

NP is expanding its RFID system to fitting rooms, store shelves and sales counters, to improve customers' shopping experience and speed the payment process.

By Claire Swedberg

Dec. 5, 2008—At its store in Hollola, Finland, women's clothing designer [Naisten Pukutehdas](#) (NP) has extended its RFID system to the sales floor. The company—which sells women's fashion, marketed under the NP Collection brand, at 500 retail locations in Scandinavia and Russia, as well as in 10 of its own stores—has created what it hopes to be a smart store, employing RFID sensors in its dressing rooms and on its shelves to provide customers with better, more personalized service.

The Hollola store, a new retail location that opened in November, is utilizing a [Senso Retail Solutions](#) system, provided by [Rosendahl Digital Networks](#) (RDN), to help shoppers identify purchases, as well as to assist staff members in improving inventory management and security. The store's workers will use the system for daily inventory checks, to obtain real-time data regarding which inventory is on the shelves and automatic notices when it is time to replenish.

This first installation is intended to test the system closer to home, as NP Collection's distribution center is located near the Hollola site, says Nina Into, RDN's marketing coordinator. In the next few months, however, the clothing designer intends to install the same system at its store in St. Petersburg, Russia.

In 2007, NP began tagging all of its garments with EPC Gen 2 UHF tags for supply chain tracking (see [Finnish Fashion Designer Begins Item Level Tracking](#)). The clothing is manufactured at factories owned and operated by third parties in Eastern Europe and China. With RFID readers at NP's distribution center in Finland, the company has been able to reduce errors and cut man-hours previously spent manually checking garments to ensure the correct products are being sent to the proper locations. [SML Group](#) RFID labels containing [UPM Raflatac](#) EPC Gen 2 UHF inlays are sewn into all clothing items at factories in Estonia and Asia. Thus far, NP has tagged 250,000 garments in 2008.

The next phase of the deployment has been to bring radio frequency identification into the stores themselves. At the Hollola site, the Senso fitting rooms are equipped with Smart Displays—a wall-mounted screen with touch-screen capabilities and a built-in RFID interrogator.

When an item is carried into the fitting room, an [Impinj](#) RFID interrogator reads its tag ID number. That ID number is sent to the store's back-end ERP system via a wireless connection, prompting information and images related to the item to appear on the LCD screen in the dressing room. In that way, users could, for example, visualize a garment with other accessories or clothing.

Customers can press the touch-screen to select items they would like to try with the garment they have already carried into the dressing room. The screen will then display the requested product information, such as the color and size options available. "Using the touch screen," Into says, "she will be able to select a size and/or a color of the product she wants to try on."

The request indicating which item is needed, and in which fitting room, is transmitted wirelessly to a computer at the sales counter, as well as to the [Nokia N800](#) Internet Tablet PDAs carried by store personnel. Employees press a prompt to indicate they will respond to the customer, then bring the requested item to the specific dressing room. If no staff member responds, the clerk working at the sales counter will receive an alert from the system after a predetermined amount of time, and can then either respond to the request or assign that task to someone else in the store.

By January 2008, the Hollola and St. Petersburg stores will also have an RFID-enabled point-of-sale (POS) system in which customers will place items they wish to purchase on the counter. A built-in RFID interrogator will automatically read the tags, and the POS system will total the items' cost for the customer. In a self-service version of the system, customers will also be able to pay for items without assistance from store personnel, by simply placing their purchases on the counter, then waiting for the total to be provided and using their credit card to pay for them. At that point, the tags will also be deactivated so the customer can take the items out of the store. If the tags are not deactivated, they will trigger an electronic alarm connected to a reader at the exit.

In the next six months, says NP's CEO, Risto Rosendahl, the company plans to deploy the Senso Shelf system on the sales floor at both the Hollola and St. Petersburg locations. Each Senso Shelf has a built-in interrogator that tracks the items in real time. Whenever a garment is removed from or returned to a shelf, that action is transmitted to the store's back-end system.

Customers at the Hollola store already like the system, Rosendahl says, though they have required some education to get accustomed to using it. "The sales staff sees the solution as an interesting opportunity to increase the sales," he says, "but the most convenient feature for them is the streamlined inventory process." Workers use the system to indicate when inventory arrives, when it needs to be replenished, and when it has been placed in the wrong location.

In the first half of 2009, NP expects to have the Senso fitting room and Senso Shelf systems deployed at all stores the company owns and operates in Finland.

"RFID has been a strategic decision," Rosendahl says. "During this [asset-tracking system deployment] process, we have realized that RFID is not only for saving costs. The main benefit for us will be the new shop and service concepts. We believe that better customer service, as well as lower cost, will be very important for our business."