

Distribution at a Pivot Point: Select the Right Automation for Your Business





Today's businesses are being challenged like never before due to increasing customer expectations amid disruption. Companies now must compete on a cost and service level with market disruptors that have immense capital resources and unprecedented agility. More than ever, the supply chain is a strategic differentiator. How the business views and leverages its network and distribution resources has tremendous impact on outcomes and must be aligned with the strategic goals of the company.

The accelerated shift to eCommerce is re-shaping how companies do business. New health and safety measures are adding to labor costs. Distribution networks with legacy infrastructure are being asked to expand their capabilities and redesign their operations. Supply chain managers who suddenly find themselves sitting at the table with C-suite executives are being asked to find solutions that compete with disruptors like Amazon, eCommerce start-ups, and industry giants jockeying for market share.

As the role of the distribution center shifts in response to the growing demands of eCommerce, automation coupled with intelligent warehouse execution software will be key to scaling operations and driving revenue, especially as the potential for future disruption of labor increases. Even Amazon has recognized the need for higher levels of automation, deploying nearly 200,000 bots to work alongside its more than 600,000-strong workforce. With a comprehensive business case in place, companies can implement automation technologies to reduce their reliance on labor while improving operational reliability, accuracy, and efficiency.

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While specialized tasks will likely remain in the traditional labor sphere for the short-term, in the medium- to long-term, even these will be taken over by bots and emerging technologies combined with traditional automation solutions. For example, in Europe and Asia more investments are focused on lights-out (or fully automated) facilities. In these regions, there is a higher level of confidence in moving forward with solutions that take labor and cost out of the equation. As labor risks and eCommerce volumes grow, it's expected that lights-out solutions will gain further traction.

In fact, 61% of decision-makers plan to enable partial automation or labor augmentation with technology in the warehouse according to Zebra Technologies Corporation's 2024 Warehousing Vision Study¹.

Automation is not new, but there are several new and emerging technologies which make the business case more attractive. Solutions that promise to hit a certain machine rate or drive a certain piece of volume through the facility are worth considering; however, while those KPIs are good for evaluating technologies, they do not necessarily roll up to overall improved facility performance. It's important to evaluate emerging technologies through the lens of the business case, the potential impact on the overall operation, and the business itself.

PILOT APPLICATIONS FOR SUCCESS

Pilot programs are a good way to make sure your investment will meet your specific business goals. Today, we're seeing automation work well in several applications:

- **Transportation bots:** Transportation bots within existing facilities allow organizations to move objects from point A to B in the distribution center, reducing wasted travel and potential congestion of human workers without disrupting the existing infrastructure at the DCs. Transportation bots can follow self-guided systems to move around existing infrastructure or potential blockages and eliminate the need to invest in new conveyor lines and other infrastructure changes.
- **Replenishment bots:** Today, we're seeing replenishment bots work together with people to reduce the large travel time component for replenishment activities. These bots wait at a pick location for a human picker to intersect with it in the course of a pick path and execute the replenishment task before moving on with picking activity. Combining replenishment with picking activities improves the blended productivity of both processes, which reduces operational expenses.
- **Goods-to-Person (GTP) Systems:** GTP solutions typically require less floor space, and their compact design



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¹ <https://investors.zebra.com/news-and-events/news/news-details/2019/Zebra-Study-Six-in-10-Plan-Warehouse-Automation-to-Augment-Labor-by-2024/default.aspx>

“Warehouse execution software (WES) can prioritize orders in real time, enable smart processing of orders for reduced travel and increased productivity and routing of workers to reduce congestion.”

can help reduce the amount of labor required. The reduction in travel, ergonomics and ease of use often improves productivity and accuracy while enabling DC managers to tap into non-traditional labor pools with limited training.

- Voice and Light Picking: Voice and light picking solutions increase pick productivity, improve accuracy, and optimize batch and cluster picking for reduced order cycle times.

The business case is stronger than ever for technology solutions that enable increased throughput, capacity, accuracy, and productivity, as well as safer environments for workers. However, intelligent software is what unlocks the real value of automation. Sophisticated algorithms found in warehouse execution software (WES) can prioritize orders in real time, enable smart processing of orders for reduced travel and increased productivity and routing of workers to reduce congestion.



VETTING TECHNOLOGY SUPPLIERS

Your technology supplier is almost as important as the technology itself. Companies that deliver an end-to-end solution, rather than a single piece of technology, can offer solutions that withstand today's fast pace of innovation. When considering companies to assist with your automation solutions, look for someone that:

- Emphasizes upfront engagement around the design process. When implementing automation, you're not designing a material handling solution, but a DC or supply chain capability. Look for a company that looks beyond machines rates and aligns with you on business goals and results.

- Takes a partnership approach. You can rely on a technology supplier that takes accountability for your results to craft a successful strategy for your specific business needs
- Is not limited by one manufacturer or technology. Companies that can work with a range of applications and manufacturers have the freedom to offer you best of breed solutions.

THE FORTNA SOLUTION

Fortna is a partner invested in your business' success. We will work with you to assess operations, design, test and implement a solution. We research, evaluate and pilot emerging technologies to ensure they will serve our customers today and in the years to come. At Fortna, we provide end-to-end solutions, including design and implementation of the processes, systems and equipment required to support the overall solution.

For more information, contact The Distribution Experts at info@fortna.com.

THE DISTRIBUTION EXPERTS™

Fortna partners with the world's leading brands to transform their distribution operations to keep pace with digital disruption and growth objectives. Known world-wide as the Distribution Experts, we design and deliver intelligent solutions, powered by FortnaWEST™ software, to optimize fast, accurate and cost-effective order fulfillment. Our people, innovative approach and proprietary algorithms and tools, ensure optimal operations design and material and information flow. We deliver exceptional value every day to our clients with comprehensive services including network strategy, distribution center operations, material handling automation, supply chain systems and warehouse software design and implementation.

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