

Indian Retailer Uses RFID on Garments

Tagging individual items reduces theft, cuts the time required for taking inventory and speeds up sales transactions.

By Claire Swedberg

April 4, 2007—Sakhi Enterprises, a women's clothing boutique in Bangalore, India, has begun tagging all of its garments for both inventory and security purposes. The retailer's system, installed in February by Orizin Technologies, includes item-level RFID tags, which are interrogated at the point of sale and then removed.

According to Prashant Agrawal, managing director of Orizin Technologies, the system reduces transaction times and speeds the stock-taking process, allowing the daily counting of thousands of items. It also improves security by sending an alert whenever a garment with a tag passes through a reader at the exit—an indication that a theft might be in progress.

Orizin was established in 2005 by several alumni of the National Institute of Technology, Trichy. It has since installed, or is installing, RFID systems at libraries and retail stores in India, Agrawal says.

Sakhi came to Orizin in November 2005, seeking an automated solution for billing, inventory and merchandise security. "This system should be the latest," Agrawal says, "and should not have to be upgraded for another couple of years." Without RFID, he notes, "billing and stock verification using bar codes was a cumbersome and time-consuming process."

The RFID system Orizin set up includes a station consisting of a desktop RFID reader for tagging items and updating the prices. As items are received at the store, workers outfit them with 867 MHz RFID tags based on EPCglobal's second-generation Electronic Product Code standard. Relevant information, including pricing, materials, size and other information, is updated in a database and linked to the unique EPCs.

At the point of sale, the system also includes a "billing scanner," which sales clerks use in the purchasing process. "Items can be brought near to it," Agrawal explains, "and their information can be captured immediately, creating an invoice that can be automatically printed. Billing of hundreds of items can be generated in a minute."

As the items are billed, the tags are removed and can be reused. If any tag-bearing garment passes an RFID reader stationed at the door, the gate antennas will trigger an audible alarm, alerting staff. Sakhi is also using an Orizin handheld RFID reader for item location and inventory management in the store.

Data is transferred, via a Wi-Fi connection, from the desktop and handheld readers to a server. At the end of the day, the Orizin Web-based software package allows Sakhi to generate a stock list of mismatched or mislocated items, while also providing point-of-sale, security and database management. The data is then uploaded to a Web page hosted by Orizin, where Sakhi management can access daily, weekly and monthly sales figures, as well as data on fast-moving items, inventory details, cash collections and other statistics.

Agrawal says customer loyalty cards containing RFID tags will become available later this year. "The UHF cards will provide faster identification and quicker billing," he says. "In this way, regular customers need not take the pain of identifying themselves." In the future, Sakhi intends to tag clothing items sent out of the store for alterations. "We are planning to extend the usage of tags," he notes, "to work-in-process."

RELATED_ARTICLES Stock verification, which Agrawal says was Sakhi's greatest concern, has now become automatic with the RFID system. "Everything is working well," he says, adding, "We have some minor issues with some materials, such as silk. RFID tags do not work well with silk items, which are heavily embossed with metallic zari [trim]. We are trying to solve this issue by trying different types of tags."

As Sakhi opens other stores in India, the company would like to deploy RFID in them, as well. "We partnered with Orizin to help better our understanding of the stock movement and, in the bargain, integrate security so as to ensure better control over the retail business," says Neeta Rajendran, Sakhi's CEO. "The daily reports generated, together with improved and easy stock taking, render a complete solution. Going forward, we expect greater efficiency in stocking maintenance and intelligent management of the same."

Copyright ©2005 RFID Journal, Inc. All Rights Reserved