



# RFID OMNICHANNEL SUPERSTAR

**HOW RFID IS BECOMING THE  
TRANSFORMATIONAL TECHNOLOGY IN THE  
OMNICHANNEL RETAILING EXPERIENCE.**



On the train during her Friday afternoon commute, Abby leafs through a catalog and finds the perfect sweater to go with the pants she's wearing to a party tonight. She immediately uses her smartphone to visit the store's mobile website to see if the location nearest her home has the sweater. The store's item-level RFID tagging system provides the accurate inventory visibility essential to omnichannel retailing, allowing Abby to access inventory and find that her size is available in stock. She purchases the sweater and arranges to pick it up at the store on her way home. Her purchase is waiting for her when she arrives. The sweater is a perfect fit, and the outfit is a hit. Another satisfied omnichannel customer.



Omnichannel retailing—with connected customers able to shop not only in the store but also online and on mobile devices—is changing how the industry views the retail store. The fact is, retail stores are finding themselves in a new and expanded role in the omnichannel universe, functioning not only as a retail storefront but also as a shipping and fulfillment center. The key is enhanced inventory visibility and control. Omnichannel retailers understand that being able to allocate items and fulfill orders from inventory located in any part of the supply chain is more efficient, more cost-effective and more likely to result in faster fulfillment and an enhanced customer experience. Virtually all retailers agree that the key to accurate inventory management is technology, notably Radio Frequency Identification technology, or RFID.



OMNICHANNEL RETAILING MEANS CONNECTED CUSTOMERS  
CAN SHOP FOR AND PURCHASE THE SAME ITEMS  
ACROSS MANY DIFFERENT CHANNELS.



**RFID EMPOWERS  
OMNICHANNEL RETAILING**

RFID technology is an increasingly important enabler of omnichannel retailing. Especially important to apparel retailers is item-level RFID, in which RFID tags are attached to individual garments. Commonly integrated into the product's hangtag or pricing label, the tags are read by handheld or fixed RFID readers, providing real-time inventory visibility throughout the supply chain. The system enables store management, sales associates, even connected customers, to have the accurate, real-time product location and availability data so crucial to omnichannel retailing success.



An exclusive boutique with limited floor space utilizes a “one size, one style” merchandising model. But what happens when two friends each fall in love with the same blazer, and the display jacket isn’t the right fit for either? For this model, accurate, systemwide inventory visibility is the key and item-level RFID technology makes it possible. Using her handheld computer, the sales associate locates the right sized blazers for each—one from another store, another from the distribution center—and arranges to have them shipped directly to the customers.



## ENABLING PERPETUAL INVENTORY VISIBILITY

Serving all customers, in all channels, using all inventory. That’s omnichannel retailing and it’s energizing the retail business. Behind the scenes, one technology is empowering omnichannel retailers to maximize inventory control and flexibility throughout the supply chain—from manufacturer orders through direct-to-customer shipping. Today’s RFID technology helps increase the productivity of the retail store as both a sales channel and a fulfillment center. It also helps enhance customer satisfaction, optimize fulfillment and, ultimately, improve end-to-end supply chain ROI.



### Inventory management

As the brick-and-mortar store becomes more integral to omnichannel supply chain operations, inventory management becomes increasingly critical. The store must be able to meet the expectations of in-store customers who wish to find exactly what they want on the sales floor, quickly and easily. It must also meet the needs of customers who want expedited shipping to their homes, whether they’ve purchased the item in the store, in an outlet or pop-up location or online. To do it well, you need accurate visibility of your entire inventory, whether it’s in the backroom, on the loading dock, in overstock locations, enroute to the store, on the sales floor, in the distribution center or anywhere in the supply chain.



### Customer transparency

Visibility has always been important to inventory management. In the days before omnichannel retailing, it was mostly about providing in-store inventory information to store associates and management. That’s changing. Today, it’s also about providing inventory transparency to customers themselves wherever they shop. Omnichannel customers are sophisticated shoppers. A large percentage of them—some studies estimate up to 80 percent—research products online well before they venture into a store. And they want to research more than what a product looks like or how it operates. They also want to access a given store’s actual inventory to make sure the item they want is in stock in the right color and the right size. RFID is the technology that can make it all possible.



## Accurate product availability data

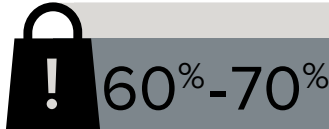
A good example is RFID's ability to solve what is still a thorny problem for some retailers. A customer wants to order a specific item to be picked up at the store. The store's inventory shows only two such items available.

In non-RFID environments, that can be a problem because inventory is likely based on Point of Sale (POS) data, an inventory decrement model that may be neither accurate nor timely. The store cannot be absolutely sure both the items are actually available. They could be on a shelf, but they could just as easily be on a dressing room floor or have been placed in the wrong location. And because the store is always concerned about customer satisfaction, it may decide not to accept an order because it doesn't want to take the chance of disappointing a customer and perhaps losing goodwill and future business.



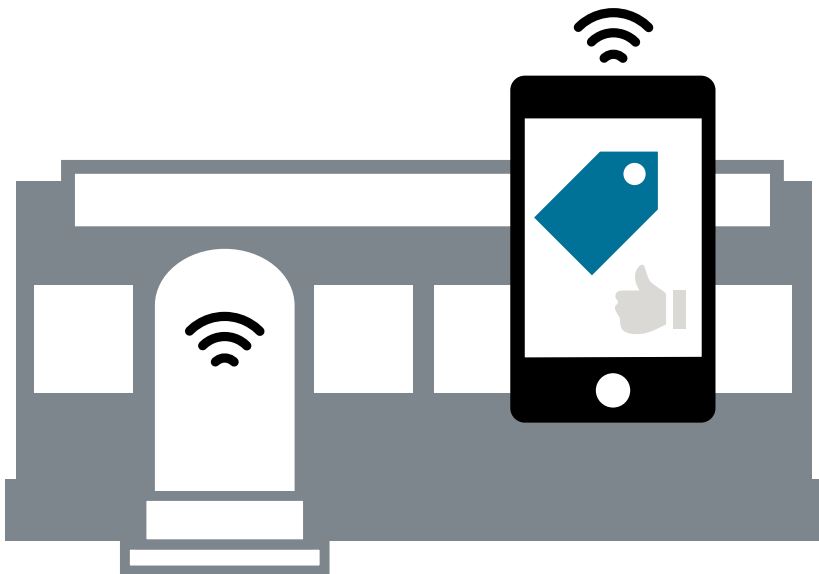
20%

One research study showed that about 20% of customers who ordered a product online or on the phone for in-store pickup actually left the store empty-handed because the item could not be found.



60%-70%

In fact, according to the American Apparel & Footwear Association (AAFA), a typical retailer's inventory is only about 65%-70% accurate. That's totally unacceptable, and it's why an increasing number of retailers are turning to RFID.



Item-level RFID tagging is proving to deliver product inventory data that is up to **99.5%** accurate.

In addition, the use of periodic cycle counting and Geiger counters enables fast and accurate item locationing. With this type of inventory accuracy and accessibility, the store can accept more orders and keep more customers satisfied.



## Omnichannel benefits of RFID

For the brick-and-mortar omnichannel retailer, the benefits of RFID-optimized inventory control are substantial. They include:

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### OPTIMIZED STOCK LEVELS

Out-of-stocks are a prime source of frustration for both customers who can't find what they want, and retailers who can't sell it to them. When you know what you have—and what you need—at any given time, RFID-driven just-in-time replenishment enables you to drastically reduce, or even eliminate, costly, non-productive out-of-stock situations.

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### HIGHER UNIT SALES

With accurate inventory visibility, you can sell what you don't have, which can dramatically increase unit sales. If your store doesn't have the right size or color the customer wants, the associate can find it by simply checking inventory, not just in the backroom but across the entire supply chain. When you know it's available, you can sell the customer and arrange to expedite shipping.

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### LESS MARGIN EROSION

With full inventory visibility, it's easy to see which items are selling, or not selling, in each location. The RFID-enabled supply chain enables you to quickly ship items to the regions or locations where they are selling better. That means fewer markdowns and less margin reduction. In addition, end-to-end visibility improves loss prevention from theft, misplacement and inventory inaccuracy.

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### MULTIPLE INVENTORY COUNTS

For many brick-and-mortar retailers, taking inventory is an excruciating, time-consuming and expensive task. Many stores have to close for inventory and are forced to lose sales as they are shuttered for one or more days. RFID-enabled inventory, utilizing item-level RFID tags, allow stores to take inventory more than simply once a year. Some stores are even able to take inventory on a daily basis. RFID makes taking inventory less expensive, much more accurate and up to 90% faster than traditional methods.

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### MORE EFFICIENT ALLOCATION

As the storefront increases its omnichannel role of being a direct-to-customer fulfillment center, end-to-end visibility is essential. RFID systems make it simpler and faster to view inventory and choose the most efficient location from which to ship an order, both in terms of product availability and proximity to the customer.

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### REDUCTION IN DC CAPACITY

By providing end-to-end inventory visibility and the ability to allocate and ship products efficiently from any part of the supply chain, RFID solutions are also helping retailers streamline their operations. As inventory silos are eliminated, the need for high-capacity warehouses and distribution centers is lessened and safety stock requirements are reduced, saving substantial dollars in capital and manpower costs.





It's always an electric moment. Even if you know what's inside, opening a package is usually a pleasant experience. Except when the order a customer is expecting turns out to be inaccurate. Yesterday, Ken used his laptop computer to purchase several shirts and sweaters from his favorite store's website. Fortunately for Ken, one of the store's RFID-enabled kitting tables detects the omission of crew neck sweater from the order as it is assembled by a new associate inexperienced at order fulfillment. The associate was alerted, the correction was made, and the proper order was shipped. Ken receives his package within 24 hours as promised. He's anxious to see his purchases as he tears open the package and there they are. Just as he remembered them. The order is complete and Ken is happy.

## ENHANCING THE CUSTOMER EXPERIENCE



### Even in the omnichannel world, some things haven't changed for the brick-and-mortar store.

It remains the flagship of the brand experience, and RFID technology is helping ensure that the experience is positive, memorable and consistent in-store and across all channels. It begins with item-level RFID providing an accurate, real-time view of a product's availability in the store, including in-stock status, specific information such as color, style and size and precise location on the sales floor or in the back room. RFID also enhances the experience through innovative customer-facing applications like RFID-enabled kiosks that deliver real-time product information and technology-enabled fitting rooms that encourage customers to share their experiences and purchases with friends via social media.



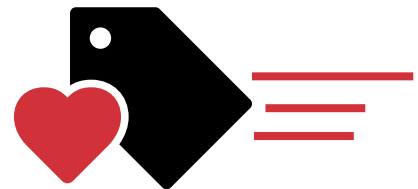


## Increased fulfillment accuracy

As fulfillment becomes more and more important in the omnichannel marketplace, accuracy becomes more critical. After all, fulfillment is the last stage of the customer experience, and if it disappoints the customer, no matter how well the rest of the experience has gone, it can end up being a negative. Item-level RFID technology improves inventory visibility, control and accuracy. RFID-enabled kitting tables, handhelds and fixed readers make up the ideal toolset for optimizing store-to-store transfers and direct-to-customer shipping. RFID systems alert personnel to incomplete and inaccurate orders, dramatically reducing mis-shipments, providing important savings in transportation and shipping costs and enhancing efficiency and customer satisfaction.

## Omnichannel goes social

As social media becomes an increasingly important part of your customer's daily lives, it is also becoming one of omnichannel retailers' biggest new sales opportunities. It's no surprise that connected shoppers are also avid users of social networking, with a growing number communicating with their friends via Twitter, Pinterest, Instagram, IM or Facebook, just to name a few. By posting real-time photos to friends on social networks, a customer can get fast feedback while she shops and tries on clothes. What do you think of this style? How about the color? Is it really "me"? Maybe a friend will also be interested in the outfit. From an RFID-enabled fitting room, the shopper can instantly check to see if it's in stock in her friend's size and preferred color. This feedback can be one of the omnichannel retailer's most powerful sales tools. As customers upload photos of a retailer's products to their friends or their favorite sites, it enables your store to connect with and market to a wide variety of potential new customers.



## Fullfillment as accuracy

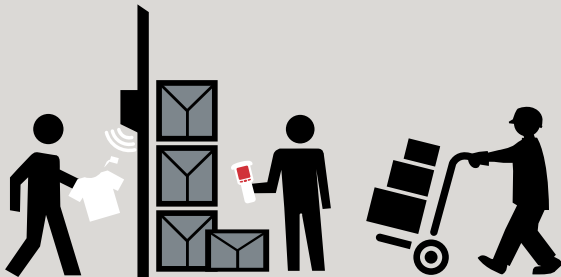
Omnichannel customers are not only shopping and buying through a variety of channels, they're also demanding the faster, more flexible fulfillment options. They may want to take the product with them or have it shipped to their home. They may insist on one-day or even same-day delivery. They may order online and want to pick it up at a store. Fulfillment is becoming a strong retail differentiator, and the fast, flexible fulfillment operations enabled by RFID are becoming a leverageable competitive advantage.







A sporting goods retailer's weekly analysis revealed that, due to unanticipated milder weather patterns, there is considerably lower-than-anticipated customer demand for a high-end down parka in its Midwest region. At the same time, the analysis showed a greater-than-forecast demand for the product in its Pacific Northwest region. Empowered by its RFID-driven, end-to-end visibility, the retailer was quickly able to move most of its Midwest inventory of the garment to the northwest, at the same time creating a promotion that bundled the parka with a free stocking cap. The combination of inventory shift and marketing offer resulted in the product eventually exceeding expectations in overall sales.



## SHAPING AND OPTIMIZING DEMAND

**In omnichannel retailing, the ability to shape demand is a powerful competitive advantage enabled by the end-to-end supply chain visibility provided by RFID technology.**

In the fast-paced omnichannel retailing world, accurate demand forecasting is crucial. Strategically speaking, the challenge is to align projected customer demand trends with your inventory, capacity and capabilities both short- and long-term. Tactically speaking, an equally important challenge is to be able to react quickly when customer demand and available supply fall out of alignment, which can rapidly lead to supply issues, below target revenue and customer dissatisfaction.



## Demand-supply gaps

It's just as important to know what you don't have as to know what you do have. Whether you have more inventory than your customers are demanding, or whether customers are demanding more inventory than you have, demand-supply mismatches are costly. Because forecasting is not an exact science, mismatches are more common than most retailers would like. When demand-supply mismatches occur, revenue, profitability, market share and customer loyalty are at risk. Demand shaping helps reduce the gap between forecast expectations and actual consumer behavior. It is a powerful customer-centric tool that identifies potential product/demand conflicts and provides solutions to optimize the use of available resources.

## The demand shaping process

A successful demand shaping process is driven by real-time analysis, visibility and promotion. For a growing number of retailers, the agility enabled by end-to-end RFID visibility allows for quick development of omnichannel programs that shape customer demand to align with product availabilities. RFID is the ideal technology to deliver the information crucial to the demand-shaping process.

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### DEMAND PATTERN RECOGNITION

RFID identification provides crucial data from across the supply chain that enables real-time analysis of information that can quickly reveal significant demand-supply gaps that demand fast action.

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### REAL-TIME INVENTORY VISIBILITY

Through RFID-driven visibility of end-to-end inventory—from manufacturers through DCs and brick-and-mortar stores—retailers have accurate, real-time information that enables fast creation and execution of programs to mitigate demand issues and optimize opportunity.

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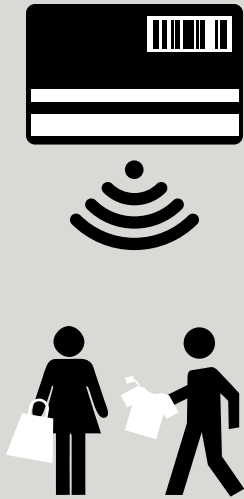
### STREAMLINED DEMAND STEERING

Depending on the specifics of the situation, promotional and marketing efforts can be quickly initiated. These programs can include fulfillment date manipulation, use of value-enhanced upgrades or substitute products, changes to the product mix or product location.

## Demand shaping tools

In an RFID-enabled omnichannel retail operation, demand shaping relies on real-time visibility and the ability to marshal forces—including retail store operations, supply chain management and marketing and promotion—to react to the situation. This visibility and integration enable retailers to develop and implement programs designed to address specific demand-supply issues by creatively shifting demand from what's not available to what is.

These programs mix and match a range of variables—notably price, promotion and product mix, or bundling—to achieve the dual objective of keeping customers satisfied while increasing turns, mitigating revenue loss and increasing profitability.



A department store's customer loyalty program provides each member with a loyalty card with an embedded RFID tag. Through the store's opt-in network access application, the tag alerts a sales associate that a customer is in the store. Accessing the customer's data, the associate sees she's a woman who consistently purchases petite size business and casual clothing with a preference for name designers. The data is updated with every transaction, no matter what the channel, helping the store keep current with the customer's purchasing patterns. Once the shopper logs on to the store's network, the associate can greet her by name, show her some of the latest petite arrivals and even offer her a special discount on sale items. The best omnichannel retailers use RFID technology to be as loyal to shoppers as shoppers are to them.

## INCREASING LOYALTY THROUGH ANALYTICS

Omnichannel retailers know the key to optimized customer loyalty is to understand everything they can about their patrons. Embedded RFID tags on loyalty cards, for example, provide the ability to aggregate real-time data from customers and channels. At the same time, the data is available for analysis by sophisticated business intelligence systems that help you identify the individual shopper's demand and purchasing patterns.

RFID solutions enable programs that allow your customers to be more loyal to you while at the same time helping you be more loyal to them. That's omnichannel retailing at its best.



## The ROI of Omnichannel RFID

- Reduces Out-of-Stocks by 60% to 80%
- Improves Inventory Accuracy up to 99.5%
- Reduces Cycle Count Time by 75% to 90%
- Reduces Inventory Carrying Costs by 30% to 59%
- Reduces Receiving Time by up to 91%
- Improves Conversion Rate to up to 92%
- Increases Unit Transactions by up to 19%
- Increases Dollar Transactions by up to 6%
- Increases Sales by from 4% to 21%



## PROVEN BUSINESS BENEFITS

For omnichannel retailers, RFID technology solutions deliver a broad spectrum of critical benefits across the entire supply chain. In brick-and-mortar locations like stores, outlets and pop-ups, as well as through direct mail and catalog sales and online, whether on a computer, laptop or mobile device such as a tablet or smartphone. From reducing out-of-stocks to cutting inventory carrying costs to improving conversion rates, the metrics are proving to be significant. The bottom line? RFID-based omnichannel solutions are proven to provide the end-to-end inventory control that helps increase sales and profitability while driving crucial omnichannel business benefits.

### Consistent omnichannel brand experiences

In any retail environment, delivering a satisfying customer experience with your brand is job number one. In omnichannel retailing, that experience must be delivered not just in the brick-and-mortar store, but in every channel through every part of the transaction: from online research and information gathering to shopping and purchasing to accurate and timely fulfillment.

Crucial to enhancing customer satisfaction and loyalty is consistent positive interaction with your brand whichever channel the customer is using. RFID technology's unique ability to provide accurate, real-time inventory visibility throughout the supply chain is key to making sure customers are able to find, purchase and receive what they want, when and where they want it, leading to a consistently positive, end-to-end customer experience.



## **ZEBRA RETAIL LEADERSHIP SERIES**

This white paper is one of a series examining the challenges, the opportunities and the realities of how technological innovation is shaping the retail industry.