



# GSatTrack

STARTERS GUIDE 101



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## GSatTrack

GSatTrack is a cloud-based tracking portal that allows users to monitor, manage, and maximize the value of the data they collect from people and assets in the field.



### General Usage of the Platform

GSatTrack puts all of the data in an ecosystem into a single, powerful, centralized hub that accommodates all participants, assets, and stakeholders. GSatTrack is device agnostic, meaning it does not require users to track only certain types of hardware. In fact, the extensive catalog of data gathering devices currently integrated with GSatTrack is part of what makes the platform a welcome and seamless addition to any organization's existing infrastructure, or the perfect cornerstone of a scratch-made data ecosystem. Use GSatTrack to monitor the location and behavior of personnel, smart devices, and nearly any manufacturer's satellite-based tracking hardware.

### User Hierarchy: Admin, Standard, Anonymous

GSatTrack supports three user types in order to accommodate the needs of diverse teams. Administrator users have control of the data ecosystem, can manipulate permissions, settings, or configurations, and manage other users in the organization. Standard users are traditionally field operatives who may have some control over certain assets, and whose access to data is slightly more restricted. Anonymous users can be configured for the purpose of providing public information to interested parties outside of the organization, as with embedded public data on a website, or for family members of tracked personnel.

### Intuitive User Interface Eases Onboarding

GSatTrack's web portal has six tabs that house all of its features and functionality. New users will very quickly and easily adapt to the location and operation of each major flow cycle. Interface constantly evolves to meet the needs of users, improve per-

formance, enhance feature sets, and adhere to intuitive UX design best practices.

### Powerful Asset Management Tools

Full CRUD (Create, Read, Update, Delete) functionality for assets allows users the ability to gather data in near real time, and in most cases, act on that data without ever leaving the portal. Asset views can be customized to show both live and historic data transmission, and users can group assets in a number of ways through the portal. Geofencing capabilities and configuration of field triggers further expand the monitoring and management of assets in the field.

### Stay Informed with Live Alerts

Alerts encompass a wide range of mostly trigger-based activity and behavioral monitoring, but can also be used to automate certain "checking" and "reminder" activities and processes associated with hardware assets. Beyond that, manual alerts can be transmitted between GSatTrack and any device in the primary user portal that is part of the connected ecosystem.

### Run and View Detailed Reports

Reports from the GSatTrack portal range from generic and high level activity reports to highly customized and specifically detailed reports at a granular level. Reports can be exported in a variety of standard formats including CSV, PDF, and XLS. Visual reports from the portal dashboard are also readily available, and can be customized by the user in order to help them aggregate the data they need to make decisions and act upon insights produced within their data ecosystem.



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## Remote Asset Configuration

Many of the hardware devices on the market have configuration settings that can be manipulated from anywhere in the world with the assistance of the GSATTrack user portal. This feature can help managers troubleshoot devices, change data gathering configurations to better suit their needs, or even modify the reporting behavior of an asset in times of elevated need for information.

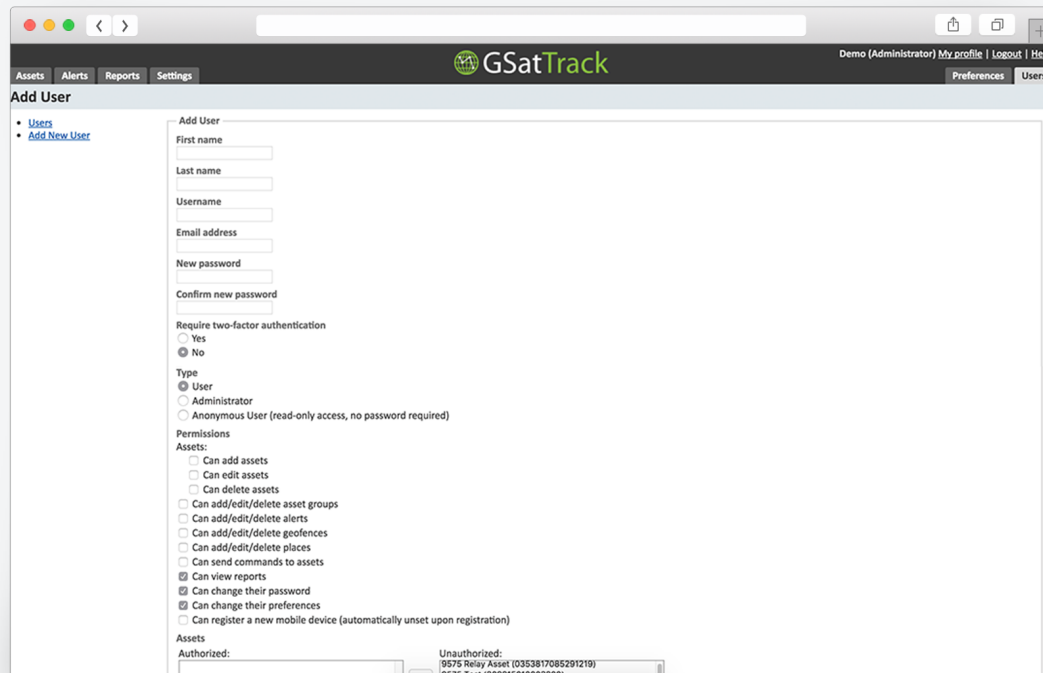
## Sending and Receiving Messages

Users in the field with devices that have a working interface can use their devices to communicate with a manager anywhere in the world by sending messages to the GSATTrack portal from the device. Those devices will also allow the same user to receive critically important messages from a command hub, or instructions related to performing certain tasks or field work. This feature set can be critically important in emergency scenarios, as well as everyday operational needs for certain types of organizations.

## Customize Preferences and Settings

GSATTrack comes prepared to accommodate a wide variety of clients with a diverse set of needs. Its default settings have been selected as the most commonly employed configuration for tracking purposes, but each of the parameters and preferences can be customized to suit the needs of the user. This includes views, permissions, behaviors, account settings, access/authentication requirements, security, and system reporting.

Administrator users have the ability to create other users on the GSatTrack portal, and from the user creation interface, set permissions and preferences for that new user.



GSatTrack's user management system supports three major user types: Administrator, General Purpose User, and Anonymous (view only) User. Default user setup employs the most common settings, but the administrator has a great deal of control and customization capability.

## Cloud access from any device with a web browser

GSatTrack is a web based product which can be accessed from any device capable of operating a web browser. This means end users are not required to download any software in order to access their assets' data tracking platform. GSatTrack's cloud accessibility gives asset managers the flexibility to receive, analyze, and act upon data in real time without being tethered to a local terminal or device running heavy software.

## User Profile: Administrator

Administrators also have the ability to change anything at the other user levels, including permissions, assets, settings, preferences, and all other configurable aspects of the platform. The administrator user type is that which you would typically give to a dispatcher for a fleet management operation, perhaps a high-level engineer for asset management, or a central command officer for remote ground personnel operations. Understanding the power this user type has is critical to the security of the data within your ecosystem, and it is recommended that only a small population of the platform users are administrators.

## User Profile: Standard

The standard user type will be the most ubiquitous within your organization, and is perhaps the most flexible type, allowing for full control of each individual's permissions, capabilities, and usage. The standard user's permissions can be restricted in such a way that it is quite clear to them the functions and roles of their involvement with the ecosystem and activity within the platform. Access to assets, places, geofences, alerts, and other aspects of GSatTrack can be configured by the administrator to be as open or restricted as desired with this user type.

This user type is ideal for field operatives, drivers, fisherman, or anyone in possession of a tracking device reporting back to a central hub. It can also be configured to cater to a team lead, who is responsible for a number of assets or personnel in a given location or operation. This user has the ability to manage that team or asset group from an internet-enabled device that can access the portal, and administrators above that user can monitor multiple sets of users like this, creating a chain of hierarchy.

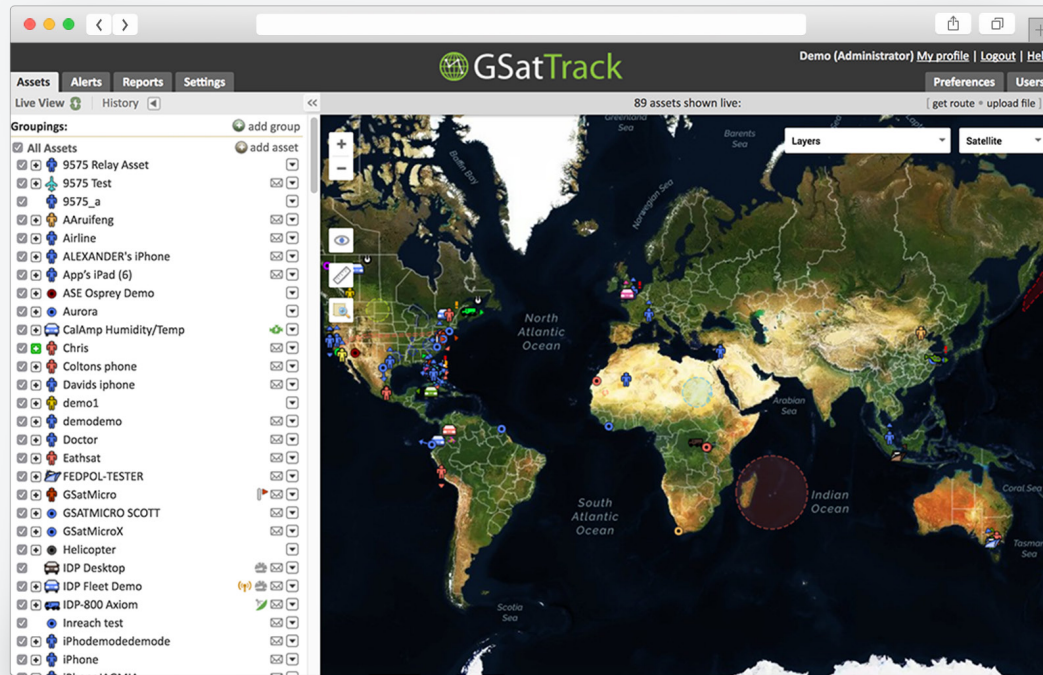
## User Profile: Anonymous

While not technically a user on GSatTrack, this user type gives organizations the ability to make GSatTrack data (like the location and behavior of an asset or asset group) available to people outside of the organization through a link. The information can also be embedded on a website, like, for example, to track a race or other kind of travel activity of a person or group of people participating in an event.

## Flexibility of User Types

Because permissions are so customizable at any level, system administrators can essentially create subsets of each of the 3 primary levels that have certain defined permission sets, lending to the creation of multiple levels of administrator, standard, and anonymous user types within an organization. This extrapolation of the hierarchy can be beneficial for organizations that need to be able to create super-admins, admins, sub-admins, team leads, and other mid-hierarchy roles within the platform. Organizing the permissions offline and then creating the user profiles with those presets will allow for the development of a system of accountability that is as flexible as an organization is complex.

GSatTrack has a simple, 6-tab interface that fits on a single page.



Navigation links don't get in the way of the visual elements of the primary focus, and pop-overs mean you never have to leave a given view in order to configure things in the portal.

## Single Container, No Fold

In digital design, and particularly web design, “the fold” is the point that separates the “top” of the page from the rest of the page, and the most important content needs to all fit in the space “above the fold.” With GSatTrack, there is no fold, and the entire interface fits in the main container. This means that given appropriate minimum resolution, users will never have to scroll in any direction to find the information, link, or button they need.

This is particularly beneficial for operations that need to be able to see the entire map in the main view, without having to scroll around or move it from place to place. Additionally, this makes learning to use the GSatTrack interface much simpler, as fewer elements on a given interface allows people to more quickly grasp the specific purpose of that interface.

## Six Primary Tabs

GSatTrack's features and capabilities all roll up into one of six main functional groups, making the navigation panel simple and direct for new users. This navigational hierarchy comes from an understanding that users entering the tracking portal have a very clear intent, and the six top-level categories make it very clear how to get directly to that interface.

## Map View

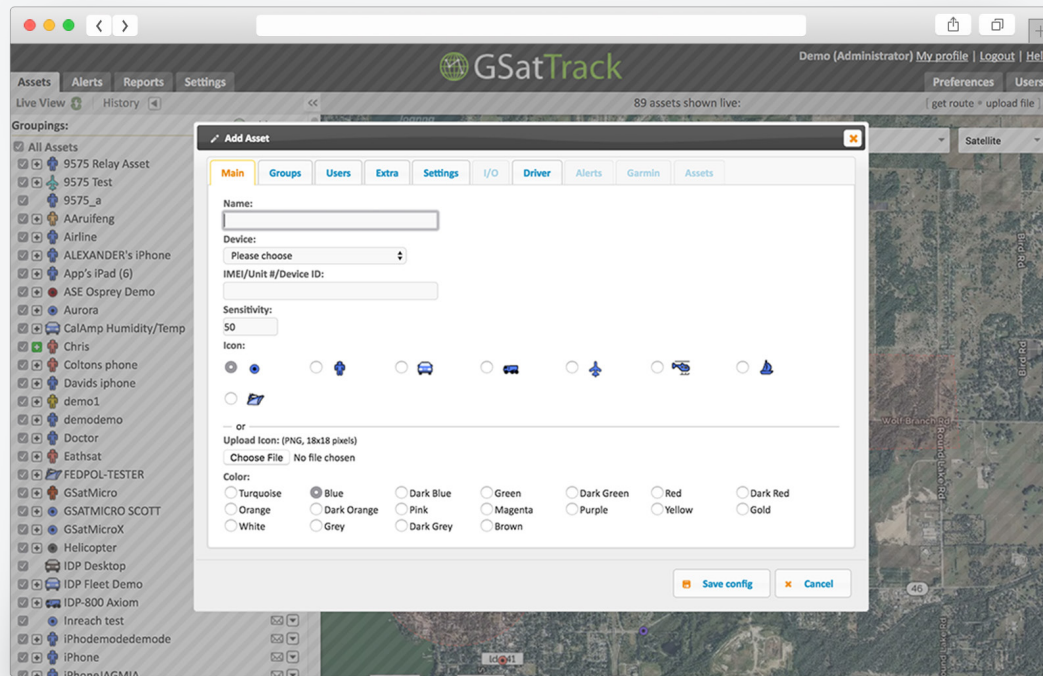
The default tracking view for the portal is a map in satellite view, which can be zoomed in or out to display the entire region, continent, or world. Assets, groups, geofences, location history, and travel paths appear on the map, which can be configured to display as much or as little as the user wants to see. Additionally, the user can toggle between enabling and disabling various map layers on the view.

Layers on the map are ways for specific industries to get more value out of the interface, particularly maritime, which has its own map layer tile available by default. Other layers include weather radars, traffic maps, satellite network maps, oil, and other API-based maps that can be configured by the users.

## Assets in Left Panel

The asset panel allows users to interact with their assets directly from the home screen, which makes it easier to locate them, as well as perform any tasks like configuration, messaging, or status checks. The panel itself allows the users to create and collapse groups of assets in order to maintain order of excessively large ecosystems from a single portal. Each asset's details can be viewed from the left panel or by clicking/tapping the asset on the map.

At its core, GSatTrack exists to monitor, manage, and maximize the value of its connected assets.



Whether one or one thousand assets, GSatTrack will scale to any organization's needs, and is a phenomenal Fleet Management platform as well.

## Adding Assets

Adding assets to GSatTrack is a simple process that also allows for very specific pieces of information to be included in an asset profile. Managers can color-code their assets, use iconography to differentiate it, and configure a number of different settings from the add/edit interface. For assets with operators, those operators can be added as "drivers" who will also be able to log into the device when they are actively engaged with it for more accountability.

While adding assets, managers can also associate the asset with any number of groups or users so that the asset will be visible and sorted within those groups immediately after it has been added to the portal. There are a number of complex settings that can also be configured by the asset manager, including how to display it on the map, and whether or not to hide certain information from the view-port. For advanced users, there is even an option to change the spatial reference system to a regionally supported or mandated standard system.

## Configuring Asset in Portal

Once added to the portal, asset details can be configured or updated by their managers at any time using the same intuitive interface that was used to create it. This functionality can be used, as well, to sort assets into groups, modify the drivers, and change permissions for which users can and cannot interact with that asset through GSatTrack.

## Assets Group

Grouping allows users greater ability to manage their assets when there is a large number of different types of devices loaded into a single portal. This can also be used to set up local, regional, or team-based grouping so that access to manage

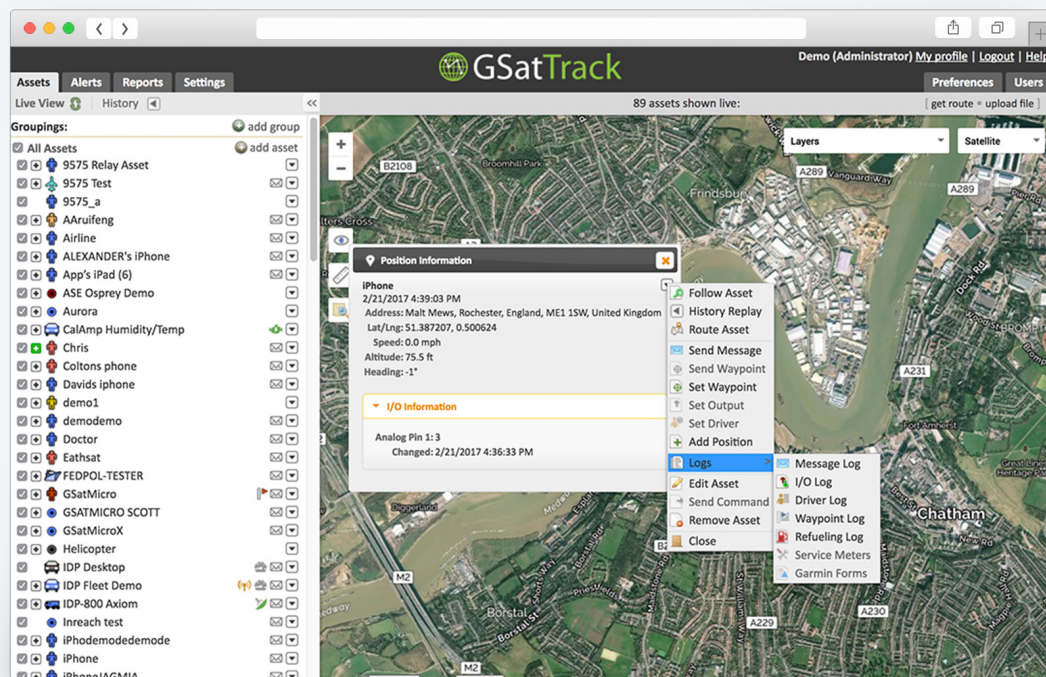
assets and personnel can be delegated directly to the leaders of that corresponding group more efficiently.

While this feature is mostly geared toward helping fleet managers with hundreds or even thousands of active assets and tracked entities, it also scales down to a smaller organization that simply needs to perform batch actions on a given set of assets, whether it is a simultaneous tracking ping, or a system report that is better broken into groups.

## Track and Monitor Assets

Each asset viewable in the left panel is also viewable on the map. Users can access the portal and immediately view any asset's last-reported position data, and they can open the asset menu to access interactive functionality. These functions include following an asset (if it is expected to be in motion), routing the asset remotely (send or set the asset's intended path from the GSatTrack portal), and setting or sending waypoints along an intended route, which can be used to trigger alerts and estimate arrival times for more complex tracking operations.

While it is connected to GSatTrack, each asset creates a log of all of its interaction with the portal, including position reports, messages sent and received, driver, waypoint, and refueling history, and any other information reported by hardware connected to the tracking device (I/O port sensors, for example). These logs can be accessed by asset managers through the GSatTrack portal, and serve almost as single-asset reports that don't require a special server pull.



## Historical View

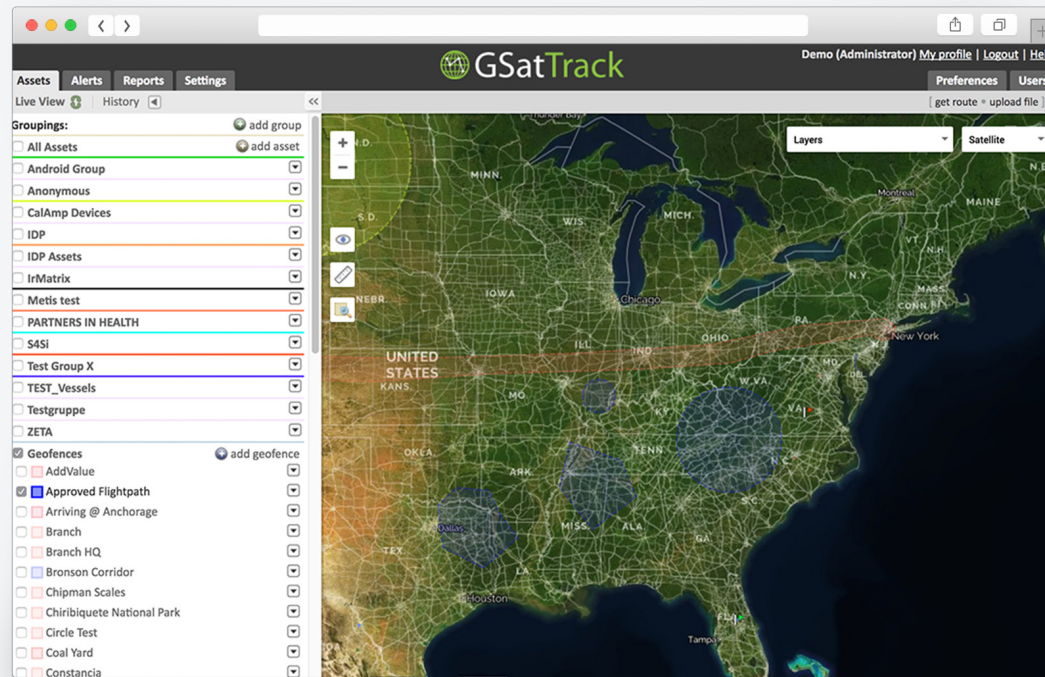
GSatTrack stores its historical data for three years on redundant servers. This information can be accessed at any time without having to schedule reports or request additional support. Any data recorded by the hardware monitoring the asset is available through asset history at any time. This includes messages that may have been sent, alerts that may have been triggered, position data, and anything that may be transmitted from sensors attached to the asset, like fuel levels or even maintenance reports.

When toggling historical view, users have the option of setting a date range that will filter the asset data by a given interval so as to only show the information that is relevant. This quick filtering is the equivalent of reviewing security footage at a crime scene and being able to specify the exact time frame one wants to view instead of sifting through the entire video.

## Live View

Another toggle option from the asset view panel, Live View allows users to monitor assets in near-real time, as they are constantly reporting from the field and GSatTrack will update the portal with the most recently reported data without a need for refresh. The Live View is critically important for asset managers that need to keep track of all of their assets in real time in order to respond to alerts, assist with route management, or manage messages to and from the asset, especially if they need to be relayed or applied to other operational activities.

Geofences put the map to use for asset managers by allowing them to create trigger zones based on geographic areas.



## Understanding a Geofence

Geofences are specific areas on a map that are digitally “fenced” by a user in order to mark that particular territory as a trigger region or focus area. Geofences have tremendous flexibility according to the needs of the asset manager, and can be used to sort assets, further narrow the focus of a particular asset group, or trigger alerts in GSatTrack for assets that either enter or leave a given Geofence.

## Setting Up a Geofence

Geofences in GSatTrack are dynamic, and allow greater managerial control and information gathering and distribution through to assets in these areas. These dynamic geofences can be set up as either traditional shapes, polygon, freeform, or route-based shapes to alert managers when a driver leaves a predetermined path. The geofencing functionality provided by GSatTrack allows users to message assets within the geofence area. Users can also gather historical reports for a zone rather than for a single asset or even a group of assets. Managers can set up behavioral monitoring within a specific geographic area rather than according to assets and personnel at the individual level by attaching alerts to geofence triggers rather than assets. Reports from GSatTrack can also be run and pulled by Geofence as if it were any other form of data sorting and grouping.

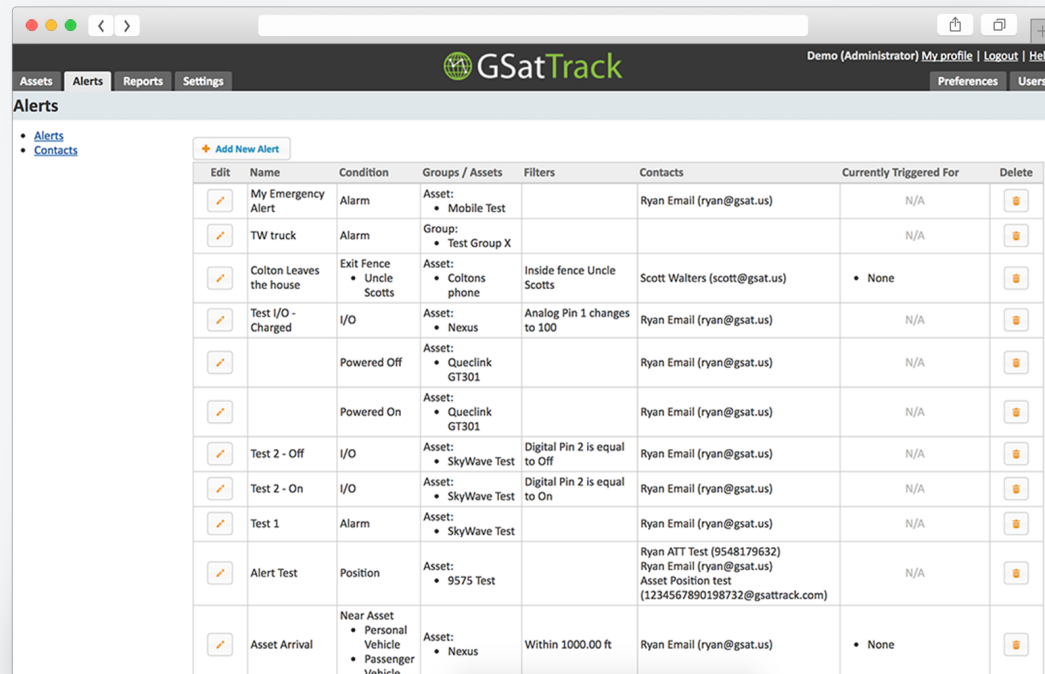
## Using the Geofence Feature for actionable data insights

A geofence can be as small as a single building or as large as an entire geographic region, and the specificity of a geofence is user-determined based on the goal of that geofence. If, for example, asset managers want to configure a loss prevention system for a given asset, a Geofence can be established around a worksite that will allow the asset to move freely within the site, but trigger an alert if it leaves the confines of that area.

Geofences can also be used to indicate route maps, and alert asset managers if a driver, pilot, or vessel captain has strayed too far from an intended navigation path. In the same navigational cases, GSatTrack geofences can be employed to prevent assets from entering dangerous areas, or to help vessels, vehicles, and other assets avoid inclement weather conditions or unstable regions prone to more unpredictable variations in environment.



GSatTrack provides life-saving data in real time during emergencies or triggered events.



Edit	Name	Condition	Groups / Assets	Filters	Contacts	Currently Triggered For	Delete
	My Emergency Alert	Alarm	Asset: • Mobile Test		Ryan Email (ryan@gsat.us)	N/A	
	TW truck	Alarm	Group: • Test Group X			N/A	
	Colton Leaves the house	Exit Fence • Uncle Scotts	Asset: • Coltons phone	Inside fence Uncle Scotts	Scott Walters (scott@gsat.us)	• None	
	Test I/O - Charged	I/O	Asset: • Nexus	Analog Pin 1 changes to 100	Ryan Email (ryan@gsat.us)	N/A	
		Powered Off	Asset: • Queclink GT301		Ryan Email (ryan@gsat.us)	N/A	
		Powered On	Asset: • Queclink GT301		Ryan Email (ryan@gsat.us)	N/A	
	Test 2 - Off	I/O	Asset: • SkyWave Test	Digital Pin 2 is equal to Off	Ryan Email (ryan@gsat.us)	N/A	
	Test 2 - On	I/O	Asset: • SkyWave Test	Digital Pin 2 is equal to On	Ryan Email (ryan@gsat.us)	N/A	
	Test 1	Alarm	Asset: • SkyWave Test		Ryan Email (ryan@gsat.us)	N/A	
	Alert Test	Position	Asset: • 9575 Test		Ryan ATT Test (9548179632) Ryan Email (ryan@gsat.us) Asset Position test (1234567890198732@gsattrack.com)	N/A	
	Asset Arrival	Near Asset • Personal Vehicle • Passenger Vehicle	Asset: • Nexus	Within 1000.00 ft	Ryan Email (ryan@gsat.us)	• None	

## Types of Alert

GSatTrack can help asset managers keep track of everything including service reminders and maintenance requirements for each of the assets in the portal. Whether these alerts are set to occur by intervals (a certain amount of time or usage, for example), or by specific milestones, GSatTrack can use any of its collected data points to alert managers if one of its assets is in need of attention.

Triggered alerts can be tied to intervals as mentioned above, but are also more often tied to events, activity, or geofence criteria. Alerts can be sent whenever an asset is on the move, as well as when a particular vehicle exceeds a certain speed or idles for too long. Alerts related to geofencing can help managers keep assets out of dangerous situations or locations, and can also help managers identify potential theft if their assets deviate too far from the intended path.

Because of the potential for hardware to be able to track and monitor personnel and their vital signs as well, GSatTrack can alert command when a given unit is under siege, or if a particular field agent, operative, or member of a team is under duress or worse. This kind of real-time monitoring and alerting system allows managers to respond more quickly and with better information.

## Why Set Up Alerts

Alerts allow managers to get the most value out of the live asset reporting system and the full extent of GSatTrack's capabilities. Because the portal is capable of handling so many assets, and many operations will have hundred and even thousands of assets connected at any given time, automating the events and activity that managers want to know is the best way to allow them to focus on the most pertinent real-time information at all times.

Alerts can monitor everything from driver behavior to delivery times to sensor information like the flow of oil through a pipe. The only limitations to what can be monitored is determined by the hardware choice. Alerts can capture all sorts of data and are really what allow for the diversity of the platform.

## Configuring Contacts

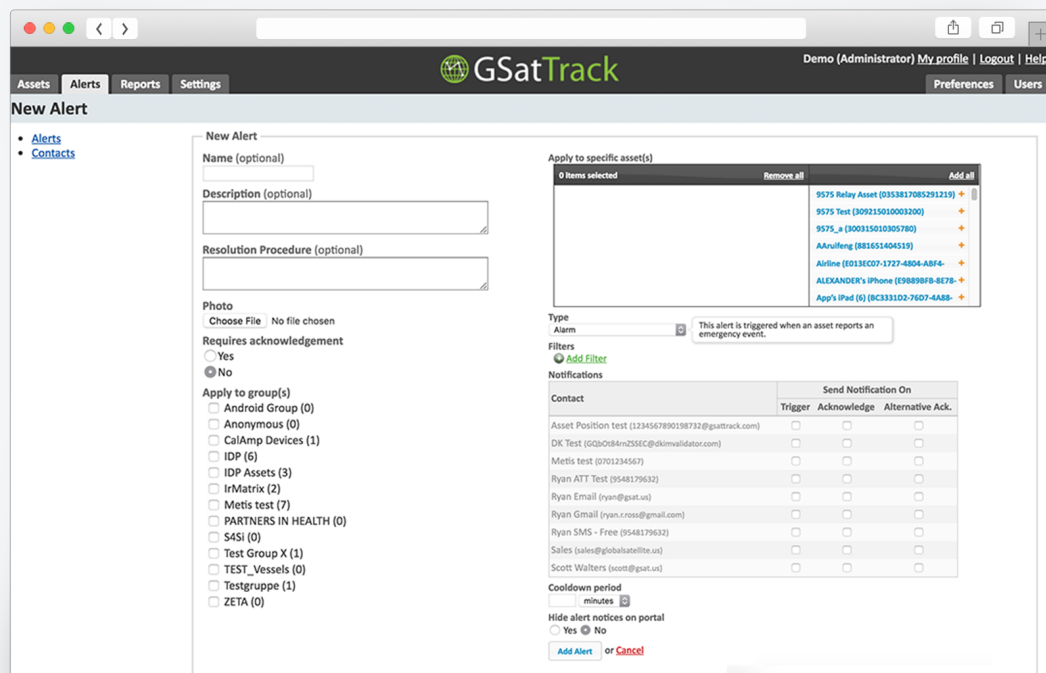
Contacts are persons who are notified either through SMS or email when alerts or behaviors occur. They are notified of resolution procedures on what steps should be taken next and how to react to these behaviors. Contacts do not have to be users of the portal in order to be notified of these circumstances. While most users should also be set up as contacts, not all contacts have to be users of GSatTrack.

Contacts can be added to GSatTrack from the Alerts tab, and their alert subscriptions can be managed and edited as necessary from the alerts to which they are subscribed. When configuring contacts, users can adjust the subscription settings in order to limit the number of times a contact receives a message, email, or notification from the portal about a given alert.

## Alert Triggers

Alerts can be triggered by a number of events and data points within the GSatTrack ecosystem, but will most commonly be associated with motion activity, meter readings, and geofence activity. The asset's hardware and sensory devices will be the primary means of determining the extent of the alert activity a manager is capable of establishing.

Some alerts will require the contact to acknowledge receipt of the notification, and these alerts



will be resent from the portal until the contact has acknowledged it. The interval and number of retries can be configured by the user setting up the alert, and the course of action for unanswered alerts can include sending an alert to another contact.

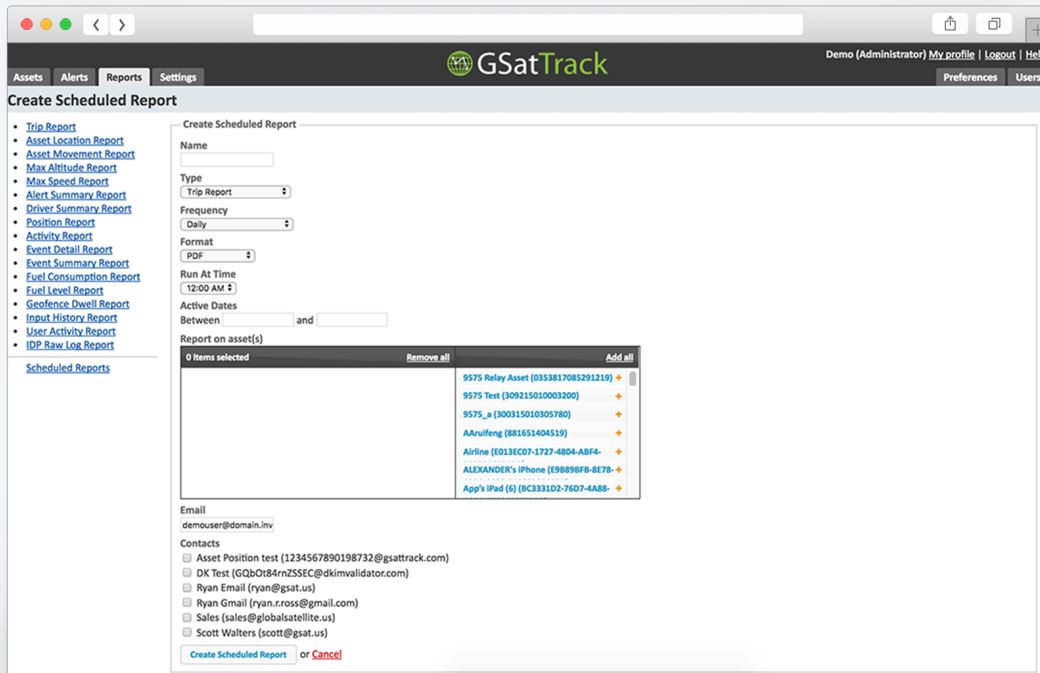
## Panic Buttons

Some hardware devices, like the GSatMicro, come with a special distress signal button or activation that can be employed to inform asset managers, fleet managers, or central command of an emergency situation. GSatTrack has the ability to manage these distress signals, and gives asset managers the ability to configure the asset that sent them to report more frequently about position and behavior while coordinating a rescue or support initiative.

The devices that have distress buttons are typically user-operated, so many of the distress signals will be initiated by the asset's handler or operator. There are ways to set alerts within GSatTrack, however, that can effectively trigger a smart recognition of a distress event, and then send an alert to the operator or handler of the asset to check the status. Depending on the response or lack thereof, the portal can be configured to log that event as a distress signal (unresponsive operator) and allow managers to take appropriate action.

# Run and View Detailed Reports

Reports allow managers to set up assets in GSatTrack, and, if they choose, never actually log in again.



## Reporting Future Overview

Reports can be pulled (run) on demand, or they can be configured to automatically send on a given date or time schedule. The GSatTrack reporting feature is very similar to almost any other data-driven platform's reporting system in that it allows the user to configure a report from a set of pre-existing criteria driven by the type(s) of data available in the system, define parameters and limitations on that information, and generate reports once or at regular intervals.

Each type of report can also be viewed directly within the portal by clicking or tapping that report type from the list on the right panel. It will default to showing all of the assets connected to the portal, but can also be filtered further with the control panel on the top of the report.

## Level of Customization

For the majority of reporting needs, the reports that are already part of GSatTrack are those that are preconfigured to display the most pertinent information with regard to telematics. These reports can be customized by the user, and, for an additional engineering cost, GSE will create and make available custom reports and formatting that accommodates a client's specific demands.

## Types of Reports

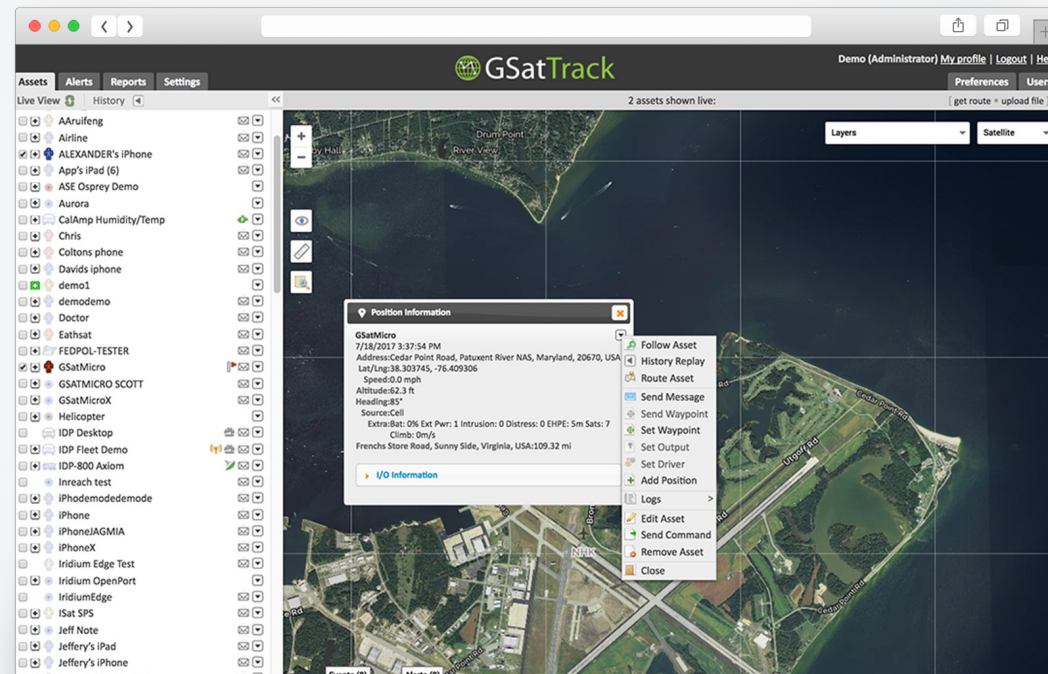
GsatTrack offers a host of reports ranging from activity reports which is a detailed list of all information gained from an asset to more specific reports like geofence dwell reports which identify how long an asset has been within a specific area. In addition to asset-related reports, administrators can also generate reports for GSatTrack users so that they can track the IP address, activity log, and session data for all activity in the portal within a given time frame.

## Report Formats

As mentioned, all reports can be viewed directly in the GSatTrack portal, and can be pulled on demand or scheduled to be sent at predefined intervals. Regardless of whether they are recurring or single pulls, all reports can also be exported from the portal in the form of a PDF, CSV, or XLS file that the user can download and/or send from the portal to any recipient.



GSatTrack allows managers to interface directly with connected devices that have a UI or are connected to an operator's device that has a UI.



## Messaging Capabilities

Users in the field with devices that have a working interface can use their devices to communicate with a manager anywhere in the world by sending messages to the GSatTrack portal from the device. This same functionality also allows devices to communicate with one another regardless of manufacturer. Those devices will also allow the same operator to receive critically important messages from a command hub, or instructions related to performing certain tasks or field work. This feature set can be critically important in emergency scenarios, as well as everyday operational needs for certain types of organizations.

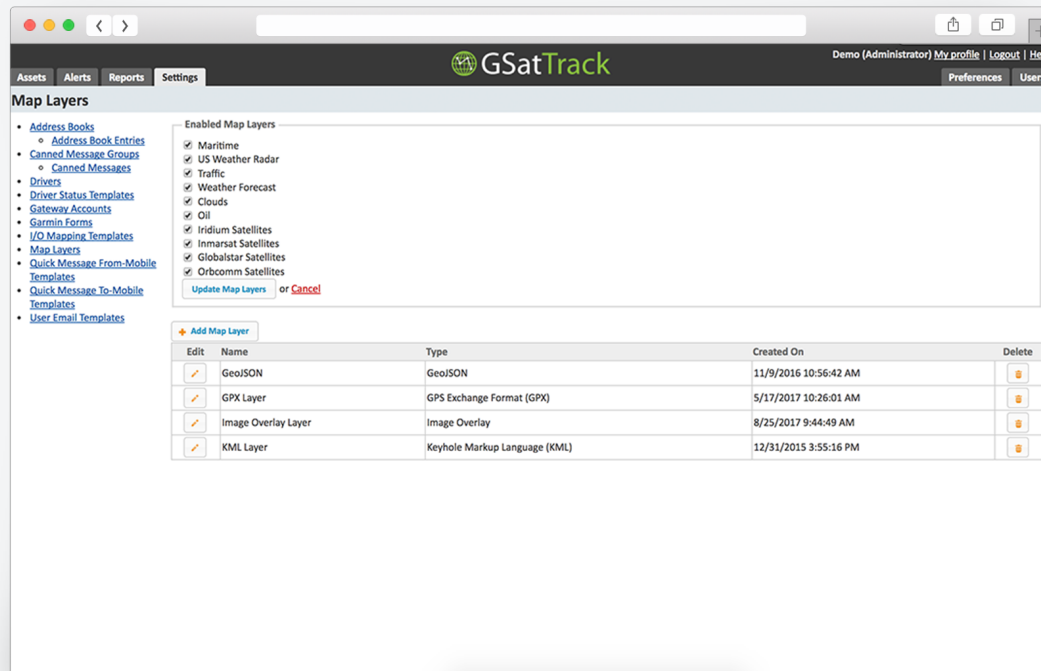
Messages can also be routed between devices, including those that do not normally have the means to speak to one another. GSatTrack accomplishes this by assigning a message routing ID to each device. For example, Device #1 (ID 11) can send a message to Device #2 (ID 22) by sending a text message "22:Hello Device #2." The ID on the front of the text message tells the network to route the message to Device #2. This limits the need for additional address books to be developed, for as long as two operators are utilizing devices connected to GSatTrack, they can communicate with one another using this switchboard.

## Usage Scenarios

For dispatchers or standard users of GSatTrack, this process is even easier, as they can push the messages to the devices directly from the portal's UI. This can be taken a step further when engaging the messaging functionality utilizing geofences. Instead of communicating to only one device, dispatchers can quickly draw a geofence around an area and begin messaging everyone in a zone. This process allows dispatchers to quickly and efficiently direct persons in the field on how to deal with situations.

For emergency services, this could be employed to make persons aware of how to respond to threats or natural disasters, and for fleet managers, messages could include important information about expected delays, route guidance, modifications to the existing plan, or additional waypoints. In the end the ability to communicate with any device across any network in a simple fashion allows users of GSatTrack to do more than simply observe telemetry and logistics data but also be able to react to it in a meaningful way.

The Settings tab allows managers to configure GSatTrack to suit their needs.



## Account with Settings

As with any account and user based software system, GSatTrack affords its administrators and users the ability to configure their own settings and preferences while they are using the application. The Preferences tab manages the more standard account-level settings like regional considerations (time zone, metric vs. imperial) and default views for each panel. More complex customization of the interface and functionality lives in the Settings tab.

## Visual Customization

As mentioned in other sections, GSatTrack offers users the ability to control how a viewer sees the information presented from assets. The clearest visual example of this is the ability to toggle the various map layers and map views. Most of the map layers are supplied by NOAA, but clients also have the capability to add their own. The map views are provided by another third party service called map box. It is important to note that the tile images by mapbox in some cases can be improved upon, and more detailed visuals or more recent visuals of a given area can be obtained for a cost.

## Feature Functionality

Within the settings tab, users can also configure address books, canned messages (which are often used as part of the alert system), driver settings, and a number of other behavioral considerations. Administrators can also use the settings tab to manage their Garmin Forms and messaging templates.

For administrators of systems that include assets with I/O port sensory equipment to monitor specific pieces of data, the Settings tab also houses the configuration for those I/O mapping templates, which are critically important to making sure the data enters the platform and gets processed appropriately.



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