

Maternity Apparel Maker to Deploy Smart Displays in Stores

To help it track inventory and sales, Tomorrow's Mother will supply tagged garments and RFID-enabled fixtures to department stores in the United States and Canada.

By Claire Swedberg

Nov. 8, 2007—Maternity apparel company [Tomorrow's Mother](#) is gearing up to employ a smart-shelf technology solution to manage its maternity departments in 384 stores across the United States and Canada, beginning with pilots in two Minnesota stores in January 2008. Full-scale deployment is expected to occur on a gradual basis, starting in March 2008.

The smart-shelf system will use RFID-enabled product displays to provide better visibility of the company's garments. The system, supplied by [Seeonic](#), incorporates [SkyeTek](#) RFID interrogator modules, including SkyeTek's M9 ultrahigh-frequency (UHF) and M2 high-frequency (HF) models, though the Tomorrow's Mother deployment will utilize only the M9. The system will provide real-time tracking of some of the store's maternity goods and garments on an RFID-enabled display.



Harley Feldman

Tomorrow's Mother leases maternity departments in stores across the United States and Canada. Many of these stores are located in small towns spread out across North America, and though Tomorrow's Mother staff visit the stores, they can't be there to conduct a manual count on a regular basis.

Typically, Tomorrow's Mother relies on the department stores to help it track inventory through their own sales records and data-management systems. In some cases, the stores provide no electronic data at all. Without a smart-shelf solution, Tomorrow's Mother is at the mercy of each store's inventory management system (which varies from merchant to merchant) and often receives its inventory and sales data too late to place replenishment orders.

To remedy the inadequacy of such a data-tracking system, the retailer is seeking access to real-time data about its inventory at all the stores in which it leases space. "With RFID technology," says Al Dittrich, CEO and president of Tomorrow's Mother, "we could get on-hand information from anywhere in North America without integrating into the department stores' systems."

To that end, Tomorrow's Mother will employ Seeonic's "Glass Shelf," a product display equipped with four antennas and an RFID interrogator that transmit inventory data to Seeonic's "Glass Pipeline" data service. Tomorrow's Mother will then be able to access that service via an Internet connection to monitor its tagged clothing at stores throughout the United States and Canada.

Tomorrow's Mother's factory in China will attach EPC Gen 2 RFID tags to the garments. When the apparel company's U.S. staff receive the garments, they will enter the size, style and other details about the garment into the firm's data-management system, then use a handheld RFID interrogator to read the tag and link its ID number with that particular garment.

When the garments reach the store, employees of either Tomorrow's Mother or the department store will hang

or stack the clothing on a display equipped with a Skyetek M9 reader module. Each display sits on rollers so it can be moved around the store. The displays measure 4.5 feet wide and 5 feet tall, with shelves capable of holding 100 to 200 garments, either stacked or hung. An RFID reader, located on the bottom of the display, is wired to four antennas embedded in the display corners. The interrogator can be powered with AC electrical power, or by battery. The antennas capture data from the tags at a read range of 1 to 2 feet, and at a predetermined rate, which could be hourly. They then send that information to the receiver, explains Harley Feldman, Seeonic's president and CTO, which transmits the data to an Internet server hosted by Seeonic via a cellular connection.

At that point, Seeonic software creates a data service that the company calls the Glass Pipeline, which delivers real-time product inventory information. Once it deploys the system, Tomorrow's Mother will be able to access that data via a Web site. The Glass Pipeline also provides analytics, such as a replenishment application that forecasts when products must be restocked.

"As things are sold," Dittrich says, "the replenishment system will be notifying us weekly." If items taken from a display are not returned, the Glass Pipeline records the item as either being sold, missing or stolen. Tomorrow's Mother will be able to access data regarding its items' locations and determine which have left the fixtures on which they should be located. The apparel retailer will then be able to compare those item identifications with point-of-sale information from the department store and ascertain whether a specific item was purchased. Any items not listed will be assumed stolen. When a garment is purchased, its tag is removed and discarded.

Dittrich says the company has not yet determined whether or how it will notify shoppers about the presence of RFID technology on the labels. However, he indicates the labels will not leave the store.

Furthermore, Feldman adds, Tomorrow's Mother has not yet selected the make and model of RFID tag it will use in the pilot. He has not released the cost of the system, but says it would be charged as a monthly fee, with no installation cost. "This looks to us like the best solution out there," he states.