

Device consolidation and workflow improvements using Lexmark MFPs and software allows Lexmark warehouse facilities to see more than savings by speeding shipments, cutting costs and improving customer service levels.

Distribution facilities get an extreme makeover with Lexmark MFPs and software

The Organization

Lexmark International, Inc. (NYSE: L XK) ships more than 300 million pounds of equipment to customers in the U.S. every year. The coordination of receiving and shipping orders quickly and effectively to customers is no easy task. The company maintains four primary facilities in the U.S. for this distinct purpose, including Seymour, Ind.; Ontario, Calif.; Reno, Nev.; and Nashville, Tenn.

The Challenge

The mission of Lexmark's distribution centers is simple: fulfill customer orders and ship the goods quickly. After all, if products aren't going out the door, revenue isn't coming in. But as Lexmark's business has grown, the systems and processes designed years before for a more modest business volume were approaching the breaking point. Customers placing orders for one or several units at a time have been joined by many that order pallets at a time, intended for delivery to multiple locations.

The existing system was unable to combine small, less-than-truckload (LTL) shipments, even if they were destined for the same geographic area, said Thomas Morrison, Director of Worldwide Operations in Lexmark's Customer Services Organization. The typical result was sending out several partially filled trucks when one fully loaded truck would have done the job more efficiently at considerably less cost.

With this practice occurring several times every day, Lexmark's freight bill was escalating quickly. Large retailers, distributors and end users buying significant volumes of Lexmark product were frustrated when several partially filled trucks arrived at their receiving dock on the same day.

"We had a clear need for a modern transportation management system that could scale as our business grows," said Morrison. "We knew

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—Thomas Morrison

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that if we could consolidate more shipments, we would pay less and improve our service to our customers."

Complicating matters, each shipping station was set up with four different printers, each dedicated to printing a single form required for the shipping process. Some generated bills of lading, others



printed shipping labels that were affixed to each pallet of goods, and another printed nothing but packing slips.

These laser and dot matrix printers took up valuable space and greatly increased the facility's maintenance overhead by requiring a large inventory of toner cartridges and ribbons. The dot matrix printers, used for generating bills of lading, relied on expensive multipart pre-printed tractor-fed forms. Run out of those forms and the entire facility would come to a halt. The system also required manual collation of all four documents to accurately get an order out the door.

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Though the existing system used a forms template for the laser printers instead of expensive pre-printed forms, this approach had been based on Lexmark's Optra Forms technology. A strong solution for modest operations, Optra Forms requires the forms image to be flashed to each individual printer's on-board memory. With 10 shipping stations in Seymour, Ind. alone, Morrison knew this was inefficient and management intensive. The software was also not robust enough to handle “multi-stop shipments” on a single bill of lading, a requirement in order to effectively consolidate shipments without confusing customers or carriers.

“What we needed was a way to combine shipments, provide custom forms and simultaneously cut back on hardware,” said Morrison.

The Solution

Lexmark first implemented a new transportation management system that automatically groups multiple orders by truckload and by region. With that new system in place, Lexmark had to ensure it had the right information available for the customer and for the shipping company.

To eliminate the menagerie of printers at each shipping station and combine shipments to fill trucks completely and reduce freight charges, Lexmark attacked the challenge from both ends. This involved consolidating printers into a single Lexmark multifunction printer (MFP) and leveraging the power of Lexmark Document Solutions Suite's Document Producer to create a custom application that can merge shipments by geography, generate master bills of lading for the freight carrier and print custom packing lists for each customer.

Each of Lexmark's shipping stations are now equipped with a Lexmark X642e MFP, configured with three trays. The first tray is for custom packing lists, blank on the front and with pre-printed terms on the back. Eventually those terms will be printed on demand. Tray two contains plain paper and tray three is for die-cut adhesive label stock, used for printing pallet shipping labels. For now, a dot matrix printer remains in place, used solely to print bills of lading. It, too, will disappear in the near future when the bill of lading and shipping label are printed together on a single sheet.

The centerpiece of the new system is Lexmark Document Producer, which communicates with the order-processing, accounting and other essential applications. Through Document Producer, orders are now processed by geographic area instead of sequentially, providing the basis for efficient order picking, consolidation and fulfilling the original product goal of full truckloads. Eliminating partial loads is not only reducing freight charges, it is also avoiding the assessment of fines by customers, congestion in the truck-staging area and fewer trucks crowding the highways.

With small orders consolidated for a single full truckload (FTL) shipment, Document Producer is able to print a master bill of lading along with “child” bills of lading covering the individual orders. Drivers no longer wait for paperwork to be collected and batched manually, and the carriers are now able to break down full loads for final delivery more quickly, leading to improved service to Lexmark's customers.

The pairing of Document Producer with the X642e MFPs provided the basis for the other major system component: printing custom packing slips on demand. No longer needing to flash forms templates to dozens of individual printers, the central Document Producer server stores all of the custom templates, combining them with the packing data in real time. The finished forms image is sent to the appropriate

printer, generating a finished, custom packing slip for each Lexmark customer. And, if ever changes are needed to a form, they can be quickly and easily made on the server and are immediately available.

Future plans call for using the Lexmark MFP to electronically transmit the bill of lading to the freight carrier with the driver's signature, providing information on shipments in transit.

Lexmark technicians de-installed the existing system and installed the new system over a single weekend and went "live" on the following Monday.

The Results

Now, Lexmark's shipping facilities have a completely new transportation management system that analyzes all pending orders and aggregates them for efficient picking and shipping. Its required shipping documents are printed on a single device, instead of four disparate devices.

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Further, facilities only need to stock one supply item for the MFPs, instead of many for the four previously required devices.

Now that the solution is in place, it has opened the floodgates to further reduce costs and improve customer service. Future plans call for using the Lexmark MFP to electronically transmit the bill of lading to the freight carrier with the driver's signature, providing information on shipments in transit. Morrison envisions even being able to proactively tell customers what's coming and when – before they ask.

"We are evolving to an environment where we can send shipment information directly to freight carriers or send a customer or salesperson information about shipments while en route," said Morrison. "That's the level of service we aspire to and can achieve with this new system. There's an avalanche of possibilities."

Certainly, Lexmark needs to put its own trust and business in the hands of Lexmark equipment and technology. Modernizing its order fulfillment centers has also saved money, reduced shipment in-transit time and raised service levels for every Lexmark customer.