London Drugs cures its picking ills

This Canadian retailer tossed its paper-based pick systems and turned to voice to help process SKUs of varying shapes and sizes—the result is improved productivity and 99.97 percent order accuracy.

BY **MAIDA NAPOLITANO**, CONTRIBUTING EDITOR

The noisy working environment of London's 500,000-square-foot Distribution Service Centre made noise-canceling headset technology essential.
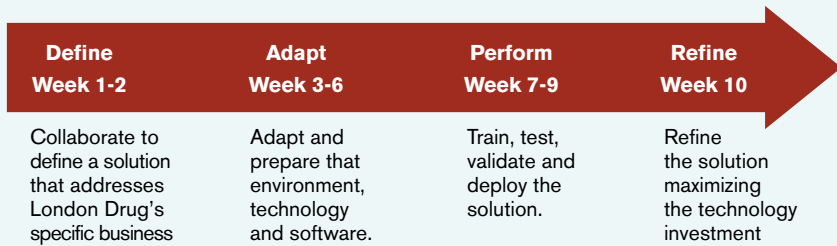
F or every company adding voice to its operation for the first time, Bob Heaney, senior research analyst for research firm Aberdeen Group, reports that there are four to five companies already using voice for picking that are planning to roll it out to new areas such as replenishment and putaway.

For voice providers, there's even better news. David Krebs, senior director specializing in mobile and wireless for VDC Research, sees the voice market

London Drugs implementation timeline

Define Week 1-2	Adapt Week 3-6	Perform Week 7-9	Refine Week 10
Collaborate to define a solution that addresses London Drug's specific business needs.	Adapt and prepare that environment, technology and software.	Train, test, validate and deploy the solution.	Refine the solution maximizing the technology investment

Source: Vitech Business Group

Prior to voice picking, pickers used to have to wait for the Data Centre to print and manually split thousands of labels into the various pick sections then physically deliver the labels to pickers. Now, pickers can immediately start picking.

performing well as we roll into 2011. Though he attributes much of this growth to "pent-up demand among existing users for upgrades and expansions," he sees an increasing share of the market driven by opportunities in emerging and underpenetrated regional and country markets, specifically in Europe and Asia.

This expansion into other workflows and penetration into global markets is further testament of voice technology's positive impact on warehouse operations and overall accuracy improvements. Because of its hands-and-eyes-free operation, Krebs points out that picking productivity with voice typically improves by 20 percent or more. "Order picking accuracy of well-designed and deployed voice solutions typically reaches, if not exceeds, one error per thousand picks (99.9 percent accuracy), says Krebs."

It's this quest for increased order picking accuracy that drove Canadian retailer London Drugs from error-prone picking with paper to near-perfect picking with voice. In the next few pages, we witness this retailer's successful transition into voice not only to pursue the perfect order, but also to realize clear savings by eliminating paper labels while improving picker productivity.

NO ORDINARY PHARMACY

London Drugs started out in 1945 as a 1,000-square foot community drugstore on Main Street in Vancouver. Today, this privately-owned Canadian company operates more than 70 retail stores across Western Canada. And while the pharmacy remains at the heart of its business, its stores offer anything and everything: from high-end audio/visual

products, furniture, cosmetics, to computers and pharmaceuticals.

Though having such an extensive product offering may be a panacea to marketing, processing 30,000 SKUs of varying shapes and sizes could quickly become a logistical nightmare. However, London Drugs has clearly stood up to the challenge.

Order fulfillment happens very quickly. Stores have a cutoff time of 7 p.m. to submit their orders. Eleven hours later, these orders are ready to be shipped from the company's two distribution facilities: a state-of-the-art 500,000 square foot Distribution Service Centre (DSC) located in Richmond, British Columbia, and a satellite bulk storage facility, just twenty minutes away.

Lothar Breuers, the DSC's manager for systems and training, explains how they get things done: "Although the wide range of sizes of products does create some challenges for us, we like to use different technologies to help us overcome these issues." In the

piece-pick area where fifty percent of the DSC's orders are picked, pick-to-light (PTL) technology is used to pick fast-movers, while horizontal carousel systems equipped with light trees and lighted "pick-to" tables are used to pick slower movers. These sophisticated pick-to-light systems allowed the DSC to pick their fastest and slower-moving items quickly and accurately. However, it was the picking of medium movers and over-sized, non-conveyable, pick-to-pallet items that was still a very manual, error-prone, pick-with-paper operation. Management knew changes needed to be made.

STILL PICKING WITH PAPER

In 2005, the retailer decided to focus its efforts on improving the accuracy of its paper-based order picking operations for about 5,000 piece-pick locations. Although picking with paper allowed the company to achieve impressive productivity metrics, management recognized room for improvement on other critical service levels—specifically accuracy.

Their error rate with paper was about one in every 300 picks (a 99.6 percent accuracy rating), but they knew that they could do better. "Pick errors can be costly to correct," explains Breuers, "but more importantly, they can turn into real customer service issues at our retail stores." In addition, the mate-rial costs for peel-and-stick labels had been steadily increasing—exceeding $200,000 CAD annually.

Why not use more pick-to-light? Though accurate, management felt that pick-to-light systems were fixed with relatively high start-up costs. Voice systems, on the other hand, would be less expensive and completely portable. Its hands-free, eyes-free nature allows pickers to handle heavy, oversized cartons with both hands; and, in the end, it was voice that presented London Drugs with a distinct advantage.

PURSUING VOICE

That same year, Breuers and his team brought in a demo system from two different vendors to perform a proof of concept review of the system and to also compare features between two voice providers. Each vendor's system was tested for three weeks, and the team compiled productivity and accuracy statistics and built an ROI case for voice.

From the outset, it was clear that the characteristics of the facility played a role in making the decision. "We have a fairly noisy working environment because we have a lot of conveyors running through our facility. We found Vocollect's noise-canceling technology on its headset was better able to handle our background noise."

The team concluded that Vocollect's VoiceLink also had more functionality when it came to managing users and equipment. "In our operation, visibility is the name of the game," adds the DSC manager. "We can't have pick sections falling behind and holding up a store deliveries." With VoiceLink, Breuers found that supervisors can monitor how work is progressing, moving pickers around to areas that are falling behind to make sure that each section keeps up with shipment schedules.

GETTING A TEAM TOGETHER

With management's approval, London Drugs kicked off its implementation of voice technology in February 2007. The core implementation team consisted of Breuers; Brian Best, London's director of distribution; Dave Clark, a DSC trainer; Mark Murphy, a technical specialist; and Les Fraser, the company's senior applications engineer. This core team also invited a group of pickers to help smooth out the processes.

Vocollect suggested that the team work with one of its value-added resellers, a Washington-based company called Vitech Business Group, who had extensive expertise in warehousing operations. "Vitech really understood our operation and individual workflows and was able to configure the software to match our particular operational needs," recalls Breuers. "One thing I never like is an integrator that wants me to change my operation to fit the way the software works."
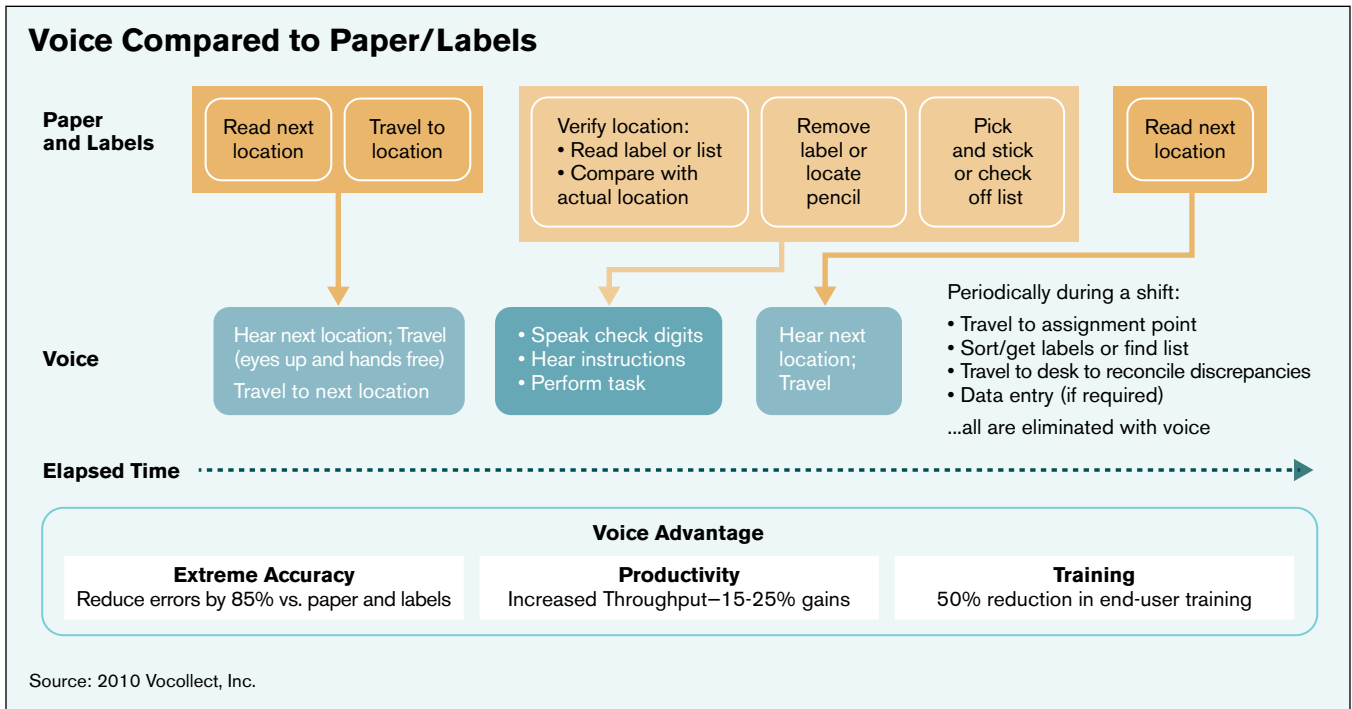
One of Vitech's principals, Richard Stewart, says that the knowledge transfer was the key to the collaboration. "You can gauge the success of a project if, at the end, the customer knows our technology as well as we do—and we know their operation as well as they do."

GEARING UP FOR VOICE

With a team in place, the first step was to ensure that the proper infrastructure was in place to fully support voice technology. RF networks were upgraded and wireless coverage verified in both facilities. Interfaces were developed to connect voice to the company's homegrown AS400-based warehouse management system (WMS). Check digit labels were applied to pick locations, while workflows were reviewed to ensure that the software could be configured to match
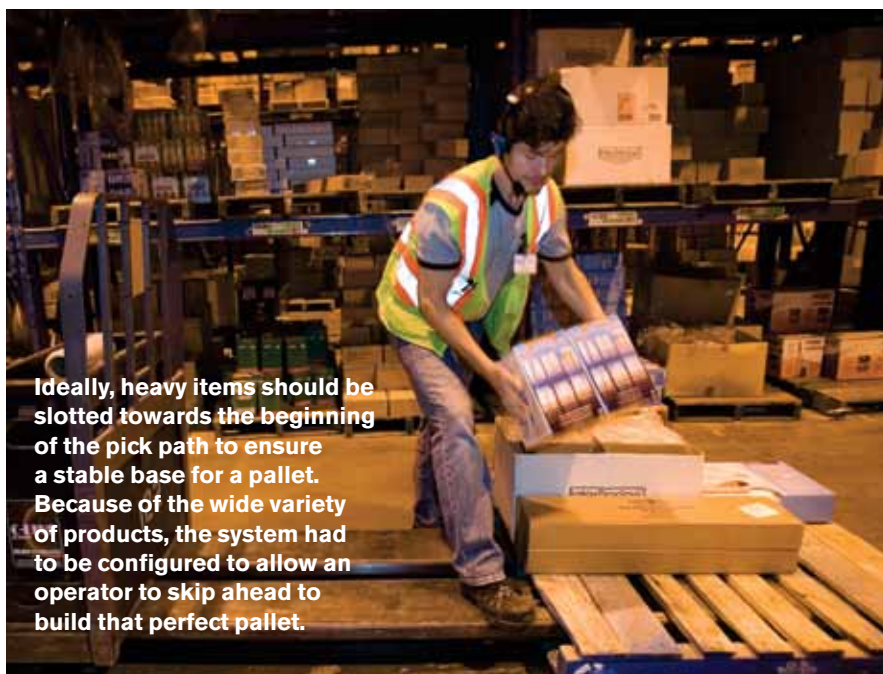
Ideally, heavy items should be slotted towards the beginning of the pick path to ensure a stable base for a pallet. Because of the wide variety of products, the system had to be configured to allow an operator to skip ahead to build that perfect pallet.

Voice Compared to Paper/Labels

Paper and Labels

Read next location	Travel to location

Verify location: • Read label or list • Compare with actual location	Remove label or locate pencil	Pick and stick or check off list

Read next location

Voice

Hear next location; Travel (eyes up and hands free)

Travel to next location

• Speak check digits
• Hear instructions
• Perform task

Hear next location; Travel

Periodically during a shift:
• Travel to assignment point
• Sort/get labels or find list
• Travel to desk to reconcile discrepancies
• Data entry (if required)

...all are eliminated with voice

Elapsed Time

Voice Advantage

Extreme Accuracy Reduce errors by 85% vs. paper and labels	**Productivity** Increased Throughput—15-25% gains	**Training** 50% reduction in end-user training

Source: 2010 Vocollect, Inc.

each specific activity.

The company purchased over 60 Talkman T5 series terminals and enough SRX wireless headsets for 250 pickers over three shifts. Pickers also had the option of a wired headset in case they preferred a lighter weight and fit. In all, the hard cost of the complete system including associated servers and hardware remained in the six-figure range not including internal software development and training costs.

"As with any new technology, there will always be some resistance to change," says Stewart. "Anything that you can do to break down the barriers to that technology is going to make your 'go-live' that much better."

In May 2007, the voice-picking system went live in the DSC's pick-to-pallet section. "We always measure the success of each 'go-live' event by how little help they need from us, their systems integrator," says Stewart. "We had scheduled to be there an entire week, but after the second day, we didn't need to go back."

HOW LONDON'S VOICE WORKS
During each shift, the WMS sends pick data in real time to the voice system. Prior to voice picking, pickers used to have to wait for the Data Centre to print and manually split thousands of

labels into the various pick sections then physically deliver the labels to pickers. Now, pickers can immediately start picking.

A picker verbally requests a store order. The system directs the picker to the first pick location and asks him to provide a two-digit check digit for that location. Once confirmed, the system will then tell the picker the quantity to pick. After picker confirmation, the system directs the picker to the next location until the order is complete.

"There is no need to scan, as the check digit associated with each pick location ensures that the picker is at the correct pick location," says Breuers.

But even the best-laid plans could use some tweaking. Ideally, heavy items should be slotted towards the beginning of the pick path to ensure a stable base for a pallet. Because of the wide variety of products, this was not always possible. In turn, the system had to be configured to allow an operator to skip ahead to build that perfect pallet. Pickers could print a modified pick list, showing good base building items as a visual reference.

REAPING THE BENEFITS
Over the past three years, the team at London Drugs reports that it has been

reaping the benefits of their voice system, paying back the upfront costs within 12 months. Despite the fact that it wasn't the most compelling factor in determining payback, management observed a 5 percent to 10 percent gain in productivity.

"Accuracy was the one area where we have experienced the biggest improvement," reports Breuers. "With voice, pick errors are almost non-existent, and through our auditing programs, we have seen error rates as low as only 1 error in 3,000 picks, or 99.97 percent accurate. Other benefits include increased work flow visibility, reduction of paper material costs, and immediate distribution of work to pickers."

With this success under its belt, the company plans to adapt voice to its full-case conveyable picks as a future development step. For now, the immediate plan is to incorporate voice in replenishment picking and their putaway processes. Further progress won't stop there. "As a company we are continuously looking for opportunities to improve our customer's experience," adds Breuers, "even if these opportunities are far upstream from the actual retail store." □

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