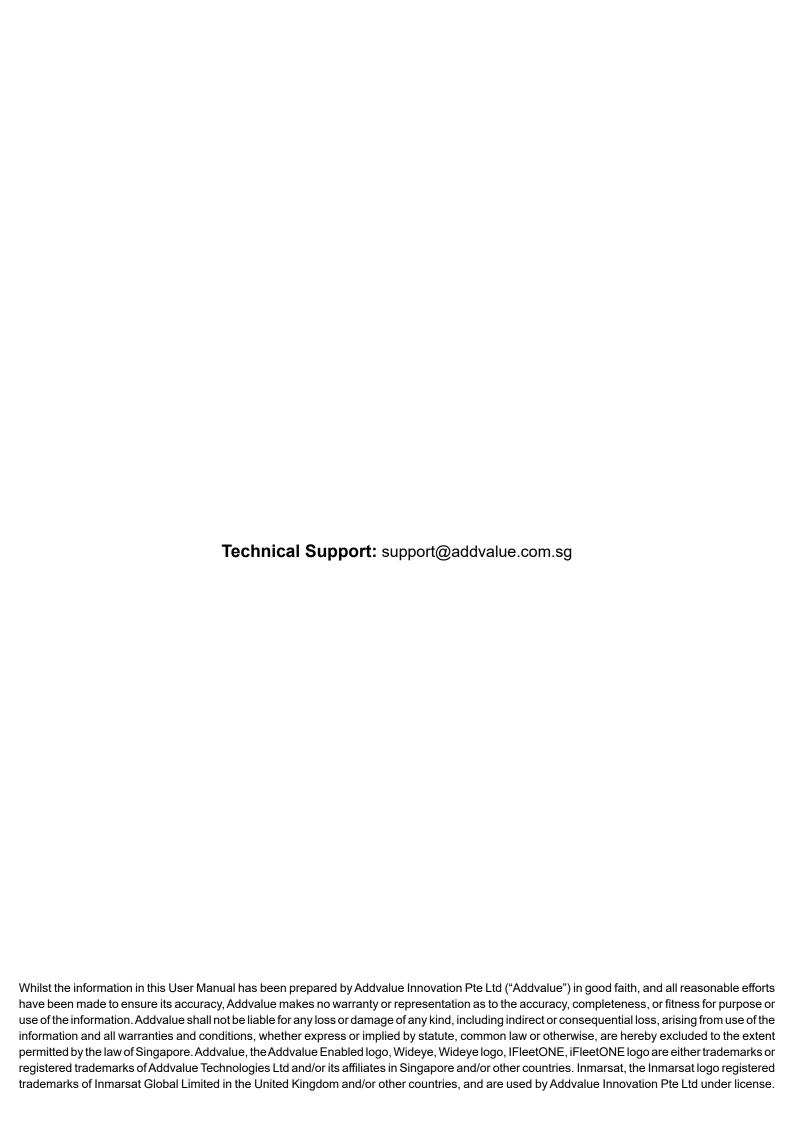




ÎFIeetONE

Satellite Terminal

User Manual Revision 3.1



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CERTIFICATION

FC FEDERAL COMMUNICATION COMMISSION NOTICE

FCC Identifier: QO4-WEFLONEVTWO

USE CONDITIONS

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.

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 of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver.
- Connect the equitment 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.

IMPORTANT NOTE: EXPOSURE TO RADIO FREQUENCY RADIATION

This device complies with FCC radiation exposure limits set forth for an uncontrolled environment. The antenna used for this transmitter must be installed to provide a separation distance of **at least 1m** from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

iFleetONE Terminal User Manual

FCC CAUTION:

Any changes or modifications not expressly approved by the manufacturer could void the user's authority, which is granted by FCC, to operate this iFleetONE Maritime Satellite Terminal.

Industry Canada Statement:

IC: 5023B-WEFLONEVTWO

This device complies with Industry Canada's license-exempt RSSs. Operation is subject to the following two conditions:

- 1. This device may not cause interference; and
- 2. This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

- 1. l'appareil ne doit pas produire de brouillage;
- 2. l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

CE RED DECLARATION OF CONFORMITY

8 Tai Seng Link, Level 5 (Wing 2), Singapore 534158 Tel: +65 6509 5700 Fax: +65 6509 5701 www.addvaluetech.com



RED Declaration of Conformity

We,

Company : Addvalue Innovation Pte Ltd

Address : 8 Tai Seng Link, Level 5 (WING 2), Singapore 534158

Phone Number : +65 6509 5718 : +65 6509 5701 Fax Number

Declare under our sole responsibility that the product:

Product : Maritime Communication System, iFleetOne

Wideye Brand Name Type or Model : Fleet One V2 Hardware version

Firmware version : R00.1.0.162

Others Antenna Unit: iFleetOne ADU - Maritime FleetBroadband Inmarsat Class 14 Radom Antenna

Main unit: iFleetOne WIFI monopole antenna model: Monopole Antenna, 2dBi.

Software and hardware of this product is not allowed to changed or modified by end-user.

is in conformity with the following standards and/or technical specifications (References to standards/specifications must be listed with their identification number and version and, where applicable, date of issue)

Health & Safety (Article 3.1(a) EN 60950-1:2006/A2:2013

EN 62311:2008

EMC (Article 3.1(b) ETSI EN 301 489-1 V2.1.1: 2016

Draft ETSI EN 301 489-19 V2.1.0: 2017 ETSI EN 301 489-17 V3.1.1: 2017 ETSI EN 301 489-20 V1.2.1: 2002 EN 61000-3-2:2014

EN 61000-3-3:2013 EN 60945 :2002

Radio Spectrum (Article 3.2) EN 301 444 V2.1.2: 2017

EN 300 328 V2.1.1: 2016 EN 303 413 V1.1.1: 2017

Other (Article 3.3)

We hereby declare that the above-named product is in conformity to all the essential requirements of Directive 2014/53/EU with the involvement of the following Notified Body under Annex III Module B of the Directive for Article 3.2 only:

Timco Engineering, Inc. 849 N.W. State Road 45 Newberry, Florida 32669 United States

Identification Mark: Type Examination TCF-1604SC17 1177 Certificate No:

The technical documentation relevant to the above equipment will be held at: Company (or name of EU representative): Addvalue Innovation Pte Ltd

Address (or address of EU representative): Singapore

Date: 29 August 2017

Name of Authorised Person: Garcia Day Villo Place of Issue: Singapore Job Title: Manager, Reliability Engineering (e.g. City/town, and Country)

Note (not forming part of this declaration): The information required to identify all applicable Union acts should be available in a single EU declaration of conformity. In order to reduce the administrative burden on economic operators, that single EU declaration of conformity. In order to reduce the administrative burden on economic operators, that single EU declaration of conformity may be a dossier made up of relevant individual declarations of conformity. Please see Recital 42 and Article 18 of the RED.

Mobile Earth Stations (MES) 1668 – 1670 MHz is under restricted usage under ECC Decision ECC/DEC/(04)09 for EU Countries. User/Operator shall check with local Radio Spectrum regulator for necessary operating license and restriction usage and protection of Local Radio service.

| AT | BE | BG | CZ | DK | EE | FR | DE | IS | ΙE | IT |
|----|----|----|----|----|----|----|----|----|----|----|
| EL | ES | CY | LV | LI | LT | LU | HU | MT | NL | NO |
| PL | PT | RO | SI | SK | TR | FI | SE | СН | UK | HR |

SAFETY INSTRUCTIONS

For safety and protection, read the manual before attempting to use the iFleetONE User Equipment (UE).

The following general safety precautions must be observed during all phases of operation, service and repair of this equipment. Failure to comply with these precautions or with specific warnings elsewhere in this user guide violates safety standards of intended use of the UE.

Addvalue Innovation Pte Ltd assumes no liability for the customer's failure to comply with these requirements.

Hazard Symbols

| Hot Surfaces | Avoid touching those areas of the UE that are marked with this symbol otherwise it may result in injury. |
|---|--|
| Antenna Radiation Warning and Distance to other Radiation Equipment | For safety reasons, all personnel must keep at least 1 meter from the antenna. |
| Power Supply | Turn off the power at the mains switchboard before beginning of the installation. Confirm the power voltage is compatible with voltage rating of the equipment. It is highly recommended to use 12V - 24VDC, 12.5A - 6.25A power supply, provided that it is available on the vessel. If there is no suitable DC power line provided by the vessel, an external AC/DC power supply (input range of 100~240V AC, 50~60Hz) with an output of +24VDC, 6.25A can be used. Note: The requirements of the AC/DC power supply should take care of high surge current of 25A at 24V DC for 1ms. |

| Grounding, cables and connections | The chassis of the equipment must be connected to an electrical ground. This will minimise electric shock and mutual interference. In short, the UE must be grounded to the vessel. |
|-----------------------------------|--|
| Service | Do not attempt to access to the interior of the equipment. Only qualified personnel authorized by its manufacturer may perform service. Failure to comply with this rule will result in the warranty void. Under certain conditions, dangerous voltages may exist even with the power cable removed. To avoid injuries, always disconnect power before accessing the equipment. |

Equipment Ventilation

To ensure adequate cooling of the terminal, 5 centimeters of unobstructed space must be maintained around all sides of the unit except the bottom side. The operational temperature range of the transceiver is: -25°C to +55°C.

Fire Precautions

The equipment shall not be operated in the presence of flammable gases or fumes as well as any explosive atmosphere. Operation of any electrical equipment in such an environment constitutes a definite safety hazard.

Obtaining Licensing For Inmarsat Transceivers

Under rights given under ITU Radio Regulations, local telecommunications administrations establish and enforce national rules and regulations governing types of emissions, power levels, and other parameters that affect the purity of signal, which may be radiated in the various frequency bands of the radio spectrum.

To legally operate Inmarsat equipment, it is necessary to obtain permission from the local telecommunications regulatory authorities of the country you are operating from. Using your equipment in any country without permission causes you to run the risk of confiscation of the equipment by the local authorities. The normal procedure to bring such equipment into another country is to apply for a license before travel. If a license has not been obtained before travel, the equipment may be put in to storage by local authorities until such time that a license is obtained.

IMPORTANT INFORMATION TO INSTALLERS AND USERS

General

It is important that the user of this equipment read and observe all safety requirements and operate the terminal according to the descriptions published in this manual.

Failure to comply may result in risk of injury or equipment failure and voids the validity of the warranty provided by equipment manufacturer.

The terminal consists of 2 units; the BDU and the ADU. They must be used as provided by the manufacturer or authorized dealer. Do not substitute any one part of the system which is not provided by the manufacturer or authorized dealer. Should servicing or replacement be required; always contact the distributor or manufacturer for instructions and assistance.

Any modifications or attempts to open the devices by non-authorized personnel will void the warranty.

Contents in this manual are subjected to change without notice and may contain errors or inaccuracies. The manual is periodically revised and updated. To obtain the latest version, please enquire about it from the product manufacturer or distributor.

RF Specifications

Operating Frequencies:

Transmit : 1626.5 MHz - 1660.5 MHz and 1668 MHz - 1675 MHz

Receive : 1518 MHz – 1559 MHz

Transmit EIRP : 15.1 dBW

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1 INTRODUCTION

The iFleetONE terminal is a dedicated compact solution designed to meet the Fleet One services requirements for the targeted maritime market segments. The Fleet One data service offers a throughput of up to 150 kbps. The service offers both voice and IP data connectivity which operates over Inmarsat's existing BGAN network.

Note: The throughput is dependent on the local operating conditions and is likely to be less than 150 kbps in some locations.

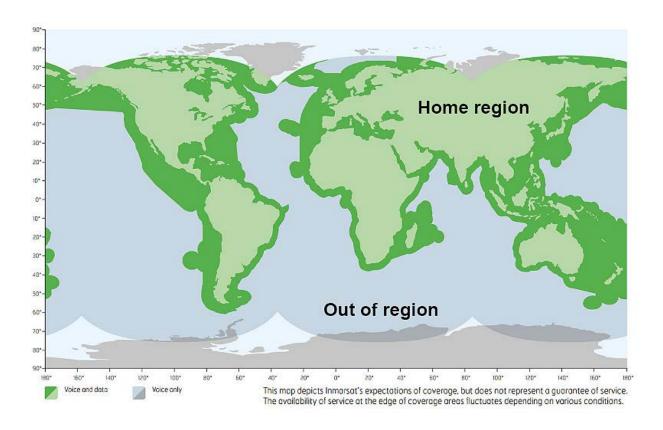
The terminal has been designed for maritime conditions, with ingress protection and compact dimensions for both above and below-decks equipment.

1.1 Fleet One Coverage

The Inmarsat Fleet One Service has two variants; the Fleet One Coastal service and the Fleet One Global service. The Fleet One Coastal service has a specific service plan and is only available in those green areas shown on the coverage map (see below).

Coastal Fleet One Coverage

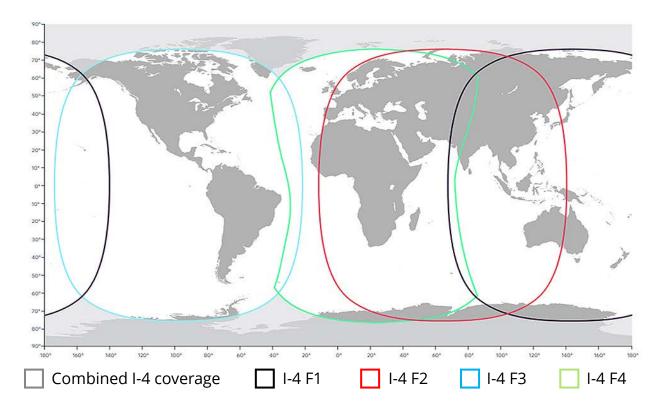
Fleet One Coastal coverage and rate regions



The **green** areas represent the voice and data services and they are known as the "**Home Region**" area. The area outside the home region is known as "**Out of Region**" which supports only voice service (including 505 emergency call). The network will disable data service if the vessel is outside the Home Region area.

The Fleet One Coastal service is available for vessels under 500 gross tonnages.

Global Fleet One Coverage



The Fleet One Global service supports the data service throughout the entire Inmarsat coverage areas of Alphasat and I-4 constellation. There are no vessel size restrictions.

1.2 Services

- Email and webmail
- Secure communications
- Intranet and internet access
- SMS and instant messaging
- Phone service
- Large file transfers

1.3 Features

The iFleetONE offers the following features:

| Services | Inmarsat Fleet One |
|----------|--|
| Coverage | Voice and data are available globally except for the extreme polar regions.* |
| Voice | 4kbps AMBE+2. |
| SMS | Standard 3G (up to 160 characters) per SMS. Maximum of 4 chained SMS. |
| Data | Standard IP: Up to 150 kbps |

Note: Operates down to antenna elevation of 5° line of sight to the Inmarsat I-4 satellite (performance may be reduced further at lower elevation angles).

The UE supports both voice and data services simultaneously. The built-in Web Console allows you to manage your phone book, messages and calls, and to customize the terminal to your specific needs.

1.4 Interfaces

The iFleetONE UE has the following interfaces:

- +12V / 24V DC Power Input Connector
- Antenna Connector (N-Type)
- SIM Card Slot for Fleet One SIM card
- Dedicated Primary Handset Port
- GPS Output Port
- RJ11 Telephone Socket
- RJ45 LAN Socket
- GPIO

2 MAIN UNITS

The iFleetONE terminal includes the following main units:

- iFleetONE BDU
- iFleetONE ADU

The wired Primary Handset is an optional accessory.

2.1 Above Deck Equipment (ADU), Antenna Unit

The iFleetONE ADU is a mechanically stabilized maritime antenna. The antenna is self-tracking based on patented beam squint technology. Tracking is accomplished by measuring signals being continuously broadcast from the satellite.

- The radome covers the antenna unit, which comprises:
- Antenna Module
- RF and GPS Module
- Rotary Joint
- · Antenna Pedestal

The antenna unit includes a low noise amplifier (LNA), high power amplifier (HPA), and tracking receiver circuitry to ensure communication even in adverse circumstances.



All signals (and DC power) pass through a single coaxial antenna cable, which connects the ADU to the BDU.

2.2 Below Deck Equipment (BDU), Transceiver Unit

The BDU has been developed for maximum flexibility and is the controlling unit for the iFleetONE UE. It features reliable industry standard interfaces and enables users to have optimal connectivity no matter what the conditions or your position at sea.



The BDU has a built-in Web Console, which can be accessed from a computer connected to the BDU, using a Web browser. The Web Console provides easy configuration of the BDU, firmware upgrade and daily use. For more information, see **Chapter 5**, **Using the Web Console**.

The BDU is supplied by a +12V or +24V DC power supply, and it supplies power to the ADU via a single RF/coaxial antenna cable.

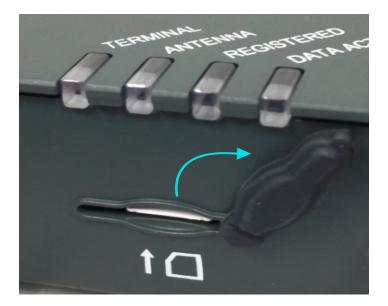
Status LEDs



There are 4 Status LEDs to indicate the operational status of the BDU. Each LED is assigned to the following function:

- BDU Terminal Status
- ADU Status
- Registered to Network Status
- Data Active Status

SIM Card Slot



Lift and rotate the SIM Card slot protective cover to access the SIM card slot. The UE requires a dedicated Fleet One service SIM card to access the network and to configure the settings of the UE.

Front Panel

The following diagram shows the front panel of the BDU.



- 1. Antenna (N-Type) Connector
- 2. Wi-Fi Antenna Connector
- 3. GPIO Port
- 4. GPS Output Port
- 5. LAN Port (RJ45)
- 6. Phone Port (RJ11)

- 7. SIM Card Slot
- 8. Primary Handset Port
- 9. Grounding Stud
- 10. DC Power Connector
- 11. ON / OFF Switch

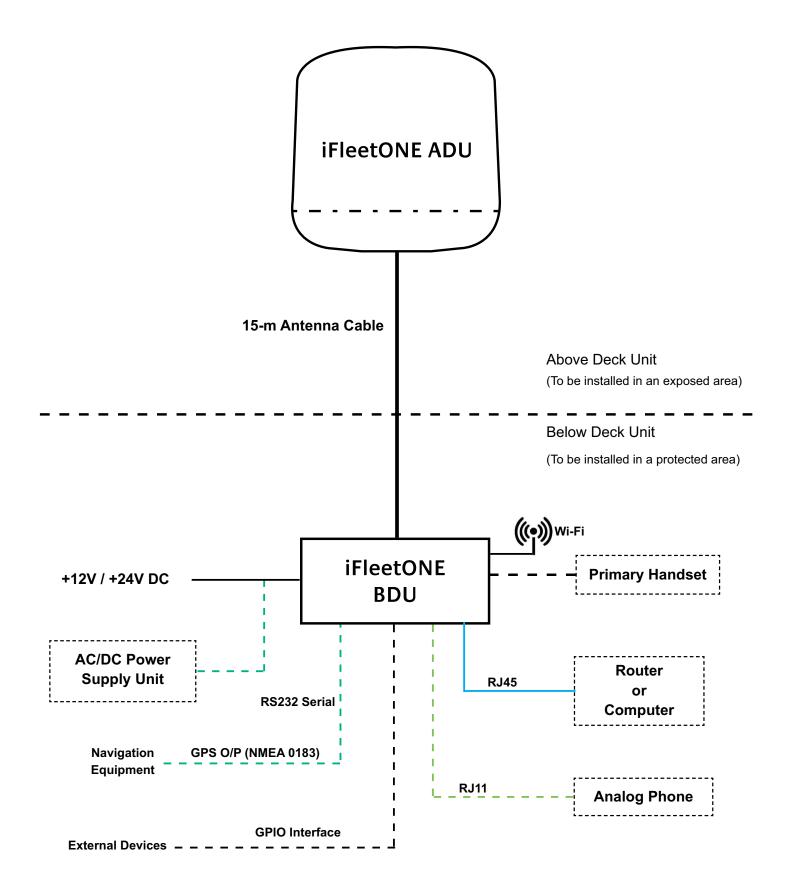
2.3 Optional Primary Handset



The wired Primary Handset has a colour liquid crystal display (LCD) and keypad for making and receiving normal voice calls and sending SMSs using an interface similar to a mobile phone. The user may access various BDU functions via the handset. The Primary Handset connector is plugged into the BDU primary handset port and it is powered directly from the BDU.

3 GETTING STARTED

3.1 System Configuration



3.2 Preparation for Operation

3.2.1 Installing the SIM Card

The terminal requires a Fleet One service SIM card to access the Inmarsat network and to configure the settings of the BDU. Your airtime service provider will be able to supply further information.

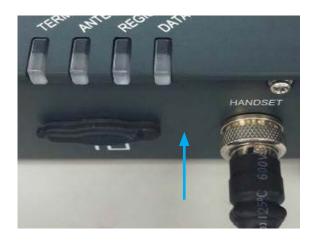
Note: Ensure that the BDU is switched off before inserting or removing the SIM card.

- a. Lift and rotate the SIM card slot protective cover and position the SIM Card (with its gold contacts facing down. Refer to the symbol of a SIM card labelled on the front panel to ensure the correct orientation of the SIM Card before it is inserted.)
- b. Push the SIM card gently into the slot until it is locked in place.
- c. Close the SIM card slot protective cover.



3.2.2 Connecting the Optional Primary Handset

a. If supplied, plug in the Primary Handset connector into the Handset port on the BDU front panel and tighten the locking ring.



3.2.3 Connecting Other Equipment

- a. Connect a LAN cable (which is provided) between RJ45 port and a suitable laptop.
- b. Connect a telephone cable (which is not supplied) between RJ11 port and a PSTN handset (if required).

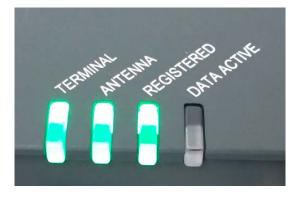


3.2.4 Powering Up the Terminal

a. Use the ON/OFF switch on the BDU's front panel.



b. Wait for the LED indicators (**TERMINAL**, **ANTENNA and REGISTERED**) to turn green to indicate the terminal is completely powered. Refer to the table below for meaning of the status indicators.



| LED Name | Status | Meaning |
|-------------|----------------|--|
| | Steady Amber | Terminal (BDU) is powering up. |
| TERMINAL | Steady Green | Terminal (BDU) has powered up successfully. |
| TERWINAL | Steady Red | Terminal (BDU) has detected a failure state. |
| | Off | Terminal (BDU) is in OFF state. |
| | Steady Amber | ADU is powering up. |
| | Blinking Amber | ADU is calibrating. |
| | Blinking Green | System is performing satellite search. |
| ANTENNA | Steady Green | System has locked on to the satellite. |
| | Steady Red | ADU has detected a failure state. |
| | No light (Off) | ADU is in OFF state. |
| | Steady Amber | Attempting network registration |
| | Blinking Amber | Ready for Voice only. |
| REGISTERED | Blinking Green | Ready for Data only. |
| REGISTERED | Steady Green | Ready for all (Voice and Data). |
| | Steady Red | Network failure / Registration error. |
| | No light (Off) | No network service. |
| | Steady Amber | Activating data connection. |
| DATA ACTIVE | Steady Green | Data connection is ready. |
| DAIAACIIVE | Steady Red | Data activation failure |
| | No light (Off) | No data connection. |

4 USING THE OPTIONAL PRIMARY HANDSET

4.1 The Primary Handset

The Primary Handset is an optional accessory and is connected to the iFleetONE UE using the dedicated HANDSET port and is powered directly from the BDU. Equipped with a large 2", 65K color, TFT, 220 x 176 pixel Liquid Crystal Display (LCD), the Primary Handset not only acts as a standard phone that allows you to make and receive voice calls, it also serves as a remote access device to access various configurations supported by the BDU.

Primary Handset offers the following features:

- Making standard CS voice calls
- Making standard PS background data connections
- Messaging (SMS)
- User contacts (combined SIM and BDU storage)
- Speed dial
- Call logs
- · Managing BDU security settings
- · Accessing BDU settings that includes:
 - Ethernet options
 - Ciphering control
 - Supplementary services
 - Transceiver restart
 - Limited factory reset
- · Displaying various BDU status and information
- Local handset configurations



4.2 Powering Up the Primary Handset

The Primary Handset is automatically powered up once it is connected to the dedicated **HANDSET** port. Depending on the conditions of the BDU, the Primary Handset may start in the following modes:

4.2.1 Full functional mode

In full functional mode, there is no PIN authentication required to start using the iFleetONE terminal. All BDU settings including contacts, messages and call logs are loaded into the local memory of the Primary Handset once the BDU is configured. You will be able to access all the menus and make voice or data calls once the Primary Handset is ready.

4.2.2 PIN mode

User is required to enter the correct PIN/password before proceeding to **Full functional mode**, refer to the **Security settings** menu for more information on the types of security PIN for the BDU.

To enter the PIN:

- 1. Key in the security key PIN using the alpha-numeric keypad.
- 2. Press ok key to confirm.

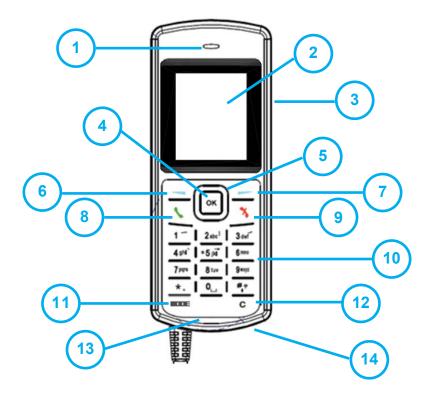
To cancel PIN entering:

- 1. Press the Right selection key.
- 2. Confirm to start in Emergency only mode by pressing the (ok) key.

4.2.3 Emergency only mode

PIN authentication is bypassed (i.e. if you have forgotten the required PIN). You can only make emergency calls or access the Phone manager menu in this mode.

4.3 The Primary Handset (Optional Accessory)



- 1. Earpiece
- 2. Display
- 3. Ear-set Jack
- 4. OK Key
- 5. 4-Way Navigation Keys
- 6. Select Left Key
- 7. Select Right Key
- 8. Call/Send key
- 9. End key
- 10. Keypad (Alpha-numeric)
- 11. Mode Key
- 12. Clear Key
- 13. Microphone
- 14. Service Port
- 15. Ringer*

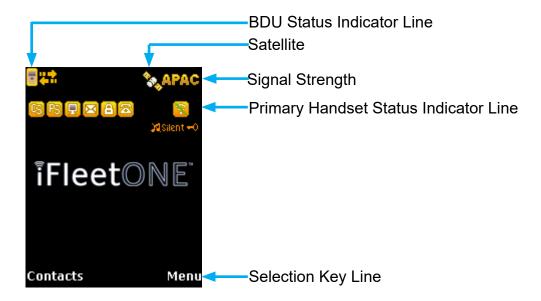
Note: * The ringer is located at the back of the Primary Handset.

4.3.1 Keypad - Description and Functions

| Keys | Description/Functions |
|------|--|
| | 4-way navigation ring |
| (OK) | Press the 4-way navigation ring to scroll left, right, up, and down on the display. Enables scrolling through names, phone numbers, menus or settings. |
| | OK key |
| ОК | Pressing this key selects/confirms the function highlighted on the display. |
| | Left selection key |
| | The function of this key depends on the guiding text shown on the display above the key. |
| | Right selection key |
| | The function of this key depends on the guiding text shown on the display above the key. |
| | Call/Answer key |
| | After entering a phone number: Initiates a call to the number. |
| | From Main Display screen: Opens a list of dialed calls |
| | When Ringing: Answers the incoming call. |
| | Call/Menu End key |
| * | Press this key to end active calls or exits from any menus or sub menus. |

| | Koynad |
|---------------------|---|
| | Keypad |
| 1 2 abc 3 def | Used to enter numbers and characters. |
| 4 ghl | Press 0 to add a space when writing text. |
| 7 pqrs 8 tuv 9 wxyz | |
| | The functions available depend on wheth- |
| 0 _□ | er you are typing a phone number (number |
| | mode) or text (text mode). |
| | Star * key |
| | otal Roy |
| | When entering a phone number, press this |
| | key to insert a *. Press and hold this key to |
| 4 | insert a +. |
| * + | |
| | M/L |
| | When writing text, press this key to access a |
| | list of special symbols. |
| | Hash # key |
| | inden ii ney |
| | When entering a phone number, press this |
| | key to insert a #. |
| | |
| # | To quickly change the text input method |
| ″ • | when writing text, press this key repeated- |
| | ly and check the indicator at the top of the display. |
| | display. |
| | In standby mode, press and hold this key to |
| | set the Primary Handset into silent mode. |
| | 100 100 1000 |
| | Mode key |
| | Unplug the handset from BDU. Press and |
| | hold this key when the handset is unplugged |
| MODE | and then reinsert the plug to the BDU. The |
| | handset powers up in Firmware Upgrade |
| | Mode. |
| | |
| | Clear Key |
| | Press key once to clear one character at a |
| | time or press and hold this key to clear the |
| | whole text entry. |
| | |

4.3.2 The Main Display Screen



BDU Status Indicator line

The indicator line shows status symbol informing you about the operating conditions of the BDU.

Satellite

The indicator line shows status symbol informing you about the satellite service.

Handset Status Indicator line

The indicator line shows status symbols informing you about the operating conditions of the Primary Handset.

Selection Key line

The Selection key line operates using the Left — or Right — selection keys with the key to access menus and controls.

Primary Handset Status Indicators

Table below explains the meaning of each status indicator displayed in the Main Display screen.

| Status Indicator | Description |
|------------------|--|
| | New short message (SMS) in inbox. |
| CS C | Available CS domain services. |
| PS | Available PS domain services. |
| | Data connection is active. |
| <u> </u> | Ciphering is enabled. |
| ** | Radio silent is enabled. |
| -0 | Primary Handset keypad lock is active. |
| | Primary Handset disconnected from BDU. |
| | Primary Handset connected to BDU. |
| * APAC | The terminal has locked on to Inmarsat satellite "I-4 Asia Pacific". |
| *,EMEA | The terminal has locked on to Inmarsat satellite "I-4 EMEA". |
| * AMER | The terminal has locked on to Inmarsat satellite "I-4 Americas". |
| * MEAS | The terminal has locked on to Inmarsat satellite "I-4 MEAS". |
|) ≰silent | Primary Handset in silent mode. |
| attl | Signal strength. |

4.3.3 Primary Handset Operations

Making a Voice Call

Before making a voice call, please make sure that:

- The Primary Handset is connected to the BDU. (Status indicator should be on.)
- The Primary Handset is NOT radio silent. (Status indicator should be off.)
- The BDU has successfully registered with the network and is ready for CS domain (voice) services. (Status indicator should be on.)

You can use the following two options for making a call:

- Manual Dial:
- 1. Using the alphanumeric keypad, dial 00 <country code> <phone number>.
- 2. Press key.
- Using Contacts or Call Log list from the Primary Handset:

Enter the **Contacts** list of the Primary Handset; scroll to the desired number and press key, or



Enter the **Log** list of the Primary Handset; scroll to the desired number and press



key.

Note: For voice calls and SMS, you may also use '+' by pressing and holding the key instead of "00" at the beginning of dialled number string as an alternative ('+' <country code> <phone number>).

To End a Call





Receiving a call

When there is an incoming call, the Primary Handset will ring.

The calling party's number will be displayed on the screen. If the number is stored in the contact, the corresponding name of contact will be displayed.

To answer an incoming call, press the

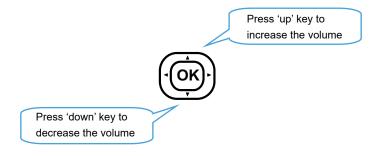


Adjusting volume during a call

Use the 4-way navigation ring



to adjust the volume.



Using the Menus

You can access the Menu System by pressing the Right —— selection key in the Main Display screen.

The main menu of the Primary Handset includes nine (9) menu options with each menu option having their respective sub-menus.

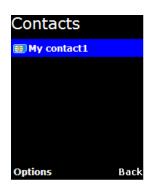
You can use the 4-way navigation ing to navigate to the desired menu option and to confirm your selection. You can also end the menu or sub menus and return to the Main Display screen at any time by pressing the

iFleetONE Terminal User Manual

Table below summarizes the functionalities within each menu option:

| | Contacts |
|------------|--|
| | This menu manages your user contacts. |
| | Log |
| | This menu allows you to view call histories. |
| ₩ P | Telephony |
| | This menu configures settings related to CS voice telephony services. |
| | Data |
| | This menu configures settings or connections related to PS data services |
| | Messaging |
| | This is menu is for SMS related services. |
| 2 / | Settings |
| | This menu configures general BDU settings. |
| | Transceiver |
| | This menu displays general BDU information. |
| | Security settings |
| | This menu configures security settings related to the BDU . |
| * | Phone manager |
| | This menu configures local handset settings. |





The **Contacts** menu allows you to store, retrieve and update names and phone numbers of your contacts in the SIM card memory. You can also access this menu by pressing Left selection key in Main Display screen.

This menu lists all the contacts saved in the SIM card memory where, indicates contacts that are saved in SIM card.

The following options are available when pressing the Left —— selection key while browsing through the contacts:

New contact

Add new contact to the memory. To add contact:

- 1. Select New contact.
- 2. Select where you want to store the contact (BDU or SIM).
- 3. Enter the name for the contact.

Note: Press ** key to browse for symbols.

4. Enter the number for the contact.

Note: Stored number can be in any one of the following formats:

- '+' <country code> <phone number>
- 00 <country code> <phone number>

Press key to insert '+' sign.

Saving a contact without a telephone number is not allowed.

5. Select Save (Left — selection key) or pressing the key to save the contact to the selected memory.

Note: Refer to "Tips for writing the text" section under New message for more information on text writing.

Search

Select this to enter a specific name to search within the contact list.

iFleetONE Terminal User Manual

Delete

Delete selected contact.

Note: You can also delete the selected contact by pressing the Clear key.

Copy

Select this to copy the selected contact from SIM card memory to BDU memory or vice versa.

View number

Display the number of the selected contact.

Assign Speed Dial

Add the selected contact to the speed dial list.

Reload Contacts

Select this to reload contacts from the BDU/SIM card into the local memory of the Primary Handset.

Memory Status

Select this to view the memory status available for contacts.

While browsing through the contact list, press the or the selected contact. The following options are available when pressing the Left selection key while viewing the selected contact:

Call

Make a voice call to this contact.

Send message

Open a SMS editor to send a text message to this contact.

Edit contact

Edit information of this contact.

Delete

Delete this contact.

Copy

Select this to copy this contact from SIM card memory to BDU memory or vice versa.

Forward contact

Forward information of this contact using SMS.

Assign Speed Dial

Add this contact to the speed dial list.

Note: You can also make a voice call to the selected contact when browsing through or viewing

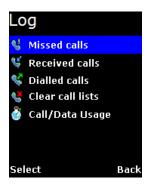
the contacts by pressing the Call



key.



Log Menu



The **Log** menu allows you to view historical information about phone calls and data usage in chronological order with the following sub menus:





Call history of the particular category is displayed in chronological order when selected. Up to 5 latest entries of each category can be saved.

The following options are available when pressing the Left —— selection key while browsing through or viewing the call log:

Delete

Delete the selected log entry from the list.

Note: You can also delete the entry by pressing the Clear **C** key.

Call

Call the number in the selected log entry.

Send

Send an SMS to the number in the selected log entry.

Save

Save the number from the selected log entry to the contact list.

Note: This option is not available when the log entry already has an entry in the contact list.

You can also make a voice call to the number of the selected log entry when browsing through or viewing the call log by pressing the Call \(\section \) key.



Clear call lists

Select this to clear the call log entries. Available log options are:

- Missed calls
- Received calls
- Dialled calls
- All calls

Delete all logs including Missed, Received and Dialled logs.

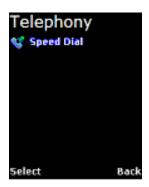


Call/Data usage

Display the accumulated call duration and data bytes. Press Left — selection key to clear the call or data duration volume.



Telephony Menu



The **Telephony** menu allows you to configure telephony related settings with the following submenus:



Speed dial

Setting

Contain options to enable/disable the speed dial feature.

Speed Dial List

Select this to configure the speed dial list. The following options are available when pressing the Left — selection key while browsing through the list:

Assign

Assign a contact to the selected entry. To assign a contact:

- 1. Select Speed Dial List.
- 2. Browse through the list to locate an empty entry.
- Select **Options** by pressing Left selection key.
- 4. Select **Assign** and press or from the option.
- 5. Select the desired contact to assign to the speed dial list.
- 6. Press ok to confirm your selection.

Delete

Remove contact from the selected entry. This option is not available for an empty entry.

Note: You can also delete the entry by pressing the Clear **C** key.

Call

Make a call using the number from the selected entry. This option is not available for an empty entry.

Note: You can also make a voice call to the number of the selected entry by pressing the Call key.

You can make a voice call directly from the Main Display screen by pressing the corresponding speed dial entry number + Call key once the speed dial feature is enabled with a valid contact entry.





The **Data** menu provides the following sub menus to manage and configure data connections (PDP profiles) for the BDU:



Manage profiles

Allows you to manage the Primary PDP profile.

· Standard profile

One **Standard** Primary PDP profile has been created in the Primary profile list as a default profile.

You can press the Left — selection key for options available when browsing through the profile list. The list of options is:

Edit

Edit the profile.

Delete

Delete the profile.

Editing profiles

You can press the Left — selection or key from the option list to add new or edit existing profile settings.

Profile name

Specify the name of the profile.

Connection type

Standard connection type is supported.

APN

Specify information for the APN (Access Point Name). Further available settings are:

APN: Specify the Access Point Name for the connection. Default APN is taken from the SIM card. Enter your own APN if you do not want to use the default APN.

Username: Specify the user name for Static IP configuration. Default is blank for Dynamic IP configuration.

Password: Specify the password for Static IP configuration. Default is blank for **Dynamic** IP configuration.

You can press the Left — selection key for the following options:

Edit

Edit the selected APN setting.

Fetch from SIM

Fetch the APN from the SIM card. This option is only available when APN is highlighted.

IP configuration

Contain options for Static or Dynamic IP. Default is Dynamic.

IP address

Specify the IP address for **Static** IP configuration. This field is ignored for Dynamic IP configuration. Default is blank for **Dynamic** IP configuration.

Header comp

Contains options to enable or disable header compression. Default is **Enabled**.

Note: You will be prompted to save the changed settings before exiting the sub menu. Press Left —— selection key or key to save the changes.

Icon in the profile list indicates that the profile is not active and icon indicates that the profile is currently active in use.



Allows you to check the status of the data connection. You can also activate/de-active a specific profile in the status display list.

Note: You will not be able to enter this sub menu if the BDU has not been registered for PS data service.

Activate primary

This option is available when there is no active data connection. Select this to choose from the profile list for activation.

Deactivate

This option allows you to deactivate an active data connection.

To active a primary data connection when there is no active connection:

- 1. From the data status list, select Options using the Left selection key.
- 2. Select **Activate primary** using Left selection key or key.
- 3. Select from a list of configured primary profile for activation. Press Left selection key or key to confirm.
- 4. You are prompted to confirm activation. Confirm activation by selecting Yes using the Left selection key or key.

Note: It may take a short time to active a data connection.

To de-activate a primary data connection when there is an active connection:

- 1. From the data status list, select Options using the Left selection key.
- 2. Select **Deactivate** using Left selection key or ok key.
- 3. You are prompted to confirm de-activation. Confirm de-activation by selecting Yes using the Left selection key or key.



Messaging Menu



The **Messaging** menu allows the user to write new messages, view stored messages from Inbox, Drafts and/or Sent folders and configure settings related to SMS with the following sub menus:



New Message

Select this to create and send a new message. To create new message:

- 1. Select **New Message** by pressing the key. A SMS editor will be displayed on the Primary Handset screen for writing new message.
- 2. Type in your SMS message using the alphanumeric keypad.
- 3. To send the message, press the $\binom{OK}{K}$ key and select Send.
- 4. Enter the recipient's phone number, and press the (ok) key. Alternatively you can select **Search** by pressing the Left — selection key to select the phone number from the contacts.

Options:

You can press the Left — selection key to select options available when writing the message.

Send

Select this when you are ready to send your message.

Save

Select this to save the message into the **draft** folder.

Clear screen

Select this to clear all the written text.

Tips for writing the text:

• Press the 0 key to add a space.

• To quickly change the text input mode when writing text, press key repeatedly and check the indicator at the top of the display:

<abc>< Capital letters

<123>: Numbers <abc>: Small letters

<abc>: Initial Capital letter followed by small letters

• To add a number in alphabet mode, press and hold the desired number key.

Inserting symbols to your message:

- To get a list of special symbols, press the key.
- Using the 4-way navigation ring (ok) , navigate to the desired symbol.
- Press ok to confirm selection.

Clearing text:

- To clear text, press **C** once to clear one character at a time.
- To clear the whole text entry, press and hold C to clear the whole text entry.

Inbox

Contains new/opened text messages that you have received. When browsing through the messages list using the 4-way navigation ring,

Indicates an unread (new) message and

Indicates read (opened) text messages.

The following are available options when pressing the Left —— selection key while browsing through or viewing the messages in this folder:

Open

Open selected message. You can also press while browsing through the message list to open the selected message (This option is not available when viewing the message).

Reply

Select this to reply to the selected message sender.

Delete

Delete selected message.

Note: You can also delete the selected message by pressing the Clear C key.

Forward

Forward this message to another recipient.

Call

Make a voice call to the selected message sender.

Save

Save the selected message into the Draft folder.

Details

Display the details of the selected message

Add to contact

Select this to add the phone number of the selected message into the contact list.

Note: You can also make a voice call to the selected message contact when browsing through the messages list by pressing the Call key.



Sent

Contain text messages that you have sent. The following are available options when pressing the Left —— selection key while browsing through or viewing the messages in this folder:

Open

Open selected message. You can also press while browsing through the message list to open the selected message (This option is not available when viewing the message).

Delete

Delete selected message.

Note: You can also delete the selected message by pressing the Clear **C** key.

Send

Send the selected message to another recipient.

Save

Add to contact

Select this to add the phone number of the selected message into the contact list.

Note: You can also make a voice call to the selected message contact when browsing through

the message list by pressing the Call





Contain text messages that you have saved. The following are available options when pressing the Left — selection key while browsing through or viewing the messages in this folder:

Open

Open selected message. You can also press while browsing through the message list to open the selected message (This option is not available when viewing the message).

Delete

Delete selected message.

Note: You can also delete the selected message by pressing the Clear ${f C}$ key.

Send

Send this message to another recipient.

Save

Save the selected message into the Draft folder

Add to contact

Select this to add the phone number of the selected message into the contact list.

Note: You can also make a voice call to the selected message contact when browsing through the message list by pressing the Call



Options

The following settings are available in this sub menu:

Message Centre

Select this to set the number of the SMS service centre.

Save sent message

Select this to enable or disable the saving of sent messages. When this option is enabled, all successfully sent messages are saved in the Sent folder.

Memory status

Select this to view the memory status of the messages.

Reload Messages

Select this to reload messages from the BDU into the local memory of the Primary Handset.



Delete all

Select this to clear the messages in a particular folder. Available folder options are:

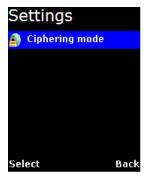
All messages

Delete messages in all folders including Inbox, Sent and Draft.

- Inbox
- Sent
- Draft



Settings Menu



The **Settings** menu provides the following sub menus to configure the BDU:



Ciphering mode

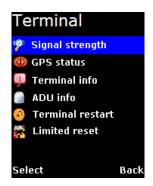
Contain options to enable/disable the use of ciphering mode between the network and BDU.



Note: Status icon is displayed in the Main Display screen when ciphering is enabled.



Terminal Menu



The **Terminal** menu provides the following sub menus to check for information and perform resets on the BDU:



Signal strength

Shows graphical representation of current signal strength and GPS type. Table below describes the available GPS type icons used in this sub menu:

| R= Acquiring | This icon shows that the BDU is in the process of acquiring a GPS fix |
|--------------|---|
| | when there is no previously stored GPS fix. |
| (ENew) | This icon shows that the BDU is using New GPS coordinates. |
| Stored | This icon shows that the BDU is using previously stored GPS coordi- |
| (Stored | nates. |



GPS status

Show current Latitude and Longitude coordinates the GPS type and Time of acquisition by the BDU.



Terminal Info

Display a list of information about the BDU.

Manufacturer

Manufacturer's name of the BDU

Software version

Software version of the BDU

Model

Model name of the BDU

IMEI Number

IMEI number of the BDU

IMSI Number

IMSI number of the SIM card

Subscriber Number

Subscriber's telephone number

Serial Number

Serial number of the BDU.



Display a list of information about the Antenna.

Serial Number

Serial number of the Antenna.

ATB SW version

Software number of the Antenna ATB.

ATB HW version

Hardware number of the Antenna ATB

HPA SW version

Software number of the Antenna HPA.

HPA HW version

Hardware number of the Antenna HPA.



Terminal restart

Soft restart of the BDU.



Limited reset

Performs a limited reset of the BDU. Apart from a full factory reset that is not available from the Primary Handset, a limited reset only resets a small portion of the BDU settings. Stored GPS status, contacts, call logs and event logs are not cleared during limited reset.

You are also required to key in the password when performing the reset. The default password is 0000.

Note: This password is the same as Terminal PIN.



Security settings Menu



The **Security Settings** menu provides the following sub menus to configure the security settings of the BDU using a different PIN:



There are three options available for selection under each sub menus to manage the PIN and security settings for the BDU:

Enable

Enable the selected PIN. The table below summarizes the default PIN codes for each security setting:

| Terminal PIN | Note: Terminal PIN is the same PIN that has to be entered when performing a Limited Reset on the BDU. |
|--------------|---|
| SIM PIN | Depends on your SIM card. Consult your equipment distributor if necessary. Note: You have to enter the PUK (PIN Unblocking Key) to access the SIM card if a wrong PIN for SIM PIN has been entered three times. You will be asked to enter the new PIN code once you have entered the correct PUK. However, the SIM card is no longer usable if you have entered an incorrect PUK for 10 attempts. |

You will be asked to key in the existing PIN (or default PIN if it has not been changed) before the PIN can be enabled.

Disable

Disable the selected PIN. You will be asked to key in the existing PIN (or default PIN if it has not been changed) before the PIN can be disabled.

Change

Change the PIN to a new one. You will be asked to key in the existing PIN (or default PIN if it has not been changed) before the PIN can be changed.

Note: PIN has to be enabled before it can be changed.



Phone manager Menu



The **Phone manager** menu provides the following sub menus to configure settings that are local to the Primary Handset:



Display

Configures settings that are related to Primary Handset display.

Backlight

To set the duration of the display backlight to remain on. Settings range from Always On (Backlight permanently turned on), or 15 seconds to 1 minute.

Note: The backlight will be slightly dimmer and finally turn off when there is no keypad activity after sometime. However, this feature is not available when the setting is set to Always On.



Configures tone setting for the standard and ring tones.

Standard tone

Key tone

Contains options to enable/disable the key tone.

Message tone

Contains options to enable/disable the message tone.

Volume

Configures the volume for the standard tones (both key and message tones). Using the 4-way navigation ring , press up/right to increase and down/left to decrease the volume.

Ring tone

Tone

Selects desired ring tone pattern.

Volume

Configures the volume of the ring tone. Using the 4-way navigation ring right to increase and down/left to decrease the volume.



Language

Allows you to change the menu display language.



Factory reset

Allows you to configure default factory settings of the Primary Handset. Contains the following settings:

Factory reset

Perform factory reset on the Primary Handset



Displays a list of information of the Primary Handset.

Model

Model name of the Primary Handset

Software version

Software version of the Primary Handset

Hardware version

Hardware version of the Primary Handset

Copyright

Contains Copyright message

5 USING THE WEB CONSOLE

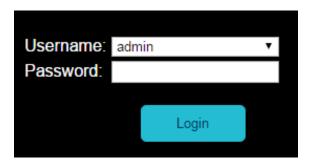
5.1 Register to the Network

- a. Connect your computer to the iFleetONE BDU using a LAN cable.
- b. When the connection has been established, open the web browser (for example: Internet Explorer, Google Chrome or Firefox.).



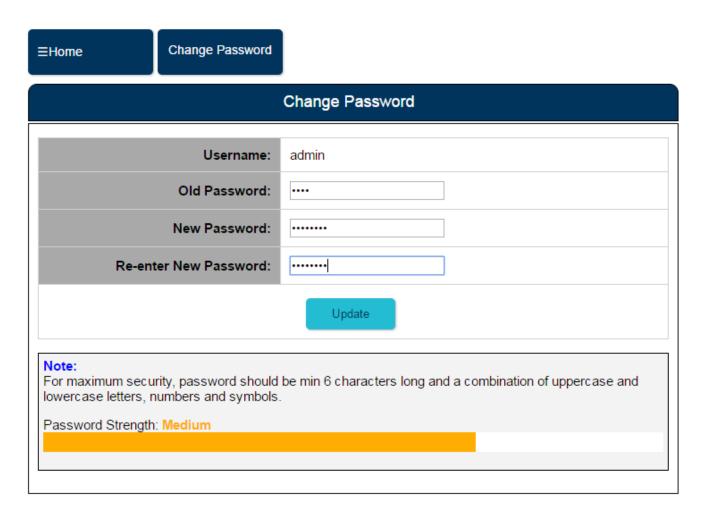
- c. Type http://192.168.1.35 in the Address field.
- d. Username and Password will be prompted.

Default Username : admin Password : 1234

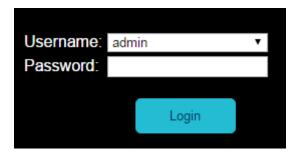


e. Click "Login" button after entering the Username and Password.

f. When using the terminal for the first time, you will be prompted to change the password.



g. After entering the new password and click **Update**, enter the new password and then click **Login.**



The BDU Web Console will appear on the screen.





WARNING: If the signal strength is low (< 50 dB), check any obstruction against the antenna unit or the condition of antenna cable.

The terminal will proceed automatically to "Checking PIN status" followed by "Antenna Pointing" and then registering to the network (upon power on). This process takes 1.5 to 2 minutes to complete.

Once the process is completed, you will see the following message appearing at the bottom line of the Web Console.

"Registered to Network but no active data connection exists. You are now able to make phone calls and send SMSs. Please activate a data connection before doing any data transfer."

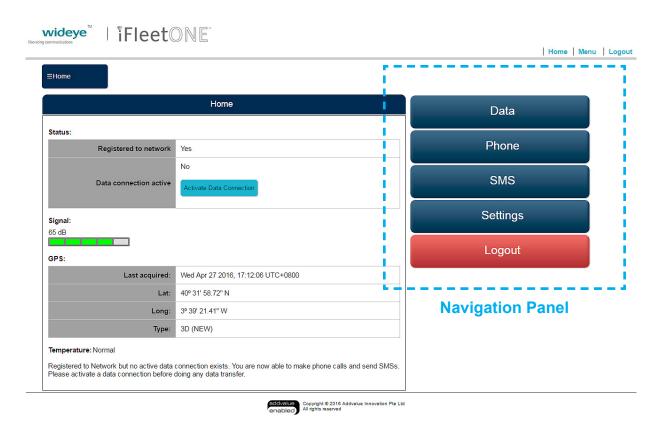
Upon successful registration, with 3 BDU's LED indicators ("TERMINAL", "ANTENNA" and "REGISTERED") lit in green, the UE will be ready for normal operation.

5.2 Navigating the Web Console

5.2.1 Web Console Overview

In the Web Console, there is a selection of "Home", "Menu" and "Logout".

a. Click "Home", the screen will display;



On the Home page, it displays the status, signal strength, GPS information and temperature status of the UE.

| Status | Indicates the status of network registration and data connection active |
|-------------|---|
| Status | (based on its activation or deactivation button). |
| Signal | Indicates the received signal strength (C/No in dB) |
| GPS | Indicates the last acquisition of date and time, latitude, longitude and type |
| | of GPS. |
| Temperature | Indicate the UE's current status of temperature status. |

On the Navigation Panel, you can click a menu item of **Data, Phone, SMS, Settings** and **Logout**. More information of each menu item is described in the section of Navigation Panel.

b. Click "Menu", the screen will display with the menu items;



c. Click "Logout" which is self-explainable.

5.2.2 Navigation Panel

a. Data Menu

Click on Data Menu

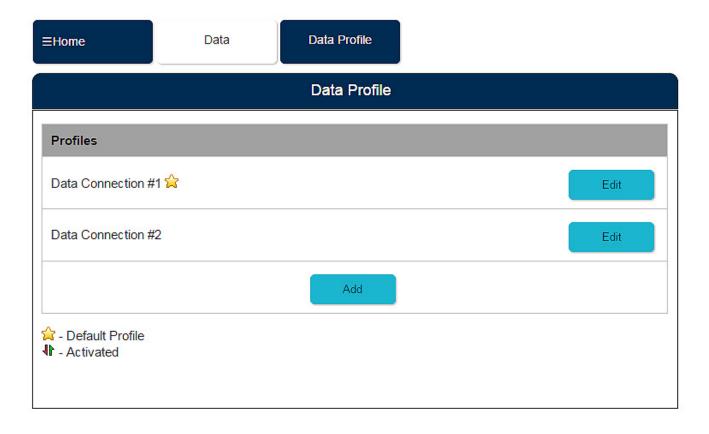


The Data Menu provides the following options;

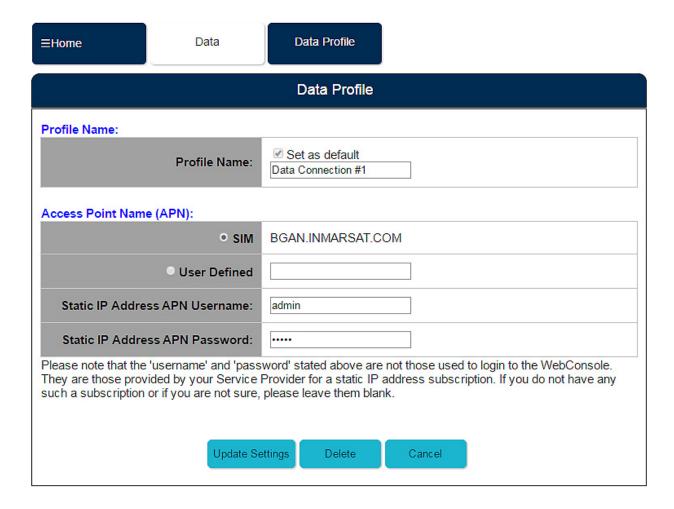


1. Data Profile

Data profile defines the connection type. You can create your own customized profile. Click **Data Profile**



Click Add to create a new data profile.



Profile Name

Change the profile name as desired.

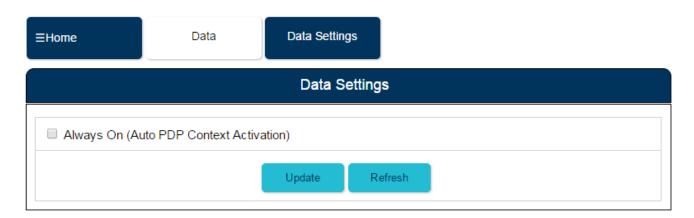
Access Point Name (APN)

By default, the APN from the SIM will be selected.

Follow these steps to change the Access Point Name (APN):

- i. Select User Defined.
- ii. Enter the new APN in the field space provided (e.g. BGAN.inmarsat.com).
- iii. Enter the **Static IP Address APN** username and **Password** (provided by your Service Provider) if required. Otherwise please leave them blank if you do not subscribe the static IP address option.
- iv. Click **Update Settings** to save the data profile.

2. Data Settings



To enable Auto PDP Context Activation, click "Always On (Auto PDP Context Activation)" button and apply Update.

Note: After enabling the "Always On (Auto PDP Context Activation)", it will take effect only upon the next reboot or power cycle terminal.

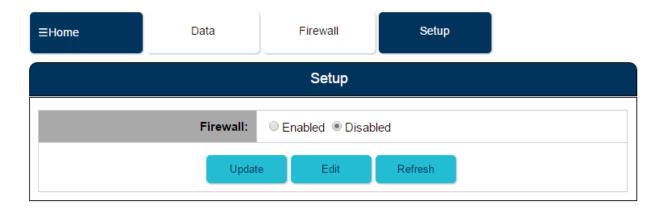
3. Firewall



Setup

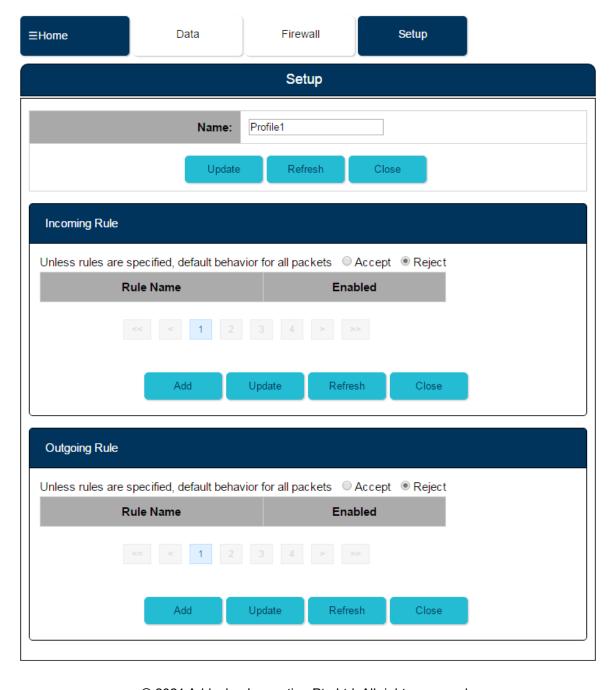
Click Setup.

By default, the Firewall is disabled.





With a selected profile (the maximum of 4 profiles allowed), click **Edit** to include an incoming rule or outgoing rule. Click both **Incoming Rule** and **Outgoing Rule** to expand

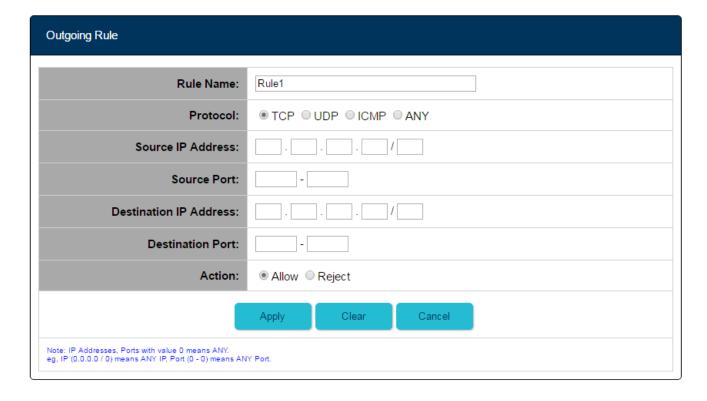


For an **Incoming Rule**, click **Add** to allow or reject incoming packets with options of type of protocol, source IP address and port, and destination IP address and port.



Click Apply to take effect.

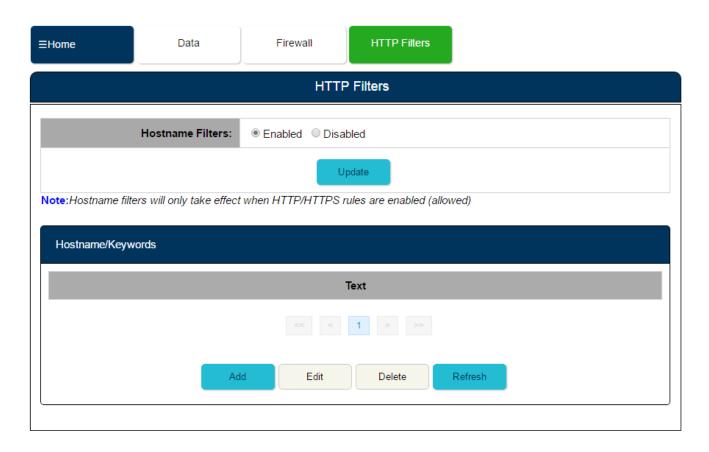
For an **Outgoing Rule**, click **Add** to allow or reject outgoing packets with options of type of protocol, Source IP address and port, and Destination IP address and port.



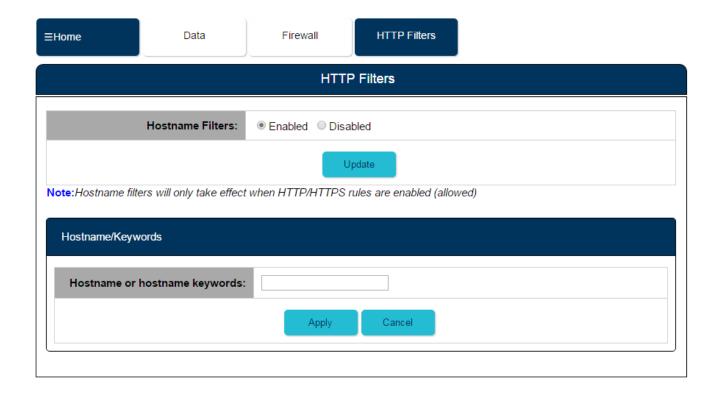
Click **Apply** to take effect.

HTTP Filters

Select option **Enabled** and then click **Update**.



To block any keyword in the content of the accessed page, click **Add** with the keywords in the field and then **Apply** to take effect.



b. Phone Menu

Click on **Phone** menu

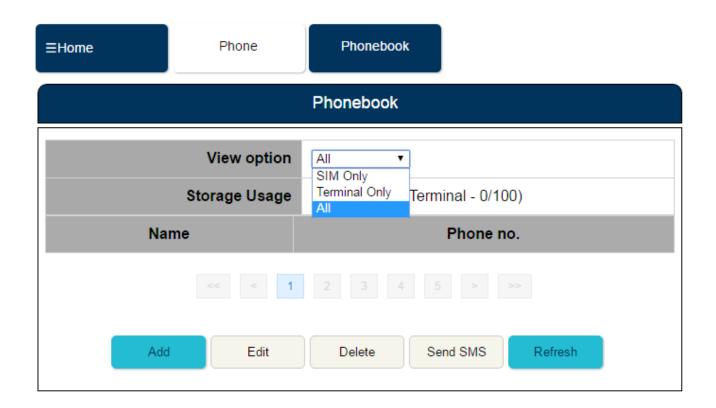


The **Phone** menu has the following options;



1. Phonebook

- The Phonebook entries can be stored on either the SIM card or the Terminal
- It allows you to view, add, edit and delete entries in the Phonebook list.
- You can make and send SMS messages directly from your Phonebook entries.



View option

The View option allows you to view the Phonebook entries from the different storage locations.

From the drop-down menu, select:

| İ | SIM Only | To view the entries stored in the SIM card. |
|---|---------------|---|
| ı | Terminal Only | To view the entries stored in the iFleetONE BDU. |
| | All | To view the entries stored in the SIM card and iFleetONE BDU. |

Storage Usage

Shows the number for Phonebook entries used in the SIM card and Terminal locations.

For example: (SIM - 2/250) indicates:

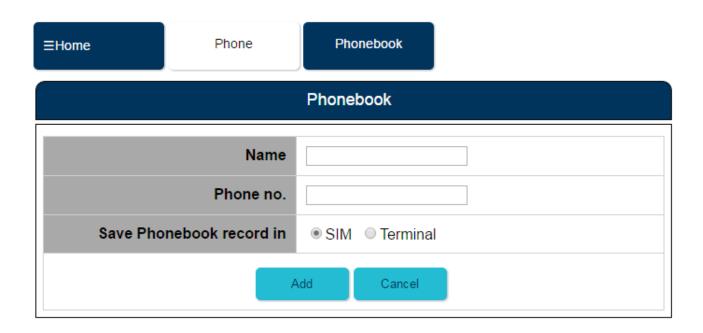
Storage location : SIM card

Total number of entries used : **2**Total number of entries available : **250**

Likewise for (Terminal - 0/100)

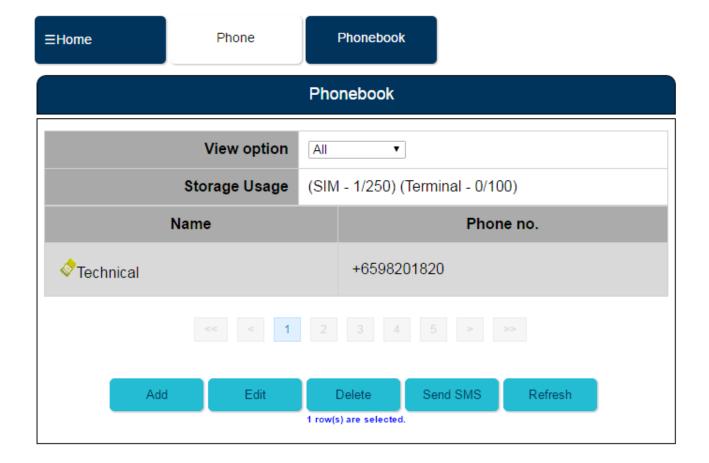
Adding a new Phonebook entry

- i. Click Add.
- ii. Enter the Name and Phone number.
- iii. Select the storage location and click **Add.**



Editing a Phonebook entry

- i. Select the entry from the Phonebook list.
- ii. Click **Edit** to change **Name** and/or **Phone no.**

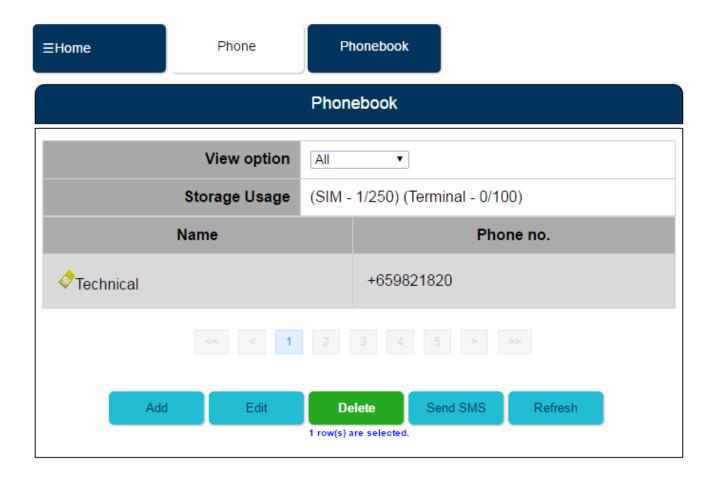


Click Edit to take effect.



Deleting a Phonebook entry

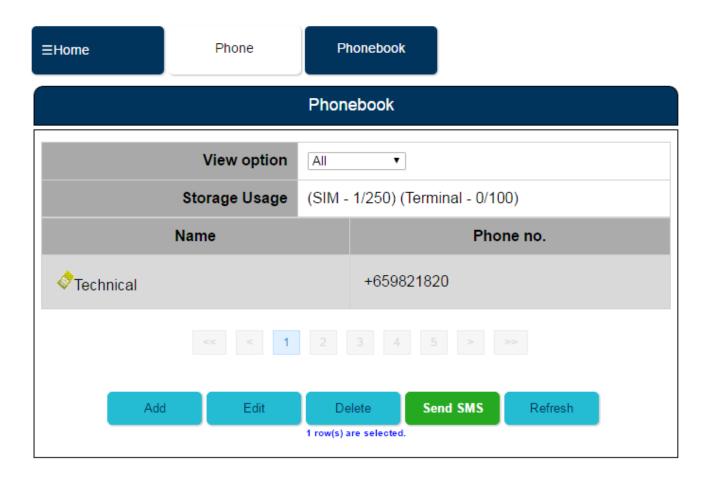
- i. Select the entry from the Phonebook list.
- ii. Click Delete.



Sending SMS from the Phonebook

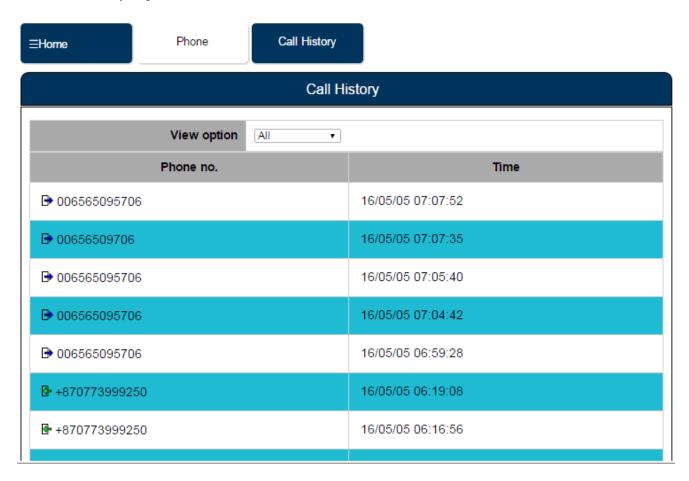
Follow these steps to send SMS from the Phonebook:

- i. Select the entry from the Phonebook list.
- ii. Click Send SMS.
- iii. The Phonebook console switches over to the Compose SMS console, which will be covered in later section.



2. Call History

To check history logs of calls made and received.



View option

The View option allows you to view the Phonebook entries from the different storage locations.

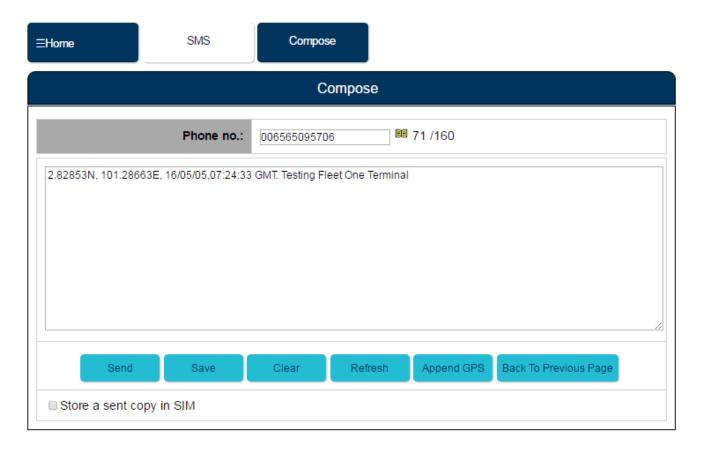
From the drop-down menu, select:

| Dialled Call | To view the list of dialled calls only. |
|---------------|---|
| Received Call | To view the list of received calls only. |
| Missed Call | To view the list of missed calls only. |
| All | To view the list of the dialled, received and missed calls. |

Sending SMS from the Call History

Follow these steps to send SMS from the Phonebook:

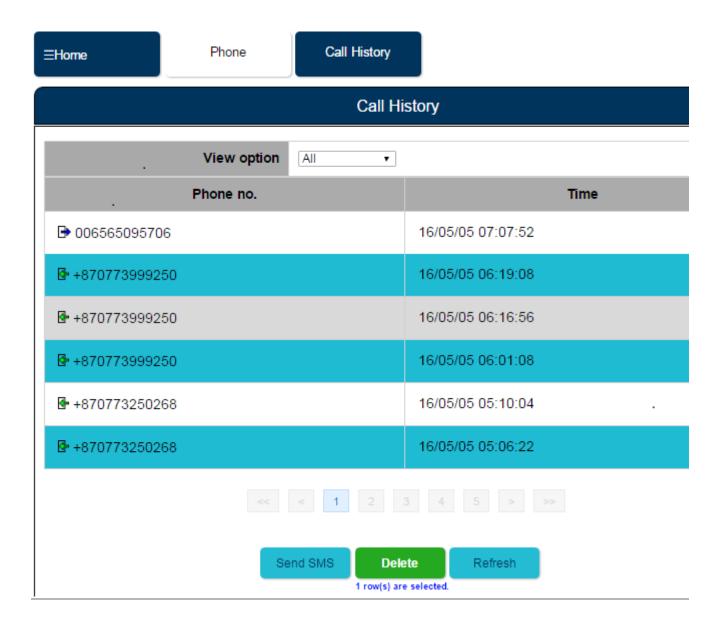
- i. Select the entry from the Phonebook list.
- ii. Click Send SMS.
- iii. The Phonebook console switches over to the Compose SMS console.



Deleting a Call History entry

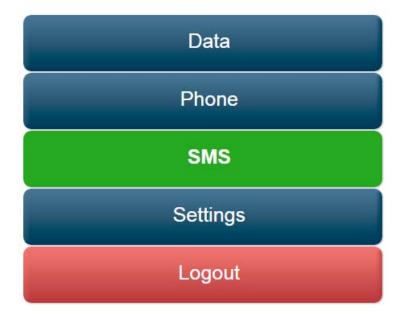
Follow these steps to delete a Call History entry:

- i. Select the entry from the Call History list.
- ii. Click Delete.

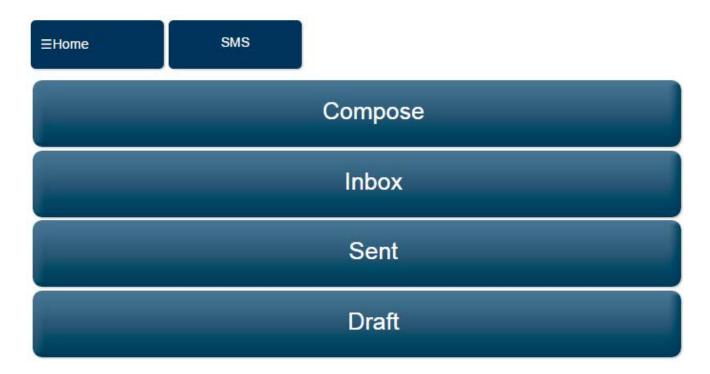


c. SMS Menu

Click on SMS Menu

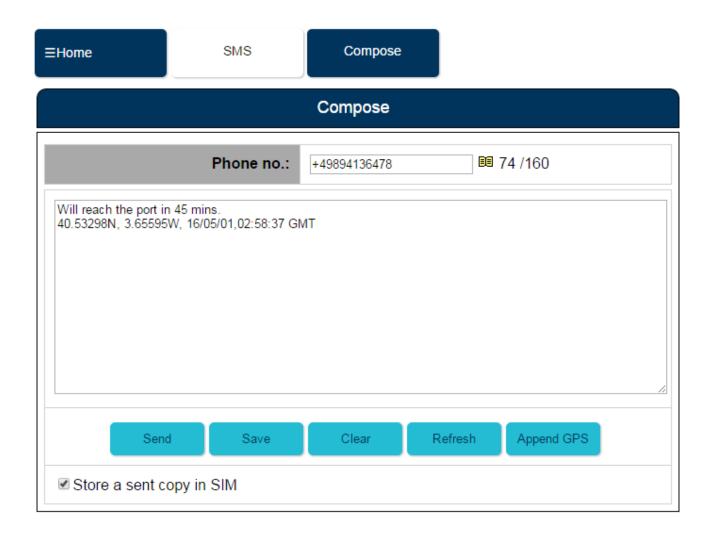


The **Phone** menu has the following options;



1. Compose

To compose and send text messages.



- i. Simply enter a mobile number, type your message and click **Send.**
- ii. To save an unsent SMS, click the Save button and the unsent SMS will be saved in Draft.
- iii. To clear the typed message on the text editor, click **Clear** button.
- iv. To get update phone list from SIM card or terminal, click **Refresh**.
- v. To include the GPS information in SMS automatically, click **Append GPS** button.

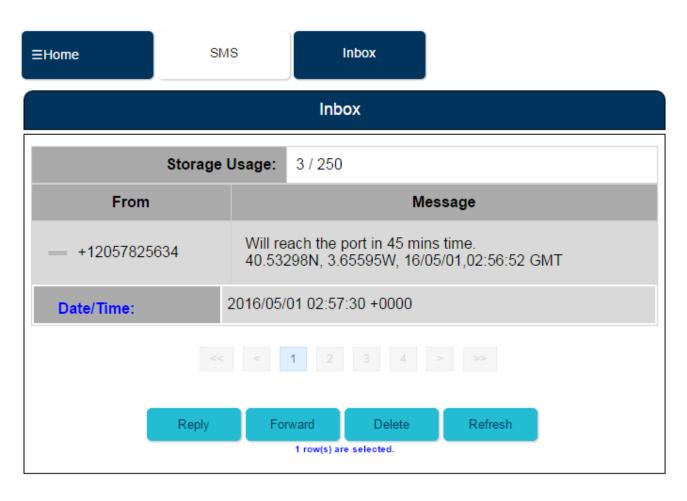
Note: Message is limited to 160 characters (using 7 bit encoded default alphabets) including spaces between words. But it is limited to 70 characters per message using Unicode (UCS2) text message (such as message typed in Chinese, Japanese, etc).

For sending a long SMS to another BGAN transceiver, the message is limited to 608 characters (using 7 bit encoded default alphabet) or 266 characters using Unicode (UCS2) text messages including spaces between words.

If you do not wish to store a copy of the sent SMS into SIM card, uncheck "Store a copy in the SIM".

2. Inbox

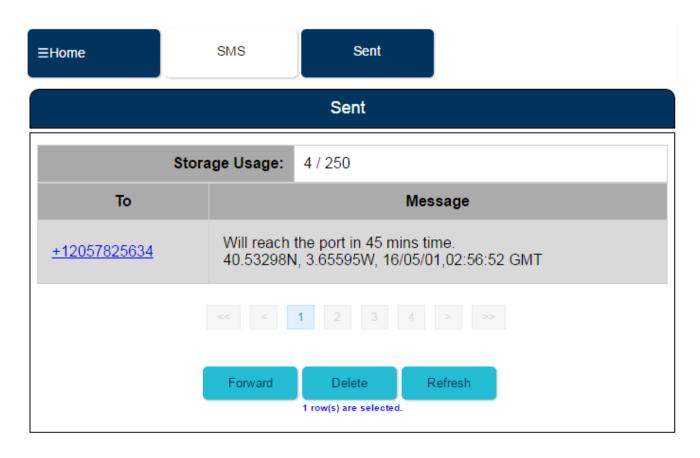
Shows the details (Sender information, Message, Date and Time stamp) of all SMSs received



- i. To reply, simply click a SMS to select it and click Reply.
- ii. To forward, simply click a SMS to select it and click **Forward** with the recipient's mobile number.
- iii. To delete, select SMS(s) as the shaded grey areas and click **Delete.**
- iv. To update the message, click **Refresh** button.

3. **Sent**

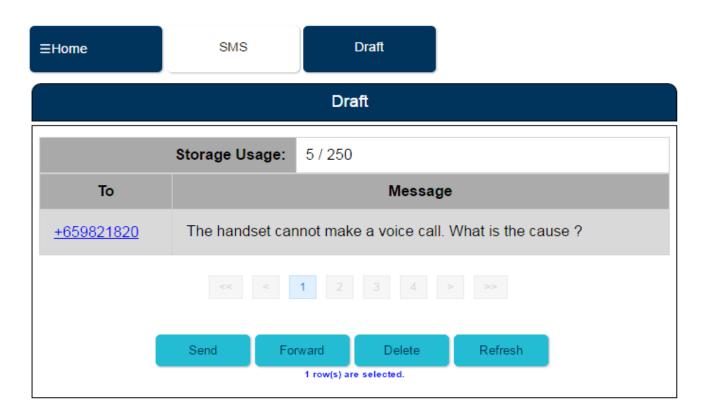
Shows the details (Recipient information and Message, Date and Time stamp) of all SMS received



- i. To forward, simply click a SMS to select it as the shaded grey area and click **Forward** with the recipient's mobile number.
- ii. To delete, select message(s) as the shaded grey areas and click **Delete.**
- iii. To update messages, click Refresh button.

4. Draft

Stores SMS saved from the Compose console



- i. To send, click a SMS to select it and then click **Send.**
- ii. To forward, click a SMS to select it and click **Forward** with the recipient's mobile number.
- iii. To delete, select message(s) as the shaded grey areas and click **Delete**.
- iv. To update messages, click **Refresh** button.

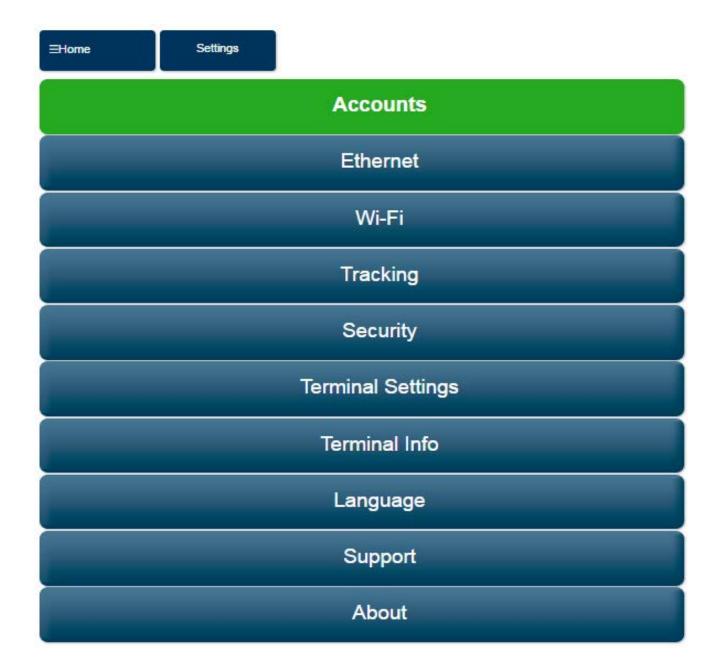
d. Settings Menu

Click on **Settings** Menu



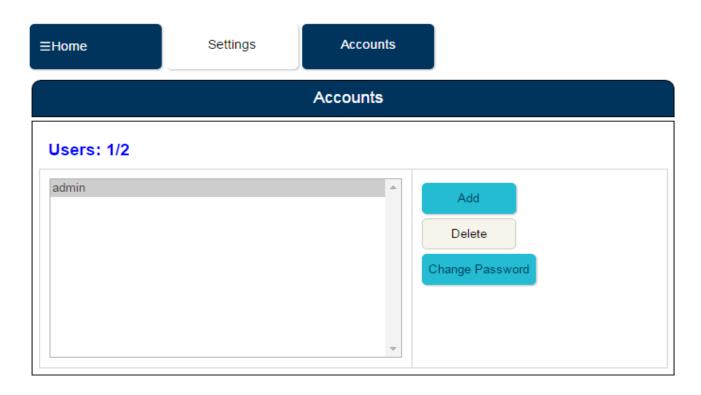
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The **Settings** menu has the following options;

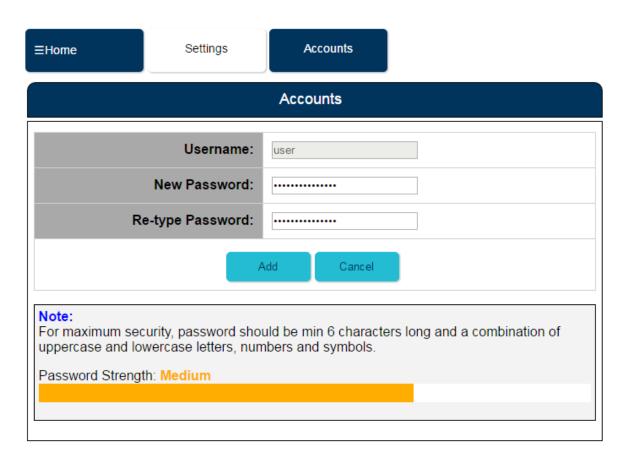


1. Accounts

To create new user account.



Click Add to add a new user with new password.



Note: The maximum accounts is 2; one is "Admin" and the other is "user". Their accounts' names are not editable.

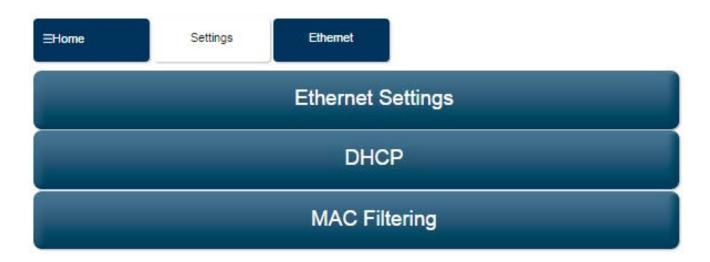
Once the new user account is created, the "user" will appear under Username.



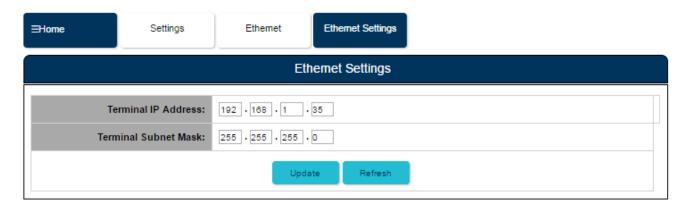
The user account will have limited information and settings in the web console.



2. Ethernet



Ethernet Settings



The Terminal IP Address is the local IP address of the terminal. It is used for accessing the Web Console. By default,

IP address : **192.168.1.35** Subnet Mark : **255.255.255.0**

See below if you need to change the local IP address and subnet mask.

- i. Enter the Terminal IP Address and Terminal Subnet Mask.
- ii. Click **Update** to take effect.

DHCP



For the terminal to assign dynamic IP addresses to devices connected to the terminal, the DHCP has to be enabled as follow:

- i. Click Enabled.
- ii. Set the range of the IP addresses in **DHCP IP Pool Start** and **DHCP IP Pool End.**
- iii. Set the IP Lease Time in seconds.
- iv. Click **Update** to take effect.



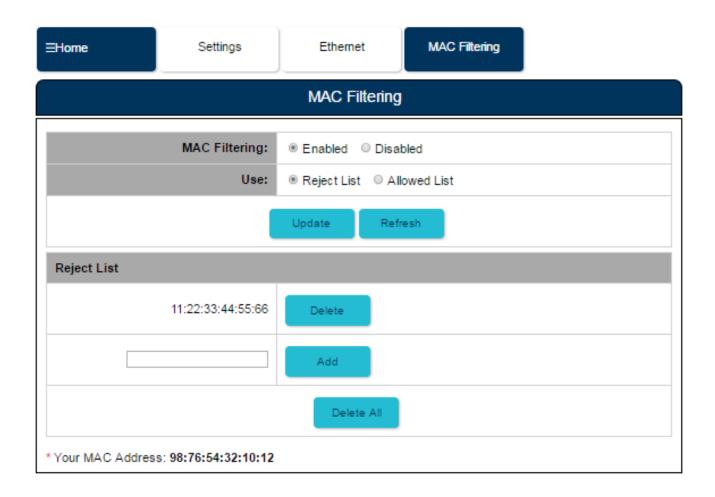
WARNING: *IP* subnet of 102.168.1.36 is not allowed to be used in connected devices as it is reserved for internal use in the terminal.

MAC Filtering

To disable or enable MAC Filtering with its settings.

Click **MAC Filtering** to view the MAC Filtering settings.

Set the MAC Filtering configurations.



Reject List

All PCs/Laptops will be allowed to access the terminal except for those (MAC addresses) listed in the Reject List.

Allow List

All PCs/Laptops will be denied access to the terminal except for those with MAC addresses listed in the Allow List. When selecting this list, at least one entry should exist to enable access to the terminal.

- i. Select **Enabled** or **Disabled** to activate/deactivate the MAC Filtering.
- ii. Select **Reject List** or **Allowed** List and then add the MAC addresses.
- iii. Click Update to take effect.

3. Wi-Fi

To configure the settings of Wi-Fi Base Station.



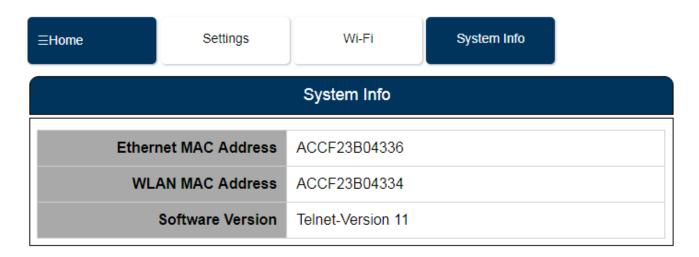
WiFi Setup



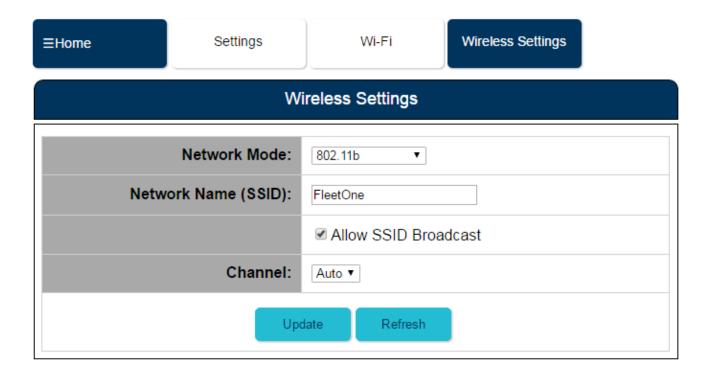
- i. Select **Enabled** or **Disabled** to activate / deactivate the Wi-Fi.
- ii. Click Apply to take effect.

System Info

Shows the information of Ethernet MAC Address, WLAN MAC Address and Software version.



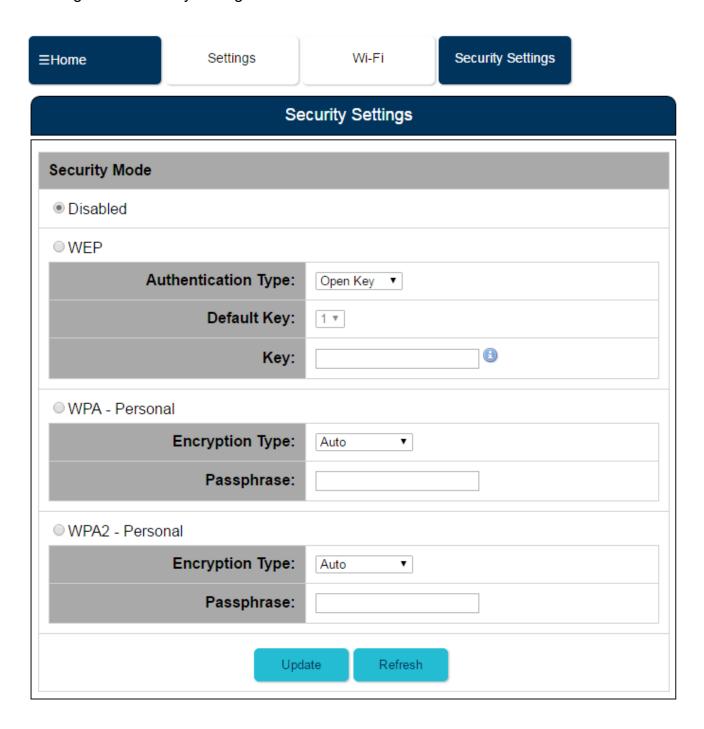
Wireless Settings



- i. Choose the preferred **Network Mode** and **Channel.**
- ii. If required, Network Name (SSID) can be set or renamed by the user.
- iii. Click **Update** to take effect

Security Settings

To configure the security settings of Wi-Fi.



- i. Select the type of Security Mode; WEP, WPA Personal or WPA2 Personal.
- ii. Select the Authentication / Encryption Type and type Key or Passphrase.
- iii. Click **Update** to take effect

4. Tracking

The iFleetONE terminal has certain tracking features. It can report to a server at certain time intervals or after travelling a specified distance or over a specified speed limit.

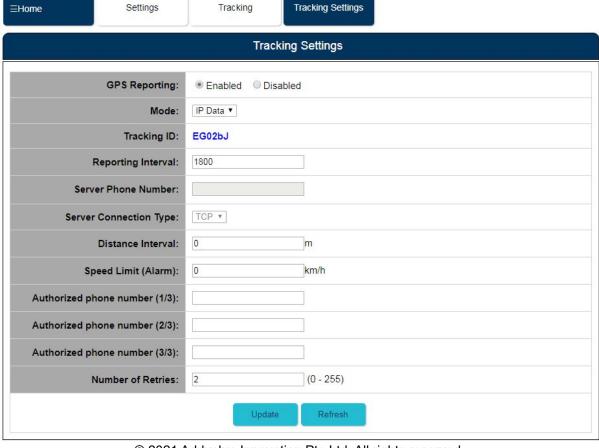


Tracking Settings

To set up the tracking, click the **Enabled** button for GPS Reporting (recommended for most purposes).

There are 2 modes; IP Data Mode and SMS mode.

IP Data Mode



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Select IP Data and enter the following;

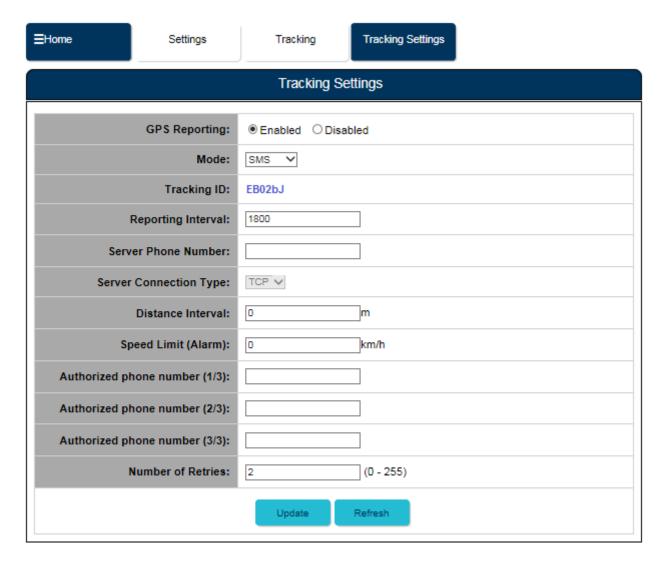
- Reporting Interval (in seconds)
- **Distance Interval** (in meters)
- Speed Limit Alarm (in km/h)
- Number of Retries (from 0 to 255)

No inputs to the boxes of **Server Phone Number, Server IP Address*** and **Server Port*** are required.

Note: * If you prefer to have your own server with your own IP address and Server Port number, please contact your service provider.

Click **Update** to take effect.

SMS Mode



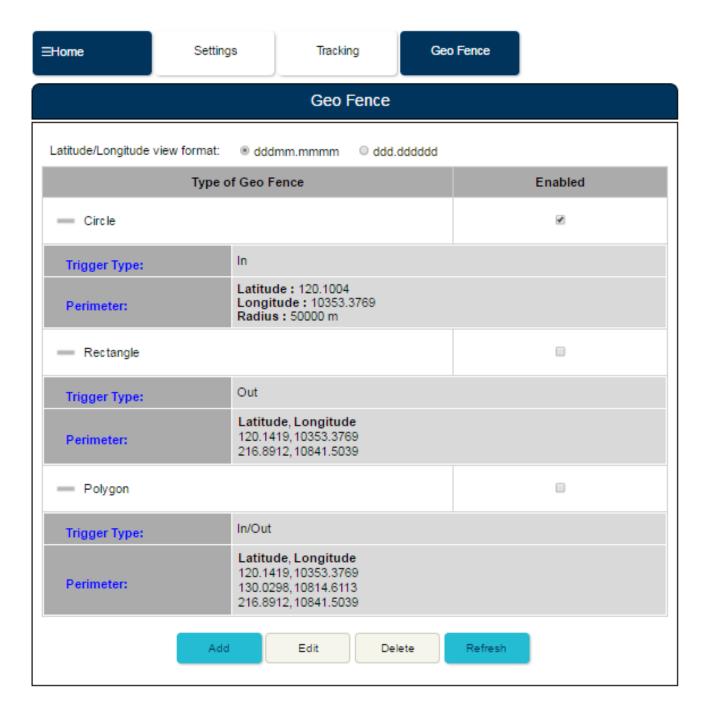
Select **SMS** and enter the following;

- Reporting Interval (in seconds)
- Server Phone Number
- Distance Interval (in meters)
- Speed Limit Alarm (in km/h)

- Authorized phone numbers (to receive SMS)
- Number of Retries (from 0 to 255)

Click **Update** to take effect.

Geo Fence



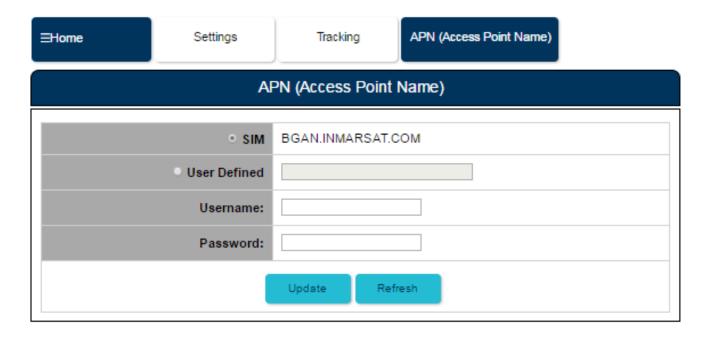
Click the desired view format of Latitude/Longitude.

Click Add for adding a Geo Fence definition

- Select the Latitude/Longitude view format (degrees, minutes and seconds dddmm.mmmm or decimal degrees ddd.dddddd)
- ii. Select Trigger type (In, Out or In/Out).
- iii. Select Type of Geo Fence (Circle, Rectangle or Polygon)
- iv. Key in Latitude and Longitude values

To modify on current Geo Fence definition, select the desired Geo Fence and then click Edit. Click Update after modifying the settings of the Geo Fence.

APN (Access Point Name)



There are 2 options for setting the APN;

Click SIM (with the setting of "BGAN.INMARSAT.COM" for example)

OR

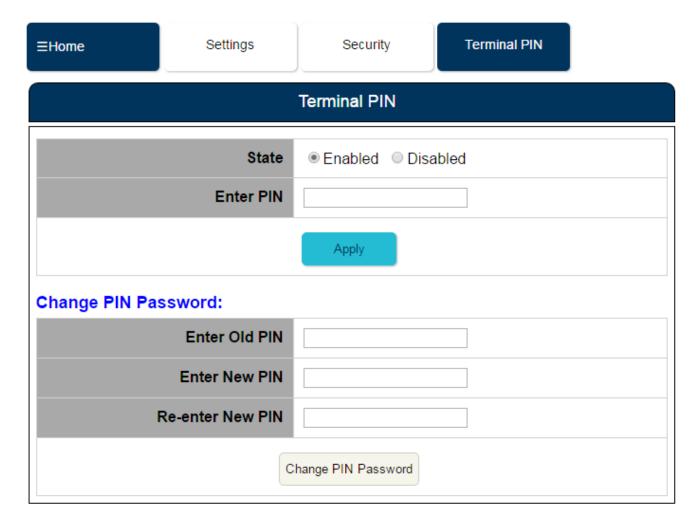
• Click **User Defined** (which you have to enter APN with its username and password. Your air time provider will provide any required APN username and password.)

Then click **Update** to take effect.

5. Security



Terminal PIN

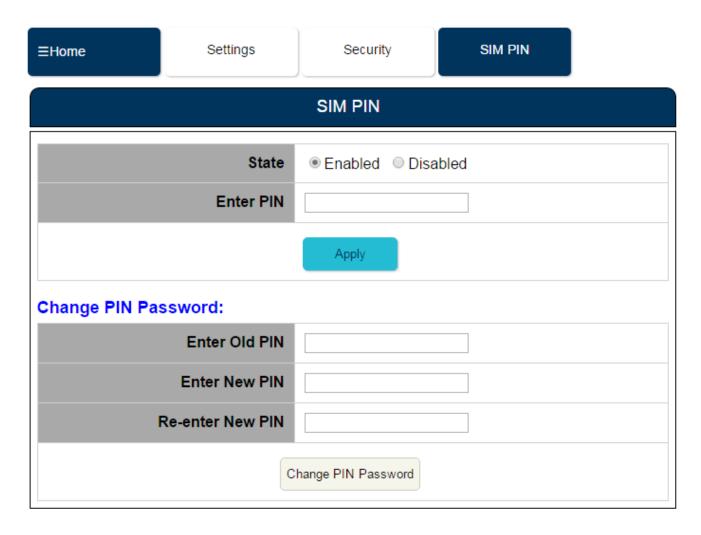


- i. Select Disabled if you do not need to set Terminal PIN.
- ii. Select **Enabled** to set the Terminal PIN and then enter PIN number in **Enter PIN** field.
- iii. Click **Apply** to take effect.

To change the Terminal PIN,

- iv. Enter the old PIN number with new PIN.
- v. Re-enter the new PIN and click Change PIN password.

SIM PIN

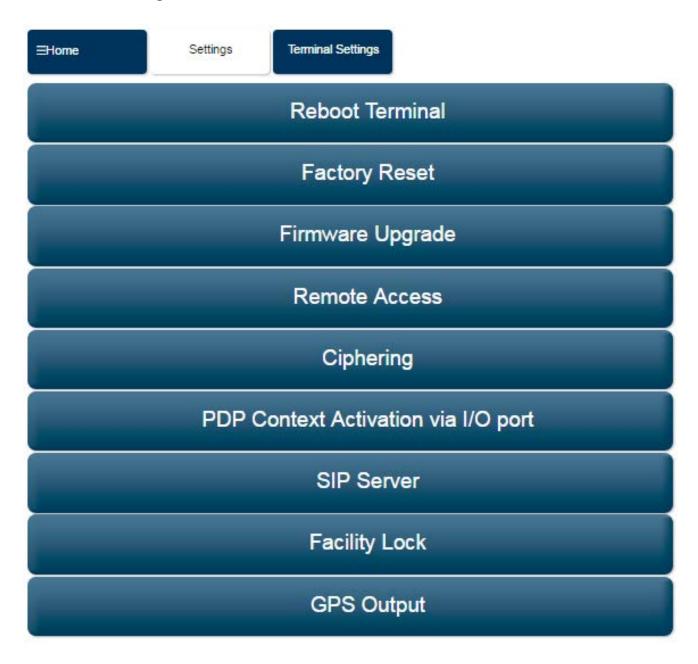


- i. Select **Disabled** if you do not need to set SIM PIN.
- ii. Select **Enabled** to set the SIM PIN and then enter PIN number in **Enter PIN** field.
- iii. Click **Apply** to take effect.

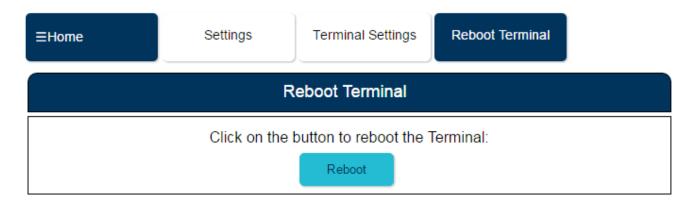
To change the SIM PIN,

- iv. Enter the old PIN number with new PIN.
- v. Re-enter the new PIN and click **Change PIN password**.

6. Terminal Settings

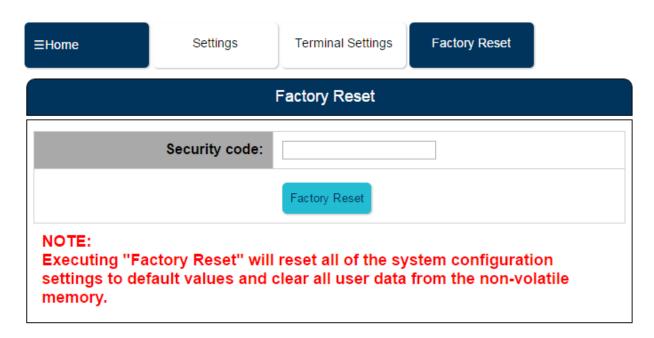


Reboot Terminal



i. Click Reboot to take effect.

Factory Reset



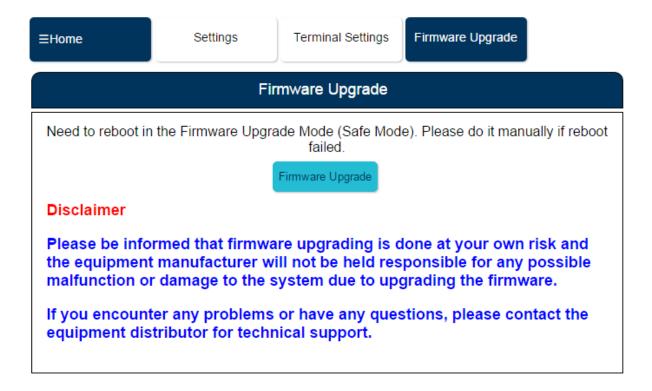
- i. To perform a **Factory Reset**, enter 0000 in the Security Code field.
- ii. Click Factory Reset to take effect.



WARNING: Factory Reset will set all of the system configuration settings to default values and clear all user data from the non-volatile memory.

Firmware Upgrade

Firmware upgrade is required to update the iFleetONE BDU with the latest firmware. Please refer to your respective distributor for your firmware download.



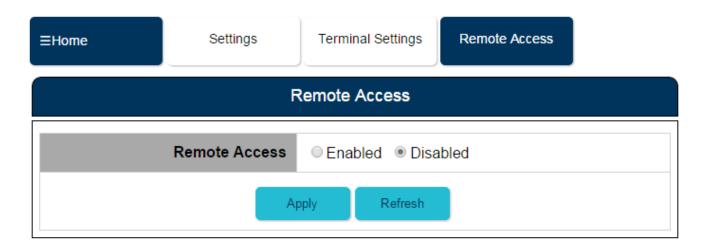


WARNING: Do not abort the upgrading process or unplug the power of the BDU during the firmware upgrade process at any time. Doing so will corrupt the existing firmware loading onto the BDU.

- i. Download or acquire the new firmware from your respective distributor and save it in your computer's hard drive.
- ii. Read the Disclaimer message carefully before proceeding with the Firmware Upgrade.
- iii. Click Firmware Upgrade and follow instructions.

Remote Access

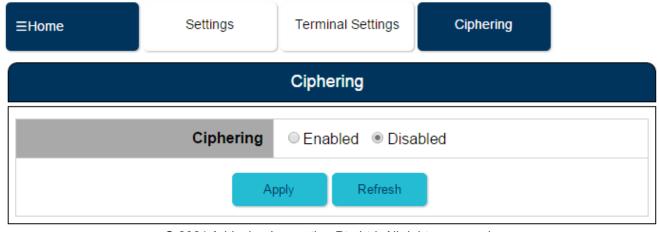
By enabling the Remote Access option, an user can remotely (from shore) access the terminal's web console via internet.



- i To enable or disable remote access, select option **Enabled** or **Disabled** respectively.
- ii. Click Apply to take effect.

Ciphering

Enabling the **Ciphering** option will make the terminal to pass voice and data in a secure mode by encrypting them over the air



- i. To enable/disable the Ciphering, select the option Enabled or Disabled respectively
- ii. Click Apply to take effect.

PDP Context Activation via I/O port

The PDP Context Activation via connections to the I/O Port allows for the user of an external physical switch to control to PDP context status.



- i. To enable/disable the PDP Context Activation via I/O port, select the option Enabled or Disabled respectively.
- ii. Click **Apply** and then **OK** to proceed. This will reboot the terminal.



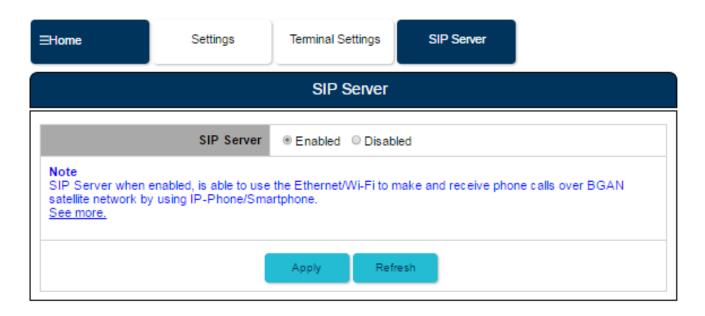
WARNING: The enabled option of PDP Context Activation via I/O port allows the data connection switch to override the activation and deactivation of data connection set on the Web Console.

iii. There will be no control button of activate or deactivate the data connection on the web console. **PDP context activation via I/O port is enabled**. is displayed, You can use Data Connection External Switch to control the activation/ deactivation of the data connection.



SIP Server

The SIP server integrated into the terminal allows a smartphone (through Wi-Fi) or VoIP phone (through the Ethernet cable) to make and receive calls over the BGAN network.



Note: Ensure your smartphone has an integrated SIP client.



Smartphone

You will need to set up the SIP server details as follows in the device before first use:

Server Address and Port

Address: 192.168.1.35 (Default)

Port: **5060**

User Name

Local number in iFleetONE (0801 to 0804)

Password

Default is the same as the User Name.

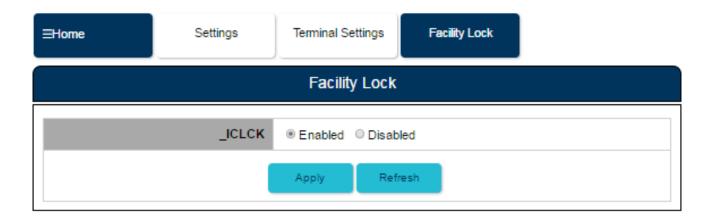
Codec Priority

Highest priority codec type: G.711u

Note: Every VoIP handset or smartphone connected to the iFleetONE must be set up with a unique number (user name). The maximum number of allowing VoIP handsets and/or smartphones is 4 and only one out of these 4 devices is allowed to make and receive a voice call at a time.

Facility Lock

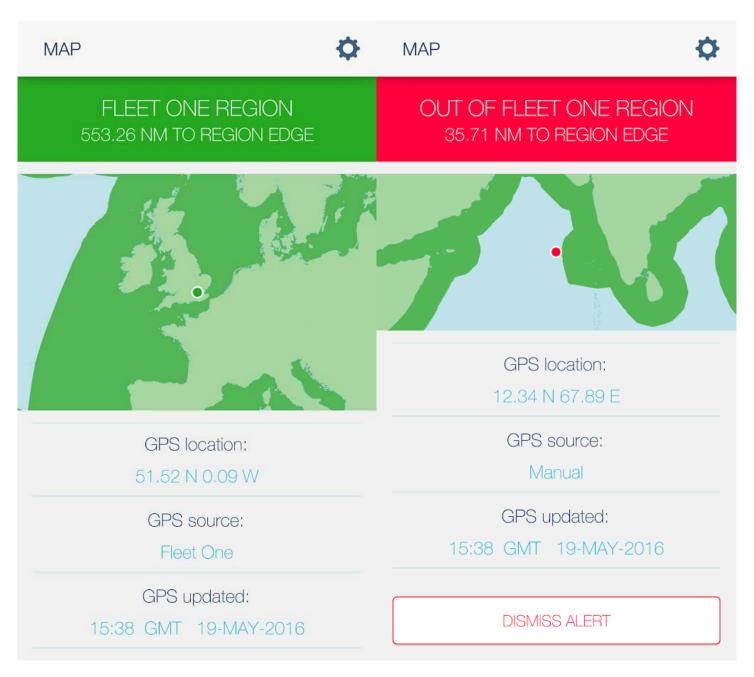
The Facility Lock is to provide an option to enable or disable the authentication of AT command access.



- When _ICLCK is enabled and after Apply is updated to take effect, you need to carry out
 a power cycle for the terminal with administrator password. You can access the AT command
 which requires the use of "at_iclck" with correct user's new password. (for example, at_
 iclck="AD",0,"xxxxxxx" where xxxxxxx is the user's new password which has been entered in the
 web console initially.)
- When **_ICLCK** is disabled and after **Apply** is updated to take effect, no authentication to access AT command is required. Additionally, with the disabled facility lock, your smartphone can use the Inmarsat Fleet One app which lets you track your location relative to the Fleet One data coverage region.



Inmarsat Fleet One App



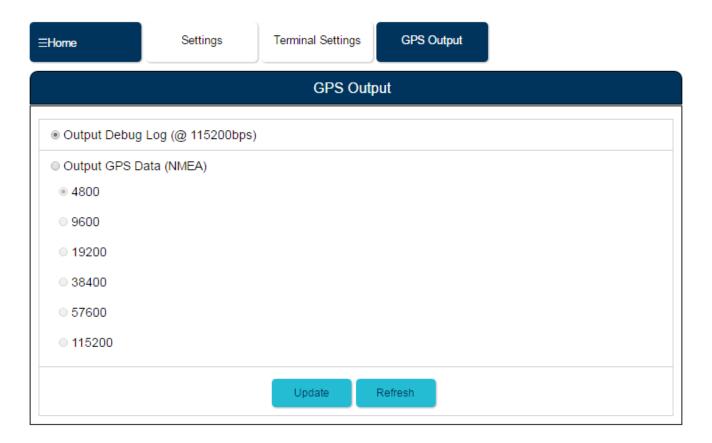
GPS Output

By default, the iFleetONE BDU outputs the GPS data in NMEA format at 4800 kbps via a serial cable (which is not included in the package). There are other serial speed options of 9600, 19200, 38400, 57600 and 115200 bps which can be selected.

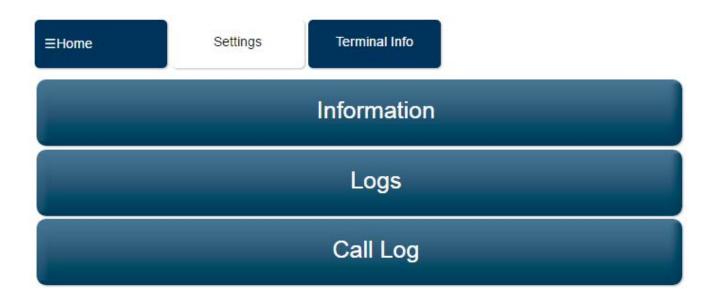


For collecting the debug log messages to diagnose any system issues, the **Output Debug Log** needs to be selected as the debug mode. As the debug mode is not required for a normal enduser, it is recommended to leave the option unchecked.

If required for debug use, the speed is fixed at 11500 bps.

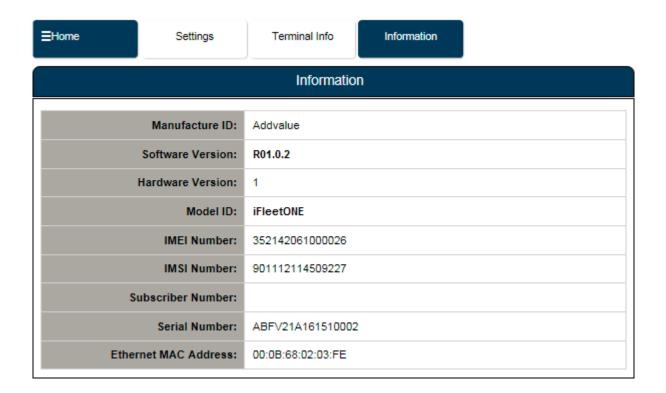


7. Terminal Info



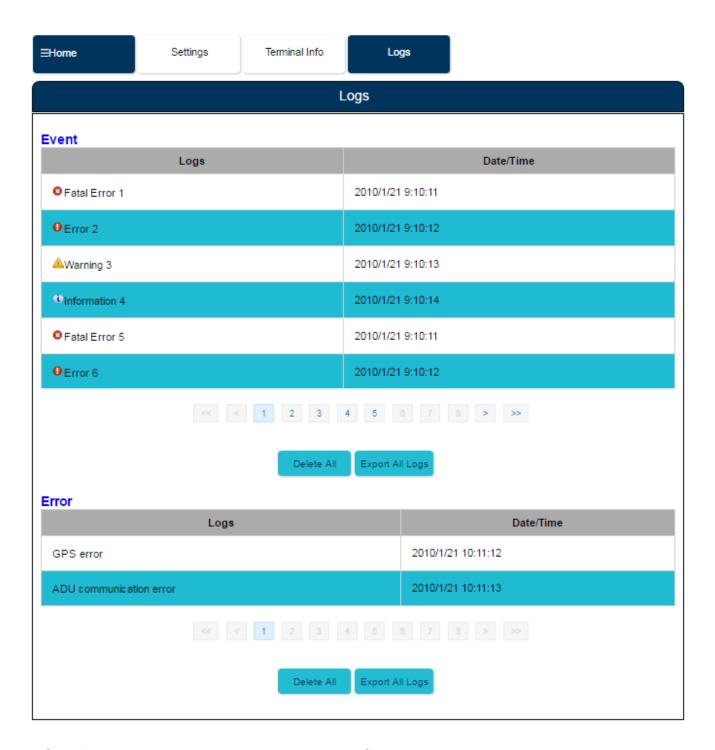
Information

Displays information about the Manufacture ID, Software Version, Hardware Version, Model ID, IMEI number, IMSI number (only when a SIM card is inserted), Subscriber number, Serial number and Ethernet MAC Address.



Logs

Displays event and error logs of the terminal.

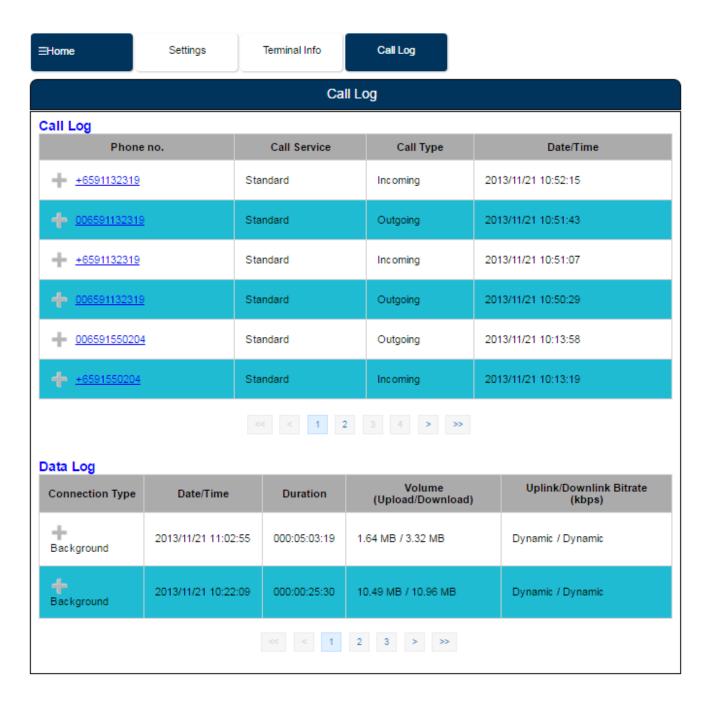


- i. Click **Export All Logs** so that the system log file will be saved in the computer.
- ii. Send the system log file to your distributor for troubleshooting.

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Call Log

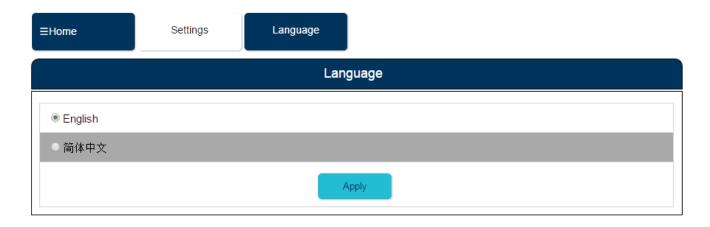
Displays event and error logs of the terminal.



- i. Under **Call Log**, click "+" on any call log to expand it with more information of its duration and cause.
- ii. Under **Data Log**, click "+" on any call log to expand it with more information of its IP Address, APN and cause.

8. Language

Changes the menu display with the available languages.



- i. Select the desired language available in the Web Console.
- ii. Click Apply to take effect.

9. Support

Displays the information of Inmarsat Distribution Partner name, contact information of support (phone number and email address) and the URL links of support and services.

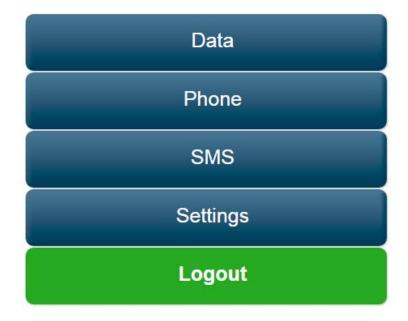
10. About

Displays the copyright statement with Addvalue Enabled logo



e. Logout Menu

Click on **Logout** Menu and it will return to the screen where you are required to login again.



GLOSSARY

ADU Above Decks Unit
APN Access Point Name

ATB Antenna Tracking Board

BDU Below Decks Unit DC Direct Current

FTP File Transfer Protocol
GPS Global Position System

GPIO General Purpose Input / Output

HPA High Power AmplifierIP Data Internet Protocol Data

NAT Network Address Translation
PAT Port Address Translation
PDP Packet Data Protocol

PIN Personal Identification Number
PSTN Public Switched Telephone Network

SIM Subscriber Identity Module

UE User Equipment