

**Frost & Sullivan estimates the worldwide RTLS market will jump to \$1.26 billion in yearly sales by 2011.**

By Beth Bacheldor

May 10, 2006—The worldwide market for real-time locating systems (RTLS) is poised to grow from a multimillion-dollar market to one worth more than a billion dollars, according to research and consulting firm [Frost & Sullivan](#). Real-time locating systems are automated systems that continually monitor the locations of assets and personnel. RTLS solutions are gaining popularity in several industries. Typically, they utilize battery-operated radio tags, such as active RFID tags, plus a cellular locating system to detect the presence and location of the tags.

"Manufacturing and logistics [provide] the highest revenue contribution," says Sathya Durga, a research associate with Frost & Sullivan, headquartered in San Antonio, Texas, with offices around the world. "Companies such as [Ford](#) and [Coca-Cola](#) have deployed RTLS."



*Sathya Durga, Frost & Sullivan*

Durga adds, "Health care is expected to hold huge potential market, especially with Wi-Fi-based RTLS." The health-care industry, for example, is eyeing RTLS to track and locate medical equipment in facilities, and to keep that equipment from getting lost or stolen.

Over the next five years, Frost & Sullivan estimates the worldwide RTLS market will have a 30 percent compound annual growth rate, jumping from about \$245 million in yearly sales today to \$1.26 billion by 2011.

According to Durga, real-time locating systems can overcome the shortcomings of infrared systems and other technologies that are more fragile and require frequent maintenance. They can also compensate for the inadequacies of bar codes, which require line-of-sight readings, and GPS-based systems, which aren't feasible for locating numerous assets indoors. Even straightforward RFID systems can't match the functionality of RTLS, she says.

"RFID does not provide real-time info on a continuous basis," Durga explains. "RTLS traces the movement of the asset, whereas RFID can tell us where the asset is finally located."

Like most emerging technologies, RTLS will have to overcome standards hurdles to assure companies that products from various vendors will be able to work together. RFID standards are still evolving, and since many RTLS systems use RFID as the tracking technology, there need to be universal standards so companies can share information with each other up and down the supply chain.

For example, RFID-tagged shipments coming from a company overseas can be tracked via an RTLS

system installed at a port authority in Baltimore. For that to happen, however, RTLS hardware (even from different vendors) would need to support multiple frequencies, protocols and so forth. Pricing for RTLS systems, Durga says, will also have to come down before large numbers of businesses—many of which have tightened their budgets—implement the technology. Nonetheless, RTLS has "a key role to play where real-time data is highly essential, and when the assets are required to be located in transit."

Customers are becoming less tolerant in accepting deficient products or services due to the wide range of choices available to them, Durga explains. For example, if a company can't track its shipments in real-time, it won't likely be able to deliver the kinds of customer service its competitors offer, who do track in real-time. With RTLS, customers would be able to pick up the phone and find out, instantly, where goods were at any moment.

RTLS could be applied to homeland security applications, as well. RTLS systems are being deployed at marine ports, for example, to collect essential information on trucks entering terminals, and to verify the identities of those entering port complexes. These systems are also used to track personnel and enable security at facilities.

Many consumers want information pertaining to the origin of the products they purchase, such as beef and other edible items. Real-time locating systems could help achieve that level of traceability.

"Growing disloyalty among customers, higher aspirations of organizations to increase profit margins, the aggressive approach of the government towards homeland security, and emerging laws and regulations with respect to consumerism, have all nurtured the growth of RTLS," Durga says.