

# Shared release

Automotive inbound logistics is an uncoordinated mess. Ryder's solution is a simple, common, web-enabled, Windows-based format, which significantly accelerates the time and reduces the cost of integrating multiple transportation networks **by Dale Buss**

**T**om Jones has developed a handy analogy for the chaos that has reigned in the automotive inbound logistics industry. The utter lack of coordination among 3PLs, carriers, parts suppliers and OEMs is a modern equivalent of the Tower of Babel story, says the senior vice president of global automotive, aerospace and industrial businesses for Ryder Logistics, based in Farmington Hills, Michigan.

In the case of that Biblical tale, God punished mankind for trying to build a tower to Heaven by scattering the race to the uttermost regions of the earth and forcing the newly separated peoples to speak in different languages. Jones postulates that, during the past several years, inbound automotive logistics has become something of a post-Babel world as well, with carmakers getting ever more demanding, supplier networks getting increasingly complicated – and little presenting itself that would help all these parties communicate seamlessly and dramatically shrink their costs.

“There’s really no overall logistics plan that takes into account all of the various providers,” says Jones. “You’ve got a 3PL, a carrier, a Tier 1, a Tier 2, an OEM – and many times the logistics plan is really predicated on the manufacturer’s or supplier’s communication, and leaves out all the other key components.” At the same time, he says, as many as 30 different documents are generated every time a shipment moves. Many of them are not really inter-related and don’t pick up from the first document that was created, so the system greatly lacks continuity.

## Ryder Logistics Release

For that reason, after two years in development, Ryder Logistics has unveiled a solution to the Tower of Babel phenomenon in the automotive industry that it calls the Ryder Logistics Release (RLR). It’s a combination of method, systems and technology that the company is trying to patent. The point is to put shared support networks together for suppliers and provide the same level of service they would expect from a dedicated one, using logistics rules to optimize the configuration of shipments as well as the movement of shipments.

The Release automates and integrates information and processes to consolidate and enhance order-level information with the specific customer logistics requirements into a single-page, web-based format. The order information is translated

to create on-demand logistics requirements, with capabilities to follow and monitor the product’s shipment through its final delivery. The technology also includes exception-based reporting, which identifies events that do not go according to plan and enables alternative actions and routing.

“It’s innovative, novel and provides a communications method for these massive networks to talk with each other,” says Jim Moore, president of Marshall Moore Group, in Barrington, Illinois, a consultant to Ryder on RLR. Besides that, Moore says, it picks up where purchasing clout has left off in this business. He reasons that OEMs and Tier 1



RLR integrates information and processes to enhance order-level information

suppliers can only squeeze annual price reductions of 5-7% out of their subordinate suppliers in today's environment, but Moore believes that RLR may ultimately be good for slashing costs by percentages in the mid-to-upper teens. "If you're able to look across collaborative networks, you're talking about savings in the double digits at least, maybe the high teens. It's pretty big," he says.

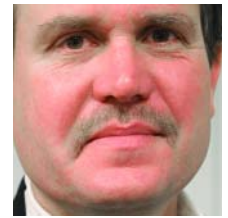
Ryder has built a long and deep base of knowledge about what works and doesn't work in automotive logistics, both inbound and outbound. At one time it was the largest hauler of finished vehicles in the US, though Ryder sold that part of its operation to Allied Holdings in 1996. The company has been working with clients on inbound deliveries since it began servicing Toyota Motor's Kentucky assembly complex in 1988. From that account came deals to deliver parts to Saturn and other OEM assembly plants. Ryder built a large and coordinated network of trucks, drivers and maintenance facilities that enabled it to gradually reduce the amount of inventory that it carried to meet OEM's increasingly demanding schedules. By 1994, its inbound-logistics sector was the largest of any carrier's in North America, and most of its network was dedicated to specific plants.

### Disconnection

But as Ryder built its inbound logistics system to comply with



"We have created a greatly enhanced capability to gather data that's useful" – Tom Jones



the stiff requirements of just-in-time manufacturing and the dictates of the Toyota Production System, a frustrating disconnection became apparent to Ryder executives. There really wasn't an information technology base to assist them in the effort to make their system as cost effective as possible.

"There was no technology backing all of this up," recalls Jones. "There was a lot of visual activity and repetitive processes. For instance, there was kanban, but it was operated by kanban cards, where the OEM literally was handing a piece of paper to a supplier and telling it to fill that order. The technology just wasn't available to address those issues."

"What they would find is that when they took a Tier 1 data set and were given a Tier 2 data set to match up with it, there was a lot of work that would have to go into massaging those data sets so that they could make decisions about how to direct material flow through a network," explains Moore.

### Converging factors

By the mid-1990s, several trends dramatically converged to establish a path that would lead eventually to the RLR. For one thing, foreign-owned OEMs kept building new transplants in the US, continuing to add to a customer base for inbound logistics that previously had consisted largely of Detroit's Big Three. At the same time, the parts making industry began a game-changing round of consolidation that continues to this day, and OEMs began moving more and more of the responsibility for sub-assembly and other functions up the supply chain to their Tier 1 and even Tier 2 suppliers. The combination of those two factors created significantly larger and longer supply chains for most Tier 1 suppliers. Finally, technology began to offer some promise to overhaul the inbound logistics business, including global positioning system-based devices that helped logistics concerns to manage their diverse networks better, as well as scheduling optimization and data management software programs.

In 1996, Ryder bought LogiCorp, a transportation-management-system company that procured a large amount of freight in differing modes on behalf of various customers, which was a payment and purchasing service that was totally non-asset based. That acquisition was the beginning of Ryder's broad adaptation to the changes in the market. It was followed by improvements in the company's overall data management, logistics engineering and transportation management capabilities. For example, Ryder established a system of satellite warehouses to store the loads of parts that it picked up just once or twice a day but delivered in smaller parcels to assembly plants as many as a dozen times a day.

Nevertheless, even these efforts by Ryder weren't enough to overcome the frustratingly persistent fragmentation of inbound logistics across the auto industry. This was

We can continue to look for better prices rather than just settling for the bigger guys that handle this stuff  
 – Faith Wandrie



especially the case as the importance grew of inbound freight that was going to Tier 1 suppliers. Ryder expanded to have shipping relationships with about three-quarters of Tier 1 suppliers to the auto industry and with many more Tier 2 and below suppliers. Thus, the company began its efforts that culminated in the development of RLR.

**Gather and control**

Specifically, RLR is a capability to configure a specific part analysis in a bill of material into an optimum shipment. The criteria include weight, cube, packaging, stackability, pallet configuration, load determination – between 40 and 50 data points on each of about 500,000 parts. “We have created a greatly enhanced capability to gather data that’s useful,” Jones explains. “It doesn’t reside in a useful way with most of our customers, or hasn’t until this. We try to take all the pertinent pieces of data and gather that into one database by which we can optimize, execute and control the logistics network. Before, it was all about crossing faxes and keying and re-keying data into computers. Now it is all web-enabled and automatically updated.”

All a manufacturer has to do, Jones explains, is indicate that it would like to receive a certain number of a particular part, “and we take care of the rest of it. That includes the business rules that are associated with that particular shipment – they’re all loaded into the database.” For example, an OEM or Tier 1 customer may not allow overshipments that are indicated in the database, while another may allow



Ryder’s database traces the movement of Chrysler parts across 300 locations

overshipments of 10-15% if that much fits on the truck.

RLR consists of several parts. The first is the part configuration and plan, which imbeds the business rules that are pertinent to each individual part number, such as frequency of shipment and stackability factors. The second piece is the parts manifest, which gives the carrier the ability to work at the part-level detail, whereas currently they can only work at the level of detail provided in the bill of lading. There is a section that provides information to carriers about the progress of their shipments. And the event manager publication utility allows all users access to the data about what is supposed to happen with a shipment and what is actually happening.

**Best matches**

Several dozen Ryder Logistics staffers are now based in a large room at the company’s headquarters, working the phones and these databases in constant efforts to get the best matches between hoped-for shipments, able carriers and expectant customers, including Chrysler, Visteon, Delphi and General Motors.



Ryder’s satellite warehouses store the loads of parts picked up just once or twice a day but delivered in smaller parcels to plants as many as a dozen times a day



Several dozen Ryder Logistics staffers are now based in a large room at the company's headquarters

Tracie Loro, for instance, has been helping Chrysler for about two years to get ready for the January launch of its new Chrysler 300 C sedan and Dodge Magnum SUV early this year at the company's assembly plant in Brampton, Ontario. Loro's database contains data on more than 2,000 parts for the vehicles that are shipped from or picked up at more than 300 different points via 10 different modes of transportation, including trucks, railroads and ocean-going vessels. In the next cubicles down from her, other Ryder staffers are conducting similar exercises for Chrysler plants in St Louis, Toledo and Sterling Heights, Michigan as the OEM gears up for what will be a crucial 2004 of new model introductions.

Across the room, Shane Dye is helping suppliers to Delphi find the most efficient ways of sharing truckloads. "With one database of 500,000 points of information, you can look for networking opportunities much more easily than if you have 10 databases with 50,000 datapoints each," he says. On his screen is all of the database's information about a particular heater housing that is shipped to Delphi, including data about the supplier, the plant where the shipment is originating, the part number, pallet specifications, whether the packaging is expendable or returnable and the number of allowable packaging layers of this component as it sits on a truck.

### More communication

Benteler Automotive is a pretty typical beneficiary of RLR. The Auburn Hills, Michigan-based company has 11 plants scattered across North America where it manufactures chassis and chassis modules, safety-structural systems and exhaust systems for vehicles. Ryder Logistics handles all of Benteler's inbound logistics from about 150 suppliers, which ship their goods to Benteler plants via three different kinds of freight: milk runs; dedicated truckloads; and less-than-truckload shipments.

RLR "allows us to be more communicative," says Faith Wandrie, director of North American operations for materials planning and logistics for Benteler. "We can continue to look for better prices rather than just settling for the bigger guys that handle this stuff. And all the smaller [carriers] need to participate is internet capability. It's all helped us go from a very non-planned network to one where we're letting the system do the work." ●●●



"We take care of... the business rules that are associated with [a] particular shipment – they're all loaded into the database"

– Tom Jones

