



Motorola's Wholesale Distribution RFID Solutions



Business Challenges

Today's distribution center is no longer just a stationary facility with four walls and a roof. Wholesale distributors today manage virtual trading networks with inventory at partner/supplier depots, on the road, on the loading dock and inside the four walls.

Labor has and will continue to be one of the largest operational costs (outside of the cost of goods) for wholesale distributors. Wholesale distributors are faced with the rising costs associated with managing a work force — employees' salaries, benefits and productivity. In order to combat these challenges, wholesalers are looking for new technologies to automate manual processes, thereby reducing labor requirements, improving productivity, reducing errors and streamlining business operations.

For wholesale distributors, process improvements mean profits. RFID technology enables new workflow process improvements and the associated savings can be applied directly to the bottom line. "With this technology, it also is possible to cut out much of the paperwork and labor involved with trading partners," says Mike Liard, RFID analyst for Venture Development Corporation. "For example, say a company ships cheese using tags on pallets and cases. With RFID, it can provide shipping notice with all product serial numbers so the receiver knows in advance what the shipment consists of. From a distribution standpoint, especially from shipping and receiving, RFID offers an 85 percent labor reduction."¹

Significant competitive advantage is realized by maintaining up-to-the-second inventory, reducing safety stock from more accurate demand models, and improving data integrity and accuracy from the time inventory is received to the time it leaves the shipping dock.

This ideal scenario is played out as distributors replace point-and-read, labor-intensive operations with RFID systems that track RFID-tagged pallets, cases, cartons and individual items anywhere, anytime.

RFID infrastructure products including fixed, handheld and mobile readers, antennas and RFID tags, combine with enterprise manufacturing software and applications to deliver operational benefits that impact almost every function a wholesale distributor performs including receiving, put-away, picking and packing, cross docking, as well as confirming and shipping orders. For example,

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Ed Matthews,
Information Systems Director,
Pacific Cycle



in a receiving scenario, incoming shipments are automatically identified as they pass through the dock doors. Shipments are verified against the purchase order and instructions to the worker are sent out — back orders are cross docked to shipping, damaged goods are staged for return, and shipments bound for inventory are staged for put-away.

Once the goods leave the distribution center, RFID can ensure that the right goods, reach the right destination at the right time and in the most efficient manner possible. RFID will ultimately provide the opportunity for enhanced tracking information. Today, online portals for package tracking contain information on package location, but at best, the accuracy is only as good as the last update, or the last manual scan/touch. With RFID, tagged packages will identify their location, even when a worker is not able to physically scan or locate the package. Lost packages may become a problem of the past.

CASE STUDY #1

Pacific Cycle

Pacific Cycle Inc., a leader in designing and distributing high quality bicycles and other recreational products, has successfully deployed Motorola RFID mobile computers and tags to track its bicycles as they move from its distribution centers to the backrooms of the nation's leading retailers. Pacific Cycle uses the Motorola

MC9000-G RFID handheld reader, Motorola's fixed RFID readers and EPC read/write tags.

"The Motorola RFID solution gives us unparalleled visibility for our products throughout the supply chain," said Ed Matthews, information systems director of Pacific Cycle. "We have experienced near-perfect read rates with Motorola's RFID readers and tags, far surpassing the results of other equipment we tried. And Motorola's ability to go beyond our needs has made our experience with RFID one that we're looking forward to building on as the technology matures."²

Pacific Cycle markets products under a range of brands, including Schwinn, Mongoose, GT, Roadmaster, Pacific, Dyno, InSTEP and Pacific Outdoors. The focus of RFID as a retail application is currently on "the supply chain to the store backroom," which includes tagging pallets, cartons and reusable containers to track the movement of goods throughout the distribution system. Users are just beginning to assess the impact of tagging individual items on the retail sales floor.

Matthews added, "We anticipate that RFID will not only enable us to monitor our bikes in real time as they move from manufacturing to retail inventory, but will give us an accurate picture of what's out there on the floor at any given moment. That will mean higher shipment accuracy, a reduction in our inventory and lower labor costs — it will revolutionize the way we do business."

Net results from deploying RFID

Pacific Cycle has already begun to quantify the results of their investment. Results show:

- A savings of 10 cents per product shipped
- Higher shipment accuracy
- Reduced inventory and labor costs

As the cost of RFID Tags continues to drop and as Pacific Cycle continues to roll out RFID applications, the company will see additional savings and will ultimately have an advantage over competitors who are late to deploy RFID.

- Improve stock visibility thereby reducing thefts and unsaleable inventory, saving the company over \$10M on an annual basis
- Reduce labor expenses by saving over 50,000 hours annually for incoming delivery verification, data entry of items in distribution centers, truck unloading, inventory availability checks and inventory counting
- Increase sales due to reduction in out-of-stock items
- The estimated timeframe for this national wholesale food distributor to realize a return on their investment is less than two years

CASE STUDY #2

National Wholesale Food Distributor Company Profile

Annual Sales: **\$10.8B**
Distribution Centers: **4**
Avg. Size of Distribution Centers: **500,000 sq. ft.**
Value of Inventory at Distribution Center:... **6.5% of sales**

The following case study is a representation of how wholesale food distributor can use RFID technology to meet the demands of its business applications.³

The challenge for any wholesale food distributor, with multiple distribution centers throughout the U.S., is to consistently improve efficiencies, increase savings throughout its supply chain — from receiving to shipping — and ensure greater profitability and customer satisfaction.

Net results from deploying RFID:

A national wholesale food distributor has an annual revenue of nearly \$11B. Implementing RFID at the case and pallet level with its suppliers and throughout its network of distribution centers could help the company to:

- Save approximately \$12M by improving shipping and receiving efficiency and accuracy
- Reduce overall inventory at each distribution center delivering an annual savings of \$7.4M
- Improve picking accuracy, delivering annual savings of over \$5M

RFID Solutions and Benefits

The process improvements and bottom-line benefits that RFID can provide are significant:

- Reduced labor required for almost all primary warehouse worker functions: inventory, pick/pack/ship and put away
- Increased receiving efficiency and accuracy
- Increased picking and order accuracy — reducing costly returns
- Reduced stock levels from improved stock and demand generation visibility
- Increased error-free shipments and improved delivery times
- Reduced theft, unsaleable and out-of-stock items
- Increased customer satisfaction by ensuring that the right goods reach the right customer at the right time

- 1- 2005 American Wholesale Marketers Association 2005 newsletter; "What's Your Frequency?"; by Lisa White
- 2- Symbol Technologies Press Release, March 2, 2005
- 3- Case study scenario is based on general industry knowledge and references as well as results generated using the EPCglobal Auto-Id Calculator.



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