inmarsat
The mobile satellite company™

Remote Terminal Manager

User Guide

Version 2.0

Contents

1 Introduction

1.1 A Global Monitoring and Control Platform

The need to remotely monitor and control equipment through a satellite communication IP platform is becoming increasingly important. Instant access to location information and remote access to satellite terminal and connected equipment could be of essence.

Inmarsat has a solution in its portfolio called Remote Terminal Manager (RTM) that enables the NOC (Network Operation Center) of a company to remotely access the (unmanned) BGAN equipment and IP device(s) behind it.

This unique platform is a scalable, internet-based monitoring and control application that enables you to activate an IP session, close down/disconnect an IP session, provide information which IP devices' are online/offline, provide detailed information on signal strength, in which Inmarsat spot beam the BGAN is located and which firmware is being used by the BGAN device. If from the remote side a data connection is setup or disconnected Remote-IP can send out an email message to notify the NOC of the event. It also provides the latest position report for an individual site or all sites combined on one map/screen. It depends on the BGAN hardware and firmware which data you can pull out of the terminal.

In the paragraphs below a description is provided of the functionality offered via the RTM application. Please note that in order the use the RTM service for a particular terminal. The SIM of the terminal must be subscribed to RTM service via Inmarsat Solutions provisioning Dashboard.

2 Remote Terminal Functions

2.1 Basic Remote Terminal Manager functions

Network information

Based on the information retrieved from the Inmarsat network RTM provides the following overviews:

Retrieve connection status	Get an immediate insight if a terminal is online and the number of active data connections it has
Retrieve call history	Get a historic overview of successful and failed data connections Get an overview of remote control commends sent to the terminal and the associated reply
Report session failure details	In case connections fail, RTM will show the reason for failure

Alert Service

Connection alert	RTM will allow an alert notification to be sent when a data connection is started by the terminals or when it gets disconnected. The alert can be configured to be sent to multiple destinations

Note: The above information and alert service is only available if one of the following APNs are used for the data connections:

- stratos.bgan.inmarsat.com
- xantic.bgan.inmarsat.com

SMS

Free form SMS	When needed a free form text message can be sent to the terminal from within the RTM application

2.2 Remote Control functions

Data Connection control

The following options for data connection control are offered in RTM:

Wake up and stop data connection	RTM allows for the remote activation of an IP or streaming connection, ready to be used by remote applications to exchange data.
Set up multiple connections	If the terminal supports multiple connections, RTM is able to remotely activate multiple PDP contexts
Automatic PDP context restart	The RTM application can be configured to automatically restart a PDP context if a connection fails
Wake up for specific UT device	Depending on terminal capabilities, it is possible to activate connection for specific devices connected to the remote terminal

Advanced data connection control

Wake up for specific APN	If terminal and SIM capabilities allow, connections can be activated for specific APN's
Wake up with non-default profile	When multiple profiles are created for the SIM, the connection can be remotely activated using a specific profile
Configure APN	If the SIM allows multiple APNs to be used, the preferred APN can be configured for use in RTM

Remote Terminal Control

Reboot	From within the RTM application it is possible to instruct the terminal to reboot itself. The RTM application will report when the terminals is available again
Remote firmware upgrade	For terminals that support remote firmware upgrade, RTM provides the options to initiate a firmware upload and activate the firmware once uploaded

Terminal Status and Information

Depending on the capability of the terminal, the RTM service provides functions to retrieve status information and geographic location from the terminal. The status information retrieved from the terminals may contain:

- Signal Level
- Spot beam information
- IP address of the terminal
- Firmware version
- Serial number and IMSI
- Uptime
- GPS Location

GPS Position and Mapping services

If the terminal supports the retrieval of its geographical position, RTM will provide the following functions:

- Plot and present the last know position on a world map
- Provide a color indication to show if a terminal has an active data session
- Plot all terminals on a map in the terminal overview
- The option to automatically retrieve a position from the terminal when a new data connection is setup

Note: GPS position reporting is only available for SIMs that are activated on the Full RTM Subscription; for SIMs activated on the Basic RTM Subscription this information is not available.

3 Remote Terminal Manager support per terminal type

The below table lists the level of Remote Terminal Manager functionality supported by the different types of BGAN terminals. Below the table a short description is provided for each function category.

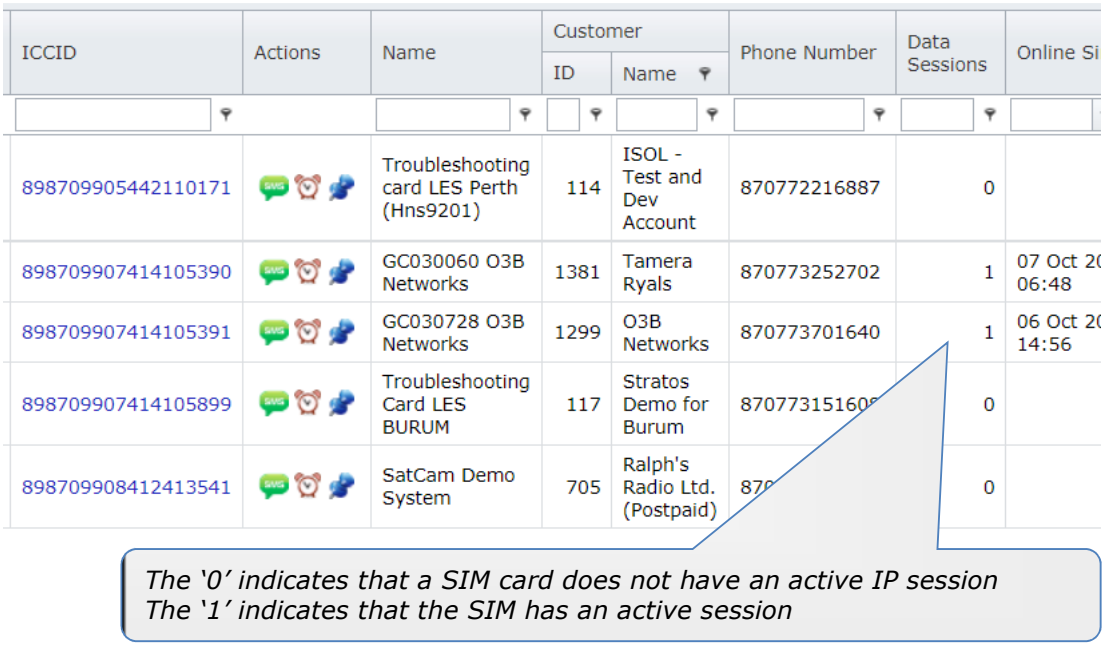
		Network Information	Connection Status Alerts	Send SMS	Data Connection Control	Advanced Data Connection Control	Terminal Status and Information	Remote Terminal Control	Geo- position and Mapping services
Manufacturer	**Terminal(s)**	**Basic**			**Remote Control**				
HNS	9201*, 9202*, 9450*	√	√	√	√	√	√	√	√
	9250, 9350	√	√	√					
	9502	√	√	√	√	√	√	√	√
Thrane & Thrane	Explorer 100/110	√	√	√					
	Explorer 300, 500, 700	√	√	√	√	√			
	Explorer 325, 527, 727	√	√	√	√	√			
Addvalue	Sabre 1 Remote	√	√	√	√	√			
	Sabre 1	√	√	√					
	Sabre Ranger	√	√	√	√	√			

Notes:
*Remote control functions to be activated by PIN from HNS
** Network and connect status available when the APNs of the legacy Stratos network are used

4 Getting started

Below paragraphs provide an introduction into the most used functions or RTM.

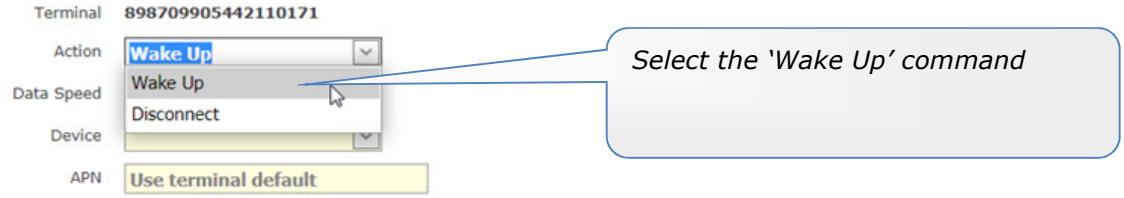
4.1 Is the BGAN terminal Online/off-line?



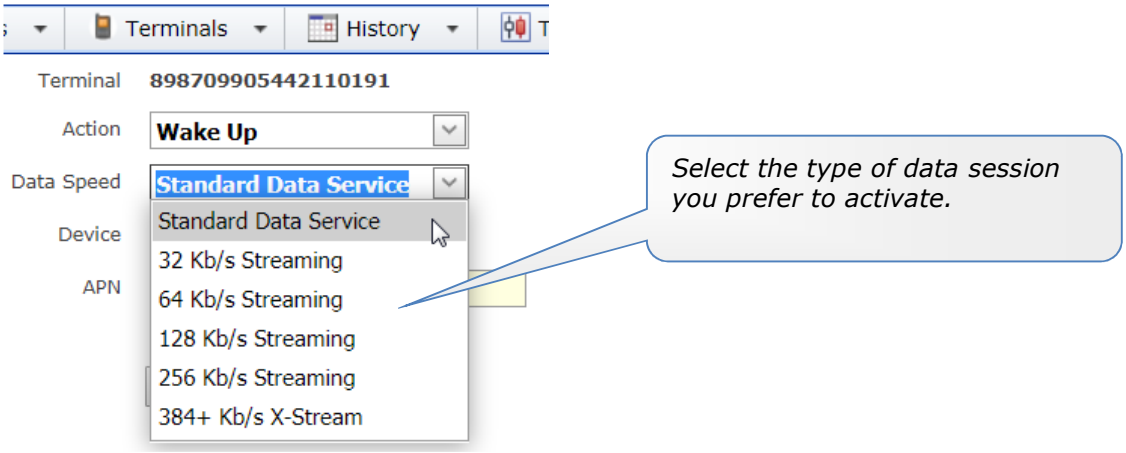
4.2 How to activate an IP session

Step1

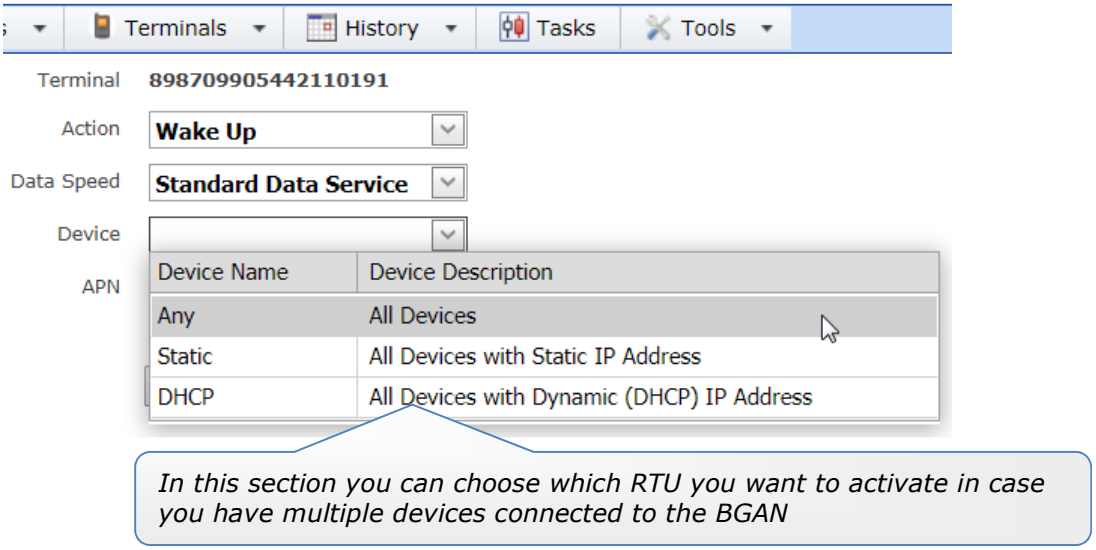
Step 2a



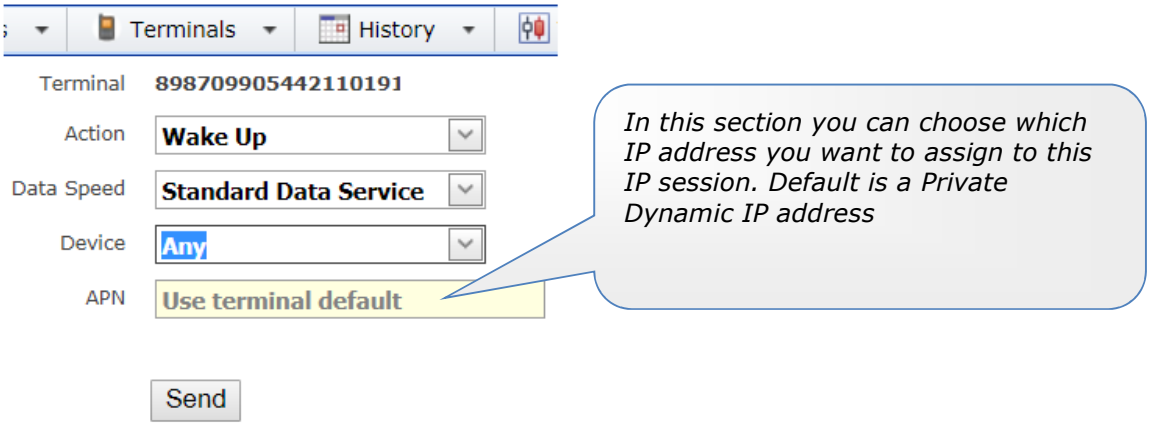
Step 2b



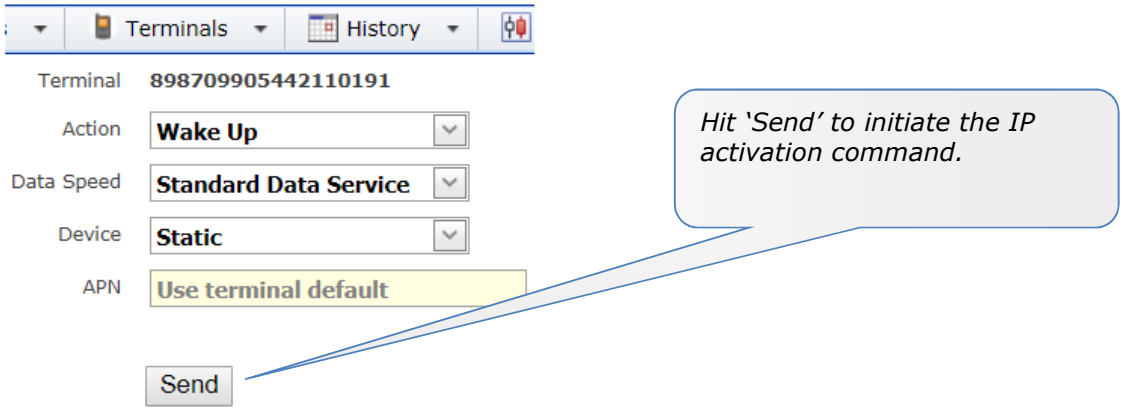
Step 2c



Step 2d



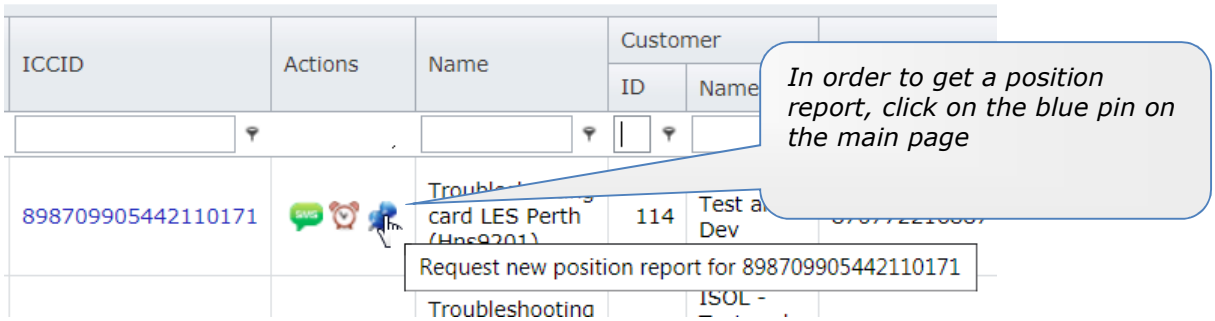
Step 2e



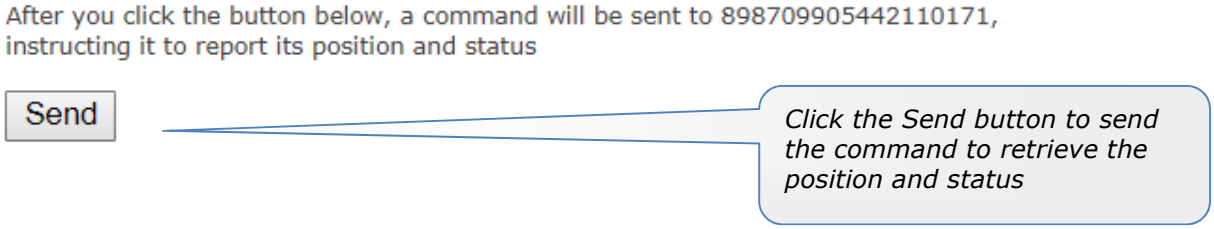
4.3 Where is the BGAN terminal located?

Please note that the availability of this function depends on the terminal type in use. Please refer to section 1.4 for details.

Step 1



Step 2

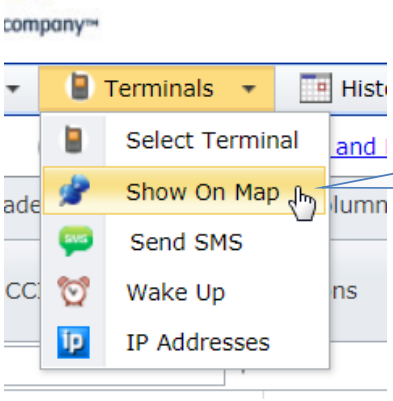


Step 3

The Message Archive show the position and status information (this may take a few minutes):

Id	Cust	Terminal	Direction	To	Content	Raw Content
322837443	114	898709905442110171	From Mobile	STC	[GPS Response]	IMSI: 901112112110171 IMEI: 35178500001119 LAT:-31.80 LON: 115.88 SW: 3.8.0.6 C/N0: 62 Beam: 16 Uptime: 396982 GIP: 0.0.0.0
322837442	114	898709905442110171	To Mobile	870772216887	[GPS Command]	GETINFO 1 ALL ***

Step 4



Select the Show On Map to view where the terminal is located. If it has a green circle around it, it means that it is online

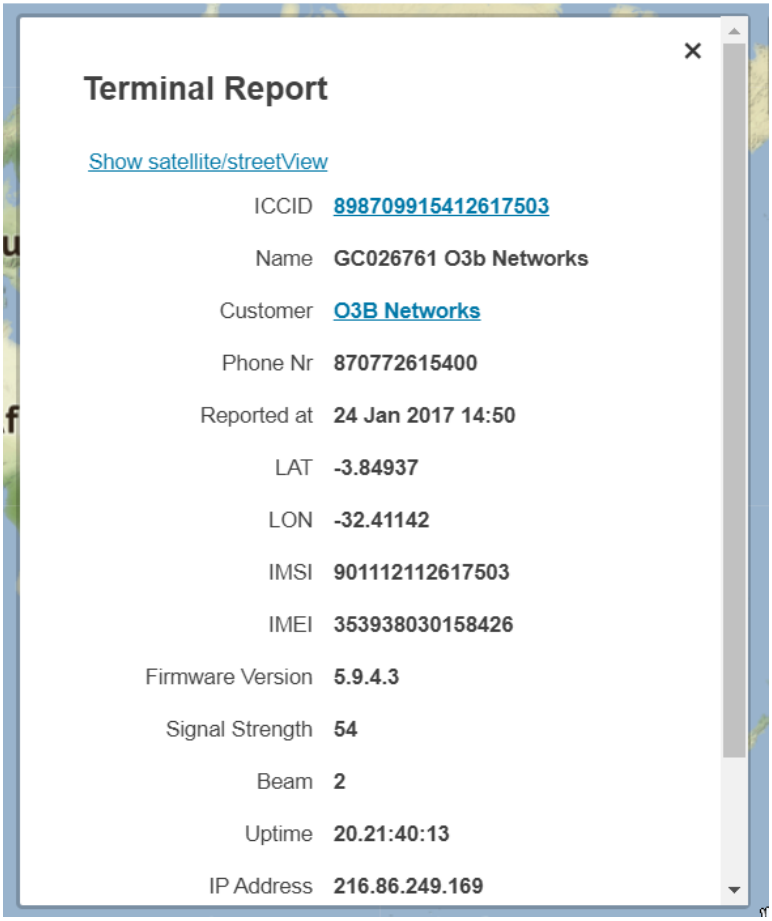
A green circle around the terminal means it is online, a red circle indicates it is currently not in a data session

If you have multiple terminals you can see them all on one map.

4.4 More detailed information from the BGAN terminal

Please note that the availability of this function depends on the terminal type in use. Please refer to section 1.4 for details.

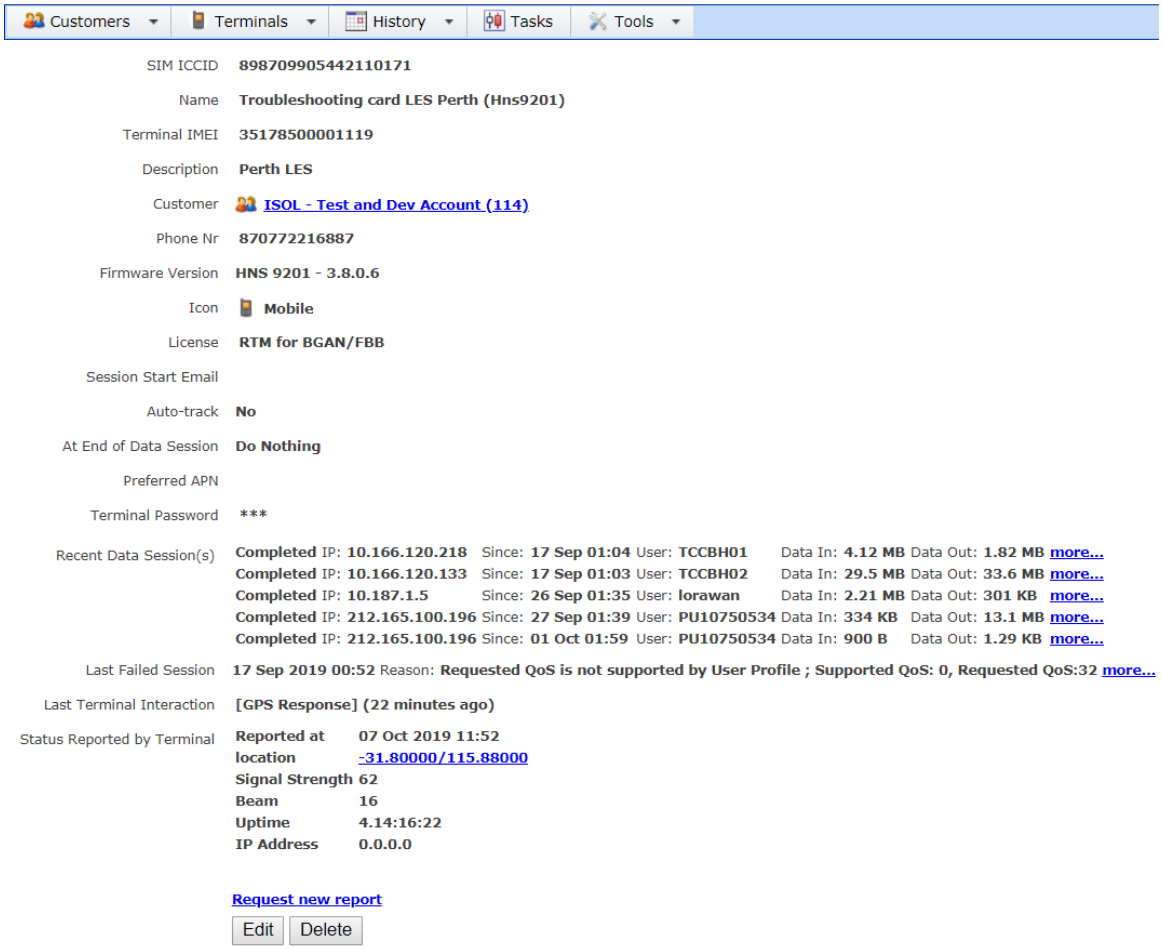
If you click on a terminal on the map, a terminal report opens up; this report contains the following information:



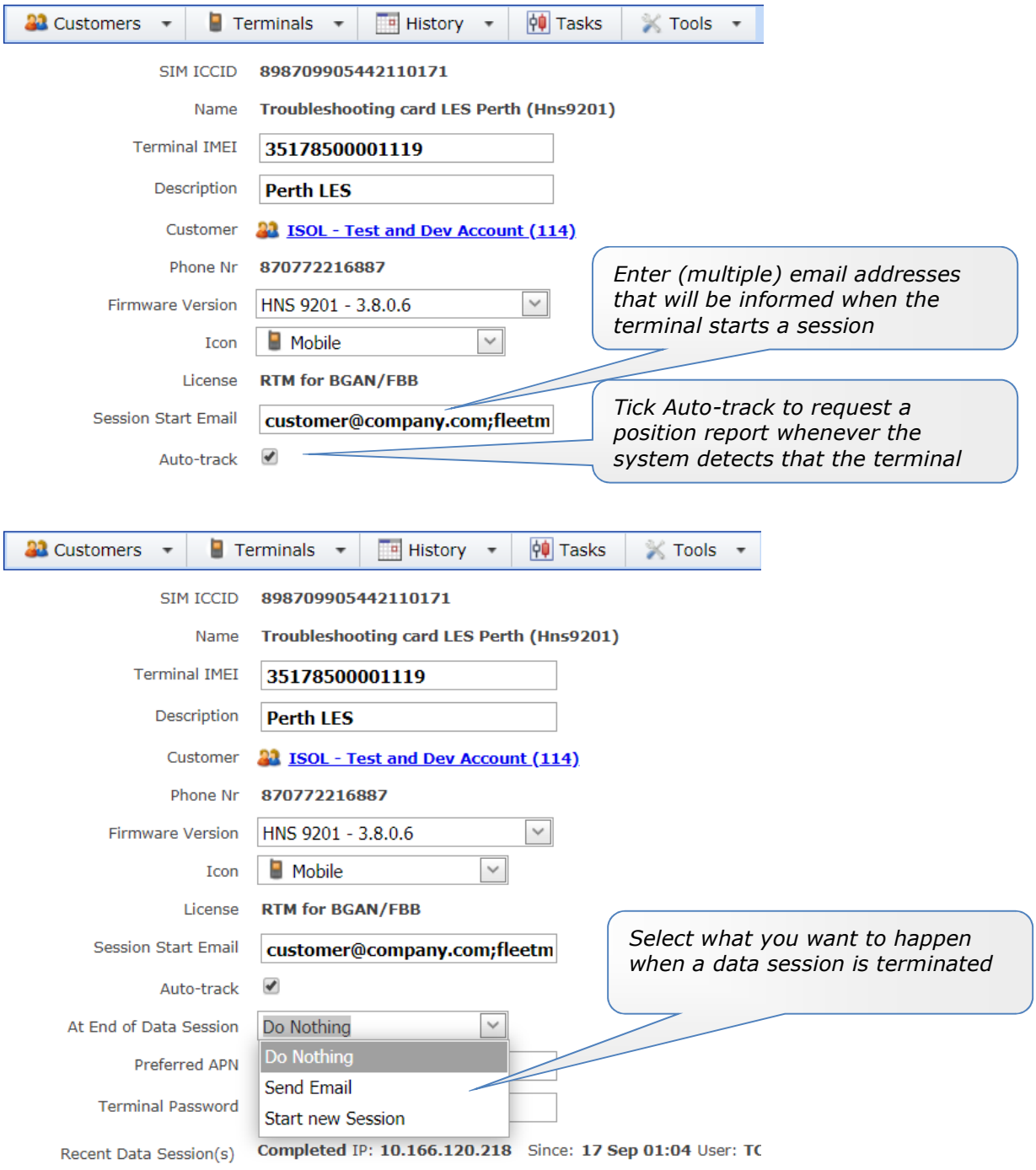
4.5 Notifications when terminal goes on- or offline

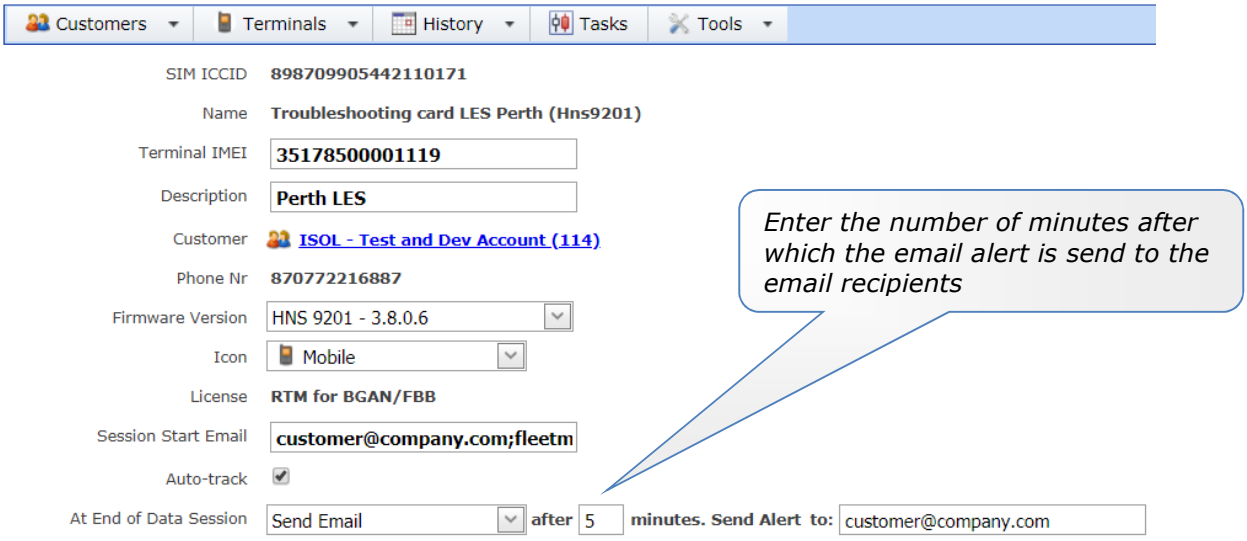
You can set a notification to inform the NOC once the BGAN terminal goes on- or offline.

To set a notification, select the ICCID of the terminal; this opens up the terminal details screen:



Click Edit to enable the setup of the email notifications:




Customers
Terminals
History
Tasks
Tools
SIM ICCID
898709905442110171
Name
Troubleshooting card LES Perth (Hns9201)
Terminal IMEI
35178500001119
Description
Perth LES
Customer
ISOL - Test and Dev Account (114)
Phone Nr
870772216887
Firmware Version
HNS 9201 - 3.8.0.6
Icon
Mobile
License
RTM for BGAN/FBB
Session Start Email
customer@company.com;fleetm
Auto-track
At End of Data Session
Send Email
after
5
minutes. Send Alert to:
customer@company.com
Enter the number of minutes after which the email alert is send to the email recipients