

Moraitis Fresh can deliver improved customer relationships with an IBM RFID solution

Overview

■ Challenge

Moraitis needed a way to better meet consumer demand for fresh, natural products—and build stronger relationships with its retail customers.

■ Why Become an On Demand Business?

To gain supply chain visibility, optimize communications with retail partners and improve its processes.

■ Solution

A Radio Frequency Identification (RFID) solution will enable end-to-end supply chain visibility.

■ Key Benefits

- The company will respond immediately to retailer needs.
- Moraitis will be able to purchase its inventory via a variable cost structure—related to actual yield after processing.
- Ability to redeploy staff efficiently.
- Moraitis estimates it will recoup investment of A\$100,000 within a year of full implementation.

» 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.



Focused on a new supply chain view

Family-owned Moraitis Fresh is the market leader in wholesaling, packaging, processing and growing fresh produce throughout Australia. Seeking a way to expand its competitive edge by increasing productivity and enabling better communications with its retailers, Moraitis engaged IBM Business Consulting Services to design and implement a wireless product identification solution for its new production facility. The pilot project has been a comprehensive success, and the company plans to implement fully in due course.

“The solution has the capability to provide complete accountability and traceability of produce across the entire supply chain. This will allow us to respond to supply fluctuations quickly, and identify ways we can improve operations even further to grow in a highly competitive marketplace.”

– Peter Daniele, IT Manager,
Moraitis Fresh

Integrating solutions that help enable On Demand Business

On Demand Business Benefits

- The company will know the precise amount and grade of tomatoes in its supply chain at any given time, and can therefore respond immediately to retailer needs.
- Moraitis will be able to purchase its inventory via a variable cost structure – related to the actual yield of tomatoes after processing.
- Volume may increase and packing times decrease – allowing Moraitis to redeploy staff more efficiently.
- Moraitis estimates it will recoup initial investment of A\$100,000 within one year of full implementation, and expects significant ongoing operational cost savings.

A supplier to supermarkets, fruit markets and national restaurant chains, Moraitis has always been an early adopter of technology, as it strives to maintain its leadership position in the industry. The innovative company constantly fine-tunes its back-end systems, and recent technological improvements to its physical plant include optical grading and controlled atmosphere storage and packing of produce.

Like many of its peers involved in the overall consumer products industry, Moraitis is moving toward optimizing and automating business processes. By transforming the way it responds to customers' needs for varying amounts and grades of fresh tomatoes, the wholesaler has placed itself at the forefront of the next big trend to impact the consumer products industry. Moraitis is now well positioned for growth and to meet anticipated industry adoption of Radio Frequency Identification (RFID) technology.

Sending the right signals

Moraitis had previously relied on industry-standard produce-tracking procedures: handwritten marks on trays and boxes, printed slips of paper, or various generic bar codes. Prior to this project, the company had bought tomatoes in bulk and paid by tonnage, regardless of the grade of tomatoes received.

IBM Business Consulting Services managed the pilot project from requirements gathering to designing an application that uses wireless technology to track produce throughout the entire production process. Based on the findings of an IBM evaluation of Moraitis' environment and processes, the IBM team developed an application using Java™ technology on a Java 2 Enterprise Edition (J2EE) application server, and worked with Magellan Technology to procure RFID tags and RFID tunnel readers for Moraitis.

IBM developed and implemented a solution that included RFID readers and tags from Magellan Technology. The pilot project's first phase involved the use of reusable RFID tags on tomato trays, and the installation of RFID readers at two of Moraitis' tomato grading and packing operations. RFID is a method of storing and remotely retrieving data through the use of RFID tags, or "smart labels," containing a microchip that receives and responds to radio frequency queries from an RFID transceiver. The full implementation is expected to bring about a complete transformation in the way the company and its customers view the supply chain.

“The ability to respond immediately to our retail partners’ unique requirements is a big differentiator for us, and the pilot project has already significantly improved several key relationships,” says Peter Daniele, IT Manager for Moraitis Fresh.

“We believe our use of RFID is a first for the Australian fresh produce sector, and that it will enable us to tell our retailers exactly when and where the produce was grown, packed and shipped—all of which cost-efficiently strengthens our position in the market.”

Continuous monitoring

The RFID system provides accurate data on origin, packing date, type, quality and size of the four tons of tomatoes Moraitis ships every day. For example, Moraitis will be able to monitor key metrics such as waste per batch and the exact number of trays received from each grower. The company believes it can achieve better cost containment by paying growers based on the actual quality and specific numbers of tomatoes received.

When the tomatoes arrive at the Moraitis facility, staff use handheld RFID readers to identify the trays. They then allocate a lot number to make the trays ready for retail distribution. The tomatoes are graded, separated and shipped in the trays, which can be returned to Moraitis for reuse. When the RFID system is fully integrated into Moraitis’ business operations, the wholesaler can gain competitive advantage through its improved distribution system, and enhanced information sharing with its supply chain partners—including growers, supermarkets, fruit markets and restaurants.

“Traceability of food is something that is going to be hitting us whether we like it or not, so investing in this project was a serious business decision for the future,” says Daniele. “We will be using it to build tighter relationships with our retailers, and respond to the big push in retail supermarkets and restaurants to provide fresher produce.”

Swiftly implemented

The pilot project was implemented in just over two months. The RFID tag responds to the reader with a unique identifier or “smart label” that enables the appropriate business application to identify the produce and store tracking information in business systems. Unlike bar codes, RFID does not require line of sight; the technology can read hundreds of tags simultaneously, it can write to tags, and on the pilot delivered 100 percent read accuracy.

Key Components

Software

- RFID tags
- RFID tunnel reader
- Microsoft® Windows NT®
- Windows® XP

Servers

- Java 2 Enterprise Edition

Services

- *IBM Business Consulting Services*
 - Supply chain concept development
 - Supply chain analysis, including RFID roadmap development
 - Development of an application to provide batch statistics on yields, total tomato trays processed, grower details, etc.
 - Integration of the application with RFID reader technology
 - Ability to integrate the application into Moraitis’ enterprise resource planning (ERP) systems

Business Partner

- Magellan Technology
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The RFID tags have increased the accuracy of Moraitis' inventory data through the supply chain. The automatic collation of tracking data may lead to significantly reduced costs associated with tracing products—producing appreciable cost savings for the company.

Preparing for the future, now

Moraitis' use of RFID technology in the pilot project is a clear business success, and the company is now considering deploying similar technology across other parts of its business. The IBM RFID pilot solution has offered the opportunity for lower costs, accelerated inventory throughput, real-time access to information, and more efficient supply chain management overall.

The solution has proven to be simple, elegant and highly effective. So much so that Daniele estimates that Moraitis will recoup the upfront costs of A\$100,000 within a year of full implementation, and expects significant ongoing operational cost savings.

For more information

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