

Successful Integration of Mega Retail Operation Positions Bailian Distribution Group as the “Wal-Mart” of China

Executive Summary

CUSTOMER NAME
Bailian Group

INDUSTRY
Retail

BUSINESS CHALLENGES

- Improve end-to-end logistics operation
- Enhance inventory accuracy and “put-away” (stocking) process
- Decrease operational costs

SOLUTIONS

- Build a technology-feasibility business case
- Develop a strategy for a wireless RFID solution
- Implement Cisco Connected Warehouse solution

BUSINESS RESULTS

- Overall end-to-end delivery cycle improved by a factor of three
- Shrinkage reduced 52 percent; put-away goods improved 66 percent
- Significant cost reduction due to paperless technology

Facing intense competition from global retail giants, the Bailian Group, China’s largest retailer, wanted to transform itself into a dynamic player with an advanced logistics operation enabled by innovative technology. With the implementation of RFID, the company has improved the delivery cycle by a factor of three, increased put-away efficiency by 66 percent, and reduced shrinkage by 52 percent. With help from Cisco® and its partners, the Bailian Group is well on its way to becoming the “Wal-Mart” of China.

Business Challenges

In a restructuring effort of the city’s State sector, Shanghai authorities created several mixed-ownership, joint-stock operations to give the area a stronger competitive edge. The process started in 2003 with the creation of the [Bailian Group](#), a merger of four state-owned enterprises including Shanghai First Department Store, Shanghai Hua Lian Supermarket Company, Friendship Market Company, and Shanghai Supply Company.

Today, the Bailian Group is China’s largest retailer with 7,400 stores located throughout China. The retail conglomerate generated revenue of US\$17.3 billion in FY05 and reported assets of over \$5.78 billion.

Concerned about successfully integrating these four businesses into a cohesive operation, as well as facing a significant competitive threat from retail giants, such as Wal-Mart and Carrefour, Bailian Distribution Group executives wanted to implement technology that would enable a competitive advantage, protect market share, and promote business growth.

In late 2005, while attending a conference in China, Mr. Jinxiu Shi, CEO, Bailian Distribution Group; Dr. Kaijiang Wang, CEO of JMIT, a local systems integration company; and other Bailian executives spent time with [Cisco](#) representatives discussing Cisco’s experience in the retail market. During the course of the conversation, Mr. Shi and his team talked to Cisco about more effective ways to integrate the Bailian



operation. They also learned about the critical nature of supply chain effectiveness and what Wal-Mart was doing in its own RFID-enabled supply chain. Several weeks later, interested in learning more, Mr. Shi invited Cisco to visit Bailian's headquarters and continue talks.

At that meeting, the Bailian Distribution Group executives talked about how to use technology to better integrate their stores. As their discussion progressed, Cisco learned that they were also dissatisfied with the overall logistics operation.

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Jinxu Shi, CEO
Bailian Distribution
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Cisco began to investigate Bailian's supply chain and found that the warehouse operation was mainly paper-based, with very low data transparency. This prevented workers from updating the database more than once daily, resulting in very low throughput and high inventory turnaround time. Because the warehouse was such a major component of the entire supply chain, Cisco recommended that improvement in that area would have a positive impact on the entire distribution operation.

Bailian had already purchased a warehouse management system in 2004, and worked with JMIT to build the application pieces within the enterprise resource planning framework. Cisco knew that this basic environment could be the foundation for introducing RFID into the Bailian supply chain and worked with JMIT's CEO Dr. Wang to discuss the feasibility of implementing RFID within that environment, using the U.S. RFID Electronic Product Code (EPC) standard.

"Cisco explained the scope and how it would help Bailian improve its supply chain operation," says Dr. Wang. "We investigated it further and, together, developed a roadmap for implementation."

Solutions

Working with Intel, JMIT, VeriSign, Tyco, and Fudan University's Auto-ID Lab, Cisco packaged an RFID solution called Cisco Connected Warehouse to provide supply chain visibility from the manufacturer's site through the logistics operation to the warehouse and finally to the retail stores. Implementation was scheduled in phases to ensure that each stage worked as planned before moving on to the next.

The primary goal of Phase 1 was to prove the feasibility of the solution by demonstrating that the technology of five different vendors could be integrated effectively and that the U.S. EPC standard was the right approach to take. Deployment of the pilot test began in early March of 2006 and was completed in June. Cisco tested the RFID technology in a simulated environment, evaluated the hardware, and proved how well the RFID system would work with Bailian's existing computer systems.

“The pilot test went very well,” says Mr. Jianhua Tan, head of Bailian Logistics Business Unit. “Based on that, we decided to undertake a full deployment of the entire 6,000-square-meter warehouse.”

Phase 2 was targeted for the receiving department. Bailian began tagging items at its Shanghai warehouse to monitor how long goods were kept in the distribution center, how they were moved around, and where they were stored. The technology was once again tested and the RFID solution finalized to begin re-engineering the operation process and building the case for ROI calculation. With Phase 2 proving as successful as Phase 1, the team moved on to Phase 3, performing the tracking and tracing of products from the supplier to the distribution warehouse and retailer by establishing an EPC network for logistics data sharing between retailers and consumer packaged goods manufacturers.

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Dr. Kaijiang Wang
CEO, JMIT

Business Results

The Bailian distribution center has gone from paper-based manual logistics to a completely automated RFID-enabled warehouse. When goods are delivered, workers use RFID readers to scan the bar code on incoming pallets at the dock area and immediately transfer that information into the warehouse management system. Forklifts read the RFID tag on the pallets, communicate with the Cisco wireless network to confirm the exact location for storage, and a navigation system on the forklift directs the operator to the right spot. When the operator puts the goods on the shelf, the reader verifies the tag, matches it to its source via the wireless system, and sounds an alarm if a mistake has been made.

“In my view, RFID technology can truly help us in four ways,” says Mr. Shi. “It can reduce error rate, increase efficiency, lower operational cost, and foolproof the entire manual process.”

The ability to track and trace merchandise from the time it leaves the manufacturer’s plant, to its journey through receiving and put-away in the warehouse, to its final destination at the retail stores has dramatically improved Bailian’s entire supply chain operation. Automation and data transparency have resulted in a near-zero error rate, which reduces shrinkage caused by misplacement in the warehouse. Productivity and throughput have also increased significantly because with the real-time tracing of goods, operators can quickly find, prepare, and deliver goods to the retailer as needed, rather than just once a day. Measurable results also include the following:

- Cisco Connected Warehouse solution enabled full RFID implementation of a 6,000-square-meter (roughly 65,000 square feet) warehouse, including receiving, put-away, picking, moving, and inventory checking
- Operational efficiency increased 150 percent

“The best value that RFID technology brings to the industry is to effectively integrate all the components in the supply chain.”

Jinxu Shi, CEO
Bailian Distribution
Company

- Put-away process increased 66 percent
- Revenue increased 100 percent due to faster movement of inventory
- Logistics operation doubled in size within 12 months
- ROI recovery is expected within 1.7 years (ROI recovery time will be even less in regions with higher labor costs)

Bailian Distribution Group's success was not only noted within its own organization. The Science and Technology Department of the Shanghai Government also recognized Bailian with its “Advanced Innovation Technology” award, along with \$100,000 funding to continue its restructuring and quest toward becoming the Wal-Mart of China.

Next Steps

Bailian Distribution Group is planning to deploy the Cisco Connected Warehouse solution to all of its logistics subsidiaries, as well as to the approximate 538,000-square-foot warehouse currently under construction.

More Information

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