



THE INTERNET OF THINGS IS QUICKLY TAKING SHAPE, FOREVER CHANGING THE WORLD OF SELLING AND BUYING MERCHANDISE.

ON DEMAND, ON TIME, AND ON THE MONEY

We recently featured supply-chain expert Dematic, and explained how the company enables retailers, grocers, and general merchandisers to meet the modern consumer's desire for on-demand access to products. Now, Dematic's leadership reveals the seismic shifts that will radically change how people and products come together.

FOR THOSE IN RETAIL-ORIENTED businesses, the futuristic vision that Ulf Henriksson, CEO of supply-chain optimizer Dematic, so casually describes is both enticing and terrifying. Imagine this: Your customer wants her new fitness watch to be delivered at precisely 6:45 that evening—to the parking lot at the beach. No problem, says Henriksson. She also wants three pairs of running shoes, two of which will come back after she tries them on and chooses one. Done. It gets more challenging: Another customer wants his laundry detergent, favorite wine, and supply of organic avocados to be refreshed automatically as they run out. He also wants his infant son's diapers coming as needed, periodically adjusted for size to

reflect his growth. "We call this the 'tyranny of now,'" says Henriksson. "You and I—and especially our kids—want things now. But not only does delivery have to be fast, it also must be predictable when we want it at a specific time. These days, time is everyone's greatest asset, and nobody wants to spend time conforming our lives to shopping anymore. We want shopping to conform to us." Henriksson says all this without a hint of uncertainty, because this is Dematic's forte. The company designs and implements solutions for companies to prepare and optimize their distribution channels. It uses innovative software and robotics to bring warehouses and delivery systems into the 21st century, and advanced, big-picture planning to help the industry steer itself toward the next 100 years. Largely as a result of Dematic's vision—fueled by hyper-efficient consumers demanding these new instant-access retail options—we enjoy the "infinite shelf" of the Internet, with the physical products we need in close proximity to us. Think of it as an instantly accessible global vending machine with everything inside of it. Getting there, however, will require a willingness to dramatically rethink how things are done—but Henriksson says his clients are more than eager to do so. "Today, companies are striving to offer an "infinite shelf" of products to position themselves as the go-to resource for consumers," Henriksson notes. "These organizations are driving hard to develop improved, more responsive supply chains."

CONTENT FROM DEMATIC

The retail landscape will continue to evolve at a rapid pace. To be competitive, improvement begins with re-conceptualizing the flow of products in the manufacturing and distribution chain, says Miguel Pinilla, vice president of global logistics solutions at Dematic. "Think of the traditional supply chain and the cost per shipment," he says. "That balance is shifting very quickly toward maintaining the customer's satisfaction—so not only must the orders be processed faster, but the actual delivery has to be on time, as well. It's a more reactive system in which order processing can no longer take hours or days; the product must be on its ways within minutes of the order being placed." But to ensure that products can actually be delivered as fast as possible, retailers will have to create new inventory locations close to consumers. Henriksson notes that a proliferation of stadium-sized warehouses in urban areas won't work for obvious reasons, so warehouses must become more automated and compact. If the distribution centers are robotic, he notes, they can take up smaller footprints and won't require employee parking; and automated handlers will be better suited to handling returned merchandise. (The trend toward ordering multiple sizes of the same product, for instance, and then returning the sizes that don't fit is here to stay—though it poses numerous

challenges for retailers.) Having products closer to the consumer, of course, can shave days off delivery times.

As Dematic leads the industry toward solutions that meet these ever-changing demands, it's keeping in mind the fact that consumer demands are ever-changing. Just as the computer industry changed the way the Internet has been built and functions, the Internet of Things will similarly change its shape and function. In order to stay ahead of those shifting sands, Dematic is building in processes that ensure adaptability, from data analytics to physical systems, and distribution locations that can accommodate multiple types of products and clients over time. Dematic's systems will even encourage collaboration between companies who utilize them. The result will be an industry-wide platform that will ensure that the Internet of Things benefits the greatest variety of consumers.

If we call that e-commerce 3.0, 4.0 will follow in short order. In that universe, Henriksson sees even product design and packaging evolving to facilitate immediate retrieval and delivery. "Goods will be broken down into smaller units, and future automation will

allow robots to pick products—pens, say—and package them in any quantity you want," he says. "Today, warehouse personnel can pick at a range of 150 to 600 items per hour, but we're introducing robotic solutions that can pick up to 1,200 items per hour." Henriksson added, "Even product shapes and delivery mechanisms will shift, as companies work to eliminate extra packaging and evaluate delivery containers, moving away from the ubiquitous cardboard boxes that we receive today to simpler, cheaper, and more compact options. Creating this new ecosystem will take work and investment, and it will have a big impact on the retail landscape. We'll preview that vision—how future retail built around a dynamic real-time platform will truly look—in the next article. ●

