

Domino ISG intros compliance kit for Sam's Club suppliers; Ekahau upgrades RTLS location server; Impinj Speedway readers certified to operate in China; Mikoh creates government division; organic 13.56 MHz tag prototype achieves new bit-rate milestone; Fish becomes exclusive Ubisense reseller for attendee-tracking apps.

Feb. 14, 2008—The following are news announcements made during the past week.

Domino ISG Intros Compliance Kit for Sam's Club Suppliers

With [Sam's Club's](#) RFID requirements in full swing, another RFID provider, [Domino Integrated Solutions Group](#), is now offering three compliance solutions. Owned and operated by [Wal-Mart](#), Sam's Club announced in January that by Feb. 1, suppliers must apply an EPC Gen 2 RFID tag to every full single-item pallet shipped to its distribution center in DeSoto, Texas, or directly to one of its stores served by that DC. For any pallets not tagged, suppliers will be charged a service fee, starting at \$2 per untagged pallet (see [Sam's Club Tells Suppliers to Tag or Pay](#)). Domino ISG's RFID solution suite includes Compliance 1st (C1st), a basic kit for generating compliant RFID labels that can be manually applied to pallets. C1st includes software, an RFID-enabled printer and an optional RFID interrogator and computer. If the optional computer is added, Domino ISG says, it will include all necessary software pre-installed and configured to generate compliant labels. C1st leverages [EPCSolutions'](#) RFIDTagManager and [Zebra Technologies'](#) RFID printer-encoders. Fully featured, C1st costs \$5,995, with additional options for on-site installation costing an additional \$1,750 (including travel). Other vendors offering Sam's Club compliance kits, in addition to EPCSolutions, include [Sato](#) and [Lowry Computer Products](#). In addition, Domino ISG is offering Compliance NextSteps, which automates the process of placing RFID labels on pallets using automated label-application technology, and Hide-Pack technology, which takes RFID to the packaging level by incorporating the RFID label into the boxes suppliers utilize to ship their products to Sam's Club. Hide-Pack is designed to help suppliers meet Sam's Club's requirement that they must begin item-level tagging on goods shipped to the DeSoto distribution center by October 2009. Hide-Pack consists of embedding an RFID inlay within the structure of a package, corrugated case or folding carton. Domino ISG says it is currently working with package manufacturers that will use the technology so they can provide RFID-enabled packaging to suppliers (see [Startup Says It Has Cost-Effective Means to RFID-Enable Packaging](#)).

Ekahau Upgrades RTLS Location Server

[Ekahau](#), a provider of Wi-Fi-based real-time location systems (RTLS), has unveiled a new version of its Ekahau Positioning Engine (EPE) server, which analyzes data from Ekahau active 802.11-compliant 2.4 GHz RFID tags, such as tag signal strength, to determine a tagged object's location. The EPE 4.2 server includes a new Ekahau Event application-programming interface (API) that systems integrators and third-party software vendors can employ to create RTLS applications that integrate with Ekahau's RTLS. EPE 4.2 is now compatible with the 64-bit processor architecture that enables the engine to track up to 40,000 items, compared with only 10,000 for previous versions. Furthermore, customers purchasing EPE 4.2 will receive the Ekahau Site Survey 4.0 standard edition, a software package designed to help network managers plan and administer their Wi-Fi networks. EPE 4.2 is available now.

Impinj Speedway Readers Certified to Operate in China

RFID equipment provider [Impinj](#) has announced that its Speedway ultrahigh-frequency (UHF) RFID interrogator was awarded certification by China's State Radio Regulation Committee (SRRC). The certification verifies that the readers conform to China's RFID regulations, thus enabling the company to sell them in China through a network of distributors, including [Yeon Technologies](#), a subsidiary of the [YFY Group](#) in Taipei, Taiwan. For the Chinese market, the Impinj Speedway will operate at 920 to 925 MHz. In May 2007, the SRRC issued a ruling to approve bandwidth in the 840.25 to 844.75 MHz and 920.25 to 924.75 MHz ranges, for use by UHF RFID tags and readers in that country (see [China Approves Requirements for UHF Bandwidth](#)).

Mikoh Creates Government Division

[Mikoh](#), an Australian provider of tamper-proof seals and other security solutions, has launched a new division aimed at the government sector. According to the company, Mikoh Federal Practice will offer branded solutions and services targeting specific government applications, including tamper evidence, asset identification and tracking, perimeter security and chain-of-custody reporting. Headquartered in McLean, Va., Mikoh already has several government customers. A year ago, the firm introduced an RFID-enabled application initially aimed at the government sector. In February 2007, Mikoh unveiled a reusable container, SecureContainer, with an RFID security seal intended to alert a user's RFID interrogator if a container is tampered with as it passes through the supply chain (see [Mikoh Develops Reusable Container With RFID Security Seal](#)).

Organic 13.56 MHz Tag Prototype Achieves New Bit-Rate Milestone

[Holst Center](#), an organic electronics research center in the Netherlands, demonstrated a prototype RFID tag at the International Solid State Circuit Conference, held last week in San Francisco, that it says achieves new performance milestones for organic (non-silicon) RFID integrated circuits. The prototype, a polymeric passive 13.56 MHz RFID tag with 64 bits of memory, can transmit 780 bits of data per second at a distance of up to 10 centimeters. According to the center, other organic 13.56 MHz passive tags have achieved a bit rate of 150 bits per second, and are unable to transmit data further than 1 centimeter. By contrast, conventional silicon-based 13.56 MHz passive RFID chips, such as [NXP](#)'s MiFare, transmit information at a rate of 106 kilobits per second. Silicon has a higher charge mobility than organic materials, Holst explains, so silicon tags will always have higher bit rates than organic ones. However, the potential cost savings of printing RFID tags using organic materials, over manufacturing silicon chips using conventional fabrication methods, is fueling research into organic tags. Koen Snoeckx, communication manager for the Holst Center, says his organization's sole aim is to develop technologies, rather than commercial products. It will be up to Holst's industry partners, Snoeckx says, to develop high-volume, low-cost printing processes that will serve to transform the prototype into a product—that, he adds, could take many years.

Fish Becomes Exclusive Ubisense Reseller for Attendee-Tracking Apps

Building on a relationship that began more than a year ago, [Ubisense](#) has announced a partnership with [Fish Software](#), a Carrollton, Texas, provider of interactive marketing software used at trade shows and

consumer events. Under the terms of the partnership, Fish will exclusively resell Denver-based Ubisense's ultrawide-band (UWB) real-time location system (RTLS) for event-attendee tracking and measurement in North America. In November 2006, Fish began working with Ubisense on an event-tracking system leveraging Ubisense tag readers installed in booths that cull unique ID numbers from attendees wearing Ubitags (see [UWB to Help Sales Staff Fish for Leads](#)). The Ubitags and readers operate at 3.1 GHz to 10.6 GHz, and the tags transmit a signal over multiple frequency bands. The Ubisense system uses two algorithms—one that calculates the time difference of arrival for a signal at two separate RFID interrogators, and another that calculates the signal's angle of arrival—thus allowing it to pinpoint a tag's location to within 1 foot.