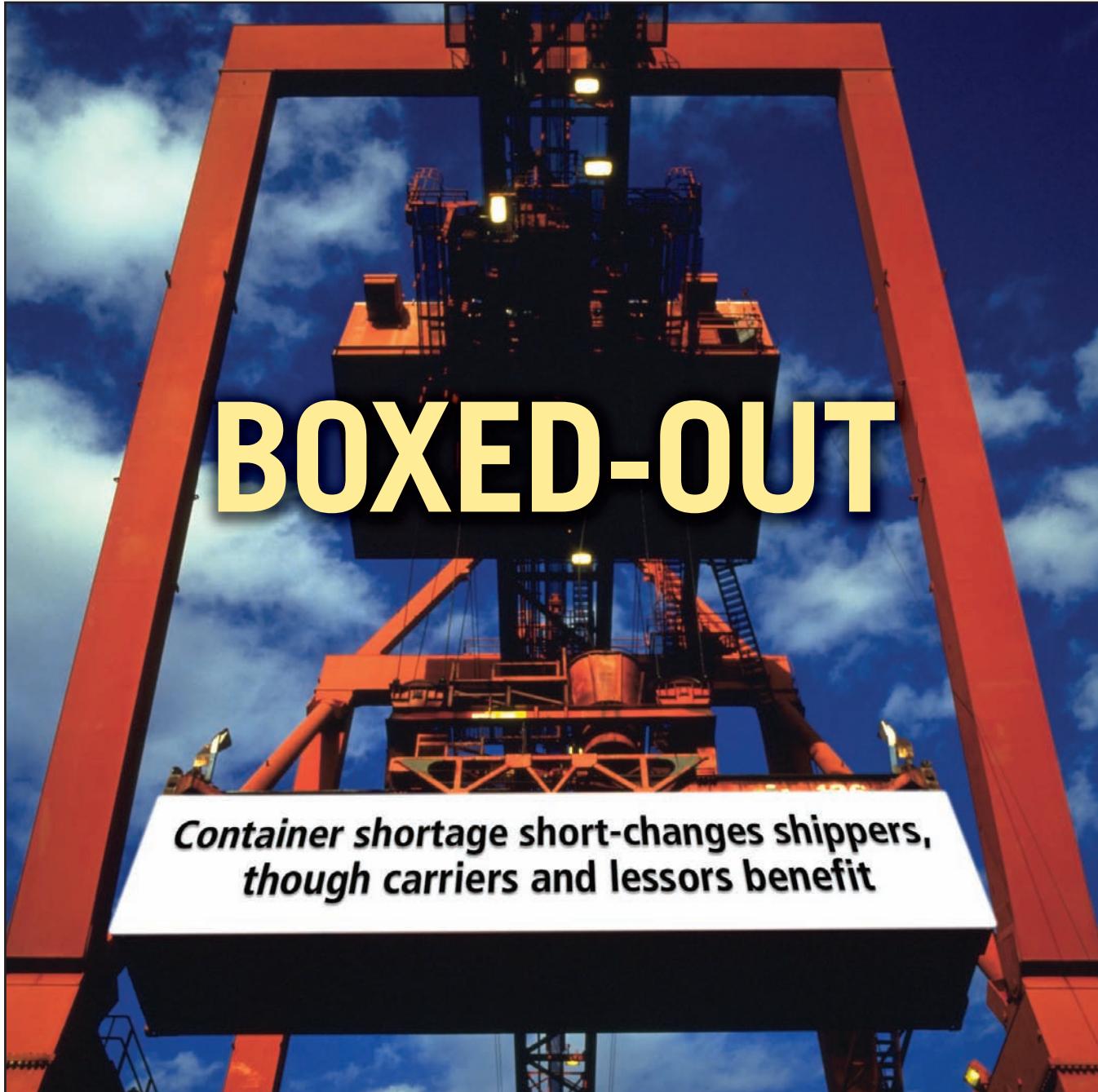


American Shipper

The Monthly Journal of INTERNATIONAL TRADE & LOGISTICS

AUGUST 2010



www.americanshipper.com

The state of freight	8
MOSS grows on logistics	16
Go for broker	24
More than meets Dubai	40

MOSS grows quickly on logistics

Information technology program called “huge leap” to modernizing auto parts supply chain.

BY CHRIS GILLIS

North American automakers have some of the most technologically advanced assembly lines in the world, but behind the scenes their handling of vital logistics information for parts coming from overseas is reminiscent of days gone by.

Industry logisticians led by the Automotive Industry Action Group (AIAG) believe they have a simple and inexpensive way to fine-tune data flows that support the auto parts supply chain, and plan to distribute in August a best practices publication based on several years of in-depth research and live tests.

“Once it’s published and available, we’ll see many companies subscribe to it,” said Michael Comerford of Global Commerce Systems and a chairman of the AIAG’s Materials Off-Shore Sourcing (MOSS) project. “This will be a huge leap forward for the industry.”

According to an AMR Research survey conducted on behalf of AIAG, the parts supply chain severely lacks efficient data connectivity between automakers and their numerous parts suppliers and transportation and logistics services providers. The 2005 study motivated AIAG and the automakers to begin to address this arduous process. The best practices publication will be introduced to an industry where surprisingly little has changed in five years.

“It’s surprising to know that even today they still depend on phone, fax and paper to get business done,” Comerford said.

The survey of more than 210 automakers and suppliers estimated that about 15 percent of U.S.-inbound auto parts shipments are delayed due to information errors. It also discovered that 79 percent of data used in the supply chain is rekeyed multiple times into proprietary systems and 91 percent of respondents use manual procedures to correct shipments, communicate status, and provide visibility. The survey further discovered that as much as \$1.7 billion in working capital is tied up by these ineffi-

cient parts management programs.

“As GM’s global materials manager, CEVA managed all intercontinental shipments for GM with the exception of finished vehicles,” said Rick Thomas, senior director of business development for the third-party logistics services provider. “In this role, we witnessed the constant need for data throughout the international supply chain, for example, converting a production schedule into supplier shipment data, translating a supplier pre-advice into a transportation order, and ensuring customs documentation matched electronic ASNs (advance shipment notices) to be used to receive material at supply chain nodes. The constant rekeying of critical data leaves critical movements incredibly prone to error.”

Another key finding from the survey showed 37 percent of automakers and 40 percent of suppliers maintained more than 20 days of inventory as buffer against data-induced shipment delays. In addition, 87 percent of respondents noted the need for improved supply chain visibility.

End-To-End Mapping. Shortly after the survey results were released in mid-2005, a handful of automakers approached AIAG with their concerns about the insufficient data control for long distance parts supply chains. AIAG decided that based on its research the most effective way forward was to improve the information and technology driving logistics and customs processes for auto parts shipments. The MOSS project was born.

The first MOSS meeting was held in late 2005 and was attended by 85 representatives from 48 companies, including automakers and logistics services providers. The meeting was co-chaired by logistics execu-

tives from General Motors and Honda of America Manufacturing.

“Honda became involved as we were struggling with arrival performance issues and the methods to predict and communicate the arrival variations,” said Kevin Wade, a North American logistics manager for Honda. “We were dependent on phone calls, e-mails and Web sites to track and trace our inbound ocean containers. This information was then rekeyed into a worksheet and distributed via e-mail.”

MOSS was started by an extensive mapping of document and electronic-data-interchange messages used by the auto sector within the U.S. oceangoing inbound parts supply chain.

“Based on these issues and previous West Coast port events, we gained support from Honda Motor to begin a project to create a global container tracking system,” Wade said. “As so, it was good timing to understand what EDI transactions and data that was available through the project participation.”

Many companies engaged in the logistics management of auto parts were also eager to participate.

“This is what we are all about,” Thomas said. “We opened our offices and operations to the steering committee to get a closer look at the global automotive supply chain.”

CEVA made available to MOSS key members of its SMART Global Materials Management team, IT department, and logistics design teams to assist with process mapping, development of data sets, and overall solutions designs, Thomas said.

From its research, MOSS developed Unified Modeling Language activity diagrams, which offered detailed views of the logistics processes used by various players in the inbound parts supply chain. The diagrams covered the activities of four “process strata”:

- The customer and supplier.
- The 3PL, freight forwarder, ocean carrier and customer broker.
- The consolidation warehouse and deconsolidation warehouse.
- The port of loading, port of discharge, port of entry, and foreign and domestic land carriers.

MOSS identified the most common EDI messages and hardcopy documents used in the international supply chain and the United Nations Trade Data Elements Dictionary (UNTDDED) data elements related to these documents, and aligned this data for use in a trade collaboration system.

In general, MOSS found that while EDI works well for one-to-one communication, it fails to allow flexibility when multiple parties are involved or require access to the data.



Thomas

"Information structure gets tweaked on down the line and that's why you don't have interoperability across the supply chain with EDI," Comerford said. "The strategy behind MOSS is to enter data once into the trade collaboration system and then enable all authorized trading parties to reuse that same piece of data multiple times, thus eliminating rekeying from the process. Data mapping within the system is defined within a data matrix and conceptual model."

Yet EDI remains a necessary part of the MOSS equation. MOSS studied 16 EDI messages used for automotive cross-border materials management. Subsequently, it identified about 400 business information elements and mapped these to 1,400 EDI data elements.

"The work that MOSS is doing matches closely with that being done within UN/CEFACT (U.N. Center for Trade Facilitation and Electronic Business) and in various countries," explained Mary Kay Blantz, an independent consultant who serves as AIAG's European Commission standards representative. "Japan, for example, is also doing material tracking, though within Japan rather than cross border. The work of the World Customs Organization relates closely to the work of MOSS; WCO is also a major contributor to UN/CEFACT."

MOSS worked with the U.S. National Institute of Standards and Technology (NIST) to develop a trade collaboration system's strategy, based on the SaaS (software-as-a-service) model and through which the automakers and their many parts suppliers and logistics services providers may receive and exchange pertinent supply chain data via the Internet without altering their in-house systems or having to generate additional phone, fax or e-mail messages.

"By virtue of the fact that the MOSS message data is organized as a single spreadsheet, it is possible to identify where consistent mapping of information can be enforced, and it is possible to follow the 'lifecycle' of a property — the message and task in which it is introduced, and the messages and tasks in which it is reused," wrote Peter Denno, a computer scientist at NIST, in a paper about the federal agency's work on MOSS.

Live Test. By mid-2009, MOSS was ready to put its data exchange concept to the test.

The pilot involved a single inbound trade lane consisting of batteries from Atlas Bx Co. in South Korea to GM's warehouse in Kansas City, Mo. While this particular supply chain for GM in 2009 included 1,379 shipments valued at about \$55 million, the pilot only covered 25 containers a month for

three months, April to June 2009.

Other participants in the pilot were 3PL CEVA and DHL for freight forwarding in Korea; APL for ocean transport from Busan to San Pedro, Calif.; and CEVA again for U.S. customs clearance and inland transportation of the containers to the Kansas City warehouse managed by Menlo Worldwide Logistics for GM.

Michael Comerford
co-chairman,
Materials Off-Shore
Sourcing project,
Automotive Industry
Action Group



The strategy behind MOSS is to enter data once into the trade collaboration system and then enable all authorized trading parties to reuse that same piece of data multiple times, thus eliminating rekeying from the process.

The pilot enlisted the trade collaborative system of TradeMerit to capture all milestone events within the supply chain from suppliers, carriers and customs administrations, and integrated them into various planning and alert systems. Since TradeMerit's system is SaaS-based, it required no software installation by the participants. The one-time total cost to deploy the system and related training for the pilot came to about \$32,000.

"It does not require OEMs, LSPs and suppliers to purchase expensive software solutions that need to be installed at locations around the world," said Morris Brown, AIAG program manager for supply chain management. "The one requirement is all parties must have Internet access. From there they can set up various permission levels of who is able to see what data. By developing an open, standards-based solution, parties are not tied to one solution provider."

Test participants used master order information from GM to load the TradeMerit system with parts numbers, annual quantity forecasts, and prices. Two Web conferences were held with the participants prior to

going live with the pilot.

Participants found the test to be straightforward. "All we had to do is follow the data elements we need to provide," said Jim Lemon, director of global sales for APL in Detroit. "We were picked to participate because we're a big transport provider to GM, but any carrier could do this."

"The benefits to CEVA were simple and obvious," Thomas said. "The reuse of data throughout the international supply chain leads to higher quality at lower costs. Who doesn't want that combination?"

AIAG enlisted the firm Marsh Mercer Kroll to perform a cost-benefit analysis of the pilot. Based on the \$55 million supply chain value, MOSS projected \$1.84 million in freed working capital and an annual savings of \$392,000 for GM.

The pilot also demonstrated that all rekeying of data was eliminated and reduced human involvement in the intercontinental logistics process by 65 percent. "When we remove the human touches in the logistics movement we eliminate time, error and cost from the process," Comerford said.

"The real benefits of the program are realized when disruption and variability in the international supply chain is minimized, reducing premium transportation, and more importantly, allowing the OEMs to carry less inventory," Thomas said.

Misperceptions. A second MOSS test was planned, involving less-than-containerload shipments of production parts from European suppliers consolidated and shipped to a deconsolidation center in Michigan, but it has not been carried out.

MOSS officials admit the program has lost some momentum due to the economic downturn's impact on the automakers, in particular the Big 3 — GM, Chrysler and Ford. These automakers' output plummeted from 15.1 million units (measure for both cars and trucks) in 2007 to less than 10 million units in 2009. "It won't be until 2013 before we reach historic growth levels of 2007," Mike Jackson, director of North American vehicle forecasts for CSM Worldwide, told attendees at the AIAG's Logistics Leaders Conference at Detroit in late April.

Meanwhile, the automakers have tightened their logistics and IT budgets. Industry analysts worry the automakers will also set aside beneficial collaborative programs like MOSS as part of their overall cost-cutting strategy.

Wael Aggan, president of TradeMerit, said there's a lingering misperception within the industry that any systems development must be expensive. "We find that the old mentality is still dominant

across management, that they think they need millions of dollars and many years to implement an effective trade collaboration system," he said. "Because of the perception that things are too difficult or expensive to change, management is unable to capitalize on MOSS's emerging opportunities."

He further warned that MOSS can't be improved without further adoption.

"The biggest challenges are education, communication and adoption," Morris said. He added that it's important to point out there are various options with MOSS's deployment:

- Use the system as a "greenfield implementation" of a trade collaboration system, with the recommended processes replacing existing processes.
- Use MOSS as a fourth-party logistics solution by layering the trade collaboration system over the existing process to provide a "4PL dashboard."
- Use pieces of MOSS as a partial deployment to meet a particular logistics need and provide the greatest benefit.

Aggan recommends "staged implemen-



Aggan

tation" to MOSS. "We add one trade lane, and then another, to make everyone comfortable with the implementation," he said.

Honda did not participate in the MOSS pilot because its overseas procurement processes don't use the same ordering techniques as the Big 3. "Therefore an end-to-end pilot with Honda was not going to provide the results to prove out the entire business and data flows," Wade said.

The Japanese automaker has used some of the technical lessons learned from MOSS in its system. Honda has implemented a global container tracking system that couples its proprietary procurement systems along with using the ocean carrier 315 and road carrier 214 EDI transactions.

"This system is primarily utilized to support our North American manufacturing operations," Wade said. "Future integration phases have been proposed for our global procurement systems, but they are in the queue behind other systems projects that have a higher priority in the company."

The MOSS best practices publication elements will include:

- Detailed best practice processes models.
- Recommended EDI message definitions.
- Data dictionary relating each data

element commonly used in supply chain messaging with its automotive industry interpretation and international standards.

- Information system requirements targeted to improve visibility into supply chain processes.

Comerford of Global Commerce Systems said that while the focus of MOSS is inbound North American ocean freight trade lanes, all recommendations will be based on international standards to enable easy transition of best practices to other trade lanes. MOSS has garnered attention from the World Customs Organization and European and Asian auto industry standards groups.

Other industries, such as North American retail and electronics importers, have expressed interest in MOSS's "industry neutral solution," Aggan said.

Thomas said CEVA continues to support the MOSS project and looks forward to its eventual adoption as an international automotive standard.

"Many years ago the AIAG standardization of barcode labels for production part packaging created higher quality service at a lower cost throughout the supply chain by allowing technology to reuse data, reduce processing time, and eliminate error," he said. "MOSS has the same potential." ■

GEODIS
wilson

INTEGRATED SOLUTIONS | OUR AUTOMOTIVE APPROACH

'Meeting your automotive challenges'

We understand that the automotive industry brings its own set of challenges. When it comes to freight solutions, you need a fast, reliable partner with a proven track record who will work for you – around the

clock – to provide integrated door-to-door delivery every day of the year. A partner who creates transparent, tailored solutions and who speaks your language through clear communication channels.

Geodis Wilson Automotive Logistics
automotive@hq.geodiswilson.com

Geodis Wilson USA
sales@us.geodiswilson.com

www.geodiswilson.com

Geodis Wilson, your freight management partner