

CASE STUDY

DCS TRANSFORMS LULU'S LOGISTICS OPERATION WITH MOTOROLA MOBILE TECHNOLOGY



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LULU LOGISTICS

Lulu Logistics, part of retail giant EMKE Group, is responsible for storing and distributing goods for more than 89 Lulu Hypermarket stores which sell food, electronics, clothes and housekeeping goods to more than 425,000 shoppers each day across the Middle East. Its Dubai facility is spread over 700,000 square feet while the Abu Dhabi site acts as the Master Distribution Centre (MDC) and spans an area of two million square feet.

THE CHALLENGE

Bring Real-Time Visibility to Operations

Lulu Logistics used a centralized Warehouse Management System (WMS) to run its distribution centers in Dubai and Abu Dhabi. Teams were running the sites using paper-based processes that were time consuming and error-prone. The company wanted to move to more efficient electronic data capture systems to gain real-time visibility over its stock situation and adjust to demand seamlessly and quickly.

CUSTOMER PROFILE

Organization

- Lulu Logistics (EMKE Retail Group)
- UAE

Industry

- Logistics/Retail

Motorola Products

- 131 MC3090G Mobile Computers
- 52 MC9090G Handheld Computers
- 50 LS4278 Scanners
- 50 Zebra S4M Wireless Label Printers
- 45 RW420 Wireless Label Printers
- 50 AP5131 Wireless Access Points
- 2 RFS 7000 Wireless RF Switches
- 185 AP300 Wireless Access Ports

Partner

- Data Capture Systems



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“The main objective of deploying a mobility solution for our distribution centers was to bring visibility to our business processes and simplify our operations. DCS played an important role for us to deploy a cost-effective solution that integrated with our existing WMS and brought real-time visibility and control to all our business processes, from the point of goods-in to storage, inventory, order processing, picking and dispatching. In a very short time, the system has improved the accuracy of our stock picking to 99 percent, while the number of unresolved inventory issues has gone down by around 96 percent. Our operations are very efficient and our retail store management are happy too with better in-store product availability.”

Madhav M S,
CIO, Lulu Logistics

THE SOLUTION

DCS Motorola Mobility Solution

Lulu selected Data Capture Solutions (DCS), to deploy a wide-scale mobility solution across both facilities. The system would help the company track orders and inventory more effectively and bring transparency to all aspects of its operations. Using Motorola mobile computers, scanners, label printers and wireless infrastructure technology, DCS put together a solution that would allow warehouse staff to capture data at every point of activity: from goods-in, storing and order processing to pick replenishment, dispatching and delivery. Each item change would update Lulu's WMS in real-time.



Applications

- **Track and Trace:** Products tracked from goods-in, storage, picking to dispatch
- **Seamless Integration:** Synchronization of devices with WMS ensures automatic update of all back end systems
- **Automated Pick Lists:** Electronic orders advise exact location of all products
- **Automated Pick Replenishment:** Products are picked and scanned, ensuring WMS is automatically updated for accurate replenishment planning
- **Loading and Dispatch System:** Picked packages are wirelessly scanned at different loading bays and invoices are printed via mobile printers
- **Order Fulfilment:** Orders are met correctly and on time
- **Transport Monitoring:** Warehouse teams have complete view of delivery truck locations and status
- **Exceptions:** Alerts are sent immediately to flag order shortages or discrepancies
- **Ease of Use:** Mobile computers and scanners are very simple to operate
- **Service and Support:** Devices staged by DCS, can be remotely monitored and updated

Benefits

- **Improved Accuracy:** Stock picking accuracy has increased to 99%
- **Increased Transparency:** Lulu has real-time visibility on movement of goods and all other warehousing activities
- **Increase performance:** Staff can use mobile devices anywhere within the wide-area facility
- **Real-Time Data:** Visibility of performance ensures replenishment keeps pace with store orders
- **Resource Optimization:** Real-time visibility to routing maps allows for better route optimization and fuel savings
- **Time Savings:** Mobile devices help Lulu fulfil orders quickly and on demand
- **Improved Efficiency:** Picking performance has increased by 72%
- **Stock Availability:** Automatic stock replenishment ensures stock is always available to meet store orders
- **Better Inventory Management:** Lulu has full visibility on its stock count -unresolved inventory issues reduced by 96%
- **Improved Service:** Stores receive the goods they have ordered on time – ensuring shelves are well stocked and customers are satisfied
- **Reduced Administration:** Electronic processes reduce administration costs and errors in data entry
- **IT Maintenance Costs:** Easy to use devices and DCS support services ensure reduced cost of ownership
- **Compliance:** Improved efficiencies help Lulu comply with international quality standards e.g. ISO 9000, 14000 and 22000

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THE BUSINESS VALUE

Improved Operational Efficiency

The mobile devices allow the organization to track, monitor and manage all merchandise movements and staff – and as data is communicated in real-time, it is easier and quicker to track any order shortages or discrepancies. The process of receiving an order to dispatching it has been accelerated, and stock picking accuracy has increased to 99 percent. Also, the level of unresolved inventory issues has fallen by around 96 percent, giving Lulu the time to handle more transactions – up to 72 percent more than it did in the past. The system has also helped reduce costs by replacing time-consuming paper-based manual processes, whilst providing a robust infrastructure that will help the company reduce its IT maintenance costs in the long-term.

DCS: Understanding Lulu's Retail Business

DCS had worked with Lulu for more than 10 years, deploying mobility systems for most of their retail stores in the region. After publishing a tender to find the best partner for this project, Lulu Logistics was confident in appointing DCS to deploy the system.

"We needed a mobile infrastructure that would help us remotely access our WMS and provide real-time visibility to all our business processes. We also needed to make sure that the equipment was easy to use and would perform well in the demanding conditions of our distribution centers. We spoke to a number of companies but were most impressed with DCS – it has the capabilities to provide the installation and after sales support we required," commented Madhav M S, CIO, Lulu Logistics.

Finding the Right Technology

With the end user devices, DCS recommended that Lulu deploy the wearable Motorola 9090G and 3090G mobile computers and Motorola LS4278 scanners. Zebra S4M label printers were also deployed for printing of RFID tags. For the wireless infrastructure, DCS deployed robust Motorola RFS 7000 wireless RF switches connected to AP300 and AP5131 wireless access points.

"The devices have large clear screens for easy viewing of information and with wireless connectivity, employees can move freely to any part of the distribution center and enter data easily whenever needed," says Pawan Singh, branch manager, DCS Abu Dhabi. "The rugged design of the user-friendly computers and scanners ensures staff can rely on continuous operation within facilities that include refrigerated areas. The devices also allow staff to scan barcodes from long distances, which is critical in distribution centers with several storage levels."

Supporting Business Process with Automatic Data Capture

The DCS mobile system enables key business processes for Lulu Logistics, including first-in first-out with best-before checks (vital for food items), cross docking, automated pick replenishment, voice picking, lot tracking, yard management and automated data collection. Using the Motorola LS4278 scanners, staff are able to scan goods as they come in and use the Zebra mobile printers to print labels which contain important storage information, such as best before dates, bin number, rack number, vertical level and check digits. The information is critical for both storage allocation and order picking as different merchandise have different storage areas within the facility.

Daily pick cycles are sent to warehouse staff on their MC9090G and MC3090G handheld computers with a list of goods to pick, where they're located and the quantity required. Each picked item is scanned ensuring Lulu's WMS is automatically updated for accurate replenishment planning. Invoices are printed automatically via mobile printers, while the picked goods in the barcoded containers are consolidated and loaded onto delivery trucks.

Cutting Time and Costs

Prior to the implementation of the new system, staff had to record information manually on paper, which then had to be re-entered into Lulu's Inventory Management System, which was time consuming and prone to errors. Data capture through bar code scanning has dramatically increased accuracy: picking accuracy has increased to 99 percent while picking productivity is up by 72 percent. The high rate of accuracy has also ensured Lulu stores are receiving the goods that the stock replenishment system shows as having left the warehouse. And in the case of discrepancies, teams are alerted quickly through their handheld devices, helping Lulu cut any unnecessary costs in transport or administration. Staff also have real-time access to routing maps that track the exact location and status of each delivery – any delays are quickly communicated with store managers. This also allows Lulu to optimize delivery routes and save on fuel costs.

Lulu previously relied on store managers to balance the demand for goods with whatever stock was available but the system now automatically balances all store orders before they are converted to pick lists, minimizing the dependency on personnel and ensuring all orders are met on time. With up to date records, Lulu is also able to better manage inventory counts, allowing it to keep less goods on hand and lowering overall carrying costs.



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Smooth, timely deployment

DCS delivered the project in just under eight weeks: the process involved integrating the devices with Lulu's WMS and SAP ERP system, staging devices and deploying the mobile network. DCS also worked closely alongside Lulu's IT team to train staff on the new devices and ensure a smooth and seamless transition to the new mobile environment.

"One of the most important aspects of the Motorola devices is that they are very easy to use," says Madhav M S. "Training didn't take long and employees were happily using the devices in no time. Management of the devices is also stress-free as all staging and maintenance can be done remotely by DCS – saving us both time and money."

Improved Efficiency and Customer Satisfaction

Commenting on the impact of the new technology, Madhav M S concludes: "The system brings visibility to all our business processes and has proved to be highly efficient in a very short time. We have a secure, reliable network that ensures our staff can enter and receive data quickly and easily. Data accuracy has also greatly improved which not only impacts our operations but ensures that orders are met and customers are satisfied."

For more information on how Motorola's MC3090G and MC9090G mobile handheld computers can improve your warehouse operations, please visit us on the web at www.motorola.com or access our global contact directory at www.motorola.com/enterprisemobility/contactus

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