



## Automating data collection

By Susan Maclean, IT Focus  
September 2002 Cover Feature

**RF Pathways wireless WMS helps Northland Fulfillment improve the accuracy, efficiency and timeliness of its service, and delivers subsequent cost reductions to date that lead to an anticipated return on investment within 12 months.**



Northland Fulfillment is a third-party logistics (3PL) firm serving conventional and direct response retailers, shipping merchandise either directly to the consumer's home or to mass merchandisers. In the past 12 months they shipped about 100,000 parcels to direct response consumers in Canada. Knowing where their inventories are and that they can ship product right away is the major benefit of the wireless warehouse management system implemented this spring at the Toronto-based firm. Northland can process orders from a wide variety of mediums: e-commerce, direct response, loyalty and reward programs, catalogue or syndication. But until Automation Associates Inc. installed their RF Pathways warehouse management system, Northland's staff of nine full-time and up to 20 part-time struggled with a manual process.

"Because things were manually received, that receiver might not come up (to the office) for a couple of hours and then (that information) not get keyed for a couple of hours, so something that might have been rushed might not have gone out that day when it really could

have," elaborates Northland president Doug Nicol. "Or, it could have gone in the morning, but it (went) in the afternoon.

"The old process was so labour-intensive in terms of paper that had to go all over the place and the keying was just so difficult, the day we turned (the automated warehouse system) on, we realized half that person's time in savings. Day one. The person who released orders to the floor had better information and could make quicker decisions on what orders to send to the floor in the morning as opposed to waiting for things to come in throughout the day. Between knowing (the inventory) now real-time and saving a half-person's (workload) right off the bat, that was gold for us," he adds.

Now with everything coming in bar coded, picked by bar code and shipped by bar code, Nicol finds the new system has allowed them to put product away properly in the warehouse with like product together. It allows them to use all the bin locations because it prompts the user to put the product into appropriate sized bins to maximize cubic space in the warehouse.

"Receiving and shipping is all real-time now so the guys would get it at the back, they'd scan it and we could ship it immediately - (even) if an order could pop out of the system after it was put away," he says

## **ONE YEAR PROJECTED ROI**

Nicol expects their software will be paid for within 12 months or 18 months at the outside. "It's all the other intangibles that go with it," he adds. "Our customers can call me and say 'have we received the product yet?' and I can go on my computer and say 'yes!' It's intangibles like that. It gives goodwill to your customers - 'hey, these guys know what they're doing! They can tell me that it came in 10 minutes ago by such and such a carrier!'"

There's more. Nicol wants to put the information on Northland's Web site so customers can access the information real-time and let them make their decisions. "It's their information; why should we hide it from them? Instead of our customer phoning and asking me if that product came in, they could go online and see: 'hey, yea, that came in at 10 o'clock this morning.' Or, 'did that order go out the door?' Or, 'what is my inventory position?'"

"That's our next stage," he continues. "We've got a rudimentary piece of software written for it now. We haven't implemented it yet because we haven't found a way to host it yet in our house with firewalls and all that. It's more the security issue as to why we haven't done that." He hopes that second stage will be implemented by Christmas.

The RF Pathways warehouse management system installed by Automation Associates is based on wireless LAN technology and data collection hardware. It is used by manufacturing, distribution and third party logistics companies throughout North America.

Automation Associates is a business partner of Symbol Technologies, Inc., customizing and installing radio frequency (RF) technology and batch technology from vehicle mount terminals down to PDAs. Users collect data and, instead of having to keypunch it in, hot sync it to their computer and manipulate their data however they want.

## **TIMELY, ACCURATE INFORMATION**

"Using bar code scanning is the quickest, most efficient way to get information from the outside world into a computer," say Automation Associates. "Using the RF technology, it is instant; it is also accurate."

"I don't understand companies - especially companies that have a very strong IT - that still aren't into the automatic data collection," he muses. "They will have their Web site looking fantastic but when it comes time to ask them 'how about your inventory? How about your work in process? Is that all bar coded?' They'll answer 'no'. You'll wonder why because there is so much time, duplication of effort, audit trail. Inefficient inventory is very, very expensive to a company."

"I can point you to very large companies who still aren't bar coded and still aren't using wireless technology," he continues. "Some people are even using walkie talkies, saying 'I'm taking this SKU and I'm putting it here.' The thing is, you've involved two people instead of just one, (yet) they claim it is too expensive for them."

He estimates that his company's surge-protected, wood-mounted, NEMA 12-coated access points range from \$1,500 to \$2,500 each, "depending on the amount of work we put into it." Terminals can vary from \$2,700 to \$4,500 for handholds to more than \$10,000 for truck mounted devices. Terminals that can scan a reflective label from over 30 feet are more expensive than one that scans standard range. The cost of the device also depends on the terminal's operating system and

configuration. Plus there's the cost of clients, spare batteries and chargers for the handheld terminals. Still, he claims Northland's expected payback of 12 to 18 months is typical.

## **LINKING WITH ERP**

**Doug Nicol, left, president of Northland Fulfillment, was helped by Automation Associates to implement a wireless warehouse management system to keep inventory levels down and client satisfaction up.**



Doug Nicol, left, president of Northland Fulfillment, was helped by Tom Hazzler with Automation Associates to

Getting timely information accurately into the ERP application is probably the biggest challenge when done manually, Automation Associates stress. The purpose of placing a front end automatic identification and data collection wireless LAN system into a warehouse or production area is to increase the efficiency of information exchange, he explains. "Even if an incorrect product somehow sneaks through the system, there is an audit trail as each step is scanned and therefore the transaction resides somewhere in the system with a time stamp." He reports that his company installs both the RF Pathways WMS, Middleware and direct connects to existing systems (usually on the AS400 or UNIX systems) using telnet clients. In August, it announced its RF Pathways Link 5.0 obtained certified integration to SAP R/3 Ver. 4.0, 4.5 and 4.6. Whether single or multiple production lines or modular manufacturing, manufacturers can use RF technology in the warehouse or in manufacturing to get the data up to the system so it is visible. "This is the whole idea," stress Automation Associates. "As soon as the incident happens, the transaction is visible. If I have finished building a part, I either push a button, scan a bar code or I enter a code that sends that widget on its way to the next destination and I am able to receive the next one

as it comes in. I get a clearer understanding as to my job costing because I have a true indication as to how much time has been spent at that particular station on that particular widget. In the case of a warehouse within a manufacturing facility, inventory visibility for raw material, finished goods and subassembly material is required for the ERP systems to be effective. RF LAN scanning instantly populates the database and moves into the ERP, Automation Associates explain. "I've eliminated the data entry by the data entry clerk. The other thing I've done is I'm getting the information with no time lag and there is no duplication of effort as it enters into the nerve centre of the ERP system."

**For more information, please call 905.565.6560 or [sales@rfpathways.com](mailto:sales@rfpathways.com)**