



The Direction Warehouse Technology is Heading

We're all familiar with the growing list of challenges that warehouse operators face and the fact that they are under pressure to adapt to continual change—more e-commerce, more orders, more SKUs and shorter delivery times. We also know that there is a gap between how many warehouses operate today and how they could be operating—with greater speed and accuracy, better communication and improved productivity.

The question is: how do we bridge that gap? Which technology solutions will get us to where we want to be today, and help us continue to where we want to be well into the future? Well, that's what we're going to discuss in this blog post. But, before we do, it's important for you to open your mind to new ways to process information and workflow. We're not just looking to replace equipment, we're looking to connect and track and learn and to take advantage of 100% of the benefits that new and future technology solutions offer.

IT'S TIME TO THINK DIGITALLY

Connection. Data. Speed. Accuracy. These are the four great pillars of warehouse modernization. But in order to take full advantage of them, you've got to envision how they work, so you can get off of an analog playing field and on to a digital one. When you connect all your devices to your server or cloud, you eliminate guesswork. All the information is there, you just have to tap into it. At any given moment you can know where everything is, how much of it you have, what needs replacing (both inventory and technology), and you can forecast future trends. By thinking digitally, you'll enjoy such key benefits as:

- Faster, error-free inbound operations. Reduce handling time while increasing throughput and accuracy.
- Shipping correct and complete orders every time. Satisfy and safeguard your business with equipment that helps your workers pack and stage with exactness.
- Making inventory visible. Reduce margin of error with more precise cycle counts and accurate inventory visibility.
- Empowering warehouse workers to continuously drive performance with intelligent solutions. Keep everything and everyone connected in real time.
- Protecting workers and operational compliance as needs evolve. Keep workers safe, prevent shutdowns and support compliance with software and solutions.

THE TECHNOLOGY TRENDS WE PROMISED

OK. Now that you're in the right headspace, let's talk tech. So many of the current and future warehouse solutions are centered on the idea that warehouse workers are limited by the fact that they only have two hands. If they have to hold a barcode scanner or paper worksheets in one hand, their efficiency and even safety are greatly limited. It is time-consuming to set a scanner or paper aside to handle goods, then have to pick up the scanner or paper to record the activity. Zebra Technologies has long since been on the forefront of innovation in this area. Let's take a look at a few of their solutions.

Radio Frequency Identification (RFID)

RFID facilitates the wireless discovery and tracking of any object using high-frequency radio waves. You can walk into a room and scan hundreds of tags simultaneously. It allows you to complete tasks with more accuracy and collect data for increased efficiencies. Over the last few years, RFID has become easier to design, integrate, and deploy in nearly every industry, including professional football. Zebra is now in its eighth year as the Official On-Field Player-Tracking Provider for the NFL. To enable the data collection, Zebra attaches RFID tags to player equipment and footballs, transmitting real-time location data to receivers positioned around the stadium that gather metrics such as player speed, distance traveled, orientation and acceleration.

Wearable Tech



Wearable tech has been a welcomed and natural evolution for warehouse solutions. A head-mounted display can eliminate paper by unobtrusively presenting work instructions right within the workers field of vision. That combined with a finger mounted “ring scanner” like the

Zebra RS5100, and the worker can quickly scan barcodes and interact with mobile devices without having to holster a barcode reader or handle pieces of paper.

Future Possibilities

The direction we see warehouse technology headed is to continually refine simplified and personalized solutions. Devices are using more and more cloud-based apps, so workers can take to them immediately and intuitively. Developers are employing gamification techniques in order to personalize each worker’s experience. And the data generated is helping each warehouse refine and evolve their processes in an effort to approach utter perfection.

NO ONE EXPECTS YOU TO GO IT ALONE

New technology. New thinking. New opportunities. It’s a lot to take in and even more to implement. The good news is: you’ve got DCT Solutions Group on your side. We can help you understand and embrace digital solutions. We can identify opportunities for tech-driven improvements, tailor them for your specific needs, and get them implemented for your business. Most importantly, our intuitive digital solutions provide data driven, on-demand remote visibility of your operations using mobile computing and IOT to collect data, cloud computing to secure and store, open API technology to integrate and advanced analytics and operational insights to evaluate. DCT can help your business gather, sort and present information from different systems in a simple, understandable and actionable format.