

## METRO Group moves closer to its “Future Store” vision with smart merchandising enabled by RFID.

### Overview

#### ■ Business Challenge

To meet rising customer expectations and stay ahead of the competition, METRO Group sought to enrich the shopping experience of its retail customers by providing them with valuable and relevant content—in real time, as they shop.

#### ■ Solution

METRO Group and IBM worked together to create a first-of-a-kind “smart” solution for retail that tailors in-store merchandising messages by tracking product movement in real time. This same capability provides METRO Group with real-time business intelligence and the means to optimize its retail processes.

#### ■ Key Benefits

- More engaging customer experience through detailed product information delivery
- Improvements in inventory and shelf-replenishment management
- Reductions in out-of-stock situations and lost sales through automated replenishment alerts



Based in Duesseldorf, Germany, METRO Group is the fifth largest retailer in the world, with some 290,000 employees working at over 2,100 outlets in 32 countries in Europe, Africa and Asia. Its brands include Metro Cash & Carry, Real, Media Markt, Saturn and Galeria Kaufhof (pictured above).

To be successful over the long term, retailers have to do a lot of things right, and do so consistently. It means having not only the right mix of products, but a retail experience that is compelling and satisfying enough to keep customers coming back. While creative and effective merchandising is essential to achieving this, it's just as important for retailers to meet a more basic requirement—that when a customer wants a product, it will be on the shelves and not out of stock. This last point underscores how important it is for retailers to seamlessly align their downstream retail operations—the parts of the business that customers see—with their upstream supply chain operations.

*“Our use of RFID is improving our operational effectiveness as well as the shopping experience of our customers. Our relationship with IBM has been a strategic component of our RFID programs and one of the biggest factors in our success.”*

— Dr. Gerd Wolfram, managing director, MGI METRO Group Information Technology

### Business Benefits

- More engaging customer experience through personalized product information delivery
- Reductions in out-of-stock situations and lost sales through automated replenishment alerts
- Increased revenue through improved cross-selling capabilities
- Reduced inventory and logistics costs
- Improved sales associate productivity
- Ability to perform instantaneous inventory counts
- Significant expected reductions in logistical errors related to parts shipments

*“Our success depends on our gaining the trust of the customer at every stage of the retail interaction. This means making sure we have the products our customers want and a retail shopping experience that rewards and builds on that trust.”*

– Dr. Gerd Wolfram

The fact that it's always in motion due to constantly changing products, customer preferences and purchasing patterns, to name just a few, makes it even more of a challenge.

Another constant in retail is the steady upward trajectory of customer expectations, specifically around how technology can be used to improve and enrich the shopping experience. For a long time, rising retail expectations were focused on the quality and convenience of the online shopping experience. Retailers responded first by effectively emulating their brick-and-mortar experience online, and then moving beyond it by providing a richer array of information and services to supplement the online experience, ranging from detailed product information to user-generated content. Now there comes a new chapter in the technological evolution of retail.

### Great expectations

Recognizing how much consumers have come to expect easy access to information in every sphere of their lives, one of the major international retailers—METRO Group ([www.metrogroup.de](http://www.metrogroup.de)) based in Duesseldorf, Germany—is pioneering the use of RFID. The crux of METRO Group's project is the use of RFID to automatically deliver the most relevant information to customers at different points of the purchase process, thereby making the customer experience more efficient, memorable and satisfying.

While METRO Group's importation of advanced technology into physical retail breaks new ground in the industry, the initiative actually builds on a number of first-of-a-kind projects employing intelligent RFID, albeit in a different part of the company's operations along the entire supply chain. It began in 2002, when METRO Group started working with a number of technology partners to lay the groundwork for next-generation retail processes, an effort that came to be known as the METRO Group Future Store Initiative. The first phase of the initiative culminated in the deployment of Europe's largest supply chain RFID solution. Designed and deployed with IBM and powered by IBM software, the solution enables the METRO Group to track shipments from its suppliers to its warehouses and distribution centers and then on to its outlets in Europe.

When METRO Group decided it wanted to extend the Future Store Initiative more deeply into its in-store retail operations, it again turned to IBM. As conceived by METRO Group, the project would focus on the company's Galeria Kaufhof department stores, a chain of more than 140 stores in Germany and Belgium focused primarily on fashion items. While the project would have a significant supply chain angle, its distinct emphasis was on weaving RFID deeply into the fabric of the customer's in-store experience.

Working closely with Kaufhof personnel, IBM Global Business Services conducted a detailed process assessment—covering everything from back-room operations and merchandising to shelf-replenishment and floor sales practices—and from that, designed a first-of-a-kind RFID solution that was implemented on a pilot basis in the men’s department of a Kaufhof store in Essen. Working with a series of technology partners, IBM led the implementation of the RFID infrastructure.

### **RFID a good fit**

The source of the solution’s intelligence is the ability to detect the movement of products within the store via RFID, and then use that data to invoke and display information. This movement, in turn, corresponds to (and is driven by) specific actions on the part of the customer, such as removing an item from the shelves and bringing it into a dressing room. To enable this, each of the roughly 30,000 articles in the men’s wear department in the pilot have an additional RFID tag, while RFID readers are placed at strategic spots throughout the store. On the shop floor, intelligence comes into play, when RFID readers embedded within “smart shelves” detect and record each time an item is removed from the shelf so that the data can be analyzed for patterns later. It’s in the next stage—when the customer takes the item to try on in a reader-equipped smart dressing room—that the system’s intelligence is manifested in a richer customer experience through showing additional product information and cross-selling ideas on a touch screen.

Once the product enters the premises, the system recognizes it and records it as a transactional event in METRO Group’s merchandise information systems, where the IBM RFID tracking solution (implemented by IBM Global Business Services and the first to use the new global EPC Information Services, or EPCIS, standard) serves as a repository for all information. Leveraging underlying business logic, the system is then able to look up content associated with the product and display it to the customer in the form of suggestions (“Other products that would go well with that shirt include...”) and information on other available sizes and colors for the product. This same type of automated assistance is also provided by an RFID reader-equipped “magic mirror.” In the event a customer wants to retrieve a complementary product, or a different color or size, the system informs the customer whether it is in stock and where it is on the shelves or in the back room. Overall, the solution demonstrates how the “right” information can be used to create a more convenient and satisfying shopping experience.

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## **Solution Components**

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### *Software*

- IBM WebSphere® Application Server
- IBM WebSphere MQ

### *Services*

- IBM Global Business Services
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## **Smart solutions for retail**

Incorporating RFID into its in-store retail operations, METRO Group broke new ground by enabling “smart” merchandising practices that provide a more customized and engaging customer experience. The solution’s real-time sensing and reporting capability enables a quantum improvement in retail process efficiency, while providing METRO Group with the valuable insights into consumer trends it needs to optimize its product mix and increase its revenues.

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By bringing RFID-based business intelligence into the physical retail environment and making it transparent, METRO Group is also dramatically improving the effectiveness of its decision making and processes. On an operational level, the system's dashboard-based reporting capability gives store managers a real-time window into on-site inventory and provides automated out-of-stock alerts, thus ensuring that the most popular products are always available to customers and lost sales are minimized. Dashboard analytics can also alert managers to potential product abnormalities or problems by flagging patterns, such as a product that is frequently taken from the shelf and/or tried on but not purchased. Over the longer term, METRO Group can also harvest the business intelligence generated by the solution to gain insights into customer buying trends to ensure that it stocks the right products on its shelves. This helps METRO Group to not only maximize the revenue efficiency of its merchandising strategies, but also improve the accuracy of inventory counts, minimize inventory carrying costs and reduce the logistics costs of returning unsold products to suppliers.

### **Smart means efficient**

With cost control a concern for all retailers, the solution's positive impact on process efficiency further strengthens METRO Group's business case for smart retail. It starts at the loading dock door, where RFID readers provide workers with detailed information about goods received from the warehouse, thus minimizing the need to physically inspect boxes and significantly reducing the cost and time of the receiving process. On the retail floor, the ability to track down products on the shelves or in inventory means employees can spend less time searching and more time helping—and selling to—customers. By combining smart tools for sales associates with the cross-selling benefit of smart dressing rooms, METRO Group is putting in place a strong foundation for faster revenue growth, increased customer satisfaction and stronger customer loyalty.

Dr. Gerd Wolfram, managing director of MGI METRO Group Information Technology, sees the Galeria Kaufhof project—which was one of the first to use the new EPCIS RFID standard that METRO Group helped develop—as clear evidence of the benefit of smart technology in all aspects of retail. “Our use of RFID is improving our operational effectiveness as well as the shopping experience of our customers,” says Dr. Wolfram. “Our relationship with IBM has been a strategic component of our RFID programs and one of the biggest factors in our success.”

### **For more information**

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Armonk, NY 10504  
U.S.A.

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