

Snack Supplier Adds RFID to Jerky

Jack Link's is deploying an RFID system that not only will let it meet customer mandates but also save on labor, reduce out of stocks and satisfy regulatory requirements.

By Jonathan Collins

Sept. 30, 2004—While Wal-Mart, the U.S. Department of Defense and others have initially targeted their largest suppliers with RFID shipping requirements, those directives have motivated some smaller suppliers to deploy RFID further than just meeting customer mandates but also toward returns on investment from internal savings.

Although privately held international snack manufacturer Jack Link's is far from being one of Wal-Mart's top 100 suppliers, it does supply the retailer with a number of meat-based snack foods, including 16-ounce bags of beef jerky, which are sold exclusively through Wal-Mart. Jack Link's also ships a number of its products to the DOD, and when the company saw the RFID mandates from both, it decided to deploy its own RFID network to meet those requirements early and, most importantly, to drive efficiencies in its operations.

“The mandate on other Wal-Mart suppliers made us realize we had serious work to do on our supply chain. We hadn't looked at it in detail, but we felt that with RFID we had a chance to leapfrog larger competitors,” says Karl Paepke, vice president of operations at Jack Link's, which is based in Minong, Wis.

The company is in the process of implementing RFID in a four-phased project that will enable it to track its operations from delivery of raw materials to product shipment and delivery. The final phase is set for completion by April next year.

So far only the company has completed only the first phase, which enables the company to tag cartons and pallets of the 16-ounce bags of beef jerky it ships to Wal-Mart's distribution center in north Texas. When 90 cartons of the product have been tagged—the number that ships on each pallet—a smart label for the full pallet is also produced and applied. The cartons are then associated with the pallet as the complete pallet is read and prepared for shipping. Jack Link's says it chose to tag shipments of its 16-ounce beef jerky product because it ships in much lower quantities than its other products. The system scans the pallets as they leave through just one of the 40 dock doors at Jack Link's distribution center in Minong, Wis.

According to the company, the system was deployed and operational within three weeks of the equipment arriving at the company's U.S. distribution center—at a total cost of \$48,000. Given that the company has 32 product lines, the additional phases of the RFID deployment are expected to cost significantly more, but the company is convinced that the return is there. “We estimate it will take just a year to get our return on [the \$48,000] investment,” says Paepke.

The company already managed its receiving, manufacturing and distribution processes using Microsoft's Navision 3.7 enterprise resource planning (ERP) system, and Microsoft Business Solutions extended the functionality of that Navision product to control and manage Jack Link's RFID implementation, which includes SAMSys Technologies readers and antennas, a SATO America RFID label printer and RFID EPC

Class 1 UHF smart labels from [Avery Dennison Retail Information Services](#).

Microsoft Business Solutions says it is using deployments like Jack Link's to develop the inclusion of RFID technology in its ERP platforms, so that small and midsize customers can leverage RFID from within their existing application environments.

"RFID in the supply chain is supposed to be ubiquitous and that means extending RFID capabilities to small and medium-sized business," says Alexander Renz, RFID program manager at [Microsoft Business Solutions](#), which is based in Redmond, Wash. The division plans to include RFID technology in upcoming ERP releases, including Axapta 4.0, which is set for release in the first half of next year, and Navision 5.0 and the next major release of Great Plains, both scheduled for release early in 2006.

While the initial phase of Jack Link's RFID deployment focused on achieving mandate compliance, the upcoming phases—which are also being managed by Waupaca, Wis.-based systems integrator [ABC Computers](#)—will focus on delivering internal business benefits. For the second phase, due for completion by the end of the year, the company will attach tags to totes and racks in its closed-loop manufacturing system in order to RFID-enable the recording of ingredients and tracking of finished products—a process required by United States Department of Agriculture guidelines. This will replace an existing manual and paper-based system with an automatic one that uses RFID readers.

The third phase of the project will extend the RFID system to raw-material supplies so that the company can record lot information as part of the receiving and picking processes. It will enable Jack Link's to generate an automatic record of all raw materials going into a specific batch of product.

The company says it expects to see a return on its RFID deployment through labor savings, but the biggest return on investment will come from being able to ensure its products are available and shipped to stores when they are needed. The deployment will also give the company the ability to track every product to a lot number using the database rather than having to sort through the current paper-based system. Though the company has never been faced with a meat recall, it has run mock tests. With RFID, the company believes, the time taken to track a bad lot and recall product could be cut from nearly a day's work to a few minutes.

The fourth and final phase will leverage RFID in the distribution process to automate internal stock transfers from the company's five U.S. manufacturing sites to its central distribution center. By leveraging the increased visibility and inventory accuracy across its supply chain from end to end, Jack Link's expects to shorten cycle times, improve delivery performance and increase inventory turns.

Further out the company says it is also likely to extend RFID deployment to its operations in New Zealand and Brazil.

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