

**The ISO 24730 standard, published last month, is likely to spur an increased supply of interoperable tags and readers, as well as a decrease in prices.**

By Beth Bacheldor

April 26, 2007—Companies looking to implement a real-time locating system (RTLS) to track goods in a supply chain, distribution center, industrial or other environment now have a new international standard in their court.

The [International Standards Organization](#) (ISO) ratified and published the ISO/IEC 24730 standard for 2.4 GHz active RTLS technology last month, according to Tim Harrington, VP of product strategy at [WhereNet](#), a supplier of real-time locating systems that use 2.4 GHz active tags. At the end of 2006, the specification had become a final draft international standard.

ISO/IEC 24730 will provide companies a standard air interface and application programming interface (API) for use in active 2.4 GHz RTLS systems. Vendors supporting the RTLS standard in their systems will promote product compatibility and interoperability, giving companies the opportunity to buy the products best suited to their needs without worrying whether those products will work together.

According to Chantal Polsonetti, VP of manufacturing advisory services for [ARC Advisory Group](#), the standard will expand 2.4 GHz real-time locating systems beyond what has been seen by many in the industry as a WhereNet standard. WhereNet has long supported the specifications outlined in ISO/IEC 24730. "This is good news for potential adopters of 2.4 GHz RTLS systems," Polsonetti says in an ARC Advisory Group report on the standard, "in that it will likely lead to expansion of the supply base, availability of specialty tags that meet application-specific requirements and greater hardware commoditization and price reductions in this frequently pricey segment."

The ISO/IEC 24730 includes two parts. The first is the API, which Harrington says is general enough for any number of different RTLS products to use it to share location data and information with each other. The API uses widely known Web-based standards including eXtensible Markup Language (XML) and SOAP, a protocol for exchanging XML-based messages over computer networks.

The second part of the standard, ISO/IEC 24730-2, describes the air-interface protocol. There are three sections to the air-interface protocol. One addresses the tag-reader air interface at 2.4GHz and defines a networked location system providing x-y coordinates. A second section describes the air interface for low-frequency (roughly 120 kHz) devices known as excimers, which provide a location stamp when an RTLS system isn't using multiple 2.4 GHz interrogators to determine location. And a third interface, known as an On/Off Key (OOK), allows a tag to respond simply to a handheld device. The OOK enables an active 2.4 GHz RTLS tag to communicate with a simple, less expensive handheld reader, Harrington says. WhereNet holds several patents related to the low-frequency air-interface and is offering a license to use them on a reasonable and non-discriminatory (RAND) basis. The company, however, says it has not yet finalized its licensing program.

WhereNet's present lineup of RTLS products—including any built since 2000—is currently compatible with the ISO/IEC 24730 standard. Other companies supporting the new standard, Harrington says, include [G2 Microsystems](#), which has developed an ISO 24730-compatible chip, and [GE Healthcare](#), which is developing a tag supporting the standard.