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EN **Operating and Installation Manual**
Sattrans Wi-Fi CommStation
for Iridium Satellite Phones
- Extreme (9575)
- 9555

Sattrans Wi-Fi CommStation

Table of Contents

Introductory information	2
1. Important Notes	2
Installation of Sattrans Wi-Fi CommStation	4
2. Box Contents	4
3. Wi-Fi Comm Station positioning and mounting	5
4. Installing satellite phone cradle	6
5. Satellite phone insertion and removal	7
Operating guidelines	9
6. Functions of Sattrans Wi-Fi CommStation	9
LED indicators (Green and Red)	9
Direct connection to Internet – no data compression	10
Connection to Internet – with data compression	13
7. Connecting to Wi-Fi CommStation	14
Configuration of Wi-Fi CommStation	15
Password management	15
Changing language	19
Configuration of Iridium Mail & Web application	21
Sending and receiving Email	23
Configure of Web surfing	24
Configuration of Asterisk	26
Adding a new user (SIP client)	26
Configuration of XGate Phone application	29
8. Configuration of Wi-Fi repeater	31
9. Firmware update	35
Further information	39
Warranty Information	39

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 that 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 it is 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 in the retail box. No tools are provided with the product.

Operating Notes

- Communication via the Iridium satellite network has several specific features, which are different from mobile phone communications. Such obstructions 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 that satellite calls be made in open areas, far from any obstructions. Before starting the call, please make sure the satellite signal level is sufficient.
- Sattrans Wi-Fi CommStation broadcasts a Wi-Fi network accessible within up to 20 m (~60 feet). However, the impact range (effective distance) can vary substantially depending on the placement of Sattrans Wi-Fi CommStation. For example, thicker or a great number of walls between the Wi-Fi CommStation and user devices will decrease the effective range of the CommStation.
- In order to get the best performance, the Wi-Fi CommStation should be placed:
 - In the middle of the area with Wi-Fi-enabled devices which will connect via Sattrans Wi-Fi CommStation, preferably at "the eye level" of these devices.
 - In the vicinity of an AC electric outlet 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 cordless phones.

- Away from big metal surfaces such as doors made of solid metal 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 the Wi-Fi signal and decreased quality of communication or complete lack of possibility of connecting to the Internet.

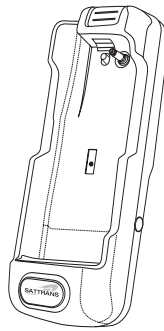
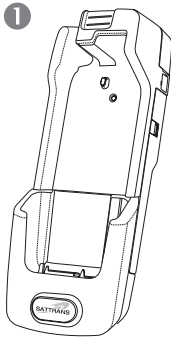
Warranty & Liability Notes

- 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.

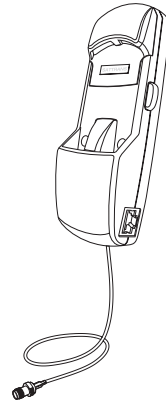
4 Installation of Sattrans Wi-Fi CommStation

2. Box Contents

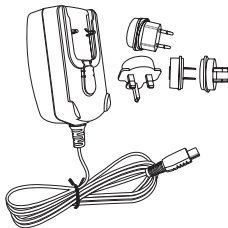


Iridium Extreme (9575) Cradle OR Iridium 9555 cradle

2

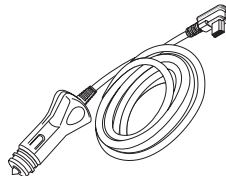


3



100-240V

4



5



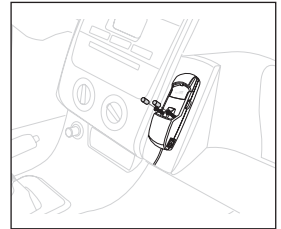
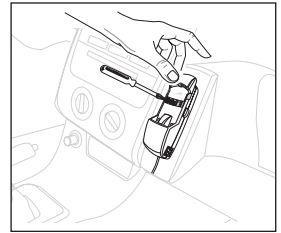
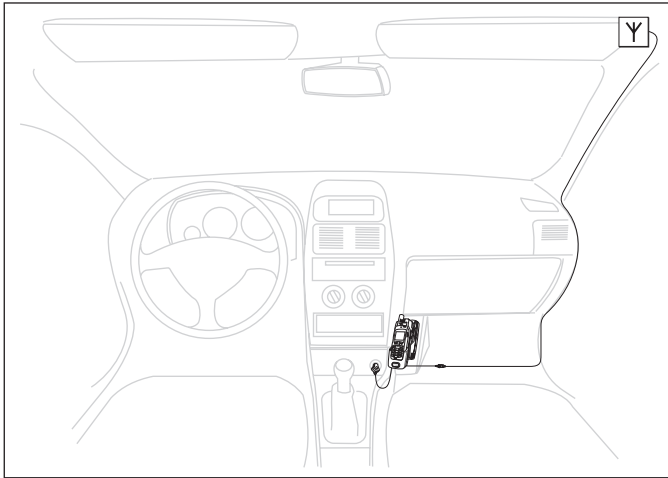
Sattrans Wi-Fi CommStation unit is offered for different models of Iridium phone. All versions of the device are described in these operating guidelines.

Description of components:

- 1) Iridium phone cradle for Wi-Fi CommStation
- 2) Sattrans Wi-Fi CommStation (baseplate)
- 3) Power supply adapter (100-240 VAC)
- 4) Car power supply
- 5) Operating and Installation Manual

3. Wi-Fi CommStation positioning and mounting

Example of car installation



After installing Sattrans Wi-Fi CommStation, connect it to a power source via the AC power supply adapter OR via the car adapter to a cigarette lighter socket in your vehicle or boat.

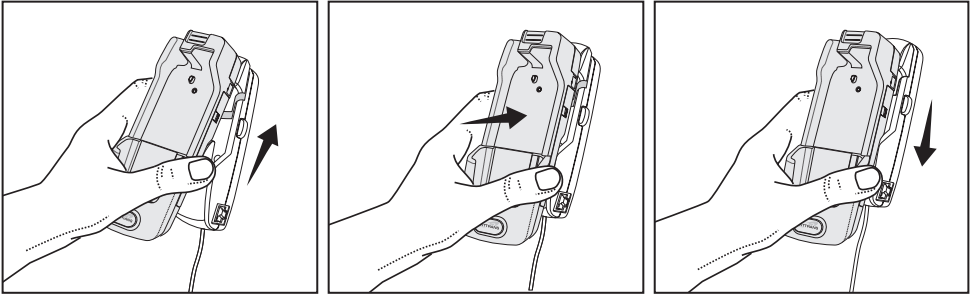
Note:

► Failure to use compatible power adapters and sources may result in a permanent damage to Sattrans Wi-Fi CommStation. It is recommended that one should use original power supply adapter which is included in the retail box.

6 Installation of Sattrans Wi-Fi CommStation

4. Installing Satellite Phone Cradle

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



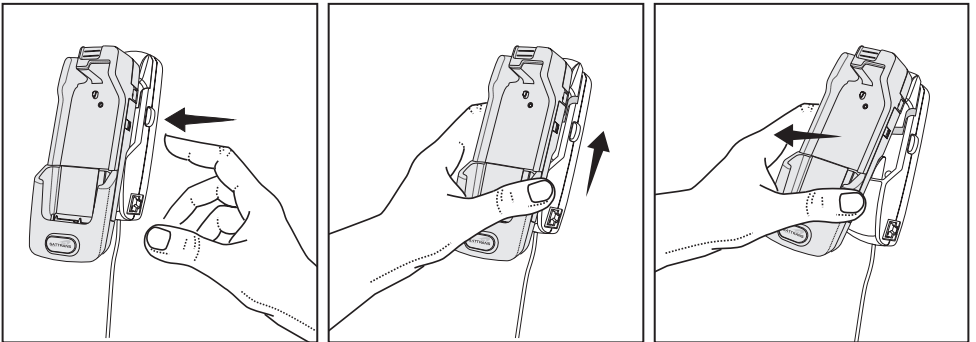
Important:

► If the cradle is mounted correctly, into the baseplate you will hear a distinctive click.

Removing the cradle from the Sattrans Wi-Fi CommStation.

Important:

► In order to remove the cradle, press and hold the locking button on the right side of the Wi-Fi CommStation baseplate, move the cradle upwards and pull the lower section of the cradle towards you.



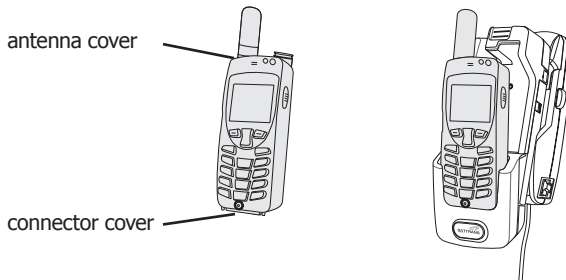
5. Satellite phone insertion and removal

Inserting satellite phone into cradle.

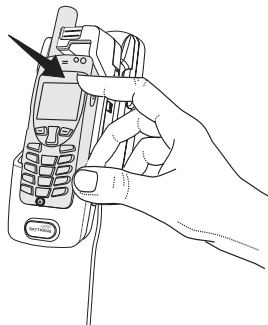
Important:

► Please remove the antenna cover (9555 phone) or the bottom connector cover (Extreme phone) before inserting the phone into the cradle.

Place the satellite phone in the cradle starting from the bottom connector.



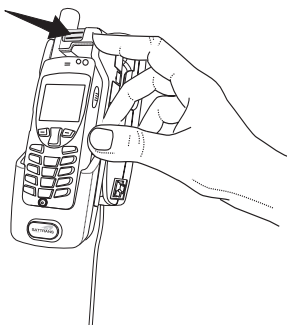
Push the top part of the satellite phone until you hear the phone click into the cradle. The correct positioning of the satellite phone in the cradle is signalled by a perceptible 'clicking' sound.



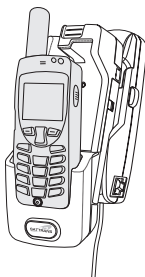
8 Installation of Sattrans Wi-Fi CommStation

Removing the satellite phone from the cradle.

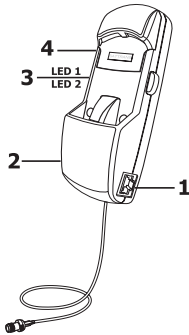
To release the locking mechanism press the button on the top of the cradle.



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) enables connection of a router or a computer by means of Ethernet cable in order to configure Sattrans Wi-Fi CommStation.

2 - Power supply socket (mini-USB)

3 - Two LED indicators

4 - Reset button

SATTRANS Wi-Fi CommStation for Iridium provides 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 Iridium network.
 - **sms** functionality (sms message from sip client to Iridium networks and redirect sms from network to sip client.
- Receiving/sending email
- Web browsing

LED Indicators

LED 1 - for VoIP and WAN status:

Blinking RED	WAN_CONNECTING: the device will try to connect to internet via the satellite phone. The process may take a while, depending on the satellite signal quality
Solid RED	WAN_CONNECTED: the device is connected to internet via Iridium satellite phone
Solid GREEN	VoIP_GATEWAY_READY: the device works as VoIP gateway for Iridium network, PBX ready
Blinking GREEN	VoIP_GATEWAY_ACTIVE: internal or external call is ongoing

LED 2 - for Wi-Fi status:

Solid RED	Wi-Fi AP not ready, device powered
Solid / Blinking GREEN	Wi-Fi data transfer

Note:

► After insertion of the satellite phone into the cradle, the phone will register in the satellite network. Operation of the device (phone calls, data transfer) is conditional on satellite signal strength and your satellite subscription status.

Wi-Fi CommStation can be used in two ways:

- **Without data compression** – direct connection to the Internet without necessity of installing additional applications
- **With data compression** – requires installation of additional software applications

Direct connection to the Internet – without data compression

Standard email and Web browsing applications installed on your Wi-Fi devices (e.g. smartphone, tablet, laptop) will be used. A compatible application for handling voice calls and sending text messages (e.g. XGate Phone) must be additionally installed.

Important:

- Iridium data speeds are narrow-band and very slow (just 2.4 kbps). Such speeds will only allow users to use email (for text only) and limited Web browsing. **DO NOT** expect broadband or high-speed features to be working on your Wi-Fi devices.
- One should contact their Iridium service provider to obtain more information on your airtime costs and plans.

In order to establish direct connection to the Internet, select:

Satellite Phone > Connect to the Internet

Status	
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

192.168.1.1/cgi-bin/Ajax?ssid=1720b79611a9bc20d8ac71aa30c020&admin/wifi_status_connect

Status ▾ System ▾ Network ▾ Satellite Phone Logout

Satellite Phone Internet connection manager

Choose action:

Connection status:

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

OpenWrt version: 192.168.1.1

Status ▾ System ▾ Network ▾ Satellite Phone Logout

Satellite Phone Internet connection manager

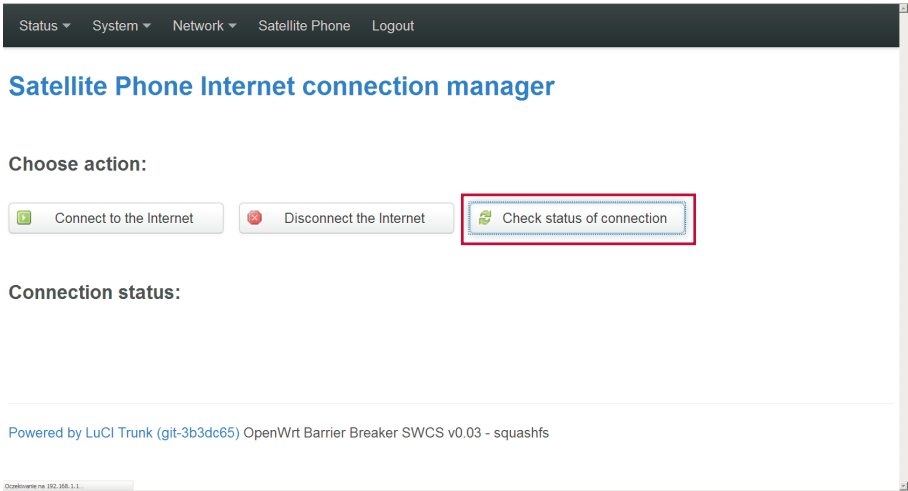
Choose action:

Connection status:

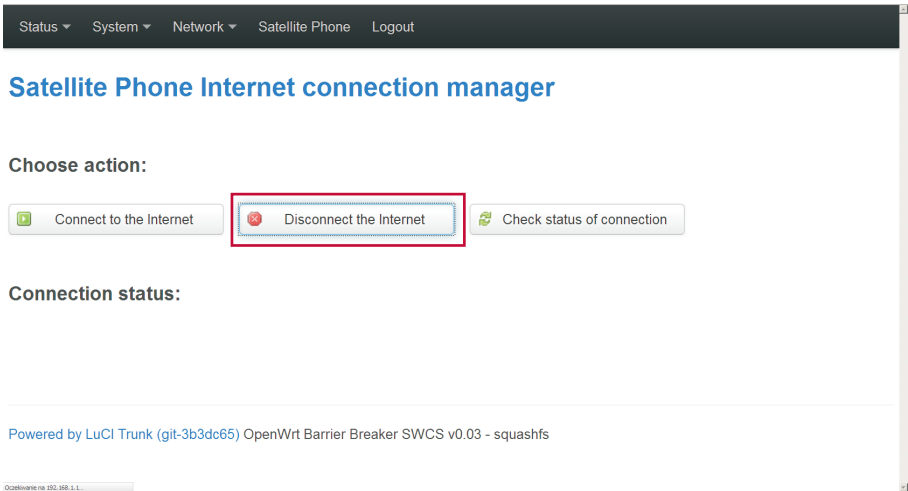
Internet connection has been established!

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

In order to check the status of the connection, click on **'Check status of connection'** button.



In order to end the Internet connection, click on **"Disconnect the Internet"** button.



Connection to the Internet with data compression

Third-party data optimization and compression software can help you improve performance of the slow Iridium data connection and use your airtime more efficiently. You will need to install additional applications on your Wi-Fi devices to optimize sending/receiving email or Web browsing.

For PC or Mac:

Iridium Mail & Web (free): www.iridium.com/Iridium-AxcessPoint-Mail-and-Web.aspx

XGate for SATTRANS (premium, full featured): www.sattrans.com/XGate

For Android devices: Find and install 'Iridium Mail & Web' (free) or 'XGate Email & Web' (full featured) app in your device's Google Play Store.

For iOS devices (iPhone, iPad): Find and install 'Iridium Mail & Web' (free) or 'XGate Email & Web' (full featured) app in your device's App Store.

Software Activation:

Iridium Mail & Web software should be activated (at no cost) at:

www.iridium.com/MailAndWeb. Use the supplied login and password to use the software and apps on all compatible Wi-Fi devices.

XGate for SATTRANS software can be activated at www.sattrans.com/XGate. Use the MAC-address of your Wi-Fi CommStation for a free 30-day trial of the full-featured XGate Email & Web software.

Important:

- ▶ Your Iridium satellite subscription should include data capability. Check with your Iridium service provider.
- ▶ Free Iridium Mail & Web software will only work with Iridium satellite phones.
- ▶ XGate for Sattrans will work with any satellite or cellular phone system, such as Iridium, Inmarsat, Thuraya and cellular networks around the world.
- ▶ After your free 30-day trial, you can purchase extension of your subscription at www.sattrans.com/XGate

7. Connecting to Sattrans Wi-Fi CommStation

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

- Wi-Fi radio must be switched on in your Wi-Fi devices (e.g. smartphone, tablet, laptop).
- Sattrans Wi-Fi CommStation must be powered on.

Note:

- ▶ The range of the Wi-Fi signal can be limited.

Establishing Wi-Fi connection

Step 1. Search for available Wi-Fi networks from your Wi-Fi device (refer to the operating instructions of your specific device).

Step 2. Select "Sattrans Wi-Fi CommStation" from the list of available networks and enter "sattrans" for password.

Step 3. Select the "Connect".

Disconnecting from Wi-Fi network

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

1. By disconnecting your Wi-Fi device from Sattrans Wi-Fi CommStation.
2. By switching off Wi-Fi radio in your Wi-Fi device.
3. By powering off the Sattrans Wi-Fi CommStation.

Automatic connection

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

1. Wi-Fi radio is switched on in your Wi-Fi device(s).
2. Sattrans Wi-Fi CommStation is powered on.
3. Wi-Fi network password is saved in your Wi-Fi enabled device(s).

Note:

- ▶ You can connect up to 10 different Wi-Fi devices to Sattrans Wi-Fi CommStation at the same time.

Configuration of Sattrans Wi-Fi CommStation

1. Enter **http://192.168.1.1** in the Web browser (e.g. Mozilla Firefox) of a connected Wi-Fi device.
2. Enter default credentials: Username: **admin**
Password: **admin**

Note:

► To ensure safe operations, we recommend that username and password be changed immediately after your first login.

Various configuration options are available in the configuration portal, such as update of software, statistics, information about Sattrans Wi-Fi CommStation connection.

Note: Settings modification by the incompetent staff can cause limitation of functioning and even make it impossible to use the Wi-Fi CommStation product.

Saving changes to the settings

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

- Save changes by clicking on the "Save & Apply" button.
- Reboot of Sattrans Wi-Fi CommStation by selecting System -> Reboot -> Perform reboot.

Password management

Password can be changed in the Wi-Fi CommStation admin portal from connected Wi-Fi device(s). Any password changes will be applied after saving settings and rebooting the Wi-Fi CommStation ("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**

The screenshot shows the OpenWrt Status page. At the top, there is a navigation bar with 'Status', 'System', 'Network', 'Satellite Phone', and 'Logout'. On the left, there is a sidebar with 'Status' and 'System' sections. The 'System' section lists various system information: Hostname, Model, Firmware Version, Kernel Version, Local Time, Uptime, and Load Average. A dropdown menu is open over the 'Network' section, with 'Wifi' highlighted in a red box. Other items in the menu include Interfaces, DHCP and DNS, Hostnames, Static Routes, Firewall, Diagnostics, Configure Diagnostics, MAC Device Info, and Overrides.

The screenshot shows the OpenWrt Wireless Overview page. At the top, there is a navigation bar with 'Status', 'System', 'Network', 'Satellite Phone', and 'Logout'. Below the navigation bar, there is a section for 'radio0: Master "Sattrans_Wi-Fi_CommStation"'. The main content area is titled 'Wireless Overview' and shows details for a 'Generic MAC80211 802.11bgn (radio0)'. The details include Channel: 1 (2.412 GHz) and Bitrate: ? Mbit/s. Below this, there is a signal strength indicator (0%) and SSID: Sattrans_Wi-Fi_CommStation | Mode: Master. The BSSID is 5C:31:3E:0C:20:9F and Encryption is mixed WPA/WPA2 PSK (TKIP, CCMP). There are three buttons: 'Scan', 'Add', and 'Edit'. The 'Edit' button is highlighted in a red box. Below the wireless overview, there is a section titled 'Associated Stations' with a table that has columns for SSID, MAC-Address, IPv4-Address, Signal, Noise, RX Rate, and TX Rate. The table is currently empty, with the text 'No information available' below it.

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** to change the Wi-Fi 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

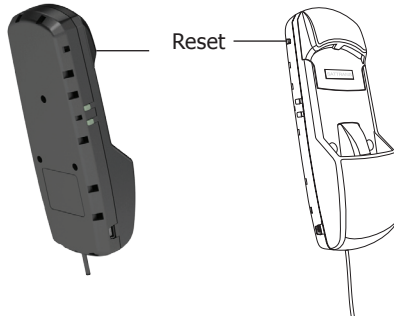
Save & Apply Save Reset

After making all changes, press **"Save & Apply"** button.

Lost password

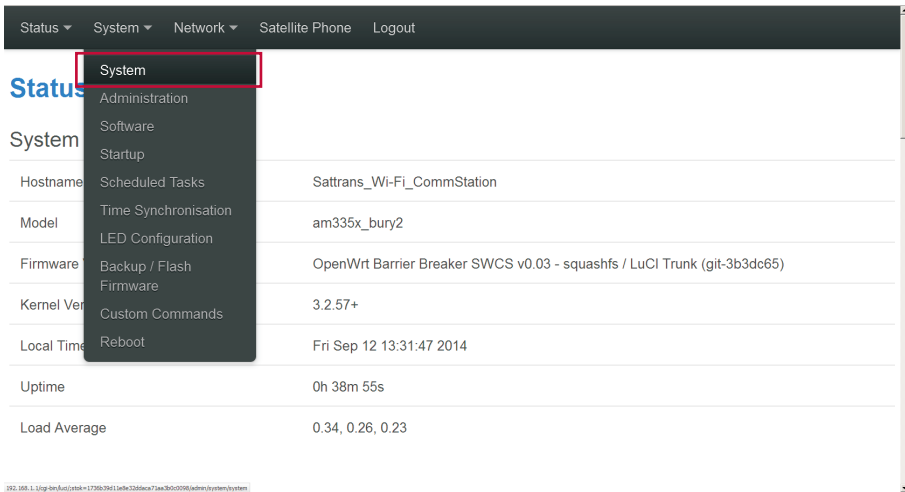
If the password is lost, you can restore the Wi-Fi CommStation to factory settings by pressing and holding "Reset" button for 10 seconds. This button is located on the left side of the baseplate. Restart of the device will be signaled by both LEDs becoming red.

All previously saved device settings will be lost.



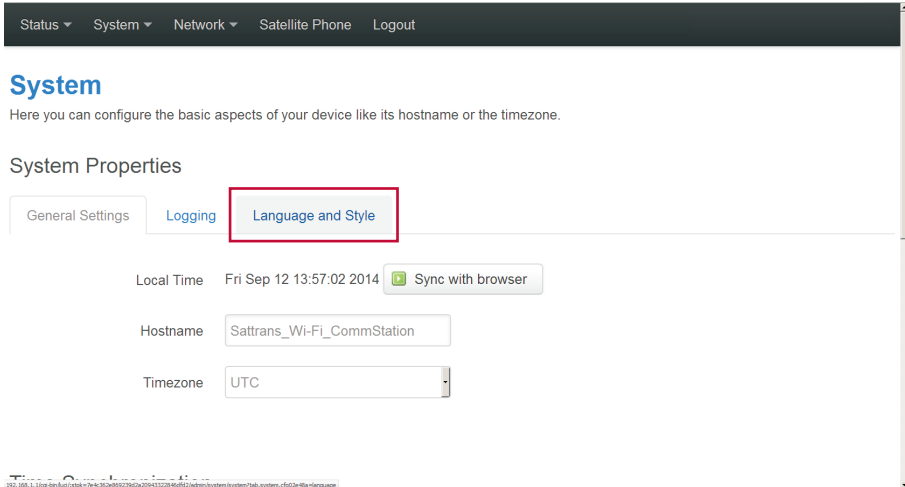
Changing language

Select: **System > System > Language and Style**



The screenshot shows the OpenWrt web interface. At the top, there is a navigation bar with links for Status, System, Network, Satellite Phone, and Logout. A dropdown menu is open under the 'System' link, with 'System' highlighted in a red box. The dropdown menu contains the following items: Administration, Software, Startup, Scheduled Tasks, Time Synchronisation, LED Configuration, Backup / Flash, Firmware, Custom Commands, and Reboot. Below the menu, a table displays system information:

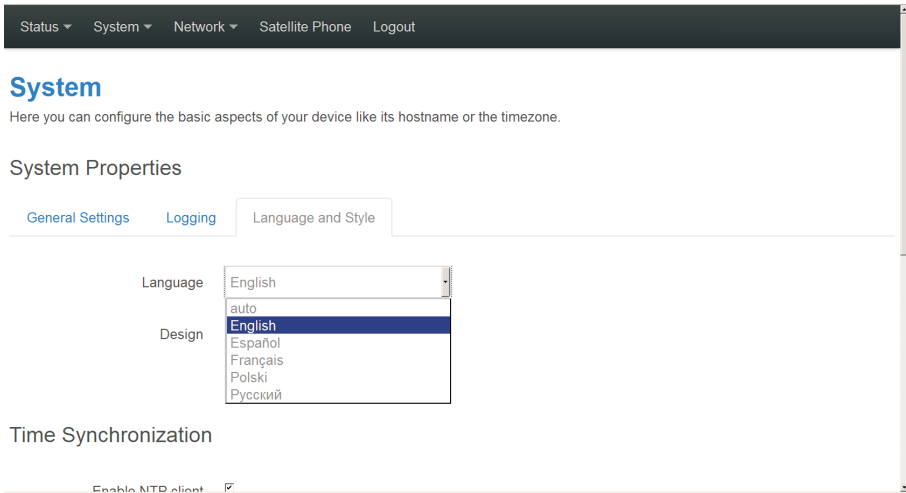
Hostname	Sattrans_Wi-Fi_CommStation
Model	am335x_bury2
Firmware	OpenWrt Barrier Breaker SWCS v0.03 - squashfs / LuCI Trunk (git-3b3dc65)
Kernel Version	3.2.57+
Local Time	Fri Sep 12 13:31:47 2014
Uptime	0h 38m 55s
Load Average	0.34, 0.26, 0.23



The screenshot shows the OpenWrt web interface for the 'System' section. The navigation bar is the same as in the previous screenshot. The 'System' page title is displayed, followed by the text: 'Here you can configure the basic aspects of your device like its hostname or the timezone.' Below this, the 'System Properties' section is shown. There are three tabs: 'General Settings', 'Logging', and 'Language and Style', with 'Language and Style' highlighted in a red box. The 'Language and Style' page contains the following configuration options:

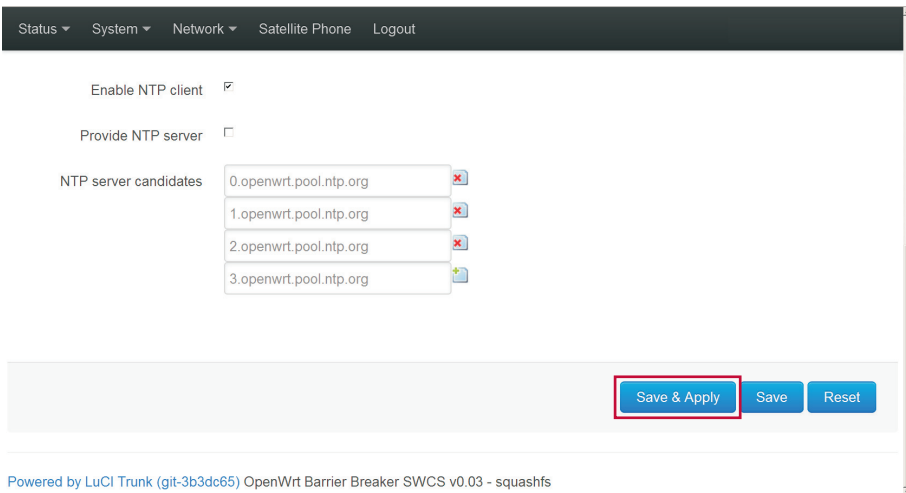
- Local Time: Fri Sep 12 13:57:02 2014. A 'Sync with browser' button is next to it.
- Hostname: Sattrans_Wi-Fi_CommStation
- Timezone: UTC (selected from a dropdown menu)

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



The screenshot shows the OpenWrt web interface. At the top, there is a navigation bar with links for Status, System, Network, Satellite Phone, and Logout. Below this, the 'System' section is active, with a sub-section for 'System Properties'. The 'Language and Style' tab is selected. Under 'Language', a dropdown menu is open, showing options: English (selected), auto, Español, Français, Polski, and Русский. Under 'Design', there is a dropdown menu with 'English' selected. Below the 'Language and Style' section, the 'Time Synchronization' section is visible, with the 'Enable NTP client' checkbox checked.

Click on **"Save&Apply"** button to save the changes.



The screenshot shows the OpenWrt web interface for NTP configuration. At the top, there is a navigation bar with links for Status, System, Network, Satellite Phone, and Logout. Below this, the 'Time Synchronization' section is visible. The 'Enable NTP client' checkbox is checked. The 'Provide NTP server' checkbox is unchecked. Under 'NTP server candidates', there is a list of four entries: 0.openwrt.pool.ntp.org, 1.openwrt.pool.ntp.org, 2.openwrt.pool.ntp.org, and 3.openwrt.pool.ntp.org. Each entry has a red 'x' icon to its right, and a blue '+' icon is at the bottom right of the list. At the bottom of the page, there are three buttons: 'Save & Apply' (highlighted with a red box), 'Save', and 'Reset'. Below the buttons, there is a footer that reads: 'Powered by LuCI Trunk (git-3b3dc65) OpenWrt Barrier Breaker SWCS v0.03 - squashfs'.

Configuration of Iridium Mail & Web application

Iridium Mail & Web application allows you to synchronize email and web content while connected to Iridium Wi-Fi Solutions. This app uses compression and network-based filters to optimize the use of email, sharing of photos, weather forecasts, and posting to Facebook and Twitter accounts that are otherwise not possible using standard apps designed for cellular and broadband networks. Requires Iridium Wi-Fi compatible device and service subscription for network connectivity.

Step 1. Download Iridium Mail & Web app

Download and install the app on your smartphone or tablet (see page 13.)

Step 2. Activate and Register

Navigate to **www.iridium.com/MailAndWeb** to fill out the registration form, follow the instructions and register for a username and password. Select **"Sattrans Wi-Fi CommStation"** from the device selection drop-down menu in the registration form.

Note:

► Registration for an account is free and required to use the application.

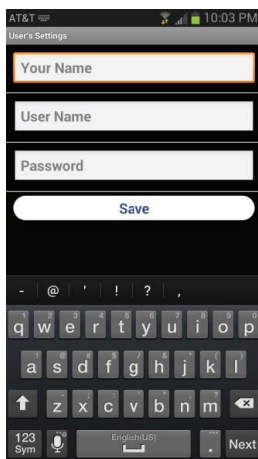
Step 3. Login to the application

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

Important:

► Your Wi-Fi device(s) must be connected to Sattrans Wi-Fi CommStation.

► Enter the username and password provided by Iridium after registration.



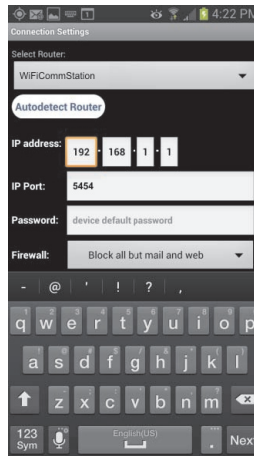
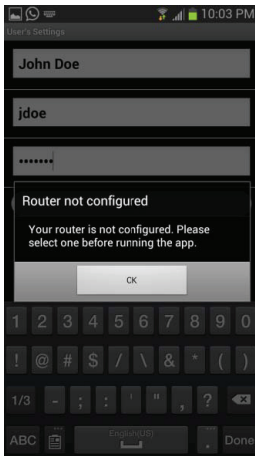
Step 4. Configure device connection type

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.

Note:

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



Enter the password: **webxaccess**

Note:

► In the case of Apple iOS operational system one should act in the same way.

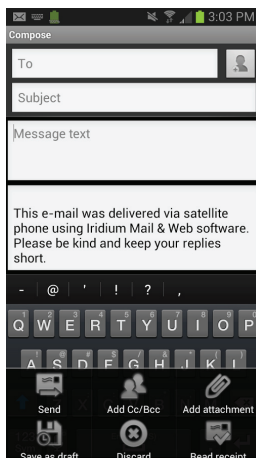
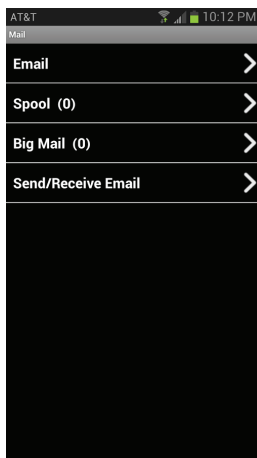
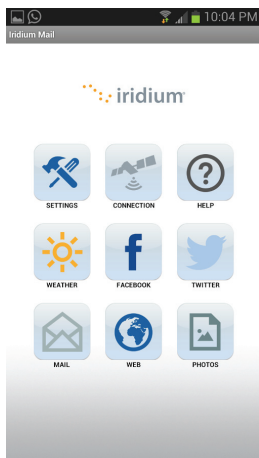
Sending and receiving Email

Step 1. Open the Iridium Mail & Web.

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

Important:

▶ The satellite phone must be connected and registered in the network.



Configure Web surfing

Iridium Mail & Web allows you to surf the web. To access web pages via Iridium Mail & Web, you must first download, and install XWeb Satellite Web Browsing app from Google Play Store.

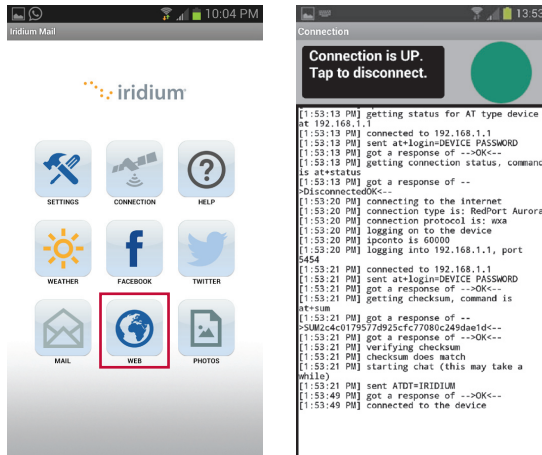
To access web pages using Iridium Mail & Web:

Step 1. Open the Iridium Mail & Web.

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

Important:

► The satellite phone must be connected and registered in the network.



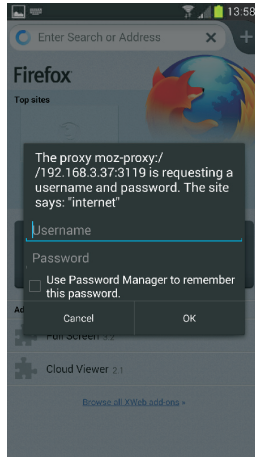
After the connection is up, the app will automatically open the XWeb browser.

Step 3. Enter a mobile website in the browser and press “Enter” (see www.iridium.com/mobile for the list)

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

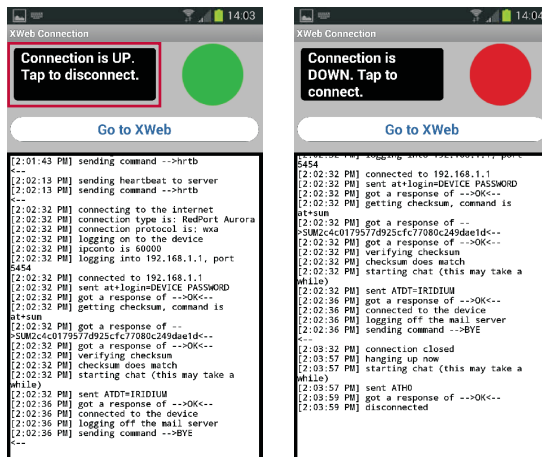
Note:

► Enter the username and password received from Iridium.



Step 5. When finished, close your XWeb app and return to the Iridium Mail & Web app.

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



Note:

▶ Airtime charges will continue to incur 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 Iridium Mail & Web.

A detailed instruction manual is available online at: www.iridium.com/products/Iridium-Mail-and-Web

Configuration of Asterisk

Adding a new user (SIP client)

Step 1.

Navigate to the Asterisk portal: <http://192.168.1.1:8088/static/config/index.html>

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

Password: **admin**

Step 2.

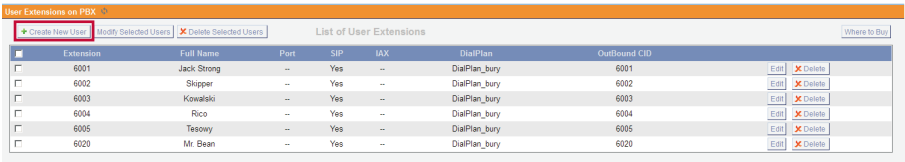
Mark **Users**



The screenshot shows the Asterisk System Status interface. The sidebar on the left contains a menu with the following items: System Status, Gateway, Trunks, Outgoing Calling Rules, Dial Plans, **Users** (highlighted with a red box), and Ring Groups. The main content area displays the 'System Status' page with a 'Trunks' section and an 'Extensions' section. The 'Extensions' section includes a legend for status (Free, Ringing, Busy, UnAvailable) and a table listing user extensions.

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 PBX' page. At the top, there are three buttons: 'Create New User' (highlighted with a red box), 'Modify Selected Users', and 'Delete Selected Users'. Below these buttons is a table titled 'List of User Extensions' with columns for Extension, Full Name, Port, SIP, IAX, DialPlan, and Outbound CID. Each row in the table has 'Edit' and 'Delete' buttons.

Extension	Full Name	Port	SIP	IAX	DialPlan	Outbound CID			
<input type="checkbox"/>	6001	Jack Strong	--	Yes	--	DialPlan_bury	6001	Edit	Delete
<input type="checkbox"/>	6002	Skipper	--	Yes	--	DialPlan_bury	6002	Edit	Delete
<input type="checkbox"/>	6003	Kowalski	--	Yes	--	DialPlan_bury	6003	Edit	Delete
<input type="checkbox"/>	6004	Rico	--	Yes	--	DialPlan_bury	6004	Edit	Delete
<input type="checkbox"/>	6005	Tesowy	--	Yes	--	DialPlan_bury	6005	Edit	Delete
<input type="checkbox"/>	6020	Mr. Bean	--	Yes	--	DialPlan_bury	6020	Edit	Delete

Enter the following information:

Create New User
X

General :

Extension: 6007 ⓘ CallerID Name: Brown ⓘ DialPlan: DialPlan_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 rxflash ⓘ: 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 ⓘ

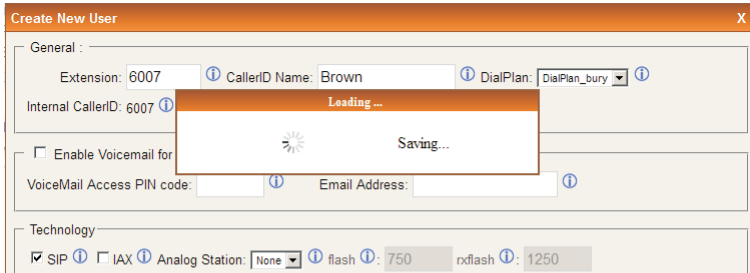
Note:

- ▶ 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.

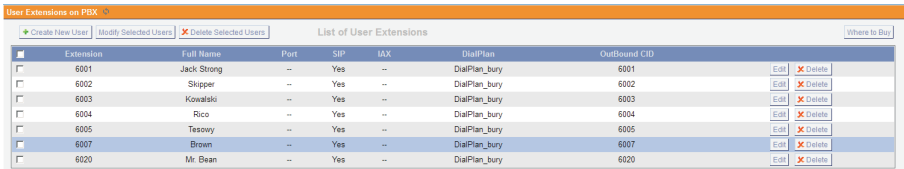
Important:

- ▶ 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 filling out the form, click on **“Update”** button.



Step 4. The new user will be displayed on the list.



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	Tesoway	--	Yes	--	DialPlan_bury	6005
6007	Brown	--	Yes	--	DialPlan_bury	6007
6020	Mr. Bean	--	Yes	--	DialPlan_bury	6020

Step 5. In order to save the changes, click **„Apply Changes”**

[Apply Changes](#) [Logout](#)



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	Tesoway	--	Yes	--	DialPlan_bury	6005
6007	Brown	--	Yes	--	DialPlan_bury	6007
6020	Mr. Bean	--	Yes	--	DialPlan_bury	6020

More details can be found at www.asterisk.org

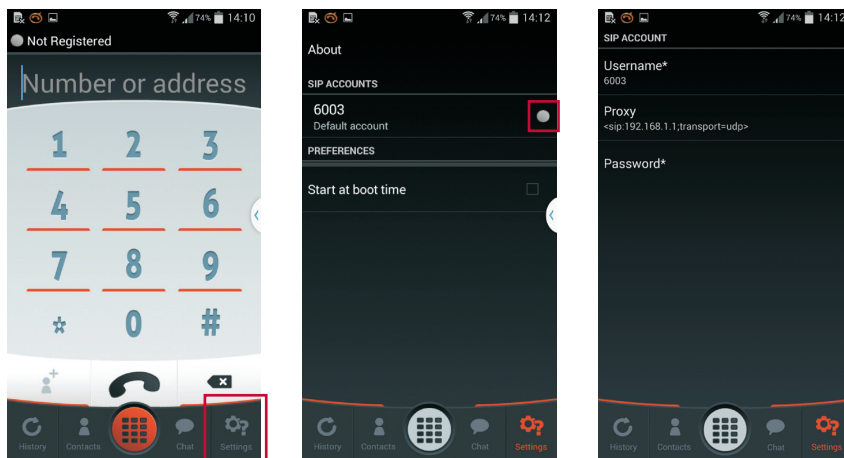
Configuration of XGate Phone application

XGate Phone application is required make phone calls and to send/receive a text message (SMS) within the Wi-Fi network and send text messages outside the Wi-Fi network.

Step 1. Open 'XGate Phone' application.

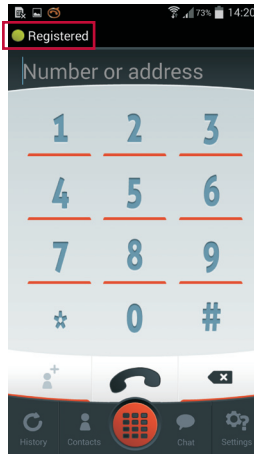
Step 2. Select "Settings" buttons.

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 Iridium Mail & Web (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 Wi-Fi network

After correctly configuring the application, you can make phone calls or send text messages to other users assigned inside the network (e.g. 6000).

Making connections outside the network

Important:

- ▶ The satellite phone must be connected and registered in the Iridium network.

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

Sending text messages (SMS) outside the Wi-Fi network

In order to send a text message (SMS) outside the Wi-Fi network, enter the phone number in the following format: "+", country code and phone number (e.g. +48xxxx). Press "Send".

Receiving SMS message

In order to receive text messages, the "Service center" number **+881662900005** must be set in the satellite phone. Navigate **Menu > Messages > Settings > Service center** and enter number **+881662900005**.

To accept in-network or external phone calls, press the handset icon in the app.

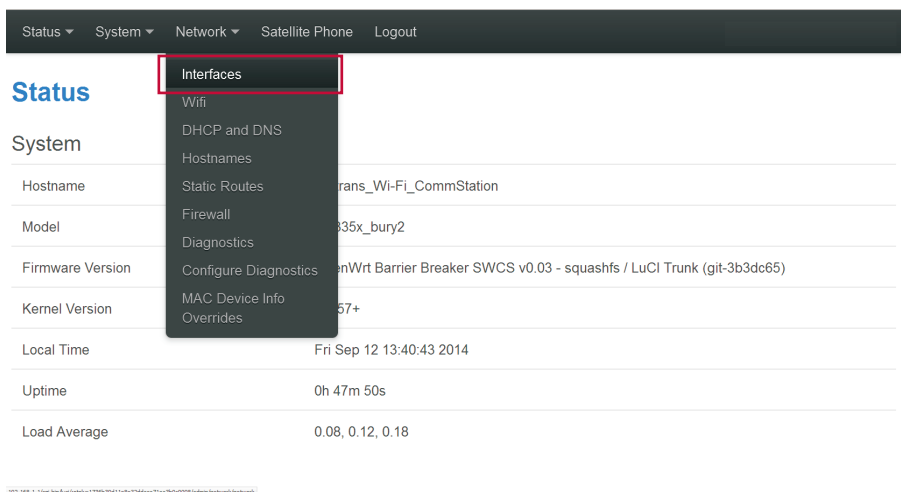
8. Configuration of Wi-Fi repeater

A second Sattrans Wi-Fi CommStation ('slave') can be used as a Wi-Fi signal repeater to extend the effective range of the Wi-Fi network initiated by the 'master' Wi-Fi CommStation, which connected to the satellite phone.

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

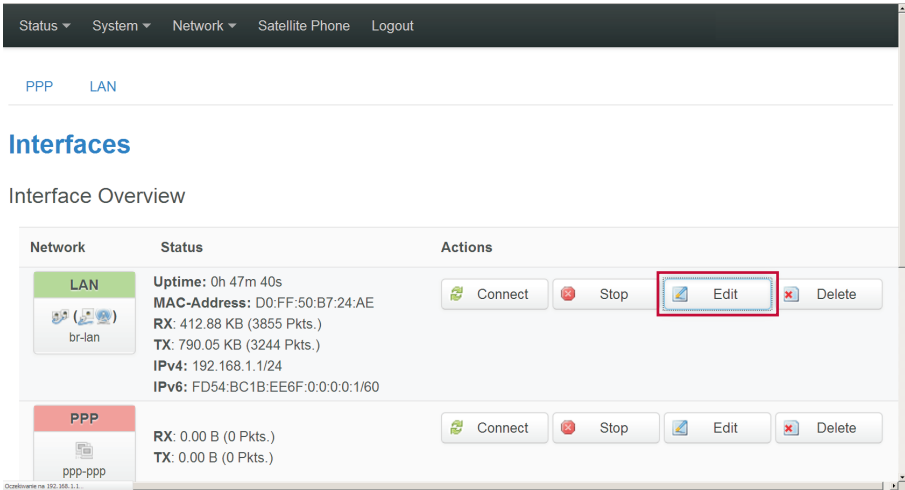
Step 2. Log onto the Wi-Fi CommStation administration interface.

Step 3. Navigate to **Network > Interfaces**.



The screenshot displays the administration interface of a Sattrans Wi-Fi CommStation. At the top, there is a navigation bar with the following items: Status, System, Network, Satellite Phone, and Logout. Below this, the 'Status' page is visible, featuring a 'System' section with various system information. A dropdown menu is open under the 'Network' navigation item, with 'Interfaces' highlighted. The dropdown menu includes the following options: Wifi, DHCP and DNS, Hostnames, Static Routes, Firewall, Diagnostics, Configure Diagnostics, MAC Device Info, and Overrides. The background shows system details such as Hostname (trans_Wi-Fi_CommStation), Model (35x_bury2), Firmware Version (OpenWrt Barrier Breaker SWCS v0.03 - squashfs / LuCI Trunk (git-3b3dc65)), Kernel Version (5+), Local Time (Fri Sep 12 13:40:43 2014), Uptime (0h 47m 50s), and Load Average (0.08, 0.12, 0.18).

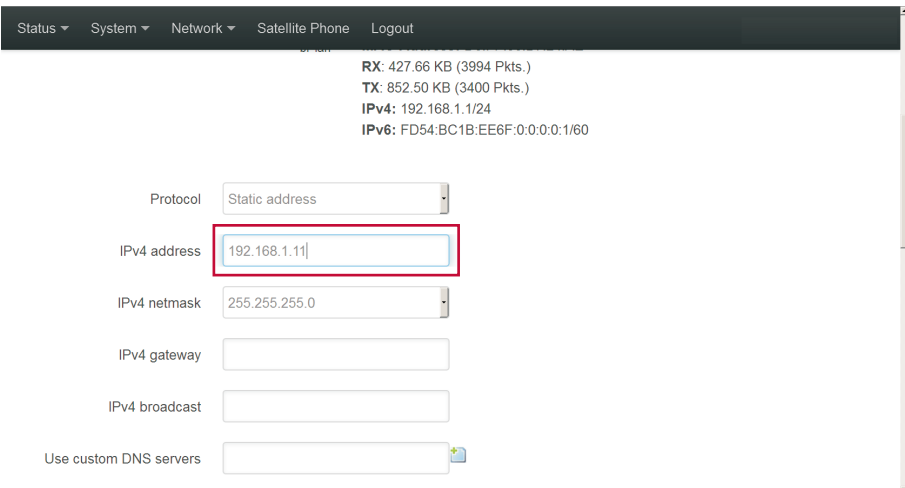
Step 4. Select “Edit” in the LAN interface.



Step 5. Change the IP address for another one which doesn't colide with DHCP range and with other Wi-Fi devices in the network.

Note:

- ▶ Remember or record this new IP address (e.g. 192.168.1.11) at which the “slave” repeater device will be available.
- ▶ If necessary, one can get access by resetting the device and restoring factory settings.



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:0:0:0:0:1/60
--------	------------	---

Protocol	Static address ▾
IPv4 address	192.168.1.11
IPv4 netmask	255.255.255.0 ▾
IPv4 gateway	
IPv4 broadcast	
Use custom DNS servers	<input type="text"/>
IPv6 assignment length	60 ▾
	<input checked="" type="checkbox"/> Assign a part of given length of every public IPv6-prefix to this interface
IPv6 assignment hint	<input type="text"/>
	<input checked="" type="checkbox"/> Assign prefix parts using this hexadecimal subprefix ID for this interface.

DHCP Server

General Setup

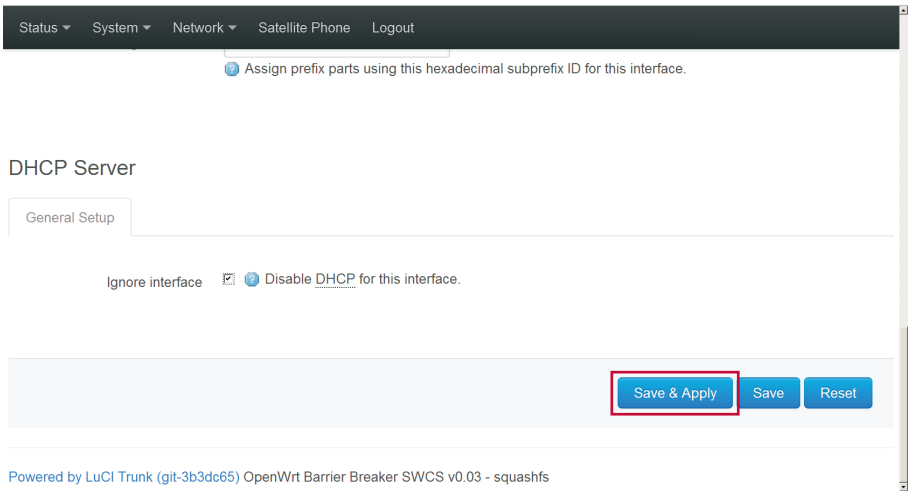
Ignore interface <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> Disable DHCP for this interface.
--	--

Save & Apply
Save
Reset

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

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

From now on the slave device will be available under new IP address. The admin interface will stop working until the new IP address is entered 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 (so called 'switch') in order to connect them.
- ▶ One should remember that IP addresses of slave devices (repeaters) should be different but the configuration diagram remains the same.

From now on user devices can connect to the Wi-Fi networks broadcast by both CommStations. Both CommStations 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' station (connected to satellite phone).

Note:

- ▶ The coverage area of master and slave stations should not interlap, so the two stations shouldn't be places close to each other.
- ▶ Switching of Wi-Fi devices from one CommStation to another will not necessarily be seamless. Disconnection of active VoIP calls is likely to occur. During an active voice call, we therefore recommend to stay in one area and avoid stepping into areas with overlapping Wi-Fi networks.
- ▶ No other Wi-Fi access points, to which Wi-Fi devices could potentially connect, should be within the Wi-Fi range of the two CommStations to prevent automatic connection to other Wi-Fi networks.

9. Firmware update

The current software version is available on www.sattrans.com.

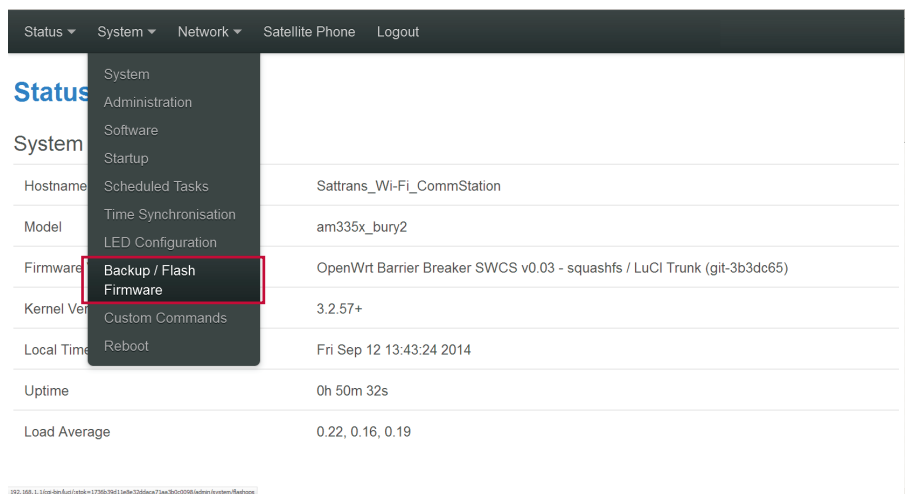
Please follow these steps to prepare the Sattrans Wi-Fi CommStation for the firmware update:

Notice:

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

Step 1:

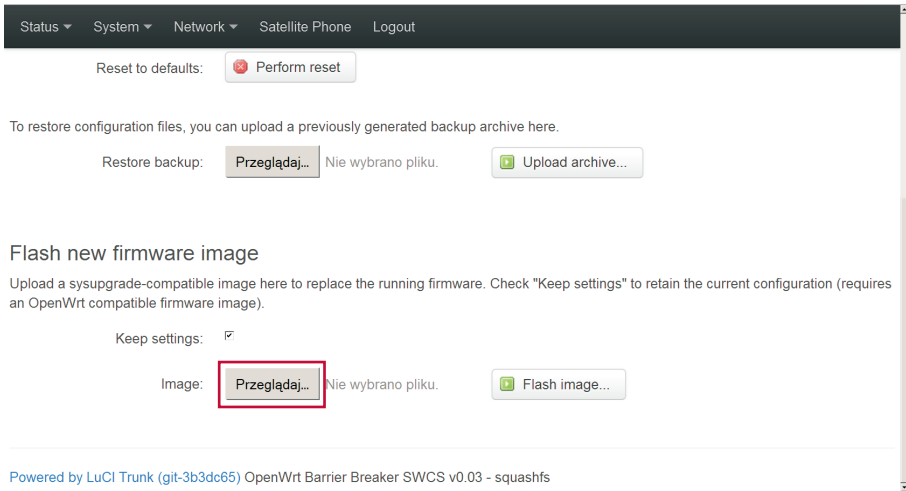
Select: **System > Backup / Flash Firmware** and follow the instructions on the following screenshots:



The screenshot shows the Sattrans web interface. At the top, there is a navigation bar with links for Status, System, Network, Satellite Phone, and Logout. Below this, the 'System' menu is open, displaying a list of options: System, Administration, Software, Startup, Scheduled Tasks, Time Synchronisation, LED Configuration, Backup / Flash Firmware (highlighted with a red box), Custom Commands, and Reboot. The main content area displays system information in a table format:

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 of the page, there is a small URL: `192.168.1.1/cgi-bin/jwt?token=1735639611a9e2385ea7ae3002090/admin/system/reboot`



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

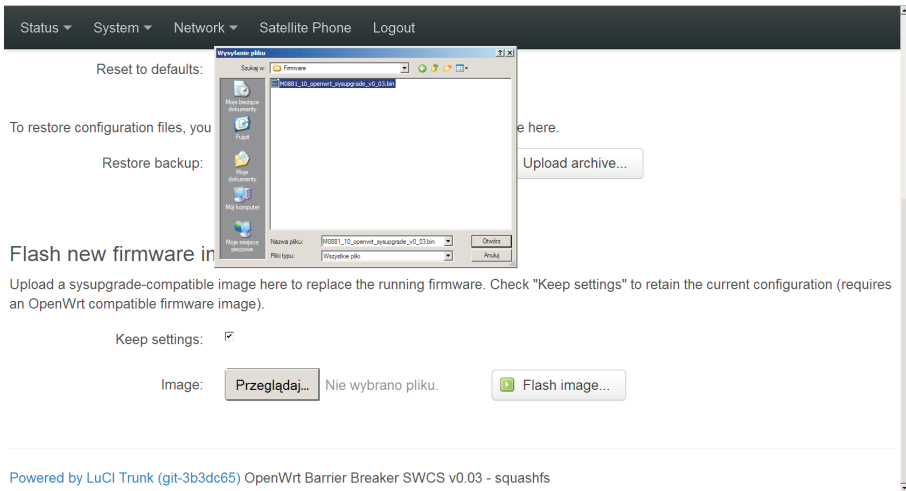
Upload a sysupgrade-compatible image here to replace the running firmware. Check "Keep settings" to retain the current configuration (requires an OpenWrt compatible firmware image).

Keep settings:

Image: Nie wybrano pliku.

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Step 2: Select the update file that has been 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: 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.

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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 For Iridium

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

