am335x_bury2
Firmware	OpenWrt Barrier Breaker SWCS v0.03 - squashfs / LuCI Trunk (git-3b3dc65)
Kernel Version	3.2.57+
Local Time	Fri Sep 12 13:43:24 2014
Uptime	0h 50m 32s
Load Average	0.22, 0.16, 0.19

At the bottom left, there is a small URL: [192.168.1.1/cgi-bin/Ajax/index.html?token=1726829411e4b32048ea71ac3002036&admin/system/flashops](http://192.168.1.1/cgi-bin/Ajax/index.html?token=1726829411e4b32048ea71ac3002036&admin/system/flashops)

Status ▾ System ▾ Network ▾ Satellite Phone Logout

Reset to defaults:

To restore configuration files, you can upload a previously generated backup archive here.

Restore backup:  Nie wybrano pliku.

### Flash new firmware image

Upload a sysupgrade-compatible image here to replace the running firmware. Check "Keep settings" to retain the current configuration (requires an OpenWrt compatible firmware image).

Keep settings:

Image:  Nie wybrano pliku.

Powered by LuCI Trunk ([git-3b3dc65](https://github.com/3b3dc65)) OpenWrt Barrier Breaker SWCS v0.03 - squashfs

## Step 2: Select the update previously downloaded.

Status ▾ System ▾ Network ▾ Satellite Phone Logout

Reset to defaults:

To restore configuration files, you can upload a previously generated backup archive here.

Restore backup:

### Flash new firmware image

Upload a sysupgrade-compatible image here to replace the running firmware. Check "Keep settings" to retain the current configuration (requires an OpenWrt compatible firmware image).

Keep settings:

Image:  Nie wybrano pliku.

Powered by LuCI Trunk ([git-3b3dc65](https://github.com/3b3dc65)) OpenWrt Barrier Breaker SWCS v0.03 - squashfs

Status ▾ System ▾ Network ▾ Satellite Phone Logout

Reset to defaults:

To restore configuration files, you can upload a previously generated backup archive here.

Restore backup:  Nie wybrano pliku.

### Flash new firmware image

Upload a sysupgrade-compatible image here to replace the running firmware. Check "Keep settings" to retain the current configuration (requires an OpenWrt compatible firmware image).

Keep settings:

Image:  M0881\_10\_openwrt\_sysupgrade\_v0\_03.bin

Powered by LuCI Trunk (git-3b3dc65) OpenWrt Barrier Breaker SWCS v0.03 - squashfs

Status ▾ System ▾ Network ▾ Satellite Phone Logout

### Flash Firmware - Verify

The flash image was uploaded. Below is the checksum and file size listed, compare them with the original file to ensure data integrity. Click "Proceed" below to start the flash procedure.

- Checksum: `3d1ad03af886f57877b4b753da9c41e7`
- Size: 13.94 MB (126.00 MB available)
- Configuration files will be kept.

Powered by LuCI Trunk (git-3b3dc65) OpenWrt Barrier Breaker SWCS v0.03 - squashfs

## System - Flashing...

The system is flashing now.

**DO NOT POWER OFF THE DEVICE!**

Wait a few minutes until you try to reconnect. It might be necessary to renew the address of your computer to reach the device again, depending on your settings.



Waiting for changes to be applied...



**WARRANTY**

**No. ....  
Sattrans Wi-Fi CommStation**

Bar code .....

Sale date .....

Warranty is invalid without all written data in the heading.

Remarks:

24 months period of warranty starting from the date of sale.

Company stamp and legible  
signature RETAIL STORE

Stamp and signature  
SPECIALIST INSTALLATION POINT

I accept the warranty conditions  
LEGIBLE SIGNATURE OF CLIENT

No.	Date of submission	Date of repair	Description of repair	Stamp and signature