RFID News Roundup

Topics/Verticals: RFID Channel

Alien, Awarepoint each scores $10 million in funding; NXP launches new ICode chip, ships one billionth ICode; Verayo unveils next-generation unclonable RFID chip; Noxel intros UHF reader with Bluetooth connectivity; Emerson's new wireless liquid-level sensor; Feig Electronic offers new fast Ethernet-enabled RFID terminal.

Mar. 4, 2010—The following are news announcements made during the past week.

Alien, Awarepoint Each Scores $10 Million in Funding
Alien Technology, a provider of ultrahigh-frequency (UHF) RFID products and services, and Awarepoint , a provider of ZigBee-based real-time location systems (RTLS) for hospitals, have each announced they've raised $10 million in funding. Awarepoint indicated it has raised $10 million of expansion capital led by JACFO Ventures, and joined by existing investors Cardinal Partners and Venrock. The capital will be used to help Awarepoint accelerate its development of new technology, products and capabilities. Alien, meanwhile, has announced that it has secured an aggregate of $10.9 million in new financing, led by existing investors Advanced Equities, New Enterprise Associates (NEA) and Sunbridge Partners. In addition, the company reported what it claims is an all-time record volume quarter for RFID chip and inlay sales for the quarter ending December 2009, though it did not release specifics. Moreover, according to Alien, its IC and inlay volumes have been growing at a rate of approximately 50 percent, quarter over quarter, for the past two quarters.

NXP Launches New ICode Chip, Ships One Billionth ICode
NXP Semiconductors has introduced a new chip built on its ICode platform, which supports the ISO 15693 and ISO 18000-3 standards, and is designed for high-frequency (HF) smart tag and label solutions. According to NXP, the technology is used in more than 3,000 libraries worldwide to track books and other library media. Additionally, RFID tags and labels made with ICode chips are used to identify patients, track medical devices and tag blood samples within hospitals, as well as support the tracking and tracing of components within factory automation environments. The new ICode SLIx, NXP reports, provides up to a 20 percent higher read range than existing ICode SLI products. The chip is offered with a set of value-added custom commands, including 32-bit password capability for electronic article surveillance (EAS) and for the standardized application family identifier (AFI), used to distinguish between tags for different applications. The new chip is backward-compatible with existing SLI commands, NXP notes, and is thus usable in all existing ICode SLI installations. ICode SLIx ICs are expected to become available in volume from NXP during the second quarter of 2010. The company has also announced it has successfully shipped out its billionth ICode chip. According to NXP, the ICode family includes five other chips—the SLI, SLI-S , SLI-L, UID-OTP and SLI-SY models—as well as ICode reader components, including reader ICs and evaluation kits. "NXP is very proud to have reached this important milestone within our business for tag and label applications," said Chris Feige, the general manager of NXP's tagging and authentication product line, in a prepared statement. "Since the initial ICode product launch, it's been incredible watching the demand for the technology grow as it became a viable business option across numerous industries."

Verayo Unveils Next-Generation Unclonable RFID Chip

Silicon Valley-based Verayo has launched its next generation of RFID integrated circuits (ICs) based on the company's Physical Unclonable Functions (PUF) technology. In 2008, Verayo introduced its first anti-cloning product, a 13.56 MHz RFID chip, as a security solution (see PUF Technology Catches Clones). The foundation of Verayo's chip is its ability to exploit the unique physical characteristics of the silicon and variations in the IC manufacturing process to identify each silicon chip and determine its authenticity, without requiring encryption keys or encryption storage. The first chip of the new product family, known as the Vera M4H, is designed for a broader number of uses, the company reports, including mass-transit tickets, secure IDs and access cards, and consumer product anti-counterfeiting. Unlike Verayo's first unclonable RFID IC, the Vera X512H, which required a network to access a back-end server for authentication with a pre-provisioned number of authentication events, the Vera M4H provides an unlimited number of local (offline) authentication events. "The Vera M4H is an outcome of significant research and innovation at Verayo," said Anant Agrawal, the firm's CEO, in a prepared statement. "The M4H, and the other ICs of this product family, will add to our portfolio of innovative, inexpensive alternatives to traditional cryptography-based RFIDs." Verayo's technology works with the offerings of almost all RFID tag vendors that manufacture high-frequency (HF) RFID tags. The company plans to test the new chip in trials in the mass-transit ticketing, ID and access sectors, though it has not yet disclosed the dates or locations of those trials.

Noxel Intros UHF Reader With Bluetooth Connectivity

Noxel, a Swiss technology solutions provider, manufacturer and distributor, has unveiled a Bluetooth-enabled UHF EPC Gen 2 RFID reader. The NXR240B combines a power-efficient RFID reader with a built-in directional antenna, a low-power Bluetooth interface and a built-in battery that can operate for up to 10 hours. The small form factor makes it ideal for desktop and point-of-sale applications, the company reports, and it can also be added on to handhelds. The device can be used with any host supporting a Bluetooth serial port, and offers an RFID read range of up to 60 centimeters (2 feet) and a Bluetooth range of up to 60 meters (197 feet). The interrogator can be charged using a mini-USB cable, and has an IP54-rated enclosure, so it is dust- and water-resistant. Along with the NXR240B, Noxel offers accessories, including a desktop stand for use with desktop computers and a U-shaped gripper or screwed adapter for fixing it to industrial handheld computers, such as the Opticon PHL8112 and the Psion Teklogix Ikôn 7505. Because the reader has its own battery, it does not drain power from the host handheld. To utilize the device with laptops and desktops, customers can receive an evaluation kit available from Noxel's partner, Free2move. The kit includes an application that supports the identification RFID tags, as well as manipulation of the tag's EPC memory and user memory. It also allows for password-setting and other parameters. For use with handhelds, Noxel offers evaluation applications to support the identification and listing of RFID tags from the handheld.

Emerson's New Wireless Liquid-Level Sensor

Emerson Process Management, a supplier of products, services and solutions that measure, analyze, control, automate and help improve process-related operations, has announced its Rosemount 2160 wireless switch, a sensor designed to detect low or high levels of liquids. The Rosemount 2160 provides access to measurement points that are difficult to reach—those that are either inaccessible, or too costly for wired devices—and measures liquid levels utilizing vibrating short fork technology, which uses

the principal of tuning fork vibration to monitor liquid levels. According to Emerson Process Management, the 2160 is suitable for almost all liquid applications, and is designed for use in extreme temperatures and harsh process conditions. What's more, the company indicates, it is virtually unaffected by flow, bubbles, turbulence, foam, vibration, solids content, coating, liquid properties and product variations. Typical applications, according to the firm, include overfill protection, high- and low-level alarms, pump control (limit detection), pump protection and empty pipe detection. The Rosemount 2160 operates as a node in Emerson's WirelessHART self-organizing mesh network, which enables nodes to automatically pinpoint the best communication path to a gateway, with greater than 99 percent data reliability. Thanks to the "Fast Drip" fork design of the Rosemount 2160, any remaining liquid is drawn away from the fork tips, enabling quicker and more reliable detection, particularly in high-density liquids. Two models are available, covering the temperature range of -94 degrees to 500 degrees Fahrenheit (-68 degrees to 260 degrees Celsius). The wireless level switch uses an intrinsically safe power module, and an integral LCD display showing switch output states and diagnostics provides real-time verification of process conditions. Intrinsically safe options are available for hazardous area installations, as the Rosemount 2160 has ATEX (Europe), IECEx (Asia), FM (US) and CSA (Canada) certification. "We believe the introduction of wireless technology to process level measurement and detection will add value for the industry's end users," said Kevin Cullen, Emerson's product manager, in a prepared statement.

Feig Electronic Offers New Fast Ethernet-enabled RFID Access-control Terminal

German RFID hardware manufacturer Feig Electronic is offering a new RFID access-control terminal that features a 10BASE-T/100-BASE-TX fast Ethernet interface. The ID MAX50.10-xE, an independent access-control system, offers off-line management for up to 9,000 users in standalone operation, the company reports, combining the functionality of an intelligent controller with the advantages of an RFID smart-card reader. The fast Ethernet interface enables the terminal to be integrated into IP-based network infrastructures with CAT-5 cables. The terminal also supports AES-encrypted data to boost system security and protect the access-control infrastructure against attacks by intercepting or tampering, Feig adds. It can check access permissions offline, without a live connection to a host system, and has an integrated real-time clock to allow the management of temporal restrictions with up to 16 time slots. Events can be stored locally at the ID MAX50.10-xE in a configurable event memory, or events can be immediately reported to a host system via access-notification mode. The event memory can be adapted to different data-protection laws, but it can also be completely disabled. Power to the terminal is supplied via Power over Ethernet (PoE), as defined by the IEEE 802.3af specification, or via an external DC power supply. ID MAX50.10-xE supports passive transponders based on the ISO 14443 A and B, and ISO 15693 standards, and communicates with NFC devices via the ISO 18092 standard. As an identifier, ID MAX50.10-xE can examine either the serial number (UID/CSN) or user-selectable memory areas of the transponder. The terminal is available in two versions: the ID MAX50.10-RE, which has an internal relay and is suitable for medium security requirements, and the ID MAX50.10-E, which has an external I/O extension board ID CPR.I/O-A with two digital inputs and one relay that can be connected. According to Feig, the external relay ensures maximum security.