



> A Bill of Lading Solution for the Trucking Industry

Without the trucking industry, America would come to a standstill. And without a way to track shipments, freight companies themselves would grind to a halt.

To keep these millions of shipments moving, each requires paperwork in the form of a Bill of Lading. Issued by the carrier, or trucking company, a Bill of Lading is a receipt for the goods being shipped. Without it, the truck goes nowhere. But traditional paper forms are expensive and time consuming to maintain. The traditional process of generating Bills of Lading hinders productivity. A company has to manage an inventory of the multi-page pre-printed forms, print them on slow dot matrix printers, burst, sign and file. Drivers are on the clock and want to get on the road as fast as possible.

Both shippers and carriers, in their quest to cut costs, increase productivity and enhance customer service seek similar solutions. Electronic forms combined with new multifunction devices are the answer. Together, they eliminate the need to maintain inventories of pre-printed forms and distribute electronic bill-of-lading images via the Internet to the shipping destination in advance of the actual shipment. As a significant quality-of-work-life benefit to the carrier's drivers, forms on demand allows drivers to print up-to-date medical, dental, human resource, 401k, and other essential forms on demand and in different languages.

The Shipping News

Trucks are an indispensable part of the American economy. Even when finished goods or components travel in part by ship, air or train, trucks still carry just about everything at some point in the journey from manufacturer to retailer to consumer. According to the U.S. Bureau of Labor Statistics, trucks moved 58 percent of total domestic freight tonnage in 2002, compared with just 15 percent by

ship, 12 percent by rail, and 0.1 percent by air. And the dollar value of goods moved by truck continues to climb, accounting for 64 percent of all domestic freight shipments in 2002, up from 62 percent in 1997. Keeping track of valuable pharmaceuticals and electronic equipment, valued at \$19,000 and \$18,000 per ton shipped, respectively, requires accurate data that is accessible to any interested party, at any time and from any location.

Federal regulations require every motor common carrier to issue a receipt or Bill of Lading for property tendered for transportation in interstate or foreign commerce. That document lists the consignor (shipper) and consignee (recipient), origin and destination points, number of packages, description of freight, weight, volume or other appropriate measurement.

While the data for Bills of Lading usually resides in a database, the actual forms are almost always preprinted, often as tractor-fed multipart forms that pass through an impact or dot-matrix printer to create the second, third and fourth copies. Pre-printed with company name, address and telephone information, the shipper must keep many cartons of these one-of-a-kind forms on hand to ensure that the shipping process continues without interruption. And with each form part a different color (perhaps the blue copy goes to accounting and the goldenrod copy to the archives), these forms are extraordinarily expensive.

To slash these costs, pre-printed forms can be replaced with a system that merges an up-to-date image of the blank form with the shipment-specific data. By using plain, sheet-fed paper, printing on demand and printing only as many copies as needed, waste is eliminated completely. Since these forms are fully electronic, they can be routed wherever needed, even to the shipping destination in advance of the physical shipment, alerting the receiving dock.



The U.S. Department of Transportation enacted a new Hours-of-Service rule designed to reduce driver fatigue. Truckers may not drive after being on duty for 60 hours in a seven-consecutive-day period or 70 hours in an eight-consecutive-day period. Once a driver starts his truck, he is on the clock. It means that a driver's time spent waiting for a truck to be loaded is now counted as time on the road. Minimizing wasteful wait time has become crucial, requiring that all paperwork be completed and ready for the driver to sign when he arrives to pick up a load. Automated Bill of Lading generation is the perfect solution.

For international shippers, accurate information is more important than ever. Under section 343A of The Trade Act of 2002, the U.S. Customs & Border Protection agency, part of the Department of Homeland Security, requires the advance electronic presentation of cargo data, including shipper, consignee, cargo and container-seal number prior of containers entering or leaving the country. An all-digital format for Bills of Lading and other documents is the answer.

The Solution: Document Solutions Suite and Multifunction Devices

The Lexmark Document Solutions Suite (LDSS) improves shippers' operations. It eliminates pre-printed forms inventories, merges shipment data with form images for on-demand printing and routes documents digitally via the Internet. It also allows shipping companies to provide medical and other employment-related forms to road-bound drivers who rarely visit a corporate office.

LDSS works in conjunction with Lexmark multifunction devices (MFDs), products that combine the functions of a network printer, scanner, fax machine and copier into a single easily managed device. Not only is space saved, but the need to maintain toner and other supplies for separate devices is eliminated, leading to significant savings in time, space, and money. Each MFD is operated from an intuitive color touch-screen display panel. By using visual icons instead of text to access its various functions, shipping clerks, supervisors and drivers can request the Bill of Lading and other documents they need regardless of their preferred speaking language.

Operating from a centrally managed server, LDSS consists of three tightly knit components, the Document Producer, Document Distributor, and Document Portal.

Document Producer is used to design and create custom electronic forms. Document Distributor provides custom scripting capability that, for example, allows a user to scan a paper document and route it to designated people or departments down the hall or around the world. Drivers no longer need be concerned about making sure that the correct copy of a four-part form is sent to the proper destination. With electronic document routing, those multipart forms are history.

The third component, Document Portal, allows the MFD device installed at the shipping dock to deliver much more than just shipping forms.

For example, anytime a driver transports hazardous materials (hazmat), whether it's cans of paint, drums of insecticide, or even household cleaning products, truckers must carry with them papers detailing the nature of the materials being transported or risk a daily \$5,000 fine. Also required are documents containing instructions to be followed in the event of accident or delay. These documents must include the names and telephone numbers of persons (including representatives of carriers or shippers) to be contacted, the nature of the materials being transported and the precautions to be taken in emergencies such as fires, accidents or leakages. By simplifying the process of keeping contact information up to date, drivers who print these forms on demand are assured that the information on them is always current.

With so many different types of materials being shipped, maintaining an inventory of pre-printed forms is out of the question. Instead, the driver can use the color touch-screen panel on the MFD and request the appropriate hazardous materials form. Printed instantly, the form can be attached to the Bill of Lading, satisfying all legal requirements. Since the form resides on the server, it is easily kept up to date.

Archiving forms is another quandary for shippers and carriers. Even after a shipment has been delivered, information about it must be kept on file. The Hazardous Materials Transportation Authorization Act of 1994 requires shippers and carriers to retain



shipping papers for a period of one year [49 U.S.C. § 5110(e)]. Though the federal requirement mandates retention for one year, most companies choose to store these records for longer periods, often permanently, in case a dispute should ever arise. Storage of paper forms is an expensive proposition, requiring cataloging and transit to specialized environmentally controlled warehouses or other remote sites. Locating a particular document often resembles a scavenger hunt. Even when documents are recorded on microfiche film, sharing is usually impossible.

Lexmark solves the obstacles to long-term forms retention. With forms images saved and indexed on the server, anyone with appropriate access rights can retrieve the archived document, routing it as necessary to resolve disagreements.

The Document Portal application, LDSS, is also ready to deliver other kinds of forms, leveraging the power of the Internet and further reducing costs.

With drivers continually in transit, obtaining medical or financial forms is often a problem. Usually sent by mail to the driver's home, delays are common and postage expenses add up. By making digital versions of these forms available through MFDs at the shipping docks of the freight company's depots, drivers can obtain necessary forms on demand, without delay. Forms can be made available in several languages, if necessary. Another Document Portal application could allow drivers to print a current statement for their 401k retirement account, eliminating the need to deal with a home-office human resources representative.

Conclusion

To ensure shipments move on schedule and that they are accompanied by all the paperwork mandated by federal requirements, LDSS and MFDs work together, eliminating delays, ensuring up-to-the-minute accuracy and simultaneously alerting receivers in advance of pending shipments. Using the MFD's intuitive touch-screen control panel, drivers can quickly access Bills of Lading and hazmat documentation on demand, search for and print documents from past shipments, and even obtain medical and financial forms.

Lexmark solutions save money by getting rid of

pre-printed forms inventories and by eliminating delays as dot-matrix devices print and burst continuous-form Bills of Lading. With a Lexmark solution, compliance with all federal interstate trucking documentation regulations is assured. Finally, by storing documents for past shipments on the server, traditional paper-based off-site archival storage and its slow process of locating a particular document are a thing of the past.