

DOD Seeks New Active-Tag Suppliers

The U.S. Department of Defense has issued a request for information to vendors able to provide 433.92 MHz RFID equipment compliant with the ISO 18000-7 standard.

By Laurie Sullivan

Nov. 30, 2006—The U.S. Department of Defense (DOD) is pushing to expand its sources for active RFID tags and readers. Earlier this month, the government agency issued a request for information (RFI) from vendors equipped to provide RFID equipment operating at 433.92 MHz and compliant with the ISO 18000-7 standard.

The request for information will assist the DOD in developing a "competitive acquisition for active RFID devices," says Lt. Col. Patrick Burden, an officer at Product Manager, Joint-Automatic Identification Technology (PM J-AIT), part of the Program Executive Office for Enterprise Information Systems at Fort Belvoir, Va. Currently, the DOD's primary supplier of 433.92 MHz RFID hardware is Savi Technology, which was awarded RFID-II Contract DABL01-03-D-1002 on Jan. 21, 2003 (see Savi Wins \$90M RFID Contract).

The government is now considering issuing a follow-on competitive contract. "The intent is to provide the draft specification to interested vendors to help determine if they can produce and deliver active RFID devices that are interoperable with the existing infrastructure that meets ISO standards," Burden says.

The DOD's current requirements for active RFID transponders include a memory size of 128 kilobytes, an unobstructed read distance of at least 300 feet and a battery life of four years. In addition, the department seeks transponders equipped with sensors (humidity, temperature, shock and light) and built to report out-of-tolerance incidences.

Interested vendors have until Dec. 15 to respond to the RFI and must be able to demonstrate sufficient maturity of their products (prototypical at minimum) to be fully functional and compliant with the ISO 18000-7 standard. Such demonstrations must occur at the AIT Laboratory in Tobyhanna, Pa., no later than March 31, 2007.

Ratified in 2004 as a standard by the International Organization for Standardization, ISO 18000-7 is based on patents held by Savi Technology. Some industry analysts and experts say this puts the wholly owned Lockheed Martin subsidiary in a dominant position with the DOD.

The department uses active RFID technology to track goods and cargo containers worldwide at more than 2,000 depots, posts and ports. Each week, interrogators deployed at these facilities read at least 100,000 active 433 MHz tags, Burden says, writing to more than 16,000 active tags.

Gartner analyst Jeff Woods says Savi currently remains the primary, if not only, provider of active 433 MHz ISO 18000-7-compliant RFID tags and readers. In August, the company launched a licensing program for its intellectual property, based on the ISO 18000-7 standard, to help other companies comply with DOD

specifications (see [Savi Announces IP Licensing Program for Active RFID Tags](#) . Savi has declined to provide the specifics of this program, saying it will announce the suppliers registered in the program in the near future.

According to Savi, RFID suppliers such as [ACC Systems](#), [Quest Solutions](#), [RF Code](#), [RFID Inc.](#) and [SmartCode](#) all build equipment operational at 433.92 MHz. These firms would need to license the rights to three patents from Savi to meet DOD compliance requirements. These patents include anticollision algorithms enabling readers to capture information from multiple tags without data colliding. The ISO 18000-7 standard, based on Savi's patents, assists in reading and recognizing information on a group of RFID tags quickly and accurately.

Savi CEO Bob Kramer describes the ISO 18000-7 standard as an "air-interface protocol specification" for the way data transmits from a tag to a reader. "The technical aspects revolve around waveform, bandwidth and language used to communicate between the tag and the reader," he says.

Analysts say the DOD's request for information invites healthy competition. If more suppliers were to offer ISO 18000-7-compliant equipment, "prices [for active 433.92-MHz tags and interrogators] would drop like a rock and open the competitive landscape for companies thinking about developing the technology, " says Ann Grackin, CEO at [ChainLink Research](#). "The government doesn't want to be like most big buyers, overly reliant on one supplier."

Opening the market to numerous suppliers would likely spur competition and prompt prices on tags, integrators and other RFID equipment to decline. According to [ABI Research](#) director Michael Liard, issuing the RFI also opens doors for international companies to penetrate the lucrative U.S. and allied military-defense markets. "ISO 18000-7 appears to be becoming the international standard for active RFID, as indicated by recent support for it from China, South Korea, Taiwan and nearly all other major trading countries," he says. (See [China Endorses ISO 18000-7 433 MHz Standard](#).)

Copyright ©2005 RFID Journal, Inc. All Rights Reserved