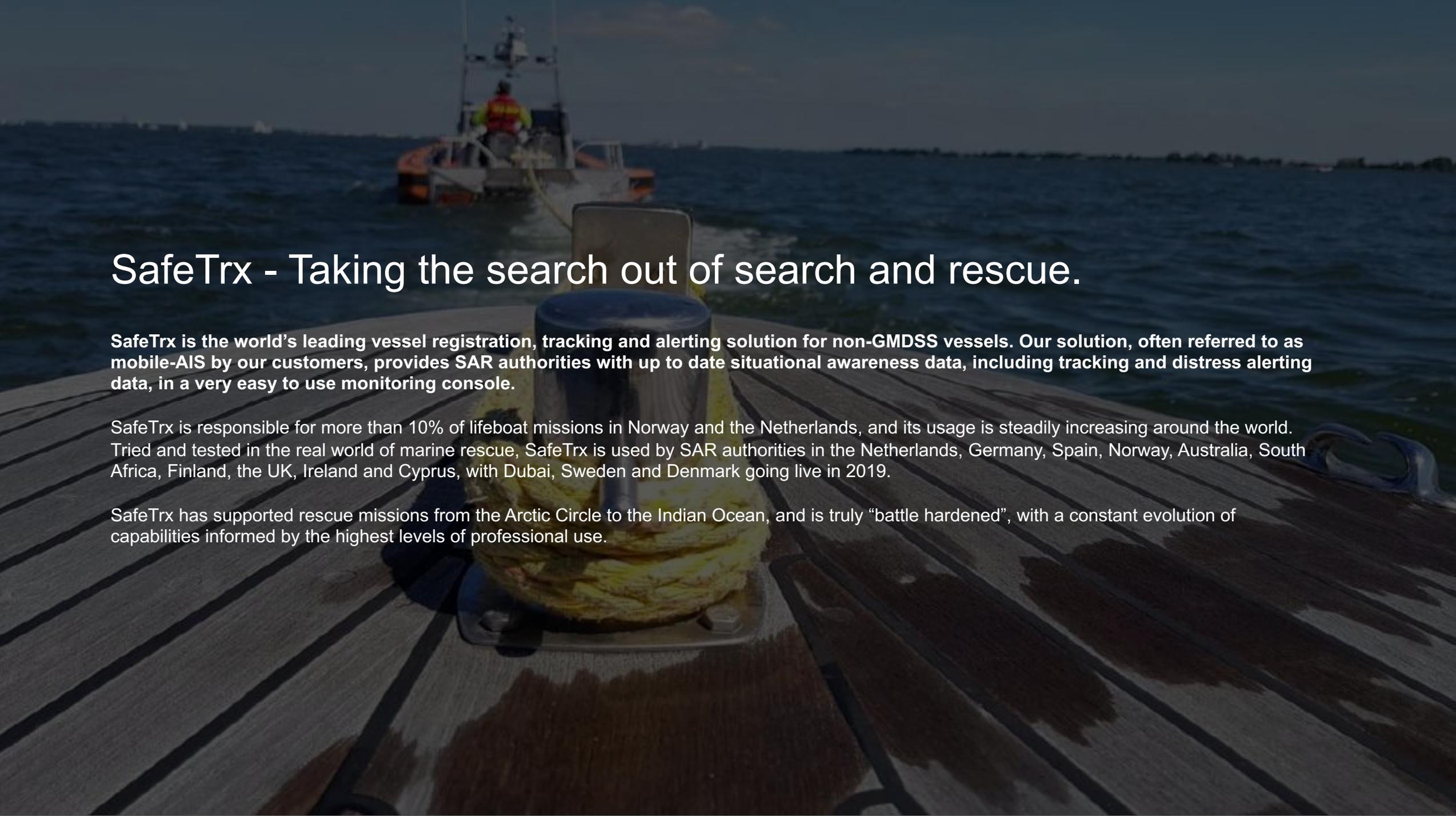




**SAFETRX**  
*Tracking you home safely*

The background of the slide is a photograph of a boat deck. In the foreground, there is a coil of yellow rope on a metal base. In the background, another boat is visible on the water, with a person wearing a high-visibility vest on deck. The water is dark blue, and the sky is overcast.

# SafeTrx - Taking the search out of search and rescue.

**SafeTrx is the world's leading vessel registration, tracking and alerting solution for non-GMDSS vessels. Our solution, often referred to as mobile-AIS by our customers, provides SAR authorities with up to date situational awareness data, including tracking and distress alerting data, in a very easy to use monitoring console.**

SafeTrx is responsible for more than 10% of lifeboat missions in Norway and the Netherlands, and its usage is steadily increasing around the world. Tried and tested in the real world of marine rescue, SafeTrx is used by SAR authorities in the Netherlands, Germany, Spain, Norway, Australia, South Africa, Finland, the UK, Ireland and Cyprus, with Dubai, Sweden and Denmark going live in 2019.

SafeTrx has supported rescue missions from the Arctic Circle to the Indian Ocean, and is truly "battle hardened", with a constant evolution of capabilities informed by the highest levels of professional use.

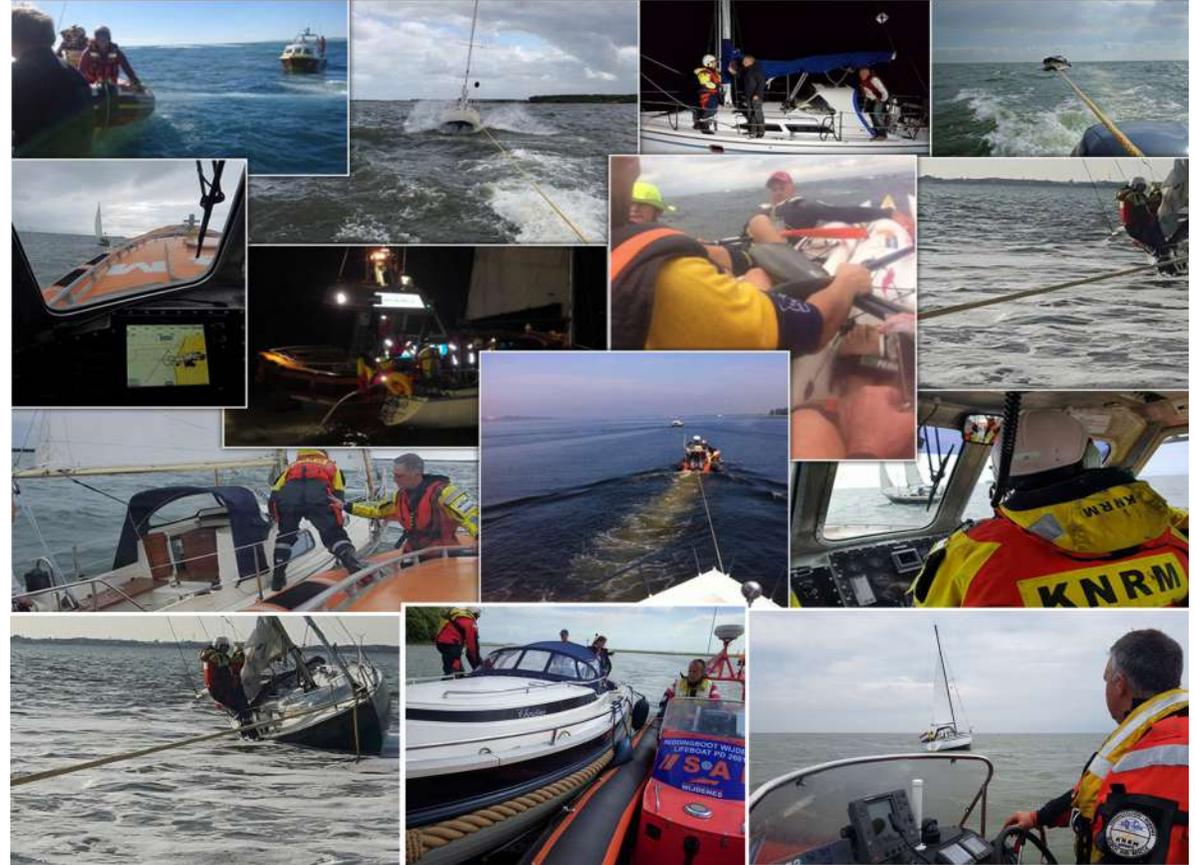
# Reducing Risk

SafeTrx provides marine users with tracking and alerting capability without the use of AIS or other GMDSS equipment, which are not commonly used in leisure marine or watersports. SafeTrx has become a vital part of the marine emergency response capability of countries in which it has been deployed. Ease of use has contributed to the rapid adoption in all countries where it has been rolled out, thereby bringing the at-risk marine community into the maritime domain awareness picture.

As is essential with any critical system, SafeTrx has been designed and built to the very highest engineering standards and has proven reliability in the field. The engineering in both the SafeTrx monitoring software and end user application has gone through years of real world usage. Reliability and dependability are the two cardinal design criteria in our software!

At the cutting edge of marine rescue technology, we continuously evolve the solution by working directly with our customers. Our SafeTrx User Group is made up of SAR professionals from around the world. They guide us in what we do and in what we build to their exact specifications.

Testing of new features is performed in fully operational conditions. New capabilities are implemented only after testing with full rigor in real world environments.



*Images from rescues triggered by SafeTrx*

# SAR Operations



SafeTrx is deployed on a national territory basis, with each deployment operating on a stand-alone, secured instance. The SafeTrx team works with customers to configure the SafeTrx monitoring software to align with local country Standard Operating Procedures and to localize content for the SafeTrx end user application.

## Vessel Registration System

SafeTrx can operate as a standalone vessel registration database separate to the tracking and alert functions of the platform. A dedicated website allows end users to register an account and vessel registration details without having to install the SafeTrx Smartphone app.

## SAR Operational Support Tools

The SafeTrx Monitoring Console provides SAR emergency response operators with an intuitive Web-based user interface. The user interface combines real time vessel tracking with boater, vessel and emergency contact information.

Within this interface, SAR emergency response operators have access to a set of support tools including:

- Intelligent early warning system that activates on alerts from Smartphones
- Emergency call position information
- 'SafeTrx Search' feature that allows Operators to search for vessels, trips, people or emergency contacts stored in the database
- Area picture showing all SafeTrx activity within the operator defined territory
- Overdue filtering for vessels exceeding their ETA
- Real time tracking capability for all active SafeTrx vessels
- SURPIC provides surface picture capability for enhanced situational awareness
- Customised map views and horizontal accuracy filtering

# SafeTrx App

Our SafeTrx app creates a direct connection between the user out at sea and the Coast Guard, other marine search and rescue agencies, and family and friends, within one easy to use mobile interface.

## Geofenced Emergency & Assistance calls with location

Trigger emergency or assistance calls, with embedded location information, directly to the Coast Guard.

## Dual Mode Vessel Tracking

Sail Plan mode allows the user to record a passage plan and sends SMS messages to emergency contacts should they go overdue. Track Only Mode offers a quick tracking option that starts recording at the touch of a button. Track Only does not record a passage plan or send overdue SMS messages.

## Automated Overdue Alert Notifications

An overdue Sail Plan triggers a set of escalation SMS messages to boater's emergency contacts and the Coast Guard.

## Location Sharing

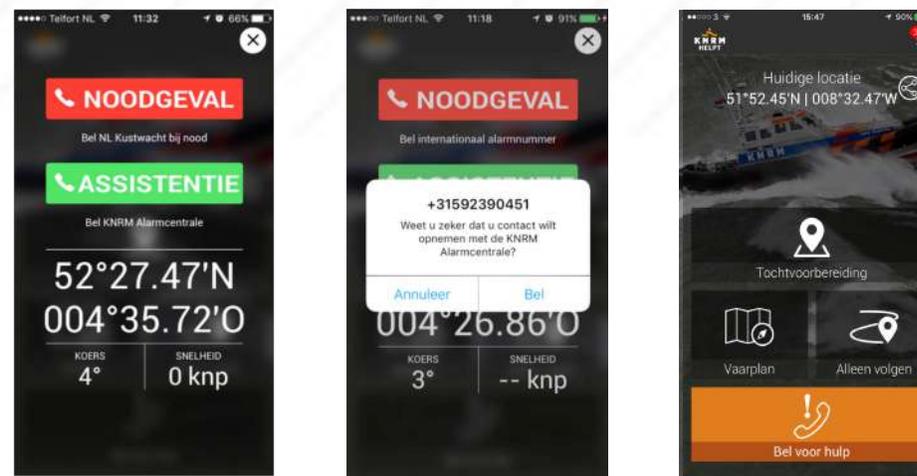
Allows users to share their location for tracking by sending a web link via email, WhatsApp, SMS, Facebook and Twitter to whoever they want.

## Message Centre

SafeTrx has the capability to message all users within defined parameters, for example, to broadcast a safety alert SMS to users within a defined area.

## Maritime Safety Information

Where available from the licensee, SafeTrx can provide Maritime Safety Information, such as navigational aids, man overboard procedures, lighthouse characteristics etc. to the user.



## Checklists

SafeTrx allows users to create convenient checklists, such as pre-trip, post-trip and maintenance checklists.

## Integrated ENC Data

Where available from the licensee, SafeTrx can provide integrated nautical chart data to users.

## Live Weather

Where available from the licensee, SafeTrx can provide location specific live weather data to users.

## Real-time Lifeboat Tracking

Where available from the licensee, SafeTrx can provide real-time lifeboat position data to the user.

## Incident Photo

SafeTrx has the capability for end users to send a photo of an incident, including the location, directly to the Coast Guard.

# SafeTrx Customers

- **Koninklijke Nederlandse Redding Maatschappij**  
(the Royal Netherlands Sea Rescue Institution)
- **Deutsche Gesellschaft zur Rettung Schiffbrüchiger**  
(the German Maritime Search and Rescue Service)
- **Redningsselskapet**  
(the Norwegian Sea Rescue Society)
- **Sociedad de Salvamento y Seguridad Marítima**  
(SASEMAR, the Spanish Maritime Safety Agency)
- **National Sea Rescue Institute in South Africa**
- **Suomen Meripelastusseura**  
(the Finnish Lifeboat Institute)
- **Australian Volunteer Coast Guard and Marine Rescue Queensland in Australia**
- **Cypriot Ministry of Defence**
- **Royal Yachting Association in the United Kingdom**
- **Irish Sailing Association in Ireland**
- **Danish Maritime Authority (2019)**
- **Sjöräddningssällskapet (2019)**  
(the Swedish Sea Rescue Society)
- **Dubai Police (2019)**



# Feedback

**Feedback from our national customers. SafeTrx is tried and tested at the highest standards of professional marine rescue, and stays at the cutting edge with evolving capabilities coming from real world use.**

*“SafeTrx gives rescue services access to data the skippers provide themselves as long as they are in range of a mobile network. In case of an emergency, the MRCC can use the stored data to support search missions. Sometimes the information we get on missing leisure boats is very poor. We are sure that SafeTrx can help to close this gap and will be of great support to locate people who need assistance, and it will minimise false alerts from family members that we often get if crews are overdue.”*

**Udo Fox** - Executive Director  
German Maritime Search & Rescue Service  
and Chairman, International Marine Rescue Federation

*“As a proven maritime safety platform, we are confident SafeTrx can help reduce the risk of maritime accidents and the loss of human lives at sea in Finland.”*

**Pertti Helaniemi** - Vice Chairman of the Board  
Finnish Lifeboat Institute

*“For us, SafeTrx has been a truly useful tool, helping to pinpoint distress situations precisely so our crews can respond effectively.”*

**Martin Fuhr Bolstad** – CIO  
Norwegian Sea Rescue Society

*“We think we can make an important contribution to the safety of Netherlands watersport end users by offering them the KNRM - SafeTrx application.”*

**Roemer Boogaard** - Managing Director  
Royal Netherlands Sea Rescue Institution (KNRM)

*“SafeTrx is an international product with a solid reputation. It has been successfully used in other countries around the globe and we are excited to announce the launch of RSA SafeTrx. It is another tool that paddlers and small craft users can add to their safety equipment, which will help to take the search out of Search and Rescue.”*

**Dr. Cleeve Robertson** - CEO  
National Sea Rescue Institute (NSRI)

*“This new SafeTrx App has the potential to get our resources on-scene as quickly as possible which will in turn save lives.”*

**Ray Campbell** - National Commodore  
Australian Volunteer Coast Guard (AVCG)

*“We are sure this application can play a significant role in improving safety in coastal waters!”*

**Juan Luis Pedrosa** - Director  
Spanish Maritime Safety Agency (SASEMAR)

*“When we receive an emergency call we need a huge amount of information fast. This app helps us access all your details, so that you can get a swifter response with the right resources. RYA SafeTrx uses real-time advanced technology. CG66 was just a database, but the new app allows users to do so much more, including summoning the Coastguard – which could save lives. The precise geolocation feature for example, allows the Coastguard to know where the caller is, an important consideration when the person in distress is unsure of where they are, disoriented, injured or unfamiliar with the area.”*

**Richard Parkes** - Director of Maritime Operations & HM Coastguard  
Maritime and Coastguard Agency, United Kingdom

*“When we learned about SafeTrx and its enormous benefits, we knew we had to bring it to the UK.”*

**Stuart Carruthers** - Cruising Manager  
Royal Yachting Association (RYA) in United Kingdom

*“SafeTrx helps take the search out of search and rescue. It encourages all sea users to plan and execute their trips better, safer and gives assurance to friends and partners ashore.”*

**Chris Reynolds** - Director  
Irish Coast Guard

*“It is our hope that SafeTrx will give us the ability to efficiently track and locate persons in distress, even when they are not able to report their status by other means. This will greatly enhance our effort to achieve the ultimate goal that the Search and Rescue system of the Republic of Cyprus has set, which is no other than the zero loss of human lives.”*

**Captain Navy Costas Fitis**  
Cypriot Government's Joint Rescue Coordination Centre (JRCC)

*““The SafeTrx application reinforces the Dubai Police strategy, to make Dubai safe and support the strategic plan for artificial intelligence. The SafeTrx application serves registered land and sea users within the Dubai application which exceeds two million users.””*

**Lt. Col. Engineer Hussein Bin Ghalaita Al Muhairi**  
Dubai Police

# Frequently Asked Questions

## How can the SAR authority get SafeTrx?

8 West licenses the SAR authority to operate a unique instance of the SafeTrx system. Each SafeTrx system component (Smartphone apps, SafeTrx Web, SafeTrx Monitoring Console) can be tailored to the authorities specific needs. Hardware and software requirements for the SafeTrx system are available on request.

## What are the key components of SafeTrx?

- Android and iOS Smartphone applications
- SafeTrx End User Website
- SafeTrx Monitoring Console for SAR emergency response operators

## Who has access to end user's details?

This information is stored on a secure server and access is restricted to the end user and the SAR authorities.

## How often does SafeTrx report a position?

There are two tracking options available within SafeTrx - Sail Plan Mode and Track Only Mode. In Sail Plan mode, the location is recorded every kilometer or every 5 minutes when stationary. The end user can choose between 4 position recording intervals in Track Only mode - continuous recording, 5 minute intervals, 10 minute intervals and 30 minute intervals.

## What's the difference between Sail Plan and Track Only Modes?

Sail Plan mode allows the user to record a passage plan and sends SMS messages to emergency contacts should they go overdue. Track Only Mode offers a quick tracking option which starts recording at the touch of a button. Track Only does not record a passage plan or send overdue SMS messages.

## How does the app handle loss of cell coverage?

The SafeTrx Smartphone application uses both the GPS and cell network to determine location. If the cell signal is lost the app will attempt to continue to acquire and store location information using the Smartphone's GPS receiver. Once a cell signal becomes available again the app sends the backlog of stored location information to the SafeTrx server and resumes transmitting location information in real time.

## How can end users manage their account?

End users can view and edit their account details on the SafeTrx End User Website and the SafeTrx Smartphone app:

- Change their personal contact & password information
- Register and manage their vessel details
- Set up personal vessel checklists
- Set up and edit their emergency contacts
- View & delete their journey history
- View Terms and Conditions, Privacy and Disclaimer policies

## What happens if end users fail to close their trip within the logged ETA?

From a monitoring perspective, SafeTrx is fully autonomous once the end user hits "Set Sail", however failure to close a Sail Plan triggers an escalation process involving the end user's emergency contacts and the SAR authority. The SafeTrx escalation actions are customised to follow the processes and procedures of the SAR authority. The following is a sample escalation process:

- Escalation Level 1** 15 minutes before the ETA is due to expire, end user receives a notification advising to extend or end their trip.
- Escalation Level 2** Failure to close the trip when trip is overdue sends another reminder alert that the trip is now overdue and it must be either closed or extended.
- Escalation Level 3** 15 minutes after the ETA has expired the end user receives a warning notification that an SMS will be sent to their emergency contact should the trip remain overdue.
- Escalation Level 4** If after 30 minutes past the designated ETA the end user still has not closed or extended the ETA, an SMS is sent to their emergency contacts. If the end user's emergency contact is unable to contact the end user, they then contact the SAR authority.
- Escalation Level 5** 60 minutes past the ETA, an email is sent to the MRCC advising them to make contact with the end user.

*\* The escalation procedure can be customised to suit the individual country's standard operating procedures.*

## What happens when an Emergency or Assistance call is made from within SafeTrx?

When the Emergency or Assistance call is pressed on the SafeTrx mobile app, the app will determine the end user's current location and uses geo-fenced zones to call a pre-defined Emergency or Assistance phone number. If the caller has a data connection, the app will send an 'Emergency/Assistance Location' to the SafeTrx server with the location, speed and heading displaying on the SafeTrx Monitoring Console. An email with the caller and location details are sent to the MRCC.

## Does the Smartphone application use a lot of battery power?

The SafeTrx app uses a number of methods to determine position and these do consume battery power. However the app monitors the Smartphone's battery in real time and adapts to declining battery levels. In Sail Plan mode, if the battery level falls below 30%, the location transmission interval is adjusted from 1Km to 2Km to save battery power. In both Sail Plan and Track Only modes, there is also a failsafe to ensure that if the battery level falls to 10%, SafeTrx suspends in order to preserve battery power for emergency calls. A SMS is sent to emergency contacts. When the Smartphone is plugged in to recharge, trip monitoring is automatically resumed.

# Contact Us

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