

# Wireless World: Real-time Head & Shoulders

**A customer at a retail store picks a bottle of shampoo off the shelf, heads to the cashier, and pays for the product. The radio frequency identification (RFID) tag on the item sends a notice to the store's network -- alerting it that inventory has been reduced. The network automatically communicates with computers at the shipping center of the shampoo maker, which triggers a shipping notice that more shampoo is on the way to replenish the dwindling stocks of Head and Shoulders.**

This vision of the retail store of the future may start to come into existence in the coming year, experts tell United Press International's Wireless World.

"Tests with new RFID tags have been successfully conducted over recent months by companies like Metro Group's Extra Future Store in Rheinberg, Germany, the first project of the Metro Group future store initiative, (which) began in 2004," said Gerald Flournoy, executive vice president, The Millennium Group, an IT company, based in Plantation, Fla.

Working with suppliers, like SAP, Intel, IBM, Microsoft and others, the store is testing RFID in certain areas of the process chain, primarily in warehouse management to enable the inspection of delivered goods, and delivery of goods, said Flournoy. "The tests with Rheinberg have shown that RFID offers retailers and their customers enormous advantages," said Flournoy. "More effective processes and consequently lower costs, which benefit both parties."

The largest retailer in the United States, Wal-Mart, is also expanding its RFID plans. Working with EPC Global Inc., the standards setting group for RFID, Wal-Mart is planning to use RFID to trigger advance shipping notices whenever a vendor ships product out its doors. The project, in the works now, should be operational a year from now -- and the shipping data should arrive in a standard format, in real-time. Essentially, when this is online, Wal-Mart will have the ability to see products as they are on the way to its warehouses. That's quite a feat for a firm that sells more products with tens of millions of different product codes.

This is where the rest of the industry is heading too, experts tell Wireless World.

"Utilization of RFID for the first time along the entire process chain is the most sweeping project thus far," said Flournoy. "With the large-scale introduction of RFID, for the first time, the entire process chain will be addressed. This appears to bode well."

Investment in RFID technology is accelerating. Omron RFID, a unit of the \$5.5 billion global maker of automation products, Stratum Global, is planning to invest \$20 million in its RFID projects. Partnering with workers from its parent company, based in Littleton, Colo., the project is working to create new RFID solutions, creating new, measurable return on investment (ROI) for their own customers.

Meantime, IBM is working on a project, announced about a year ago, for a \$250 million investment, over five years, on sensor and actuator solutions, using RFID as a kind of sensor. A spokesman for IBM told Wireless World that the company has about 1,000 employees dedicated to RFID in some capacity. The company also has three test centers for RFID, in Tokyo, Raleigh, N.C. and LaGaude, France, and is partnering with manufacturers like Philips, and device makers like Intermec, Symbol, SAMSys and a number of independent software vendors.

There are concerns, to be sure, about the effectiveness of RFID technology. Some technology experts say

there are concerns about the RFID protocols, and the lack of specifications, in some instances, stating how the RFID tags will be read.

But RFID is moving forward. Experts at Iowa State University -- who spent last summer studying tracking technology used on meat in Germany and England -- say that the momentum provided by Wal-Mart will ensure that RFID becomes a standard for the rest of the industry, soon. "The fact that a whale like Wal-Mart is forcing RFID at the case and pallet level means that RFID will eventually develop into a standard that can be picked up in the rest of the industry," said Anthony Townsend, an associate professor of management information systems at Iowa State, based in Ames, in an e-mail.

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