

RFID Race Timing Systems chooses PowerID's BAP label; Inside Contactless, Twinlinx team on Bluetooth-enabled NFC stickers; Smartrac wins contactless ticketing projects, acquires contactless card technology; three tag makers, including UPM Raflatac, selected by IATA for airline baggage tagging; U.S. State Department uses RFID to track, secure IT assets; RF Controls' new algorithms enable single-antenna location tracking; Hub télécom works with Tibco on RFID platform for Paris airport; Arch Rock upgrades wireless monitoring system for data centers.

Nov. 11, 2009—The following are news announcements made during the past week.

RFID Race Timing Systems Chooses PowerID's BAP Label

[RFID Race Timing Systems](#), an Australian manufacturer of proprietary RFID hardware and software for use in sports timekeeping, has selected the PowerT label from [PowerID](#), a provider of battery-assisted passive (BAP) RFID technology. The PowerT label was introduced in the second quarter of this year and has been used in several races, including last month's Melbourne Marathon. The label has a battery-assisted EPC Gen 2- and ISO 18000-6C-compliant tag designed specifically for race applications, and will be utilized in RFID Race Timing Systems' Ultra product. The Ultra includes the Reader Box—which contains an ultrahigh-frequency (UHF) RFID reader, networking hardware and a computer—and reader antennas developed specifically for sports timing, embedded in flexible EVA mats so they can be positioned in different configurations. The company says it chose the PowerT because the label can be attached to the back of a runner's bib, and be mailed to participants prior to the event, thus eliminating the need for disposable shoe tags or non-disposable tags that have to be collected after races have completed.

Inside Contactless, Twinlinx Team on Bluetooth-enabled NFC Stickers

[Inside Contactless](#), a provider of contactless chip technologies, has announced it is partnering with [Twinlinx](#), a French startup firm focusing on Near Field Communication (NFC) RFID tag development. The two companies indicate they are working on the integration of Inside Contactless' secure components in the Twinlinx MyMax NFC sticker, and are endeavoring to gain type approval from the major brands of bank cards. MyMax sticker is a thin electronic sticker that can add NFC communication capability to Bluetooth-enabled mobile phones. The MyMax employs Bluetooth technology to communicate with the phone, and has an internal battery (rechargeable via built-in photovoltaic cell), so it won't drain the phone's battery. Depending on the mode of operation chosen, the MyMax can operate as a multi-chip contactless card, as a communication mechanism between itself and the mobile phone, and as a contactless interrogator that can read external NFC RFID cards and tags (see [Bouygues Telecom Gives Boost to NFC Startup Twinlinx](#)). Inside Contactless will support Twinlinx's initial go-to-market initiatives in North America and other markets, as part of its own initiative to jumpstart the mobile payments market in 2010. Twinlinx is currently in discussions with major wireless carriers and transport operators in the United States and Europe, and has already established agreements with a number of these firms, according to the two companies. "The major banks we have approached are very excited by the MyMax NFC sticker," said Charles Walton, Inside Contactless' executive VP, in a prepared statement, "because it allows consumers to use their existing mobile phones to conduct mobile payment

transactions and run NFC applications, and they have encouraged us to seek type approval from the bank card brands."

Smartrac Wins Contactless Ticketing Projects, Acquires Contactless Card Technology

[Smartrac](#), an RFID inlay supplier headquartered in Amsterdam, the Netherlands, has announced that it has been selected to supply contactless RFID inlays to two public transportation-ticketing projects: one in Seville, Spain, and one in Riga, Latvia. The orders come through [Paragon Identification of France](#), a provider of magnetic tickets for urban transport and identification solutions. The projects will leverage Smartrac's credit-card-sized 13.56 MHz ChipLink inlays, which support the ISO 14443 standard. Paragon Identification will convert the inlays into finished paper tickets, Smartrac reports, and print and personalize the tickets for the local transit agencies. The company has also announced its acquisition of approximately \$12.5 million in assets from Millennium Card's Technology Ltd. (MCT), a subsidiary of [On Track Innovations Ltd.](#) (OTI), as well as machinery and inlay production intellectual property from OTI. As a result, OTI will cease to produce inlays. OTI provides contactless microprocessor-based smart-card solutions for homeland security, payments, petroleum payments and other applications. Under the terms of the agreement, Smartrac also becomes OTI's exclusive supplier of wire-embedded and dual-interface inlays. The deal specifies that OTI will receive defined lead times, production allocation and pricing of Smartrac products so that the firm can continue to support its customers. In addition, both parties will "mutually accept and respect each other's patents, especially in the field of Wire-Embedding and Dual Interface technology," according to a press statement released by Smartrac. As part of the agreements, all patent litigations—in particular, all patent infringement legal proceedings between Smartrac and OTI—have ceased, the company reports. "This transaction is in line with our focus to offer end-to-end solutions which ultimately yield high margin and recurring revenues," said Oded Bashan, OTI's chairman and CEO, in a prepared statement, adding "the sale will significantly reduce OTI's operating expenses and improve our cash flow position."

Three Tag Makers, Including UPM Raflatac, selected by IATA for Airline Baggage Tagging

The [International Air Transport Association](#) (IATA), a trade group comprising airlines around the globe, has chosen three RFID inlay suppliers that it says meet the operational requirements of the group's airline baggage-tagging tender (essentially, a request for proposal, or RFP). The three suppliers include [UPM Raflatac](#), [Avery Dennison](#), and [Alien Technology](#). The IATA tested an extensive number of RFID inlays to identify products with optimal performance. The tests were carried out in the first quarter of 2009 by [ODIN Technologies](#) on several inlays, as well as the quality of conversion of the finished baggage tags. The tests checked for tag manufacturing consistency, power effectiveness, orientation sensitivity, global frequency and read distance. According to UPM Raflatac, its ShortDipole inlay, carrying an [Impinj Monza 3](#) chip, was put through processes typical to the airline industry, including baggage sorting, reconciliation and check-in. According to UPM Raflatac, the tests were carried out at real sites using existing RFID infrastructure, including readers and printers. The company's ShortDipole inlay is already in use as part of a new RFID-based baggage-handling system at Portugal's [Lisbon Airport](#) (see [Lisbon Airport Ups Throughput With RFID Baggage System](#)). The next step, IATA reports, will be to present the offers the association has negotiated for interested aviation industry partners. IATA will ensure that a volume-based refund is provided to each participant at the end of the year.

U.S. State Departments Uses RFID to Track, Secure IT Assets

To help lower administrative and management labor and costs, as well as improve IT security, the [U.S. Department of State](#) has tagged approximately 10,000 mission-critical IT assets with ultrahigh-frequency (UHF) RFID tags. The department hired RFID solutions provider [ODIN Technologies](#) to provide and implement the RFID-enabled IT asset-tracking system, which has replaced a bar-code-based tracking solution. ODIN has provided hardware, software and services for the project, which consisted of tagging IT assets ranging from laptops to servers that are in use at the State Department's headquarters in Washington, D.C., according to Patrick Sweeney, ODIN's president and CEO. The agency has three primary goals for the initiative, Sweeney says: increasing security, eliminating the need for outside contractors by leveraging technology that can automate processes typically performed manually, and reducing the time it takes to conduct annual inventories of the IT assets the agency uses—a process that, when manually conducted, takes six to eight months. The implementation includes ODIN's EasyEdge middleware and handheld interrogators, as well as fixed readers that have been placed at critical choke points, such as at the entrance of storage rooms. The department is employing metal-mount passive UHF tags from [Confidex](#) that are compliant with ISO 18000-6 standard, Sweeney says. The EasyEdge middleware culls the tag reads and pushes the information to the State Department's back-end asset database. Placing the RFID tags on the assets took only a few weeks, and was completed by the end of October.

RF Controls' New Algorithms Enable Single-Antenna Location Tracking

[RF Controls](#)—the developer of the Intelligent Tracking and Control System (ITCS), which uses signal-processing algorithms and bidirectional electronically steerable phased array antenna technology in order to determine the location of passive UHF ISO 18000-6c Gen 2 tags in three dimensions—has announced that it has achieved what it calls a breakthrough in the system's performance. Whereas the system could previously determine a tag's location only when it was within range of at least two antennas, the new algorithms enables the same granularity through the use of a single antenna. RF Controls is among an emerging group of vendors that support long-range passive RFID tag-reading capabilities (see [RFID 2.0](#)). Chris Hook, the company's executive VP for business development, says the improvement to the ITCS has not changed the level of location accuracy the system provides (up to 1 foot), nor does it impact the distance from which the antennas can pick up tag signals—a distance, Hook says, that RF Controls does not publish because it can be so widely impacted by the reading environment. Hook also notes that companies already using RF Controls' ITCS technology can add this enhanced functionality through a firmware upgrade. RF Controls, he notes, has several customers in the retail, defense and technology industries that utilize ITCS for such applications as product location tracking within retail environments, and IT asset location and movement within data centers. He declines to name any customers, however, citing confidentiality agreements.

Hub télécom Works With Tibco on RFID Platform for Paris Airport

[Hub télécom](#), a telecommunications provider and systems integrator specializing in airports, ports and logistical operations, has teamed up with [Tibco Software](#), a maker of infrastructure software designed to help companies connect applications and data in a service-oriented architecture. Together, the duo has

created a software platform for collecting and processing RFID data. The Hub'ID platform, which Hub télécom operates as a service, and which supports a variety of RFID standards, can receive and format information collected by the various RFID sensors in real time, the companies report. The platform has the capacity to process and sort high volumes of RFID data coming from numerous sites and collection sources, then transmit the information to the appropriate customers' information systems. According to the companies, redundant or useless data is systematically divided or filtered. Hub télécom developed the first application—a luggage traceability application—on top of the Hub'ID platform for the [Paris Charles de Gaulle International Airport](#). The platform enables the consolidated collection and processing of tag reads on luggage that passes through RFID-enabled gates and tunnels throughout the airport and on the tarmac, then feeds that information to the airport's luggage system. Hub'ID includes RFID readers, either fixed or mobile, as well as network services and business data processing services.

Arch Rock Upgrades Wireless Monitoring System for Data Centers

[Arch Rock](#), a provider of IP-based wireless sensor network technology, has introduced an upgrade to its solution for monitoring a data center's electrical usage and temperature. Announced in April 2009, the system is designed to help businesses conserve energy while maximizing the operational efficiency and reliability of servers and other computing equipment. The Arch Rock Energy Optimizer-Data Center Edition (AREO-DC) leverages Internet Protocol (IP)-based wireless sensor networks consisting of battery-operated sensor nodes, the PhyNet Router (an IP router that communicates to the sensor nodes over IEEE 802.15.4 low-power radio links using the IETF 6LoWPAN, or IPv6 over low-power wireless personal area networks, standard), and an Energy Portal—a Web application that includes new thermal data software and displays detailed energy and thermal usage information in graphical and tabular formats. According to Arch Rock, thermal efficiency monitoring is critical to a densely packed data center, in which efficient cooling plant operation is vulnerable to seemingly minor rack or floor openings or tiny variations in airflow. New sensor nodes, as part of the upgrade, include IPthermal-XT Nodes, which provide up to seven temperature and one humidity measurements, for measuring input and output air temperatures; IPthermal-HT Nodes, which offer up to four combined temperature and humidity measurements, for sensing computer-room air handler (CRAH) supply and return conditions; IPthermal-CF Nodes, which measure chiller water flow and temperature with up to two pipe surface temperature probes and one ultrasonic flow meter input, to measure air conditioning unit efficiency; and IPpressure Nodes, to measure differential air pressure, reveal air-flow paths and indicate possible plenum leaks or sub-floor blockages. Also included are the system's originally announced IPpower Nodes—mains-powered nodes mounted in or near electrical circuit-breaker panels to measure AC power and voltage on three to 18 circuits per node. The system enables companies to compare their data centers against [American Society of Heating, Refrigerating and Air-Conditioning Engineers](#) (ASHRAE) benchmarks for temperature, humidity and air quality; monitor the actual dollars spent on energy and its carbon equivalent; identify the factors that cause energy waste and other harmful conditions, and then correct these problems; and optimize available capacity for new servers based on equipment's actual electrical/cooling consumption. AREO-DC is now available. The Energy Portal is offered as a hosted service or an on-site customer premise appliance. An example starter configuration, priced at \$9,995, includes the Energy Portal (with a one-year subscription to hosted service), one

PhyNet Router, three IPpower Nodes (for monitoring up to nine circuits), four IPthermal-XT nodes (for monitoring up to 28 temperature measurement points and four humidity points), one IPthermal-HT node (for monitoring up to four combined thermal and humidity measurement points), two IPpressure nodes (for monitoring up to six differential pressure measurement points), and two IPrelay (extender) nodes.