MAKING THE CASE FOR DC WORKFLOW AUTOMATION TO DRIVE PROCESS OPTIMIZATION

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To say that technology has infiltrated distribution centers (DCs) around the world over the last few years would be a major understatement.

Workflow automation takes center stage in the DC as the demands of omni-channel distribution and e-commerce push companies to streamline their end-to-end fulfillment processes and eliminate costly unproductive time.

According to the recent *Honeywell Distribution Center Study*, nearly all DCs now use some type of technology solution, with 95% using mobile computers (versus 74% in 2012); 83% relying on scanners (up from 53%); 75% employing mobile printers (versus 58%); and 61% using voice (compared to 24% four years ago).

DISTRIBUTON CENTERS NOW USE SOME TYPE OF TECHNOLOGY SOLUTION

95% MOBILE COMPUTERS

83% SCANNERS

75% MOBILE PRINTERS

61% VOICE

Unfortunately, most companies have experienced a higher rate of unproductive time due to a lack of visibility and poor monitoring of excess break time. In fact, the average amount of unproductive time per 8-hour work shift has actually increased by 7 minutes since 2012, rising from 15 minutes to 22 minutes. And, with approximately 134 mispicks happening every week, the average company is losing $7,907 per DC – or $201,000 per year – in annual costs associated with those mistakes.

When it comes to quantifying the value that gaining back mere seconds on unproductive

workflows presents to overall efficiency, a DC with a minimum of 50 workers is losing close to 3,000 hours a year in productivity. And despite the majority of managers tasked with finding cost savings, nearly one in three (30%) have not conducted a review of workflow process in their DCs within the past year.
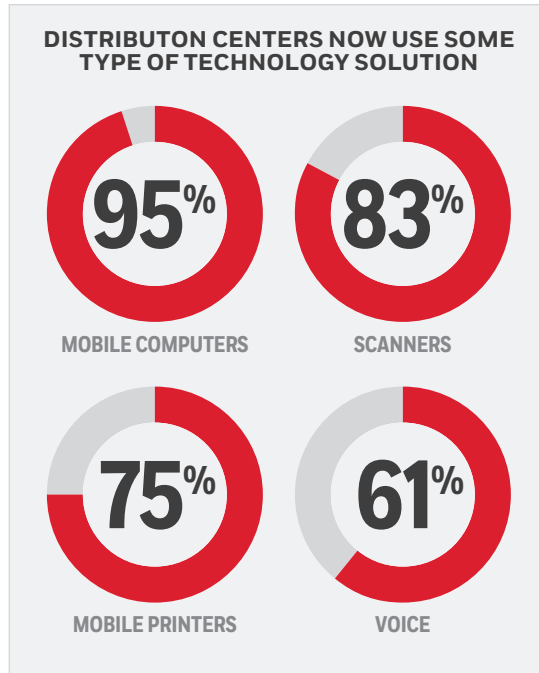
Honeywell's research also reveals that in the companies that have yet to take action to improve workflow productivity, there's a degree of resistance to the idea of carrying out a full review. This reluctance can create a vicious cycle in the DC, where the introduction of new technologies without process improvements only serves to exacerbate current inefficiencies rather than solving key business problems.

These sobering statistics paint a clear picture of a modern-day DC, where high productivity and lower errors cannot be achieved by simply layering new software and hardware on top of inefficient processes. For a DC to truly operate in an optimized, efficient and productive manner, it requires a fully automated workflow that ensures accurate, on-time order fulfillment.

The average amount of **unproductive time** per 8-hour work shift *has increased*

134 MISPICKS PER WEEK =

New Demands, New Solutions

Omni-channel distribution, e-commerce, same-day delivery and today's increasingly demanding customers are pushing companies to find ways to work better, smarter and faster. Like it or not, we live in a society where people want and expect goods and services instantly, and supply chains must be agile and flexible enough to keep pace.

Rewind just 15 years and the typical warehousing scenario was very different than it is today. Less global in nature, companies sourced most products domestically, stored them in their DCs and held onto these items for a month or two at a time depending on demand. When customers placed an order, the items were moved out to a retail store for purchase and consumption by end users.

Every now and then a direct-to-consumer sale would take place, with the individual product or products delivered to that end user directly. And while D2C has been around for a long time, most of this activity was handled through mail order firms like L.L. Bean.

"That's all changed," says Bruce Stubbs, director of supply chain marketing at Honeywell Safety and Productivity Solutions. "Today, companies are sourcing goods from all parts of the globe and the shipments are being delivered around the world."

At the same time, delivery windows have crunched to the point where customers have come to expect next-day and even same-day delivery. To meet these demands, many firms apply technology to a specific pain point and hope that it solves the problem and keeps their operations running smoothly.

This doesn't work, and has actually extended the amount of time it takes to solve problems and address issues in the DC, as evidenced by Honeywell's recent survey. "When you apply new technologies to bad processes, all you really do is make an 'expensive' old process," explains Stubbs.

To avoid this trap, companies need to understand that while new technology options do make sense, everything from product handling methodologies to DC layout to the steps it takes to fulfill an order must also be factored into the equation. If, for example, a DC is already over-handling products as part of its day-to-day processes, then adding scanning to the mix won't necessarily make that operation more productive.

"A lot of companies overlook the processes behind the technology and wind up investing in equipment or just copying their competitors in an attempt to improve accuracy and speed," says Stubbs. "In the end, they wind up restricting their gains and settling for 10% to 15% improvements when they could be enjoying 25% to 30% gains in efficiency and accuracy."

In this report, we'll explore the key warehousing- and DC-related challenges that today's operations are facing, show why investments in technology don't always solve these problems and hear from a company that's already seeing significant return on investment (ROI) and process improvements by automating the workflows in its DCs.

Meeting the Challenge Head-On

"Getting the end-to-end process to work as planned requires a collaborative effort across the entire supply network."

— Bruce Stubbs

What do DC managers need to do to spark improvement?

In today's global omni-channel, e-commerce distribution environment, the DC has become a critical conduit for organizations across many different industries. No longer just a big empty space within four walls and run with manual systems, this link in the supply chain plays a crucial role in getting goods out to customers in a timely, efficient, effective manner. In the DC, managers need to be able to:

Improve operational efficiency, even if it means gaining back mere seconds from each workflow in order to improve overall time and cost savings.

Manage returned goods within the supply chain as quickly as possible in order to reduce the impact on the bottom line.

Improve picking accuracy and cut down on the number of mispicks.

Ease the burden of peak periods without significant capital expenditure (via RFID and voice, for example).

Have workers take fewer steps over the course of a day (thus eliminating battery changes mid-shift) or using one device for multiple purposes.

Companies also want to be able to run fulfillment centers that work in tandem with transportation/logistics processes. For if one side fails – either warehousing or transportation – then the product will not be delivered within the specified time frame.

"Organizations can't afford to operate their DCs in silos anymore," says Stubbs. "Getting the end-to-end process to work as planned requires a collaborative effort across the entire supply network."

To help companies achieve this goal, Honeywell offers a solution suite that addresses all aspects of the fulfillment process – from manufacturing to the creation of the finished goods to fulfillment to delivery – and all of the steps in between. "It's a very succinct, neat package that we provide to companies," says Stubbs, "that want to gain visibility and control over their entire supply networks."

7 Reasons to Automate DC Workflows

According to *Honeywell's Distribution Center Study:*

79% of **DC managers** have been tasked with finding areas where **time and cost savings** could be made.

89% of managers believe that **investing in new technology** would enable them to achieve **time savings** and **improve worker productivity**.
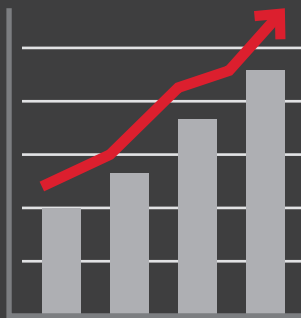
Nearly 85% of the managers tasked with finding cost savings **have been asked to find between 10% and 30%**.

20.6 MINUTES   **23.6** MINUTES

The **DCs that use voice** today **report** an average **fewer unproductive minutes** (20.6) than those not using voice solutions (23.6).

23%   **27**%
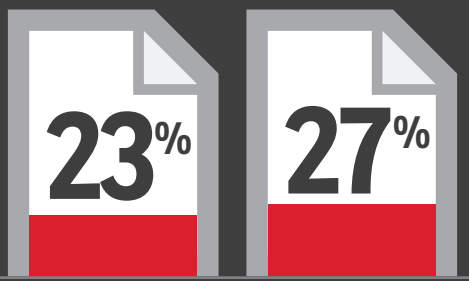
Surprisingly, **nearly a quarter** (23%) of DCs **still use paper**, with the **U.S. being the highest** at 27%.

Those **companies that are using voice** experience **overall productivity improvements**, particularly in accuracy of picks, enhanced safety and improved morale and focus among workers.

Nearly two-thirds **(60%)** of organizations agree that "Large **time and cost-savings** opportunities **can be found in gaining back mere seconds** in operations workflows."

Driving Process Automation with Streamlined, Integrated Workflows

An end-to-end, automated workflow solution improves the picking process for companies that need to be able to turn inventory quickly and accurately.

For the 2015 holiday season, several billion packages made their way across global supply chains and to their respective recipients.

The U.S. Postal Service alone delivered 600 million packages between Thanksgiving and New Year's Eve, representing an increase of 10.5% over 2014's volume. FedEx shipped a record 317 million packages at the height of the holiday shopping season, while UPS delivered more than 630 million during the same period.
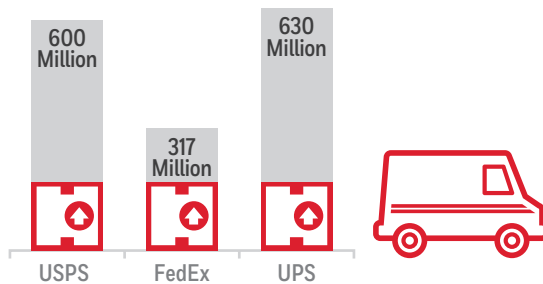
NUMBER OF PACKAGES DELIVERED FOR 2015 HOLIDAYS

In total, roughly 20% more packages were shipped last holiday season versus 2014, and there's no end in sight to this year-over-year growth. Factor in the reality that countries in Latin American and Asia-Pacific don't even have full-blown access to the Internet yet and the prospects for e-commerce and omni-channel distribution trends grow exponentially.

According to Honeywell, nearly two-thirds of companies currently provide omni-channel distribution options, and e-commerce is driving nearly half of those sales. To keep up with the velocity – and the fact that e-commerce orders come in 24/7/365 – companies are turning to data capture technology (i.e., mobile computers, scanners, printers and voice at the point of

order processing) and related tools to support and enhance their omni-channel strategies.

These technology investments help speed up "dock-to-stock" cycle times, receiving times, pick times and the overall fulfillment process within the DC.

"In the past, a worker had to handle the receiving, print all of the labels, retrieve those labels from a printer and then go back and label the pallets," says Stubbs. "In a DC that's equipped with mobile computers and printers, the same worker can handle the pallet, label it and then move along to the next pallet without having to leave his or her workspace."

From there, the forklift drivers charged with clearing the dock can do a verification scan of the label and quickly determine the assigned location within the DC. At that scan point, the product on the pallet becomes available for customer orders.

In the meantime, DC staff has moved along to their next task in a very seamless fashion. Stubbs says that Honeywell's solution covers all of these processes and more for the fulfillment center and across the transportation chain – and in a way that allows each component to "talk" to one another to complete the full transaction in a timely, accurate manner.

For example, a company that was receiving 20 trucks a day using more traditional methods can efficiently manage 30 to 35 vehicles daily without the need for more manpower.

"There are vendors that can provide printers and others that provide mobile computers, but our contained, all-encompassing solution

takes all of those pieces and parts and pulls them together on a single platform," Stubbs explains. "By leveraging mobility, companies not only receive goods and get them put away faster, but they're also able to clear their docks, receive more loads and meet inventory velocity demands very efficiently."

Having an end-to-end, automated workflow solution in the DC also vastly improves the picking process for companies that need to be able to turn inventory quickly and accurately for their demanding customers. This capability is particularly vital in a business environment where companies struggle to meet the multifaceted demands of single e-commerce orders, case-based store fulfillment and pallet-based consumer packaged goods.

Picking cases, for example, is more time-consuming than picking entire pallets. For the former, significant efficiencies can be gained by using Honeywell's technology instead of labels, paper and spreadsheets. The company's voice options, for example, allow workers to operate in a hands-free environment, travel less distance around the DC to get tasks completed and use batch-picking to save time.

"When someone can walk through an area once and pick multiple customers' orders – then have them sorted and split down at the sorting/packing area – it's much more efficient than just picking 'eaches,'" says Stubbs. "It also enhances accuracy and proficiency from a productivity standpoint, both of which help introduce high levels of efficiency in the DC."

LoBue Citrus Leverages End-to-End DC Automation

Grower and distributor improved its inventory accuracy to between 98% and 99%.

As a family-run grower and distributor of oranges accounting for approximately 4% to 5% of the California citrus industry, LoBue Citrus ships anywhere from four to five million boxes annually – 40% of which are exported to Asia.

Headquartered in Lindsay, California, the company recognized the need to automate its produce traceability program in October 2010. Previously, the company was using manual tracing processes – an effort that tied up critical resources and increased the likelihood of error. FoodLogiQ, which provides software and solutions that meet the needs of the Produce Traceability Initiative (PTI), engaged LoBue Citrus with an automated system using Honeywell Smart Printing solutions.

"Our key goal was to have a real-time, automated inventory control system, versus the manual system we've had in place, and to be able to make decisions both in sales and production on what we have available to us in real time," says Tom Clark, LoBue's operations manager.

Most intriguing to Clark's team was the standalone nature of the industrial smart printer, which didn't require an additional computer to print labels (thus minimizing the cost of the solution). The system was also easy to use, which simplified and sped up worker adoption.

"We always look at simple as being the best solution," says Clark. "With the Honeywell Smart Printers, all you need is a small area on a desk or a rolling cart to make this system functional. It seems to be a very cost-effective, simple solution to satisfying the requirements that are being requested of us today."

Today, workers are able to scan a barcode using handheld scanners, which, in turn, tell the industrial printers exactly what to print. Workers then use the printer's keypad to select a quantity on the display. Because the

printer isn't tethered to a computer, workers can move the cart on which it's stationed directly to the boxes that require the tags.

Once the boxes are wrapped, the workers use a mobile printer to generate a pallet tag. The box labels from the printer and pallet labels include a barcode that identifies the kind of orange, ship date, destination, farm source and even the farm lot. This is a powerful tool should the company need to trace a shipment back to its origin.

"At any given moment, if we were to have a trace-back for some reason, it's simply a matter of getting notification from the consumer or buyer," says Clark, "and instantaneously, we can pull up all information associated to a certain lot." The new system has made it possible for these trace-backs to occur within a matter of minutes – whereas before the implementation it took roughly two hours.
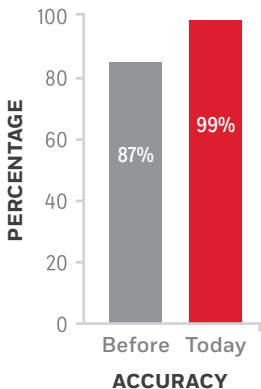
Using end-to-end DC workflow technology has also helped LoBue Citrus improve its inventory accuracy in an industry where every additional percentage point in accuracy helps the produce distributor stay competitive. Before the implementation, accuracy ranged from the high-80% to low-90%. Today, accuracy is between 98% and 99%.

And because the system is automated, physical inventories have become a thing of the past, saving eight to 16 labor hours each day, which equates to approximately $96 to $240 saved in labor costs per day. Given the early improvements, Clark believes the system will pay for itself within two years, and all subsequent gains beyond that will further help the business.

Because FoodLogiQ presented an entire solution – incorporating their PTI solution with a full line-up of industrial smart printers, mobile printers and mobile computers – LoBue Citrus was able to focus on its core business. Clark said he was happy with the combined solution that can either be used as a standalone system or integrated into an existing system.

"What they've done is develop a system that is not commodity-specific," Clark says. "And in that, they've incorporated all the aspects of traceability, food safety, sustainability, pesticide application documentation and record keeping. I've been involved in the production management of produce for 25 years, and this so far has been the easiest one I've been involved with."

ACCURACY

Before: 87%
Today: 99%

Making the Case for DC Workflow Automation

When companies implement workflow automation in their DCs, all stakeholders benefit.

Benefits for operations, IT and buyers all lead to an effective ROI.

Benefits for operations professionals:

DC managers, VPs of distribution and logistics professionals all want to be able to improve operational efficiency, even if that means gaining back just a few seconds from each workflow in order to enhance overall time and cost savings. They're also focused on improving accuracy and ensuring employees' well-being as they move about the DC floor.

Using an automated workflow supported by mobile technology, operations professionals can effectively increase productivity and accuracy while scaling up to handle extra work volume – all without increasing their facilities' footprints or having to add additional workers.

That means that a DC that was moving 100 units with 10 people can double that volume without having to hire 10 additional workers. All of this can be achieved in a safe, ergonomic work environment made possible by hands-free technology that empowers employees and boosts morale.

Benefits for IT professionals:

Charged with keeping a company's information technology up and running, today's technology buyers want solutions that are easy to implement and maintain. Honeywell's platform meets this need by providing proactive device management tools that let IT professionals know the minute that something goes wrong – and that gives them easy options for mitigating the issue and getting the device back online quickly.

"With our solution, the IT team can really wash their hands of maintenance and worrying about device uptime," says Stubbs. "We provide the information, the spare pool and the fast repair turnaround times that companies need, and all from a single point of contact for printing, scanning, mobile computing, voice and/ or RFID." As an added benefit, Honeywell's devices feature an extended, shift-plus battery life that improves uptime and helps to cut down on the cost of battery replacement.

Benefits for buyers:

When they're assessing the technology options on the market, financial buyers want to know that their companies can effectively implement the applications and equipment in question, improve productivity and drive costs out of the supply chain. They also want to know that their organizations can proactively acquire new business without having to upgrade and/or add to existing infrastructures.

Much of this responsibility now falls on the shoulders of CFOs who must balance their companies' financial needs with technology requirements and sales goals. One of the best ways to achieve this goal is by reducing costs in the DC, where Honeywell's automated platforms are being used to attain a 12-month to 18-month (or shorter) ROI.

Making the Case for DC Workflow Automation: Closing Arguments

Today's DCs are under increasing pressure to reduce costs and increase margins. According to Honeywell, nearly eight out of 10 operations managers have been asked to squeeze more cost savings from their existing operations. In most cases, these managers are being asked to ferret out 19% in cost savings from those operations – a charge that many are addressing through the use of technology.

Unfortunately, layering technology on top of inefficient warehousing processes doesn't help improve efficiencies or productivity. In fact, over the last four years, these attempts have actually made DCs *less efficient*. With 95% of DC operations worldwide currently using mobile computers to run their facilities, now is the time to consider a fully integrated approach to automated workflow within the DC.

This integrated approach begins with the practice of conducting periodic operational workflow reviews to identify areas where the operation has strayed from industry best practice. These workflow reviews should be conducted from both a technology and process improvement viewpoint, as both are critical in maximizing efficiencies that include productivity, accuracy, safety, ergonomics and morale.

Once complete, the process review will help identify technology or process improvement gaps in current workflows that are limiting the company from achieving its maximum revenue and growth potential.

"Honeywell's consultative approach and workflow process expertise combined with our voice-enabled, user-focused automated data capture, sensor and materials handling equipment solutions," says Stubbs, "enable efficient and connected work environments that help our clients achieve maximum cost reduction and profitability."

Honeywell

PEERLESS CONTENT CREATION