



# Four ways a warehouse management system delivers greater ROI than an ERP system alone

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The goal of warehouse operations is perfect order fulfillment: to deliver exactly the items a customer ordered, on time and with optimal efficiency. The warehouse module of an enterprise resource planning (ERP) solution can help smaller warehouses achieve this goal. But ERP warehouse modules have limitations that can make it smarter for companies with more complex operations to turn to the added capabilities of an advanced warehouse management system (WMS).

By the end of 2017, IDC predicts that “the need for visibility, scalability, and flexibility across the value chain will drive 60% of manufacturers to invest in cloud-based WMS and transportation management system (TMS) solutions aligned to their trade partner networks.”<sup>1</sup>

What’s behind this trend? How does a WMS enable greater order accuracy, productivity, and ROI in ways that a typical ERP warehouse module does not support? There are four key areas to explore. Let’s take a closer look.

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## 1. Boost productivity and reduce cycle time

Throughout a warehouse cycle, from planning to receiving, from putaway to picking and shipping, an advanced WMS has capabilities that boost productivity and reduce cycle time, when compared to an ERP warehouse module. A WMS allows warehouse teams to:

**Plan and estimate needs better**—A WMS keeps a record of each item in the warehouse, along with who moved it and the time involved. This historical data makes it possible for executives to measure, simulate, and monitor tasks, which can lead to more effective planning. How much time and how many employees will be needed for a given task? A WMS can provide estimates that use travel speed configuration and a labor plan based on averages or historical actuals. In addition, it can dynamically monitor staff performance against engineered labor standards. Most ERP warehouse modules lack these capabilities.

**Optimize space**—When inventory arrives, an ERP warehouse module can assign pick locations, but an advanced WMS can automatically take into account user-configurable putaway rules about each product, and recommend optimized pick and bulk storage locations. This helps companies better utilize precious warehouse space.

**Improve picking flow**—Consider a key difference in productivity: An ERP warehouse module generates pick orders in batches with no real-time optimization. Pickers execute one order at a time and may have to visit the same location multiple times.

By contrast, a WMS can calculate optimum pick order and the shortest path for workers in real time, allowing pickers to visit each location only once. It can simultaneously manage different types of picking zones in the warehouse, including bulk, case, piece, batch, and wave picking, to optimize productivity.

**Cut travel time by up to 40%**—Unlike an ERP system, a WMS compiles records of each item's movement, and can analyze historical data, which can bring about dramatic savings. **A distributor of restaurant supplies**, for instance, determined its fastest-moving SKUs from order data and then strategically re-arranged its picking locations to reduce travel within its warehouse by 40%.

A WMS can speed picking and fulfillment in other ways. **One distributor with 100 sites** achieved a 25% higher dispatch volume the first month with a WMS. Another achieved **a 40% increase in units sent** the first week. Another **warehouse customer** reduced labor costs by a third—from 3% to 2% of revenue, even while sales increased 30%.

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A distributor used a WMS  
to optimize picking locations,

reducing travel  
time 40%.

## 2. Improve accuracy with more detailed control

A WMS offers greater visibility and control over more details than an ERP system; as a result, warehouse teams can improve order accuracy and efficiency.

**Track in greater detail**—An ERP system keeps track of total quantities of a stock item in and out of the warehouse, but a WMS can provide quantities of the item at each bin or location level, along with status details, such as how many of the items are in receiving, stored correctly, picked, and dispatched.

The richer detail in a WMS enables cross-docking. When backordered items arrive and get scanned, a WMS can automatically re-route them directly to outbound trucks or rail cars, speeding fulfillment, increasing customer satisfaction, and eliminating the need for storage.

**Optimize order accuracy**—A WMS can include hands-free voice technology that lets workers operate free of cumbersome lists, labels, and scanners. They can speak into their headset to confirm the last few digits of an item's code as they pick it, while the system checks and logs their work to minimize errors.

According to [voicepicking.com](http://voicepicking.com), voice-enabled order picking can result in an accuracy rate of 99.9% (one error in a thousand picks), as well as a productivity improvement of 20%. In addition, a WMS can easily track performance in real time to manage incentives, and it can be a coach, using voice-enabled technology to inform workers about their progress in meeting benchmarks.

**Reduce waste**—Because a WMS tracks detail such as expiration dates, it can support proper rotation of products and enforce principles such as first in, first out (FIFO) and first expire, first out (FEFO). This helps minimize obsolete and expired product.

**Integrate to streamline processes**—A WMS allows warehouse teams to connect with, manage, and orchestrate equipment such as scales, scanners, counters, and RFID in real-time, using these devices to streamline and optimize workflow. A WMS can also integrate with systems from third-party logistics providers (3PLs) to help ensure that billing and documentation get where they need to be. For example, if a pair of shoes needs to arrive with an invoice, it will be in the box.

Many other kinds of gains are possible, causing more than half of respondents to the [Modern Materials Handling 2015 Software Buyers Survey](#) to indicate that they plan to buy new WMS software. Their stated objectives include improving inventory deployment (36%) and gaining real-time control (34%).

Efficiency is key for optimal warehouse performance. A [benchmarking survey](#) from the American Productivity and Quality Center (APQC) noted that top-performing organizations spend \$14 less per \$1,000 of revenue to operate their warehouses than bottom performers. For an organization with \$5 billion in revenue, that translates to a savings of over \$71.8 million per year.

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Voice-enabled order picking can result in an

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Value-added services such as light manufacturing, assembly, and kitting and bundling, can offer substantial new revenue streams. According to [Statista.com](https://www.statista.com), fee-based, value-added warehousing and distribution revenue in North America grew 53% between 2007 and 2015, and now totals \$49 billion annually.

However, offering these services in a warehouse quickly complicates inventory control. An advanced WMS has functionality that can handle the challenges, while most ERP warehouse modules cannot. A WMS can support a wide variety of value-added services in different industries:

**Electronics distributors** can use a WMS to assemble small parts into kits that reduce handling, or organize different production runs to meet retailer-specific configurations.

**Fashion distributors** can use a WMS to manage SKUs by attributes such as style, color, size, and fit. A WMS can help a distributor to build ratio packs that combine the required mix of sizes (2XS, 4S, 5M, 5L, etc.) for a given item.

**Cold storage services** can use a WMS to drive business rules—such as automatically managing the right amount of blast freezer dwell time depending on a shipment's temperature. A WMS can also perform services such as capturing summary weight by pallet, and recording the variable weight of individual units automatically.

**Consumer packaged goods and food & beverage distributors** can use a WMS to offer services managing customer-specific shelf-life days, and automatic holds for QA testing, settling, and bottle-aging.

**Automotive distributors** can use a WMS to support services such as quality control, finishing, and pre-processing. Many automotive manufacturers require that parts arrive just-in-time and in the proper build order, and a WMS can enable this through sequencing and Kanban delivery.

A WMS has additional capabilities that simplify the complexity of value-added services. It can combine different orders into one big box if required, or postpone the labeling and final assembly of products until customer orders are received, lowering the inventory footprint of finished goods.

Because a WMS can track work for each client, and because it knows who performed the work, how long it took, and what materials have been consumed, it can provide detailed accountability when value-added services are invoiced. By supporting new sources of revenue, a WMS can help turn a warehouse into a true fulfillment center.



## 4. Enhance supply chain results through deeper visibility

Most ERP warehouse modules focus on efficiencies within an organization's four walls, while a WMS can offer a broader view of the entire supply chain. This enhances results by providing increased visibility in many areas:

### **Upstream and downstream supply chain**

**partners** can get real-time, proactive alerts as a WMS monitors transactions against user-defined rules for exceptions, issues, and opportunities. If inventory is running low or a date moves, partners will know it. The alerts help minimize problems.

**Companies that have multiple warehouses** benefit because managers can use a WMS to research inventory in remote facilities and decide whether to transfer inventory instead of buying additional quantities. This helps minimize costs.

Visibility into multiple locations can also maximize profit, as it did for a leading US-based department store. As [an Accenture report](#) explains, this retailer was able to fulfill a last-minute, late-season, multi-unit order by sweeping the last units of inventory from multiple stores. "The consumer received all units of the product at the right price and at the right time, while the retailer was able to maximize its margin by clearing out store inventory without resorting to markdowns," notes the report.

**Customers** can use a WMS to generate real-time reporting, viewing what's in or out of stock, and how soon they will receive their goods.

**Managers** can see accurate details on demand without having to gather them first by communicating with other teams, departments, or partners. They can use mobile devices connected over the cloud to see reports, guide labor operations, and answer customer queries from anywhere.

The end-to-end view of a supply chain that an advanced WMS can provide is critical for staying competitive. The [Aberdeen Group](#) studied distribution centers in 91 companies and noted that "80% of top-performing firms are moving to cloud-based visibility, and more event-driven warehouse and transportation management. They provide a customer-connected, single version of the truth; seamless and unified across channels, customers, costs, and activities. In addition, the leaders are providing tailored yet secure cloud-based views and interoperability to internal and external stakeholders."<sup>2</sup>

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management.**

## Boosting dispatches 25% with a WMS

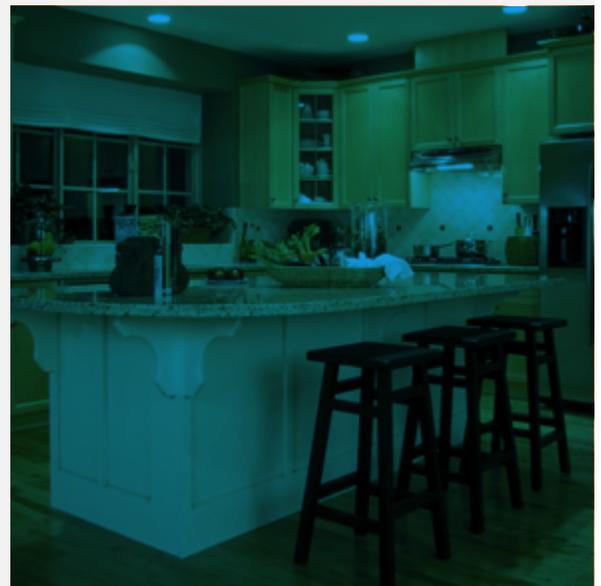


**Grupo Gollo**, a Central American distributor with more than 100 sites, implemented warehouse management software to achieve:

- 25% higher dispatch volume in one month
- 45% lower order preparation time
- 35% boost in customer satisfaction

“Currently the success of our company is based on high inventory rotation, with exact availability and products duly dispatched according to customer needs,” says the company’s logistics manager.

[See more details here.](#)



## Optimize across the supply chain

Distribution is changing rapidly. Traditionally, it was a linear push of products from manufacturer to store shelf. Now, it is a 24/7 pull from customers who expect to be able to buy anywhere and ship anywhere, with compressed order lead times.

As a result, fulfillment has become increasingly dynamic. A case of products might go from the receiving dock to a pick location, or to a value-added service, or directly to an outbound truck, or to a combination of these destinations. An advanced WMS can provide the agility that distributors need to meet changing requirements. It can help create rich potential competitive advantages by supporting new demands quickly, such as rapidly increasing SKUs, flash sales, and new value-added services. Today's supply chain partners need an advanced WMS for the end-to-end visibility and collaboration it provides. As more variables change, faster, more efficient, and accurate service depends on the ability to optimize efficiently—and on the fly.

[Learn more about  
warehouse management](#)



IDC, IDC FutureScape: Worldwide Manufacturing Supply Chain 2016 Predictions, November 2015, Doc # 259782

Bob Heaney, Profitable Supply Chain Execution With Customer- and Event-Driven Optimization, Aberdeen Group, January 2016.

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