

Location tracking for better resource management

Real-Time Location Services



Introduction

Every asset and individual counts in your organisation. To stay ahead of the game, you need to readily identify, locate and manage them to improve business and operational efficiency, while driving your business forward. For instance, gaining intelligence on your equipment that is under-utilised could help you better optimise their usage and returns in other areas. Similarly, cutting down time wasted to look for assets or individuals of interest could well translate to more time dedicated to delivering quality customer experience. As such, you would not only need to see the big picture, but also achieve a granular visibility of your assets and individuals of interest accurately and in real time.

Designed to help organisations harness the insights from location intelligence, NCS' Real-Time Location Services (RTLS) is an enterprise-grade tracking solution that streamlines both asset and individual tracking management. It leverages on radio frequency identification (RFID) technology with high read accuracy to ensure real-time seamless traceability on your tagged assets and individuals of interest. Such location intelligence would then be mapped out clearly on the interactive floor plan and map interface of IntelliSURF™.

Challenges

- Increased wait time translates to a negative customer experiences
- Operational inefficiency in hunting for equipment and individuals of interest
- Poor inventory management, such as failure to replenish supplies below the par level on time
- Stronger security required around high-value materials and controlled substances

Solution

- Real-Time Location Services

Benefits

- Real-time situational awareness and location intelligence of key assets and individuals means greater, more accurate levels of traceability
- Automatic alerting in various cases such as unauthorised exits or usage of an equipment above a pre-defined limit
- Gain insights into the association between an asset and an individual to potentially design new business models
- Customisable reports to include useful parameters such as equipment utilisation rate and time taken to use the different equipment
- Audit trail to follow up on the action taken by various users

Key Product Components

Hardware

- ▼ Active RFID tags

Software

- ▼ IntelliSURF™ Platform
- ▼ Real-Time Location System Module
- ▼ IntelliSURF™ Management Portal

How It Works

Sample case study in a hospital setting for effective patient and inventory management

For patient tracking:

Active RFID tag (in the form of a waterproof wearable tag) works together with the receiver and the exciter to provide effective tracking of patients up to room-level accuracy. It comes with a built-in LF receiver that listens for any wake-up signals transmitted by the exciter. When woken up, the patient tag would update its location to the receiver accordingly. Through mounting the exciters at various egress points, the movement of the patients through these chokepoints could be effectively tracked.

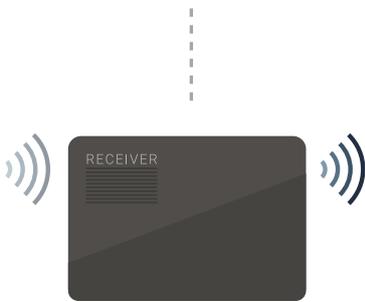
For asset tagging:

Active RFID tag (with various mounting options) works together with the receiver and exciter to provide location tracking of assets up to room-level accuracy. The tag listens periodically for the infrared location beacons transmitted by the receiver, and upon receiving any location beacon the tag would then update its location accordingly. Similarly, with exciters mounted at various egress points too, one can effectively track the movement of the assets through such chokepoints.

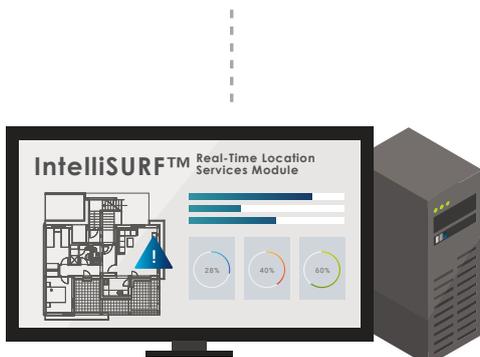
As for management of the tagged assets and individuals, it is to be performed in another management portal.



1. When in close proximity to a chokepoint exciter, the active RFID tags would transmit its location in relation to the exciter.



2. Reference points such as receivers are spaced within the indoor areas to provide the desired tag coverage.



3. The location intelligence in various forms would then be visualised onto the IntelliSURF™ dashboard.

Features and Benefits

	FEATURES	BENEFITS
FOR PERSONNEL MANAGEMENT	Tracking of the location and movement of tagged individuals, with accurate, real-time visibility of their respective locations mapped out on an interactive floor plan on IntelliSURF™.	Ensure the well-being and safety of these individuals. Be alerted to any unauthorised exit.
	Alert notification when a tagged individual is out of a specified perimeter he or she is supposed to be within.	Swift response to follow up on locating the individuals, e.g. for cases where they should be receiving treatment and not moved about as instructed by the clinician.
FOR ASSET AND INDIVIDUAL MANAGEMENT (Using the context of a hospital setting)	Tracking of the location and movement of tagged equipment with accurate, real-time visibility of their locations visualised on IntelliSURF™.	Improved operational efficiency due to less time required for hospital staff to locate the equipment's location, or for post-incident analysis.
	Alert notification when a tagged equipment is moved out of a specified perimeter.	Swift response to follow up on any unauthorised removal of the equipment.
	Visibility in a single glance of the statuses of the equipment in each equipment room (with 'Red' meaning below the par level, and 'Green' above the par level).	Enhanced logistical planning, while ensuring that the equipment below the par level will be replenished in time.
	Ability to see the number of tagged equipment in a particular zone when selected on the interactive floor plan of IntelliSURF™.	Enhanced visibility with ease of logistical management.

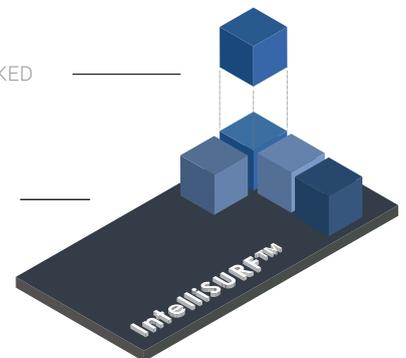
The Modular Feature of IntelliSURF™

More than the standard command-and-control platform, IntelliSURF™ integrates with a suite of modules which comprises best-in-breed technology, insights and domain knowledge.

Be it tracking key assets and individuals, or receiving alerts when the water consumption rate spikes above the average trend, our modules represent a range of functionalities across the unique needs and contexts of various industries, so you could pick only the ones to complement what you truly need.

MODULES OF VARIOUS FUNCTIONALITIES STACKED UPON IntelliSURF™

IntelliSURF™ PLATFORM



Interested to find out how NCS can help you track your key assets and individuals of interest with RFID technology? Speak to us today, or request a consultation today.

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