



## RADIO FREQUENCY IDENTIFICATION: THE NEXT BIG THING IN RETAIL?

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Radio Frequency Identification (RFID) might just be the next big thing in retail. RFID, an electronic device, small enough to remain undetected by the average consumer, can be discretely attached to an item and allows retailers to uniquely identify a product in the same manner as a bar code. The advantages and possibilities of RFID however, go well beyond your standard bar code. The tiny microchip inside an RFID tag allows retailers to improve everything from inventory and supply chain management to a customer's overall shopping experience. In addition, because RFID does not depend on personal devices such as smart phones to obtain information, it can mitigate some of the privacy risks that have been associated with technology such as [Mobile Location Analytics](#) or "[beacon technology](#)."

In the context of inventory and supply chain management, RFID allows retailers to track shipments of individual items, containers, or even delivery trucks, reducing the potential for lost or misplaced inventory. Retailers can also use RFID to quickly ascertain inventory levels without the need to physically count or search for an actual item. Researchers at the RFID Lab at Auburn University have found that item-level RFID increases inventory accuracy from 63 percent to 95 to 99 percent and inventory labor product by 96 percent.<sup>1</sup>

Grocers and other retailers of inventory that carry expiration dates can use RFID to improve quality control. Similarly, RFID technology has been used to develop what has become known as "smart shelves," which also allows retailers to adjust prices in response to approaching expiration dates or as part of a dynamic pricing model. All of this can be accomplished without having to physically change price tags because the shelf labels are electronic displays and controlled remotely by a single

device. Finally, RFID can enhance asset protection by tracking items that might be at a higher risk of theft and by [preventing return fraud](#) or returns of stolen products.

Not only has RFID been shown to improve inventory management, but it has also been used to improve a customer's shopping experience. For example, by placing an RFID tag on every item in a Levi's store in San Francisco, Levi's has been able to monitor inventory status, purchase data, item popularity, shopper movement, and even the amount of time a shopper spends with an item before making a purchase. Grocery stores have used RFID to allow shoppers to scan an item to see ingredients, look up recipes, and even obtain background information about their food products, such as the farms or ranches where the product was grown.

Finally, if you've ever been concerned that the Hermès bag you're purchasing might not be the real thing, RFID can help here too. An RFID chip attached to luxury products allows a customer to scan and authenticate the item using their smartphone or through a company's website.

RFID chips can be deactivated at the point-of-sale, or remain active as is necessary to authenticate luxury goods. Deactivating the chips may eliminate privacy concerns that would otherwise occur once the chips leave the store with a customer. However retailers decide to utilize RFID technology, it evidently has the potential to dramatically change the way retailers operate.

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1. Melanie Nuce, "Three Ways the Internet of Things Will Change Retail" Supply & Demand Chain Executive, April 7, 2016, available at <http://www.sdexec.com/article/12165982/three-ways-the-internet-of-things-will-change-retail>.

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