

RFID Journal News Roundup

Researchers identify Gen 2 reader metrics; Sirit announces AVI contract with automotive firm; RSI ID licenses Symbol tag antennas; WJ Communications shrinks reader components into chipset; Stratum Global inks reselling deal with Lowry; OTI filling order for 10,000 readers for vending machines.

Oct. 27, 2006—The following are news announcements made during the week of Oct. 23.

Researchers Identify Gen 2 Reader Metrics

In compliance with the EPC Gen 2 protocol, interrogators read Gen 2 tags by bombarding them with thousands of queries per second. With each inquiry, the probability of successful tag identification increases. Until now, say two researchers from the [University of Arkansas' School of Electrical Engineering](#), there was no means by which one could measure the success of those individual queries. However, the two researchers—Kazem Sohraby, a professor of electrical engineering, and Chonggang Wang, a post-doctoral fellow—have developed an analysis tool they say can be used to measure two performance metrics—successful tag identification rate and tag identification speed—of a environment consisting of a single RFID reader. This, they purport, will enable them to examine reader function in quantitative terms for the first time. The performance metrics are based on a novel mathematical model the researchers created, which they call the Discrete-Time Markov Chain. This model describes how RFID readers capture tag data on a single inquiry. Sohraby and Wang have also developed a framework allowing reader designers to improve the RFID performance of a single reader inquiry, through a pair of processes called "reading-error prevention" and "reading-error correction." These processes include methods to protect reader-tag communication through isolation and tag/reader redundancy. Sohraby says they might eventually be utilized to improve the existing Gen 2 protocol and generate a new protocol that would lead to improved overall read performance.

Sirit Announces AVI Contract with Automotive Firm

Toronto-based RFID technology provider [Sirit](#) says an undisclosed major automotive company has agreed to purchase more than 500 of its IDentity MaX readers, designed for automatic vehicle identification (AVI), as well as a customized, [Microsoft](#)-based software suite. The Identity MaX readers cooperate in the UHF band and use the EPC Class 0 air-interface protocol. Customers will be able to use the interrogators to identify, track and secure vehicles. In the closed-loop application, desktop RFID interrogators will be utilized for encoding AVI tags, which are not part of the contract and will likely come from another vendor. These tags will be attached to vehicles brought into secure lots. Interrogators installed near entrance and exit gates, in combination with mobile readers carried by workers, will track the tagged vehicles. The initial rollout, valued at more than \$1 million, will be installed from November 2006 through April 2007.

RSI ID Licenses Symbol Tag Antennas

San Diego, Calif.-based RFID manufacturer and systems integrator [RSI ID Technologies](#) reports that it has secured a licensing agreement with [Symbol Technologies](#) to license Symbol's RFID tag antenna design portfolio. RSI ID is manufacturing the antennas for use in the company's passive tag products. RSI prints all of its tag antennas using Parmod conductive ink from [Paralec](#), except for custom orders requiring antennas etched from copper or other metals. RSI is currently taking orders for its passive UHF tags with Symbol antenna designs.

WJ Communications Shrinks Reader Components into Chipset

WJ Communications, a San Jose, Calif., maker of RFID interrogators, says it is ready to release what it deems an RFID-industry first: an RFID UHF passive reader chipset, compliant with the EPCglobal Gen 2, ISO 18000-6C and ISO 18000-6B standards. WJ Communications is currently sampling its new chipset, the WJC200, to its major OEM customers, who may want to use it to reduce the profile of their current reader-circuitry use in mobile or fixed-position readers. WJ Communications is also embedding the chipset into its own line of interrogator modules. The chipset measures 8 millimeters by 8 millimeters in size. The manufacturer claims it is working to have the chipset certified as conformant with the EPC Gen 2 standard. The WJC200 chipset will be available to reader OEMs in production quantities early next year. Reader maker AWID is also developing a Gen 2 chipset, the Tahoe, which is due out in spring 2007 (see AWID Seeks to Move Beyond FCC Problems).

Stratum Global Inks Reselling Deal with Lowry

Stratum Global, an RFID middleware provider in Littleton, Colo., has entered into a distribution agreement with Lowry Computer Products, a Brighton, Mich. provider of AIDC, RFID and labeling solutions. Through the partnership, Lowry will resell Stratum Global's TagNet RFID solution for its portfolio of technology products. These include RFID and EPC solutions, mobile data collection systems and RFID and bar-code label printers and software. TagNet is sold through a network of Stratum resellers around the country. The middleware manages RFID interrogators and printer-encoders, commissions data to RFID tags, verify tag reads and establish business rules on how to process tag data. The platform comes with modules for utilizing mobile RFID interrogators mounted on lift trucks and conveyor lines.

OTI Filling Order for 10,000 Readers for Vending Machines

Vending-payment systems provider USA Technologies says it has selected On Track Innovations (OTI), a provider of wireless-payment and security solutions, to provide a next-generation ISO 14443 RFID (contactless) reader module for integration into its Generation Six (G6) e-Port cashless transaction solution. The company developed the solution specifically for cashless vending-machine transactions. USA Technologies plans to purchase 10,000 OTI readers, with initial deliveries scheduled to commence before the end of 2006. This summer, USA Technologies worked with Philadelphia Coca-Cola Bottling Co. to install the contactless payment terminals in 1,000 vending machines in the Philadelphia metro area. The terminals can process RFID-based payments for American Express' Amex, MasterCard's PayPass and Visa's Contactless RFID payment platforms.

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