

CASE STUDY

RFID IMPLEMENTATION



APPLYING RFID TECHNOLOGY CAN CREATE A COMPETITIVE ADVANTAGE.

PROJECT SCOPE

Design and integrate inline RFID label printer/applicators within a distribution center in order to operate effectively while complying with customer mandates. This inline RFID print-and-apply operation is one of the first of its kind.

OVERVIEW

A major home appliance manufacturer began printing and manually applying RFID-encoded labels to comply with Wal-Mart's top 100 supplier RFID mandate. The company wanted to increase their competitive advantage by pursuing methods to increase their productivity, efficiency and flexibility thereby minimizing the cost of compliance.

The manufacturer chose to install three inline RFID label printer/applicators within their shipping area. FORTE was selected to design and integrate the systems based on the success of previous distribution initiatives. FORTE also assisted in the selection of hardware vendors. The installation was complete within five months of issuing the order.

PROCESS FLOW

Cartons are conveyed from picking areas to one of three automated label lines. Each line is equipped with both a standard bar code label printer applicator and a printer applicator that encodes 64- and 96-bit ALL-9338-02 "SquiggleT" RFID tags. Inline bar code scanners read product information including product ID and UPC code.

As a first step, Automation Director verifies that the product code and the UPC code coincide. Next the product is matched with its corresponding order requirement by Automation Director and an appropriate shipping label—either RFID enabled or standard—is selected, printed and applied to the carton. Shortly after application, a second inline scanner reads the applied label to verify the correct shipping label has been applied.

The customer's legacy WMS utilizes Manhattan Associates' RFID in a Box for tag assignment and monitoring. Control of printing labels is directed through FORTE's Automation Director software to the respective print/apply units.

For cartons requiring RFID tagging, the inline RFID-enabled printer applicator is used to encode and verify the RFID tag as the label is being printed. If the RFID tag is not properly encoded, the applicator rejects the label and automatically prints a new one before applying it to the carton. The verification step notifies the customer's legacy WMS system that the tag is active.

A beneficial attribute of the operation is that bar code and human-readable information are also printed on the RFID-encoded label so if an error occurs or the tag is damaged in route to the customer, the label is readable through RF scanning.

RESULTS

An adequate planning effort facilitated a smooth startup. All companies involved were able to fully understand the new technology and thoroughly test the accuracy and efficiency of the new process before commissioning.

The home appliance company not only complied with Wal-Mart's initiative but also has a competitive advantage because of the automated inline RFID process. As additional big box retailers require RFID value-added services, the manufacturer will be able to quickly adjust and deliver accordingly, maintaining their reputation for high customer service.



**THINK
INSIDE
THE BOX**

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OTHERS HAVE TAKEN TO OUR POINT OF VIEW.

Leading companies are embracing FORTE's advanced CONTINUIM™ methodology. In doing so, they are widening the performance gap over competitors and creating competitive advantages in their supply chain. Quite simply, they are distributing at the least cost, driving improved margins, and increasing profitability.

We have a national client base of Fortune 500 organizations, and fast-growing mid-market and small entrepreneurial enterprises. We're proud of the company we keep and welcome the opportunity to help you craft your optimal Distribution On Demand solution.

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