RFID News Roundup

Korean retailers stock up on RFID; Sokymat Automotive introduces new UHF, HF and LF RFID tags; Polish bank offers prepaid contactless payment cards; TI offers ultra-thin chip module for contactless cards; Mikoh takes its tamper-evident technology to health-care market; Reva offers built-in integration with Oracle E-Business apps.

May 8, 2008—The following are news announcements made during the past week.

Korean Retailers Stock Up on RFID
Two of Korea's largest retailers, Emart and Hanaro Mart, have announced plans to deploy RFID systems, according to an article published in ETnews, a Korean online newspaper. The RFID system will replace a bar-code and document-based warehouse management and logistics system. RFID will initially be implemented in Emart's warehouse in Yeoju, the article states, as well as in Hanaro Mart's logistics center in Pyongtaek. Emart will sign agreements with Samsung Electronics, LG Electronics, Fuji Distributor and Chung Young Digital, and will begin using RFID to track small digital devices such as portable media players, MP3 players and navigation systems. The four suppliers will attach the RFID tags to these devices prior to shipping them to Emart's warehouse. Emart will then employ RFID interrogators in its warehouse, and in stores, to track and manage inventory. The RFID system will help the company manage its inventory in real time, and make the process more efficient, explained Emart's system and planning team chief, Joo Yong-no. The retailer plans to increase the number of participating suppliers from four during the first phase to eight in the second, and the number of stores where the RFID system is available will be expanded from three to five. Hanaro Mart plans to deploy RFID in its Pyongtaek warehouse, which opens in January. The retailer has signed agreements with CJ Corp., Yuhan Kimberly and Taeyang Industrial to attach RFID tags to their products. The suppliers will affix the tags to product packaging to help Hanaro Mart manage inventory in the warehouses and back-rooms of stores. The retailer has set aside 400 million Korean Won ($388,000), according to Etnews, but expects that budget to grow as it adds more tags and RFID system components.

Sokymat Automotive Introduces New UHF, HF and LF RFID Tags
German transponder manufacturer Sokymat Automotive has announced its first ultrahigh-frequency (UHF) RFID tags, and also expanded its portfolio of high-frequency (HF) and low-frequency (LF) tags. The company's new UHF transponders, which it says are designed for multiple industry applications, include the Waste Bin Tag and the Slim Tag. The new S-Tag 10 13.56 MHz Laundry Tag (which joins Sokymat Automotive's current S-Tag 16) measures 10 mm in diameter and 2 mm thick, and is available with a variety of ISO 15693-compatible chips. The new LF glass-encapsulated, read-only tags operate between 125 kHz and 140 kHz and are also available with a range of ICs, including the one-time programmable (OTP) EM4305 chip from EM Microelectronic. Because the LF RFID transponders are encapsulated in glass, they can be embedded into an object or animal. The transponders are hermetically sealed in a housing designed to survive harsh environmental conditions, and are bio-compatible to ensure they are sterile when used. The tags vary in size from 2.12 by 12 millimeters, to 3.85 by 32 millimeters.

Polish Bank Offers Prepaid Contactless Payment Cards
Bank Zachodni WBK (BZWBK), headquartered in Wroclaw, Poland, has announced it will begin providing RFID-enabled prepaid banking cards to customers in central and eastern Europe. The bank is deploying

Cortex card-processing software from Metavante Technologies Ltd., a division of Milwaukee-based Metavante Corp.. BZWBK's initial contactless offering will be a prepaid MasterCard Maestro PayPass card, after which the bank plans to begin offering a Visa payWave contactless card. Equipped with both an RFID chip and magnetic stripe, the BZWBK-issued cards can be employed in either contactless or traditional environments, at all locations worldwide that accept MasterCard or Maestro payment cards. Polish consumers can take advantage of the contactless functionality for small purchases; the cards can be reloaded through bank transfers and are accessible to all consumers, regardless of whether or not they have a BZWBK bank account.

TI Offers Ultra-Thin Chip Module for Contactless Cards

Texas Instruments (TI) has announced the availability of an ultra-thin chip module that meets the ISO 14443-A and ISO 14443-B standards for use in contactless cards. At 0.28 millimeters in thickness, the module is 26 percent slimmer than conventional packaged contactless chip offerings, and, according to TI, enables card manufacturers to produce more graphic-rich contactless cards. The module enables the creation of pre-laminates as thin as 0.35 millimeters, allowing card manufacturers to print a card's colorful artwork on thicker print stock while maintaining the 0.68- to 0.84-millimeter ISO standard for card thickness. Thicker print stock makes the contactless cards more durable, TI reports, and able to survive multiple passes through a printing press during standard card manufacturing processes. The new module operates at extremely low power, delivers a transaction speed of typically 120 milliseconds and includes cryptographic authentication between the terminal and the inlay to avert the copying and emulation of the chip and the modification of its data by unauthorized parties.

Mikoh Takes Its Tamper-Evident Technology to Health-care Market

Mikoh, an Australian provider of tamper-proof seals and other security solutions, has unveiled Smart&Secure Healthcare, an RFID-enabled solution based on Mikoh's patented, tamper-evident Smart&Secure technology. The solution consists of either a Smart&Secure Standard Tag that is automatically disabled if tampered with or moved, or a Tracking Tag—a pressure-sensitive label incorporating an RFID chip and antenna—along with a dedicated conductive-ink circuit to detect tampering. The Tracking Tag alerts an RFID reading device that it has been tampered with, while maintaining the tag's RFID functionality. In April 2007, Mikoh unveiled its Retail Tag, which features an RFID inlay with an antenna printed directly onto the tag's plastic or cardboard substrate. When the tag is applied to a product, the substrate is folded. In the folded position, the electrically conductive line formed by the antenna is significantly longer than when unfolded. To reduce the read range, consumers need only unfold the top layer of the tag, which decouples the tag's antenna from its RFID chip (see New Tag Aims to Protect Consumer Privacy). Standard Smart&Secure tags are available for almost any RFID frequency band, whether LF (125-135 kHz), HF (13.56 MHz) or UHF (300-1,000 MHz). The Tracking Tags are currently available in 13.56 MHz designs, and Mikoh says it plans to develop UHF-compatible designs as well. All of Mikoh's tags are patented and based on EPC and ISO standards. The Smart&Secure Healthcare solution is customizable and can be combined with the company's SecureContainer, a reusable container featuring plastic inserts that slide into the container doors to secure all contents with a single Smart&Secure RFID tag. The solution can also be combined with SecureEnclosure, a product based on intellectual property licensed from the U.S. National Security Agency (NSA), featuring a closure mechanism consisting of reusable housings that bolt onto existing transport containers. Disposable plastic inserts slide into the housings to create a seal, which can then be secured by Smart&Secure RFID tags (see Mikoh Develops Reusable Container With RFID Security Seal).

Reva Offers Built-In Integration With Oracle E-Business Apps

Reva Systems, a Chelmsford, Mass.-based provider of networked RFID interrogator-management systems, has announced that its family of Tag Acquisition Processor (TAP) appliances has been fully integrated with Oracle's e-Business suite of applications. This integration means Oracle eBusiness customers won't need to perform custom coding to leverage RFID data collected and processed by Reva TAP appliances. Previously, customers would have had to, for instance, integrate the appliance with an e-Business application using a

custom Web service, or leverage Reva's Electronic Product Code Information Services (EPCIS) data-capture system to push EPC events to an Oracle repository. Now, the TAP appliances have a built-in, configurable interface to the Oracle e-Business Suite. Reva TAP appliances are designed to manage the operations of RFID interrogators and other equipment from a number of providers, then collect the raw tag data, process the data for accuracy and pass only relevant RFID information to the Oracle E-Business or other enterprise applications. Reva also provides a set of enterprise RFID management tools that Oracle users can employ to remotely operate RFID infrastructure and devices across multiple sites.