



SUMMARY



Customer

NorthShore Care Supply
Green Oaks, Illinois

Partner

Numina Group



Industry

Direct Fulfillment

Challenge

Scale operations to support larger order volumes, new facilities, and streamlined workflows, while ensuring more accurate order fulfillment and higher customer satisfaction.

Solution

- Real-time Distribution System (RDS) Voice
- Zebra TC52 touch computer
- Zebra WT6000 wearable computer
- Zebra ring scanners
- Zebra headsets

Results

- 4X efficiencies gained by fulfillment employees
- Accelerated training and adoption (minutes/hours vs. days of training)
- Improved customer experience due to faster/more accurate deliveries
- Improved deployment speeds and scalability
- Achieved cost efficiencies from targeted technology deployments and lower FTE headcount

Zebra Solutions Support Move to Automation for Fast-Growing NorthShore Care Supply

Medical Supply Company Leverages Zebra Computing Solutions to Improve Scalability and Customer Satisfaction

When providing specialty medical products direct to customers, there's no room for mistakes. If the wrong product is shipped or if an order misses a carrier shipping window, it can cost customers their comfort and dignity. For [NorthShore Care Supply](#), it's essential to leverage technology solutions to help reduce human errors, ensure fast delivery, and support scalability.

Adam Greenberg, President and Founder at NorthShore Care Supply, founded the company nearly 20 years ago to restore dignity to its customers by providing [adult incontinence supplies](#) online. Based on what he'd seen among his own family members, Greenberg knew customers needed reliable, high-quality products.

NorthShore has always been committed to doing its own fulfillment, even as order volumes continue to grow beyond 1,500 daily. With incontinence products—especially unique items, sizes, and absorbencies customers can't find in retail stores—NorthShore has higher standards for fulfillment, providing tracking numbers immediately, controlling shipping cutoffs, overseeing product packaging, and adding sample and upsell items.

When the company began to outgrow its warehouse and started construction on a larger one, its highly manual, paper-based picking and packing processes were no longer scalable. Products of similar size and weight were too often being mis-picked and getting past the scales. Long-term warehouse staff who were experts on the products were moving up in the company, and newer employees weren't as familiar with the inventory. At the same time, orders were increasing.

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To tackle these challenges, Northshore invested in a high-performance automated pick, pack and ship order fulfillment solution to increase productivity, order accuracy, and throughput. Northshore’s decision to expand and enhance its operations came just in time—COVID-19 hit while its reduced staff was focused on the move to a larger facility, and lockdown triggered a boom in sales that demanded operations be ramped up immediately. The company turned to its long-time partners, Zebra Technologies and Numina Group, to help improve picking productivity, eliminate errors, and scale the new distribution center’s throughput for business success.

Scaling Up While Doubling Down on Automation

To meet the challenges of scaling to its new facility and growing customer base, NorthShore worked with Zebra Solution Partner, Numina Group to deploy its Real-time Distribution Software (RDS) Voice Suite, a pick by voice and warehouse automation software platform. Warehouse staff are directed through Zebra TC52 touch computers, Zebra WT6000 wearable computers, and Zebra ring scanners and headsets. The rugged arm-mounted computers keep operators working hands-free and are designed for enterprise-class durability, which increases uptime and productivity.

“We had to do more with technology to meet the demands of our customers and our own high standards,” says Greenberg. “The Zebra-based solution Numina Group helped us formulate aligned with all of our criteria for expanding, scaling, and modernizing our business.”

In earlier years, NorthShore’s only automation were kiosks on the conveyor and the print-and-apply labeler. At its new distribution center, the company is fully embracing automation. NorthShore implemented a fleet of autonomous mobile robots (AMRs) that transport batch order picking carts and voice-directs the pickers using headsets and scanners to ensure operators spend their time picking instead of pushing heavy carts around the warehouse and wasting time.

Batch order release is also automated. North Shore’s warehouse management system sends the order data to RDS which determines the most efficient group of orders for picking. RDS selects and assigns a group of orders and a robot to a cart, and the robot then picks-up and transports the cart to the first pick zone. Simultaneously RDS directs the picker’s work task using the Zebra wearable computers to synchronize people and robots in the picking process.

Numina Group has continued to optimize NorthShore's RDS application software, by adjusting the algorithms to increase the operation's efficiency. A small change in the batch order release algorithm can make a large difference in driving picking efficiency and AMR utilization. Numina Group's ability to remotely support further system optimization is appreciated by NorthShore.

"Numina Group has a deep understanding of warehouse processes and its software ties together all of our processes throughout the fulfillment operation, as well as our order management ERP software," Greenberg says. "Numina Group has tailored the middleware to our needs, becoming the brains behind the operation and directing everything."

The Search for Solutions

When NorthShore began testing automation, its goals included streamlining operations, implementing paperless processes, and delivering high-quality items quickly and efficiently. The mix of technologies it deployed helped ensure the company achieved its goals.

Kiosks at packing stations were an excellent first step, but the company and its partner saw many more opportunities to enhance processes. Adding Zebra TC8000 touch computers enabled NorthShore to build lists of items electronically that forklift operators can scan and move for inventory, track and replenish.

NorthShore also completed an engineering study with Numina Group to determine the wearable touch computers most suitable for the company's needs. The company required the solution to scale to handle the next five-year growth, supporting double to triple the day one order volume. Additionally, NorthShore wanted flexibility with its voice-direction software to provide pickers with more capabilities to increase efficiencies, improve fulfillment accuracy, and scale.

"We didn't want to settle on the old-style devices that were heavy and had small screens with limited functionality," Greenberg says.

After testing a variety of barcode scanners for comfort and functionality, NorthShore decided the TC52 and Zebra's wireless ring scanner was the best solution for its applications. Greenberg says the pickers like the accuracy of the TC52 because it doesn't accidentally scan barcodes on the cart or bins so the pickers are getting the right scan the first time.



Ready for Future Applications

Rather than having to triple check orders, pickers can now move forward to the next item or order because they quickly hear and see their work task instructions. The new process saves times and reduces errors. Overall, NorthShore has seen up to a 4X boost in efficiency across its fulfillment team as a result.

At the same time, new employees can be trained on the new platform faster, adding to operational scalability. “The Android-based interface and familiar form factor provides new employees lots of confidence,” says Greenberg. “They can get up to speed in minutes or hours instead of days or weeks.”

As NorthShore continues to scale and focus more on its own product line, continuous improvements are planned to create efficiencies and further streamline processes for continued operation success. Zebra solutions will be central to fulfilling orders to NorthShore’s tens of thousands of customers and supporting their applications, especially as the company offers more products across new channels.

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