



CenTrak's InTouch Care™ product is a Real Time Location System (RTLS) that automatically and accurately keeps track of people and equipment in complex indoor facilities and their outdoor periphery. The InTouch Care™ system can pinpoint and track the location of equipment with room-level or sub-room level accuracy. The InTouch Care™ system can also pinpoint and track the location of doctors, nurses, hospital staff and patients with room-level or sub-room level accuracy. Such infrastructure provides an important foundation for applications to improve patient and staff workflow management, and more importantly, security and safety. InTouch Care™ ensures that you positively identify each patient, every time, regardless of where there are in your facility.

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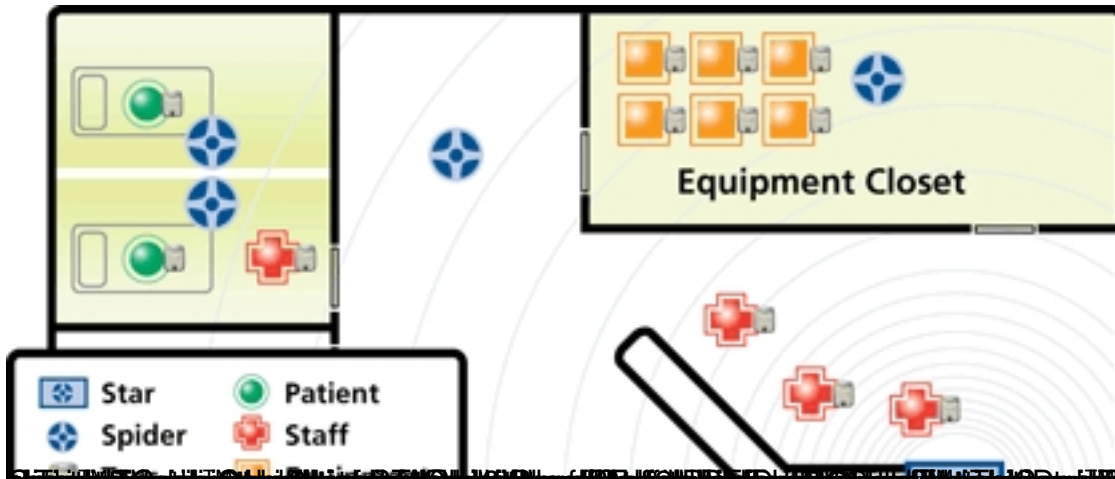
How it works: The InTouch Care™ system comes with a flexible lightweight Tag that can be used for either assets or people and can be affixed or worn in various ways. Tags can be placed on a piece of equipment, worn on a hospital bracelet or badge, lanyard, etc. A variety of Monitors are used to track the Tags in rooms, hallways, large areas and sub-room divisions. Middleware software solutions are provided to facilitate ease of use by our customers. Typical middleware features include informing of "events" (such as "Tag#4598 leaving room 1603" or "Tag#564 just removed from its asset") rather than just pouring location information every minute of the day.

At the heart of the InTouch solution is our patented DualTrak technology, which provides superior tracking accuracy and reliability, but does not require the lengthy site analysis and never-ending tuning requirement that plague other systems. With its patent pending, low power technology, InTouch is the first predominantly battery powered tracking system available, eliminating expensive in-room wiring and enabling plug-and-play functionality.

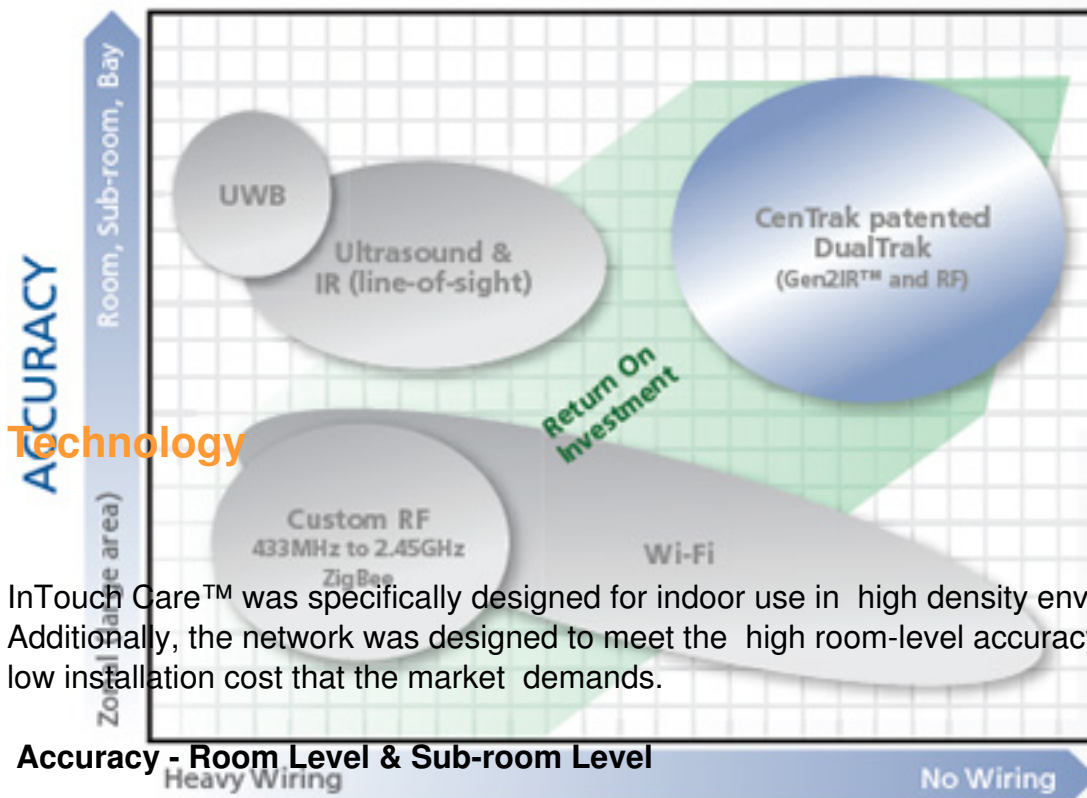
People and equipment tracking via RFID

Written by Dr. Hazem El-Oraby

Tuesday, 03 June 2008 23:11 - Last Updated Wednesday, 04 June 2008 00:14



Technology Used in Current Commercial RTLS



InTouch Care™ was specifically designed for indoor use in high density environments. Additionally, the network was designed to meet the high room-level accuracy requirements and low installation cost that the market demands.

Accuracy - Room Level & Sub-room Level

CenTrak has developed the DualTrak™ technology platform to address the major issues of accuracy in an indoor office or healthcare setting. Other technologies such as WIFI, 300MHz, 400MHz, 2.4 GHz or even Ultra Wide Band (UWB) platforms use Radio Frequency (RF) alone for their location computation. Because RF penetrates walls, the measured accuracy in a dense indoor environment could be a large circumference of 50 feet or more, containing many rooms. Additionally, use of RF alone might even provide the wrong floor location as RF signals penetrate ceilings and floors in a similar way they penetrate walls. Therefore, an RF only based solution is not able to achieve accurate room-level identification. DualTrak™ technology combines RF (900MHz) and Infrared (IR) technologies into one locating system engine. The IR, unable to penetrate walls, accurately isolates the asset (equipment or person) to a specific room while the RF is used to communicate the location information back to the network. The RF is also used for a more general location of an asset when the IR is not available.

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DualTrak™ floods a room with IR signals so that sensors on the Tag can pick up a signal even if the IR is not in the "line of sight".

Installation Technology

Many of the RTLS technologies require extensive wiring, except for WIFI which assumes use of an existing WIFI network. Since WIFI is installed for communication and not location purposes, even zonal accuracy (~50 feet) inevitably requires installation of many additional access points. WIFI technologies are now also considering adding IR as a secondary room-level identification technology. The cost associated with this is very high. Justifying this ROI given the very high cost can be challenging.

One of the key advantages of DualTrak™ technology is its ability for the majority of the network to be battery powered. Battery powered monitors greatly reduce cost and eliminate disruption of the commercial environment by simply "plug and play" installation. The monitors can operate 24/7 for up to 5 years with DualTrak™ Infrared and RF components operating simultaneously.

The DualTrak™ Platform

Throughout the development effort, special attention was given to patent protection of the ideas that comprise the system core. CenTrak created a very flexible platform that facilitates quick and effective response to customers' needs. The Company developed unique methods that allow us to provide the following:

- » Room level accuracy and sub-room level accuracy
- » Battery operation of most of the infrastructure
- » Robust operation under a variety of challenging operating conditions
- » Scalable architecture to cover large institutions and facilities
- » Complimentary RF triangulation to find devices not covered by the Infra-Red sensing

Get more information here <http://www.centrak.com/>