

## GPS and Location-Based Services

The Iridium Extreme™ GPS and Location-Based Service features allow you to view, send, or restrict your location information. There are four main components to setup and use these features:

- **Location Options Setup Menu:** located in the Iridium Extreme™ main menu in the setup section, Location Options Options is where you customize your GPS, emergency, message, and format options.
- **Programmable SOS button:** this red button is located on the top of the phone, under a protective cover. By removing the cover and pressing the red button you can send your location information to your designated contact in the event of an emergency.
- **Location Convenience Key:** located on the right side of the phone, you can press this key to view your location and share it via SMS to either a pre-programmed “Quick GPS” contacts or a new message contact.
- **Online portal integration with 3<sup>rd</sup> party providers:** enables the transmission of the phone’s location information on a scheduled interval via short-burst data (SBD) to 3rd party portal providers for online tracking

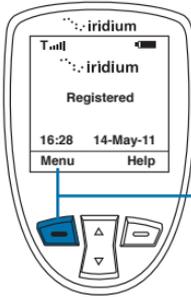
**Note:** Standard usage fees apply for sharing location via messaging or placing a phone call via the programmable SOS button.

### Location Options Setup Menu

The Location Options Setup Menu enables you to set up the following options:

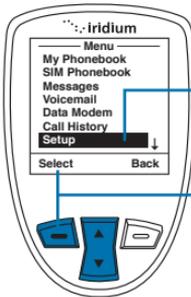
- **GPS Options:** Enable/disable GPS on your handset; determine how frequently the GPS is updated when enabled; and lock your GPS settings.
- **Emergency Options:** Set up **Emergency Recipients**; determine **Emergency Actions**; configure **Emergency settings**; and enter/cancel **Emergency Mode**.
- **Message Options:** Set up the recipient and frequency of your auto GPS location update message.
- **Format:** Configure the format of GPS location information.
- **Current Location:** View and update your current GPS location.

# Locating Location Options



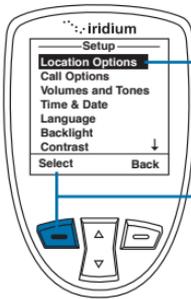
Starting from the **main screen**:

1. Press the **left soft key**, labeled **Menu**.



2. The **Main Menu** is displayed. Use the **2-way Navi-key** to scroll until **Setup** is highlighted.

Press the **left soft key** to select **Setup**.

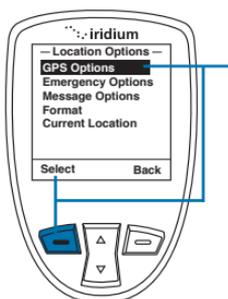


3. With **Location Options** highlighted press the **left soft key**, labeled **Select** to enter the **Location Options** menu.



4. Within the **Location Options** menu are **GPS Options**, **Emergency Options**, **Message Options**, **Format**, and **Current Location**.

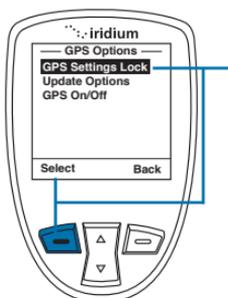
## Using the GPS Options Menu



Use the **GPS Options** menu to configure the basic GPS settings on your handset. Through this menu you can lock GPS settings, set the GPS refresh frequency rate, and turn GPS On or Off.

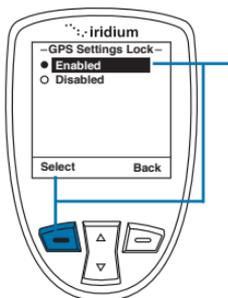
1. Press the **left soft key**, labeled **Select**

## GPS Settings Lock



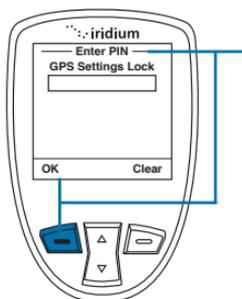
Within the **GPS Options** menu, enable the **GPS Settings Lock** to prevent modifications to GPS settings unless the **GPS Settings Lock PIN** is entered.

1. Press the **left soft key**, labeled **Select**.



The default setting for **GPS Settings Lock** is **Disabled**. To enable **GPS Settings Lock**, move the **2-way Navi-key** until the **Enabled** option is highlighted

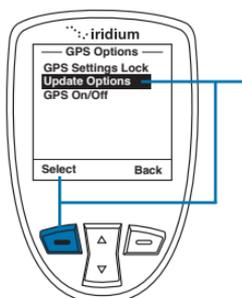
2. Press the **left soft key**, labeled **Select**.



To modify the **GPS Settings Lock**, you will be prompted to enter the **GPS Settings Lock PIN**. The default **GPS Settings Lock PIN** is **3333** and can be modified in the **Security Menu** by navigating to **Change PINs** and then **GPS Settings Lock**.

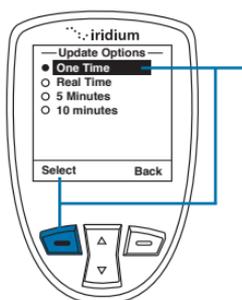
3. Once the default or personalized **GPS Settings Lock PIN** is entered, press the left soft key, labeled **OK**.

## GPS Update Options



Within the **GPS Options** menu, the **GPS Update Options** will allow you to set how frequently a GPS position is updated for viewing the **Current Location** on the phone screen. To access **Update Options**, use the **2-way Navi-key** to scroll and highlight this feature.

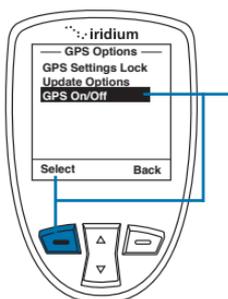
1. Press the **left soft key**, labeled **Select**.



Within the **Update Options** menu, the options are provided to have the GPS location updated **One Time**, **Real Time**, every **5 minutes**, or every **10 minutes**. To modify this setting, use the **2-way Navi-key** to scroll and highlight the desired update rate.

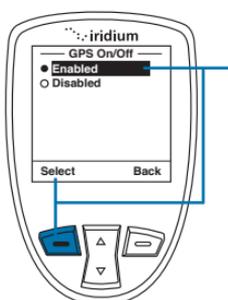
2. Press the **left soft key**, labeled **Select**.

## Turning GPS On/Off



Within the **GPS Options** menu, the **GPS On/Off** will allow you to turn the built-in GPS receiver on or off in your phone. Features that require GPS on will prompt you to turn GPS on. Use of the programmable SOS button will automatically turn GPS on. To adjust **GPS On/Off**, access the **GPS Options** menu and use the **2-way Navi-key** until the **GPS On/Off** menu is selected.

1. Press the **left soft key**, labeled **Select**.



The default setting for **GPS On/Off** is **Disabled**, meaning that GPS is off. It is recommended that GPS is enabled for frequent use of GPS (for example, use with 3rd party online tracking portal) and disabled for infrequent use to conserve battery. To **Enable GPS** and turn it on, use the **2-way Navi-key** until the **Enabled** option is highlighted.

2. Press the **left soft key**, labeled **Select**.

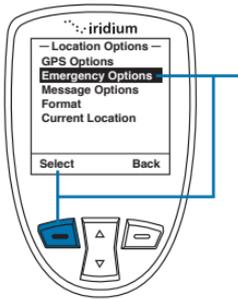
**Note:** the GPS receiver automatically saves your location to your phone when the phone is turned on even if the GPS receiver is off.

## Setting Emergency Options

The Emergency Options menu items are used to personalize your settings for the programmable SOS button located on the top of your phone. The programmable SOS button gives you the ability to flip open the protective SOS button cover, press the red key located underneath, and initiate a message and/or phone call to your dedicated contacts. These contacts could be a family member, commercial safety service, safety office, or Iridium-supported public emergency number (ex. 911 in U.S. or 000 in Australia).

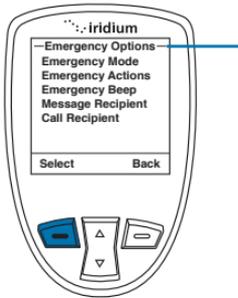
**Note:** the operation of the SOS button feature is limited by any conditions affecting the GPS signal strength and GPS service availability.

**CAUTION:** you must configure the SOS button Emergency Mode contact in order to send an emergency message to a designated emergency call recipient.



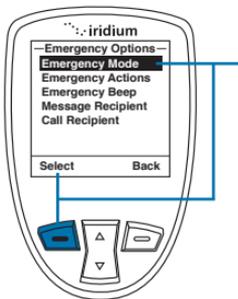
To access **Emergency Options**, access **Location Options** and scroll down with the **2-way Navi-key** until **Emergency Options** is highlighted.

Press the **left soft key**, labeled **Select**.



Within the **Emergency Options** menu are **Emergency Mode**, **Emergency Actions**, **Emergency Beep**, **Message Recipient**, and **Call Recipient**.

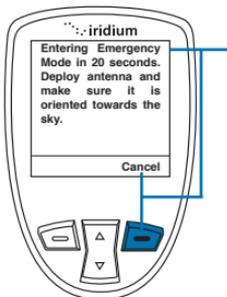
## Emergency Mode



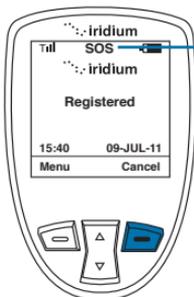
In the Emergency Options menu, the Emergency Mode allows you to initiate an emergency call and/or message to your programmed contacts. The more direct way to initiate Emergency Mode is to press the red SOS button located on the top of your phone.

If Emergency Mode is active, this menu item can be used to cancel Emergency Mode. When Emergency Mode is activated, the option to cancel Emergency

To initiate **Emergency Mode** from the menu, highlight "**Emergency Mode**" and press the **left soft key**, labeled **Select**.



After selecting **Enter Emergency Mode** the countdown screen appears. You will have 20 seconds to press the right soft key labeled **Cancel** to stop **Emergency Mode** if initiated accidentally. This feature is designed to help reduce false notifications to your designated emergency contacts.



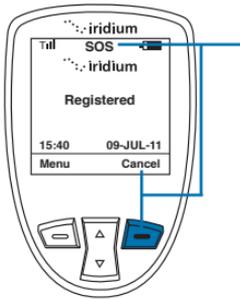
Once in **Emergency Mode** the phone will initiate a call and/or message to your designated contacts. The phone call (if programmed) will occur in speakerphone mode and will retry if the attempted call is unsuccessful.

Additionally, the phone (if programmed) will send an SMS message to your designated contact every five minutes in the following format:

```
EMERGENCY Lat+38.950116 (stdv 0075) Lon-0.250050 (stdv 0075)Alt -964
ft (stdv 0075) GPS sats 00 2011-05-24 13:06UTC Batt 49% User lang en Sent
via Iridium
```

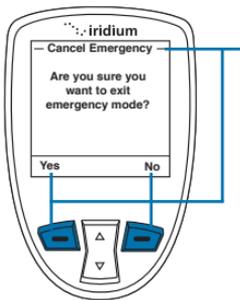
This message contains the following information:

- EMERGENCY notification
- The Latitude and standard deviation for accuracy
- The Longitude and standard deviation for accuracy
- The Altitude and standard deviation for accuracy
- The number of GPS satellites that were visible to the phone to assist with gauging accuracy
- The date (year – month – day) and time (UTC)
- The % of phone battery charge remaining
- The language of the phone menu setting to give some indication of the language of the user (ex. "en" is English)
- Sent via Iridium



While in **Emergency Mode** the dedicated **SOS LED** will illuminate and **SOS icon** on the phone screen will appear. The **SOS LED** will change colors from red to green depending upon the transmission status and an audible tone will also occur (if programmed) when the **Emergency Mode** message is being sent.

**Emergency Mode** can be cancelled by pressing the **right soft key**, labeled **Cancel**.

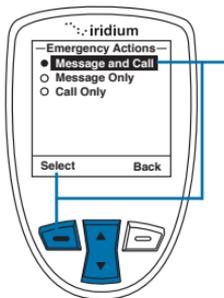


If you decide to **cancel Emergency Mode**, the phone will prompt you with a message asking you if "**Are you sure you want to exit emergency mode?**" If you select "**No**" by pressing the **right soft key**, labeled **No**, **Emergency Mode** will not be cancelled. If you select "**Yes**" by pressing the **left soft key** labeled "**Yes**", **Emergency Mode** will be cancelled. If **Emergency Mode** is canceled, a cancellation message will be sent to your designated contact.

**Note:** if you do not cancel **Emergency Mode**, your phone will continue to remain in **Emergency Mode** even after you turn off and on the phone.

## Emergency Actions

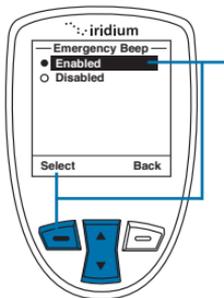
In the **Emergency Options** menu, **Emergency Actions** will allow you to determine the types of call and/or message actions that will occur when **Emergency Mode** is initiated. The default setting is **Message and Call**, which means that a message and call will be initiated to your programmed contacts in the event that **Emergency Mode** is started by pressing the red SOS button on the top of the phone or by selecting **Emergency Mode** from the menu.



To change the default setting to either **Message Only** or **Call Only**, use the **2-way Navi-key**, highlight the preferred option and press the **left option key**, labeled **Select**.

**Note:** If the **GPS Settings Lock** is enabled, you will be prompted for the **GPS Settings Lock PIN** when attempting to change this setting.

## Emergency Beep



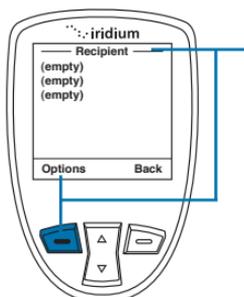
In the **Emergency Options** menu, if **Emergency Beep** is enabled, the handset will beep three (3) times every five (5) minutes to enable responders to hear where the handset is located. The default setting is **Disabled**. To change the default setting to **Enabled**, use the **2-way Navi-key** to highlight **Enabled** and press the **left option key**, labeled **Select**.

**Note:** If the **GPS Settings Lock** is enabled, you will be prompted for the **GPS Settings Lock PIN** when attempting to change this setting.

## Message Recipient

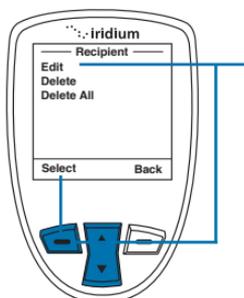
In the **Emergency Options** menu, **Message Recipient** will allow you to program up to three (3) contacts that will receive **Emergency Mode** notifications via messaging. In order for this feature to operate, "**Message and Call**" or "**Message Only**" needs to be selected in **Emergency Actions**.

The default setting for **Message Recipient** is "empty", meaning that recipients need to be added in order to notify a designated contact in the event of an emergency.



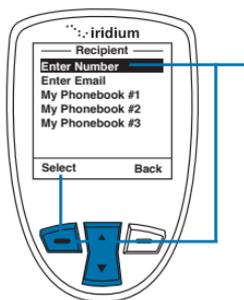
To program a new **Message Recipient**, use the **2-way Navi-key** and highlight the listing that you would like to **Edit** or **Delete**. Press the **left option key**, labeled **Options**.

**Note:** If the GPS Settings Lock is enabled, you will be prompted for the GPS Settings Lock PIN when attempting to change this setting.



Next, use the **2-way Navi-key** to highlight the desired option to **Edit**, **Delete**, or **Delete All**. If **Edit** is selected, the phone will allow you to Edit or enter a new message recipient. If **Delete** is selected, it will delete the previously highlighted **Message Recipient** listing. If **Delete All** is selected, **all Message Recipient listings** will be deleted.

Once the desired action is highlighted using the **2-way Navi-key**, press the **left option key**, labeled **Select**.



Next, if **Edit** is selected, the **Select Recipient** screen will appear providing the options to **Enter Number**, **Enter Email**, or select an existing address from your Phonebook.

- To **Enter Number**, press the **left option key**, labeled **Select**, and enter the number.
- To **Enter Email**, use the **2-way Navi-key** to highlight **Enter Email** and press the **left option key**, labeled **Select**.
- To select an existing address, use the **2-way Navi-key** to highlight the **My**

**Phonebook** listing and press the **left option key**, labeled **Select**.

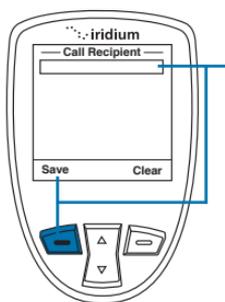
Once the **My Phonebook** listing is selected, you will need to use the **2-way Navi-key** to highlight which address to use and then press the left option key, labeled **Select**.

Once your recipient has been added, it will appear in your **Message Recipient** listing.

## Call Recipient

In the **Emergency Options** menu, **Call Recipient** will allow you to program one (1) contact that will receive an **Emergency Mode** phone call. In order for this feature to operate, "**Message and Call**" or "**Phone Only**" needs to be selected in **Emergency Actions**.

The default setting for **Message Recipient** is blank, meaning that a call recipient needs to be added in order to notify a designated contact in the event of an emergency.

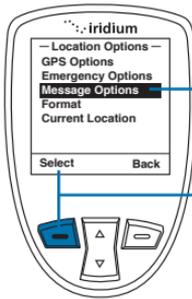


To program a new **Call Recipient**, type in the desired number and press the **left soft key**, labeled **Save**.

**Note:** a + sign is automatically added at the beginning of the dialing string to automatically insert the international access code, therefore 00 is not required. The call recipient number must include the country code and number (ex. +12125551212) or emergency number (ex. +911). Note that Iridium only supports 911 in the US and 000 in Australia and these numbers will not work in other geographies.

## Message Options

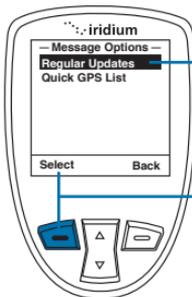
In the **Location Options** menu, **Message Options** will allow you to program settings for **Regular Updates** of location and also use of a **Quick GPS** list feature.



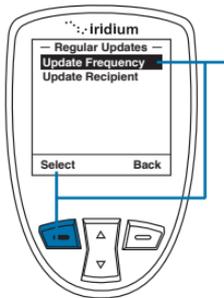
To program **Message Options**, press the **left soft key**, labeled **Select**.

In the **Message Options** menu, **Regular Updates** will allow you to program one (1) recipient to receive regularly scheduled messages from you with your location. Once the recipient is programmed and a message frequency is selected, your designated contact will receive **Regular Updates** from you automatically.

**Quick GPS** will allow you to send one (1) single location update to up to five (5) recipients programmed in your phone via messaging. To initiate a **Quick GPS**, press the **Convenience Key** located on the right side of your phone, obtain an updated location, select “**Share**” with the **left option key**, and select **Quick GPS** with the **left option key**.

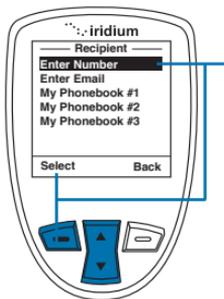


To program the **Regular Updates** from the **Message Options** screen, select **Regular Updates** with the **left option key**, labeled **Select**. Once selected, **Update Frequency** and **Update Recipient** will appear.



- To modify the **Update Frequency**, press the **left option key**, labeled **Select**. The default setting is **No Update**, meaning that no update message will be sent. The options are: **No update, Startup only, 5 minutes, 10 minutes, 30 minutes, 1 hour, 4 hours, 8 hours, 12 hours, 18 hours, 1 day, 3 days, 1 week**.
- To modify the default setting, use the **2-way Navi-key**, highlight the desired option and press the **left option key**, labeled **Select**.
- To modify the **Update Recipient**, use the **2-way Navi-key** to highlight **Update Recipient** and press the **left option key**, labeled **Select**.

After selecting **Update Recipient**, you will see one empty listing for programming. Press the **left option key**, labeled **Options** in order to **Edit**, **Delete**, or **Delete All** of the **Update Recipient** listing. Next, if **Edit** is selected, the **Select Recipient** screen will appear providing the options to **Enter Number**, **Enter Email**, or select an existing address from your **Phonebook**.

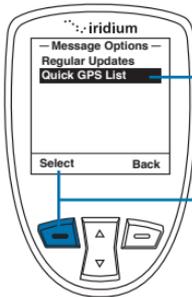


- To **Enter Number**, press the left option key, labeled **Select**, and enter the number.
- To **Enter Email**, use the **2-way Navi-key** to highlight **Enter Email** and press the **left option key**, labeled **Select**.
- To select an **existing address**, use the **2-way Navi-key** to highlight the **My Phonebook** listing and press the **left option key**, labeled **Select**. Once the **My Phonebook** listing is selected,

you will need to use the **2-way Navi-key** to highlight which address to use and then press the **left option key**, labeled **Select**.

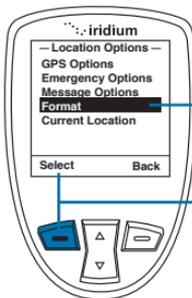
Once your recipient has been added, it will appear in your **Update Recipient** listing.

## GPS Quick List



To program the **Quick GPS List** from the Message Options screen, use the **2-way Navi-key** and select **Quick GPS List** with the **left option key**, labeled **Select**. Once selected, five (5) empty listings will appear. To add a **new recipient**, highlight the empty listing that you would like to change and press the **left option key**, labeled **Select**. To **Enter Number**, **Enter Email**, or select an existing address from your **phonebook**, follow the same instructions as programming an **Update Recipient** as described above.

## Format

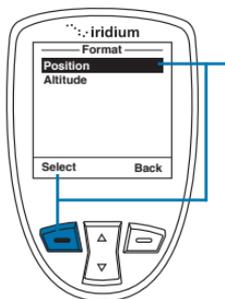


The **format** of your GPS location information can be modified.

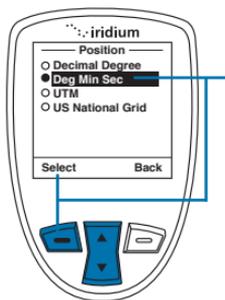
The handset provides four (4) options for position:

- Decimal degrees
- Deg Min Sec (default setting)
- UTM
- U.S. National Grid

## Position Format

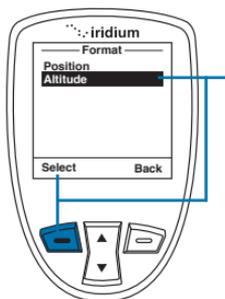


From the **Format** screen, to modify the setting for **position** format, press the **left soft key**, labeled **Select**.

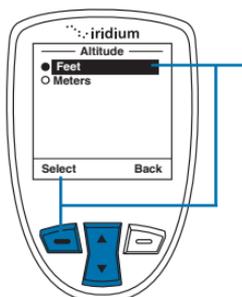


From the **Position** screen, to modify the setting for **position format**, use the **2-way Navi-Key** to highlight and the preferred format and then use the **left option key**, labeled **Select**.

## Altitude Format

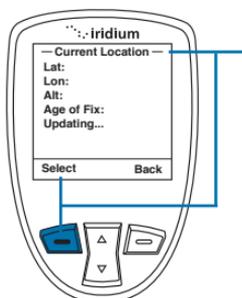


From the **Format** screen, to modify the setting for **Altitude format**, press the **left soft key**, labeled **Select**.



From the **Altitude** screen, to modify the setting for **Altitude format**, use the **2-way Navi-Key** to highlight and the preferred format and then use the **left option key**, labeled **Select**.

## Current Location



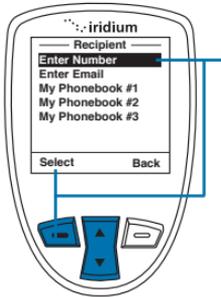
This screen is reached via the **Location Options** menu or by pressing the side **Convenience Key** which is programmed to pull up **Current Location** (to modify this setting, see Chapter 13). When **Current Location** is displayed:

- If GPS is enabled, the stored location fix will be displayed immediately (the position will be left blank if no stored position is available).
- If GPS and the GPS Settings Lock are disabled, you will be asked if you want to enable GPS; if so, the screen will be loaded with blank position data and with the message "Acquiring location" in place of "Age of fix".
- If you choose not to enable GPS, or if GPS is disabled and the **GPS Settings Lock** is on, then a "No location information available" message will be displayed temporarily.

If location is available, it will be displayed in the configured format including Latitude, Longitude, Altitude, Age of fix, and number of GPS satellites. The screen will update

automatically as frequently as you designated setting.

From this screen, you have the option to **Share your location** with other people by sending it in a message. To **Share**, press the **left option key**, labeled **Share**.



If **Share** is selected, the **Share Location Options** will appear. The available options are:

- **Quick GPS** – to send your location to your preconfigured list of up to five (5) contacts
- **New message** – to append your location to a new message, allowing you to add additional text and then address the message to a new or existing contact.

To **Share** your location, use the **2-way Navi-key** to select your desired Share method and press the **left option key**, labeled **Select**.

## Online Portal Integration with 3<sup>rd</sup> Parties

Your Iridium Extreme™ also supports integration with 3<sup>rd</sup> party online portals using short burst data (SBD). These 3<sup>rd</sup> party online portals provide the ability to track your phone's location online, see location history, two-way message, set-up geofences, and coordinate scheduled check-ins. This capability is helpful if you are managing a fleet of phones and need to monitor workflow and/or safety with a solution that provides more robust capabilities than standard messaging. For more information about 3<sup>rd</sup> party online portal integration, contact your service provider.