

Keeping everything on track

Real-time locating systems help to achieve more than finding and shifting

Interview: Daniel Conley

Oslo-based Sonitor Technologies, specialises in the development and manufacture of ultrasound-based real time locating systems (RTLS) that provide sub-room accuracy of movable equipment and people tracking in complex healthcare environments such as hospitals and long-term care facilities. The system is designed to integrate seamlessly with application software from all leading hospital IT providers. Speaking with Jorn S Husemoen, we asked what is expected of an RTLS system. 'Real Time Location Systems enable healthcare facilities to visualise the location of their "mobile objects" – equipment, patients or staff – in real time,' he explained. 'The technology is designed to enhance operational efficiency, productivity and safety in complex work environments. For example, hospitals that deploy RTLS see improvements in equipment utilisation, patient throughput and capacity management. RTLS technology is of great benefit to providers dealing with persistent cost pressures.

The certainty of knowing exactly where mobile objects are in a facility, at all times, is valuable across many areas. Today, about seventy percent of RTLS deployments are used to track patient care equipment. This application empowers providers to optimise utilisation, save time for staff looking for equipment, reduce rental costs and new purchases and improve preventive maintenance.

'RTLS is also being used to boost efficiency. Providers rely on the technology to manage bed turnover, thus reducing the time of unavailable patient beds. When applied in emergency departments, RTLS can help increase patient throughput, reduce EMS (emergency medical services) diversions and emergency department elopements. Providers also look to RTLS to increase operating theatre throughput and boost its revenue without adding resource capacity.

'Reliance on RTLS is also expanding in the areas of patient and staff safety. The technology can aid in increasing hand sanitation compliance, tracking infectious disease contacts, preventing and detecting patient falls and reducing risks of a 'wandering patient' elopement. Staff duress alarms in behavioural health wards also help keep employees safe.

'Increasingly, RTLS is used to improve regulatory compliance. Facilities rely on it to ensure that

staff adheres to Joint Commission rules. By automating log-on and log-off to and from patient information screens, RTLS also plays a role in reducing the risk of non-compliance with HIPAA (Health Insurance Portability and Accountability Act).

Is there a definitive return on investment (ROI) in RTLS?

'Absolutely. Typically, users see this in less than a year and it can be even faster for some facilities. Hospitals

that successfully implement a number of RTLS applications can expect to see the ROI much sooner.'

Why did you develop and use ultrasound?

'Sonitor went through an extensive search for the best RTLS positioning technology and ultrasound came out on top because of its inherent attributes. Ultrasound's features provide room-level location accuracy and the technology is practically resistant to interference. We also enhanced our solution to offer reliable sub-level

location accuracy, a key development to many RTLS-enabled applications. This feature ensures that end solutions perform as intended.

'It's worth noting that, although we use ultrasound to pinpoint the exact position of a tracked object, our solution leverages existing Wi-Fi or Ethernet connections to relay location data to a server.'

To what extent do Sonitor and other RTLS hardware manufacturers rely on IT partners?

'We believe partnerships with leading

IT companies are crucial. Currently, RTLS technology is advantageous for an array of IT solutions, ranging from asset accounting and maintenance systems to workflow and medical records systems.

'We work with enterprise RTLS-enabled solution providers like Cerner, IBM, etc. From our perspective in the industry, we're seeing more companies looking for ways to incorporate RTLS technology into their offerings.'

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CEO Jorn S Husemoen, who has led Sonitor Technologies since 2009, had previously worked for Ericsson in the mobile infrastructure and mobile handset business, where he gained expertise in finance, R&D, manufacturing and international sales of advanced technology products.

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