IBM

Sernam increases employee productivity and improves customer satisfaction with an RFID parcel tracking system.

Overview

■ **Challenge**
Sernam needed to be able to handle unpredictable spikes in package volume, reduce tracking errors and meet delivery deadlines.

■ **Why Become an On Demand Business?**
Sernam sought to improve its market position by transforming itself into an innovative, service-oriented organization.

■ **Solution**
Sernam teamed with IBM to deploy an innovative radio frequency identification (RFID) system that reliably tracks shipments and automatically notifies customers of their package status.

■ **Key Benefits**
– Reduced customer claims costs by 20 percent
– Decreased misdirected parcel costs by 30 percent
– Eliminated approximately 1,000 daily customer inquiry calls

›› **On Demand Business defined**
An enterprise whose business processes—integrated end-to-end across the company and with key partners, suppliers and customers—can respond with speed to any customer demand, market opportunity or external threat.

Sernam (www.sernam.fr), a European shipping company that transports 14 million parcels a year, operates in a highly competitive marketplace where customer demand for on-time delivery of parcels is high and tolerance for error is low. A former subsidiary of the SNCF French national railway, Sernam saw the opportunity to build on its market position by improving its tracking and customer notification systems.

In particular, Sernam identified challenges in its night delivery service—the company's existing barcode scanning system could not always effectively handle periodic, yet unpredictable, spikes in package volume. Sernam

"The RFID project illustrates for our customers that we're dedicated to providing great service."
—Vincent Banchet, CIO, Sernam

realized that if it did not improve its processes, it could face consequences including customer dissatisfaction.

Sernam needed a more streamlined and reliable method by which to track parcels—from pickup to delivery—as well as an efficient way to inform customers where their packages were in the shipping process.

ON DEMAND BUSINESS™

On Demand Business Benefits

- Reduced costs from customer claims for undelivered packages by 20 percent

- Decreased handling costs related to misdirected parcels by 30 percent

- Elimination of approximately 1,000 daily customer inquiry calls

- Improved customer satisfaction and resulting market share

- Improved responsiveness to customer inquiries

- Flexible processing that adapts to package flow

- A scalable solution to meet increased demands

"We implemented RFID to provide our customers with the most reliable delivery, and the widest range of package tracking options."

—Vincent Banchet

Improving delivery rates, customer satisfaction and market share

Sernam's ultimate goal was to become the company of choice for reliable and flexible parcel delivery services. Transforming into an innovative, service-oriented company was essential to improving Sernam's market position. To do this, Sernam needed an efficient, accurate way to track packages, and a way to provide customers with quick access to up-to-date information about the status of their parcels.

Moving to market leadership

IBM worked closely with Sernam to design and implement a wireless RFID system to track packages on the night delivery service. Launched in April 2005, the system was deployed in just three months, and now automatically handles one-third of the more than 60,000 parcels a month that move through the company's Porte de La Chapelle depot in Paris. The RFID system, one of the first of its type in the transportation industry, automates parcel check-in and enables electronic tracking of all packages. RFID readers in Sernam's warehouse track each parcel as it is loaded onto and unloaded from a truck or train during the transportation and delivery process. The system automatically notifies a customer of package status and delivery via the channel of that customer's choice (e.g., e-mail, fax or mobile device). "We implemented RFID to provide our customers with the most reliable delivery, and the widest range of package tracking options," says Vincent Banchet, CIO, Sernam.

This cutting-edge system allows each of Sernam's customers to select which tracking and notification method works best — a distinct advantage for customers and a competitive advantage for Sernam. The company's new service can quickly notify the sender about a problem with incomplete delivery due to an incorrect address, an absent addressee or a routing error. "With RFID we are immediately aware of any concerns," adds Banchet. "As a result, we can resolve them and, if necessary, let the customer know."

The specialized skills of IBM professionals

Specializing in RFID technologies and integration, professionals from IBM Integrated Technology Services and IBM Business Consulting Services collaborated with Sernam to design and deploy the system. IBM began the project with a strong understanding of Sernam's IT architecture and its business processes. The team evaluated third-party mobile messaging and Web interface providers, and worked closely with the other companies that developed Sernam's tracking application and supplied RFID printers.

The IBM-implemented solution integrates seamlessly with Sernam's existing architecture. The solution supports multiple terminals and communications channels, initially handles an estimated daily volume of 12,000 total e-mails, faxes and mobile messages, and can scale easily to accommodate increasing demand. The system's RFID readers automatically send the status of the packages to Sernam's information system where the wireless application then sends an alert to each customer's preferred communications channel. If a message fails to reach the intended customer, the originating Sernam branch office is notified. Banchet explains, "It was critical to integrate the RFID system with our other applications. The information transmitted by the RFID tags must be pertinent and available immediately."

To provide end-to-end integration and connect real-time information across Sernam's business, the wireless solution includes IBM WebSphere Application Server for z/OS technology, offering a Java™ technology-based application server optimized for delivering applications running on an IBM @server zSeries mainframe in an IBM z/OS environment. IBM DB2 Universal Database software provides dependable, long-term event storage. For development, the IBM team used Java technology-based IBM Rational Application Developer for WebSphere Software. IBM WebSphere RFID Device Infrastructure integrates data from a variety of readers and filters, aggregates RFID data and delivers RFID events to the IBM WebSphere RFID Premises Server. A robust and scalable middleware platform, IBM WebSphere RFID Premises Server helps Sernam transform its business by connecting the edge of its environment with enterprise operations. IBM WebSphere MQ provides reliable messaging and delivery of the right information in the right format at the right time.

Very convincing results

Sernam's RFID parcel tracking produced convincing results at a reasonable cost. "It has increased the confidence our customers have in what we do for them," concludes Banchet. "In financial terms, making the overall chain more reliable has cut our dispute resolution costs by 20 percent and misrouted parcels by 30 percent." Sernam can now handle spikes in shipping volume in its critical night delivery service because packages are automatically handled and routed. Fewer manual tasks enables Sernam to increase productivity and save staff valuable time in tracking packages and attending to customer inquiries. Because customers can track their packages via the methods each prefers, Sernam reports 1,000 fewer phone calls per day from customers inquiring about the status of a specific shipment, helping to reduce costs. In the future, Sernam hopes to gain further business and technology benefits by installing RFID reading systems in its delivery trucks, and at locations where its customers print RFID tags themselves.

Key Components

Software

- IBM WebSphere® Application Server for z/OS®

- IBM WebSphere RFID Device Infrastructure

- IBM WebSphere RFID Premises Server

- IBM WebSphere MQ

- IBM DB2® Universal Database™

- IBM Rational® Application Developer for WebSphere Software

Servers

- IBM @server® zSeries® in an IBM z/OS environment

- IBM @server xSeries®

Services

- IBM Business Consulting Services

- IBM Integrated Technology Services

- IBM Global Financing

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For more information

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