



Rafael Service User Guide

How to use the Rafael Service with supported devices.

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Table of Contents

1	Rafael at a glance	6
2	Login to the Rafael Service	6
2.1	Login and device configuration using wizard	6
2.2	Device wearer name	7
2.3	Define speed dial and help request phone numbers	7
2.4	Activate call centre service	8
2.5	Define home beacon name and location	8
2.6	Create Your Account	9
2.7	Create Additional User Accounts	9
2.8	Forgot password	10
3	Using the Rafael service	11
3.1	Device list view	11
3.1.1	<i>Device list elements</i>	<i>11</i>
3.1.2	<i>Basic search function</i>	<i>11</i>
3.1.3	<i>Advanced search function</i>	<i>12</i>
3.1.4	<i>Group action function</i>	<i>12</i>
3.1.5	<i>Connection status function</i>	<i>12</i>
3.2	Home view	13
3.2.1	<i>Home view elements</i>	<i>13</i>
3.2.2	<i>Home view banner</i>	<i>14</i>
3.2.3	<i>Home view map</i>	<i>16</i>
3.2.4	<i>Home view log</i>	<i>18</i>
3.2.5	<i>Home view log functions</i>	<i>21</i>
3.2.6	<i>Home view call list</i>	<i>22</i>
3.3	Settings view	25
3.3.1	<i>Device settings</i>	<i>26</i>
3.3.2	<i>Advanced settings</i>	<i>27</i>
3.3.3	<i>Assistee Info</i>	<i>33</i>
3.3.4	<i>Notifications</i>	<i>36</i>
3.4	Device profiles	37
3.4.1	<i>Common features in all profiles</i>	<i>37</i>
3.4.2	<i>Track profile</i>	<i>38</i>
3.4.3	<i>Auto profile</i>	<i>38</i>
3.4.4	<i>Easy profile</i>	<i>39</i>
3.4.5	<i>Full profile</i>	<i>39</i>
3.4.6	<i>Profile default values</i>	<i>39</i>
3.5	My Account	40
3.6	Geofences	41
3.6.1	<i>Define the geofence name</i>	<i>41</i>
3.6.2	<i>Create a geofence area</i>	<i>41</i>
3.6.3	<i>Geofence area activation scheduling</i>	<i>43</i>
3.6.4	<i>Activate geofence</i>	<i>44</i>
3.6.5	<i>Deactivate geofence</i>	<i>44</i>
3.7	Configuring a device without use of wizard	45
3.8	Device groups	45
3.9	User accounts	47
3.10	Rafael service APIs	49
3.10.1	<i>M2M API</i>	<i>49</i>
3.10.2	<i>SCAIP API</i>	<i>49</i>
4	Troubleshooting	50

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Complementary reading

The following Navigil reference documents are complementary reading for this document. All operating and firmware related documentation is also available at **extranet.navigil.com**

Ref. #	Document Name
1	S1 User Guide
2	S3 User Guide

Supported devices

The following devices are supported by the Rafael service.

HW version	SW version
S1 HW version D or later	S1 firmware version 1.6.32 or newer
S3 HW version B or later	S3 firmware version 2.0.5 or newer

Supported web browsers

The following internet browsers are supported by the Rafael service.

Browser	Version
Internet Explorer	Version 10 or newer
Mozilla Firefox	Version 31 or newer
Chrome	Version 35 or newer
Safari	Version 7 or newer
Microsoft Edge	

Instructional icons



Warning: situations that could cause injury to yourself, others or may damage a device



Note: notes, usage tips, or additional information

1 Rafael at a glance

This user guide describes how to use the Navigil Rafael service. Please refer to the Navigil S1 and Navigil S3 user guides [Ref #1 and Ref#2] for instructions on how to use Navigil wearable personal safety wristwatches.


Rafael service has three key elements:

- call routing and caregiver reachability services
- core system services including:
 - communication services with devices
 - device location in a map view
 - device status home page
 - event log database services
 - API interfaces for third party systems such as alarm call centre systems
 - management services for user accounts and devices
 - device diagnostics service
- web browser user interface to core system services

Reach, locate and manage. Rafael is a brandable service that allows individual caregivers and professional care entity personnel to manage the settings of devices, manage the call routing and caregiver reachability services, and to see the location of an assistee in a map view.

The Rafael service is hosted by Navigil in a telecom grade redundant server environment. Caregivers and professional care providers can use the Rafael service with a web browser.



Note: If you need help or more information on Rafael service click icon  on the web page to view help text.

2 Login to the Rafael Service

The first login into Rafael service can be done in two different ways. You can use the user ID and password provided by your supplier or you can use the Rafael service wizard to create an account for yourself. If you already have the login credentials you can access the Rafael service via login page (<https://sfi1.navigil.com>). Please see section 3 how to use the Rafael service. If you don't have login credentials please follow instructions in section 2.1 to access the Rafael service.

2.1 Login and device configuration using wizard

You need to have an account in order to use the Rafael service. If you don't have an account you can create one by logging into the Rafael service with the setup username and password provided in the device box. Please open the box and locate the label attached to the inside of the lid.



The setup username and password are printed onto the label's left hand side (red box in above picture).



Note: Use the setup username and password to login to Rafael service only if you don't have already your own user account in the Rafael service. Each use of the setup username and password always creates a new user account.

Open your web browser and go to the Rafael service login page (<https://sfi1.navigil.com>), enter the provided user name and password into the appropriate fields and click **SIGN IN**. The Rafael language can be select by clicking the language flag.

2.2 Device wearer name



Warning: Make sure the device is connected to external power and that the device has a mobile network connection before you commence with the device activation.

Define the person first and last name who is wearing the device and click next.

FIRST ACTIVATION - Define name of the device wearer

- Define name of the person who is using the device.

ASSISTEE

FIRST NAME

LAST NAME

NEXT

2.3 Define speed dial and help request phone numbers

Define phone numbers which can receive help request calls from a device and which can make calls to the device. Define name and phone number of the first person in the list of help request call recipients. The name is shown in the log for calls and events. Fill in the name of the person into **NAME** field and the phone number into the **TEL.** field. The phone number should be entered in the format cccnnnnnnn where the ccc is the country code and the nnnnnnn is the phone number (for example 358400999999). Please don't use international call prefixes such as + or 00. Please click **HELP REQUEST** toggle **ON**. Click **ADD NEW SPEED DIAL NUMBER** to enter additional speed dial entries.

FIRST ACTIVATION - Define speed dial and help request numbers

- Add device speed dial phone numbers.
- Enter phone number in the format like 358441234567
- Turn on Help request for numbers what you like to be included in the Help request call list.

NOTE: Call centre service OR at least one Help Request number must be turned on.

SPEED DIAL		HELP REQUEST
1.	NAME	<input type="checkbox"/> OFF
	TEL.	
ADD NEW SPEED DIAL NUMBER		+

[BACK](#)
[NEXT](#)

You may define up to eight entries to speed dial list and individually define whether the person will be receiving help request calls. Click **ADD NEW SPEED DIAL NUMBER** and enter required information. Turn **ON** help request toggle for persons who wish to receive help request call. The help request call routing logic will attempt to reach the persons in the order they appear in the speed dial list unless availability and unavailability settings remove a person from the call routing sequence.

2.4 Activate call centre service

You may also activate the **CALL CENTRE SERVICE** by clicking the toggle to **ON**. A help request call will be forwarded to a call centre in the event that none of the caregivers defined in the SPEED DIAL list is reachable. Please note that this option is available only if your service provider offers such a service.

ACTIVATE CALL CENTRE SERVICE

 tel. +358447345790 Navigil test phone	<input type="checkbox"/> OFF
--	------------------------------

[BACK](#)
[NEXT](#)

2.5 Define home beacon name and location

The Navigil S1 and S3 wristwatches use the signal transmitted by a home beacon to determine if the assistee is at home. The home beacon nickname will be shown in the event log. The home beacon is also used to charge a Navigil wristwatch. Please define the home beacon nickname by entering it into the **NICKNAME** field and the home beacon location by entering the **STREET ADDRESS** where it is located. The street address will be used to position the home beacon icon in the map view. Please note that city and country information may be required in the street address in order to place the home beacon correctly on the map.

FIRST ACTIVATION - Define home beacon nickname and street address

- Define home beacon nickname / location name.
- Define street address where the home beacon is located (type in like this: Klovinpellontie 1 Espoo Finland).

HOME BEACON
Nickname
11:22:33:44:55:66
Street address

[BACK](#)
[NEXT](#)

2.6 Create Your Account

You need to create a user account for yourself in order to use the Rafael service after the set up. Please enter your first name into **FIRST NAME** field and your last name into the **LAST NAME** field. Please enter your e-mail address to the **EMAIL** field. This will be used as your user name in subsequent login into the Rafael service. Please define a password for yourself by entering your chosen password into the **PASSWORD** field and **REPEAT THE PASSWORD** fields. You may ask the Rafael service to send you the login and password information to you e-mail by selecting the **SEND LOGIN AND PASSWORD BY EMAIL**.

FIRST ACTIVATION - Create an user account to manage the device in the service

- Define your first and last name.
- Type into email field your valid email address. This will be used as an user name to login to service.
- Define a password what you use to login to service.

NAME

FIRST NAME

LAST NAME

EMAIL

PASSWORD

repeat the password

☐ SEND LOGIN AND PASSWORD BY EMAIL

BACK

ACTIVATE DEVICE

Once you have entered all required information click **ACTIVATE DEVICE** to change the device status from **SETUP** to **IN USE**. Depending on service provider's preferences access to the device settings page may be disable.



Note: The device can be successfully activated only when it is charged and has access to mobile communication network.

2.7 Create Additional User Accounts

If required create additional user accounts for persons who wish to see the assistee's location in the Rafael map view, manage the device settings, manage help request call routing and reachability service settings. All users will have the same access rights in the Rafael service. In order to create a new user account please ask the user of the new account to logon into the Rafael service using the setup user name and password in the device label described in section 2.1.

After the login the user is taken directly to the **YOUR ACCOUNT** section. Please enter **the FIRST NAME, LAST NAME, EMAIL** and **PASSWORD** information as in section 2.6.

FIRST ACTIVATION - Create an user account to manage the device in the service

- Define your first and last name.
- Type into email field your valid email address. This will be used as an user name to login to service.
- Define a password what you use to login to service.

NAME

FIRST NAME

LAST NAME

EMAIL

PASSWORD

repeat the password

☐ SEND LOGIN AND PASSWORD BY EMAIL

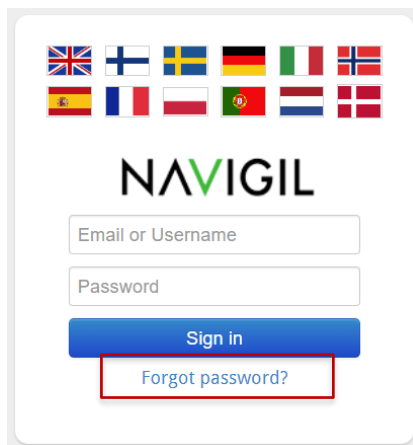
BACK

ACTIVATE DEVICE

Click **ACTIVATE DEVICE** to create an additional user account.

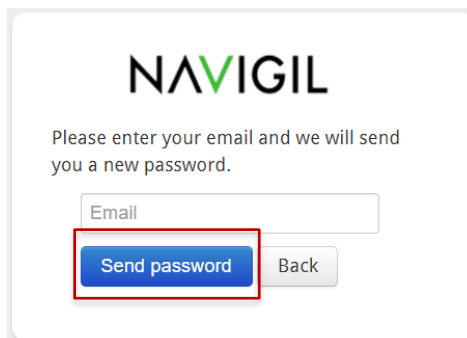
2.8 Forgot password

In case you have forgotten the Rafael service password you can request for a new password. Go to the Rafael service login page and click **“FORGOT PASSWORD?”** button.



The image shows the Rafael service login page. At the top, there is a row of ten flags representing various countries. Below the flags is the NAVIGIL logo. Under the logo are two input fields: 'Email or Username' and 'Password'. Below these fields is a blue 'Sign in' button. At the bottom of the form, there is a red-bordered button labeled 'Forgot password?'.

Enter your email into the **Email** field and click **“SEND PASSWORD”** and the Rafael service will send an email with a new password to you.



The image shows the Rafael service forgot password page. At the top, there is the NAVIGIL logo. Below the logo is the text: 'Please enter your email and we will send you a new password.' Below this text is an 'Email' input field. At the bottom of the form, there are two buttons: a blue 'Send password' button and a grey 'Back' button. The 'Send password' button is highlighted with a red border.

3 Using the Rafael service

This section describes how to use the Rafael service after the device has been set up. The Rafael service has two main views: device home view and device settings view. In the device home view you can see the device status, see its location on a map and conduct daily operational activities. In the settings view you conduct seldom required activities such as changing the device profile, managing the speed dial list and changing other device settings.

Please see section 3.7 for instructions on how to configure a device using the administrative functions of the Rafael service.

3.1 Device list view

Rafael service provides tools to see devices in the service, execute group actions to selected devices and to search for devices based on phone number, serial number, assistee name and several other criteria. The number of devices visible depends on the privileges the Rafael service user has. If the user has access to only one device the user will be taken directly to that device's home page upon login. If there are more than one device the device list view is shown.

0 DEVICES SELECTED	GROUP ACTION	CONNECTION STATUS	ALL
3584576	10000	ALARM CALL - NO ANSWER	IN USE
3584576	10000	NAME NOT DEFINED	SETUP
35845785	10000	NO SERVICE CONNECTION	SETUP
35845	10000	ALL OK	IN USE
3584576	10000	ALL OK	IN USE

3.1.1 Device list elements

The device list shows devices in descending phone number order. The columns shown are:

- Device type: wristwatch
- Assistee information: device phone number and assistee name
- Device information: device serial number and state of alarm / warnings if any
- Device status: SETUP, POWER OFF, IN USE, BLOCKED or DELETED
- Latest device reported information for battery status, location and mobile network signal
- Icon for accessing device home page
- Device selector for group actions

3.1.2 Basic search function

Devices can be searched by phone number, serial number, assistee name and group name or part thereof. The search is executed by clicking the orange SEARCH icon after inputting the search criteria into the search field.

3.1.3 Advanced search function

In order to be able to search devices belonging to a group, having a specific configuration, having a specific device status or connection status or device with specific alarms / warnings.

One or more device alarm / warning type can be select by clicking the alarm as Battery Critical. The selection can be extended by control-clicking an additional alarm / warning. This feature can be used to get a list of devices with a specific condition such as battery low or battery critical.

3.1.4 Group action function

Rafael service allow mass execution of changes to a larger number of devices. This can be achieved by using the advanced search function to list devices with desired properties and by applying a group action to them. Once devices with desired properties are listed they can be all select by clicking the **ALL** icon in the top right-hand corner of the list. Device can be taken out of the selection by clicking the ☒ selector box in the right-most part of the device list entry.

The group actions that can be executed include:

- Base settings / configuration update
- Specific parameters / status update
- Device ownership / company group update

The configuration update allows Rafael service to send a request to update the device configuration file to all selected devices.

The status update allows Rafael service to send a status check query to all selected devices.

The company group update allows moving devices to a specific group without entering the device settings page.

3.1.5 Connection status function

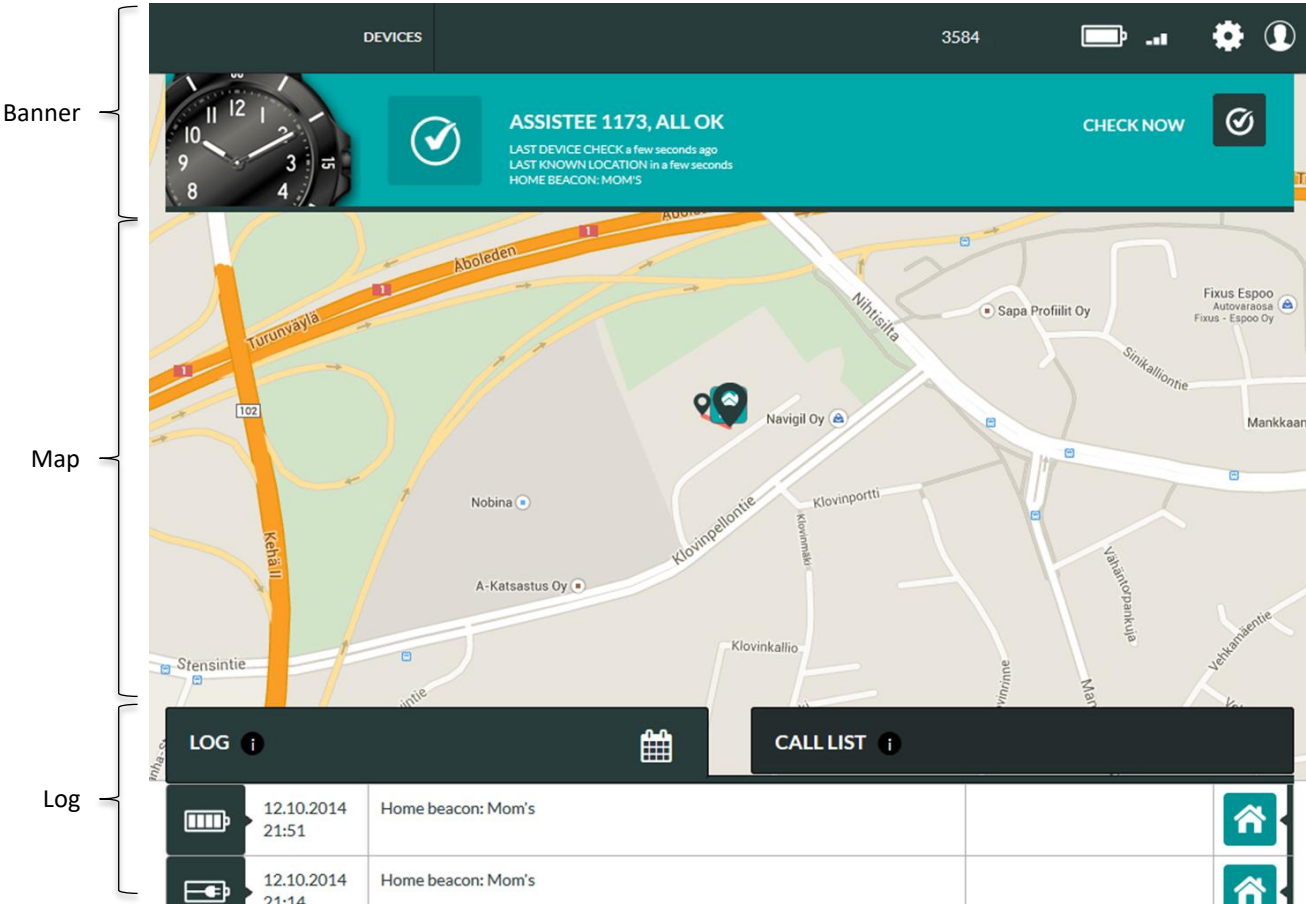
The connection status function allows Rafael service to list all devices either in CONNECTED or in NO SERVICE CONNECTION state.

3.2 Home view

Home view has been designed to enable caregivers to easily see the status of the device as well as its location. Commonly used activities can be done using the home view.

3.2.1 Home view elements

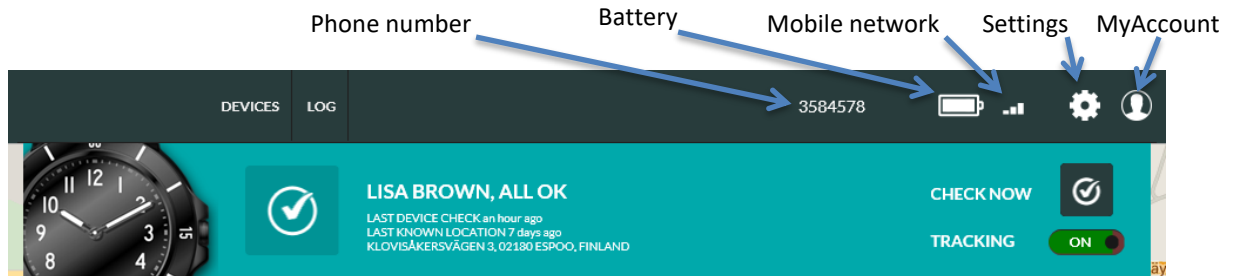
The home view consists of three key elements: banner, map and log.





3.2.2 Home view banner

The banner shows in one quick view the status of the device. If the background of the banner is green all is OK. If the banner is yellow or red there is something that requires attention. Please note that the status is that of the latest message sent by the device, it may be several hours old if the device has been stationary for a long period of time.

The phone number is the number used by the device. The battery icon shows the status of the internal battery at the time when the device generated its latest report. The mobile network icon shows the mobile network signal strength at the time when the latest report was generated by the device.

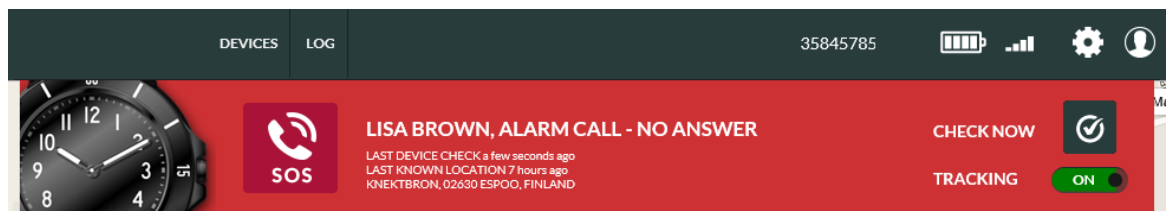


The settings icon  can be used to access the setting page. The My Account icon  can be used to access My Account settings, Geofences (if user has access rights to create and edit geofences) and to Log out from the Rafael service.

Click **DEVICES** or Navigil logo (or your service provider logo) in order to go to the main page view. If you have only one device connected to you will see the device home view and if you have multiple devices you see a device list view.

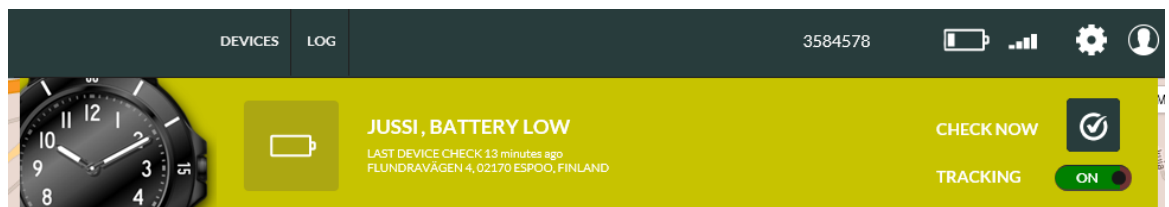
Depending on the user privileges granted to you by the system administrator you may also see **ALERTS** and/or **USERS** buttons which enable you to access a list of alerts and manage user accounts.

If there is a situation that requires immediate attention the banner background is red.



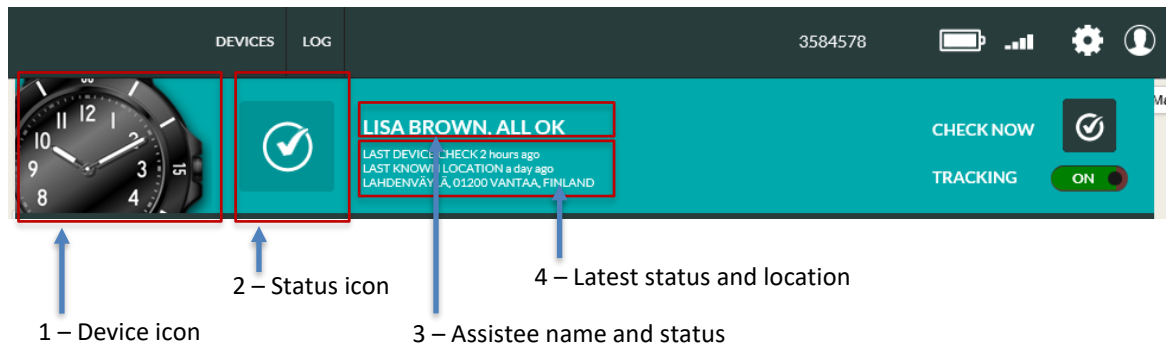
In the above example the device user has made a help request call which has not been answered.

If there is an alert situation that requires attention the banner background is yellow.



In the above example the device has reported that its battery level is low. The device should be charged soon in order to continue its operation. Once the device reports that the battery has been charged the alert is cleared automatically.

The banner has 4 main information areas:



1) Device icon

Device icon shows what type of device is associated with this account.

2) Status icon

The status icon shows the latest status OR the highest priority alarm / warning. If there is more than one warning or alarm active, the status icon shows the highest priority icon. By hovering the mouse pointer on top of the icon all alarms / warnings that are active are shown. See chapter 3.2.4. for more details.

3) The Assitee name and status

The assistee name is shown in the banner. It can be modified on the settings page. If no name is set a system generated text "Assitee" and a system device id number is shown. The latest status of the device is shown after the assistee name.

4) The latest status and location

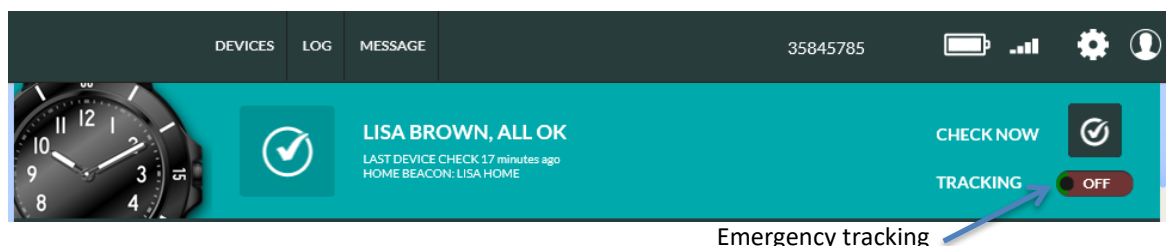
LAST DEVICE CHECK shows the time when the device sent the latest status message. LAST KNOWN LOCATION shows the time and address of the last known location. If the source of the last known location is a home beacon, the nickname of the home beacon is shown instead of an address. The nickname and location of the home beacon can be set on settings page.

NOTE: the LAST DEVICE CHECK and LAST KNOWN LOCATION may have been reported at different times due to the availability of location information in a message, user actions and device settings.

Check Now

The current status can be queried by clicking the **CHECK NOW** button in the banner. The Rafael service sends a status update request to the device and when the device has sent a status message the Rafael page updates device status. In a normal condition it takes 5-10 seconds to get the status. If the device does not have mobile network coverage it is not possible to get reply immediately from the device. In this case the device status will be updated as soon as the device has mobile network coverage.

Emergency tracking



When the emergency **TRACKING** toggle is set **ON** the device is set into emergency tracking mode for a 60 minute period and the device sends periodic location reports by default at roughly 2 minute intervals. After 60 minutes the emergency tracking is discontinued automatically. The reporting intervals may differ from the above values depending on the choice of your service provider. In the emergency tracking mode the device will discard power saving modes and report location information at set intervals.

Please note that the **TRACKING** toggle is only visible if **REPORT LOCATION ALWAYS** toggle is turned on in the device settings page (see chapter 3.3.2). Please note that you have to have the consent of the assistee in order to turn the **TRACKING ON**.

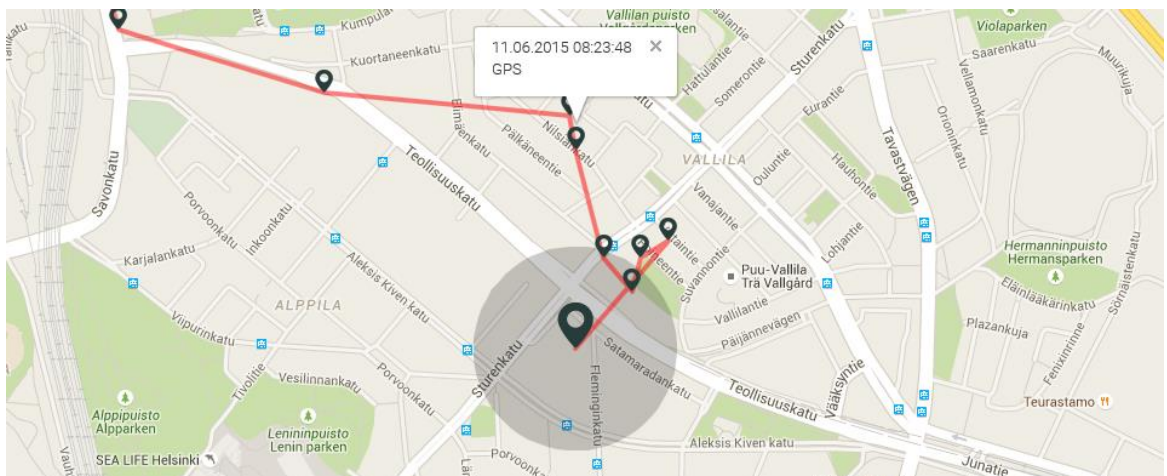


Note: When **TRACKING** is turned **ON** the device keeps GPS always on and battery power save modes are disabled. The emergency tracking mode decreases significantly the device operating time. The feature should be turned OFF as soon as there is no need to trace the device.

3.2.3 Home view map

The map area shows the latest locations reported by the device. The slightly larger pin marker is the latest location reported.

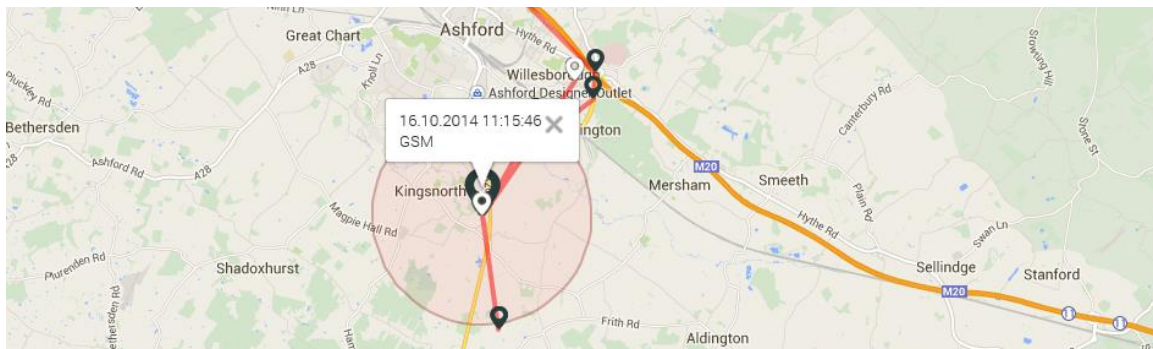
The grey circle around the location pin shows an approximate area where the device is at the given moment the location is reported. In normal conditions the GPS accuracy is between 10m – 30m depending on the GPS satellite coverage and other environment variables. In difficult conditions such as GPS satellite visibility partially obstructed by building or trees, indoors or inside a moving vehicle the GPS accuracy can be severely degraded. It is possible that in difficult conditions a GPS location cannot be acquired.



The source of the location information and the time when the report was generated can be seen by clicking a pin marker.

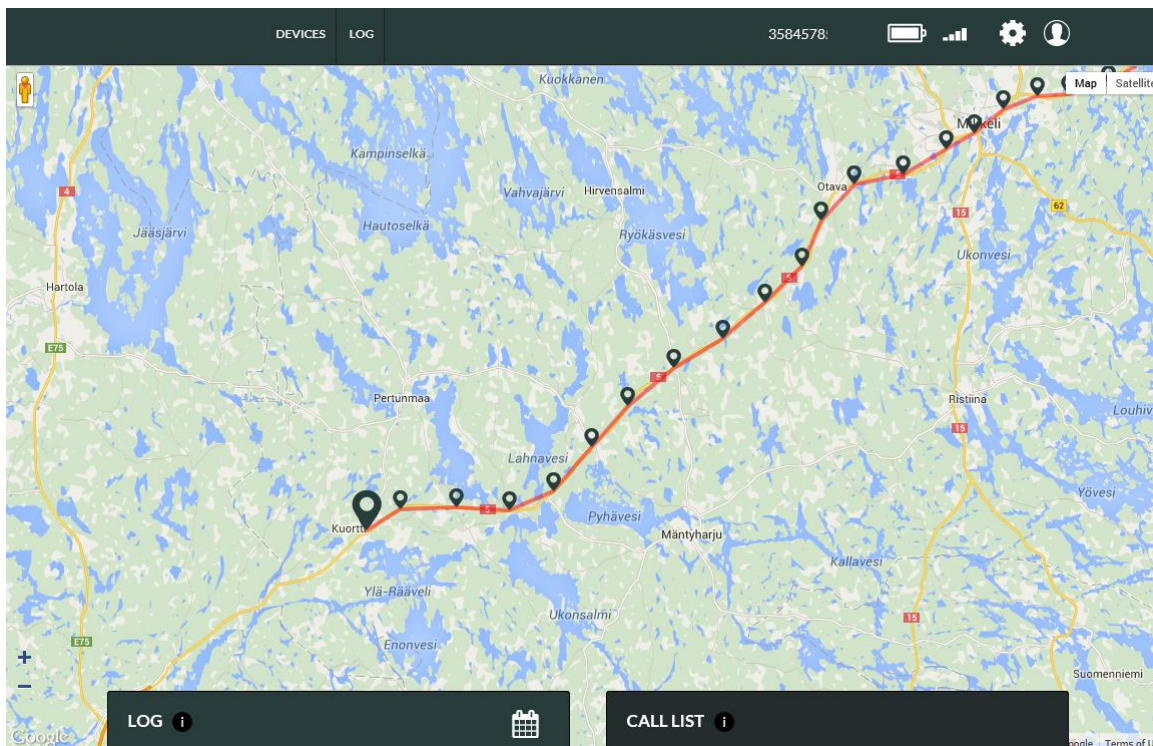
The location information can be derived from three sources: home beacon, GPS location and mobile network cell data. If a home beacon is in range it will be used as the primary source of location information. If no home beacon is in range acquisition of GPS location is attempted. If GPS location is available it will be used as the source of location information. In the event that the GPS acquisition fails the mobile network cell location will be used as source of location information. It is possible that mobile network cell location cannot be found if the nearest serving mobile network station has been recently installed or changed. The home beacon is the most accurate source of location; GPS is the next best source and mobile network cell location the least accurate source.

The mobile network cell location may show on the map with a red circle or without a red circle. The device is with relatively high probability inside the red circle area. mobile network cell location is always an approximate location of the device and the accuracy depends on the mobile network and 3rd party services where the mobile network cell identifier is translated to coordinates.



The map can be scaled using the controls on the left-hand side. The location of the control on the screen may vary depending on the web browser being used. The map can be panned by pressing the left mouse button and dragging the map.

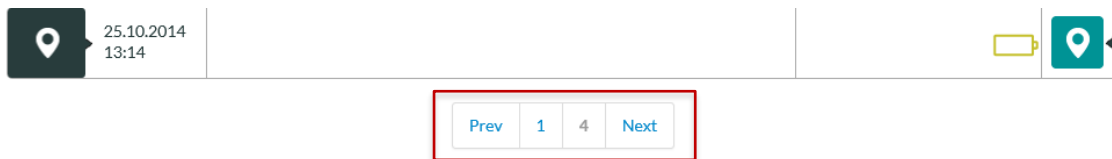
The log and banner can be hidden by clicking the log tab. In this view the map will be scaled to web browser window full size. By clicking the log tab again the default log and banner view will be restored.



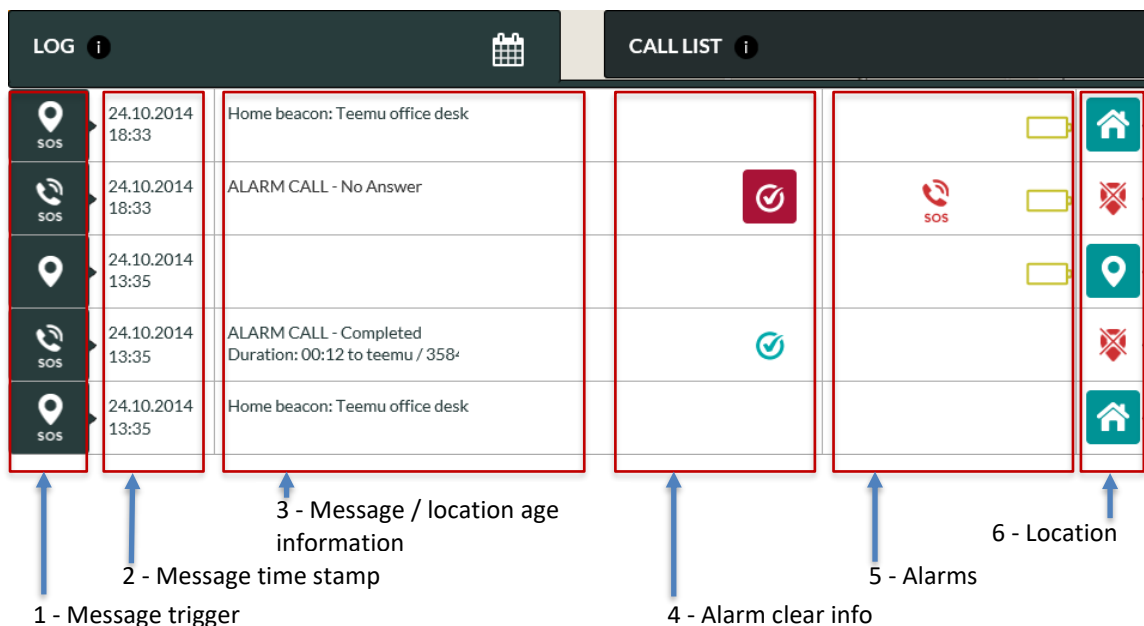
The map area shows the last reported 20 locations when the first log page is active. On second and subsequent log pages the map view shows location points in the reports listed on that log page.

3.2.4 Home view log

The device log contains all reports sent by the device to the Rafael service and Rafael generated messages. The log area shows up to twenty log entries at a time. The log pages can be navigated using the controls at the bottom of the log page.












The log view has 6 information columns:



1) Message trigger

The icon shows the reason why the message is created. You may hover your mouse on top of the message trigger icon in order to see more detailed information on the message.

Trigger icon	Description
	Periodic status
	Status request
	Device enter home area
	Device left home area
	Battery low
	Battery ok
	Device connected to charger

	Device tracking
	Device disconnected from charger
	Alarm call status
	Undervoltage shutdown
	Battery full
	Man down
	No movement
	Message trigger unknown
	System internal message




2) Message time stamp

This is the time stamp when the message has been created. All log entries are sorted based on the time stamp and the newest messages are at the top of the first log page.

3) Message information





A message may contain explanatory information. Such information is displayed in message information column. If the column is empty there is no explanatory information available.











4) Alarm clear info

A message may contain an alarm that can be cleared by the user. This is indicated by the alarm clear  button. An alarm is cleared by clicking the  button. When an alarm is cleared it will be replaced by the check  icon. The name of the user who cleared the alarm and time are shown in the Message information column.

5) Alarms and warnings






Alarms column shows all device alarms and warnings that were active when the given message was generated. By hovering the mouse pointer on top of an icon additional information is shown. Icons in yellow color are warnings and icons in red color are alarms.

Alarm icon	Description	What it means
	Alarm call	User has made an alarm call that hasn't been answered
	No connection	Device does not have a connection to the Rafael service
	Out of home	Device has left the home beacon area
	Geofence	Device has left the geofence area




	Batter critical	Battery level is critical, charge the device immediately
	Batter low	Battery is low, charge the battery soon
	Shutdown	Battery is empty and the device has shutdown
	Charging error	Technical error when charging the device battery
	Interrupted charging	Device was taken off the charger before the battery was fully charged
	Technical error	Other technical error such as Bluetooth communication error
	Watch calibration warning	Watch hand calibration error. Watch hands may not show the correct time.
	Beacon power warning	Home Beacon has been connected to power a short time ago. The home beacon should be connected to power always.
	A-GPS warning	Device has not been able to update A-GPS data. This will decrease the GPS performance.
	Network connectivity warning	Network connection of the device has been intermittently unavailable.

6) Location

A message may contain location information. The icon shows the availability and source of the location information. By clicking the location button the map is centralized to the location reported in this message.




Icon	Location	Icon description
	Home beacon	The location information contained is from a home beacon.
	GPS	The location information contained in this message is from the GPS receiver embedded inside the device.
	GSM	The location information contained in this message is derived from the mobile network cell information sent by the device.
	No location	No location information is contained in this message or there are no coordinates available for reported mobile network cell information.
	Unknown	The message sent by the device contains a home beacon that has not been associated with this device.









When the device sends a message that contains a location information the age of the location can vary depending on the available location information. If the current location is not available (e.g. the device is inside, there is no home beacon signal available and there are no GPS satellites available) the device can send the last known location. In this event the device message contains also the age of the location. The age of the location will be shown in the device log view and the location color indicates the age.



Icon color	Location age	Icon description
	0 – 2 min	The location age is 0 – 2 minutes old from the time when the device created the message
	2 – 10 min	The location age is 2 – 10 minutes old from the time when the device created the message
	10 → min	The location age is older than 10 minutes from the time when the device created the message



	11.09.2015 12:56	Location age: 15 minutes ago	
	11.09.2015 12:49	Location age: 8 minutes ago	
	11.09.2015 08:35	Home beacon: Office	


3.2.5 Home view log functions

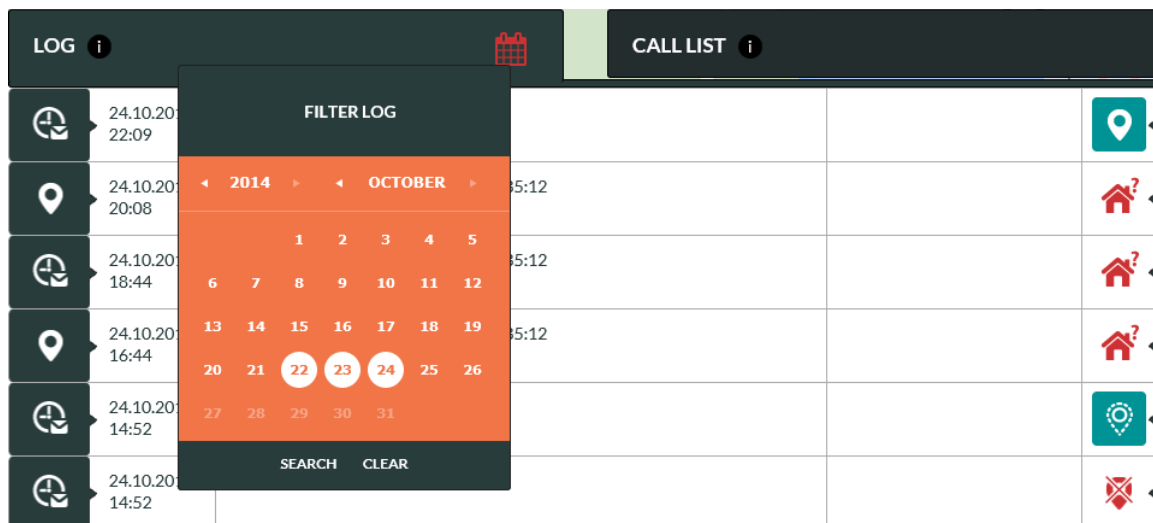
The log view can be restricted to alarms only by clicking the show alarms  icon. The restricted log view shows only alarms that can be cleared by a user (missed alarm calls and geofence alarms). The missed alarm call can be cleared by clicking the clear alarm  button. The normal log view can be restored by clicking again the show alarms  icon.

LOG 		CALL LIST 	
	26.10.2014 11:20	Home beacon: Teemu office desk	
	26.10.2014 11:20	ALARM CALL - No Answer 	 

When user has cleared an alarm the alarm  icon in the log is replaced by a checked  icon. Additionally the time at which the alarm was cleared and the name of the person who cleared it are shown in the message information column.


	26.10.2014 11:20	ALARM CALL - No Answer	11:31, 26.10.2014 By Teemu Piirainen 	 
---	---------------------	------------------------	---	---

The log view can be filtered to show log entries for only selected dates. Click the calendar  icon and select one or multiple dates and click the **SEARCH** button. The log view shows entries for the selected dates and the map area shows locations for the selected dates. Please note that the filtered entries may span to several pages as the maximum number of log entries per page is 20. In such a case you may have to use the page navigation buttons to view all filtered entries.



Click **CLEAR** to remove filtered log and get the normal view.



Note: When log filter is applied the calendar  icon is red and visible log entries and location may not be showing the latest status of the device.

3.2.6 Home view call list

Rafael service has an industry benchmark caregiver reachability and help request call routing feature. When an assistee initiates a help request call the call is connected to the first caregiver in the speed dial list which has the HELP REQUEST toggle turned ON. In the event that the first caregiver is not reachable the call is connected to the next one in the list with HELP REQUEST toggle turned on. This sequence is repeated until each caregiver with HELP REQUEST toggle turned ON have been called to. In the event that after this the help request call is still unanswered the call is connected to the ALARM CALL SERVICE (if enabled) or the call is terminated. If the call is terminated an alarm message is sent to the log and the status of the assistee is changed to that of ALARM CALL - No Answer.

The Rafael reachability and call routing service enables you to change the help request call connection sequence described above by defining in a weekly calendar when a caregiver is prepared to receive help request calls. A caregiver who is not always available will be excluded from the above sequence outside of the defined availability periods in any given week. This minimizes the time elapsed to connect a help request call to a caregiver. It also provides a way to easily share the workload of receiving help request calls among caregivers based on the weekly calendar.

Additionally you can define dates during which a given caregiver is not reachable for example due to holidays or other reasons for leave of absence. The feature also helps to minimize the elapsed time to connect a help request call.

In the CALL LIST tab you can define **AVAILABLE** and **NOT AVAILABLE** times for caregivers who have the HELP REQUEST toggle turned ON in the speed dial list.

Available

This feature enables you to define in weekly calendar days and times when a caregiver is prepared to receive help request calls. When “**AVAILABLE ALL TIME**” toggle is ON the person is always included into help request call connection sequence. If you wish to define reachability times follow the steps below:

- Click “Available all time” toggle to OFF in order to activate the time and weekday selection
- Select FROM and TO times during which the caregiver can receive help request calls
- Select weekdays during which the caregiver can receive help request calls
- Click **SAVE**

The screenshot shows the NAVIGIL interface with a list of caregivers. A modal titled "I'M AVAILABLE" is open for caregiver John (tel. 358441111110). The modal includes a toggle for "AVAILABLE ALL TIME" which is currently OFF. Below this, there are fields for "FROM:" (09:00) and "TO:" (16:00). At the bottom, there are buttons for the days of the week: MON, TUE, WED, THU, FRI, SAT, SUN. The FRI button is highlighted. A "SAVE" button is at the bottom of the modal.

In the above example “John” is included in the help request call connection sequence only on Tuesdays, Wednesdays and Fridays between 9:00 and 16:00 o’clock.

Not Available

You can define dates during which a caregiver out of reach. During such dates the caregiver is excluded from the help request call connection sequence.

- Select dates when the caregiver is out of reach and unable to receive help request calls
- Click **SAVE**

The screenshot shows the NAVIGIL interface with a list of caregivers. A modal titled "I'M OUT OF REACH" is open for caregiver Mike (tel. 358441111111). The modal displays a calendar for November 2014. The calendar shows the days of the month, with the 9th, 10th, 11th, 12th, 13th, 14th, and 15th highlighted in orange. A "SAVE" button is at the bottom of the modal.

In the above example “Mike” is excluded from the help request call connection sequence between 9th and 15th November. Please note that the **NOT AVAILABLE** definition has a higher priority over the AVAILABLE definition. Thus “Mike” would be excluded from the call connection sequences during his absence even though he would have availability defined in the weekly calendar.



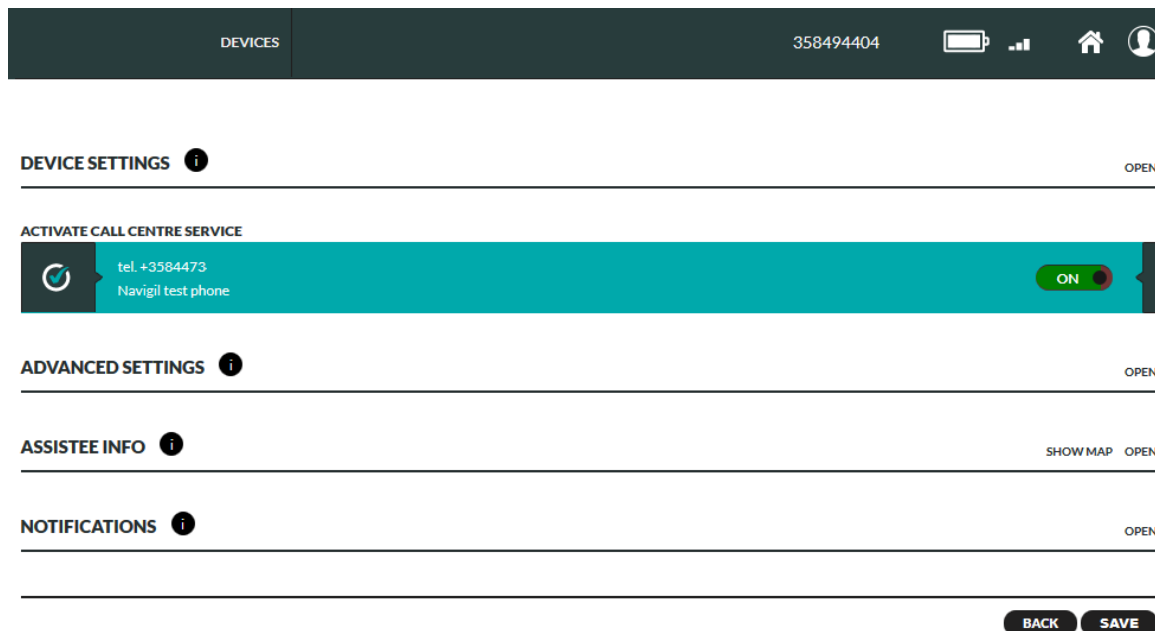
Note: **CALL CENTRE SERVICE** is always the last number in the help request connection sequence if this service has been enabled. Please check chapter 3.3.1 how to activate **CALL CENTRE SERVICE**.

3.3 Settings view

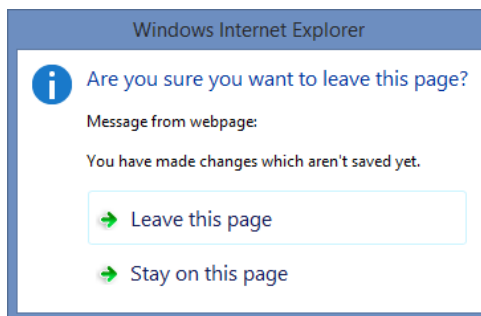


Note: Available device settings may vary depending on the device model used and the user account access rights.

Settings view has been designed to enable caregivers to easily manage the settings of the device. There are several elements on the Setting view page which each can be separately opened and closed by clicking respective **OPEN** and **CLOSE** buttons. The elements are DEVICE SETTINGS, ADVANCED SETTINGS, ASSISTEE INFO, NOTIFICATIONS and CONNECTED USER INFO.




In order to apply changes made on the settings page you must click the **SAVE** button at the lower right part of the page. If you have made changes on the settings page and you try to leave the page without clicking the **SAVE** button a warning popup window is shown.



By clicking **LEAVE THIS PAGE** option all changes are discharged and settings changes are not saved.

By clicking **STAY ON THIS PAGE** option you will stay on the current page and enabling you to click **SAVE** button in order to save the changes.

When **SAVE** button has been clicked the settings page may send commands to the device. In this case there is a spinner  icon near the changed setting that indicates that the command has been sent to device but the device has not yet confirmed the execution of the command. When the change is executed in the device the spinner icon is removed.



If the executed parameter command delivery fails the Rafael page shows an error message and the original parameter value is reverted. This may happen if the device is power off and it's not possible to connect to the device.



3.3.1 Device settings

In the device settings view the device related items can be viewed and changed. The device phone number, device ID can be seen on the right-hand side. These cannot be changed.

DEVICES
ALERTS

3584578

DEVICE SETTINGS ⓘ
CLOSE

1.

John

358441111110

HELP REQUEST

ON

2.

Mike

358441111111

HELP REQUEST

ON

3.

Lisa

358441111112

HELP REQUEST

OFF

4.

Kent

358441111113

HELP REQUEST

ON

5.

NAME

TEL.

HELP REQUEST

OFF

6.

NAME

TEL.

HELP REQUEST

OFF

7.

NAME

TEL.

HELP REQUEST

OFF

8.

NAME

TEL.

HELP REQUEST

OFF

TEL NUMBER: 3584578!
DEVICE ID: 100000

TIME ZONE:
(GMT +2:00) Helsinki, Tallinn, Athens

DAYLIGHT SAVING TIME
OFF

LANGUAGE
English

DEVICE PROFILE
Full

SPEAKER VOLUME
Low Normal High

ACTIVATE CALL CENTRE SERVICE

tel. +35844;
Navigil test phone
ON

Speed dial and Help request list

The speed dial list has three functions: it defines which persons are included in the help request call connecting sequence; it defines who can call to the device and it defines who can be called to using the device. The persons appear in the device NAMES menu in the sequence they are in the speed dial list.

Turn **ON** the **HELP REQUEST** toggle for persons who should be included into help request call sequence. When a help request call is initiated by the assistee the call can be connected only to the persons who have **HELP REQUEST** toggle turned **ON**.

In the above example John, Mike, Kent and Call Centre are included into help request call sequence and Lisa is not included into help request call sequence.

Activate Call Centre Service

Turn **ON** the **ACTIVATE CALL CENTRE SERVICE** toggle to activate a call centre service. The call centre number will be the last phone number in the Help Request call connection sequence.

The availability of this service is dependent of your service provider. Please contact your service provider to get more information of the service.



Warning: At least one caregiver must have **HELP REQUEST** toggle turned **ON** or **ACTIVATE CALL CENTRE SERVICE** toggle must be turned **ON**. Otherwise it is not possible to make help request calls.

Time zone

The device time zone can be selected from the **TIME ZONE** pull down menu.

The selected time zone is used in device to show the correct time and on the device front page log to show time stamp of the device message.



Note: The daylight-saving time takes place automatically and user doesn't need to adjust time.

Language

The device language can be selected from the **LANGUAGE** pull down menu. The device user interface language is set based on this setting. Rafael service language can be changed in My Account settings.

Device profile

The device profile is selected from the **DEVICE PROFILE** pull down menu. Device has four available profiles:

- Track profile is designed for assistees suffering from dementia or Alzheimer's disease
- Auto profile for assistees with poor dexterity
- Easy profile for assistees with good dexterity
- Full profiles for lone workers

Please see section 3.4 for further details on the above profiles.

Speaker volume

The speaker volume can be adjusted from the **SPEAKER VOLUME** slider.



Note: Click **SAVE** at the bottom of the page to send the changed setting to the device.

3.3.2 Advanced settings

In the advanced settings view the device related administrative items can be seen and changed. The fields visible to the user may be different depending on privileges associated with the user profile.

ADVANCED SETTINGS


DEVICE STATUS

In use ▼

RINGING TIMEOUT

40 sec

CONFIGURATION ☐ force

 ▼

GEOFENCE ☐ force

John home area ▼

MODIFY GEOFENCE


DEVICE ACCOUNT

qls52823xx

Password

repeat the password

GROUP

 SCAIP Test ▼

HELP REQUEST METHOD

Send a message to server ▼

HOME BEACON RANGE EXIT ALARM

OFF

TRACKING OUTSIDE OF HB RANGE

ON

SPEED DIAL

ON

REPORT LOCATION ALWAYS

ON

REPORT EMERGENCY LOCATION

ON

ALWAYS ON-LINE

ON

HELP REQUEST CALL CONFIRMATION

ON

STATISTICS REPORTS ENABLED

ON

MAN DOWN ALARM ENABLED

OFF

NO MOVEMENT ALARM ENABLED

OFF

Device status

The **DEVICE STATUS** pull down menu can be used to change the device status. The normal device operating status is **IN USE**. The initial **DEVICE STATUS** is **SETUP**. The activation process described in section 2 sets the **DEVICE STATUS** to **IN USE**. Please note that if the device is in setup mode no calls can be made with the device and no calls can be connected to the device.

Device status	Description
Setup	Factory shipment device status. Device is powered off and all functions are disabled. When device is connected to a power source the device will turn itself on and once it is registered to mobile network it is ready to be activated by the Rafael service. If the power source is disconnected from the device prior to executing the activation commands from the Rafael service the device will power off and remain in the Setup status.
Power Off	The device is set to power OFF. The device will resume normal In Use status once a power source is connected to the device.
In Use	The normal device operation status.
Locked	The device is locked and user can't make or receive calls with the device. This status can be used if there is a need to block the use of the device temporarily.

Deleted

The device is set to deleted status. The device can't be used anymore. This status can be used to remove a device totally from the service.



Note: Device status option is visible only to users with administrative privileges.

Geofence

The device can have a geofence in use that defined the safe area(s) where the device user can go. Please see more details in chapter 3.6.



Note: Geofence option is visible only to those users who have been granted geofence creation and editing privileges. Please contact your service provider to get access rights.

Group

The device can be assigned to a specific group for device management purpose. This can be used to easily restrict the access and visibility of multiple devices to user(s).



Note: Group option is visible only to users with administrative privileges.

Home Beacon Alarm

When the **HOME BEACON RANGE EXIT ALARM** toggle is turned **ON** the device will send an alarm when the device is no longer in the range of a home beacon. The alarm is cleared when the device re-enters the range of a home beacon. The home beacon utilizes a Bluetooth Low Energy link which has a range of up to 10 meters.

Please note that when the **HOME BEACON RANGE EXIT ALARM** toggle is turned on the device will send an alarm to the Rafael service every time the device goes outside of the Home Beacon range. This will reduce the battery life of the device. The home beacon alarm is on by default in the Track profile.

Limit Home Beacon time range

When Limit Home Beacon time range toggle is turned OFF the Home beacon alarm is always active. When this toggle is turned ON user can define start and end time when the Home Beacon alarm is active. The time schedule is applied to all week days.

Tracking outside of HB range

When the **TRACKING OUTSIDE OF HB RANGE** toggle has been turned **ON** the device will send location reports at adaptive intervals while it is outside of the range of home beacon(s). In active movement state a location report is sent every few minutes. In an occasional movement state the location report is sent every 30 minutes. In a stationary state a location report is sent every six hours. The reporting intervals can be changed using a configuration file.

Speed dial

Speed dial is enabled in Easy and Full profiles by default. Should you wish to prohibit normal calls you can turn this toggle off. This may be desirable should one wish to make sure that the assistee does not run a large bill on normal phone calls.

When toggle is turned **ON** the assistee may use the device to call normal calls to persons who are in the speed dial list. When this is turned **OFF** the NAMES menu is disabled in the device and the assistee cannot make speed dial calls.

Report location always

Report location always toggle is **ON** by default in the Track profile. The default setting in all other profiles is **OFF**.

When the **REPORT LOCATION ALWAYS** toggle is turned **ON** the device adds location information into messages containing a location field. This toggle also controls the visibility of the emergency **TRACKING** toggle in the Home view banner. If the **REPORT LOCATION ALWAYS** toggle is turned **OFF** the emergency **TRACKING** toggle in the Home view banner is not visible.

If the **REPORT LOCATION ALWAYS** toggle is turned **OFF** location information is sent by the device only when the assistee has initiated a help request call.



Note: It is recommended that **REPORT LOCATION ALWAYS** is turned **ON** to enable device location reporting.



Warning: It is illegal to track a person without his/her consent. Please make sure that you have the assistee's written consent on file prior to turning the **SEND LOCATION ALWAYS** toggle **ON**.

Report emergency location

When **EMERGENCY LOCATION** is turned **ON** the device sends location information in conjunction with assistee initiated Help request calls.

Always on-line

The **ALWAYS ON-LINE** toggle is turned **ON** as a default setting. The device keeps mobile network always on and it can receive messages from the Rafael service and receive voice calls.

When the **ALWAYS ON-LINE** toggle is turned **OFF** the device will turn off mobile network communication module while the device is idle state. The device can't receive messages from Rafael service nor receive voice calls while the module is off. When user makes a help request or speed dial call the device turns the module on and makes the voice call. The device turns the module on prior to sending periodic status reports. The device can be sent messages for a short period after the periodic message has been sent by the device or after a voice call. The default six hour periodic status report interval may be changed to a significantly longer one in order to improve battery life.

Turning the **ALWAYS ON-LINE** toggle off will increase the device operating time to up to two months in good circumstances.



Note: When the **ALWAYS ON-LINE** toggle is turned off the Rafael service messages are not delivered immediately to the device. All sent commands are stored in a queue and they are delivered to the device when the device powers on the mobile communication module next time.

Help request call confirmation

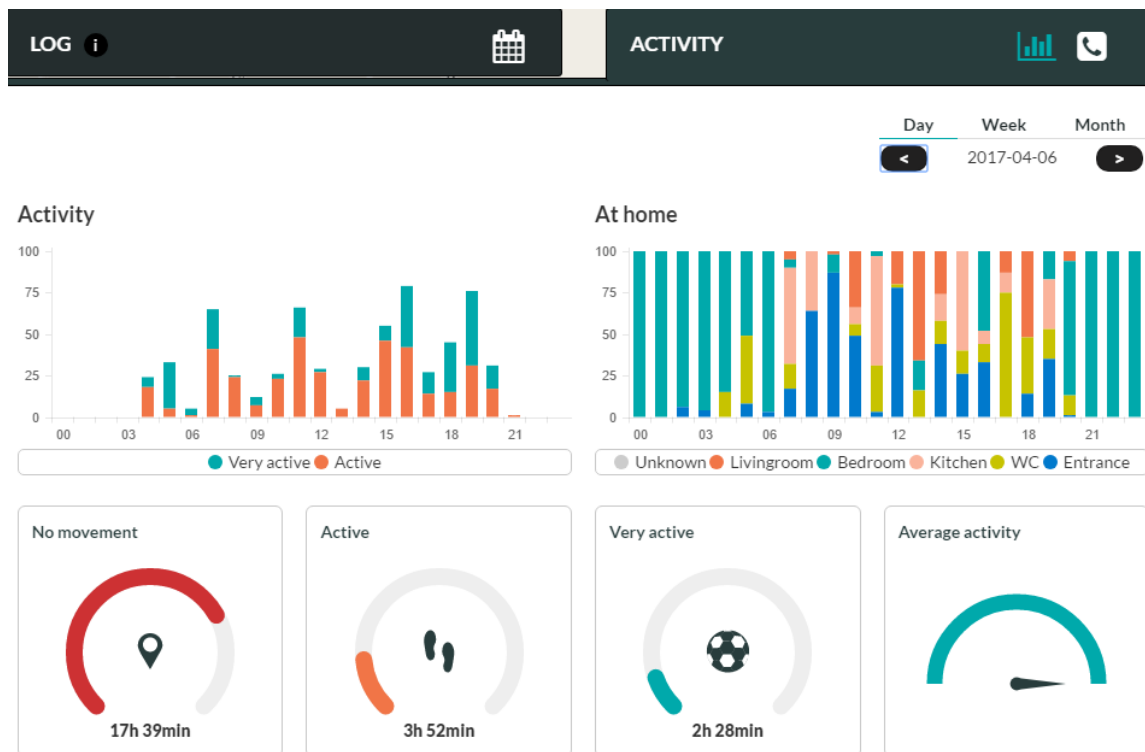
The voice call confirmation can be used to avoid call forwarding to receiving party's voice mail box. When the feature is turned **ON** the receiving party will hear a voice record and the person must press number 5 on the phone dialing pad in order to receive the call. If the receiving party doesn't press number 5 within 30 seconds (e.g. phone call is forwarded to a voice mail box) the Rafael service will pass the call to the next person on the help request call sequence.



Note: The call confirmation is using telephone network DTMF sounds. The receiving party's phone must support DTMF to receive help request calls.

Activity reporting

When the **ACTIVITY REPORTING** is turned **ON** the device can be used to collect and report device user's level of the activity and where at home user was. On the device front page click **ACTIVITY** tab to view details. The activity bar chart shows percent of time the device user active and percent of time very active. These bars clearly show the time the user got up and went to bed as well as times of very active motion i.e. times exercised or walked continuously.



The at home bar chart shows when the user was in the range of beacon signal. The basic setup shows time spent at home (i.e. in the range of a home beacon) and out of home. If mini beacons advertising their zone code are used then the time spent in the particular zone is shown (like above). It is recommended that additional mini beacons are used throughout the property so that more detailed picture of the user's whereabouts during a day can be given.

These two graphs can be used to get a picture of the user's daily routines and more importantly sudden or gradual changes in them in order to identify a change in the user's behavior indicating a shift in one's condition. Early detection of changes enables corrective measures to be put in place prior to the collapse of user's condition.

In order to conserve power the reports are sent together with other reports such as the periodic report. Thus it may take a few hours or even a day before the activity bar graph is updated with the latest information.

Man down alarm enabled

Device can send automatically an alarm for a detected sudden impact and subsequent immobility. When the **MAN DOWN ALARM** is turned **ON** the output from the device's accelerometer is monitored constantly and when a high impact is detected the device software checks if there is no movement after the impact. When the immobility has continued for a five (5) minute period an alarm is sent automatically by the device.

No movement alarm enabled

Device can send automatically an alarm for detected user immobility. When the **NO MOVEMENT ALARM** is turned **ON** the output from the device's accelerometer is constantly monitored and when a state of no movement is detected and continued for three (3) hours the device software starts a counter. In the event that the immobility has continued for thirty (30) minutes the device informs the user that an alarm is about to be sent. The device **will vibrate, show a message** on the OLED display as well as **beep** to indicate that no movement alarm condition has been detected. The user interface actions are repeated every five minutes. If the user remains immobile throughout this 30 minutes period the alarm is sent automatically. User can during the thirty-minute period at any one point cancel the alarm by moving.

In order to safeguard user's sleep the no movement alarm is not active between 22:00 and 7:00. Thus alarm and user interface prompts during that period are suppressed.

Please remember to click **SAVE** in order to save any changes that you may have made.

Help request method

By default the **HELP REQUEST METHOD** is *Make a phone call*. When this setting is selected the device will make a normal phone call to the Help request phone number(s). When using SCAIP protocol it is possible to send a request to the to the alarm receiving centre as a SCAIP notification. In this case the **HELP REQUEST METHOD** is *Send a message to server*. Once the alarm receiving centre operator picks up the notification from the queue the actual phone call will be established between the device user and the alarm receiving centre operator. The device can be setup so that for the user interface operation is identical regardless of which **HELP REQUEST METHOD** has been selected.



Note: The **HELP REQUEST METHOD** selector is visible only when the device is in a group that has SCAIP enabled call centre service enabled and the device has a version of firmware that supports SCAIP messaging (1.6.32 or later) and the Rafael user privileges allow changes to the method.



Note: When the **HELP REQUEST METHOD** is set to *Send a message to server* the device will send a message to the Rafael service. In order to have the SOS call request sent to the alarm receiving centre there must be a SCAIP notification for SOS request.

3.3.3 Assistee Info

In the Assistee Info view the information related to the end user of the device can be seen and changed.

ASSISTEE INFO TEST GROUP ⓘ
SHOW MAP CLOSE

ASSISTEE

John

Smith

INFO

Lives at home with his dog and cat

PRESET CALL

phone number

TIME: 09 00

MON TUE WED THU FRI SAT SUN

ADD NEW PRESET CALL +

358441234567 ⓘ

TIME: 15 00

MON TUE WED THU FRI SAT SUN

HOME BEACON

Nickname

Home beacon ID

Street address

ADD NEW HOME BEACON +

John Home ⓘ

11:22:33:44:55:66

Klovinpelontie 3 Espoo Finland

Assistee

The assistee name can be written into the **ASSISTEE** fields. The name will be shown on the home view banner and as well as in the device listing in **DEVICES** view. You can write additional information about the assistee into the **INFO** field.

Preset call

Preset call is a service that can be used to automatically establish calls between the device and one of the persons on the speed dial list on selected weekday(s) and time. The preset call function can be used to automate "Are you well" calls. When a preset call is set the Rafael service makes a call on a given day / time to person's phone number and after that connects the call to device. When the call is answered by the person the Rafael service plays a voice record "This is a preset call service what has been ordered for you. Please wait a moment when the call is connected with the assistee." The device rings normally. In Track and Auto profiles the device answers the call automatically. In Easy and Full profiles the assistee has the option to either accept the call or to terminate it. If the end user has elected to terminate the call the preset call is cancelled. The preset call(s) are made on selected weekday(s) until the preset call is removed from the settings page. Please note preset call time must be defined in EET Helsinki time. The impact of watch time zone is not automatically taken into account when generating the preset call.

In order to add a preset call to Rafael follow steps below:

- Type into the **PHONE NUMBER** field the person's phone number with whom the preset call is to be made. The phone number must be one of those in the speed dial list.
- Select weekday(s) and time when the call is to be made
- Click **ADD NEW PRESET CALL**
- Repeat steps 1 – 3 to add multiple preset calls
- Click **SAVE** at the bottom of the page to apply preset calls

To remove a preset call click delete ⓘ icon associated with the preset call in question and click **SAVE** at the bottom of the page.



Note: New or changed Preset call settings will become effective after next midnight.

Additional Home Beacons

If the property where the assistee is using the device is so large that a single home beacon cannot cover it entirely additional home beacons can be used so that the whole property is adequately covered. The range of the home beacon in open space is up to 15 meters. Walls and other solid obstructions may significantly shorten the range of the home beacon. You can pair up to 10 home beacons with one device. Please enter the home beacon nickname (such as kitchen, living room, bed room) into the **HOME BEACON** Nickname field. Please enter the home beacon ID found in the label attached to the bottom of the home beacon into the **HOME BEACON ID** field. The home beacon ID consists of six two letter identifiers separated with colons. An example of the home beacon ID is 8D:00:28:00:82:81. Please enter the street address of the home beacon into the **STREET ADDRESS** field. Please note that city and country information may be required to correctly locate the home beacon on the map. Click **ADD NEW HOME BEACON** to complete the entry for any given home beacon. Click **SHOW MAP** in order to view the location of the home beacon on a map. You can drag the home beacon icon to the exact location as required.



Note: Click **SAVE** at the bottom of the page to send the changed setting to the device.

3.3.4 Notifications

Rafael service can send a notification to a selected receiving party for an alarm. Notifications can be delivered by email, as phone calls, by SMS or by SCAIP messages. Click a button to generate a notification and select alarm type from the pull-down menu. Notifications can be deleted either individually or by removing all notifications.

NOTIFICATIONS ⓘ
CLOSE

ADD NEW NOTIFICATION:

EMAIL
CALL
SMS
SCAIP

john@companyABC.com

ALARM TYPE

Battery low

ADD

CURRENT NOTIFICATIONS

#	Alarm	Recipient	
✉	Geofence OUT	someone@companyABC.com	🗑
✉	Battery low	someone@companyABC.com	🗑
☎	Geofence OUT	Call to Help Request number	🗑
☎	Home beacon alarm	Call to Help Request number	🗑
☎	SOS call no answer	358441111111	🗑
✉	Battery low	john@companyABC.com	🗑

REMOVE ALL

Email notification

Rafael service sends an email to the recipient. Email contains information of the device and alarm type.

Voice call notification

Rafael service makes a voice call to the recipient. If the **Call to Help Request number** toggle is **ON** the notification call is placed based on help request call sequence (see details for call list in chapter 3.3.1). When the receiving party answers to the call the Rafael service plays a recorded message with information on the condition that triggered the notification. Depending on the notification type there are one or two options. All notification have “acknowledge alarm” and some have “prompt to call” option. The receiving party has to select an option by pressing either number 1 or 5 on the phone keypad. When the receiving party has made a selection the notification will be cleared.

By pressing number 1 the notification will be acknowledged and call will be terminated. By pressing number 5 the notification will be acknowledged and call will be connected to the device like a normal phone call.

Rafael service plays the recorded message for 30 seconds and in the event that the call recipient doesn't make a selection Rafael service calls the next person in the help request call sequence.

SMS notification

Rafael service sends a SMS to the recipient. SMS contains information of the device and alarm type. Please note this option may be hidden if the SMS capability has not been enabled for your company.

SCAIP notification

Rafael service sends a SCAIP (Social Care Alarm Internet Protocol) notification to the alarm receiving centre via SIP channel. SCAIP notifications contain information of the device and alarm type.

List of possible alarm types

Alarm type	Description	Channels	Prompt to call
Geofence IN	Device has entered the safe area	Email, call, SMS, SCAIP	NA
Geofence OUT	Device has left the safe area	Email, call, SMS, SCAIP	YES
Battery empty	Device battery is empty	Email, call, SMS, SCAIP	NO
Battery low	Device battery is low	Email, call, SMS, SCAIP	YES
Home beacon alarm	Device has left the home beacon range	Email, call, SMS, SCAIP	YES
No service connection	Device has no service connection	Email, call, SMS, SCAIP	NO
SOS call no answer	A help request call has not been answered	Email, call, SMS, SCAIP	YES
Man down	Device has recognized a possible fall down	Email, call, SMS, SCAIP	NA
No movement	Device has detected no movement during the past 30 minutes	Email, call, SMS, SCAIP	NA
SOS request	Device user has made a request for a SOS call	SCAIP	NA

The language of the notification and interactive voice response messages played to the recipient are controlled by the device language selection. The Rafael user language controls only the Rafael web service user interface.

3.4 Device profiles

The devices have four profiles available for them. Each of them is designed for a specific end user group in mind. The four profiles are Track, Auto, Easy and Full:

- Track profile is designed for assistees suffering from dementia or Alzheimer's disease
- Auto profile for assistees with poor dexterity
- Easy profile for assistees with good dexterity
- Full profiles for lone workers

Individual profiles can be further tailored by changing available settings in the Rafael service.

3.4.1 Common features in all profiles

Basic system functions are common to all profiles. Regardless of the chosen profile the device will send reports automatically. Reports shown below are shown in the main view log:

- Periodic status reports at six hour intervals
- Battery low warnings
- Battery critical alarms
- Device has no service connection alarms

- Device is being charged
- Battery OK message
- Device charger is disconnected
- Check now reports
- Help request call and normal call reports
- Location information in conjunction of help request calls if the **EMERGENCY LOCATION** toggle has been turned **ON**
- Location information in messages if the **SEND LOCATION ALWAYS** toggle has been turned **ON**
- Technical error messages

When the **TRACKING** toggle in device home view banner has been turned **ON** the device is in emergency tracking mode. A location report is sent at roughly 2 minute intervals. When the **TRACKING** toggle in device home view banner has been turned **OFF** and **TRACKING OUTSIDE OF HB RANGE** toggle has been turned **ON** the device sends location reports at adaptive intervals while it is outside of the range of the home beacon. In active movement state a location report is sent every few minutes. In an occasional movement state the location report is sent every 30 minutes. In a stationary state a location report is sent every six hours. The reporting intervals can be changed using a configuration file. The reporting intervals may differ from the above values depending on the choice of your service provider.

3.4.2 Track profile

Track profile is intended for assistees who suffer from dementia or Alzheimer's disease. In this profile the device user interface is disabled. The assistee can press any button as many times as they wish without causing help requests call to be initiated and without concern on the end user being able to change the device settings by mistake.

In the Track profile the device will automatically receive calls made by persons on the speed dial list or by the alarm centre service personnel. The call can be terminated only by the caller.

In the Track profile the device will regularly check if a home beacon is in range. If no home beacon is found the device will send an alarm to the Rafael service and turn the GPS receiver on. The device will send location reports to the Rafael service so that the assistee can be located using the map view.

When the assistee returns to the range of the home beacon the home beacon alarm is automatically cleared.

3.4.3 Auto profile

Auto profile is intended for assistees who have their full faculties but have poor dexterity. In this profile the device user interface has just bare minimum functions enabled. The assistee can press either the alarm button or the crown in the device to initiate a help request call. Other buttons in the device can be used to check the battery status of the device or in the case of Navigil S3 to check the level of activity of the user during that day. As the assistee has no access to settings there is no concern on the assistee being able to change the device settings by mistake.

In the Auto profile the device will automatically receive calls made by persons on the speed dial list or by the alarm centre service personnel. A received call or a help request call can be terminated only by the caregiver or the call centre operator.

By default the device reports location only in the Help Request call reports.

3.4.4 Easy profile

Easy profile is intended for assistees who have their full faculties and have good dexterity. In this profile the device user interface has additional functions enabled. The assistee can press the alarm button to initiate a help request call. In idle state other buttons in the device can be used to check the battery status of the device. The assistee can press the crown in order to access the speed dial NAMES list. This enables the assistee to make normal calls to persons in the speed dial list. As the assistee has no access to settings there is no concern on the assistee being able to change the device settings by mistake.

In the Easy profile the assistee has the option either to accept an incoming call or to reject it by pressing YES or NO button. A call can be terminated either by the assistee or by the other party.

By default the device reports location only in the help request call reports.

3.4.5 Full profile

Full profile is intended for lone workers and other device users. In this profile the device user interface has all functions enabled. The end user can press the alarm button to initiate a help request call. In idle state other buttons in the device can be used to check the battery status of the device. The end user can press the crown in order to access the speed dial NAMES list and MODE menus. This enables the end user to make normal calls to persons in the speed dial list. Additionally the end user has the possibility to set the device into SILENT, FLIGHT, NORMAL and STEALTH modes.

In the Full profile the end user has the option to either to receive an incoming call or to reject it by pressing YES or NO button. A call can be terminated either by the assistee or by the other party.

By default the device reports location only in the help request call reports.

3.4.6 Profile default values

The Rafael service and the device software have default settings for number of features. The main features and their default values in each profile are described in the tables below.

Rafael device settings page profile default values:


Feature	Track	Auto	Easy	Full
Tracking	OFF	OFF	OFF	OFF
Home beacon alarm	ON	OFF	OFF	OFF
Tracking outside of HB range	ON	OFF	OFF	OFF
Home beacon alarm	ON	OFF	OFF	OFF
Speed dial	OFF	OFF	ON	ON
Report location always	ON	OFF	OFF	OFF
Report emergency location	ON	ON	ON	ON
Always on-line	ON	ON	ON	ON
Help request call confirmation	OFF	OFF	OFF	OFF
Statistics reporting enabled	OFF	OFF	OFF	OFF
Man down alarm enabled	OFF	OFF	OFF	OFF
No movement alarm enabled	OFF	OFF	OFF	OFF

The default values for device user interface settings are defined the in the table below.

Device profile default values:

Feature	Track	Auto	Easy	Full
Help request call enabled User can make a help request call by pressing the help call button	OFF	ON	ON	ON
Help request call crown button User can make a help request call by pressing the device crown button	OFF	ON	ON	ON
Call auto answer Device answers automatically incoming calls	ON	ON	OFF	OFF
Device mode menu User can press the device crown button in order to access the device mode menu	OFF	OFF	OFF	ON
Disconnect call User can disconnect a call	OFF	OFF	ON	ON

3.5 My Account


On the My Account page user can modify account details and set a new password. Click the My Account icon  in the top banner and click MY ACCOUNT menu item to access My Account settings.

Set the Rafael user interface language from **LANGUAGE** drop down menu. This changes only user account language on the Rafael service. In order to change device user interface language please see section 3.3.1.



Note: By changing your email address you also change the username that you use to login into the Rafael service.

DEVICES



Mark Brown

NAME

Mark

Brown

EMAIL

mark.brown@email.com

PASSWORD

repeat the password

PHONE

+358441234567

LANGUAGE

English

▼

SAVE

3.6 Geofences

Geofence is a geographical area where the assistee can safely go. A geofence can consist of up to 40 areas each of which can have different validity times. It is recommended that the first defined area is the smallest area which is always valid. Additional areas can be defined to expand the safe area during specified weekday(s) and times.

Geofence editor can be opened from the device Settings page under **ADVANCED SETTINGS** by clicking the **ADD GEOFENCE** button when creating a geofence for the first time or by clicking the **MODIFY GEOFENCE** button to edit an existing geofence.



Note: The device GPS location accuracy is in normal conditions between 10m – 200m. Depending on the environment and other variables the GPS location accuracy may be significantly lower.



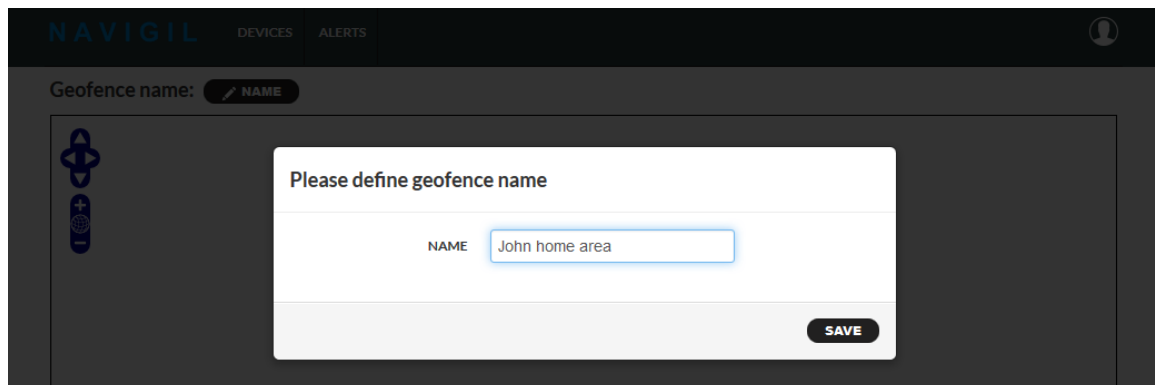
Note: Indoor areas where the device is normally used (e.g. user's home) should be covered with home beacon(s) so that device has a home beacon connection in all indoor places. This will reduce the likelihood of poor accuracy indoor GPS locations being reported and used in geofence calculation and significantly improve the device battery life.



Note: When moving from inside to outside it can take several minutes to get an accurate GPS location (this may vary depending on buildings, hills, foliage, car roof, metal coated windows etc.).

3.6.1 Define the geofence name

When creating a new geofence the name of the geofence area must be defined. The name is used in the device log and notification and therefore it is good to name the geofence using the assistee's name and geofence location.



3.6.2 Create a geofence area

A geofence area can be created by using a **“CREATE NEW CIRCLE”** or **“CREATE NEW POLYGON”** buttons. **“CIRCLE 500M”** will create a circle geofence with a fixed radius of 500m. It is possible to create up to 40 different areas for one geofence.

Create new circle

1. Pan and zoom the map to the correct location where the circle should be set
2. Click “Create new circle” button
3. Hover mouse pointer to the location where the circle center should be set
4. Press down the mouse left button and while keeping the mouse button down drag to adjust the circle radius

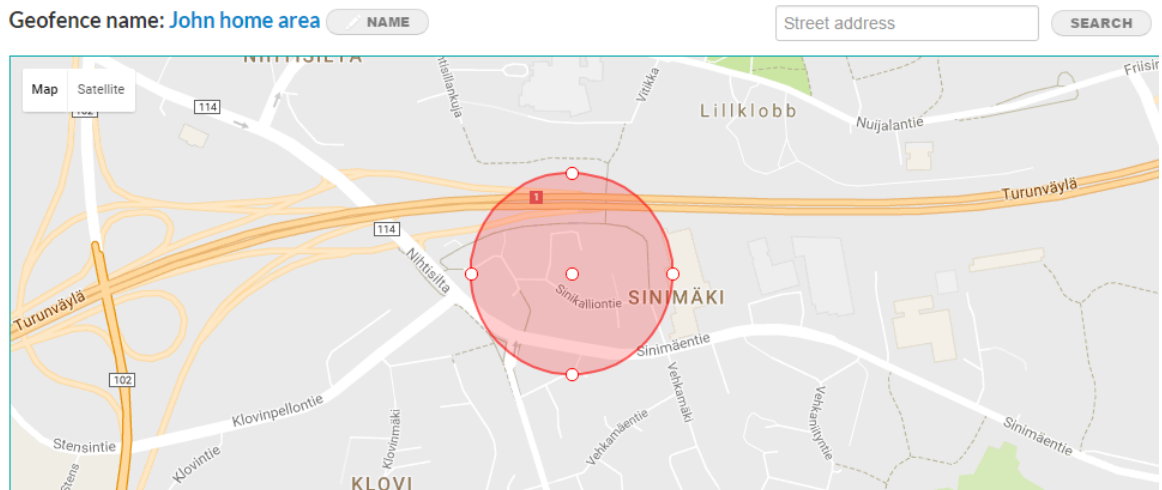
5. Release the mouse left button.
6. Set a name for the area

The area is added to the list of areas.

#	Area activation	Actions
<div>📍 John home area</div>	Area is always active	<div>✎ NAME</div> <div>✎ AREA</div> <div>🔄</div> <div>✕</div>

In order to edit the circle area click “**AREA**” button.

- A. Move circle location → Click and drag the small orange circle inside the circle area
- B. Edit circle radius → Click and drag the small orange circle outside the circle area
- C. Save changes by clicking the map outside the geofence area on the map



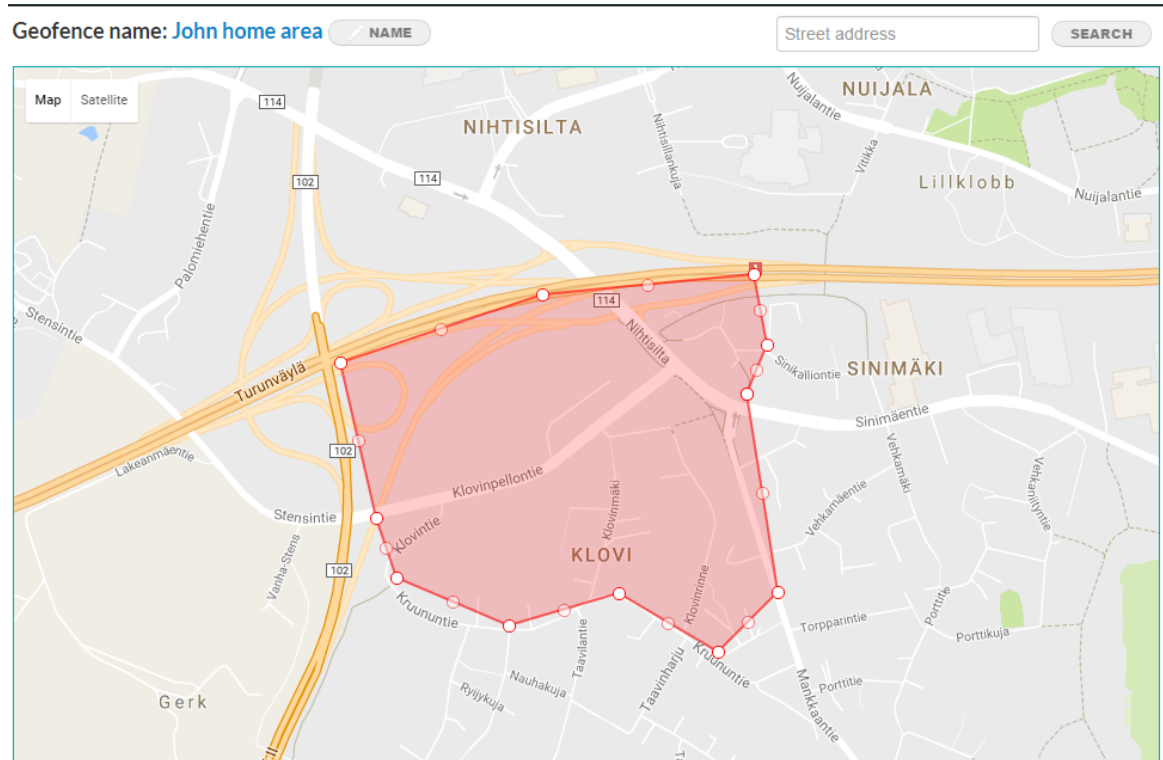
Create new polygon

1. Pan and zoom the map to the correct location where the geofence should be set
2. Click “Create new polygon” button
3. Draw the polygon by clicking the left mouse button at the first corner of the polygon and by clicking the left mouse button at following corners until you have fully drawn the area
4. Complete the drawing by double clicking the left mouse button in the latest corner of the polygon
5. Set a name for the area


Please note that the inside of the area is on the right-hand side of the line between two area corners when following the line clockwise. If the lines defining the area cross each other (like number eight) the inside for some part the area is then turned around and the area no longer works as desired. Please make sure that the lines do not cross each other.

In order to edit the polygon area click “Area” button associated with the area.

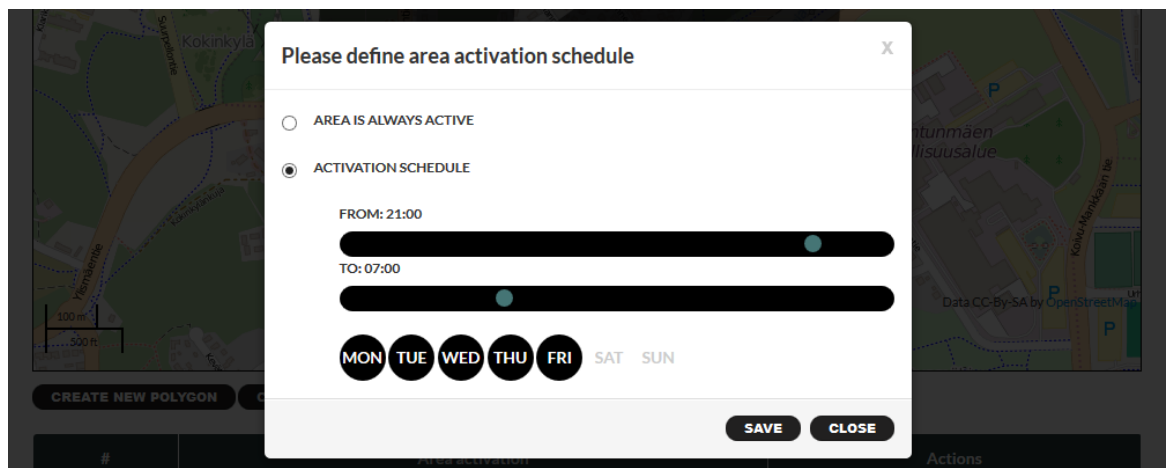
- A. Move polygon location → Click and drag the small orange circle inside the geofence area
- B. Edit a polygon corner → Click and drag the small orange circle in the polygon corner
- C. Add a polygon corner → Click and drag the small light orange circle between the polygon corners
- D. Delete a polygon corner → Hover the mouse pointer above the corner and click the right mouse button
- E. Save changes by clicking outside the geofence area on the map



3.6.3 Geofence area activation scheduling

When a new geofence area is created it is by default always active. To set an activation schedule please click  scheduling icon.

Select **AREA IS ALWAYS ACTIVE** or **ACTIVATION SCHEDULE**, define start time, end time and weekday schedule. Drag the **FROM** and **TO** time markers to desired start and finish times. The time can be fine-tuned by pressing left or right arrow on the keyboard. and save settings. Please note that if the **FROM** time is later than the **TO** time the area will be active from the **FROM** time on the selected weekday to the **TO** time of the following day. The in the example in the picture below the area is valid from Monday evening 21:00 to Tuesday morning 07:00 daily. The last scheduled valid period is therefore from Friday 21:00 to Saturday 07:00 even though the **SAT** is not selected.



By default all weekdays are selected. Click **MON**, **TUE**, **WED**, **THU**, **FRI**, **SAT**, **SUN** buttons to turn them off or on. Please note that the **DAY** buttons are associated with the **FROM** time. Once the desired times are set click **SAVE** to save the settings.

3.6.4 Activate geofence

Once the geofence editing is completed the geofence must be activated for the device. Please click **"SAVE"** button at the bottom right corner of the page to activate the geofence for the device and to send a geofence download command to the device.



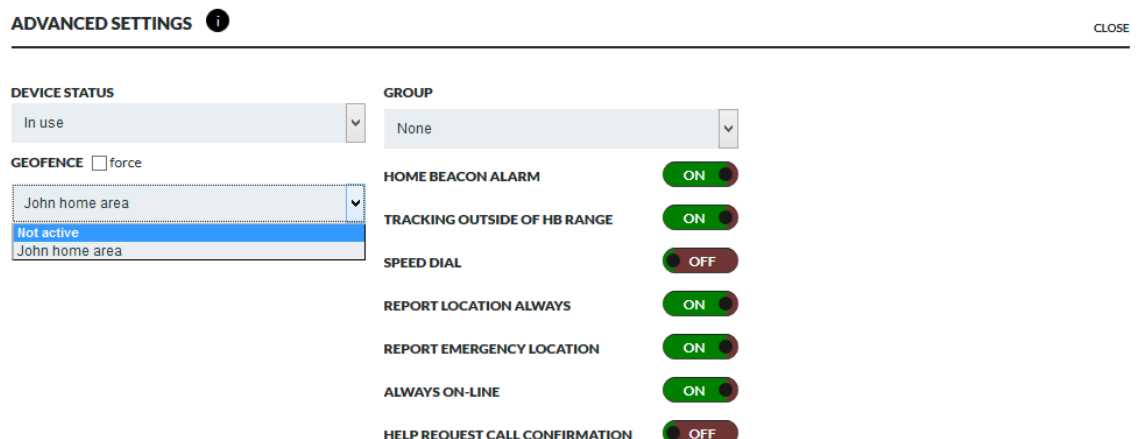
Note: The device must have the **TRACKING OUTSIDE OF HB RANGE** and **REPORT LOCATION ALWAYS** toggles turned **ON** when using geofences. If the above toggles are **OFF** the device will not calculate the geofence.



Note: The geofence must have at least one area defined. If an empty geofence is sent to the device it will result in an error condition leaving the spinner turning by the geofence selector. This error can be recovered by adding an area to the geofence and saving it again or by deactivating the geofence as described in section 3.6.5.

3.6.5 Deactivate geofence

To deactivate a geofence from the device please go to device **SETTINGS** page → **ADVANCED SETTINGS** → under geofence select **"-"** and **SAVE** settings. The deactivation message is sent to the device.



3.7 Configuring a device without use of wizard

Typically devices are configured for use by a customer support or admin personnel. The process consists of following steps:

- Put the device into the charging dock so that it becomes fully charged and that it has network connection available
- Define speed dial phone numbers and turn on call centre service as required (see section 3.3.1)
- Select device time zone, language and profile (see section 3.3.1)
- Define device wearer name. Please note that use of a code rather than person's own name helps anonymize the personal data in Rafael service and helps meeting the European General Personal Data Protection regulation (see section 3.3.3)
- Define home beacon nick name and address if desired (see section 3.3.3). Please repeat the process for all private beacons.
- Define notifications as required (see section 3.3.4)
- Define safe zone(s) as required (see section 3.6)
- Modify default profile settings as required (see section 3.3.2)
- Move the device to the right group if required (see section 3.3.2). If required create a new group (see section 3.8).
- Change device status from SETUP to IN USE (see section 3.3.2) and finally click the SAVE button to send the configuration to the device and Rafael service. Once the spinner at device state has disappeared the device is ready to use. You can also see this from the device display, the SETUP message has been replaced by either Charging or Batt full message.
- If call centre service is in use this is a good time to do test call.
- You can put the device into POWER OFF state for shipping purposes (see section 3.3.2). Once the device user gets the device all they need to do is to put into the charger for a short time and the device will automatically turn itself on and inform Rafael service that it is back in IN USE state.
- In some cases Rafael user accounts need to be created for new caregiver or company employee users. Please see section 3.9 for further details.

3.8 Device groups

Devices in Rafael service can be placed into groups. The use of groups provides means for:

- Restricting user access to a limited number of devices
- Defining call centre services for a group of devices
- Enabling transmission of device generated messages to an external server
- Applying identical setting to a group of devices

Groups can be easily created in the Rafael service by user with admin privileges.

DEVICES
ALERTS
COMPANY
USERS

Navigil Documentation

Groups

ADD GROUP

Device speed dial white list numbers

All numbers are allowed.

ADD WHITELIST NUMBER

Home beacons

Nickname	Home beacon ID	Street address	Latitude	Longitude	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	ADD

BACK

SAVE

Click ADD GROUP to create a new group.

DEVICES
ALERTS
COMPANY
USERS

New group

NAME

Call Centre Service

	Call Centre Service	Description
<input checked="" type="radio"/>	Default	This option selects company default overflow number
<input type="radio"/>	Not activated	This option disables Call Centre Service activation

BACK

SAVE

Name the group and click SAVE.

A call centre service can be assigned to a group. Please contact Navigil support (support@navigil.com) in order to have a call centre service number set up.

Global beacons can be defined at group or company level. Each beacon has a nick name, beacon ID, street address and longitude and latitude information. If coordinates derived from the street address aren't correct the location coordinates can be easily changed in the longitude and latitude fields.

DEVICES

ALERTS

COMPANY

USERS

Test group

NAME

Call Centre Service

Call Centre Service	Description
Default	This option selects company default overflow number

Home beacons

Nickname	Home beacon ID	Street address	Latitude	Longitude	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	ADD

BACK SAVE

Please note that company or group level beacon coordinates are not used in safe zone calculations, they are used for indoor location information only.

3.9 User accounts

Each Rafael service user has an account in the system. There several user roles defined in the Rafael service allowing user privilege management and control and visibility of Rafael functions. The four user account types are:

- Company admin
- Company employee
- Caregiver
- Relative

The company admin account has the broadest privileges and relative the most restricted ones. The key differences of the privileges can be found in the table below:

Function	Admin	Employee	Caregiver	Relative
Create users	Yes	If enabled	-	-
Apply configuration	Yes	-	-	-
Move device to a group	Yes	Yes	-	-
Change device status (SETUP / IN USE)	Yes	Yes	-	-
View of devices	All	By group(s)	By group(s)	Specific one(s)
View active alarms	Yes	Yes	-	-
Access settings page	Yes	If enabled	If enabled	If enabled
Create safe zone	Yes	If enabled	If enabled	If enabled
Create notifications	Yes	Yes	Yes	Yes

The user can be created by clicking ADD USER:

DEVICESALERTSCOMPANYUSERS

Users

-- All roles --

SEARCH

ID	Name	Email	Admin	CoAdmin	Employee	Caretaker	Assistee	Relative	
885	User 1163						✓		<div>VIEW</div> <div>DELETE</div>
8749	Navigil Tester-Demo	mr@demo.com		✓					<div>VIEW</div> <div>DELETE</div>

ADD USER

Fill in user's first name, last name, e-mail address, a password (minimum of 6 characters). The login information will be sent to the user by e-mail if the SEND LOGIN AND PASSWORD BY EMAIL is ticked. Adding phone number is optional. Rafael service user interface language can be selected from the pull-down menu. If SUPPORT EMAIL option is ticked user will received messages from Navigil support on scheduled maintenance breaks as well as other critical service availability related communication,

Please note that the ASSISTEE role is reserved for the device only. Therefore, it is recommended that this role is not used for Rafael service users.

DEVICESALERTSCOMPANYUSERS

New user

NAME

EMAIL

PASSWORD

☐ SEND LOGIN AND PASSWORD BY EMAIL

PHONE

LANGUAGE

English

SUPPORT EMAIL
☐ Send me a notification email for service maintenance

GEOFENCE EDITOR
☐ Enable user access to geofence editor page

DEVICE SETTINGS
☐ Disable user access to device settings page

ROLES

☐ COMPANY ADMIN
☐ COMPANY EMPLOYEE
☐ CARETAKER
☐ RELATIVE
☐ ASSISTEE

BACK

SAVE

User can be provided access to the GEOFENCE EDITOR by ticking the respective box. Access to device settings page can be prohibited by ticking the DEVICE SETTINGS box.

User role can be selected from the ROLES list. Please note that as the e-mail address is used as the user ID in Rafael service only one user can exist under one e-mail address in the Rafael system.

3.10 Rafael service APIs

Rafael service has APIs in order to facilitate communication with other services and servers.

3.10.1 M2M API

The M2M API enables safe transmission of selected device and Rafael service generated messages to be forwarded onto another server. For example, the activity statistics and location reports and be sent to customer's server for further processing and data mining. Please contact Navigil support (support@navigil.com) for further details on the M2M API.

3.10.2 SCAIP API

The SCAIP API enables safe transmission of supported device and Rafael service generated messages to be forwarded onto an alarm receiving centre supporting SCAIP communication. This enables day-to-day use of the devices to be handled via the alarm receiving centre software. Alarms and warning with location information can be send using the SCAIP protocol over a SIP link from Rafael service to the alarm receiving centre. Please contact Navigil support (support@navigil.com) for further details on the SCAIP API.

4 Troubleshooting

Problem	Possible causes	Action
Home beacon location is not correct on home view map	Home beacon address is not set correctly	Go device settings page and update home beacon address. Use SHOW MAP to fine tune correct location on a map.
Help request call is not made to correct person	Person's phone number is not on the speed dial list or help request toggle is not turned on.	Go device settings page and update speed dial list and/or help request toggle settings.