

# Shelf-based Antitheft System Combines RFID, EAS

Vue Technology and Tag Co. partner to provide an antitheft solution that automatically detects suspicious behavior in the store aisles.

By Claire Swedberg

June 8, 2006—Radio frequency identification and electronic article surveillance (EAS) are being integrated in a new system combining the RFID-enabled shelving technology of [Vue Technology](#) with anti-shoplifting technologies from [Tag Co.](#) The integrated system will help retailers improve item-level visibility of high-end items in the store, and possibly catch a theft in action, before the product leaves the store. The system became commercially available this week and will be piloted by several unnamed retailers at the beginning of the third quarter of 2006.

The RFID-EAS system can work with a dual-technology tag in one plastic casing, utilizing both an EPC Gen 2-compliant RFID chip and an EAS transponder. Another alternative is for the retailer to tag an item with separate RFID and EAS tags. The store would continue to use its existing EAS system, such as EAS readers deployed at exits, to alert employees if a product leaves a site before purchase. The RFID component, however, will help store managers trace where products are moved within the store—in some cases, early enough to alert the store's staff before the thief has had the opportunity to reach the store doors with the stolen items.

## How the System Works

Dual-technology tags are applied to items, either by manufacturers or retailers, before they are placed on store shelves equipped with Vue Technology RFID antennas. If a large quantity of a single product is suddenly removed from the shelves—such as happens in the case of theft "sweeps"—the RFID reader can send an alert to the store's EAS system to identify the product and shelf involved. The system can convey this information by means of a message appearing on the store's computer screens, says Tim von Kaenel, Vue's senior vice president of product management and business development.

Such a warning allows the staff to survey the aisle to determine if a theft is being carried out, and, if so, to apprehend the suspect before he or she reaches the exit. If the products are carried through the exit, the EAS tag will also sound an alarm.

According to Adam Kustin, a Tag Co. spokesman, the two technologies work well together because RFID and EAS offer different antitheft options. While EAS is useful for sounding an alarm at the door, it does nothing to alert store employees to an action happening at a store shelf. Alternatively, RFID offers details about events taking place at the shelf, but because it has a read range of no more than 12 inches, RFID interrogators deployed at a store exit would not be as effective as EAS readers, which have a 9-foot read range, enabling them to detect any unsold item leaving the store.

In addition, says von Kaenel, most stores have an existing EAS system that can be enhanced with the RFID

technology at an affordable price. "No retailer will want to abandon its existing EAS architecture," he says. "This system allows them to augment their existing EAS system with RFID capabilities for enhanced theft detection." While retailers will still rely heavily on video surveillance for loss prevention, Kustin adds, this dual technology offers another solution that doesn't require an employee to spend a great deal of time watching video images.

To implement the solution, Vue Technology is providing the RFID readers and tags from a variety of manufacturers and its own IntelliManager software, which provides an IP-based interface through which a store can integrate RFID data with the retailer's in-house computer system.

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