FleetOne Shipborne Satellite Broadband Terminal User Manual

Chengdu Spaceon Technology Co., Ltd.

Important Notes

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- If this manual is lost or damaged, please contact the dealer for replacement.
- If there is any change on the manual content and equipment specifications, please contact the dealer.
- Keep this manual properly for future reference.

Spaceon is not liable for any damage caused by improper use or equipment (including software) refitting by unauthorized agency or any third party.

Safety Instructions

Warning

Danger! Electric Shock!
Do not open this equipment.
Only professionals can operate inside the equipment internal operation.

Do not dismantle or refit the equipment.

It may cause equipment damage, fire disaster, or electric shock.

Equipment shall be kept far away from heat sources.
Heat will deform and melt equipment, and even cause fire in severe cases.

Warning

Please power off, and disconnect the power and data communication port before you check the equipment.

Note

During transport and installation, please keep the top of equipment upward.

The FleetOne Terminal is based on the Inmarsat satellite system, and cannot provide the stability and reliability applicable under any conditions.

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Preface

The FleetOne shipborne satellite broadband terminal FT-150 which is based on the Inmarsat I-4 satellite communication system and produced by the Chengdu Spaceon Technology Co., Ltd. is a maritime broadband terminal that can provide up to 150kbps data service bandwidth and support clear voice, stable file transmission, short message service, RJ45 wired connection access and Wifi wireless access to connect single computer or multiple computers to the Internet via routers.

The FleetOne terminal features high integration level, small figure and easy application. Smart terminal Apps and the handset can be connected to the terminal via the Wi-Fi hotspot and network interfaces. The terminal is connected with the Public Switched Telephone Network (PSTN), mobile communication (3G/4G/5G) and the Internet via the Inmarsat I-4 satellite communication system so that it can meet the needs of users for image transmission, transoceanic communication, maritime navigation, distress rescue, marine disaster alerts, track management, vessel tracking, etc. without direct access to the ground network.

I. Functions and Features

Main Functions

- Standard IP data communication
- Built-in proxy server, and support BGAM IP voice communication function
- Supporting SMS and Email functions
- Supporting passive GNSS location
- Supporting PPPoE and NAT Internet access
- Built-in Web Server, supporting Web control
- Built-in firewall
- Providing Wi-Fi, supporting wireless access
- Providing Android and iOS APP and application functional extension
- Supporting backup and recovery of system setting

Features

- Maximum data transfer rate of 150kpbs
- Built-in SIP server to realize two-way BGAN IP voice parallel communication
- Provide RJ45 and Wi-Fi access
- Wi-Fi hotspot supports IEEE802.11 b/g/n and within 60 m and 10 simultaneous connections at most are supported.
- Android/iOS-based APP with voice, SMS, data and other services available
- Built-in firewall, with MAC filtering and port filtering available
- Integrated DHCP/NAT routing function
- Global coverage (excluding the north pole and the south pole)
- High-precision, real-time tracking of “SATCOM on the move” antenna.
- Data switch for easy opening or closing of the data channel
- Traffic management function, with configurable traffic threshold, limit alarm, etc.
- Built-in webpage console, supporting English and Simplified Chinese

II. **Equipment Composition**

FleetOne shipborne satellite broadband terminal FT-150 consists of:

- ADU;
- BDU;
- Cable (attached with the equipment)
- Wi-Fi antenna
- Handle (optional);
- ADU installation accessories (optional)

ADU

BDU

Handle

Power line

Network cable

RF cable

Wi-Fi antenna

ADU installation accessories

Figure 1 Equipment Composition

III. Equipment Appearance

5.1 Terminal Description

FleetOne shipborne satellite broadband terminal enables device installation, connectivity, and power on and off with simple operation. Meanwhile, it uses indicators to clearly indicate its operation status.

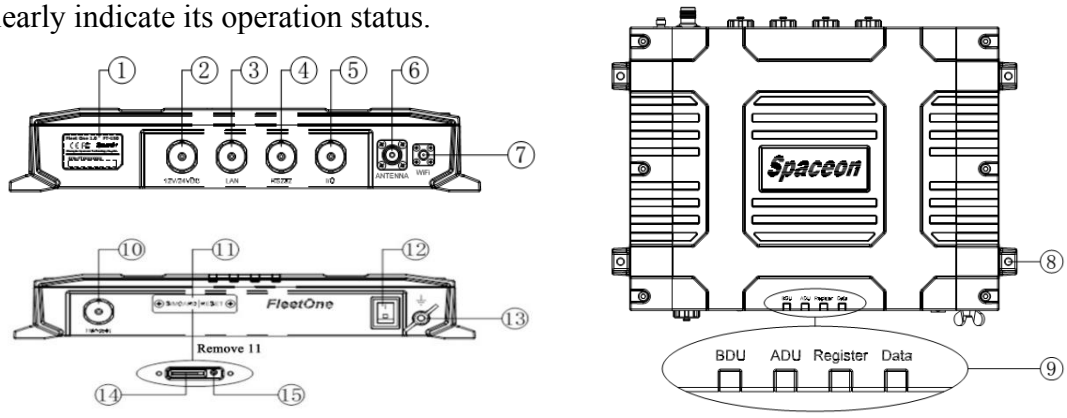


Figure 2 BDU

【1】 Terminal nameplate: it contains the name, model, serial number and other information of the terminal.

【2】 Power interface: connect the DC power supply 10.8 V~31.2 V and maximum 120 watt DC power input

【3】 LAN interface: wired LAN network interface that can connect wired network devices and PC.

【4】 Serial interface: provide RS232 serial data input and output.

【5】 I/O interface: auxiliary data input/output interface.

【6】 Antenna interface: it is used to connect RF cable to ADU.

【7】 WiFi interface: it is used to connect WiFi antenna.

【8】 Mounting hole: φ4.5 hole for mounting and fixing BDU.

【9】 BDU indicator: indicate the BDU state; green light indicates the normal state.
ADU indicator: indicate the ADU state; green light indicates the normal state.
Register indicator: it indicates the current register state; green light indicates the "Registered" state.
Connection indicator: it indicates the current continuous state; the green light will be on when there is voice or data connection.

【10】Handle interface: it is used to connect the handle.

【11】SIM card slot cover: it is used for protecting the SIM card slot and the reset button.

【12】Power switch: "1" for startup, and "0" for shut down.

【13】Earthing rod: enclosure ground, for ship grounding or earthing

【14】SIM card slot: it is used for storing the SIM.

【15】Reset button: press it to reset the terminal.

5.2 Dimensions

- ADU dimension: Φ278 mm×228 mm

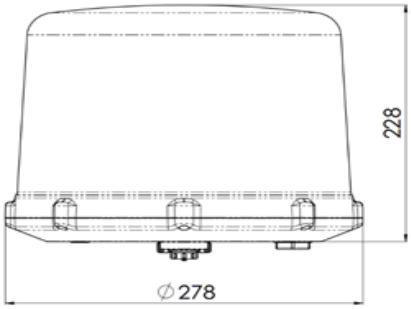


Figure 3 Dimensions of ADU

- BDU dimension: 280 mm×200 mm×50 mm

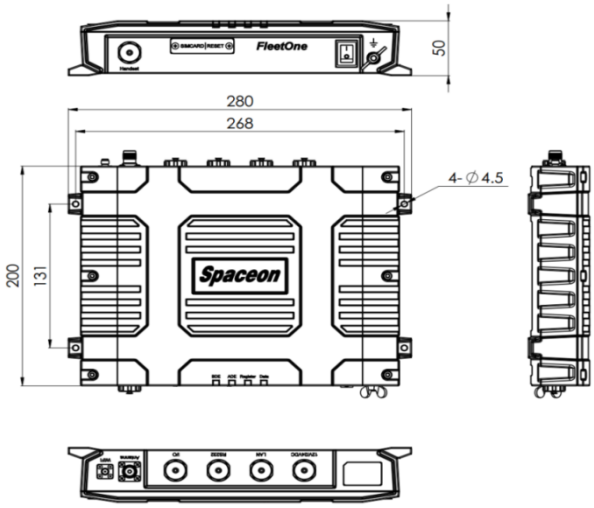


Figure 4 Dimensions of ADU

- Handle dimension: 200 mm×62 mm×28 mm

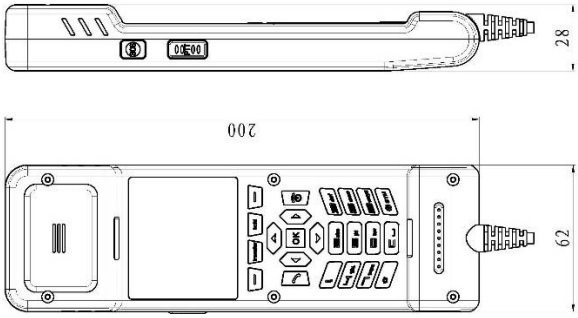


Figure 5 Dimensions of Handle

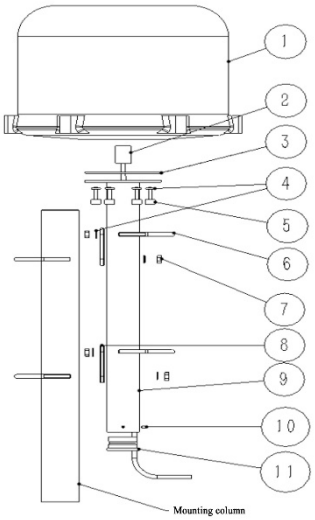
IV. Technical Specifications

Operating Frequency	
Receiving frequency	1518 MHz~1559 MHz
Transmitting frequency	1626.5 MHz~1660.5 MHz
Receiver	
G/T	≥-16dB/K
Transmitter	
EIRP	17.3dBW
Service	
Standard IP	Maximum 150kbps
Voice	VOIP
SMS	160 characters
Environmental Conditions	
Operating temperature	-25°C~55°C
Storage temperature	-40°C~80°C;
Relative humidity	95% non-condensing at 40°C
Protection level	ADU: IP56 BDU: IP31
Power Supply	
DC input range	10.8~31.2VDC
Maximum power consumption	120W
External Interface	
Network port	1 port
Handset interface	1 port
SIM slot	1 SIM slot
WiFi antenna interface	1 port
Serial interface	1 port (reserved)
I/O interface	1 port (reserved)

IV. Quick Application

For the first use of the terminal, the following steps shall be followed:

- Step 1 Install SIM card
  1) Loosen the fixing screws of the SIM card slot cover [11], and remove the SIM card slot cover and the sealing cotton;
  2) Insert the SIM card into the SIM card slot [14] according to the direction of the identification. After a "click" sound is heard and the SIM card no longer pops up, the SIM card is installed in place;
  3) Put the SIM card slot cover and sealing cotton back in place and tighten the screws;
- Step 2 Install ADU
  1) Select an appropriate location to install the ADU, and the installation location should be free of obstruction and radar radiation and be kept away from heat. For details on the selection of the installation location, refer to the ADU Installation Manual;
  2) Use fasteners ④⑤⑥⑦⑧ of installation accessories to secure the ADU bracket⑨ (see Figure 1 for the material object);
  3) Insert the end of the RF cable ② N-type connector from the bottom up into the ADU bracket ⑨ and the cushioning gasket③, and then screw the cable N-type connector onto the ADU① N-type socket;
  4) Finally, fix the ADU① and the cushioning gasket ③ on the ADU bracket⑨;
  5) Insert the cable tail clamp ⑪ into the lower end of ADU bracket ⑨ and fix the cable tail, and then screw in the M4×8 screw⑩ to fix the cable tail clamp;



① ADU (1 piece)
② RF cable (1 piece)
③ Cushioning gasket (1 piece)
④ Washer 6 (14 pieces)
⑤ Screw M6×20 (6 pieces)
⑥ U-shaped round clip (4 pieces)
⑦ Nut M6 (8 pieces)
⑧ Fixing plate (2 pieces)
⑨ ADU bracket (1 piece)
⑩ Fixing screw M4×8 (3 pieces)

◯ ⑪ Cable tail clamp (1 piece)

Figure 6 ADU Installation Diagram

- Step 3 Install BDU
  1) Fix BDU with 4 M4 screws;
  2) The BDU should be installed in a flat place, and the space for observing the indicator should be reserved after installation;

- Step 3 Connect power supply and cable
  1) Insert the special power line into the terminal power interface [2], the power input voltage is DC 10.8 V~31.2 V;
  2) Connect the end of the TNC interface of RF cable from ADU to the terminal antenna interface [6]. The cable routing should be standardized to be away from radiation and heat sources, and the cable should be fixed at appropriate intervals. Redundant cables should be coiled up and hidden;
  3) Screw the Wifi antenna (attached with the equipment) into the terminal Wifi interface [7], and place the Wifi antenna in the upright position;

- Step 4 Startup
  1) Dial the power switch [12] from the "0" position to the "1" position;
  2) When the terminal enters the startup state and all the indicators are green, the startup is completed;

- Step 6 Connect the terminal
  1) The terminal can be accessed by wire or Wi-Fi using a computer, mobile phone, tablet computer or the like;
     - Wired access method: use a special network cable (see Figure 1) with one end being connected to the terminal network interface [3] and the other end being the RJ45 standard network interface that is connected to external devices;
     - Wi-Fi access method: search for Wi-Fi hot spots sp@ceon_xxx and connect hot spots;
       - Wi-Fi default password: 12345678;
  2) Log in to the terminal to check the device state and configure the device;
     - Web login: enter the device IP address 192.168.1.5, open the login page, enter the user name and password and log in to the Web;
       - Default administrator user: admin, password: 123456
       - Default common user: test, password: 123456
     - APP login: download and install BGAN APP, run APP, click login, enter

username and password to login;

- Step 7 Establish data connection
  1) After the terminal is registered in the network, the data connection can be activated through the Web or APP; enter the “data transmission”, select the digital connection that needs to be activated, and click to activate;
  2) After successful activation, it can access the Internet through a computer, mobile phone or tablet computer;

  [Remarks] The terminal will automatically establish a BGAN IP voice connection.

- Step 8 Shutdown

  Dial the power switch [12] from the “1” position to the “0” position.

V. Web Console

5.1 Web console

The FleetOne terminal has a built-in WEB server. The PC can log in to the WEB server of FleetOne terminal through both wired and wireless network. Through the WEB console, the FleetOne terminal can be configured and operated. The operation process is as follows:

- Open the terminal;
- The terminal can be accessed in a wired or Wi-Fi manner;
- Open the browser of the access device and enter http://192.168.1.5 or 192.168.1.5 to enter the login page as shown in figure below; enter username (admin) and password (123456), and then click Login;

Figure 7 Web Console Login Page

➢ After successful login, it will enter the main interface of Web console, as shown in the figure below;

Figure8 Web Console Main Interface

5.2 Status Bar

The status bar is on the left side of the main interface and contains the following information:

➢ Signal Strength

Satellite signal strength: In the process of calibration, ensure that the device is not shielded, and the signal strength should be good enough (only when the signal strength is greater than 46dB can enter the network).

➢ Network Status

Network entry status: Only when the status is "home", it indicates that the network has been normally accessed. After the network is accessed, SMS, BGAN IP voice communication, data transmission and so on functions can be used.

➢ Spot Beam

It indicates the beam number of the current terminal device.

➢ GPS

It displays information such as the current latitude and longitude position, speed, and UTC time.

➢ Terminal

This status bar displays information such as the device battery status, remaining battery capacity and device temperature.

5.3 Home Interface

The main interface mainly includes the list of satellites currently received, optional satellites, performing calibration and so on. When there is no network access or need to re-enter the network, click the "Start Calibrate" button to start, and click to enter the calibrate mode.

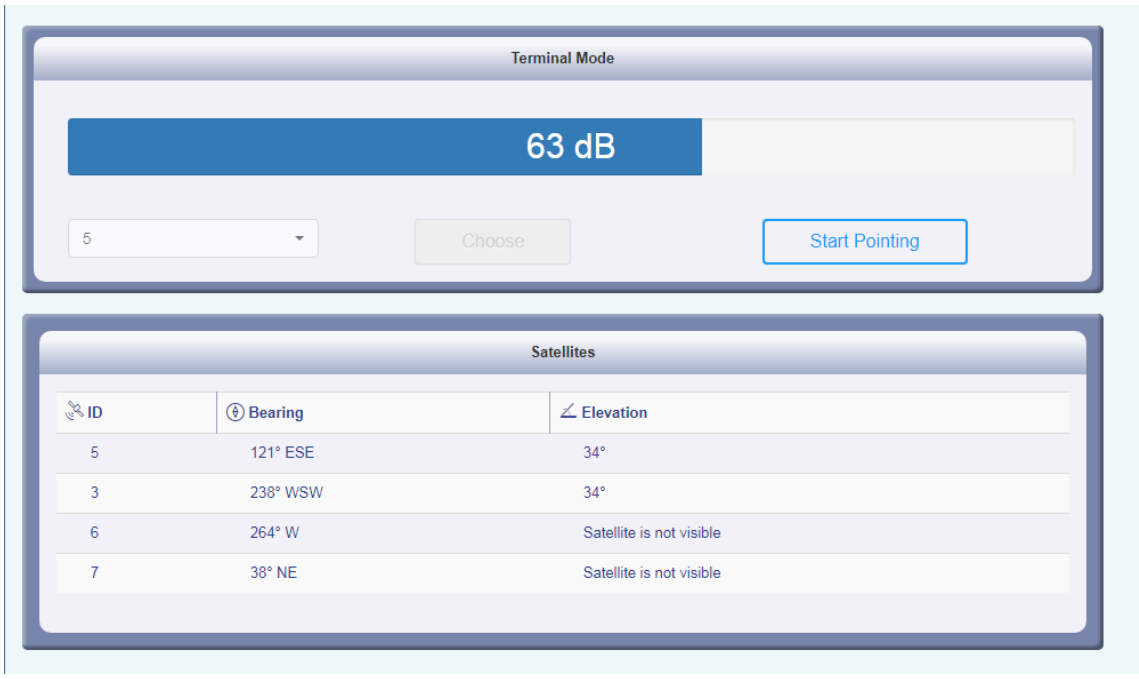


Figure 9 Home Interface

- Select the satellite with relatively large "Elevation" in the list of satellites.
- The FleetOne terminal uses a “SATCOM on the move” antenna, which automatically searches for the current satellite after the device is powered on and completes tracking lock of the satellite. The tracking lock of the “SATCOM on the move” antenna requires the cooperation of GPS information; therefore, it is necessary to determine the validity of the GPS signal. The validity of the GPS signal can be determined in the GPS window of the home page.

5.4 SMS interface

The FleetOne terminal can perform SMS operations after entering the network.

Click the button (SMS) on WEB console to enter the SMS interface. The WEB console can perform the following SMS operations:

- Creating a new message
- Inbox
- Outbox

- Contact (add email address of the contact)

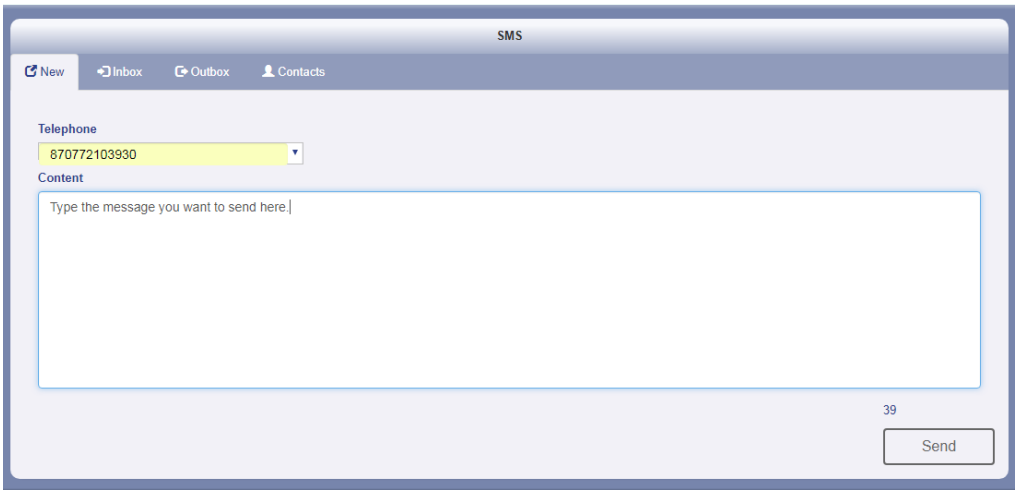


Figure 10 New SMS Interface

SMS->New SMS:

- Enter the number or email address of the text message to be sent in the "Telephone" box, or click the drop-down box to select the number that has been saved in the contact.
- Enter the content to be sent in the "Content" box. The number of English characters should not exceed 160, and the number of Chinese characters should not exceed 70.
- Click "Send".

Note: It also can enter the email address in the "Telephone" box to send SMS to the mailbox.

SMS->InBox:

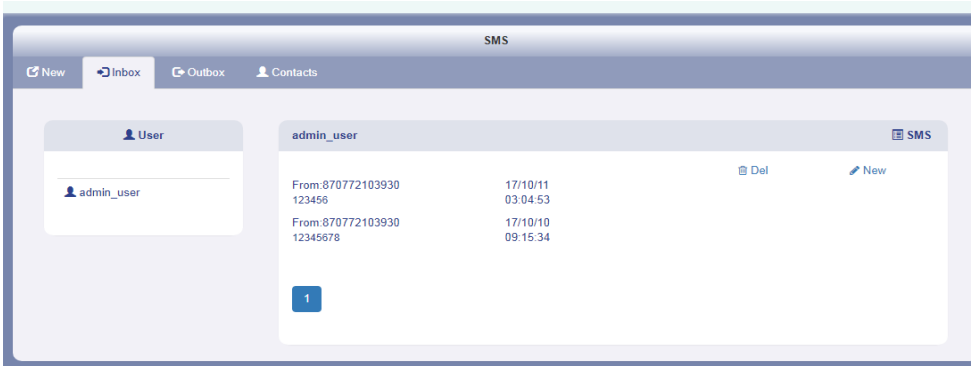


Figure 11 Inbox Interface

The "From" tag indicates where the number comes from. If the number is already saved in the contact, the contact name will be displayed. Below the label is the received content, and on the right is the time received. Click the Del button to delete one or more received messages.

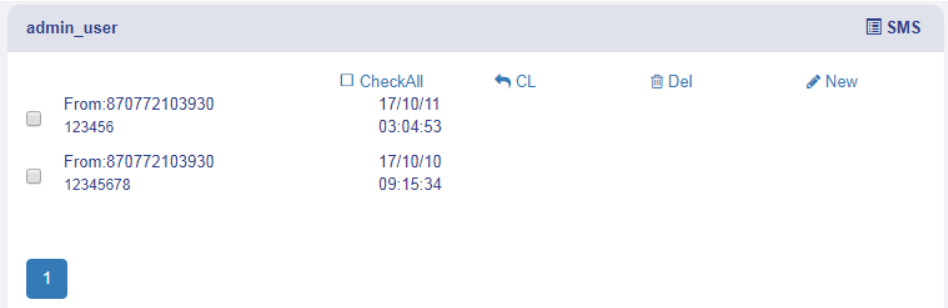


Figure 12 Deletion of Received Messages

Note: Inbox shows all short messages received by the user.

SMS->Outbox:

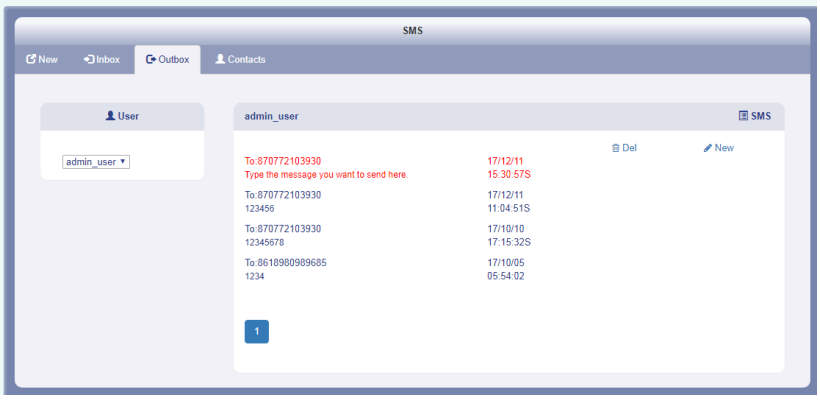


Figure 13 Outbox

The "To" tag indicates the sending destination. If the number is already saved in the contact, the contact name will be displayed. Below the label is the sent content, and on the right is the time sent.

Red indicates that the SMS has failed to be sent.

Click the Del button to delete one or more sent messages.

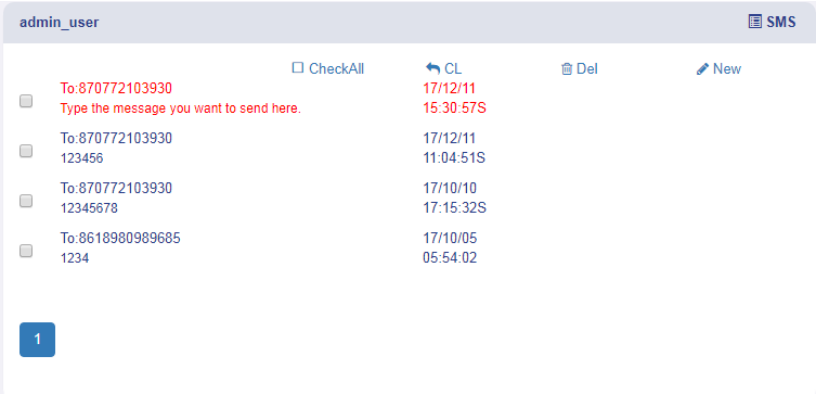


Figure 14 Deletion of Sent Messages

Note: The outbox is displayed by the user. The administrator user can view the text messages of all other users, while the normal user can only view the text messages that

he/she has sent.

SMS->Contact:

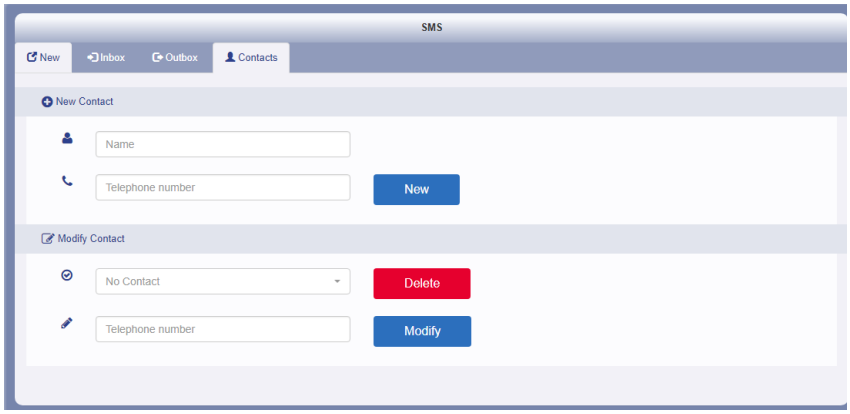


Figure 15 Contact Interface

Addition of new contacts, edition of contact number and deletion of contacts can be completed on the contact interface.

Note: The contact number can be stored up to 500. The contact number can be a phone number or an email address.

5.5 DATA interface

FleetOne needs to establish a data connection with the Inmarsat server before getting on the Interface and making VoIP calls. The steps to establish a data connection are: firstly confirm that the FleetOne terminal successfully enters the network on the WEB console home page; then click the button (Data transmission) of the WEB console to enter the data transmission interface; click the Activate button in the Connection tag to activate the corresponding network connection.

DATA->Connection:

In the Connection tag, it can query the data connection template that has been reserved, as shown in the following figure:

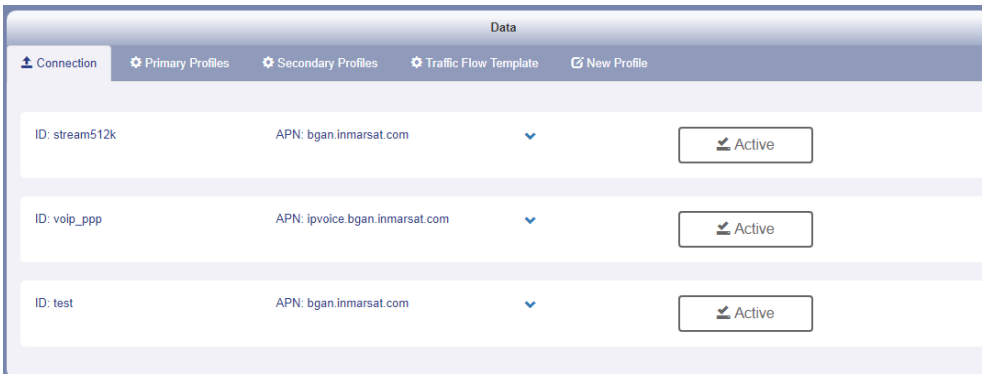


Figure 16 Connection Interface

Click "Active" to activate a connection.

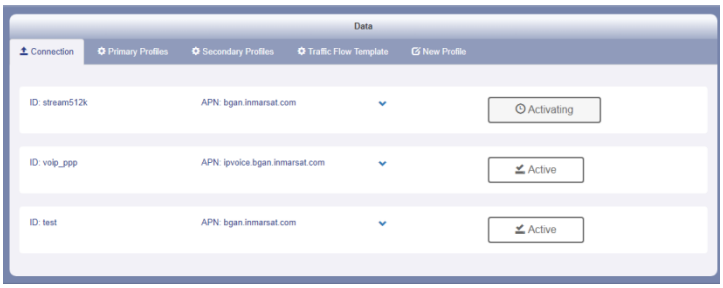


Figure 17 Active Connection

After activation, the type of activation is displayed. The owner can click "Deactive" to close the data connection.

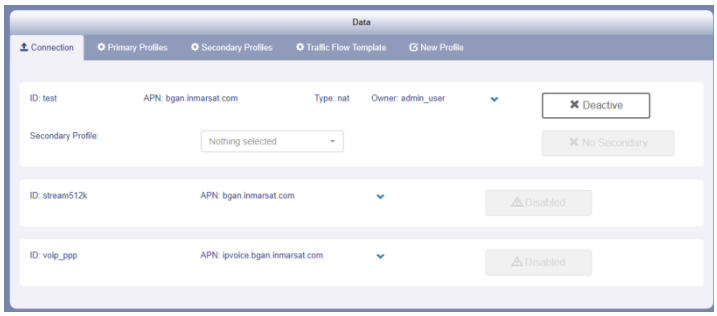


Figure 18 Deactive Connection

Note: The Web terminal can only activate the NAT type data connection, and only have one NAT at the same time. To activate other NAT type connections, the current connection needs to be disconnected.

DATA->Primary Profiles:

Display and modify the detailed configuration information of each Primary profile. Each Primary profile file specifies the parameters required to activate the connection.

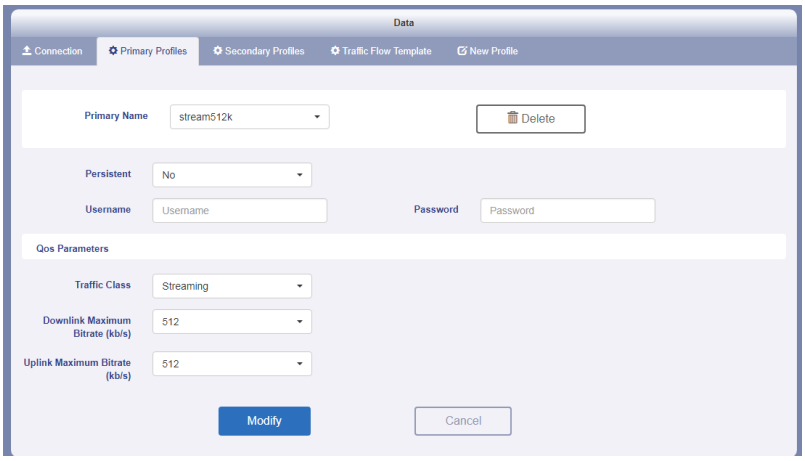


Figure 19 DATA->Primary Profiles

Profile Name - the name of the configuration. It can be viewed or deleted by selecting a different name in the drop-down box.

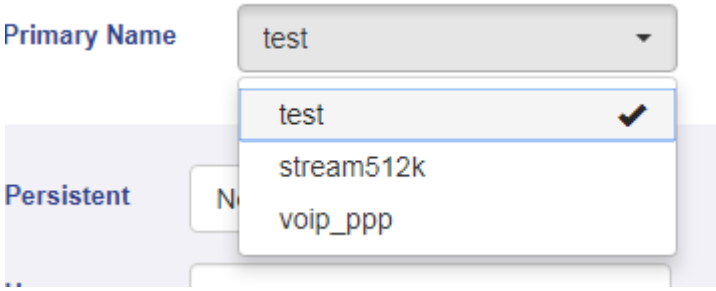


Figure 20 Profile Name

Persistent - persistent or not; if you select "Yes", the current connection will be activated automatically after startup and will be reconnected after the interruption.

Username - the username is used to establish the connection, and generally do not need to fill in.

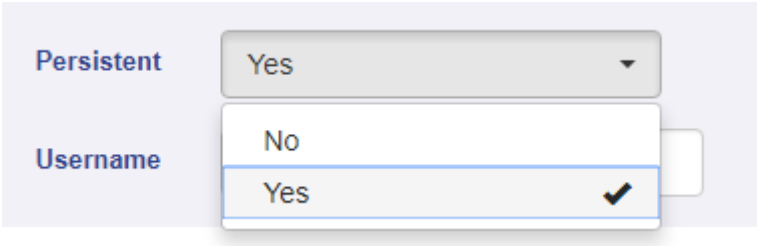


Figure 21 Persistent

Password- the password is used to establish the connection, and generally do not need to fill in.

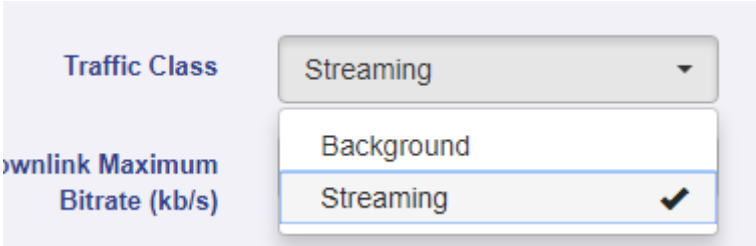


Figure 22 Traffic Class

Traffic Class - select the appropriate service type based on the characteristics of the business.

Note: After the data connection is activated, the Inmarsat billing system will initiate billing for the FleetOne terminal. The data connection of the FleetOne terminal is the Background type, which is charged according to the user's data traffic.

DATA->Secondary Profiles:

Display and modify the detailed configuration information of each Secondary profile. Each Secondary profile belongs to one Primary profile, and a Primary profile can contain multiple Secondary profiles.

Before activating the Secondary Connection, it must first activate a Primary Connection. Secondary Connection and Primary Connection shares the IP address, but the bandwidth is not shared by other applications, mainly for proprietary connections such as VPN.

The meaning of the QOS parameter in the configuration is the same as that in the Primary Profile. In addition, the Secondary profile also needs to be configured to select the Traffic Flow Template.

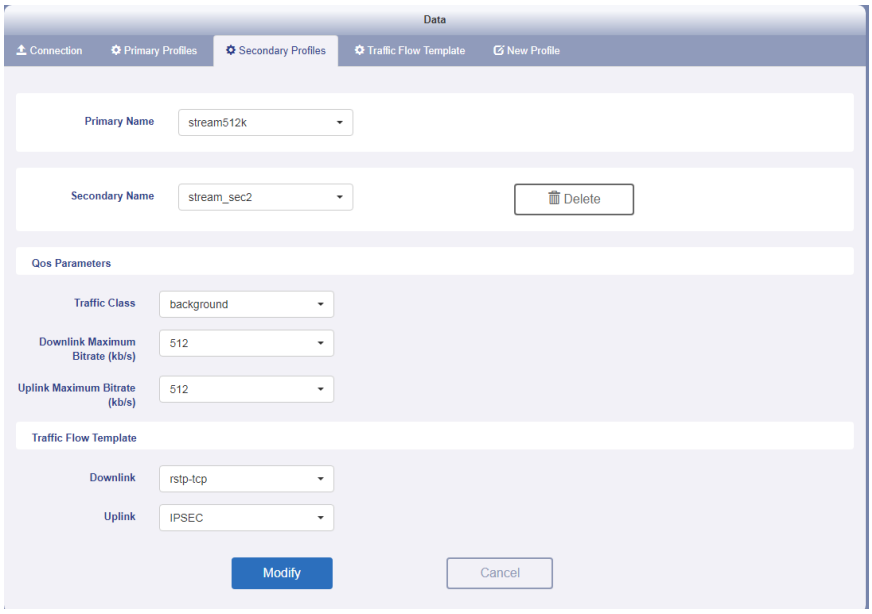


Figure 23 DATA->Secondary Profiles

DATA->Traffic Flow Template:

The purpose of configuring the Traffic Flow Template (TFT) is to ensure that users have exclusive bandwidth that is not affected by other services.

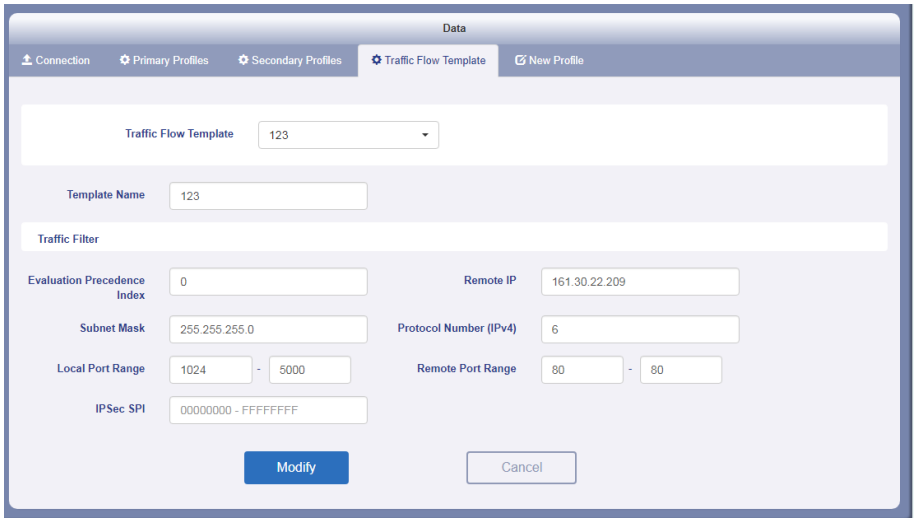


Figure24 DATA-> Traffic Flow Template

TFT is mainly used for the following applications:

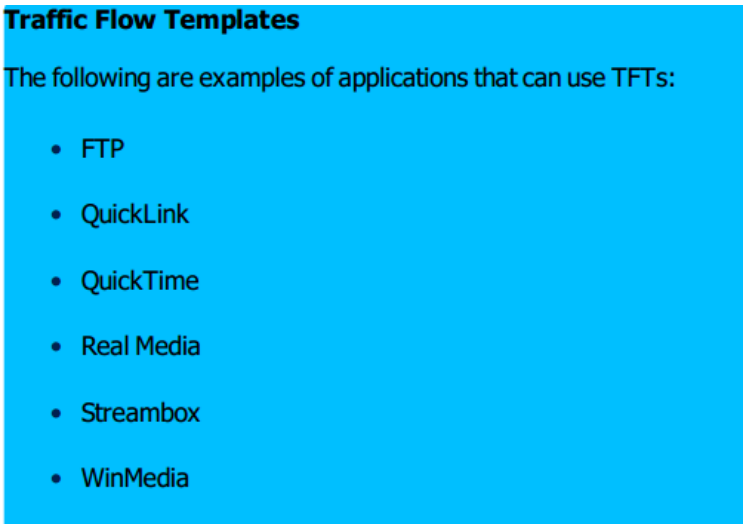


Figure 25 TFT Application

The TFT includes a set of downlink packet filters and a set of uplink packet filters; the downlink packet filter is used for the network side, and the uplink packet filter is used for the user terminal. The number of downlink packet filters supported by the current BGAN terminal is 8, and the number of uplink packet filters is 4.

Template Name - name of packet filter, 1-32 digits, no spaces can be entered before and after the parameter value.

Evaluation Precedence Index - the priority order of the packet filters; “0” represents the highest level; different packet filters have different values; and different filters should

be configured with different priorities for the same primary connection.
Remote IP - it is used to filter packets from a specified host (subnet). For the uplink filter, the remote refers to the network-side address; for the downlink filter, the remote refers to the user-side address.
Subnet Mask - sub network mask.
Protocol Number - IP v4 protocol number or IPv6 next header, value range: 0-255; e.g. TCP: 6, UDP: 17.
Local Port Range - the local port range; for the uplink filter, the local port refers to the port of local host. For the downlink filter, the local port refers to the port of network host.
Remote Port Range - the remote port range; for the uplink filter, the remote port refers to the port of network host; for the downlink filter, the remote port refers to the port of local host.
IPSec SPI- IP tunnel safety parameter index.

DATA->New Profile:
Fleetone terminal has several common built-in Profile configurations, and it also supports users to establish different Primary Profile or Secondary Profile.

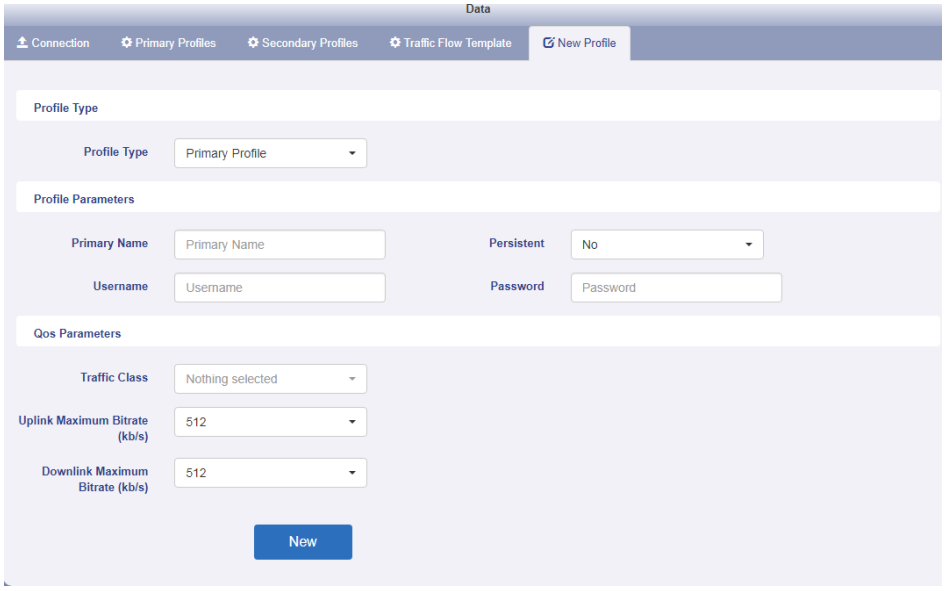


Figure 26 DATA->New Profile

5.6 VoIP interface

Click the “VOIP” menu to enter the VOIP value-added service setting interface. As shown in the following figure:

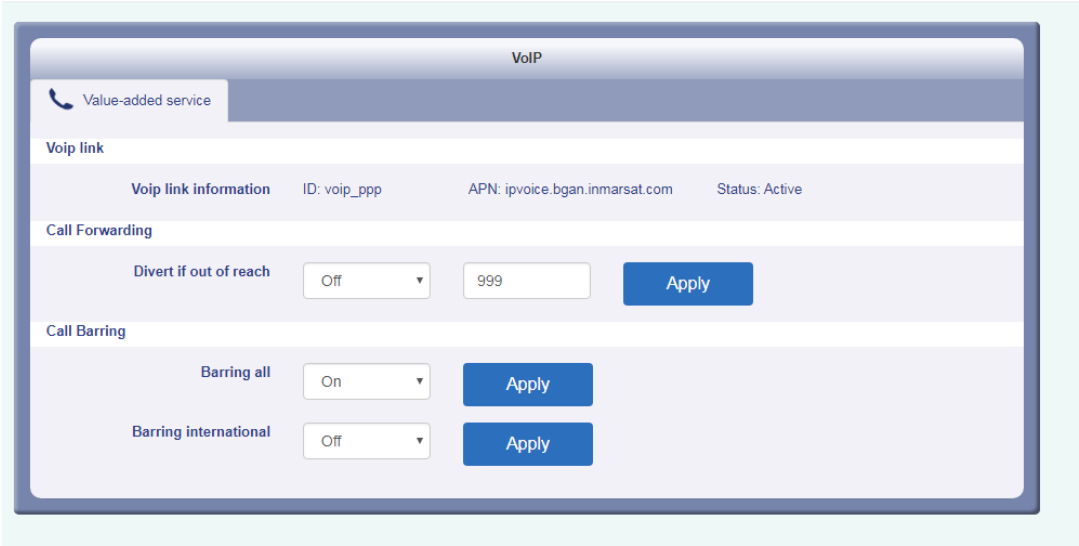


Figure 27 VOIP Profile

- VOIP link: it displays the status information of VOIP links.
- Call forwarding: set call forwarding switch and number.
- Call barring: set the response callout status switch.

5.7 USER interface

Click the icon to enter the user management interface. As shown in the following figure:

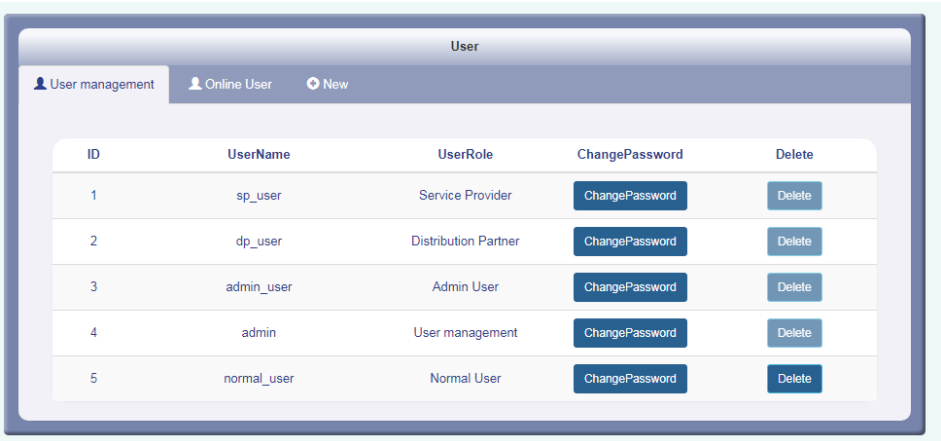


Figure 28 User Interface

- Display rules: according to the current privilege level of the logged-in account, display the list of users that can be displayed; unauthorized operation of the account of a higher authority is not allowed; the user cannot delete himself/herself; password change requires entering the original password for

confirmation; the user that is set when delivery cannot be deleted;

User->Online users:

Click on the "Online Users" tag to view the current online users, as shown below:

Figure 29 Online User Interface

User->new:

The new user operation flow is shown as below:

a) Click the "New Common User" tag to enter the new user interface, as shown below:

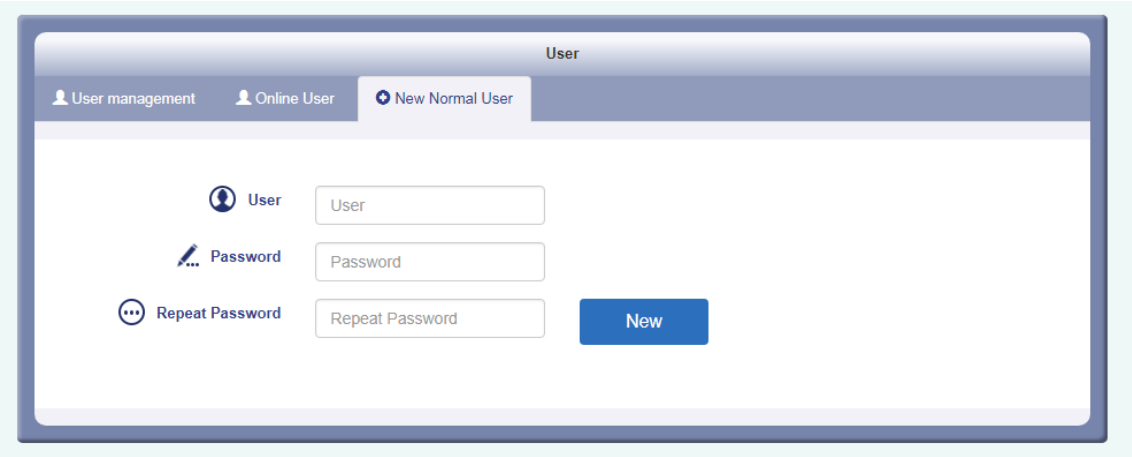


Figure 30 New User Interface

b) Enter the following in the input box:

- Enter the username of the newly created user in the user input box;
- Enter the password of the newly created user in the password input box;
- Enter the password of the newly created user in the confirm password input box;

Note: This operation can only create an account of a common user.

5.1 Settings Interface

Click the icon to enter the FleetOne device parameters configuration interface.

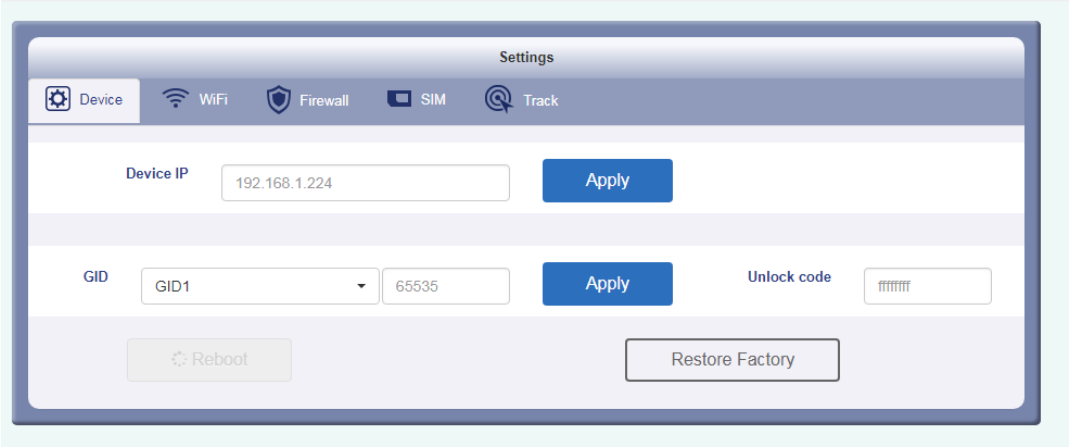


Figure 31 Device Interface

Settings->Device:

Basic parameters of "Device" interface include:

- Device IP: It refers to static configuration of device's current IP address. Such address can be only modified in the form of 192.168.1.*. Please keep in mind after modification, and modification will take effect when restarted.
- GID pull-down menu: It refers to USIM card group identifier number. GID1~GID3 can be selected on the GID pull-down menu respectively, and corresponding GID values can be inputted in the right input box.
  - GID1: It refers to one document of USIM card restricted by the service provider. Only the USIM card provided by the same service provider can be used to restrict the FleetOne terminal. The number is 65535 by default, and then one USIM card provided by any service provider can be used.
  - GID2: It refers to one document of USIM card restricted by the service distributor. Only the USIM card provided by the same service distributor can be used to restrict the FleetOne terminal. The number is 65535 by default, and then one USIM card provided by any service distributor can be used.
  - GID3: It refers to one USIM card restricted by a product. The basic document GID3 (0×8F0D) of USIM card includes one 0×0100 or more values. Such value(s) should be assigned by Inmarsat, to limit the USIM card to being only used on the specified equipment. If such limited USIM card is used at the FleetOne terminal, EFGID3 data retained in the USIM card will be retained in FEM. The USIM card restricted by a product will not be allowed to be used on any other products.
- Restart button: It is used to restart one device.
- Factory setting reset: Click to reset the factory settings.

Settings->WIFI:

Click the “WIFI” parameter configuration tag to enter the “WIFI” parameter configuration interface:

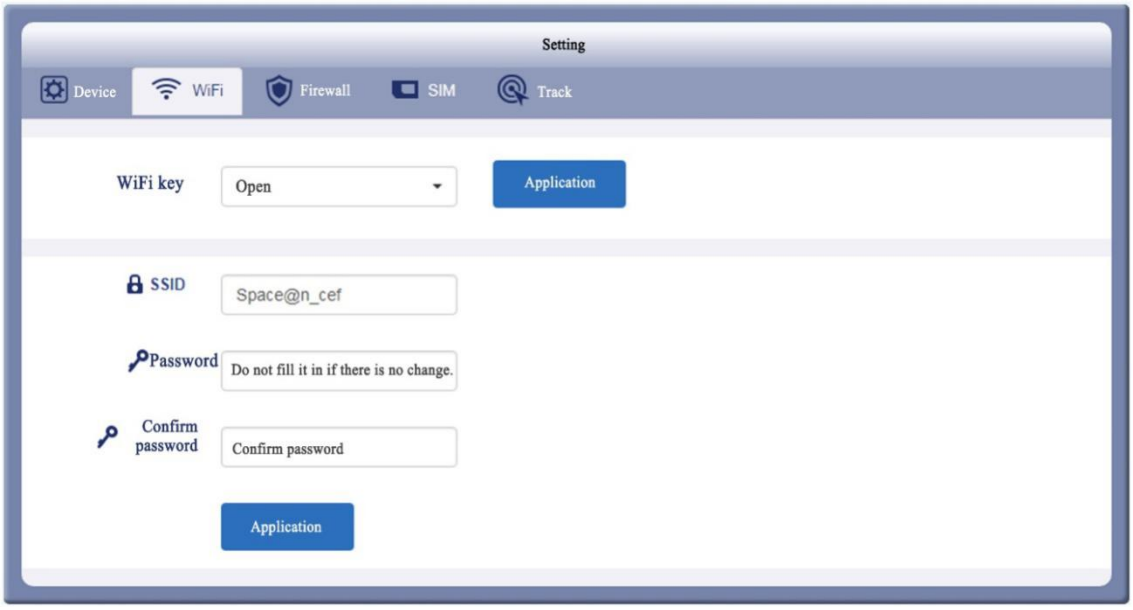


Figure 32 WiFi Interface

WIFI parameters of FleetOne device include:

- WIFI switch pull-down menu: It is used to enable or disable the WIFI function.
- SSID: It is used to set the WIFI hotspot name.
- Password: It refers to setting the login password of WIFI hotspot.

Settings->Firewall:

Click the “Firewall” parameter configuration tag to enter the “Firewall” parameter configuration interface:

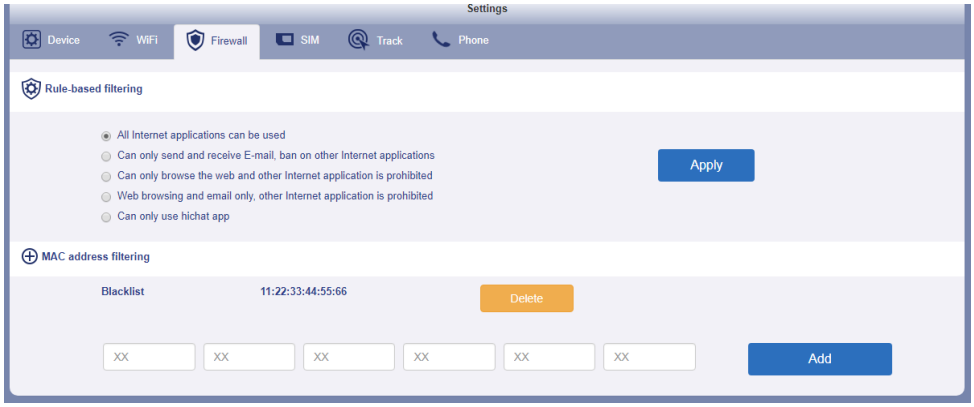


Figure 33 Firewall Menu

Firewall parameters of FleetOne device include:

- Firewall switch
- Rule filtering (it should be modified as filtering rules): The filtering rules

include following aspects.

- It can be used on all Internet applications.
- It can be only used to receive and send e-mails and is not allowed to be used on other Internet applications.
- It can be only used to browse the webpage and is not allowed to be used on other Internet applications.
- It can be only used to browse the webpage as well as receive and send e-mails, and is not allowed to be used on other Internet applications.
- Only the spaceon chat can be used.

➢ MAC address filtration: If the MAC address is added to one device in the blacklist, such address will fail to be connected with the FleetOne terminal in the wired or wireless way. The device provides 10 client-side physical addresses at most, which are added to the blacklist.

Settings->SIM:

Click the "SIM" parameter configuration tag to enter the SIM card parameter configuration interface:

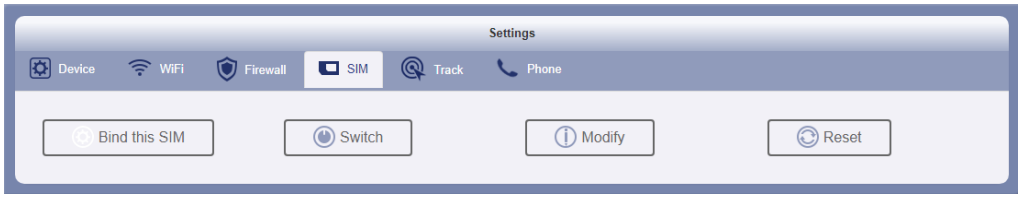


Figure 34 SIM Menu

➢ Current card button binding: Bind the current SIM card with the FleetOne terminal. After the FleetOne terminal is bound, the FleetOne terminal will fail to use other SIM cards. Be sure to insert the SIM card, which was bound previously into the device when binding is released;

➢ Switch button: Turn on/off the PIN code switch of SIM card. In case of start-up after the button is turned on, the device can be used normally when the correct PIN code is inputted;

➢ Modification button: It is used to modify the PIN code.

➢ Reset button: It is required to reset the PIN code when the PIN code is forgotten. Input the PUK code and rest the PIN code. Please contact the SIM card provider or distributor when forgetting the PUK code.

Note: The PIN code will be locked after it is inputted incorrectly. It is required to input the PUK code to set the new PIN code. Therefore, please use the PIN code carefully.

Settings->Track:

Click the "Track" parameter configuration tag to enter the "Track" parameter

configuration interface:

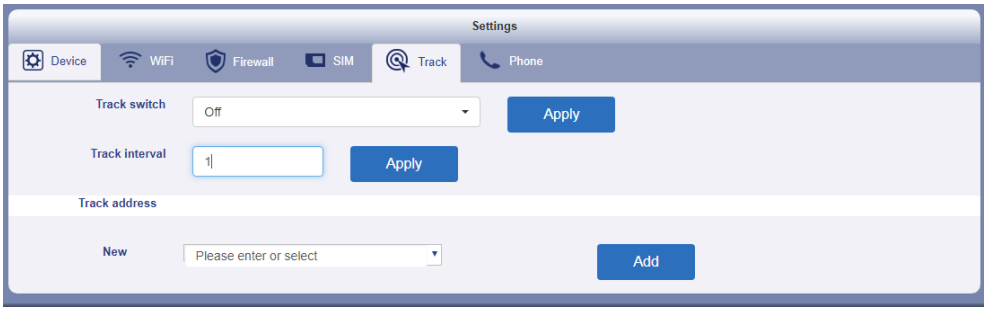


Figure 35 Track Menu

- Track switch: Enable or disable the track function.
- Track interval: It can be any value in the range of 1-1440 in minute. That is to say, the shortest period is 1 minute and the longest period is one day.
- New: Select one corresponding address from the phonebook as the address tracking the message sending target. At most 5 phone numbers or E-mail addresses can be added.

Note: The existing track function is based on the text messages. The data channel track function can be supported after subsequent upgrade.

5.2 Statistic Interface

Click the icon to enter the FleetOne device traffic statistic information view interface as follows.

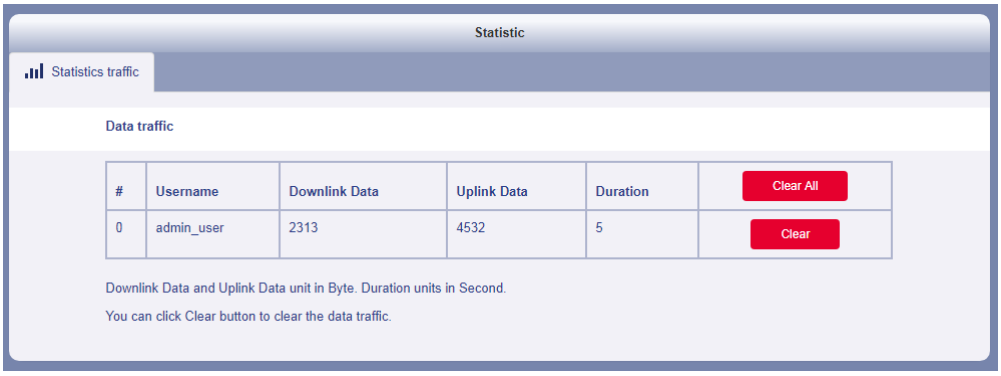


Figure36 Statistic Interface

- Username: It is used to create various user accounts;
- Downlink data: It refers to data used from the last zero clearing to now. Data unit is in Byte;
- Uplink data: It refers to data used from the last zero clearing to now. Data unit is in Byte;
- Duration: It refers to VoIP call duration produced from the last zero clearing to now. Data unit is in minute;

- Clearing button: Clear the statistical data of the user to zero after clicking the button;

The admin_user can check the data traffic of all users; the common user can only check his/her traffic.

5.3 Support Interface

Click the icon

to enter the operation interface providing the technical support to the FleetOne device user. You can check the manufacturer information and basic device information, execute the upgrade software and download the log documents, etc.

Support->Support Info:

Figure 37 Support Info Menu

The Support Info provides the service phone, email and website of device manufacturer. The customer can call us and send one e-mail to us so as to obtain our technical support. Meanwhile, we will release the latest information on the device on our official website.

Support->Terminal Info:

It provides version numbers of various terminal software and hardware, IMSI Nos. of SIM cards, and device modules, etc.

Figure 38 Terminal Info Menu

Support->Upgrade:

The menu provides a function of upgrading various software. After upgrade, some data may get lost, and use of device may be influenced. Before upgrade, data backup is required.

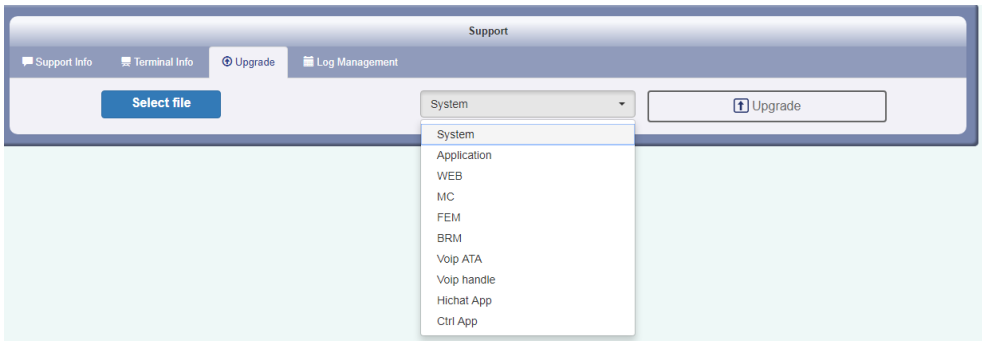


Figure 39 Upgrade Menu

Upgrade process: Select the function module to be upgraded, upload the corresponding document and wait for the document to be transferred till the “complete” word displays, then click the “Upgrade” button.

We can easily find the corresponding relation between the upgrade document name published and the name of module to be upgraded. Never match the module to be upgraded and the document to be upgraded, otherwise upgrade will fail.

Support->Log Management:

You can download the log, and set the type and level of log to be printed.

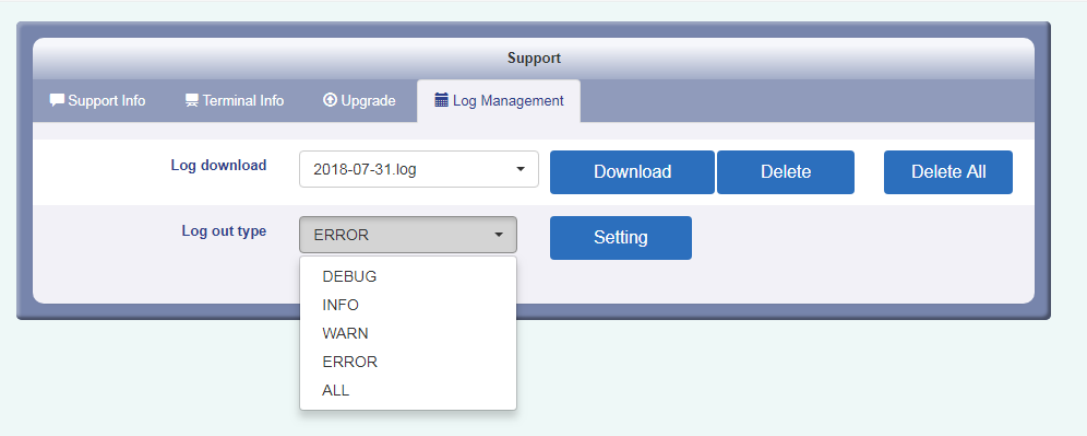


Figure 40 Log Management Menu

- Log download pull-down menu: Select the log to be checked or deleted. The log name is saved as per the date and time, and one single log size is 6M. If the log size exceeds 6M, the number postfix will be added gradually from 0.
- Log output type: There are following log output types.
  - DEBUG: Only print the DEBUG information type log.
  - INFO: Only print the INFO type log.
  - WARNING: Only print the WARNING information type log.
  - ERROR: Only print the ERROR information type log.
  - ALL: Print all information type logs.

Note: As the log will consume the device memory space, it is recommended to set ERROR type at the “Log out level”.

VI. Smart Terminal APP

Search BGAN, Fleet One, Inmarsat, Spaceon, IPSTAR, or Voip at the App store. Identify, load and complete installing the application software named “BGAN”.

The main APP interface includes 9 modules, i.e., status bar, data connection, dialing, message, user, login, setting, contact and instant call. It is as shown in the figure below.

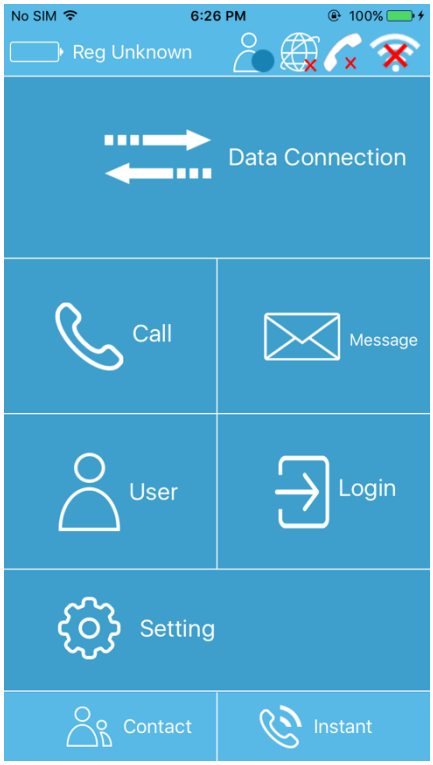


Figure 41 Main APP Interface

6.1 Login & Logout

Click

, and the login box will pop up. Input the correct username and password, and then login succeeds. After login succeeds, refresh the status bar to display the FleetOne terminal status. Phone calling, message sending and user operation, etc. can be available after login. The login interface is shown in the following figure.

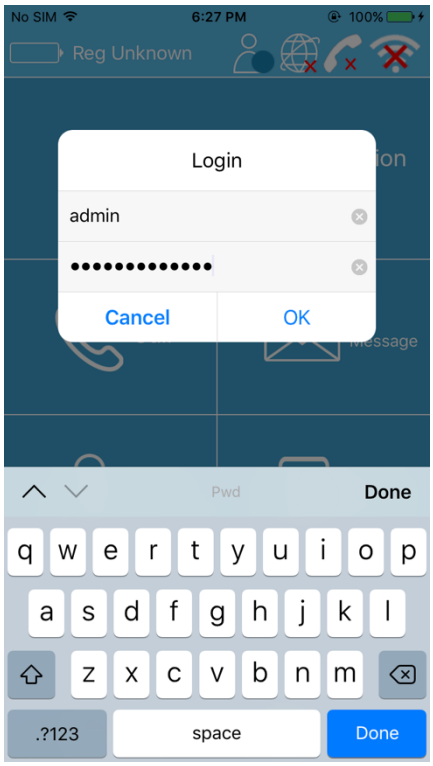


Figure 42 Login Interface

The interface is shown in the following figure after login succeeds.

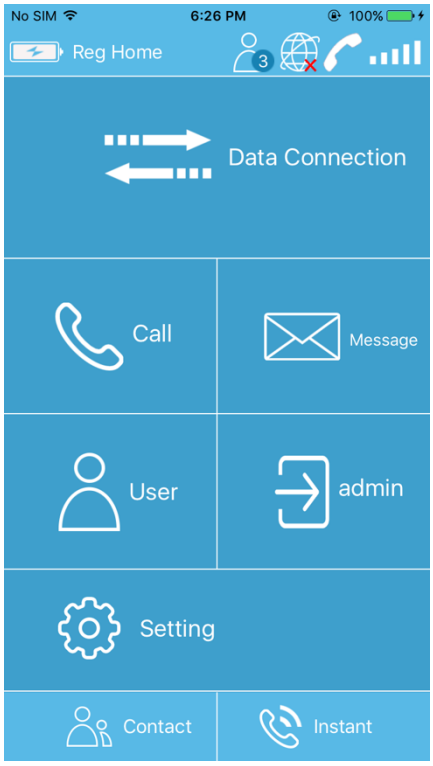


Figure 43 Interface After Login Succeeds

At this time, click the username after login succeeds, and the prompt box showing whether to log out will pop up.

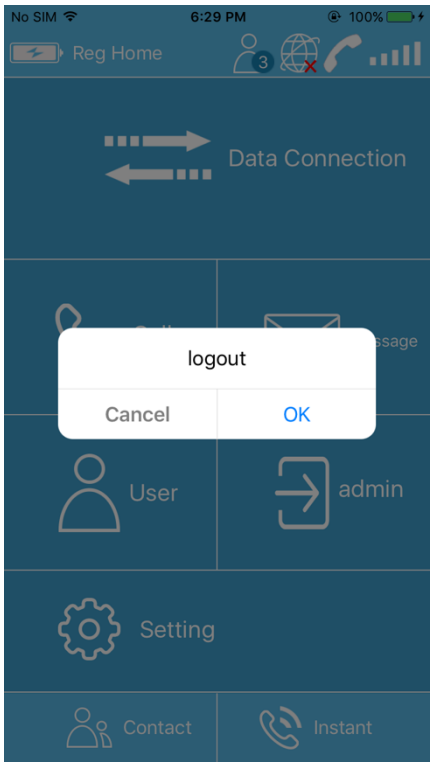


Figure 44 Logout Interface

6.2 Status Bar

The status bar displays FleetOne terminal electric quantity, network access status, online users, data connection status, voip status and signal strength from left to right. It is as shown in the figure below.

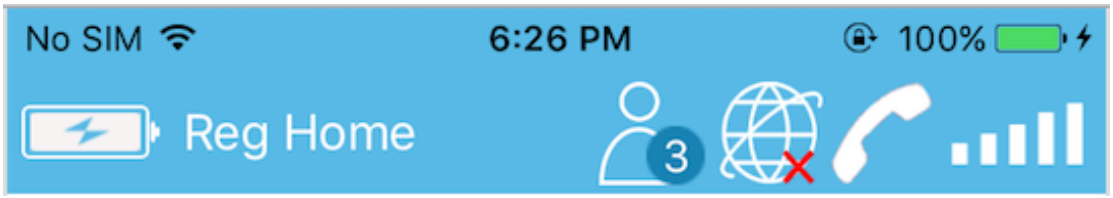


Figure 45 Status Bar

6.3 Data connection

Click

, and the data connection interface will pop up as shown in the following figure. All data connection channels are listed at the FleetOne terminal. Click each switch button, and you can choose to activate or deactivate the data connection channel.

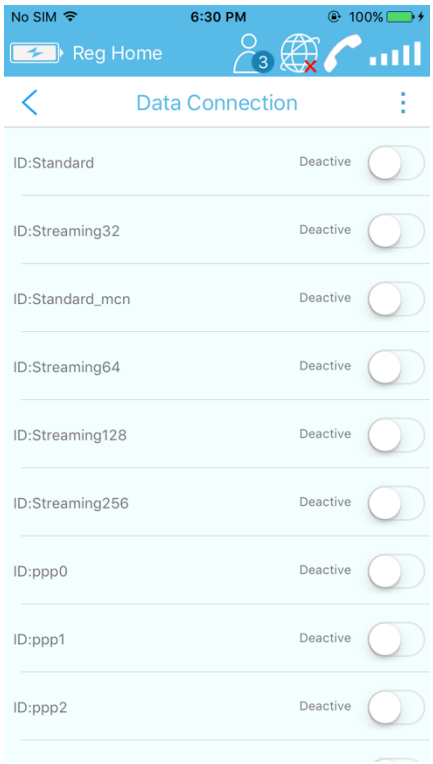


Figure 46 Data Connection Interface

6.3.1 Add connection

Click ⋮ , and the add connection button will pop up. Click the button and the interface will pop up as shown in the following figure.

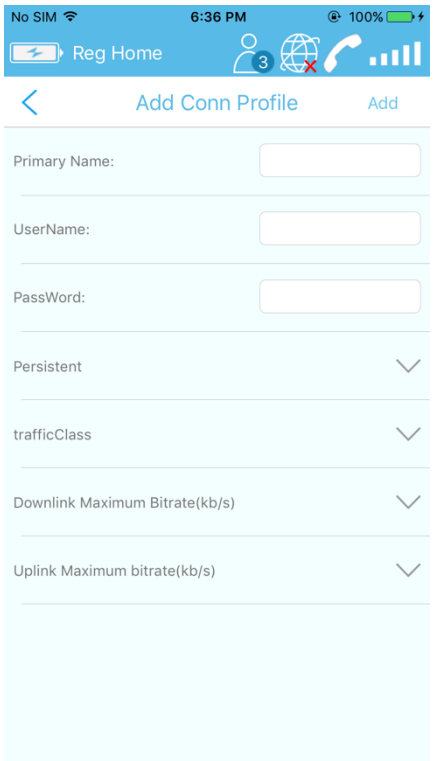
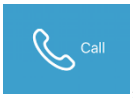


Figure 47 Add Connection Interface

Click the [Add] to add connection after inputting Primary Name, UserName and Password, and selecting various parameters.

6.4 Calling

Click 

, and the calling interface will pop up as shown in the following figure.

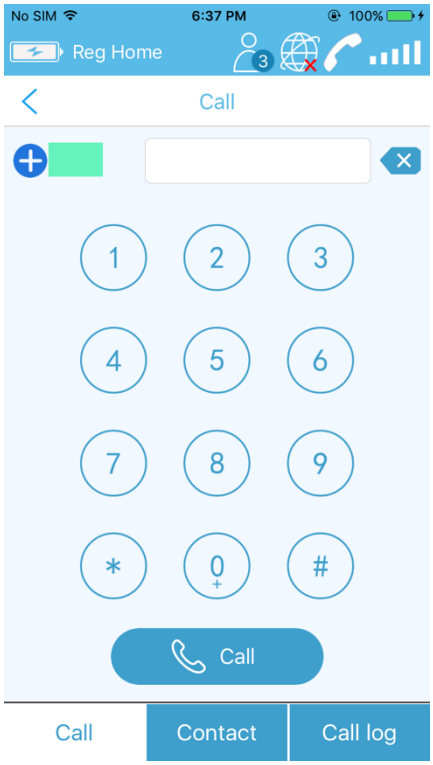


Figure 48 Initial Calling Interface

Click the national flag , and the state code interface will pop up as shown in the following figure.

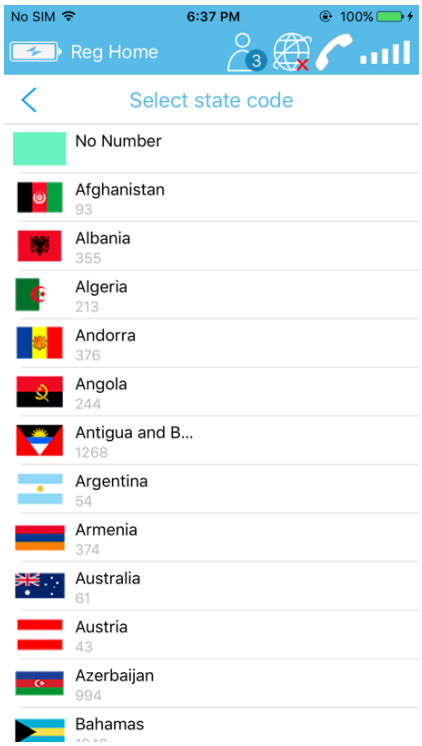


Figure 49 State Code Interface

You can call as per telephone number after choosing the state as shown in the following figure.

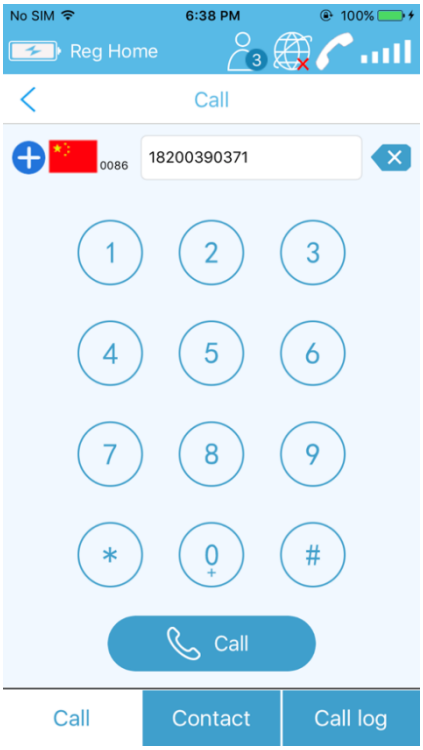


Figure 50 Complete Calling Interface

Start to call after clicking

as shown in the following figure.

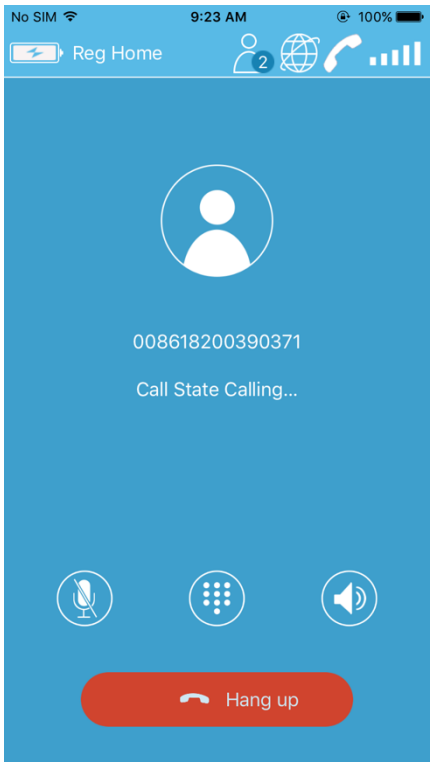


Figure 51 Calling Interface

Start timing after the phone is connected. It is as shown in the figure below.

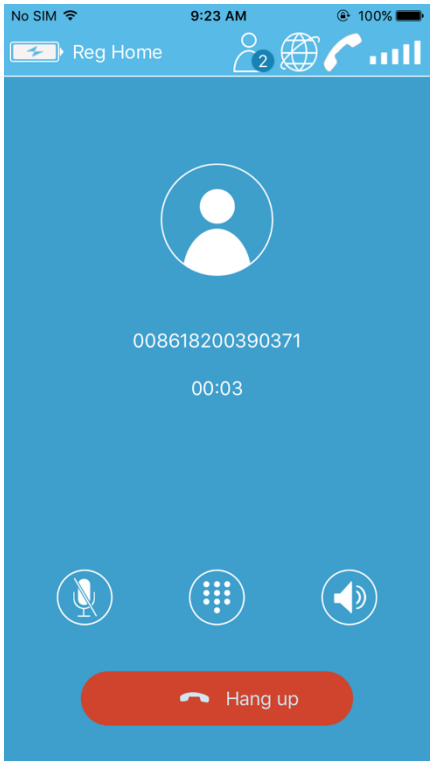


Figure 52 Call Connection Interface

Click to set the silent mode; click to pop the dtmf numeric key up

and click the number to send the dtmf number as shown in the following figure; click to set the amplification mode.

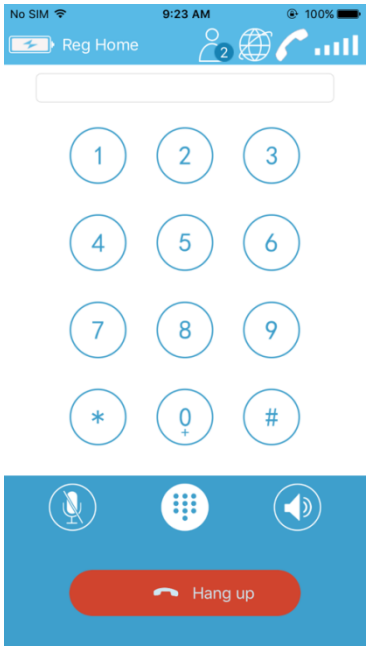


Figure 53 In-Call Control Interface

6.4.1 Add to contacts

Click , and selection boxes of “New contact” and “Add to exist contacts” will pop up. Then you can save the telephone number in the right side before to the contact. It is as shown in the figure below.

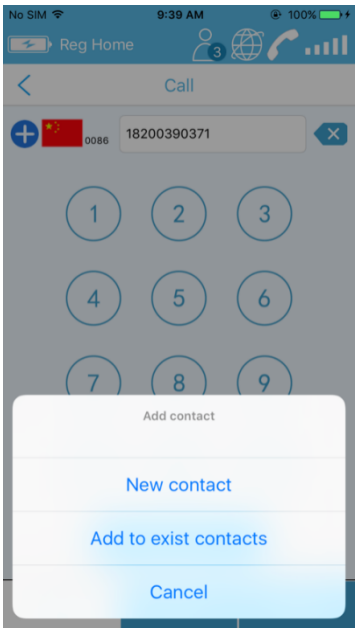


Figure 54 New Contact Interface

6.4.2 Call log

Click [Call log] to switch the call interface as shown in the following figure.

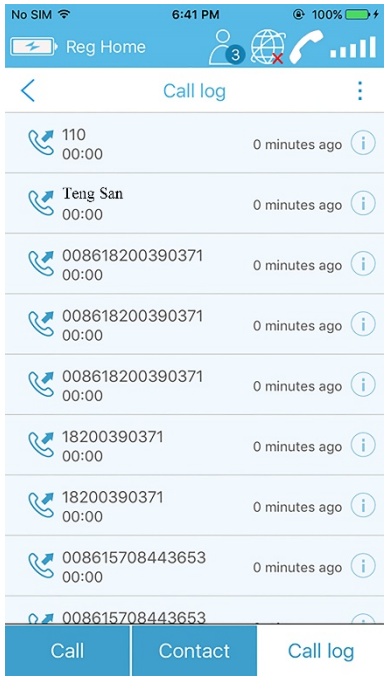


Figure 55 Call Log Interface

Click one call log before to direct call the phone number; slide to the left, and the "add to contact" button and the "delete the call log" button will pop up as shown in the following figure.

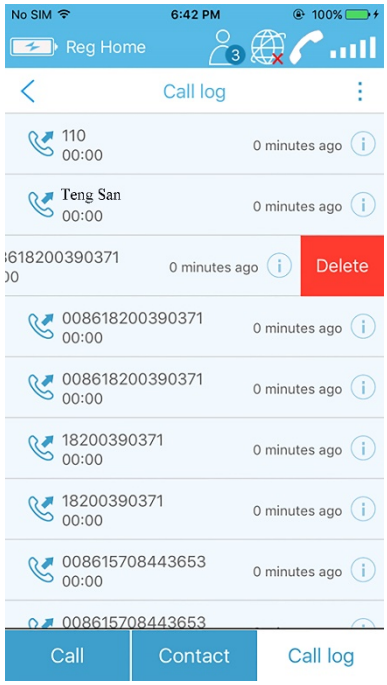


Figure 56 Call Log Operation Interface

Click ⋮, and the "All delete" button will pop up as shown in the following figure. Click [All delete] to delete all call logs.

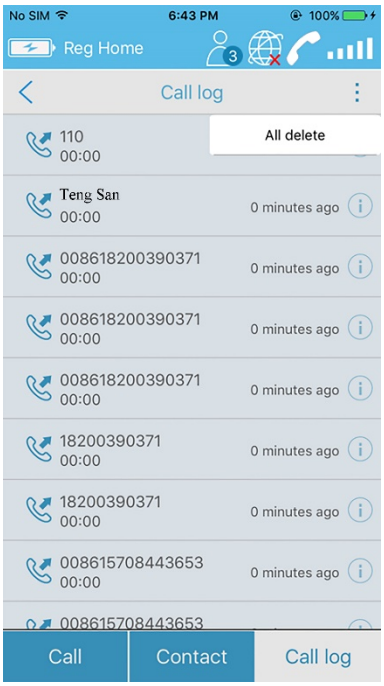


Figure 57 Call Log Cancel Interface

6.5 Contact

6.5.1 Contact List

Click

, and the contact list page will pop up as shown in the following figure.

Figure 58 Contact List

Click the search box to search “T” as shown in the following figure.

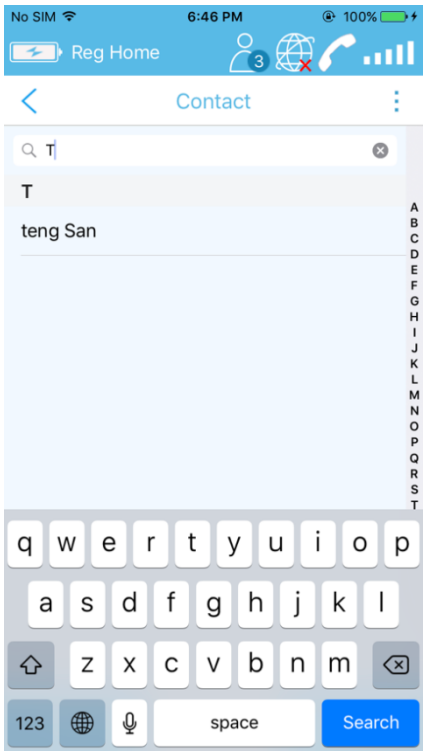


Figure 59 Contact Search Interface

6.5.2 New contact

Click ⋮, and then click [New contact]. The [New contact] interface will pop up as shown in the following figure.

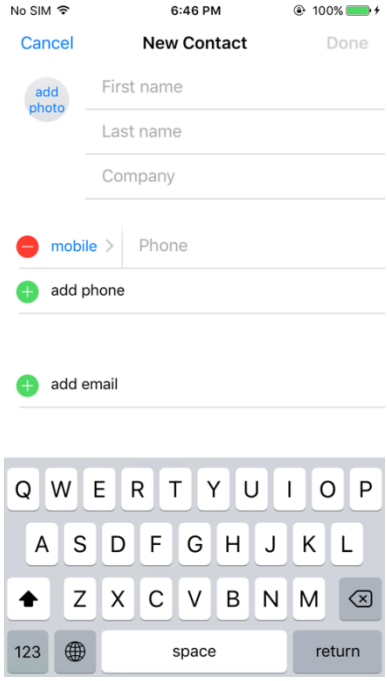


Figure 60 New Contact Interface

Add the name and phone number, etc. of contact. Click the “Done” icon to save the

contact.

6.5.3 Contact details viewing

Click one contact in the contact list, to view the contact details as shown in the following figure.

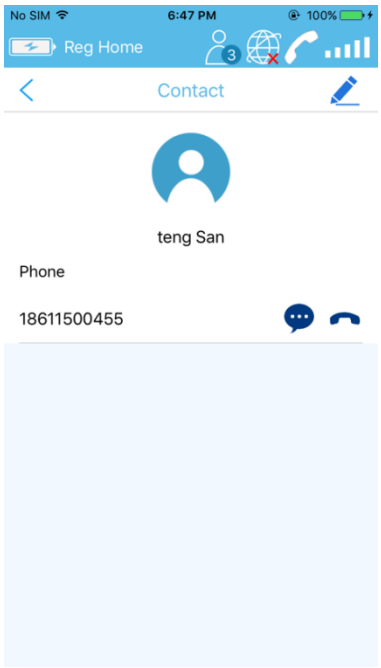


Figure 61 Contact Details

Click , and the message sending interface will pop up to send one text message to the phone number; click to directly call the phone number.

6.5.4 Contact Editing

Click , and the contact editing interface will pop up as shown in the following figure.

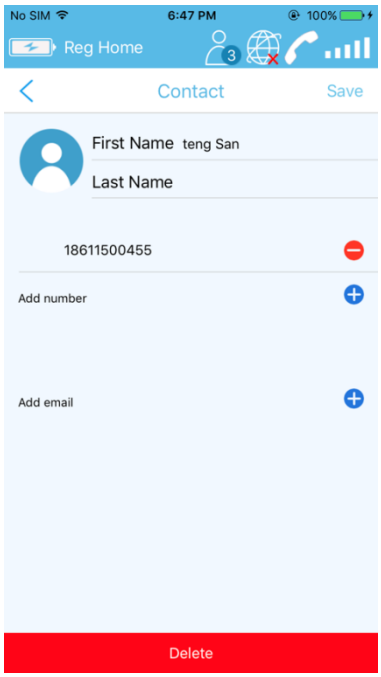


Figure 62 Contact Editing Interface

Click to delete the phone number or email; click to add the phone number bar or email bar. Many phone numbers and email addresses can be added for one contact. Click [delete] to delete the contact.

6.6 SMS

6.6.1 Message list

Click , and the message list interface will pop up as shown in the following figure.

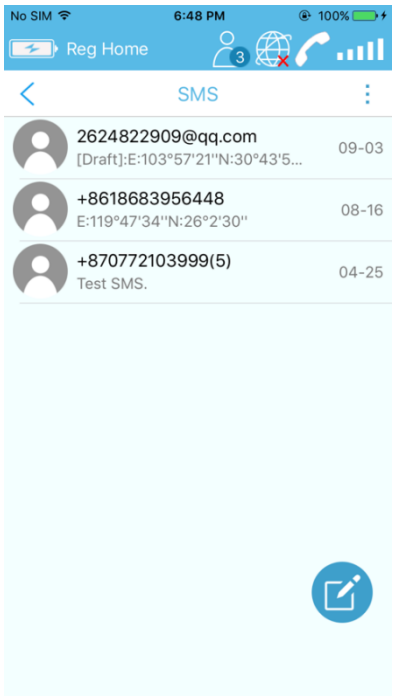


Figure 63 Message List

6.6.2 Message details

Click one message on the message list interface, and the message details interface will pop up as shown in the following figure. Click GPS to acquire the GPS information at the FleetOne terminal. The GPS information successfully acquired will be added automatically to the message input box as shown in the following figure. Continue to edit the message. Upon completion of editing, click the [send] button to send to message.

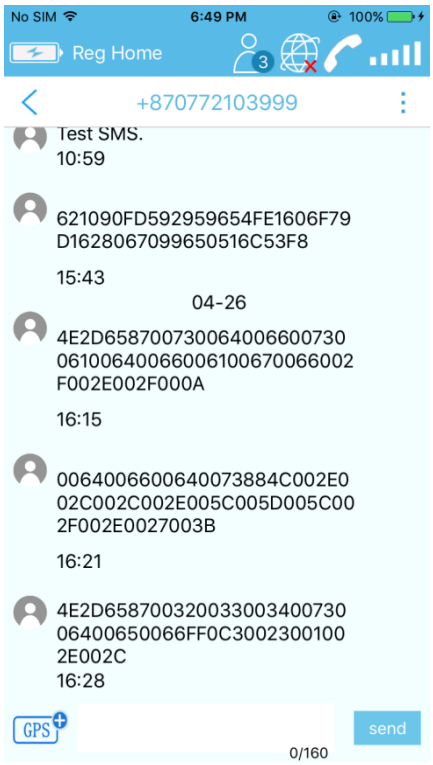


Figure 64 Message Details

6.6.3 Message Editing

Click on the message list interface, and the message editing interface will pop up as shown in the following figure.

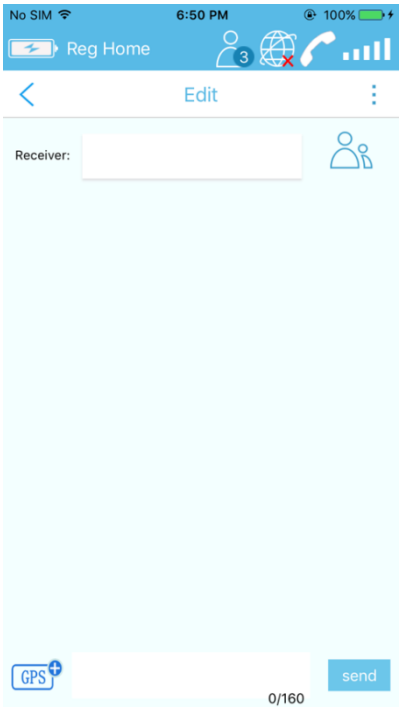


Figure 65 message Editing Interface

Click , and the receiver interface will pop up as shown in the following figure.

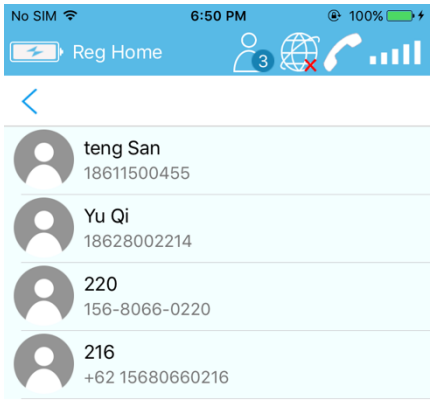


Figure 66 Contact Selection Interface

Click [Teng San], and Teng San is the receiver as shown in the following figure.

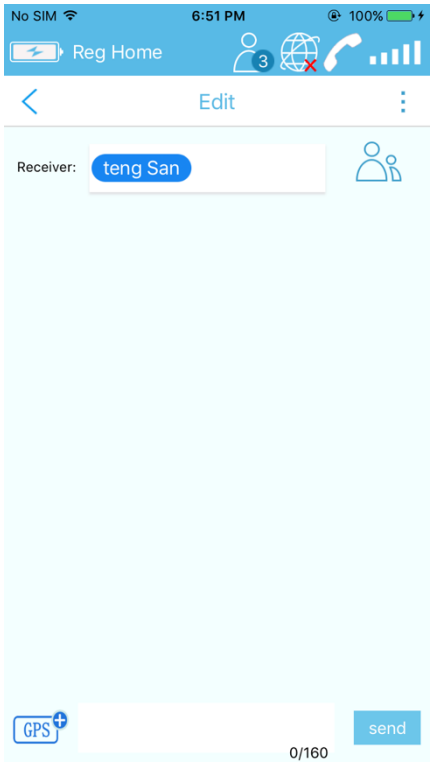


Figure 67 Receiver Selection Interface

You can add multiple receivers in the following figure.

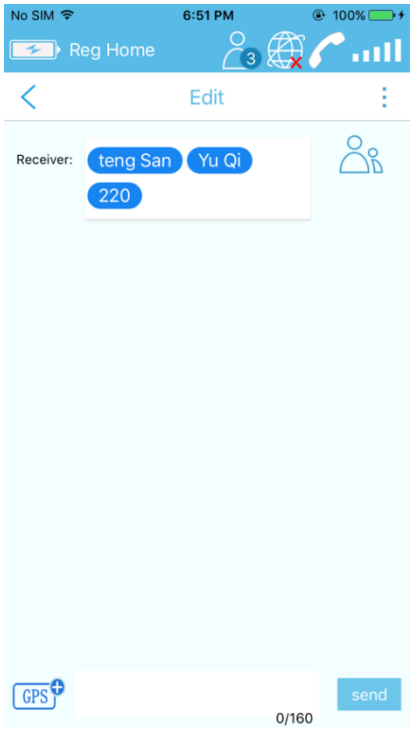


Figure 68 Multiple-Contact Selection Interface

Input the message in the input box, click the [send] button, and you can send one message to the previously-added receiver. It is as shown in the figure below.

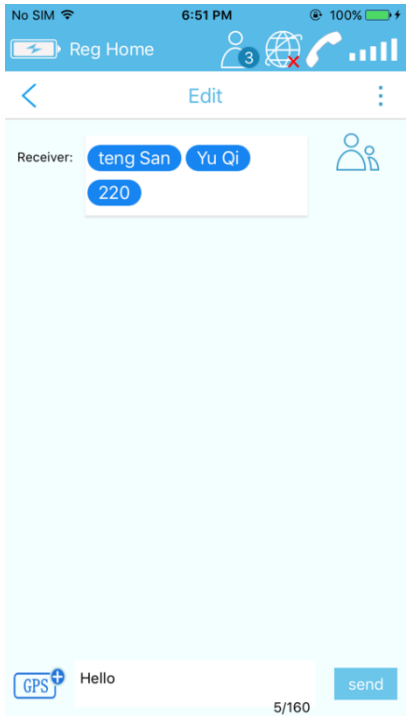
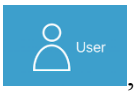


Figure 69 Message Sending Interface

6.7 User

Click 

, and the user interface will pop up as shown in the following figure.

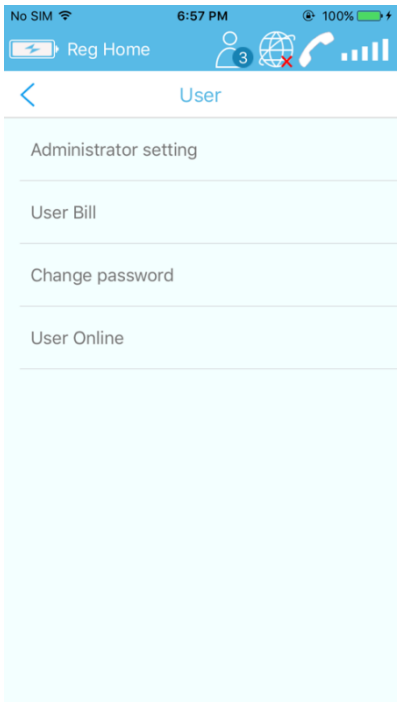


Figure 70 User List

6.7.1 Administrator setting

Click [Administrator setting], and the interface will pop up in the following figure.

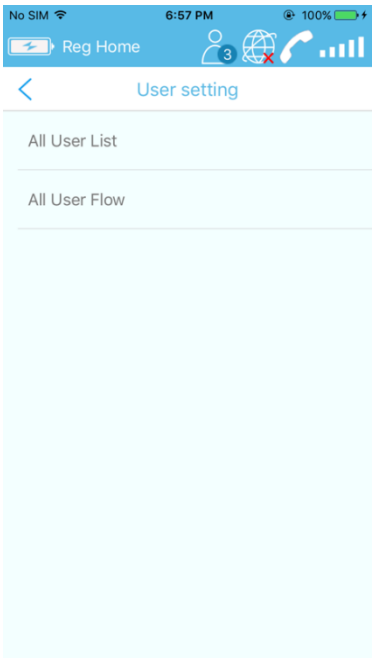


Figure 71 Administrator Setting Interface

6.7.1.1 User list

Click [User list] and the user list interface will pop up as shown in the following figure.

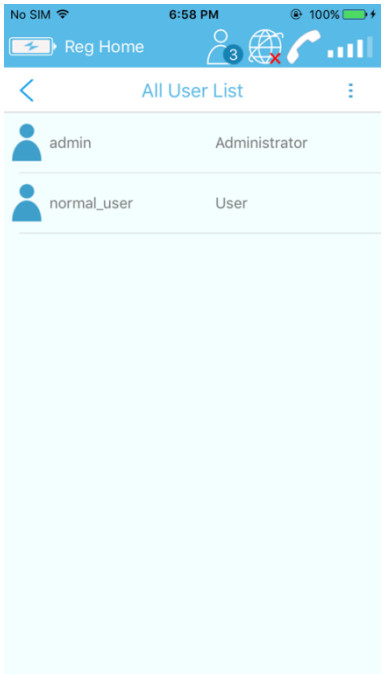


Figure 72 User List

Click ⋮, and the [Add contact] button will pop up. Click the [Add contact] button and the add contact interface will pop up as shown in the following figure. Input the account and password, and select the role; then click to confirm the user to be added.

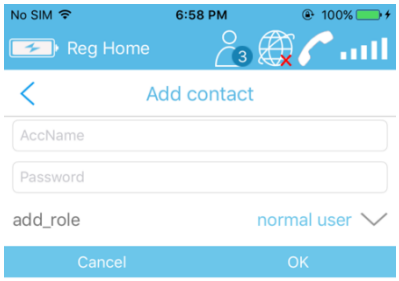


Figure 73 Add Contact Interface

Click the [sp_user] item, and one warning box will pop up so as to select whether to

delete the sp_user user. Click [OK] to delete, and click [Cancel] to delete such operation as shown in the following figure.

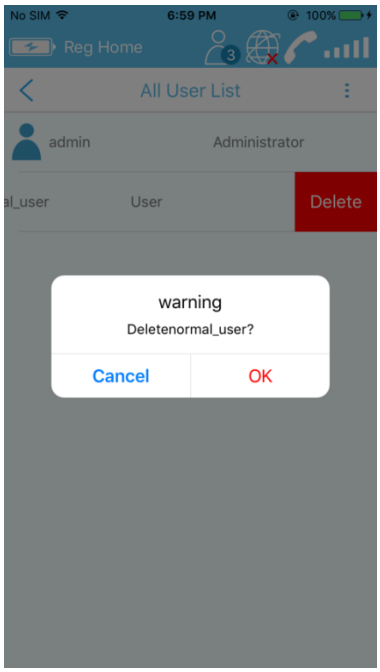


Figure 74 User Deletion Prompt

6.7.1.2 User traffic

Click [User traffic] on the user setting interface, and the user traffic interface will pop up. You can check the user traffic utilization condition on such interface as shown in the following figure.

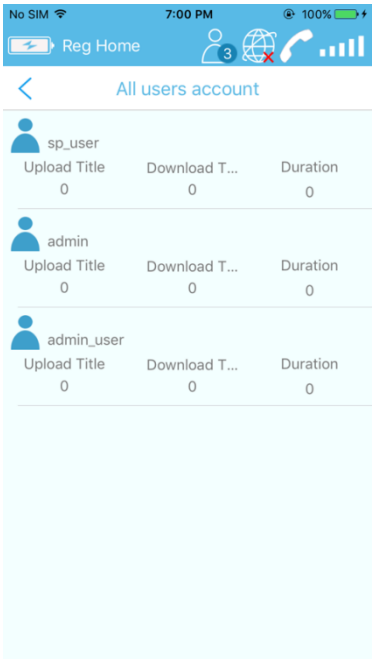


Figure 75 User Traffic Interface

6.7.2 User bill

Click [User Bill] on the user interface, and the user bill interface will pop up. You can check the user bill condition as shown in the following figure.

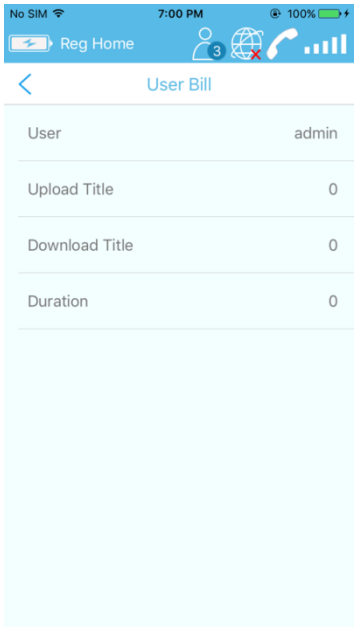


Figure 76 User Bill Interface

6.7.3 Password modification

Click [Password modification] on the user interface, and the password modification box will pop up as shown in the following figure. Input the original password and the new password as promoted, and click OK to complete modification. Note: The password can be modified only after login succeeds.

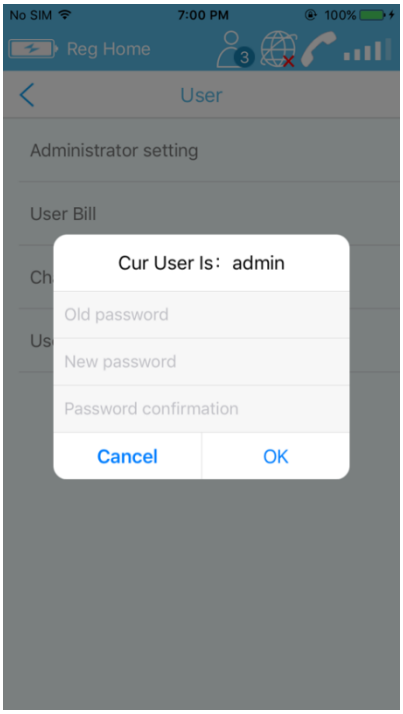


Figure 77 User Password Modification Interface

6.7.4 User online

Click [User online] on the user interface, and the user online interface will pop up, displaying the name of existing user online and the ipv4 address. It is as shown in the figure below.

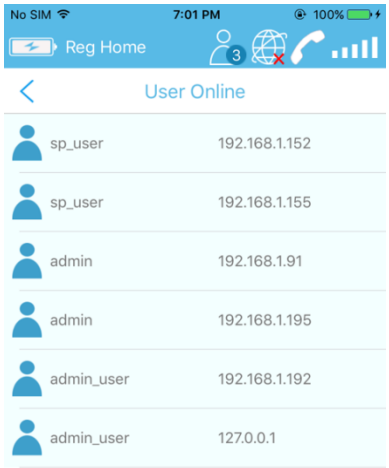


Figure 78 User Online List

6.8 Setting

Click

on the main interface, and the setting interface will pop up as shown in the following figure.

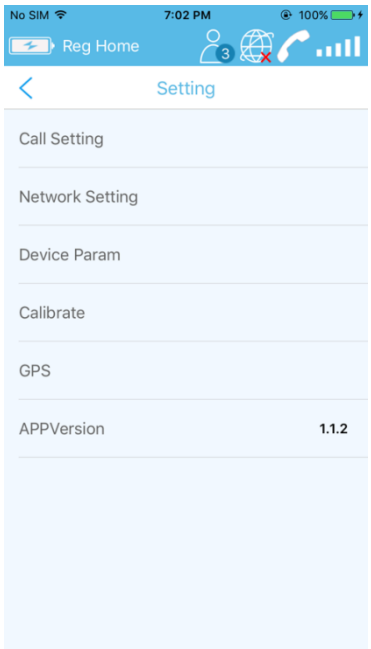


Figure 79 Setting Interface

6.8.1 Call setting

Click [Call setting] on the interface, and the call setting interface will pop up as shown in the following figure. [IP voice account] displays the existing local account; the corresponding button of [Echo cancellation] can be set for echo cancellation; after the [Do not disturb] is turned on, all incoming calls will be rejected.

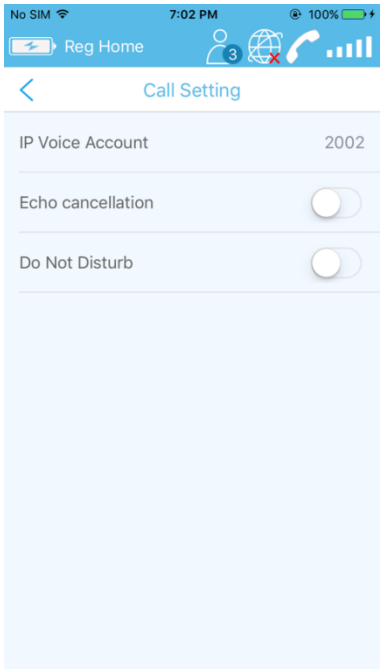


Figure 80 Call Setting Interface

6.8.2 Network setting

Click [Network setting] on the interface, and the network setting interface will pop up

as shown in the following figure.

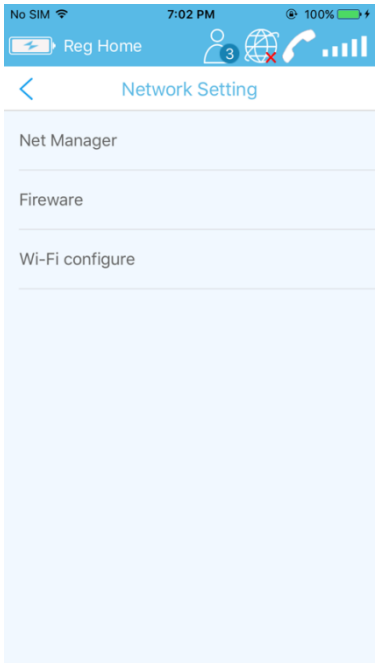


Figure 81 Network Setting Interface

6.8.2.1 IP/Port setting

Click [IP/Port setting] on the network setting interface, and the setting box will pop up as shown in the following figure. Fill in the IP and port on the FleetOne terminal, click [OK] to complete setting.

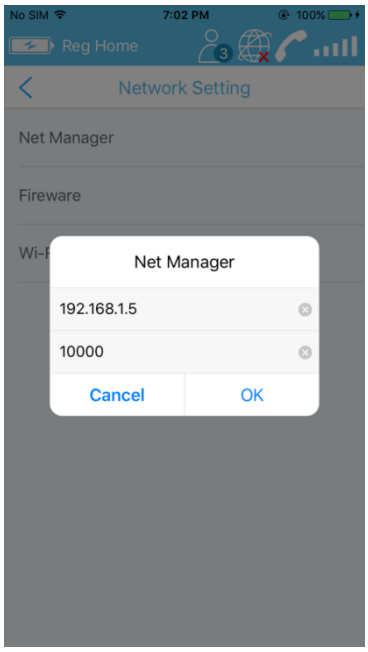


Figure 82 IP/Port Setting Interface

6.8.2.2 Firewall

Click [Firewall] on the network setting interface, and the firewall interface will pop up as shown in the following figure.

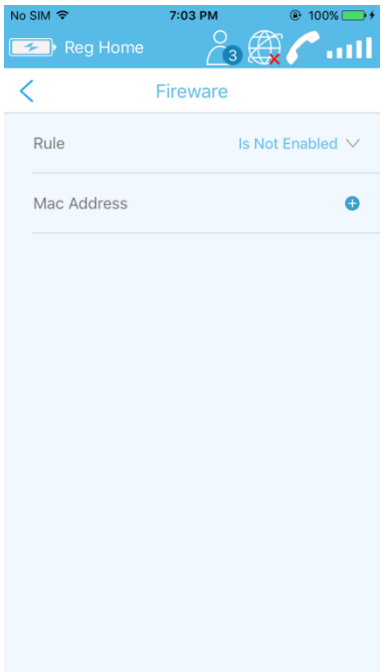


Figure 83 Firewall Setting Interface

Click [Rule], and the filtering options will pop up as shown in the following figure.

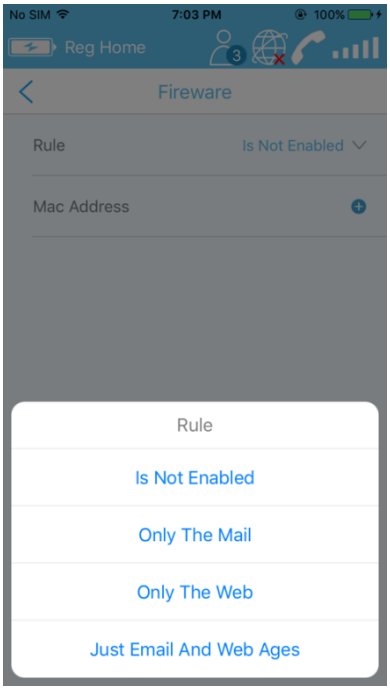


Figure 84 Firewall Filtering Rule Options

Click [MAC address], and the input box will pop up as shown in the following figure.

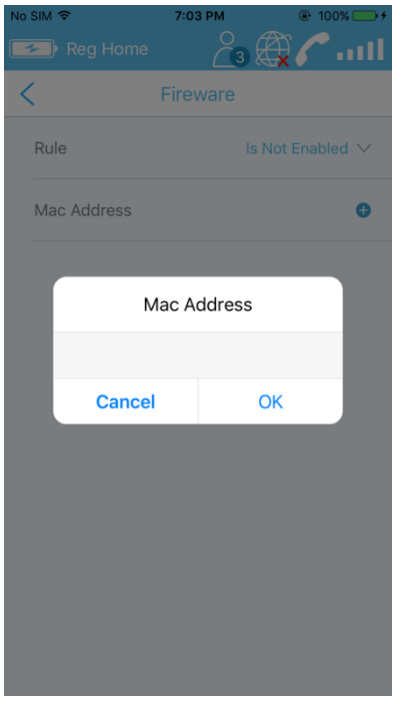


Figure 85 Mac Address Filling-in Interface

6.8.2.3 Set Wi-Fi

Click [Set Wi-Fi] on the network setting interface, and the "Set Wi-Fi" interface will pop up as shown in the following figure. Input the new password, and click [OK] to complete the setting.

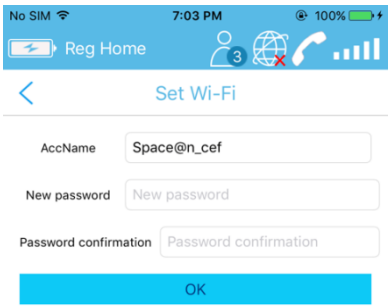


Figure 86 Wifi Setting Interface

6.8.3 Device parameters

Click [Device parameters] on the setting page, and the device parameter interface will pop up, displaying the detailed device parameters as shown in the following figure.

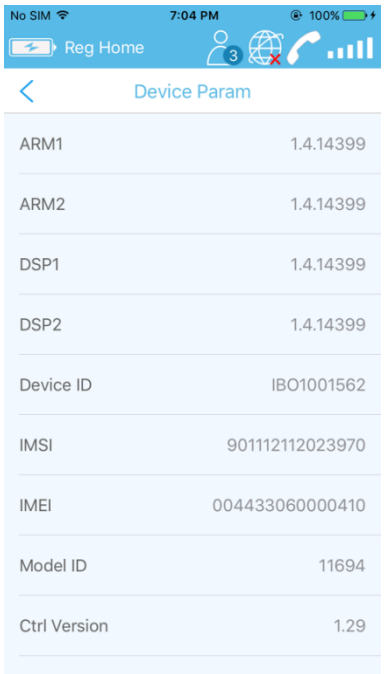


Figure 87 Device Parameter Display Interface

6.8.4 Calibrate

Click [Calibrate] on the interface, and the calibrate interface will pop up as shown in the following figure. The satellite calibration list is showed.

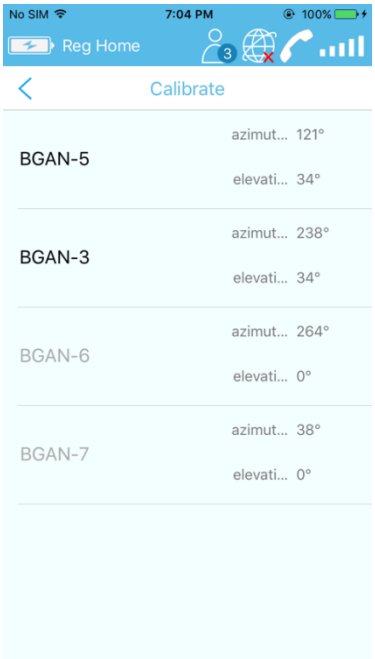


Figure 88 List of Existing Satellites

6.8.5 GPS

Click [GPS] on the setting interface to search the current GPS information in BGAN

setting as shown in the following figure.

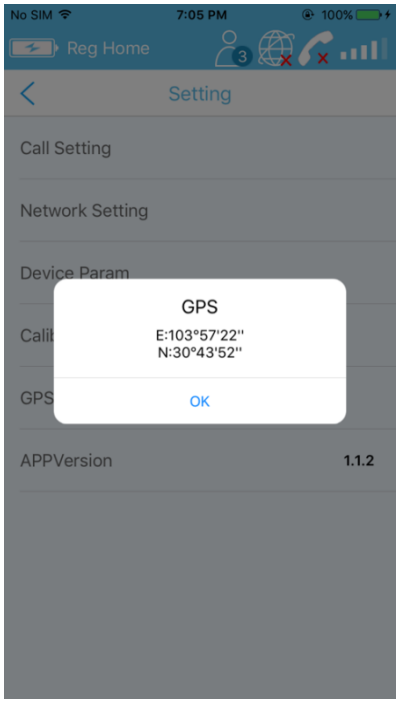


Figure 89 GPS Information

6.8.6 App version

The present APP version is displayed.

6.9 Instant call

Click

on the main interface, and the instant call interface will pop up as shown in the following figure.

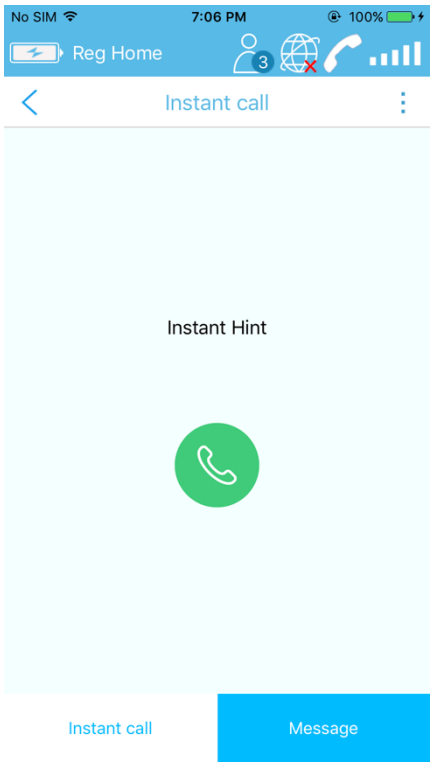


Figure 90 Instant Call Interface

When selecting [Instant call], click once to call the emergency contact set previously; when selecting [message], click once to send one message to the emergency contact set previously.

6.9.1 Instant message setting

Click , and the instant message setting page will pop up. It is as shown in the figure below.

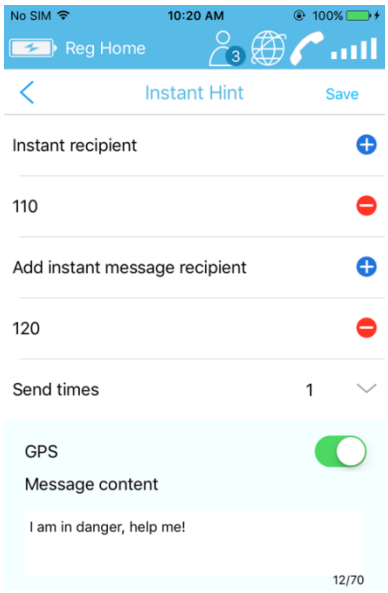


Figure 91 Instant Recipient Setting

Click at the bar [Instant call recipient] and the input box will pop up as shown in the following figure. Input the phone number, and click OK to complete editing the instant call recipient. Note: You can only add one instant call recipient. Click to delete the instant call recipient set previously.

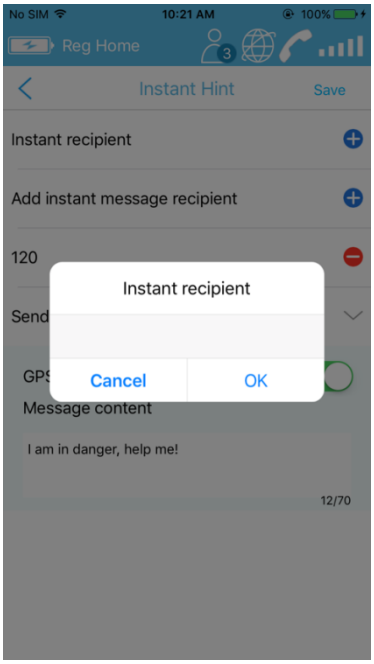


Figure 92 Instant Recipient Add Interface

Editing of [Instant message recipient] is similar to that of [Instant call recipient], but you can add multiple instant message recipients and have to input message contents.

When all the editing work is completed, you click [Save] and the instant message setting can be completed.

FCC Caution：

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-Reorient or relocate the receiving antenna.

-Increase the separation between the equipment and receiver.

-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

-Consult the dealer or an experienced radio/TV technician for help.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.