![Impinj logo]

The Future of Retail:

Seven Ways RAIN RFID is Changing Retail for the Better

It is no exaggeration to say that retail has changed like never before.

For some time, operations have been growing increasingly more complex, and shoppers increasingly more discerning. Now that evolution has been accelerated. Retailers must be flexible in meeting consumer demands in the face of a rapidly changing retail landscape if they hope to succeed.

As the industry recovers, retailers pursuing digital transformation in order to optimize operations, expand omnichannel fulfillment, and enable data-driven decisions are poised to lead the way. One of the foundational technologies providing insight to drive digital transformation? RAIN RFID.

So, how is RAIN RFID changing retail?

RAIN RFID technology is changing the face of retail for the better.

With RAIN RFID technology, you can...

✓ Easily see your merchandise along every step of your supply chain.

✓ Empower your sales associates to elevate the customer experience with having accurate inventory information at their finger tips.

✓ Enable customers to browse and buy across all shopping channels with confidence that inventory availability is consistent, current and accurate.

RAIN RFID technology connects products, services, and operations across retail locations every day. The future of retail is seamless connectivity that improves both customer experiences and business processes from supply-chain to point-of-sale.

"**Item-level RFID is driving visibility and efficiency as well as playing a critical role in helping retailers create a seamless omni-channel customer experience. Retailers around the globe are using it to increase inventory accuracy, reduce out-of-stocks and improve loss detection as well as to get more product into their customers' hands than ever before.**"[1]

1 Auburn University RFID Lab Studies, *EPC/RFID Data Exchange Study Project Zipper Executive Summary* (Auburn University RFID lab), 2018

RAIN RFID Defined:

The fastest growing segment of the RFID market, RAIN is a battery-free wireless technology system that connects billions of everyday items to the Internet. RAIN RFID technology gives businesses and consumers access to an information system that can instantly identify, locate, and manage items with consistent accuracy.

Read on for the Seven Ways RAIN RFID is reinventing store operations, inventory optimization and shopper experiences.

1	**2**	**3**	**4**	**5**	**6**	**7**
Targeted Data Accuracy	**Inventory Visibility**	**Omni-Channel Capabilities**	**Streamlined Store Operations**	**Secure Inventories**	**Supply Chain Insight**	**Customer Experience, Elevated**
Trusted inventory information across all channels	From supplier to customer, see product availability in real time	Enable shopping anywhere, with confidence	Gain process efficiencies and lower costs	New insights mean better theft protection	Item visibility from the vendor through to the customer	Elevate shopper engagement and service

1 Targeted Data Accuracy

We all know accuracy is critical when managing retail businesses—for both employees and customers alike. Accuracy is also one of the biggest challenges facing retailers like you. Discrepancies in inventory are costly: 8.7% of total retail sales are lost due to inventory inaccuracies.[1]

We also know that manual inventory counts take time and can be error-prone and costly. With RAIN RFID, you can cycle count as frequently as you like and stay up-to-date with immediate and accurate inventory data. Accurate inventory data is essential for retail operations.

RAIN RFID improves inventory accuracy up to 30%.[2]

1 Kurt Salmon, *Kurt Salmon RFID in Retail Study*, 2016
2 Auburn University RFID Lab Studies, EPC/RFID Data Exchange Study Project Zipper Executive Summary (Auburn University RFID lab), 2018

Simply, there is no justification for making critical decisions based on bad information. Accuracy is paramount to a thriving business, including real-time updates that help keep inventory accurate even on the busiest days.

Improved accuracy enables your sales associates to have all possible information to provide the best service to customers, while also helping you optimize your inventory investment. Trust your on-hand data and push forward without the guesswork.

Bill McBeath, Loss Prevention Magazine, The ROI for RFID Technology in Retail, 2018

RFID enables cycle counts to be completed 25x faster than traditional barcode scanning.[1]
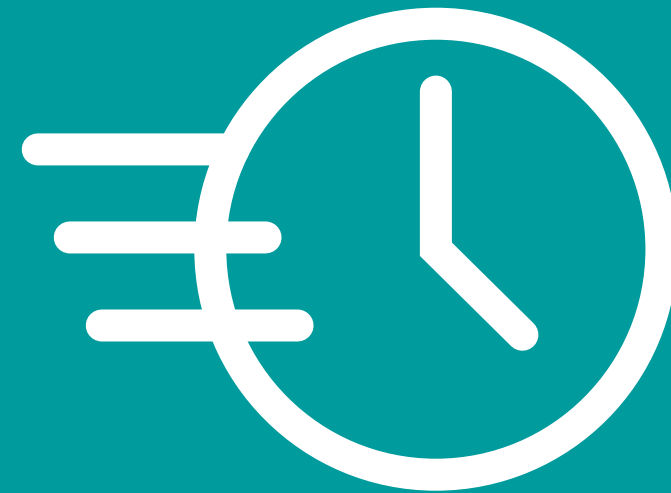
2 Inventory Visibility:

What good is accurate inventory if you can't see it? From online shopping to in-store pick-up, inventory visibility is more important than ever. Real-time inventory is changing the retail game—enabling retailers to access all of their inventory across locations to satisfy shopper demand whether in store or online, and in real time.

Overstocking—the old solution to a lack of accurate inventory visibility—hurts your bottom line. Seeing exactly where your items are and aren't, makes merchandise planning easy. The future of inventory management is RAIN RFID, which doesn't require overstocked shelves with product that may or may not sell.

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1 Auburn University RFID Lab Studies, *EPC/RFID Data Exchange Study Project Zipper Executive Summary* (Auburn University RFID lab), 2018

RFID can
help to reduce
out-of-stocks in
retail by up to[1]

50%

2. INVENTORY VISIBILITY

Instead, RAIN RFID tagged inventory provides retailers with timely product sales and item location data. Retailers in turn provide real-time item visibility to store associates and shoppers in-store and online. This IoT data connects shoppers, employees, and inventory in a new way resulting in better customer engagement. (We'll talk more about the shopper experience in #7!)

Clear inventory visibility provides for "endless aisles" of goods for shoppers so retailers don't need to worry about having an endless supply of merchandise in their stores. With this unprecedented amount of visibility, you can provide your customers with inventory information at their fingertips across every store, online and on mobile. Giving your employees visibility over stock on hand helps enable them to provide the best customer experience to your shoppers.

Knowing that the right item is at the right place, at the right time, requires real-time visibility into inventory across locations.

1 Capgemini, Making the Digital Connection: Why Physical Retail Stores Need a Reboot, January, 2017
2 Paula Rosenblum, Steve Rowen, Retail Systems Research (RSR), *The Store In 2019: Fulfilling Orders AND Serving Customers*, 2019

75%
of consumers expect retailers to provide product availability information before visiting a store.[1]

56%
of retailers state that in-store real-time cross-channel inventory is their highest value technology to empower employees.[2]

3 Omni-Channel Capabilities

With increased accuracy that you (and your customers) can see, shoppers expect consistent information and services across every channel and brand touchpoint. Leveraging enterprise-wide inventory for omni-channel operations offers shoppers the flexibility to "buy online, pick-up in-store" (BOPIS) or to "ship to store." Plus, retailers get the ability to "ship from store" for order fulfillment as well. Some retailers are even offering items that can be delivered from the store to a customer's location within one hour of ordering!

The future of the brick-and-mortar stores may evolve into the store becoming a hub for omni-channel retail and fulfillment which will require accurate, by-the-minute inventory data to give customers and employees every option to access products.

1 Paula Rosenblum, Steve Rowen, Retail Systems Research (RSR), *The Store In 2019: Fulfilling Orders AND Serving Customers*, 2019

Retailers now see tremendous opportunity to transform their stores into something different—a fulfillment center for online orders. Buy online/pickup-in store was a talking point before; now retailers see it as a tremendous profit opportunity.[1]

– Paula Rosenblum

In order to compete against online sellers like Amazon, your business needs technology solutions that can enable you to access inventory anywhere across locations. RAIN RFID enables you to become more responsive to the different ways customers shop. A true omni-channel retail experience brings "all-channel" visibility and access to accurate and timely inventory on-hand across stores, warehouses, and the supply chain. Knowing exactly where and how many items are on hand *right now* is becoming the retail standard.

Faster and more accurate inventory data helps you confidently provide omni-channel customers with the visibility and access to products where and when they want them without having to oversupply stores as a safety precaution—resulting in less excess inventory, tied-up capital, and excessive markdowns. RAIN RFID powered inventories work for your customers and your business.

1 Paul Skeldon, Internet Retailing Conference,*Time to unify? Omnichannel shoppers spend 15% more than the rest*, 2019

Omni-channel shoppers spend 15-30% more per purchase and show strong brand loyalty.[1]
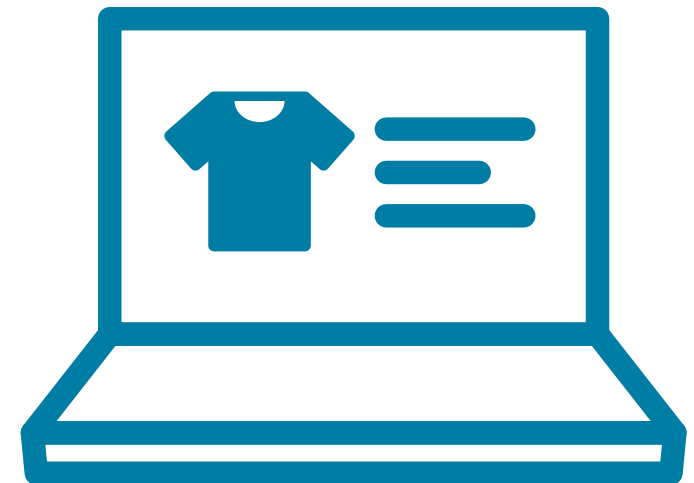
4 Streamlined Store Operations

In the past, streamlining everyday in-store operations and lowering costs meant budget crunching, reallocating costs, and adjusting plans and schedules. Today, it means automation through new technology.

With RAIN RFID, store inventory management is more efficient and data accuracy is more precise. Store operational processes require less labor and time, meaning associates can focus on what's important: the customer.

Data-driven retail operations powered by RAIN RFID automate everyday tasks, speed up transactions, reduce errors and lower labor costs. But the ultimate value of RAIN RFID is that these small chips cut down the time it takes for an item to get from a distribution center to the sales floor, and into a shopper's hands.

1 Jason Sain, Accenture, *RFID: A hotbed of innovation in retail*, 2018

Retailers who have piloted or adopted RFID report an average ROI increase of more than

30%

due to efficiencies gained through RFID.[1]

Here are just a few examples of how RAIN RFID technology streamlines operations along the item journey:

Automated shipment receiving

Location tracking upon putaway and restocking

Item pick, pack and ship verification

Sales checkout efficiency and price validation

RAIN RFID grants you overall process efficiency, error and shrink reduction, real-time inventory updates and improved store performance.

5 Secure Inventories

It goes without saying that providing customers with the best service is a top priority for you. But making sure retail inventories are protected from theft is an important, and often difficult, part of retail as well. Item-level RAIN RFID tagging increases the visibility of products in the store and provides new insights into the causes and occurrences of theft as they happen. It can be used with traditional security technologies, such as video, to reduce inventory loss and make it easier to detect and prevent retail theft.

Existing exit alarms do a good job of alerting store associates when a tagged item leaves the premises, but what items and how many is unknown. When the specific item can be identified in real time, you and your associates can understand specifically what was stolen, when and through which doorway. Armed with this level of insight—which has never before been available to retail loss prevention managers—you can take proactive measures to prevent future loss.

Inventory shrink cost the U.S. retail industry

$46.8

Billion last year.[1]

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1 **NRF,** *2018 National Retail Security Survey*

5. SECURE INVENTORIES

While no retailer wants to think about instances of internal theft, the practice of frequent RAIN RFID cycle counts reinforces the message to employees that there is accountability for all inventory at all times.

Think of RAIN RFID as a foundation that can be built upon with other security technologies. RAIN RFID can help enable situational awareness for specific products, generating alerts when specific merchandise is on the move or brought into a fitting room, and electronic products can be made inoperable until they go through checkout at point-of-sale.

With RAIN RFID, let the technology do the hard work and provide you with new insights into loss prevention and increase your security acumen.

1 NRF, *2018 National Retail Security Survey*

36.5%
of shrink is external, due to shoplifting and ORC, outpacing shrink caused by employee theft, vendor fraud, and administrative errors combined.

The average cost per shoplifting incident is

$559 [1]

6 Supply Chain Insight

RAIN RFID lets you follow your merchandise along its retail journey. You can monitor products during inbound and outbound shipments to other stores and warehouses, ensuring accuracy along the supply chain from the vendor to the end customer. RAIN RFID eliminates errors and faulty data that can impact your customer's experience.

Instead of fighting a losing battle with bad inventory data created in the supply chain, RAIN RFID tracks incoming and outgoing merchandise with accuracy, ensuring you get the right data even before the merchandise reaches your store or warehouse.

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1 Auburn University RFID Lab Studies, EPC/RFID Data Exchange Study Project Zipper Executive Summary (Auburn University RFID lab), 2018

Without RAIN RFID, only 69% of inbound orders from manufacturers to retailers are accurate.[1]
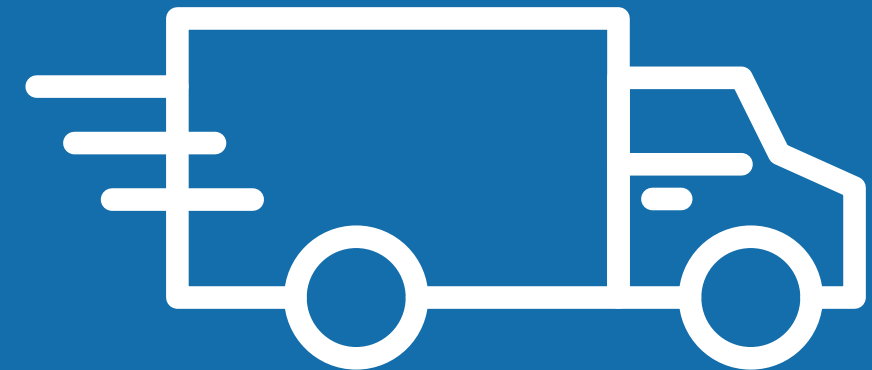
Accurately seeing your supply chain from beginning to end helps you streamline your operations.

RAIN RFID helps you reduce both duplication in process at each checkpoint along the supply chain, and reduce manual scanning errors. By doing so, you also get the benefit of seeing timely data on thousands of products in minutes, rather than hours or days.

Make sure you are supplied with every product, right from the beginning with RAIN RFID tracking.

1 Auburn University RFID Lab Studies, EPC/RFID Data Exchange Study Project Zipper Executive Summary (Auburn University RFID lab), 2018

Brand owners and retailers who used RFID technology to optimize their supply chain are capable of achieving 99.9% order accuracy.[1]

7 The Customer Experience, Elevated

From inventory accuracy, to omni-channel execution, loss prevention and store processes, RAIN RFID is changing the efficiency of retail. These changes at every customer touch point make an impact for the better. In order to provide the customer with a unified experience across all channels, and enable sales associates to best assist in-store shoppers, RAIN RFID streamlines transactions and enhances customer engagement across your brand.

RAIN RFID systems elevate your customer's experience with real-time product updates, availability and omni-channel flexibility.

With RAIN RFID-triggered displays that provide customers with information about the items they have selected—price, sizes and colors in stock, and suggested complementary products—customers are given control of their shopping experience.

Sales associates equipped with RAIN RFID technology are empowered to better assist customers in fitting rooms and on the sales floor. With quick accessibility to item stock levels and product details, associates can be more effective in helping customers and more efficient on the floor. Empowered sales associates set the standard for a higher level of service and knowledgeable and engaged customer interactions.

1 Kurt Salmon, *Kurt Salmon RFID in Retail Study*, 2016
2 RAIN RFID Alliance, *Top Retail Brands Worldwide Adopting RAIN RFID*, 2018

Sales increase up to

25%with

inventory accuracy.[1]

"Zara's parent company, Inditex, has been known for using technology to revolutionize fashion— from using data to curate store inventories, to building smarter dressing rooms, and now, using RAIN RFID to enhance customer service, transform stores and improve their supply chain."[1]

RAIN RFID & Retail Recovery: An Update for 2021

A healthy amount of operational agility has always been integral to building resilience: in 2020, it became the difference between solvency and shutting down. In order to maintain flexibility, retailers will need accurate insight to make fast, data-backed decisions.

We wrote this ebook before the onset of COVID-19, but we find that now, more than ever, RAIN RFID is a proven solution with a role to play in helping stores recover. In addition to the seven ways listed in this ebook, retailers who had already adopted RAIN RFID prior to 2020 were able to:

- Access real-time inventory from anywhere in the enterprise, accelerating all options for omnichannel fulfillment such as buy online, pick-up in-store (BOPIS), and curbside pickup, home delivery, and leveraging inventory from closed stores to fulfill orders.

- Improve customer safety and peace of mind with new services like automated checkout, automatic crowd control, and other social distancing measures

Moving forward, digital transformation will be key to long-term flexibility. Retailers utilizing RAIN RFID will find they have an advantage in this new post-COVID world.

Want to learn more? Read the blog Four Ways Retail is Expected to Change After COVID-19 or see how customers like Nike and Zara have used RAIN RFID in their COVID-19 recovery strategies.