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Apparel Maker Tags RFID For Kids' Sleepwear

Lauren Scott of California will launch a line of kid's pajamas sewn with RFID tags. Readers placed in a house will be able to scan the tags within a 30-foot radius and trigger an alarm if boundaries are breached.

By Laurie Sullivan, [InformationWeek](#)

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Lauren Scott of California is blazing a new trail in children's wear. The \$2 million-a-year apparel division of DST Media Inc. will launch a line of pajamas with radio-frequency identification tags sewn into the hems. Readers positioned at various points throughout a house, such as doorways and windows, will be able to scan the tags within a 30-foot radius, and an alarm will be triggered when boundaries are breached.

"You look at these kids and think, 'I would do everything to protect them,'" says proprietor Lauren Scott, who licensed the RFID technology from SmartWear Technologies Inc., a manufacturer and supplier of personal security systems. "I'm confident other manufacturers in children's wear will follow within the next year." Scott will introduce the sleepwear in her spring 2006 collection. An estimated 250,000 pieces will begin shipping to various retail stores in December and are expected to be available to consumers by February.

Target Corp. has placed an order for the sleepwear and is expected to begin carrying the children's nightgowns in select stores early next year, Scott says. Target did not return calls by press time.

Adding technology to a piece of clothing hasn't been trouble-free. Slight manufacturing techniques and design changes were made to the clothing line to accommodate the electronics. Hems had to be made a little deeper in pajamas and nightgowns to conceal the tags, which are typically placed in the shoulder and side seams because they lie flat and are easy to work with. "Everyone around here refers to it as, 'put a chip on your shoulder,'" Scott says.

A pamphlet or "hang tag" attached to the garment will inform customers that the sleepwear is designed with SmartWear technology in an effort to prevent child abductions. It then directs parents to a Web site that explains how to activate and encode the RFID with a unique digital identification number. Parents will register with SmartWear to receive a unique number for each child to encode on the tags. No personal information such as name, address, or phone number is required. The site also provides information on the requisite readers and a low-frequency RFID encoder connected through a USB port

for a computer that will be available as part of home-installed package.

Parents can sign up to access the optional SmartWear database that contains photographs and vital information from medical needs to handicaps the parent may wish to provide law enforcement in the event their child is missing. Within seconds, the information can be transmitted to law enforcement or Amber Alerts through an interface with SmartWear Technologies systems. The SmartWear database could eventually link into those accessed by law enforcement. "We have asked Microsoft to become our technology partner and help us develop the platform and protocol to interface the database directly with law enforcement and Amber Alerts," says Bob Reed, SmartWear's senior VP.

SmartWear's Web site cites haunting statistics gathered from the Federal Bureau of Investigation and the National Center for Missing and Exploited Children: Every 18 seconds, a child disappears from playgrounds, parks, schools, and homes, and many are taken by convicted sex offenders. Of the 876,289 people that went missing worldwide in 2004, 90% were children. The epidemic of child abductions increased 468% from 1982 to more than 876,213 in 2002. "The primary focus is to help prevent abductions by installing this system on driveways, gateways to pools, and in the home," says Bob Reed, SmartWear's senior VP. "It will alert parents when their child has crossed a threshold to doors and windows."

The SmartWear system required to work with the tags will be priced at about \$500--a cost that Michael Overly, an attorney at Foley & Lardner LLP, says might be more than the average family wants to spend. Take standard alarm systems, for example. ADT Security Services, Brinks, and others have figured out that most people can't afford an alarm system, and this is why they lease them with monthly payments. "It's an interesting use of RFID tagging, but this application could end up like the global positioning system watches advertised six to eight months ago that were suppose to allow you to track your kid, and they just didn't catch on at all," Overly says. "It would make more sense to license the technology to a securities company that would offer the service in an addition to the alarm system they're selling now."

SmartWear is in talks to license the technology to ADT, says a source close to the deal. Both SmartWear and ADT declined to comment on any pending deal.

Another cost to be considered is the price of the RFID tag. Today, the passive tags that Lauren Scott will insert in the sleepwear collection cost less than 30 cents each, says SmartWear's Reed. Lauren Scott will absorb the price of the tag for now. The company estimates shipping about 250,000 pieces of its spring 2006 sleepwear collection to various retail stores.

There are also potential privacy concerns. The federal government's plan, for example, to embed RFID chips inside all U.S. passports put consumers and privacy advocates in an uproar, as did a Northern California school's decision earlier this year to require children to wear RFID tags to school (the plan was scrapped after many people protested it).

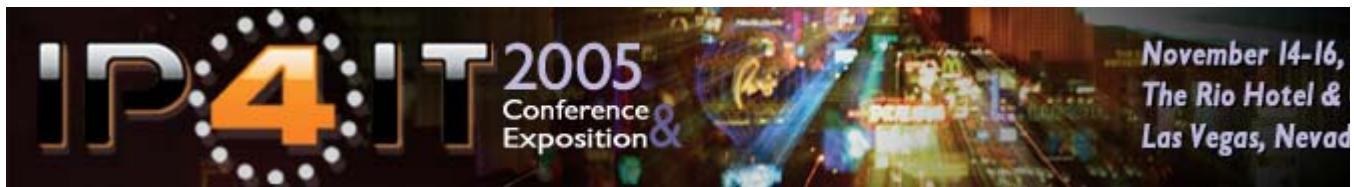
But with the children's RFID-enabled sleepwear, privacy issues shouldn't come into play, especially if the RFID tag isn't linked with a child's name, says Overly. "The parent will operate the system to track the child at home," he says. "I don't see it as a big privacy problem." Further, information entered into SmartWear's database by the parent is optional.

SmartWear also has several other projects in the works. Dual-purpose tags are being explored that would satisfy both the child-abduction application as well as supply-chain RFID initiatives in place by retailers to tags cases and pallets of goods bound for specific distribution centers such as those operated by Wal-

Mart Stores Inc. and Target in the Dallas area. That would mean encoding the tag with some sort of unique identifier at the apparel manufacturer.

SmartWear says it's working with Symbol Technologies Inc. to develop an extended-range tag that would contain a passive semiconductor chip and antenna sealed in a soft and flexible Mylar inlay. The tags, virtually undetectable, could withstand multiple dry-cleanings and washings.

Smartwear also is working to develop an active tag that can transmit signals up to 600 feet. This active tag would be inserted into outerwear from vests to jackets to belts and leg-wraps for hikers, bikers, skiers, as well as law enforcement, government, and military personnel. It is being considered in the case of body recovery for identification purposes. If clothing were separated from the individual, the RFID clothing tag would give law enforcement information as to whom it belonged.



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