



KAYSER-ROTH DEPLOYS ITEM-LEVEL RFID TRACKING SOLUTION FROM MOTOROLA AND ENTIGRAL SYSTEMS



ORGANIZATION OVERVIEW: KAYSER-ROTH CORPORATION

Privately held Kayser-Roth Corporation is a leader in legwear and intimate apparel. The company has offices in North Carolina and New York and is a subsidiary of Italian legwear company, Golden Lady. Kayser-Roth has introduced many of the industry's most innovative and trend-setting products including the first control-top hosiery and the first reflective sport sock.

Kayser-Roth's four manufacturing facilities in North Carolina and Tennessee are recognized as some of the most efficient and modern in the world. The company takes pride in its philosophy that no detail is too small.

CUSTOMER PROFILE

Company

- Kayser-Roth Corporation
- Greensboro, North Carolina, U.S.A.

Industry

- Apparel manufacturer and marketer

Key Benefits

- Providing rapid Quality Control management, vital to item-level RFID commitment for a major partner
- Enabling quick audit of product on the retail shelf (cycle counting and inventory management)
- Facilitating new capabilities including bulk auditing
- Providing a rich-data, "one-to-many" RFID foundation for future efficiencies

CASE STUDY
KAYSER-ROTH CORPORATION



THE CHALLENGE

Solving current needs and creating future opportunities with RFID

Known for brands including HUE, No nonsense, Burlington, and others, Kayser-Roth also manufactures private-label brands for major retailers across the nation. Kayser-Roth values close working relationships with its partners, and states that a key Kayser-Roth goal is offering “innovative solutions and remarkable products” to its retail partners and customers.

A significant U.S. retailer initiated a nation-wide item-level RFID (Radio Frequency Identification) program to enhance inventory control. While RFID is well established for end-to-end supply chain tracking of pallets and cases of merchandise by suppliers and retailers, the use of RFID tags on individual packages of product is a new approach that offers even greater efficiencies. For example, items tagged with RFID enable

very fast, “touch-free” scanning of retail shelves, and retailers are seeing advantages in ensuring optimal stock levels. Pilot programs in the industry have demonstrated that the tight inventory control enabled by RFID can increase sales. Potential uses in the future include loss prevention and streamlining of the checkout process.

The major retailer is a leader in operations innovations, and when it requested item-level RFID tags on the products manufactured for them by Kayser-Roth, the Kayser-Roth team saw a two-pronged opportunity. A Project Manager at Kayser-Roth said: “We were ready to embrace the advances in product tracking and inventory initiated by our retail partner, and we knew that the rich data environment of RFID could deliver a wide range of efficiencies and new capabilities for us, now and in the future.”

“Our challenge was to deploy a cost-effective RFID solution with the sophistication to meet our retail partner’s needs today while also paving the way for an ongoing series of innovations ahead for our retailer and for Kayser-Roth,” a Project Manager said.

THE SOLUTION

Entigral expertise and rugged Motorola mobile computers

The RFID solution deployed at Kayser-Roth begins with several thousand RFID tags printed in batch and then placed on individual selling units of product during

Motorola Products

- Motorola MC9090-G RFID Handheld Mobile Computer and the Motorola Service from the Start program

Application

- System enables rapid Quality Control (QC) for item-level RFID tagged products and paves the way for fast, accurate product verification, tracking, and data gathering in the manufacturing facility, distribution centers, and on the retail floor

Motorola Partner

- Entigral Systems



CASE STUDY

KAYSER-ROTH CORPORATION

manufacturing. These tags enable the tracking and audit process.

Kayser-Roth Quality Control (QC) personnel use Motorola MC9090-G RFID handhelds to audit the product in their manufacturing facility. "We ensure that the RFID tags are being applied correctly, verifying that the tags work and are attached to the correct SKU, for retailer visibility downstream," a Project Manager explained.

The solution is based on Entigral Systems' TraxWare® software platform. TraxWare is designed as a foundation for enterprise asset tracking applications that can be deployed quickly, customized easily, and communicate effectively with corporate systems and databases.

Kayser-Roth did a thorough analysis of requirements and in-house capabilities for the RFID project, and evaluated a number of vendors. Outstanding RFID expertise was a major reason for choosing Entigral, according to Kayser-Roth project management. "My key contact at Entigral had a much greater knowledge of RFID than other suppliers I talked with: that level of knowledge made me much more comfortable working with Entigral."

"Entigral's pricing was very reasonable, their knowledge vast and compared to other players, the Entigral team was very attentive during the whole process—they always responded quickly when we had questions," a Project Manager stated.

Entigral and Kayser-Roth identified the Motorola MC9090-G RFID handheld mobile computer as the best fit for the solution. L. Allen Bennett, CEO and President of Entigral Systems, highlighted the Motorola MC9090-G antenna configuration along with a powerful RFID reader and strong wireless connectivity among the reasons for this choice.

"The Motorola MC9090-G has the necessary operational specifications, operating system, and flexibility to support the TraxWare solution effectively and lends itself well to future applications in the Kayser-Roth manufacturing and warehouse environments," Bennett noted.

The MC9090-G offers multiple configurations to support standards around the world, and this was another advantage for the Kayser-Roth solution, according to Bennett. "In addition to the Kayser-Roth facilities in the U.S., the radio had to be certified to work in China, and Motorola has the global vision and technology flexibility to satisfy global operations," Bennett said.

Entigral also manages the Motorola Service from the Start program for Kayser-Roth. "The ability to maintain operational status is paramount for this project, and we're not having any trouble with the Motorola mobile computers," a Kayser-Roth Project Manager stated.

The users of the MC9090-G RFID handhelds at Kayser-Roth are pleased with the ease of use and performance of this mobile computer. "The screen is large enough to read easily and it has a full alpha-numeric keypad," a Project Manager said. "Because the battery lasts eight hours plus, we don't need to switch out units in the middle of the shift."

"We wanted a user-friendly RFID solution to meet immediate Quality Control audit capabilities and also a foundation for order fulfillment needs and increased efficiencies at Kayser-Roth in the future: Motorola and Entigral Systems delivered exactly what we needed fast and at a reasonable cost."

Project Manager, Kayser-Roth

In order to maintain the operational status required by this installation, the MC9090-G needed to work independently of the network and corporate servers. The Motorola RFID handheld mobile computer has its own large memory and database, and one of the main strengths of the TraxWare solution is that it can function in a "disconnected" mode. "At the end of a shift, our QC people wirelessly synchronize to the network and corporate servers by just pushing a button. This capability saves time, because with the MC9090-G, there is no need for a user to plug in the mobile computer or go somewhere special to synch up," a Project Manager stated.

"RFID is very important to our retail partners and to us, and Motorola and Entigral delivered a very reliable, user-friendly solution," a Project Manager said. "Today we have an excellent QC system. Looking ahead, this solution enables us to scan every item inside a case, all at one time without opening the case—we'll be able to do bulk auditing very quickly in our manufacturing facility and in the DC [Distribution Center]."

THE BENEFITS

Rapid QC and a foundation for further efficiencies

Bennett emphasized that whether a product is on the retail rack, in a carton, or on a pallet or conveyer, RFID adds new dimensions to the inventory capability. "With a bar code scan, you have a one-to-one relationship, but with RFID you have one-to-many, and that's where you see a significant increase in efficiencies. Instead of having to touch each item one at a time, RFID basically throws an umbrella of energy around an area or a box and detects everything in it."

"Kayser-Roth personnel can use Motorola RFID handheld mobile computers to rapidly audit our own products on the retail shelf while simply standing in front of the display," a Project Manager said. "For retailers, sales floor inventory can go from hours to minutes with RFID reading."

The one-to-many advantage of RFID is fundamental to the QC process now in place at Kayser-Roth. "The QC person can put many poly bags containing our consumer selling units in what we call our 'hot box,' and then use the MC9090-G RFID handheld to verify that the proper tags were placed on the products," a Project Manager stated. "Within one to two seconds, it reads all tags, and displays the UPC code, the SKU, the quantity, and indicates whether there are unreadable tags or something that is not in our database."

All of this information is replicated to the Kayser-Roth corporate server for management reporting. "The system supports EPC standards, and can ultimately show the full chain of custody of a particular SKU," Bennett said. "Looking long term, the extensive intelligence provided by RFID enables capabilities including automated replenishment and automated reordering that can significantly reduce out-of-stocks: it's all about increasing sales for suppliers and for their retail partners."

In a next phase of the project, Kayser-Roth is considering bulk auditing using RFID, according to a Kayser-Roth Project Manager. "With RFID tags on each consumer unit, we have the opportunity to scan every item in a case, all at one time, for very rapid auditing in our manufacturing facility. We're also looking at the potential for a similar process in our DC and automating parts of the process using portals."

Kayser Roth is also looking at using the pinpoint locating technology of the MC9090-G RFID handheld. "The ability of our workers to determine the exact location of a specific item from audible and visible cues, in a sort of "Geiger counter" fashion, is definitely a capability we will evaluate to enhance efficiency in warehouse and shipping areas in the future."

For Kayser-Roth, the benefits of the RFID solution supported by Motorola RFID technology and designed and delivered by Entigral Systems include:

- Providing rapid Quality Control which is vital to a major retailer's item-level RFID program
- Enabling quick audit of product on the retail shelf for retailers' downstream, item-level retail initiatives
- Enabling new capabilities including bulk auditing
- Providing rich-data, "one-to-many" RFID foundation for future efficiencies

ABOUT OUR PARTNER

Entigral Systems (formerly known as System Concepts) is a leading software vendor of asset tracking systems based on sensors, serialization, and advanced data collection. With a special focus on RFID, Entigral sells customized-off-the-shelf tracking applications to enterprise customers in the manufacturing, government, pharmaceutical, logistics and transportation industries. Entigral solutions are based on the TraxWare® software platform developed by Entigral to build sophisticated enterprise asset tracking applications.

For more information on how Motorola's RFID technology can improve your business operations, please visit us on the web at www.motorola.com/rfid or access our global contact directory at www.motorola.com/enterprisemobility/contactus