

# RFID News Roundup

EU completes large-scale pilot of RFID in pharmaceutical supply chain; Moscow Metro opts for 100 percent contactless automatic fare system; R&D in wireless sensor networks to top \$1 billion in 2012; Siemens adds ISO standard support to Simatic RFID readers; In Motion Technology, AeroScout partner on mobile asset tracking; Ekahau joins HP ProCurve Alliance.

Jan. 29, 2009—The following are news announcements made during the past week.

## **EU Completes Large-scale Pilot of RFID in Pharmaceutical Supply Chain**

The Pharma Traceability Pilot has been successfully concluded, according to [GS1 UK](#), one of the project's participants. The pilot, partly funded by the [European Union](#), was designed to test the use of EPC Gen 2 technology and standard data-matrix bar codes to track pallets of pharmaceuticals moving through the supply chain, from drug manufacturers through distributor networks and on to hospitals and pharmacies (see [BRIDGE Expects to Launch Five European RFID Pilots This Fall](#)). The pharmaceutical pilot tracked 15 different types of drugs through their supply chain journey, from manufacturing and packaging plants in Ireland and the Netherlands, to their final destination, the pharmacy department for [Barts and the London hospitals](#). The pilot allowed for the full traceability of every single drug product in the supply chain on all levels of packaging, GS1 UK reports, as well as the monitoring of the progress of trucks transporting the drugs. Each product was identified by a four-string data set, which included the product code, serial number, expiration date and batch number. All information, such as where the product was located at any given time, which company had it at any particular moment, and for how long, along with historical data, was stored in a software application compliant with [EPCglobal's](#) Electronic Product Code Information Services (EPCIS) standard. Participants report that the technologies—both RFID and bar codes—worked as expected. "The success of the pilot demonstrates that the technology required to implement a full international supply chain traceability system using GS1 standards is available today," Gary Lynch, chief executive of GS1 UK, said in a prepared statement. "The widespread adoption of standardized traceability systems within the health-care sector will have an incredibly positive impact on improving patient safety, reducing the scourge of counterfeit drugs and improving efficiency within the health-care sector." Other participants in the pilot included drug companies Actavis, Sandoz and Athone Laboratories; distributor Kent Pharmaceuticals; contract packer [Tjoapack](#); logistics services providers Movianto UK and CPG Logistics; and drug wholesaler [UniChem](#). Technology providers included RFID and printing solution provider [Domino Printing Sciences](#); software developer Melior Solutions; and VeriSign, which provided EPCIS services. Project management, consulting and marketing services were provided by JJ Associates Consultancy, as well as GS1 UK.

## **Moscow Metro Opts for 100 Percent Contactless Automatic Fare Collection**

Russia's [Moscow Metro](#)—which, on average, carries 9 million passengers per day—is now entirely using a contactless automatic fare collection (AFC) system based on [NXP Semiconductor's](#) Mifare passive 13.56 MHz chip, compliant with the ISO 14443 air-interface protocol. The Moscow Metro began expanding its AFC system in 2008, with help from Russian systems integrator [Smart Technologies Group](#). The expansion extends the public transportation organization's existing smart-card-based electronic ticketing solution by replacing the magnetic stripe tickets for one-, two- and five-trip tickets with smart paper tickets containing Mifare Ultralight ICs. Since the introduction, Moscow Metro has sold more than 300 million tickets within one year. The expanded AFC is helping the transit operator improve customer service and make it easier for travelers to use

public transportation because they can present their tickets by simply waving them in front of smart-card readers, rather than having to insert them into devices that read magnetic strips. In a prepared statement, Vladimir Zhuchkov, director of Moscow Metro's fare collection department, said the contactless ticketing system and smart paper tickets "provide passengers with a simple, hassle-free journey across the entire Moscow Metro network, providing the perfect solution for journeys."

### **R&D in Wireless Sensor Networks to Top \$1 Billion in 2012**

Including both public and private sources, research and development (R&D) spending on wireless sensor networks (WSNs) is expected to reach \$1.3 billion worldwide in 2012, up from \$522 million in 2007, according to a recent study conducted by [ON World](#), a market research firm that focuses on wireless technologies. The firm cites several drivers that will contribute to R&D investment, including energy management in the United States. For example, ON World reports, the [National Science Foundation](#), an independent U.S. government agency responsible for promoting science and engineering through research programs and education projects, has doubled its funding on WSN-related research over the past five years. Meanwhile, the firm notes, the European Union has increased its funding on WSN-related R&D by 700 percent during the same period, largely in order to drive the development of technology solutions for remote patient monitoring and elderly home care. Other regions with significant WSN R&D initiatives include Australia, Canada, China and South Korea. The research report, titled "Wireless Sensor Networks: R&D Trends and Funding Opportunities," evaluates 350 active wireless sensor network-related R&D projects, many of which are still focused on such communications issues as routing efficiency and network performance. Nearly half, however, are emphasizing software and services, while a quarter are developing end-to-end systems for real-world applications. Of the 102 funded projects that involve end-to-end applications, the most commonly studied markets are environmental (37 percent) and health care (30 percent), followed by public safety, transportation, structural monitoring and industrial.

### **Siemens Adds ISO Standard Support to Simatic RFID Readers**

[Siemens' Industry Automation and Drive Technologies](#) division has announced that it has redesigned its high-frequency (HF) 13.56 MHz Simatic RF310R and RF380R RFID interrogators so that they support the ISO 15693 standard, thereby enabling the devices to read and encode tags complying with that standard. According to Siemens, adding ISO 15693 functionality makes the two interrogator models more suitable for use in applications that require only simple types of transponders with little memory, such as Siemens' MDS D100 and D124 tags, which comply with ISO 15693. Simatic RF310R and RF380R readers are also suitable for use with more advanced tags in the RF300 transponder range, which have larger data capacities. According to Siemens, the mode of operation can be switched by changing the devices' parameters so that they can either communicate in the high-performance "RF300 protocol" mode, as before, or under the ISO 15693 protocol. The vendor plans to continue adding support for ISO 15693; the next devices slated to be equipped with ISO 15693 functionality will be the company's RF340R and RF350R readers and RF310M mobile handheld terminal.

### **In Motion Technology, AeroScout Partner on Mobile Asset Tracking**

[In Motion Technology](#), a provider of mobile networking technologies to help connect and manage equipment, information and personnel in the field, has announced that it is partnering with [AeroScout](#). In Motion will combine its wireless network solution with AeroScout's Wi-Fi active RFID tags. In Motion's solutions transform vehicles into Wi-Fi hotspots, and provide headquarters staff with real-time information from the field to manage operations. More than 175 transit, commercial and first-responder fleet organizations employ In Motion's solutions to create wireless vehicle area networks (VANs). The combination of In Motion and AeroScout products will enable customers to track and manage assets in vehicles equipped with In Motion's wireless VAN system.

### **Ekahau Joins HP ProCurve Alliance**

Wi-Fi-based real-time location systems (RTLS) provider [Ekahau](#) has announced that it has joined [HP's](#)

ProCurve Open Network Ecosystem (ProCurve ONE) alliance program. HP ProCurve ONE is a multi-vendor alliance program designed to make it easier for HP's ProCurve blade customers to integrate network applications and services from alliance partners by addressing interoperability issues between the partners' products and services. Ekahau will incorporate its Ekahau Positioning Engine (EPE) software on the new HP ProCurve ONE Services zl Module, a blade for the HP ProCurve Switch 5400zl and 8200zl series that consolidates many partner applications onto a single common platform. Companies that purchase the ProCurve ONE Services zl Module can then use the EPE application, along with Ekahau's Wi-Fi tags, to track assets in real time. Ekahau's EPE and tags work over any existing Wi-Fi network. The company's real-time location system (RTLS) for the HP ProCurve ONE Services zl Module is expected to be available in the first half of 2009.

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