

New lab to foster supply chain innovation

Softeon, a top global provider of Warehouse Management Systems (WMS), Distributed Order Management (DOM) and other supply chain software solutions, recently announced the creation of its Warehouse of the Future Lab, which not only supports Softeon own engineers in their research and development efforts, but also invites customers and third parties to experiment and see with their own eyes what new generation technologies such as robotics, when efficiently integrated in the warehouse, can do. “The Softeon Warehouse of the Future Lab is demonstrating the many ways WMS can continue to be enhanced and deliver new levels of productivity and value to shippers,” says Dan Gilmore, CMO at Softeon. “The Lab has already led to breakthrough capabilities in use today at our customers’ facilities, with an exciting pipeline of other innovations on the way.”

Evolving customer behaviour and the fast pace of growth in the e-commerce sector is causing many changes in the supply chain industry; the pace of change is happening so fast that it’s dislocating many established companies and portions of the economy. These changes are impacting workplaces around the world, and distribution centers (DCs) aren’t exempt. Supply chain managers are under pressure to focus on increasing efficiencies out of their distribution networks and make the simple become an intelligent, strategic portion of the supply chain. There’s also a need for supply chain managers to focus on revenue growth

and margin improvement, leading to the need for developing improved logistics solutions. In order to achieve these objectives, innovation is going to be key.

Warehouse Management Systems (WMS) have not seen as much innovation as other areas of supply chain management as many consider it to be a mature technology, with little room for further improvement. Softeon is of a different opinion, and has continued to invest in advancing the technology since its inception nearly two decades ago. “By embracing new technology such as mobile robots and voice controls, and by integrating these new technologies

through a holistic approach, we believe we have considerable value to add to WMS,” Mr. Gilmore states.

Softeon also is a leader in Distributed Order Management (DOM). With its Distribution Center of the Future, the company aims to continue to foster innovation in this space, too. The lab has already led to the release of the new Order Fulfillment System (OFS), a unique and powerful solution that directly manages a variety of picking subsystems (smart carts, Voice, pick-to-light, put walls, mobile robots and more) without the need for any third-party control systems. This system significantly reduces hardware costs for Softeon customers and eliminates the need for interfaces from the WMS to these proprietary control systems. More importantly, it allows Softeon to apply advanced order planning logic in combination with sophisticated slotting and replenishment planning and execution to drive double-digit gains in picking efficiency – critical to keeping e-fulfilment costs under control.

Softeon’s had also added to its OFS solution – available as part of the WMS or as a standalone solution – a similar direct integration with and optimisation of the increasingly popular mobile robots being used in distribution. “What we’re seeing at our customers is that they use various different new generation systems and technologies, sometimes even in the same facility,” Mr. Gilmore points out. “These systems can’t work in isolation; they need to be integrated and controlled under one system.”

This is one of the main tasks for Softeon’s Warehouse of the Future Lab,



Image of Softeon Warehouse of the Future Innovation Lab showing pick-to-light technology and mobile robot from Fetch Robotics



he adds; to see what value their platform technology can add to the integration of these new technologies in the warehouse. The Lab is a physical center, with significant dedicated space at Softeon's Reston, VA headquarters. That space is necessary to develop advanced integrations with all types of DC automation, including the rapidly evolving landscape of distribution robotics. But as important as the research and development on the WMS integration and optimization with a wide variety of equipment and robotic systems are, the Lab is also the center for Softeon software engineers to continue to push the envelope in terms of general WMS enhancements. Current research includes areas such

as capturing and utilizing demand signals from IOT devices, use of next-generation real-time location systems in the DC, leveraging machine learning techniques in the WMS and much more.

"It's a real innovation lab," Mr. Gilmore emphasises. "We've wanted to create a great environment for our engineers to develop new ideas. Our hope is that the Lab allows us to quickly embrace the changes in this fast moving market. At the same time, we are using the Lab to show our customers what we can do. It's fascinating for people to see with their own eyes what it is like to interact with robots, for example." He emphasises that they do not want to

force robotics on their customers, however. "The beauty of our platform is that it analyses the workflow in the warehouse. The findings can be used to determine when would be the right time for our customers to invest in robotics or other new generation technology. For some, robotics would be feasible in peak season only, for example. For such customers it's good to know that robots are available for lease."



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