Megatrux Improves Operations With RFID Tagging

The third-party logistics provider says it is seeing enhanced shipping accuracy as it tags and tracks cases and pallets bound for Wal-Mart facilities.

By Clair Swedberg

July 3, 2007—California-based third-party logistics provider Megatrux has deployed a radio frequency identification system for tracking all cases and pallets being shipped to Wal-Mart through Megatrux's main warehouse in Rancho Cucamonga. Provided by Montreal RFID solutions company Ship2Save, the system went live in June, following four months of testing.

Megatrux can use the system to apply RFID tags to product shipments, enabling the logistics provider to offer RFID compliance services to Wal-Mart suppliers that have not yet launched a system for RFID-tagging their shipments. The company can also employ the system to track the movement of cases and pallets into and out of the warehouse, as well as share this information with product suppliers. In addition, Megatrux uses the system for internal tracking of shipments, error prevention and providing greater visibility of shipments to its customers. Megatrux charges the shippers a fee for RFID tag application and visibility access.

Megatrux is an end-to-end shipping company that moves freight both domestically and internationally. It has eight warehouses throughout the United States, as well as nine subsidiary freight-moving businesses. The 175,000-square-foot California warehouse is the company's busiest, with more than 1 million cartons destined for Wal-Mart passing through it each year, says Julie Jarrett, Megatrux's vice president of sales and marketing. Most of the firm's customers, she says—namely, the suppliers—ship to Wal-Mart.

Megatrux had been seeking an RFID solution for several years, says Jeff Potts, the company's vice president of operations. After some testing with Ship2Save, it first installed the system at the California warehouse, which has the most traffic of all Megatrux warehouses. The new system includes RFID-enabled portals installed at six of the site's 36 dock doors, two label printers and one mobile reader, as well as middleware and integration provided by Ship2Save.

When cases of product arrive at the warehouse, Megatrux floor workers use Sato America CL408e printers to print and encode Gen 2 EPC labels. Employees apply the labels to cases of goods, and to pallets loaded with 40 to 50 boxes each. The product SKU and RFID label ID numbers on the boxes and pallets are all linked in Megatrux's warehouse management system via Ship2Save's Operation Management System middleware application.

After tagging, says Sam Falsafi, Ship2Save's director of RFID strategy, the loaded pallets pass through the RFID-enabled portals. Motorola DC600 fixed readers capture the ID numbers of both the boxes and the pallets, sending the data via a wired connection to the Operation Management System middleware. The middleware interprets the tag reads and transmits filtered data to Megatrux's warehouse management system. That data is then made available to shippers through a Web portal in the form of a dashboard, with such

details as each box's location and when it arrived there.

After pallets are loaded on bar-coded bins (specific shelf locations) inside the warehouse, employees utilize a Motorola handheld reader to scan the bins' bar codes and capture the RFID numbers on the pallets and cartons at 915 MHz. The interrogator includes a lightweight version of the Operation Management System, Falsafi says, which performs some onboard filtering of the tag data. The reader transmits that data to the application server via a Wi-Fi connection, after which Megatrux can determine the items' location in the warehouse, based on the bin numbers.

When the boxes are shipped out of the warehouse, the RFID reads at the portal prompt the automatic issuing of invoices and advance shipping notices. The warehouse system also includes 40-foot LCD screens, mounted over each dock door, which provide visual information to floor workers by listing the ID numbers of pallets waiting to be loaded. When the RFID portal detects that an incorrect pallet being loaded, the screen changes color and flashes a visual warning: "Wrong pallet. Not part of order."

The system integrates with Megatrux's existing global satellite tracking system, installed on individual trucks and designed to provide a graphic representation of a vehicle's location. It then notifies shipment recipients when the truck comes within 100 miles of the warehouse.

With the RFID-based system, Potts says, "we know what to look for. If something comes up [such as a box from a shipping order not arriving, or not being loaded on an outgoing truck], we can immediately respond. It allows us to be proactive, not reactionary."

Megatrux plans to install the RFID system in all its warehouses within the next 18 months, Potts says. The company is also encouraging its clients to begin tagging their own shipments as they leave their point of origin, before they ever reach Megatrux. Thus far, however, none of its customers have begun doing so.

RELATED_ARTICLES "Pallets are constantly coming in and going out," Potts explains, "and we've seen leaps in accuracy since installing the [RFID] system." The system saves time in inventory counting, Jarrett notes, while also eliminating human error.

"One inventory mistake costs a lot of money," says Potts. "Freight comes through so fast; when there's a mistake, the backlash is phenomenal." This system, Potts says, has thus far provided near-100 percent accuracy, and has already saved Megatrux money through reduced errors, though he declines to state a specific amount. What's more, customers pay a fee to offset Megatrux's cost of RFID tagging. According to Potts, the logistics provider expects to recoup the costs of its RFID investment in about 14 months.