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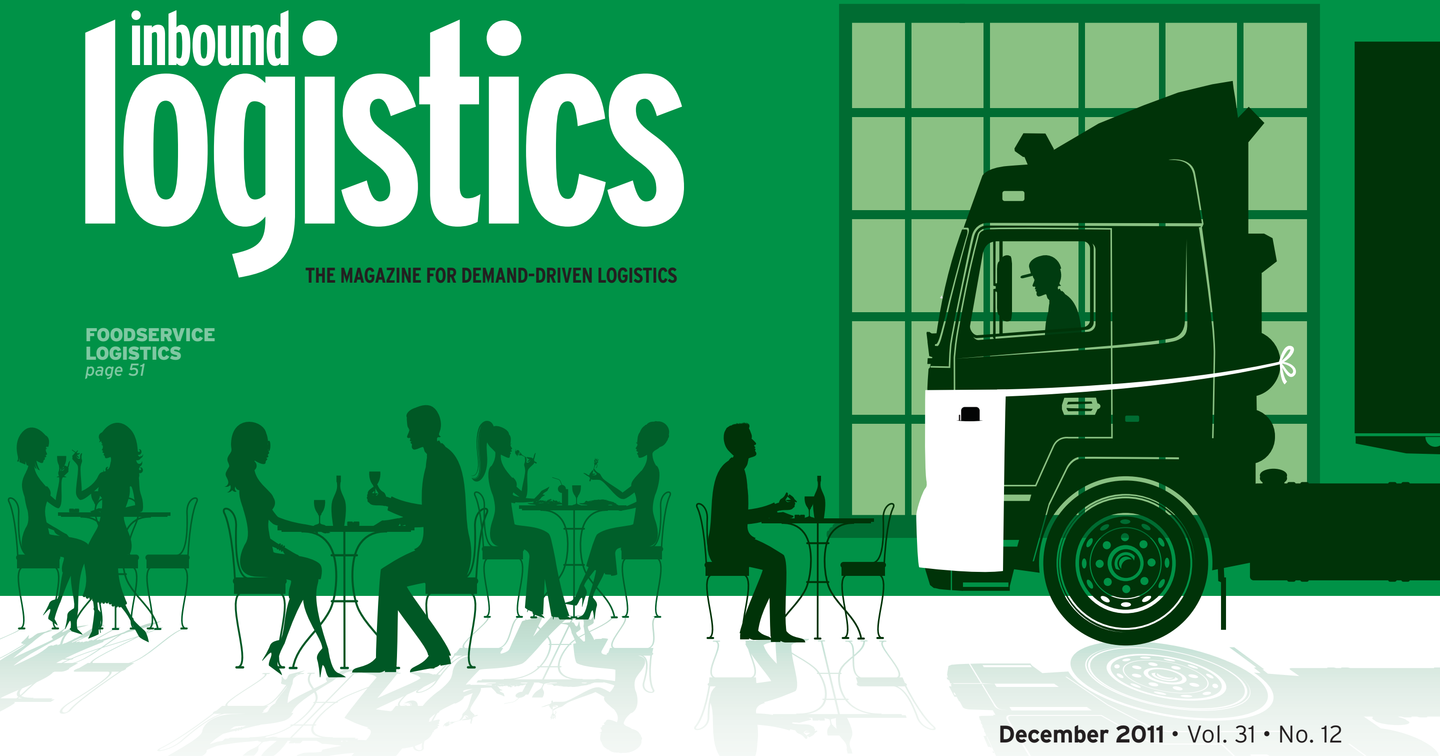

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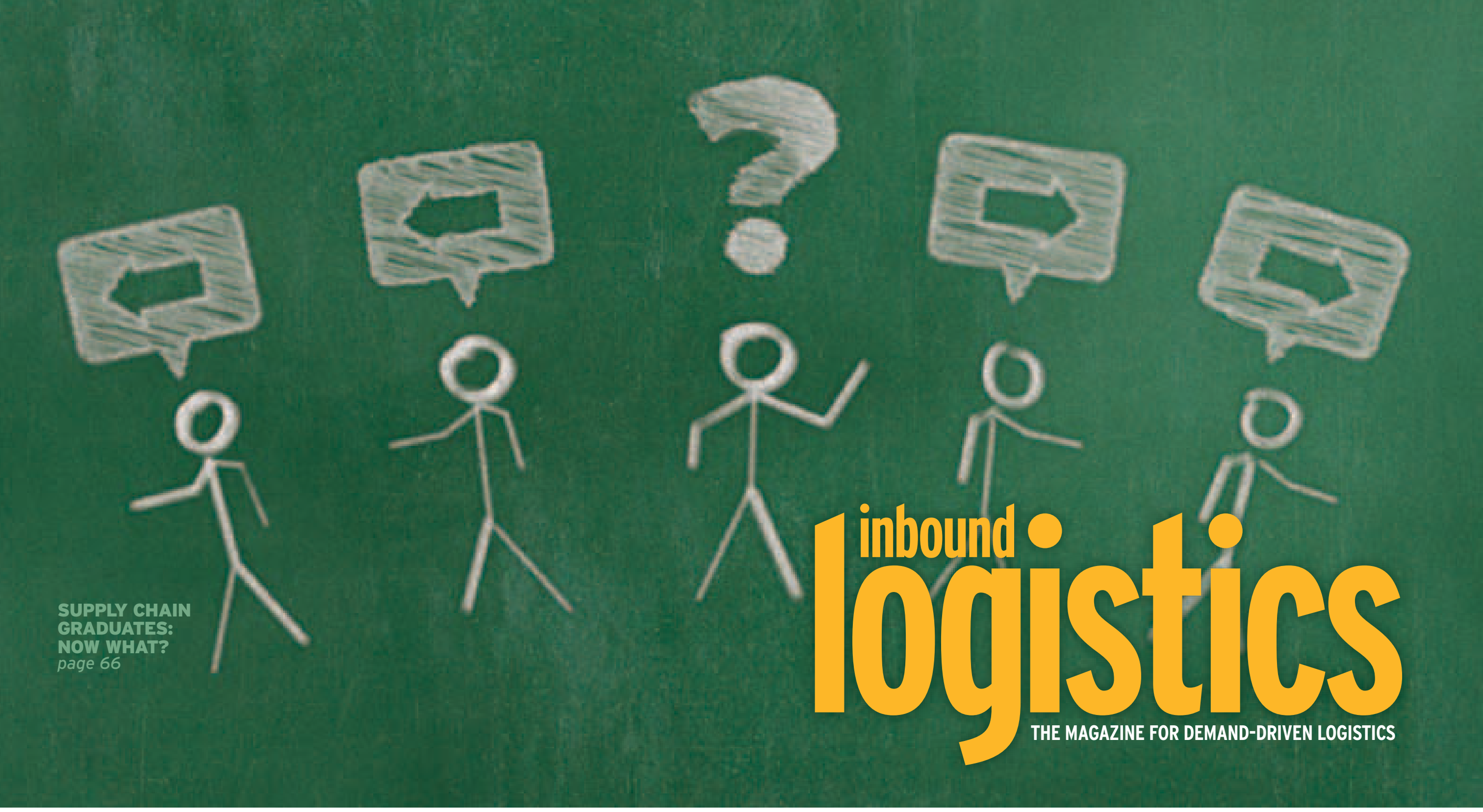

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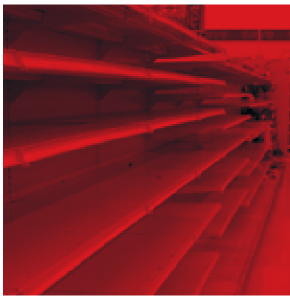

by Keith Biondo | **Publisher**

Delivering the Final Smile

It's dangerous to take a "hands-off" approach to customer service. That's the conclusion of a recent CAPS Research report authored by Mei Li, PhD at Lehigh University. Relying *only* on carriers and service providers to drive the final customer service experience, warns Dr. Li, puts you at risk of having service failures that can trash your other customer service efforts.

We are operating in an era of having to do more with less, and sometimes it's tempting to rely completely on our service partners to carry the standard. If you do, you'll likely get a painful reminder that customer service is only as good as its weakest link.

I have my own weakest-link customer service story to share. Fifteen years ago, I wrote about a major department store's customer service failure on a bed delivery. My store experience was excellent–knowledgeable salesman, great selection, good prices, and a promise of fast delivery.

But because the store was not involved in customer delivery, and relied solely on its warehouse and carrier partners, my final-mile nightmare destroyed the in-store experience and the sale. There was *zero* customer service oversight or involvement. True, that was before we had smartphones or email, but we did have telephones.

Fast forward 15 years, and I am buying a chair. Same in-store customer service with Joe, a knowledgeable, helpful, friendly, and funny salesman. A great sale price. Delivery? One month. Why? Because the chair comes from North Carolina–low inventory, build to order. I can relate to that.

But I am compelled to share with Joe my bed delivery nightmare. After ribbing me about holding a 15-year grudge, Joe assures me that this time it will be different. If I bought stuff more often, he notes, I would know they are all over home delivery now.

So I buy the chair and mark my calendar one month out. Two weeks later, I get a phone call that the store is ready to deliver the chair–two weeks early–with a choice of delivery times at *my* convenience! And get this, they say once they commit, they will hit a 30-minute delivery window. This does not happen in New York, where traffic materializes instantaneously.

On the morning of delivery, I get a cellphone call from the truck driver: "We're on the way; text me if you need me." Two hours later, he calls to confirm the delivery time. Then a final call: "We'll be there in 15 minutes."

And they were. The next day, I received a post-delivery call and email from the store to make sure I was satisfied with the experience.

Sure, it's easy to outsource your customer service. But the use of new technology and tools–email, cellphones, social media–make it even easier to stay involved, from order to final-mile delivery, no matter what the shipment.

I'll be talking about my great customer service experience for the next 15 years. Wouldn't you want your customers to say the same?

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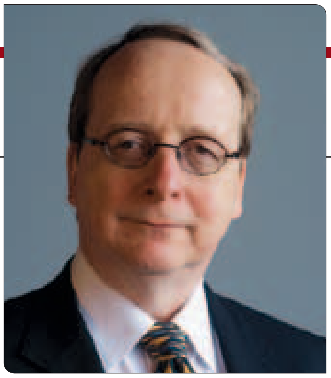

[INPERSPECTIVE]

BY PERRY A. TRUNICK
Associate Editor, *Inbound Logistics*
ptrunick@inboundlogistics.com

The Invisible Discipline

For all of its name recognition, supply chain management can be almost invisible within an organization.

Henry Ford's preference for vertically integrated manufacturing led him to say that the manufacturing process begins at the moment the raw material is removed from the earth and ends when the finished product is delivered to the customer. He owned most of those processes and, as a consequence, had near-total control over his supply chain. That was in 1915.

Henry Ford wasn't the first to model the supply chain and consider the impact of its various components and business disciplines. We can look farther back to Adam Smith and his pivotal 1776 work, *The Wealth of Nations*. In the course of a few pages, you can extract a description of the supply chain for a "wollen coat" worn by the common laborer. Smith also describes the supply chains supporting that supply chain–referring to the ships, ropes, rigging, and sails–carrying some of the goods.

Smith argues for economically linking all the goods that must be purchased and consumed in the creation of the ocean vessel trade, which, in part, supports the textile trade that produces the coat on the average man's back. He stacks supply chain upon supply chain.

There are earlier examples or models. But the point should be sufficiently clear that supply chains aren't a new concept. And managing the portions of a supply chain that are critical to your enterprise is also nothing new. But, even with the sophisticated tools available to today's manufacturing and retail businesses, we struggle to optimize supply chain flows. (Insert your favorite illustration of pipes or arrows showing goods, information, and capital moving along a horizontal continuum.)

Presenting a clear view of supply chain management as a business discipline extends to higher education, too. In fact, some academics are still debating whether to grant SCM the status of a business discipline at all.

As a faculty member of the Operations and Supply Chain Management Department, Monte Ahuja College of Business at Cleveland State University, I face that challenge at the beginning of each semester. One goal is to overcome the bias toward viewing supply chain management as an extension of logistics, procurement, manufacturing, or any other discipline that wants to claim it. University departments are no different. Where supply chain management is taught can determine how it is taught.

One popular view is that supply chain leaders bring their strengths in specific vertical disciplines such as logistics and procurement, and add a fundamental knowledge of the other core disciplines. Strong analytical and leadership skills then combine in that individual's ability to determine the best strategy and tactics to support overall business objectives–and to then lead the organization to accomplish those goals.

If that sounds like a tall order for an individual business leader to fill, it is an even greater challenge for the education system that must train our new supply chain leaders. ■

DIALOG

LETTERS TO THE EDITOR

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You Asked For It, You Got It

Merrill Douglas' article *Intermodal Inroads* (October 2011) was interesting, but when is someone going to address the driver shortage issue and the problem of getting good equipment (chassis) to move intermodal loads? We, as an industry, are driving good drivers away from this business.

—**George Baima,** Pacella Trucking Express Inc., Chicago, IL

Editor's Note: Visit the *IL* Web site to read *How the Driver Shortage Affects Capacity* (January 2011) and our feature article on weathering the chassis crisis (*The Perfect Storm*, February 2011).

Don't Trust the Numbers

I am alarmed about the negative impact of Compliance, Safety, Accountability (CSA) 2010 on small business, and the Federal Motor Carrier Safety Administration's (FMCSA) failure to recognize the initiative's effects.

Your article *CSA Compliance Through TMS* (October 2011) mentions L'Oreal's desire to "comply with CSA 2010 regulations." But there are, in fact, no CSA regulations to "comply" with, and the long arm of the FMCSA has yet to reach into the shipping docks.

The idea of tracking CSA scores also goes against the specific disclaimer on the CSA Web site: "Readers should not draw conclusions about a carrier's overall safety condition simply based on the data displayed in this system."

The article mentions L'Oreal's concern about its liability in a motor vehicle accident. According to transportation attorney Henry Seaton, shippers such as L'Oreal could expose themselves to further liability by tracking these scores.

A CSA score does not ensure a safe driver is moving L'Oreal freight. The CSA data is more flawed than the FMCSA will acknowledge.

When probable-cause states such as Indiana stop trucks for traveling one mph over the limit just so they can do an inspection, it can impact a carrier's score by as much as 30 percent. Small carriers with outstanding safety records can lose business because of flawed data.

—**Wayne Yoder,** safety director, Bryan Systems

The Key Shift

It's great that some companies are shifting production from Asia back to U.S. manufacturing facilities (*Is U.S. Manufacturing Coming Back?*, August 2011). However, it's amazing that business leaders and politicians seem to be dumbfounded amnesiacs about why our economy is in ruins. It's simple: Our country was built on manufacturing, and unless we have that foundation, we will soon be going down the tubes.

—**Eric Olson,** director of supply chain, Millennium Pharmaceuticals

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tweeting it forward:

Watco_Transload Watco Companies
"@ILMagazine: Why the US needs a rail-based transportation vision: bit.ly/mVxYgv" Watco Companies agrees with that!

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Challenges and opportunities in 2011 for #3PLs, according to @ILMagazine. bit.ly/rbgMGr

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10TIPS

STEP-BY-STEP SOLUTIONS

by Deborah Catalano Ruriani

Boosting Supply Chain Sustainability

Sustainable business practices and supply chains reduce waste, cut costs, and improve profit margins. Alan Amling, director of global logistics and distribution marketing at UPS, offers the following tips to help businesses improve supply chain sustainability.

1 **Avoid reinventing the wheel.** Minimizing waste is the first step in sustainability. Before investing in your own supply chain technology, distribution center (DC), or delivery fleet, consider using existing resources through a third-party logistics (3PL) provider. Many 3PLs have the resources – from offering an expedited service to storing parts in a field stocking location – to help you expand or improve your business.

2 **Map your supply chain.** Ensure that all stops along your supply chain – from production facilities to warehouses and DCs to customer locations – are optimally aligned. A well-mapped supply chain can reduce transportation legs, cutting fuel costs and carbon emissions.

3 **Evaluate your packaging.** Use the least amount of materials possible while still ensuring the security of the package's contents. A damaged item means a return shipment and more carbon emissions.

4**timize your transport modes.** Ocean, truck, intermodal, and air transportation each produce a different level of carbon output per unit. Consider the time and distance constraints for each shipment, and select the shipping mode that will address both with minimum carbon footprint.

5 **Consolidate and maximize space.** When possible, consolidate shipments to maximize container and trailer use. If you're unable to fill a container with one shipment, don't let it ship half full. Use a less-than-containerload service and book only the amount of container space you require.

6 **Tune in to technology.** When it comes to logistics, the smallest detail can mean all the difference. Using telematics and analytics, some logistics providers can identify even the smallest strength or weakness in operations, and realign them for better route and driver optimization. By staying in tune with every detail – from a left turn to an aircraft landing – you ensure that each leg of your supply chain is as sustainable and efficient as possible.

7 **Assess your assembly strategy.** Store-ready displays take up more space than unassembled ones, and can cost up to twice as much to ship overseas. Ship in bulk and work with your 3PL to assemble the final product upon arrival.

8 **Go paperless where possible.** Companies switching from paper to electronic billing can eliminate an estimated 124 million sheets of paper annually. Paperless invoices convert lengthy customs documents into electronic data, automating the customs process and saving time.

9 **Know your role in reverse.** Defective parts or products are often sent to a central DC for sorting before going to their final destination for repair, replacement, or proper disposal. Shipping items directly to the manufacturer or repair facility cuts fuel costs, driver miles, and unnecessary emissions, while saving time and improving the customer experience.

10 **Analyze your carrier.** Assess your carrier's fleet, whether on land, ocean, or air, as well as any additional solutions that can save your company money while lowering its environmental impact. ■


GEODIS
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READER

PROFILE

as told to Merrill Douglas

Jill Hesselroth is vice president, global supply chain at Nortech Systems in Wayzata, Minn. An electronics manufacturing services provider, Nortech Systems produces wire and cable assemblies and printed circuit board assemblies, and provides diagnostic repair and integration services.

RESPONSIBILITIES:

Analyzing the company's supply chain to identify opportunities for improvement, then implementing those improvements.

EXPERIENCE:

Various positions, culminating in manager of information technology, receiving, stores warehouses, and reprocessing, The Gillette Company; director, global business applications and processes, St. Jude Medical; fulfillment, supermarket and manufacturing value stream manager, Andersen Corporation; vice president, global operations and logistics, Zimmer Spine.

EDUCATION:

BS, accounting, University of Minnesota. Certifications: CPIM, CPM, Lean Systems, Project Management.

Jill Hesselroth: Opportunity Knocks

I STUDIED ACCOUNTING IN COLLEGE, THEN TOOK A JOB with The Gillette Company, but soon found that finance wasn't a good fit for me. I liked cost accounting, however, which made me think I'd enjoy supply chain management and operations.

My mentor at Gillette suggested I pursue certification in production and inventory management from the Association for Operations Management, along with certification in purchasing management and project management. Once I earned the first two credentials, he supported my transition into a supply chain management role.

After joining Nortech in June 2010, I spent my first three months visiting suppliers and our seven manufacturing sites to learn about this business and our industry. Nortech operates five plants in Minnesota, one in Wisconsin, and one in Monterrey, Mexico. I studied our processes, reviewed profit-and-loss statements, and observed how the company faces challenges.

Based on what I learned, I created a list of improvement opportunities. Then the company's CEO and I agreed on some challenges to start addressing. The first goal is developing standard processes for the seven sites, which will provide a solid foundation for eliminating waste and reducing costs.

We're a company of acquisitions, so although our plants are performing

The Big Questions

What's on your Bucket List?
Serving on a corporate board, living in Italy and Spain for several months with my husband, learning Spanish, taking a cruise to Alaska, and improving my golf game.

What are your hidden talents?
I'm an excellent gardener when I find the time. I'm also a certified scuba diver.

Something you don't do well but really like to do?
I like figuring out how difficult things work, both mechanically and theoretically. For instance, how is a plane designed to fly?

Worst job you've ever had?
Doing physical inventory because it's wasteful. Cycle counting is much more accurate and proactive.

How have you given back to your community?
I've participated in nine Habitat for Humanity builds. My husband and I chaired the Salvation Army Red Kettle campaign in our county for 10 years, and we've volunteered at schools and managed sports teams.

well, they're not necessarily doing things consistently. We'll focus on processes such as sales and operations planning, supplier selection, production scheduling, quoting, and assembly. We'll also look at our manufacturing cycle times to ensure we have our systems set up to plan resources correctly.

Throughout my career, I've been a disciple of lean systems, and my proudest accomplishments have involved creating solutions that eliminate waste, make processes flow better, and allow teams to work smarter rather than harder.

At Andersen Corp., for instance, my leader challenged me to figure out how to deliver all the materials to our manufacturing lines in hourly increments, providing just the items the operators needed to manufacture windows in the next hour. My team of operators, supervisors, lead production and materials planners, engineers, managers, and suppliers worked methodically through each component on the line.

We decided to store all materials in a "supermarket" until operators needed them. We created schedules, pick lists, and custom delivery carts that provided sequenced materials to each line. That allowed operators to stay at their stations, rather than walking away to get the parts they needed.

The new process improved our material control, reduced inventory, and yielded huge productivity improvements. And we met our goal very quickly—from concept to completion in about one year.

Moving from finance into a new discipline was the scariest decision I've made in my career, but I'm glad I did it. I definitely have a passion for supply chain management and operations, along with lean systems. It's that passion that fuels my success. ■

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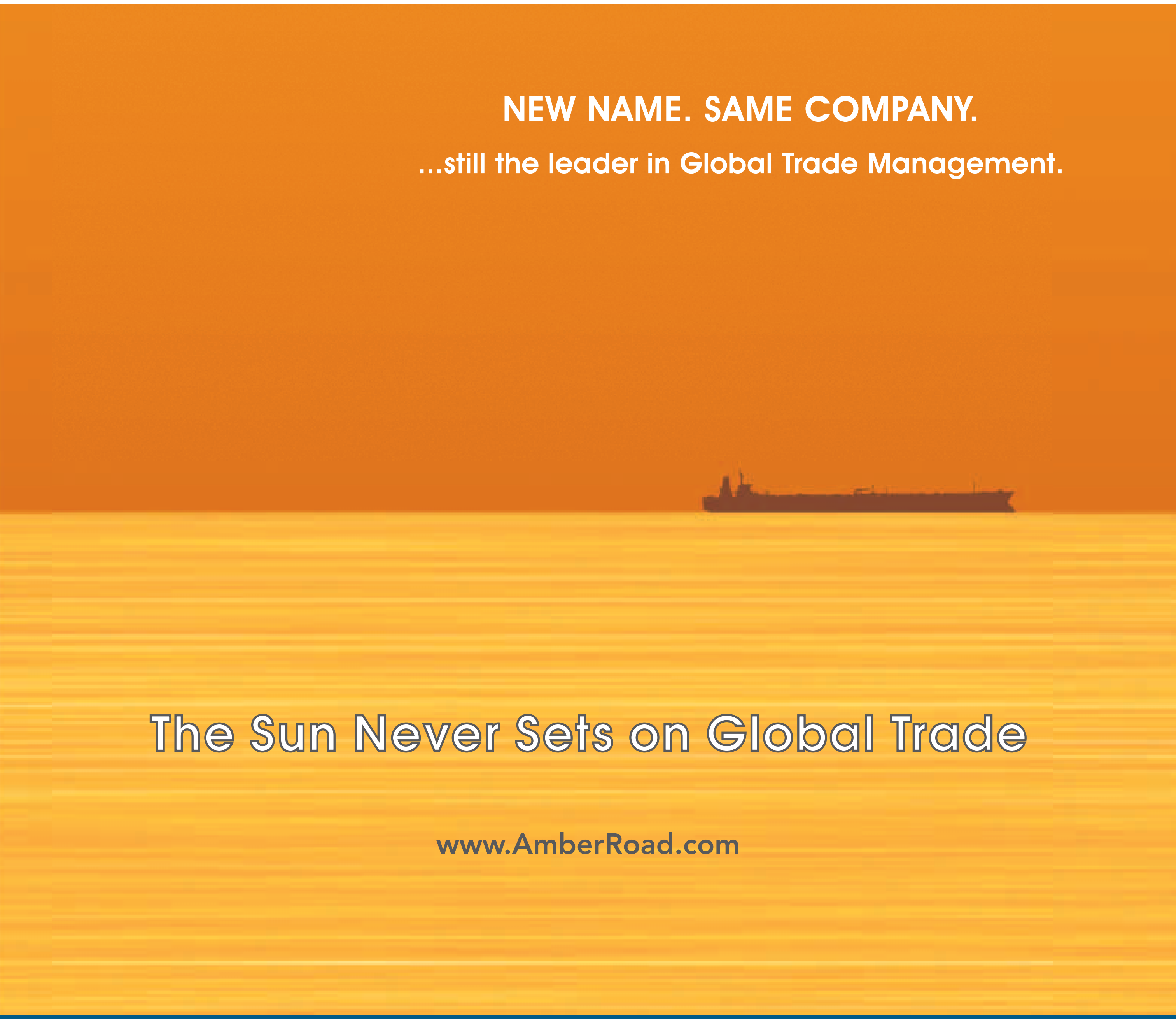


NOTED

THE SUPPLY CHAIN IN BRIEF

SEALED DEALS

The Boeing Company selected High Point, N.C.-based 3PL **New Breed Logistics** to provide logistics and supply chain management of commercial aircraft fasteners in support of the Boeing Aggregated Standards Network program. The program encompasses planning, ordering, storage, and distribution of fasteners for up to 300 Boeing suppliers and 20 Boeing fastener manufacturers. New Breed will provide forecast aggregation for fasteners, capacity planning, supply base management, inbound transportation management, product storage, order processing, and outbound transportation coordination.

Henkel China, a maker of adhesive technologies, laundry and home care products, and cosmetics/toiletries, awarded **Agility** a five-year contract to be the exclusive logistics partner for Project Dragon. The project is designed to streamline Henkel's manufacturing in China to cover growth over the next 10 years and to leverage economies of scale in manufacturing and supply chain processes. Agility will provide inbound logistics, raw materials and finished goods warehousing, production supply, and outbound logistics services.

UP THE CHAIN

Jim Lyons has been named vice president, chief manufacturing officer for engines manufacturer **Cummins Inc.** Lyons will work on improving the company's worldwide manufacturing performance with an emphasis on successful delivery, schedule stability and attainment, and waste reduction.

Dung V. Dao assumes the newly created senior role of vice president of the global supply chain for online hair replacement company **Hair Direct.** Dao will direct a multinational strategy to expand the company's supply and distribution network, refresh and streamline product lines, and drive long-term manufacturing innovation.

Lawn, garden, and pet supplies company **Central Garden & Pet Company** promoted **Paul Hibbert** to senior vice president, supply chain. Hibbert is responsible for all aspects of the company's consolidated supply chain operations including manufacturing, warehousing, procurement, inventory management, and distribution.

Branded apparel maker **VF Corporation** appointed **Tom Glaser** as its next supply chain leader, taking over from Boyd Rogers when he retires at the end of 2011 after four decades with the company. Glaser will assume responsibility for VF's global supply chain, including all manufacturing and sourcing operations.

Industry veteran **Joe Brink** joined **Fiesta Restaurant Group Inc.** as vice president of supply chain management. Brink oversees all aspects of the supply chain, including food and ingredient sourcing, purchasing, food safety, quality assurance, and distribution for Fiesta's two brands, Taco Cabana and Pollo Tropical.

m&a

Livingston International acquired Norfolk, Va.-based **Hipage Company Inc.** This strategic move extends Livingston's customs and compliance expertise, as well as its international freight forwarding capability, to companies importing and exporting through the southeastern United States. The acquisition also gives Livingston added expertise in foreign trade zone operation and administration.

Hub Group subsidiary **Comtrak Logistics Inc.** acquired certain assets of **Challenge Transportation,** an intermodal drayage carrier headquartered in Newark, N.J. With the addition of the New Jersey terminal to its network, Comtrak is able to offer drayage and regional trucking services throughout the tri-state and Northeast region.

Gold River, Calif.-based shipping and trucking company **Alliance Traffic Group** has been acquired by **Leading Edge Logistics,** a supply chain and logistics management company headquartered in Philadelphia. Alliance will operate as an independent subsidiary, offering a range of LTL, truckload, rail, and expedited air services.

recognition

▼ **Averitt Express** was honored with the **LTL Carrier of the Year Award** by Parker Hannifin, a Cincinnati-based manufacturer of motion and control technologies. Parker Hannifin recognized Averitt based on several critical success factors, incuding meeting or exceeding Parker Hannifin's goal of 97- to 98-percent on-time performance while handling an average of 1,800 shipments per month across its network.

Parker Hannifin's Reed Tepper (l.) presents carrier award to Averitt's Mike Everett.

APICS The Association for Operations Management announced **Lockheed Martin** and **Magna Karmax Heavy Stamping** as the winners of its **Corporate Awards of Excellence,** presented for educational achievement and innovation in sustainable productivity among the global corporate community.

► The **Toyota Industrial Equipment Manufacturing Inc. (TIEM)** manufacturing plant received the **Indiana Governor's Award for Environmental Excellence** in the category Five Years of Continuous Improvement. This is the third time TIEM has won the award for implementing exemplary environmental projects with measurable results.

Joseph C. Curto, president of the New York Shipping Association (NYSA), received the **New York/New Jersey Foreign Freight Forwarders and Brokers Association's 2012 Person of the Year Award.** The NYSA honored Curto for his four-decade career in the bi-state waterfront and his expertise in the field of marine cargo handling operations.

Heinz North America recognized **Cryo-Trans Inc.** as the winner of its **2011 National Carrier of the Year** award for its superior performance in coordinating and executing the transportation of Heinz' Ore-Ida frozen potatoes from the Pacific Northwest to points in the eastern United States using Cryo-Trans' fleet of state-of-the-art mechanically refrigerated boxcars.

Home appliance giant Whirlpool Corporation has named **Kansas City Southern (KCS)** its **Rail Carrier of the Year** for the second consecutive year. KCS transports several thousand boxcars for Whirlpool annually to destinations throughout North America.

Cabot Microelectronics Corporation named **Mitsui O.S.K. Lines (MOL)** its **Silver Logistics Supplier Award** winner for outstanding service. The award is based on several key performance elements such as service quality, cost containment, on-time service, and vessel availability. MOL is the first logistics company to receive a supplier award from Cabot Microelectronics.

TRENDS

SHAPING THE FUTURE OF LOGISTICS

Transportation Management Breaks Out

by Joseph O'Reilly

Transportation management system (TMS) solutions and TMS-managed services have been evolving at hyper-speed over the past few years, largely driven by an economy in a tailspin, corporate mandates to reduce costs at all costs, and the emergence of Software-as-a-Service (SaaS) and cloud-connected networks. The facility with which companies can develop and deploy function-rich transportation systems, and the reception from ROI-oriented shippers, has opened the floodgates for new companies, different approaches, and greater value.

While technology vendors continue to dominate the transportation and logistics solutions space, third-party logistics providers (3PLs) are making their own impression. Transportation management continues to be a focal point as shippers confront looming Hours-of-Service changes, inevitable capacity and driver shortages, and fluctuating fuel costs. Accordingly, 3PLs are shaping their portfolios to provide shippers with a more intuitive product.

Managed TMS service is one example of how providers are helping shippers separate functional dissonance from supply chain noise—identifying tactical transportation problems, then engineering strategic solutions that cut across all logistics disciplines.

3PLs such as C.H. Robinson Worldwide, Inc. have contributed to this growing market niche by bundling TMS technology with management and execution. Ten years ago, TMC emerged as a separate division under the C.H. Robinson umbrella, with the specific intent of helping customers target transportation management.

"TMC is organized as a standalone division because many shippers want to retain control of carrier selection," says Jordan Kass, executive director of TMC, based in Eden Prairie, Minn. "This move demonstrates our commitment to a fair and level playing field in areas such as bidding and rate confidentiality."

Still, some TMC customers also use C.H. Robinson as a core transportation services provider, recognizing the advantage of a partner that can provide a totally integrated transportation management program—from brokerage through to execution and optimization.

As another example, Menlo Worldwide Logistics—the San Mateo, Calif.-based logistics arm of Con-way—recently divined a new business approach that similarly breaks out the transportation piece. The roll-out of Menlo Transportation Services, which combines traditional transportation management with solutions engineering, is designed to remove waste, create new efficiencies, and introduce lean continuous improvement processes to transportation network operations.

Given the entrenched market pressures shippers now face, Menlo saw an opportunity to deconstruct its previous transportation management platform and rebuild it around lean concepts, creating a more progressive and sustained value proposition.

"We realized that what we considered core services—warehousing and transportation—were, by definition, waste," says Carl Fowler, senior director of operations at Menlo Logistics Worldwide. "Current market headwinds forced our hand to be more proactive about delivering value to customers."

Menlo endeavored to infuse its transportation management offering with lean guiding principles that probe for deeper solutions rather than immediate economies. "The goal is to provide sustaining value, not just find cheaper rates," says Fowler. "We want to help customers link upstream and downstream processes to this supply chain node."

Transportation management has always provided a natural entrée into other supply chain areas such as procurement, vendor management, demand forecasting, and order management. By developing this new platform, Menlo wants to let lean methodology identify problems, guide better transportation best practices, then unleash these efficiencies elsewhere in the supply chain for further optimization.

In effect, C.H. Robinson/TMC and Menlo are drawing out the transportation function, isolating its value within a broader supply chain context, then building it back up. Getting back to basics is the natural instinct when

Channeling Demand

E-commerce and multi-channel retailing are placing greater demands on order fulfillment practitioners, according to Lakeland, Fla.-based Saddle Creek's *E-Fulfillment Trends Report*. The study is based on online survey responses from 160 retailers, distributors, and manufacturers involved in e-fulfillment functions. It explores best practices, challenges, and emerging trends across the country. Among the report's findings:

- The rise of e-commerce has elevated order fulfillment operations to a critical business function. The practice now requires sophisticated processes, state-of-the-art resources, and an in-depth understanding of multiple sales channels.
- There is a distinct trend toward multi-channel retailing (in store, catalog, and online), as 57 percent of respondents use more than one sales channel.
- The demand to deliver perfect orders and a consistent brand experience from channel to channel can be challenging for many companies. Processing time for outbound orders (35 percent), system integration (29 percent), and upholding service standards (29 percent) are particularly weighty responsibilities, according to respondents.
- To accommodate the increasing sophistication of fulfillment practices, 39 percent of respondents outsource some or all of their e-fulfillment operations. The most widely mentioned advantages are "alternative to investment in overhead/infrastructure" and "opportunities for cost savings."

Source: *E-Fulfillment Trends Report*, Saddle Creek Corporation 2011

BIGGEST E-FULFILLMENT CHALLENGES

35%	Processing Time – Outbound Orders
29%	System Integration
29%	Upholding Service Standards
26%	Returns
24%	International Shipments
20%	Need for Customization
17%	Processing Time – Receiving
11%	Quality Requirements
8%	EDI Processing

complexity muddies supply chain backwaters. And many shippers welcome this grass-roots solution as directives to reduce costs remain top of mind.

But logistics service providers are also challenged by shippers to continually provide more value, and these approaches facilitate continuous improvement, demonstrating and reinforcing the value of transportation outsourcing. They also simplify transportation management by making it more distinct and accessible, which is particularly relevant for small- and medium-sized businesses that have yet to capitalize on their transportation and logistics operations.

The State of Transportation

As transportation funding floats to the top of state agendas, government and transportation authorities are focusing attention on measures to finance infrastructure development and enhance freight movement. Here is a roundup of some recent legislation:

Ohio: In a move that other cash-strapped DOTs will watch closely, Ohio legislators are mulling future options for managing the Ohio Turnpike and other roads amid rising costs.

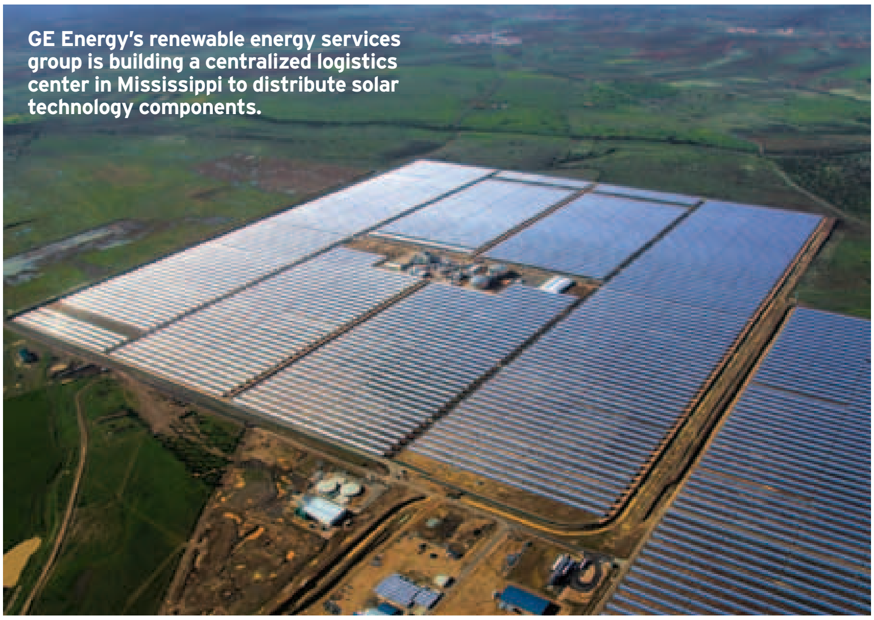
Transportation officials are working with consultants to determine the best course of action – maintaining the status quo, removing tolls altogether, or leasing the roadway to a third party. Privatization opponents fear an immediate cash infusion will lead to a service downgrade, higher tolls, and trucks diverting to and damaging nearby roads. Apart from keeping the current system in place, the original provision for creating a turnpike was to remove the tolls once the initial construction debts were repaid. That never happened.

Wisconsin: Governor Scott Walker, along with support from the Wisconsin

Department of Transportation and the Department of Agriculture, Trade, and Consumer Protection, recently signed into law nine transportation bills that will benefit both the agriculture and freight transportation industries. For farmers and producers, the new laws will streamline the permitting process, which will specifically help shippers transport agricultural products such as fruit, grain, vegetables, and livestock to ports for export.

California: The forecast for transportation funding in the Golden State is turning cloudy. It will take more than $500 billion through 2020 to maintain crumbling roads and outdated freeways, and alleviate traffic congestion, according to a recent preliminary report by the California Transportation Commission. It is a funding gap that could delay more than 3,000 safety improvements.

Officials are exploring the possibility of raising the gas tax, which will greatly inflate transportation costs in a state where fuel prices are already sky high because of low-carbon fuel mandates.


GE Energy's renewable energy services group is building a centralized logistics center in Mississippi to distribute solar technology components.

GE Shines Light on New DC

The recent debut of General Electric's (GE) centralized logistics center for renewable energy components in Olive Branch, Miss., demonstrates the continuing growth of the U.S. renewable energies sector, and the need for efficient distribution and parts replenishment. The company says the new facility will help improve customer response times throughout North America as more wind and solar energy projects are developed and existing power facilities require maintenance.

GE Energy's renewable energy services group will use the new logistics center to distribute replacement wind turbine parts and solar technology components. Additionally, it will produce customer-specific kits that include multiple parts for each service activity, which increases productivity by ensuring that all of the parts required for a project are packaged together. The center also will provide and maintain specialized tooling for GE's field services team.

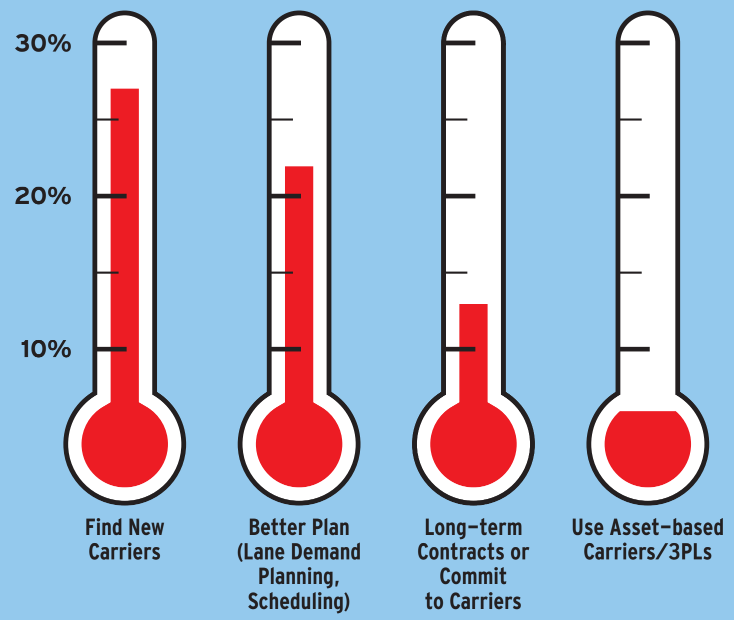
The new facility also complies with Leadership in Energy and Environmental Design (LEED) Silver Certification standards. Sustainable features include skylights, upgraded insulation, an efficient warehouse lighting system, and highly reflective white TPO roofing to reduce cooling loads. ■

Temp-Controlled Capacity Challenges Heat Up

Truck capacity continues to be a primary challenge for temperature-controlled shippers. More than 27 percent of shippers participating in RWI Transportation's *2012 Temperature-Controlled Transportation Report* deal with a lack of capacity by finding new carriers. Thirteen percent enter into long-term contracts with carriers, and six percent specifically seek out asset-based carriers and 3PLs as strategic partners. Other temperature-controlled shippers are making significant efforts to optimize lane demand planning and improve scheduling.

For more information on this research, go to www.RWItrans.com.

Source: 2012 Temperature-Controlled Transportation Report, sponsored by RWI Transportation



GLOBAL

THE WORLD AT A GLANCE

by Joseph O'Reilly

A merger of Japan's big three container lines – MOL, "K" Line, and NYK – is one option to help rein in losses. The three companies would boast a fleet of 285 ships with a total capacity of approximately 1.2 million TEUs.

Japanese Ocean Carriers Mull Merger

In a move reminiscent of Air China/ Cathay Pacific's recent joint venture cargo agreement, Japan's three largest container lines are considering a merger to stave off rising costs and capture greater market share in the region.

MOL, NYK, and "K" Line are in ongoing discussions to consolidate operations, reports French container shipping analyst Alphaliner. The ocean carrier industry at large has been beset by economic volatility, especially as demand patterns in certain lanes and regions continue to waver. For many steamship lines, the fact that a peak shipping season never materialized in 2011 is an ominous warning of changing trade dynamics.

Carriers have recognized that surplus capacity is a problem. During the first recessionary wave in 2009, many began idling assets in an effort to reduce vessel operating costs and better reflect demand. That trend continued into 2011. But smaller operators without market share are still at a disadvantage.

None of the Japanese ocean carriers currently commands a top-three position in any of their key markets, according to Alphaliner. Through consolidation, however, MOL, NYK, and "K" Line would create the world's fourth-largest ocean carrier–following Maersk, MSC, and CMA CGM–with a combined market share of 7.5 percent.

A Japanese "mega-line" would be the market leader on the Far East-North America trade, the second-largest carrier on the Far East-South America and Far East-Oceania routes, and third on the Asia-North Europe and intra-Far East markets.

Projecting Russia's Fortunes

Russia's economy has always been married to its wealth of oil and gas reserves–for better or worse. A lack of diverse domestic industries has left the country highly vulnerable to oscillating global fuel demand and price fixing. But there is one silver lining in its unrelenting reliance on "black gold": Russia has become a center of excellence for project logistics.

3PL Militzer & Münch attributes much of its growth to project logistics business in Russia.

Moscow-based Volga-Dnepr Group, and its airfreight subsidiary AirBridge Cargo, has a well-established presence in the heavy-lift cargo industry. And global 3PLs such as GAC (Dubai) and Militzer & Münch (Switzerland) have capitalized on the area's oil boom to develop project logistics divisions. Militzer & Münch recently reported that its Russian project logistics business will account for more than 12 percent of total turnover in 2011–more than twice as much as last year.

While this rapid growth is largely tied to current Mideast instabilities, there is some optimism that this spike, together with growing proficiency managing project logistics moves, will be an impetus for further economic diversification and growth.

Indonesian Ports Need Improvement

As interest in Southeast Asia heats up, transportation and logistics capabilities–and shortcomings–are becoming more transparent.

Indonesia, for example, is struggling to keep pace with neighboring countries in terms of building out transportation infrastructure to accommodate swelling trade flows, according to a recent World

Bank report. Export costs out of the country are considerably higher because its ports fall well below international standards. Indonesian ports are constrained to serving ocean carriers that max out at 4,000 TEUs, while Malaysia, by comparison, can accommodate 14,000-TEU steamship lines.

Logistics costs for moving product from factory to port are also prohibitive–in some cases more than one-third higher than Malaysia. The Indonesian government is working on a two-pronged plan to improve connectivity and reduce costs: first, creating a transportation system by building the necessary inland infrastructure; and second, mobilizing state-owned enterprises and increasing national logistics capacity.

Top Master Carriers for U.S. Imports

In Zepol's latest report summarizing the U.S. trade industry in 2011 to date, Mediterranean Shipping Company ranks second on the Master Carrier list. MSC is one of the few ocean carriers that exhibited growth, posting a 17-percent increase in TEUs shipped from last year.

CARRIER	TEUs (millions)*
Maersk Line	147,487
MSC Mediterranean Shipping Company	140,956
APL Co. PTE Ltd. NOL Group	103,536
Evergreen Line	100,550
Hanjin Shipping Company	87,761
Hapag Lloyd	85,846
Compagnie Maritime D'Affrètement	68,967
Hyundai Merchant Marine	64,685
Orient Overseas Container Line	62,489
Yang Ming Marine Transport Corp.	61,360

* Average import volume, Jan. 2011 – Oct. 2011

Source: Zepol Corporation

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SMART MOVES

EDUCATION AND CAREER ADVANCEMENT

by Anne Barry

Warning! Dangerous Lack of Support for Hazmat Professionals Ahead

It is often said that dangerous goods handling compliance becomes an issue only when a non-compliant situation is discovered. The better dangerous goods professionals perform, the less necessary they appear.

Lack of recognition for dangerous goods management professionals' contributions, increasingly complex global transportation regulations, and insufficient career development opportunities may prevent the most qualified management candidates from pursuing careers in dangerous goods transportation.

To encourage interest in the hazardous materials/dangerous goods field, industry associations and partner organizations are introducing initiatives such as the Council on Safe Transportation of Hazardous Articles' "Blueprint for Success: Enhancing the Image of the Hazardous Materials/Dangerous Goods Professional."

This initiative aims to elevate the business community's perception of dangerous goods professionals to help them gain career security and opportunities. Blueprint for Success promotes the following core objectives:

- Develop key partnerships with regulators and other organizations domestically and internationally to coordinate and form new programs and resources for hazardous materials/dangerous goods professionals.
- Work with existing programs and associations to design or expand professional development curriculum to evolve careers in hazmat transportation.
- Stimulate awareness and influence regarding the value of the hazardous materials/dangerous goods transportation compliance profession among senior decision-making executives at corporations, associations, and within regulatory bodies.
- Increase public awareness of the value the profession provides.

PROMOTING TOP TALENT

Transportation safety, especially where dangerous goods are concerned, demands highly qualified participants throughout the transportation chain. National and international legislation is currently imposing more stringent and severe requirements for training personnel engaged in dangerous goods operations. And, the amount of information and knowledge required from these specialists is constantly growing.

It can be challenging, however, for commercial companies and government entities to find the right personnel to comply with all the industry's requirements. Some countries suffer from an acute shortage of hazmat professionals, as worthy candidates are not attracted by career prospects in the dangerous goods field and seek employment elsewhere.

Industry associations are continuing to work with individuals, companies, schools, colleges, universities, and the regulatory community to heighten awareness of the critical function hazmat professionals perform in the global business community.

Proactive initiatives such as the Blueprint for Success are essential elements of promoting the safe transportation of regulated hazardous materials by all modes. ■

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VIEWPOINT

by Joe LaFergola

VMS Lifts Warehouse Labor Productivity

Tracking lift truck operator time can be a challenge for warehouse managers. The Occupational Safety and Health Administration (OSHA) requires lift truck operators to complete a pre-operation checklist before starting each shift. This inspection involves ensuring that the truck is working properly, and looking for signs of potential problems, such as hydraulic leaks.

A recent study by a major big-box retailer found that most of its operators spend approximately two minutes filling out the pre-operation checklist and up to 15 minutes filing it with the administrator. Multiply this time by the number of lift truck operators at a facility, and filing the checklists is clearly a productivity drain.

AUTOMATED FILING

One way warehouse managers can decrease downtime is by using a vehicle management system (VMS), which enables forklift operators to complete and electronically file the OSHA checklist instantly, right at the lift truck.

A VMS offers several benefits in addition to time savings. First, the electronic pre-operation checklist is a paperless system, which saves manual filing time and reduces errors.

Second, the ability to randomize the checklist prevents operators from quickly checking boxes based on memory rather than taking time to properly inspect the lift truck.

Third, electronic record retention and ease of document retrieval enables managers to spend less time doing paperwork and more time managing the warehouse operation.

Finally, VMS solutions prevent unauthorized parties from operating trucks, and act as a "lockout" against using the truck if the pre-operation inspection finds a critical deficiency.

ADDING UP THE SAVINGS

By eliminating the need for the operator to file a paper checklist, the big-box retailer recognized that its VMS created an extra 15 minutes of productive time per operator, per shift.

This 15-minute gain per operator creates a huge financial savings opportunity each year. In a single-shift operation with 25 lift trucks, for example, an operator's wage may be approximately $35 per hour. The 15 minutes per day saved by electronically filing the checklist, multiplied by 250 days of operation and 25 trucks, regains the facility $54,687 in productivity.

Saving 15 minutes per lift truck each day also allows operators to move more pallets per shift. Assuming a truck moves 16 pallet loads per hour, an extra 15 minutes of production means four more loads can be moved per shift.

If operators typically move 16 pallets per hour over the course of four hours of operation, they move 80 pallets in a shift. If operators can instead move 84 pallets per shift, they can increase product moved by five percent per shift.

VMS solutions can provide data that further breaks down important metrics, including key hours (the number of hours the lift truck is turned on), deadman hours (the number of hours the truck is engaged in operation), and travel and lift time. The system should remove the need to perform calculations, and graphically display results that point facility managers in the right direction, enabling better management and facilitating the ability to meet productivity and cost-reduction goals.

Whether it's filing a pre-operation checklist more efficiently, moving more pallets, or saving money through gained time, VMS solutions can help warehouse managers derive more value from their lift truck fleets. ■

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3PLLINE

by Tom Sanderson

The Safety Measurement System: A Flawed Assessment of Motor Carrier Conduct

Developed to support the Federal Motor Carrier Safety Administration's (FMCSA) Compliance, Safety, Accountability (CSA) initiative, the Safety Measurement System (SMS) methodology is intended to monitor motor carrier and commercial motor vehicle driver safety performance. It must pass rigorous review before it becomes law.

Under the Administrative Procedure Act, the FMCSA must consider the effect these rules will have on the motor carrier industry, the cost of regulation, and its impact on small business enterprises, in particular.

There is no proof that SMS methodology is a better measure of safety than the objective-based compliance review currently required by statute. SMS methodology is based on "grading on a curve," which assumes that half the motor carriers it rates are somehow marginal or deficient.

Repeatedly, carriers with very low crash rates and satisfactory safety ratings score poorly under SMS methodology based on flawed data, fuzzy math, and technical violations that have no proven correlation to safety.

Highway fatalities involving trucks are at an all-time low. A mass of new regulations are not needed, particularly when competition, efficiency, and jobs are at stake. Yet the broker and shipper community has been slow to realize the effect of SMS methodology.

UNSAFE? SAYS WHO?

Vendors selling carrier-monitoring programs have attempted to make shippers and brokers feel they must second-guess the FMCSA's ultimate fitness determination to avoid vicarious liability or negligent selection lawsuits. Shippers, like the traveling public, should be protected by the regulations and the regulators, who should be solely responsible for certifying safety. We should not be required to second-guess the FMCSA's ultimate determination, or be subjected to suits based on state law when federal law should have preemptive effect.

The current data available for download from the FMCSA Web site reports on 768,000 truck and bus carriers. Inspection data from the past two years exists for 325,000 carriers. Of those, 91,722 possess enough data to have at least one Behavior Analysis & Safety Improvement Categories (BASIC) score. This means that 88 percent of federally authorized motor carriers are not being measured by the new system.

Of those with a BASIC score, 51,230 have at least one score above the FMCSA limbo bar. That's right: more than 50 percent of all carriers that have a score on at least one BASIC have at least one BASIC above FMCSA's arbitrary threshold.

A system that, based on arbitrary compliance thresholds, suggests half of motor carrier capacity is unfit for the shipping public to use, cannot be accepted by the shipper and broker community.

The major flaw in SMS methodology is that, regardless of how well the motor carrier industry performs, the system will always brand 50 percent or more of the carriers it measures as deficient. In a time of capacity shortage, unemployment, and economic woe, the last thing our industry needs is to curtail available carriers and stifle competition in the false name of improved safety.

The shipper and broker community must take a critical and hard look at this new system and consider the economic and compliance burden it threatens to create. ■

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IT MATTERS

by Lorcan Sheehan

Safeguarding Your Supply Chain Against Rising Fuel Prices

Rising fuel prices have affected most supply chains through fuel surcharges or increased component and operating costs. By planning ahead and evaluating where your supply chain activities are performed, as well as your current processes, you can face these challenges head-on and reduce the impact on your operations and the bottom line.

Prepare your supply chain for rapid fluctuations by addressing these factors:

1. Flexible infrastructure. Supply chains have undergone dramatic changes in recent years in response to shifting product needs, labor costs, taxes, and environmental considerations. Being flexible enough to employ multiple routes to market is an important risk mitigation strategy, but it also provides the capability you need to rebalance product flows in response to changing input costs.

2. Network optimization. As oil prices increase, you may be forced to evaluate where distribution centers are located in relation to areas of high demand. The combination of higher logistics costs and added inventory requirements has prompted many companies to move supply chain operations closer to key markets. A network optimization analysis may result in opening or closing distribution centers, or even moving facilities to more optimal locations. Frequent evaluations are necessary to ensure your supply chain model matches current conditions.

3. Postponement strategies. A postponement strategy based on your network optimization analysis can help increase the density of product coming from remote manufacturing locations. By sending unfinished or unpackaged goods into regions that are closer to the end consumer for final assembly, you can maintain inventory at a flexible level and reduce fuel costs.

4. Shipping practices. Changing your shipping practices can dramatically impact your bottom line. This can be as simple as establishing specific delivery dates with key customers, which will enable you to consolidate shipments. You can also partner with a company that is not a competitor but ships product to the same retail locations. Consolidating shipments between multiple brand owners can reduce costs and increase shipment density.

5. Environmental responsibility. Adopting sustainable supply chain practices can help reduce costs and support corporate environmental initiatives. Consider using alternative fuel sources for trucks and other vehicles to avoid fluctuating oil prices and the complexities they cause. The Environmental Protection Agency's SmartWay Program aims to reduce environmental pollutants caused by traditional fuel sources by providing companies with cleaner alternatives, including ethanol, E85, biodiesel, and natural gas and propane.

Also evaluate product packaging for opportunities to go green. Bulky product packaging made from synthetic materials and plastics is not friendly to your operations, shipping costs, or the environment. Redesigning packaging to be more compact and incorporate recyclable materials with little or no plastic can increase pallet density, which reduces shipping costs and carbon footprint.

To manage rising fuel costs, gain a firm understanding of your supply chain, then implement strategies that add flexibility to your infrastructure and benefit your operations. ■

LOGISTICS knowledgebase©

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Joplin is Rebuilding and Open for Business

On May 22, 2011, the most devastating, deadly single U.S. tornado in six decades ripped through the city of Joplin, Missouri and the neighboring village of Duquesne. With winds of nearly 300 miles per hour, the tornado carved a path 10 miles long and nearly one mile wide through the two communities.

The death toll reached 161 and more than 900 people were injured, many critically. Nearly 4,500 housing units were destroyed and 9,000 people were displaced for the long term. Also destroyed were Joplin's high school, technical school, new middle school, and two elementary schools. The Catholic elementary school was also demolished. These buildings housed half of each system's students.

Destroyed or severely damaged were more than 500 places of employment – from St. John's Regional Medical Center with more than 2,000 employees, to dozens of medical offices, big box retailers, and scores of small, local firms. More than 5,000 job positions were impacted. The storm was a staggering blow to the 52,000 people of Joplin and Duquesne.

And yet, within minutes, our other regional hospital, Freeman Health System, and a St. John's triage center were treating the hundreds of injured. Within 36 hours, the Joplin emergency and public works crews, with help from our great neighboring communities, had all 107 miles of streets in the devastated area completely opened for rescue crews.

Within one week, St. John's opened in a 60-bed tent hospital that is now transitioning to a full-service, 100-bed "permanent unit." St. John's has already announced a location for a new $500-million, 400-bed state-of-the-art medical center.

On August 7, 2011, the expedited clean-up goal was met. More than three million cubic yards of debris, enough to cover 180 football fields 10 feet deep, was removed.

Perhaps the biggest miracle was the Joplin Public Schools. Helped by local, committed contractors, the schools' leadership team fulfilled the promise made the day after the storm: that school would start on time. Today, 98 percent of the students are back and more show up each day. The Catholic elementary school opened in a temporary location on-time, as well.

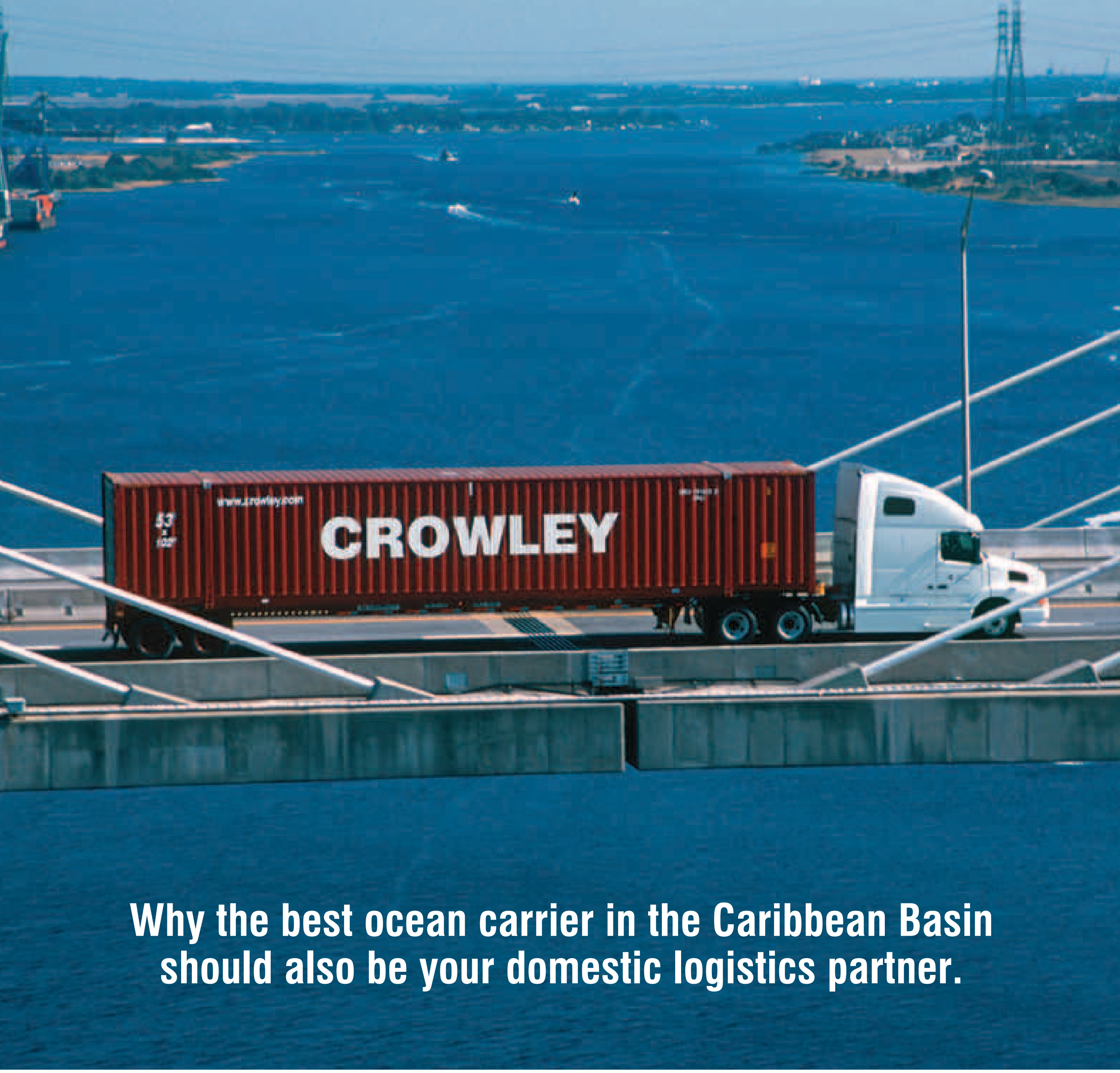
The 9,000 people displaced for the long term are still in the area, still committed to living here, and either already in new quarters or ready to rebuild.

We have seen an extraordinary effort from our business community. Of the 523 businesses and medical practices directly in the path, nearly 400 are already reopened at existing, new, or temporary locations. Most have gone the extra mile to keep their employees on payroll as well.

This miraculous recovery would not be possible without so much help from the federal and state government, and from so many of you. Nearly 200,000 volunteers have come to our community. They helped find shelter for those without homes, provided tons of food and material, and removed debris. Millions of dollars in donations have come from so many others, as well.

There is a long road to recovery still ahead and people continue to ask how to best direct their help. For monetary donations, there is www.rebuildjoplin.org, which lists six key local organizations that are working on long-term recovery. Specifically included in the six key local groups is the Joplin Area Chamber of Commerce Foundation Business Recovery Fund, which can be accessed directly here: www.joplincc.com/businessrecovery.

We still grieve for the victims and their families, but our communities are not victims. We have found the courage in our own hearts and the kindness of thousands of Americans. Thanks to your support and the indomitable spirit of the people in Joplin, Duquesne, and our region, we will be back stronger than ever.



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SUPPLY CHAIN STRATEGIES
SUPERSTAR SERVIC
WIN SATISFIED CUSTOMERS

Stellar retail supply chain planning and management seal the deal on the consumer shopping experience.

By Merrill Douglas

As consumer confidence wavers from month to month, retailers are working extra hard to win shoppers' hearts and coax money from their wallets. All aspects of customer service–including extended hours, attentive employees, attractive displays, well-organized Web sites, easy checkout, and hassle-free returns–keep shoppers in the mood to buy. So does a well-run supply chain.

Sure, retail outlets stand at the far extreme of that chain. By the time a customer lifts an item from a shelf or drops it in an online shopping cart, the retailer has completed most of the planning and execution needed to move that product from the manufacturer to consumer.

Still, to make sure that customers get the products they want, when they want them, and enjoy the experience enough to come back for more, a retailer must create a smooth and efficient path from supplier to store—or, in the case of online retailers, all the way to the consumer's door.

Retailers with a knack for pleasing customers deliver the best possible mix of product offerings, superior store operations, and a visually appealing environment, says Briggs Briner, a director with PricewaterhouseCooper's

PRTM Management Consulting Practice in Dallas. Solid supply chain management is key to that kind of success. "Effective supply chains deliver the optimal product offerings and associated non-product store supplies to enable a superior and consistent shopping experience," he says.

An optimal product offering provides what PRTM calls the Triple A—an affordable and available assortment. "Affordable products are delivered by keeping supply chain costs low through effective sourcing strategies, quality standards, and optimized logistics or distribution networks," Briner says. Companies that implement supply chain strategies to cut costs can pass some of those savings to customers.

Retailers keep products available by accurately forecasting demand, then using smart tactics, such as postponed inventory allocation, to allow for adjustments when forecasts are inaccurate. "The optimal product assortment—size, color, style mix—is achieved through effective planning and a responsive supply chain," Briner says. Capabilities such as rapid replenishment help in this area.

An effective supply chain also supports customer-centric store operations. "The supply chain can provide shelf-ready products, such as pre-tagged goods or goods on hangers, that enable store employees to focus on serving customers," Briner says. And a retailer with a well-run supply chain can offer a wider variety of shopping options, such as the ability to order online, then pick up the product in a brick-and-mortar store.

The following case studies demonstrate how four retailers use stellar supply chain strategy to guarantee customer service that outshines the competition.

Efficiently operating multiple retail channels allows Brookstone to sell its in-store customers additional products from its Web site via smartphone or tablet computer.

BROOKSTONE

Ready to Ship in One Hour

One example of a company that uses nimble channel-crossing strategies to good advantage is specialty retailer Brookstone. Founded with a 24-page black-and-white catalog in 1965, Brookstone opened its first retail location in 1973. Today, it's a multichannel merchant selling solar-powered backpacks, the iPod-controlled Rover Wireless Spy Tank, and thousands of other useful and unusual items. Customers connect with Brookstone at more than 300 stores in shopping centers and airports, as well as through a print catalog, an e-commerce site, and an affiliate program that places select merchandise with partners such as Staples and Bed, Bath & Beyond.

Brookstone stores carry 300 to 500 products, but its Web site offers a great deal more, says Bill Wood, vice president and chief information officer at the Merrimack, N.H.-based company. Customers who like an item in the store, but want to see alternatives, can use their smartphone or tablet computer to scan a quick response code attached to the product, view more items on the mobile version of the Brookstone Web site, and place an order on the spot. If the customer doesn't have an appropriate mobile device, a sales associate with an Apple iPad can help.

"We have full capability at the store level to place orders for all the products that are available online," Wood says. "The customer can be sitting in a massage chair at the store, order that chair, and place an order for accessory products."

Thanks to the company's supply chain infrastructure, staff at Brookstone's distribution center (DC) in Mexico, Mo., may well have that massage chair ready to ship before the customer leaves the mall. As of 2011, that infrastructure includes a newly upgraded warehouse management system (WMS) from Atlanta-based Manhattan Associates.

When Brookstone first implemented its WMS in 2001, it operated stores and a catalog business, but had only started to experiment with e-commerce and affiliate partnerships. "Now they represent a much larger portion of our business," Wood says.

A big incentive for the recent upgrade lay not with Brookstone's retail operations, but with the wholesale affiliate program. "Manhattan Associates' software integrates with


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many leading retailers. By operating on the current version, we could take advantage of that pre-defined integration," Wood says. The new version of the WMS allows Brookstone to, for instance, generate shipping labels that comply with its partners' specifications.

But the upgrade also helps Brookstone operate more efficiently and cost effectively, freeing up money to invest in providing products of greater value. "Consumers are looking for innovation and quality in our products," Wood says. "If we can invest dollars in those areas, as opposed to handling packages, I think they appreciate that."

For online shoppers, including in-store customers who turn to the Web for more options, the upgrade provides quicker turnaround. "Many times, a package is ready and waiting for UPS pick-up within one hour of the order being placed," Wood says.

The new WMS also allows Brookstone to prepare packages for a wider range of parcel carriers, rather than using UPS for every delivery. "That allows us to be more flexible and ship more cost-effectively to consumers," he adds.

BUYSEASONS

Staying Ahead of What's Hot

When managers at BuySeasons haul out their crystal balls every October, they're not preparing to pose as fortune tellers a few days later on Halloween. They're trying to divine which pop culture trends will shape demand for the costumes they will sell in 12 months.

"As the last parcels leave our facility every Halloween, we start planning for what's going to be hot the next year," says Terry Rowinski, chief operating officer at the direct marketing company in New Berlin, Wis.

BuySeasons is really two businesses in one. Through its CelebrateExpress, BirthdayExpress, and 1stWishes catalogs and Web sites, it satisfies a steady, year-round need for party supplies and décor. But under the company's other two banners, BuyCostumes and CostumesExpress, BuySeasons serves demand that peaks massively in September and October.

Logistics activity for the costume business comes in three phases, says Rowinski. First, there's an inbound flood of materials for BuySeasons' own manufacturing operation and finished inventory from vendors in Europe and Asia.

Then, in September, orders start pouring out the door to customers. Finally, as the outbound flow swells to its peak in late October, the company starts grappling with exchanges and returns.

Long-range planning is part of the magic that BuySeasons deploys to keep customers delighted with its costume selection and service. The company stays closely in touch with licensing agencies that represent movies, TV shows, celebrities, and other pop culture phenomena that might feed customers' dreams for a Halloween transformation.

"We work with the licensing agencies to understand what will be trending in their businesses as they move forward in the next year," Rowinski says. Will Angry Birds and Snooki retain their appeal? What does Pixar have in production? Based on those insights, BuySeasons lays plans for making and procuring costumes.

As the new season approaches, BuySeasons uses its Web sites and catalogs to provide a sneak peek at new products and let customers pre-order. "We start taking demand against those products even though they haven't left the country where they're being manufactured," Rowinski says.

BuySeasons uses data it collects from suppliers and its own production plant to determine when those early orders will be ready to ship. That data must be accurate. "You don't want to tell customers they will receive their costumes on Sept. 15, then not deliver until Oct. 30," says Rowinski.

Pre-orders provide a clue as to how popular new products

Processing orders for on-time delivery plays a crucial role in BuySeasons' highly seasonal sales.

will prove once the season ramps up. That information helps BuySeasons match production to demand as the season progresses.

Recent efforts to maintain a lean inventory of paper, inks, and other costume materials also have helped BuySeasons respond to evolving demand for specific products. "We've eliminated weeks—or even days—of materials on hand, so that we can always keep products fresh, and be as nimble as possible in what we're manufacturing," Rowinski says.

If customer demand soars for a specific costume line, BuySeasons can order larger quantities of the necessary materials and ramp up production. "On the other hand, if for some reason demand starts to trail off, we can easily let the time run out on the theme or product until it makes sense to let it die," notes Rowinski.

One further key to delivering excellent customer service is strong coordination among all of BuySeasons' departments. "It took a sales operations and planning exercise to integrate our merchant team, financial team, and supply chain department to make sure everyone was on the same page," Rowinski says.

If buyers get merchandise in-house, for example, but it takes four days for DC staff to receive it, put it away, and make it available for picking, customer service bogs down. "The ability to organize and work together is what makes our operation run so well," Rowinski says.

To support its rapidly growing roster of retail locations, Pet Supplies Plus plans to streamline its distribution network and add DC capacity.

PET SUPPLIES PLUS

98 Percent In-Stock

Employees at Pet Supplies Plus (PSP) take pride in their ability to keep stores stocked with the products customers want. "When consumers elect to come into one of our stores, more than likely they're going to walk out with everything they need," says Todd Pankey, senior vice president, supply chain, at the Farmington Hills, Mich.-based company.

Founded in 1988, Pet Supplies Plus claims a position as the third-largest pet retailer in the United States. It operates more than 240 outlets in 23 states, and company officials work hard to keep product flowing steadily to all those locations. "Our in-stock position is at 98 percent," Pankey says. And as the company pursues ambitious expansion plans over the next five years, officials are determined to maintain that high service standard.

With that goal in mind, PSP is working to gain more DC capacity and make its distribution network efficient enough to serve a rapidly growing roster of retail locations. The strategy calls for replacing PSP's two existing DCs, in Jackson and Ann Arbor, Mich., with a single large facility.

Early in 2011, PSP started working with LLamasoft, a supply chain planning and analytics software vendor, to identify the best location for the new DC. LLamasoft, based in Ann Arbor, provided its *Supply Chain Guru* software and brought in experts to perform modeling on PSP's behalf.

One goal of the modeling exercise was to find a location from which PSP could continue serving its stores effectively and at the best possible cost. Another goal was to figure out how big the facility should be and how much inventory it should hold.

"Typically, our freight tends to be more expensive than warehousing from a total cost perspective," Pankey says. So the model had to consider what it would cost to serve the stores over various distances. "The tool let us do that by quantifying the rates for shipping from these new locations," he adds. The model also considered how much product the DC should hold, and what it would cost to keep that inventory.

The modeling tool helped officials at PSP decide to locate the new facility somewhere between Indianapolis, Ind.,

Wayfair's customer service team relies on accurate inventory and shipment tracking information to provide consumers with order updates.

and Columbus, Ohio. "It also helped us to decide how big the warehouse needed to be," Pankey says. The next steps will be to choose a precise location, and contract with an industrial engineering firm to design the facility.

Since completing that initial project, PSP has worked with LLamasoft to perform further analyses that, among other things, will help the company maintain its high customer service standards. One initiative was a trend analysis, which revealed that PSP's sales volume spikes around Labor Day, then remains heavy through the end of the year.

"That project has given us a tool we can use for labor planning to hit our service expectations from a shipment perspective," Pankey says.

LLamasoft has also helped PSP standardize reporting on key performance indicators, including one that measures order fulfillment performance. In addition, LLamasoft has helped PSP analyze its use of warehouse space and, based on that knowledge, achieve a better product flow.

"We applied a new slotting program that has improved our efficiency in the facility and allowed us to move to zone picking, rather than the batch picking that we had been doing previously," Pankey says.

The coming years will see PSP transporting pet supplies to more and more locations. "As a percent of the total, our increase in stores should outpace any of the other specialty pet retailers in the marketplace," Pankey says. Thanks to solid supply chain planning, PSP should have no trouble keeping all those new shelves filled.

WAYFAIR

Fast, On Time, and Clean

Boston-based e-tailer Wayfair's tag line is, "A zillion things for the home." The company revels in big numbers, such as the 9.6 million orders placed via its Web site since 2002, and the 200,000 hours its employees had spent with customers in 2011 as of late October.

Wayfair also revels in praise from happy customers, as evidenced by testimonials posted on its Web site: "The experience I had with Tiffany has made me a customer for life." "I am very thankful for how fast you reacted." "I am impressed by the way you care about customers."

Responsive customer service reps help Wayfair shine in customers' eyes. But another secret behind the company's customer service success is its logistics savvy.

"The delivery of the item is where we prove ourselves," says Mark Mastrandrea, vice president, supply chain at Wayfair. "We're focused on fast, on time, and clean." That means getting customers the products they want as soon as possible and in great condition, whether the shipment contains a corkscrew, a backyard sandbox, or a four-piece living room suite.

"In order to do that, we rely on having accurate inventory information and shipping times, and being able to quote them to the customer," Mastrandrea says.

Tracking availability is a particular challenge for Wayfair, for two major reasons. One is the sheer number and variety of its products. Wayfair currently offers more than 4.5 million items from more than 5,000 suppliers, and it's adding to those numbers all the time.

The second reason is that Wayfair is mainly a drop-ship merchant, passing orders to its suppliers, then managing transportation to get the goods directly to customers. To tell customers when to expect their shipments, Wayfair must be able to peer into the inventories of all 5,000 suppliers.

That visibility comes thanks to the company's heavy investments in technology, most of it developed in-house. Wayfair's processes for collecting data from suppliers are easy to set up and replicate. "We excel at onboarding new suppliers," Mastrandrea says. "We bring on about 130 new vendors every month."

Because fashion plays a big role in home goods, vendors are constantly introducing new products and discontinuing old ones.

"We have a lot of technology and data feeds that allow us to stay on top of that information for all our suppliers," Mastrandrea says.

Besides keeping track of which products are available, Wayfair also must maintain precise data on the dimensions and weights of all the items it sells, so it can plan the deliveries. "We select the best carrier for the origin and delivery points, the product weight, and the service class," Mastrandrea says.

Wayfair works mainly with parcel carriers, several less-than-truckload (LTL) carriers, and white-glove carriers that specialize in delivering and setting up furniture and other high-value merchandise.

For a company that manages transportation from vendors' DCs all over the United States, to customers all over the country, speed is a major challenge. Speed is also a key element of customer service, which is why Wayfair recently implemented a new strategy to get its most popular items to customers even faster than before.

To accomplish that, in 2011 Wayfair altered its business model, introducing DCs in Ogden, Utah, and Hebron, Ky. LTL and full truckload carriers haul selected products from suppliers to the two DCs, where employees pick orders and ship products via parcel carrier.

"These DCs make thousands of products available to anywhere in the United States within two days," Mastrandrea says. "It's part of our initiative to be faster, reduce lead times, and get products to customers right away." The new strategy has proven so successful that Wayfair plans to bring more products into the two DCs in the near future.

Company officials also plan to revamp the way they ship larger items via LTL or white-glove carrier.

"We're focusing on improving packaging and package testing, and how we work with carriers on larger goods that are heavy, contain glass, or present different kinds of problems than a parcel package would," Mastrandrea says. The goals are to deliver these items faster and to reduce the risk of damage.

Ultimately, all these efforts are designed to promote Wayfair's core values—selection and service—and to make sure the company's numbers keep soaring. "Our supply chain and customer service are built around growth—bringing on more suppliers, handling more products, and talking to more customers," says Mastrandrea.

Like their counterparts at PSP, BuySeasons, and Brookstone, officials at Wayfair understand that implementing strong processes all along the supply chain can help make shoppers happy and keep them coming back for more. ■

DEDICATED REFRIGERATED FLEET HELPS FOOD DISTRIBUTOR KEEP ITS COOL

When United Natural Foods Inc. wanted to consolidate multiple carriers into one, it turned to Cardinal Logistics to manage its inbound moves and provide shipment visibility.

THE CUSTOMER

United Natural Foods Inc. (UNFI)
Providence, Rhode Island
www.unfi.com
UNFI is a U.S. independent national distributor of natural, organic, and specialty foods and related products, including nutritional supplements, personal care items, and organic produce.

THE PARTNER

Cardinal Logistics
Concord, North Carolina
www.cardlog.com
The third-party logistics (3PL) provider serves multiple industries nationwide with dedicated contract carriage, final-mile delivery, and logistics management.

UNFI's inbound logistics operation transports more than 40,000 products – including natural and organic groceries, and frozen and perishable foods – to its 14 distribution centers throughout the United States for outbound delivery to its customers. Cardinal Logistics supplies inbound transportation services for UNFI's Eastern and Western Regions.

The 3PL helped UNFI consolidate from multiple carriers in the Eastern Region by engineering a dedicated fleet operation. The arrangement has proven to be a reliable option for UNFI, which now has one point of contact for its inbound network. Cardinal is able to manage the inbound moves and incorporate vendor freight without increasing the fixed assets.

While converting from multiple carriers to one, Cardinal assumed UNFI's refrigerated trailer assets and added Cold Link® refrigerated tracking technology with alert management and reporting capabilities. The refrigerated trailer fleet can be remotely monitored and reset as required.

Cardinal transitioned UNFI's Western Region activity from single-temp refrigeration and dry van movements to multi-temp equipment, reducing the overall product shipment cycle. The current solution also optimizes driver and equipment resources.

With UNFI's input, Cardinal built region-based key performance indicator (KPI) reports to assist with decision-making. Changes to origin points presented an opportunity based on more detailed shipping information.

Cardinal's mobile handheld technology, Cardinal Activity Tracker, is used for EDI updates such as arrival and departure times, and supports UNFI's KPIs and weekly reports.

Before the relationship with Cardinal, UNFI had limited inbound fleet metrics. With Cardinal's help, the KPIs allow UNFI to monitor costs on a load, stop, and mileage basis. UNFI is now also able to track reefer fuel burn and loaded trailer dwell time to help increase efficiencies.

SUPERIOR SERVICE, SEVEN DAYS A WEEK

Receiving great logistics service, communications, and pricing is no game for the leading provider of LCD monitors to the global gaming industry.

THE CUSTOMER

Wells-Gardner Electronics Corporation

McCook, Illinois
www.wellsgardner.com

Founded in 1925, publicly traded Wells-Gardner Electronics Corporation is a global manufacturer and distributor of premium video displays, including: LCDs, LCD flat-panel displays, digitally controlled monitors, analog monitors, and support parts.

THE PARTNER

Geodis Wilson

Headquartered in France; worldwide presence
www.geodiswilson.com

With 5,500 people and a global network, Geodis Wilson is one of the world's largest freight forwarders and 3PLs, serving customers with integrated supply chain solutions that deliver cargo by air, ocean and ground via their numerous warehouses located strategically throughout the globe.

The high-tech, high-value products Wells-Gardner Electronics makes and ships require special handling in several regards. Before hiring Geodis Wilson, Wells-Gardner was using a provider that did not own offices in all the ports Wells-Gardner's products were shipped to and from, which added extra expense and time to the shipping process.

Wells-Gardner hired Geodis Wilson three years ago. Owning offices at every origin and destination point Wells-Gardner needed allowed Geodis Wilson to help the company avoid duty and taxes. It also improved communication, service, and shipment visibility; reduced shipping times; and cut costs.

Geodis Wilson now handles approximately 15 less-than-containerload, full containerload, and airfreight shipments of LCD flat-panel monitors and related parts each month for Wells-Gardner. Geodis Wilson is the sole provider for shipping product from Hong Kong to destination ports just outside of Sydney, Australia, and Montreal, Canada.

"Geodis Wilson has been excellent to work with," explains Bob Urban, Wells-Gardner's director of global logistics. "They openly exchange ideas to improve service and reduce costs wherever possible, consistently and immediately notify us of rate changes, and demonstrate ingenuity when providing back-up shipping solutions when we encounter problems."

Geodis Wilson has come through for Wells-Gardner in memorable ways. "An urgent shipment for one of our largest customers was picked up in Montreal Friday morning for delivery in Chicago Monday morning," Urban recalls. "We had always used a broker specializing in North American cross-border clearance for the infrequent occasions when we import from Canada. The broker never told us our account had a value limit, and this shipment far exceeded that figure. So, the driver was turned away in Windsor late Friday night.

"The trucking company told me we could submit a new power of attorney to increase our value threshold on Monday, meaning the goods would be delayed until Tuesday," he continues. "I contacted the Geodis Wilson operations team. Immediately, they arranged to take the shipment, submit a new entry on our behalf, and ensure the shipment arrived on Monday as planned.

"All this 'above and beyond' service was provided on Saturday," he adds. "Geodis Wilson was the only one of four freight forwarders that also do brokerage that was willing to work on Saturday."

GEODIS WILSON'S CUSTOMER SERVICE BENEFITS:

1. **Communications.** Geodis Wilson's Chicago branch operations manager serves as the key, accountable contact and manages all of Wells-Gardner's needs related to communications, reporting, scheduling, and more. She provides daily reports to Wells-Gardner and communicates with its import and export logistics teams.
2. **Price.** Fees are lower for shipments to both Canada and Australia because of Geodis Wilson's competitive pricing structure and because the company has its own offices in all relevant ports.
3. **Speed.** Geodis Wilson has reduced transit time to Canada by one week.

FREIGHT CONSOLIDATION DRIVES AUTO SUPPLY CHAIN EFFICIENCY

Automotive component supplier IAC needed better control, visibility, and reporting to help weld its supply chain into a cohesive unit. ProTrans delivered innovation and customized solutions designed to control costs along IAC's network.

THE CUSTOMER

International Automotive Components (IAC) Group

Southfield, Michigan
www.iacna.com
IAC is a leading global supplier of automotive components and systems, including door and trim systems, instrument panels, consoles and cockpits, flooring and acoustics systems, and headliner and overhead systems.

THE PARTNER

ProTrans International Inc.

Indianapolis, Indiana
www.protrans.com
ProTrans International Inc. is a 3PL that focuses on capacity management and better visibility, with data support for efficiency gains and inventory management.

International Automotive Components (IAC) Group needed a more efficient way to coordinate and consolidate shipments among its 33 North American plant locations. The IAC plants are spread throughout the United States, Mexico, and Canada, making capacity management, real-time data visibility, shared network flexibility, and intra-Mexico cooperation essential to success.

Because ProTrans serves more than 400 manufacturing locations in North America – with two-thirds of those customers in automobile supplies – there was a natural synergy between IAC's needs and ProTrans' capabilities and experience. For example, the 16 IAC plants located in the upper Midwest and Ontario were, on average, within just 90 miles of a ProTrans cross-docking facility. Moreover, the remaining nine plants throughout North Carolina, South Carolina, Tennessee, and Virginia were only 150 miles, on average, from the nearest ProTrans cross-docking facility, and three plants were as close as 100 miles.

To address IAC's needs, ProTrans used its CORE supply chain management program, which focuses on control, visibility, and reporting. Using customized business intelligence software for logistics analytics, ProTrans allowed IAC to create tailored reports that give the company complete supply chain visibility.

"Operating the IAC business with our CORE program makes us a freight manager as well as a true operator in the network," says Shawn Masters, vice president of operations, ProTrans.

Additionally, ProTrans' ProMex Direct service enabled IAC shipments to move into Mexico without stopping for unloading, additional handling, or validation along the border. Freight was verified at one of ProTrans' northern facilities near the IAC plants, with brokerage paperwork filed while trucks were heading south. The crossing processing is streamlined to provide maximum transportation efficiency and velocity, and reduce overhead inventory carrying costs.

Finally, ProTrans provided IAC a Michigan-based management team to interface with the manufacturer's leadership at its Southfield home office. "We were initially impressed with ProTrans' overall program and its support of our manufacturing plants," says Craig Russell, North

American logistics manager, IAC. "As we move through the implementation phase, ProTrans is displaying the innovation we were expecting in designing unique programs to optimize our shipments throughout North America."

RELIABLE IN-STORE DELIVERIES FIT TO A TEA

Outsourcing its direct-to-store distribution to Ryder Supply Chain Solutions helped Milo's Tea Company quench its customers' thirst for better service.

THE CUSTOMER

Milo's Tea Company

Birmingham, Alabama

www.milostea.com

Milo's Tea is a leading tea manufacturer. It has distributed its Famous Sweet Tea for more than five decades.

THE PARTNER

Ryder Supply Chain Solutions

www.ryderscs.com

Ryder Supply Chain Solutions is an end-to-end logistics partner committed to helping companies transform their supply chains and achieve peak performance by delivering the best in operational execution. Ryder develops supply chain strategies, and manages and executes scalable logistics operations.

Milo's Tea was running a private fleet of 12 small refrigerated trucks and 13 drivers to handle direct-to-store distribution (DSD) within a 100-mile radius of its production plant. The company had established business relationships with wholesale dairy distributors to manage deliveries beyond the local area.

Milo's had expanded across the southeastern United States, with distribution in 13 states, but its private fleet was struggling to deliver to more than 330 locations within the DSD network, and to meet the stringent service requirements of large customers.

In 2008, Milo's outsourced its fleet to Ryder under a dedicated contract carriage arrangement. Upgrading from straight trucks and vans to tractor-trailers trimmed the fleet's size and weekly mileage significantly, and allowed Milo's to make one or two weekly deliveries per store, depending on demand.

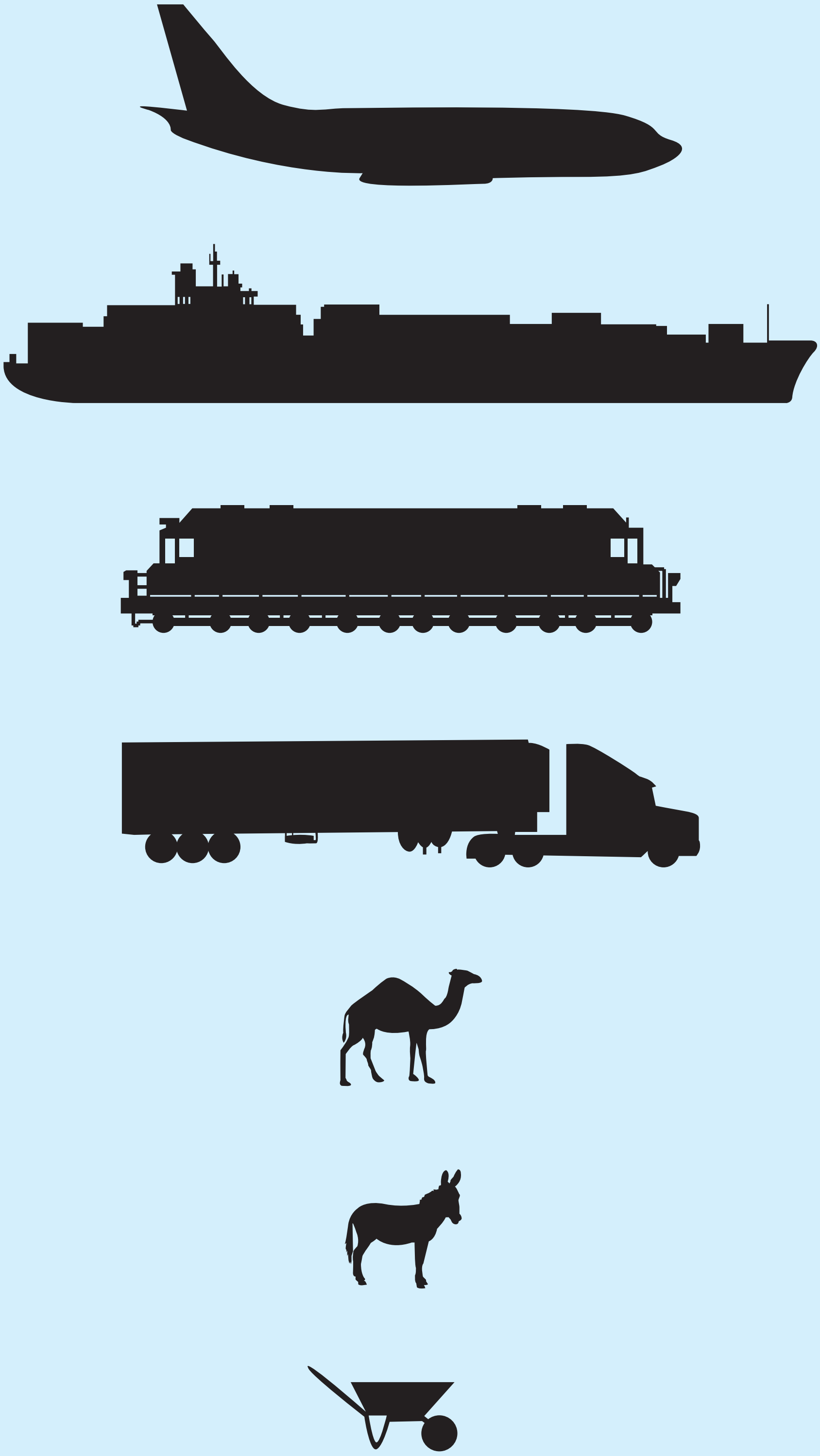
Given these parameters, Ryder's optimization engine initially recommended six 28-foot tractor-trailer units and seven drivers. Ryder also provided all new drivers, because the larger vehicles required that drivers carry a commercial driver's license.

Milo's has realized a number of benefits in the two years since partnering with Ryder:

- **Reduced costs.** By resizing the equipment and fleet, Ryder cut weekly mileage from 7,000 to about 5,250 miles. The fuel, manpower, and mileage savings reduced overall DSD fleet operating costs by nearly 20 percent.
- **Increased efficiency in managing seasonal surges.** Ryder maintains a core fleet of equipment and drivers, supplementing it with resources as necessary to cover surges. The supplemental drivers are fully trained on Milo's delivery procedures and routes. When the demand spike ends, the additional drivers and equipment return to other Ryder operations.
- **Improved fleet and driver reliability.** If a truck breaks down or a driver is sick, Ryder resolves the issue with little or no service disruption.
- **Better information for better management.** Ryder's on-board computers gather information on every aspect of the operation. Ryder develops a weekly key performance indicator (KPI) report that tracks mileage, cost per case, cost per delivery, on-time performance, cases per delivery, fuel efficiency, and dunnage returns. These KPIs help Milo's understand its unit costs.
- **Tapping best practices.** Milo's benefits from Ryder's experience running dedicated fleets. "We gain the valuable lessons Ryder has learned from other clients, and Ryder has the resources to act on those lessons," says Jay Evers, Milo's vice president and chief operating officer. "If they see an opportunity for improvement, they present us with a recommendation, so we can act on it immediately," adds Mitch Wolfe, manager of sales and marketing at Milo's.

"We didn't have many late deliveries, but now we've completely eliminated them," says Wolfe. "Our on-time delivery performance is 99.8 percent."

Better service is helping Milo's grow its business, even in the company's mature DSD market.



Foodservice Logistics Brings Value to the Table

by Amy Roach Partridge

Hungry for efficiency and cost savings, foodservice companies and restaurants are acquiring a taste for supply chain management.

When at their favorite restaurant, most diners probably don't think about the complex logistics and supply chain maneuvers that must occur to bring their meal to the table. But behind the plate is a dynamic and intricate supply chain that links farmers and growers, food purveyors, restaurant supply vendors, distributors, purchasing co-ops, transportation and logistics providers, and restaurants. And depending on the size, geography, and menu diversity of the eatery or restaurant chain, that supply chain can function in vastly different ways.

When the foodservice supply chain works well, the end result is a satisfied consumer who will bring both repeat business and profits to the restaurant and its myriad trading partners. But when the supply chain goes awry, everything from food safety to supply continuity, cost management, and consumer pleasure is compromised.

With so much at stake—and in an economy where enticing consumers to dine out is difficult—it is not surprising that the restaurant industry is becoming more focused on improving supply chain operations. The area has been overlooked in many restaurants and foodservice companies for far too long, says David Parsley, senior vice president of supply chain management for Brinker International Inc., which owns, operates, and franchises more than 1,500 restaurants under the Chili's Grill & Bar and Maggiano's Little Italy brands.

Elevating Logistics

"The foodservice business doesn't always hold the supply chain in the same regard as other industries," Parsley says, explaining that many restaurants still focus narrowly on procurement, missing opportunities to optimize operations at all points throughout the supply chain.

"Purchasing is only part of the equation," he adds. "The restaurant supply chain includes all the links—from raw commodities through processing—until goods reach the restaurant and are handed to the guest. Every one of those links represents an opportunity for improvement."

The challenge for Brinker—which logs nearly $1 billion in spend annually for food, beverages, and equipment—is managing the supply chain to meet its specifications and expectations for quality and consistency.

"We need to ensure that products are available in our restaurants when they are needed, and in the proper condition," Parsley explains. "For fresh products, we need to know if the cold chain has been maintained properly. Were frozen products kept frozen throughout transit? Did the bread arrive fresh and in good condition?

"And we need to do all that in the face of constantly shifting menu mixes, promotions, and limited-time offers, which takes an incredible amount of coordination, collaboration, and communication," he notes.

Despite the difficulty, restaurant companies are increasingly beginning to understand the impact and value

Catering to the Economy

It's not only large restaurants and chains that are feeling the pinch of a tough economy. Small foodservice companies also need to find smart ways to deal with rising commodity and transport costs, and decreased consumer spending. The answer can often be found by tweaking the supply chain.

Take Stamford, Conn.-based David's Soundview Catering as an example. The corporate foodservice management company—which feeds more than 1,000 people per day with a staff of 30—provides catering services and operates cafes in office buildings. It also prepares and delivers more than 300 meals daily to office workers who place orders online. The business was growing rapidly until the economy began to tank in 2009. Owner David Cingari decided to use the downturn as an opportunity to root out, and reduce, hidden costs in his supply chain.

Instead of laying off sous chef Debbie Mortimer, Cingari decided to reposition her as a purchasing agent to help reduce the company's spend on food and supplies. "Because we grew so fast for so many years, we were only focused on getting product here; we never keyed in on supply costs," Cingari explains. "Any reputable vendor that could deliver fresh produce, meat, and fish daily at 5 a.m. got our business."

In her new position, Mortimer focuses on negotiating costs with existing vendors and branching out to new suppliers with better rates. After just a few months, the company reduced food costs by five percent.

that supply chain management can bring. They don't really have much choice, Parsley notes.

"Restaurant chains can't easily grow anymore by building hundreds of new locations," he says. "Instead they have to manage their supply chains in a way that brings bottom-line profitability.

"Brinker's investment in supply chain strategy is producing returns that don't compromise quality, food safety, or supply continuity," Parsley adds. "At the same time, it enhances the guest experience and our margins."

To help boost that type of supply chain effectiveness across the entire restaurant industry—which accounts for some $600 billion in annual sales and is one of the largest private-sector employers in the nation—the National Restaurant Association (NRA) is launching a Supply Chain Management Executive Study Group, which Parsley is chairing. The group, which will hold its first meeting in May 2012, will facilitate dialog and best practices exchange around key issues such as rising commodity and wholesale food prices, ingredient sourcing, and product traceability.

The logistics challenge for restaurants such as Chili's is always having the right menu mix on hand to serve shifting customer expectations.

"Bringing restaurant companies together to share best practices, benchmarking, and supply chain strategies will help elevate supply chain management for the whole industry," Parsley says.

A Fresh Look

One restaurant company working hard to elevate its supply chain is Del Taco, a 525-location Mexican quick-service restaurant chain. Janet D. Erickson, Del Taco's executive vice president of supply chain, shares Parsley's passion for spreading the supply chain gospel and will act as vice chair of the new NRA group. Erickson knows firsthand the importance of managing logistics in the restaurant business.

"I was the entire Del Taco supply chain department for many years," Erickson jokes. Today, three other employees help her manage the department's $175-million spend, and the group is working on optimizing that spend to benefit the business and its customers.

"We tightly manage our direct spend on items we deliver to the stores, such as food and packaging, and goods that support the core business," Erickson

Small corporate foodservice management company David's Soundview Catering used the 2009 economic downturn as an opportunity to perfect its supply chain recipe.

"With the volumes we purchase, that small percentage translates to significant savings," Cingari notes.

Cingari also optimized the company's seven delivery trucks—which were often sitting idle after 1 p.m. each day because of the drop in business—by using them to transport supplies from one of its newest vendors, Restaurant Depot, a nationwide cash-and-carry foodservice wholesaler. Restaurants and foodservice companies utilize Restaurant Depot to buy caseloads of food and supplies at discounted prices. Cingari's trucks now fill up palletized orders of food, beverages, and dry goods from Restaurant Depot three times a week—a move that has helped cut both product and transportation costs.

Though David's Soundview Catering is once again generating healthy business, it has retained its focus on supply chain strategy and cost reduction. Mortimer's position is still intact; she continually evaluates new vendors and has centralized the ordering process for all supplies. Cingari's chefs email her each week with their desired items, then Mortimer compiles contract bidding prices, selects the vendors, and places and traces all orders to ensure cost-effectiveness and timely delivery.

"Business this year has been tremendous, but we are continuing to keep our focus on improving the bottom line," Cingari says.

explains. "And we are continuing to refine processes to manage indirect supplies such as equipment; maintenance, repair, and operations supplies; and technology."

The company—whose menu includes Mexican food such as tacos, burritos, quesadillas, and nachos, as well as American staples such as hamburgers, fries, and milkshakes—serves nearly three million customers each week through a network of four third-party distribution centers. Its increased focus on supply chain management is helping Del Taco face a number of unique logistics challenges.

The chain's large concentration of West Coast locations makes it difficult to maintain equal food costs across the system as it expands into the Midwest and East Coast. "We are working closely with suppliers and distributors to transport our food more cost-effectively to the Midwest and East Coast markets," Erickson explains.

In addition, because many of Del Taco's key ingredients are proprietary formulations, the company can't simply contract with food manufacturers located closer to the DCs serving its Midwest and East Coast stores. "Having manufacturers produce proprietary product in the small quantities we need for those few stores is just too cost-prohibitive," she notes.

Cost considerations are especially crucial for Del Taco today because many of its menu items rely on ingredients whose prices have soared recently. "We use a lot of ground beef, cheese, and other dairy products, and the costs for those commodities have gone up recently," Erickson says. "These products cost more now at origin, and the transportation costs have increased as well. We can't negotiate away these kinds of macro, external environment issues. Instead, we have to figure out ways to better manage the costs."

While Del Taco is still hashing out the best way to tackle these issues, Erickson's ability to address supply chain challenges is getting a boost from a new procurement system the company is currently implementing. Historically, Del Taco received an electronic feed from its third-party distribution network that provided only basic information such as pricing data and the number of cases moved in a particular week.

"The new system will give us the ability to examine our spend, more effectively manage the procurement cycle, and provide visibility and consistency across the supply chain department," says Erickson.

> "Restaurant companies need visibility to what is happening with their partner suppliers, growers, DCs, and during transportation so they can make educated supply chain decisions."
>
> —**Todd Bernitt,** general manager, C.H. Robinson

Biting Into Visibility

The increased need for supply chain visibility is one of today's top trends among restaurant companies, notes Todd Bernitt, general manager for C.H. Robinson Worldwide Inc., a third-party logistics provider that offers transportation, sourcing, and technology solutions to the foodservice industry.

"Historically, there hasn't been a lot of visibility in restaurant supply chains," Bernitt explains. "But restaurant companies really need visibility to what is happening with their partner suppliers, growers, DCs, and during transportation so they can make educated supply chain decisions."

Visibility is also crucial in helping restaurant chains manage and control essential elements of their total landed costs—especially given the volatile nature of food and fuel prices.

"Restaurant chains need to better understand how volatility increases commodity costs and total landed costs," Bernitt says. "For example, the transportation costs for shipping beef from Omaha to New England may be higher than the commodity costs. But unless restaurant chains have visibility to that information, how do they know if they are paying the right freight costs, or if they have the right origin point for their commodities?"

This type of visibility may be common in some industries, but it is a top priority for restaurant supply chains. Brinker is currently in the midst of improving supply chain visibility through a technology implementation that will grant the company "a better understanding of inventory at the restaurant, distributor, and supplier levels, as well as access to closer to real-time data within the supply chain," Parsley says.

The software will also give Brinker visibility into its actual product usage, which means the company can craft more effective procurement strategies. And the increase of reliable data will boost the company's overall supply chain performance as well, Parsley notes.

"We will have visibility into our third-party DCs and will be able to see what products are being shipped; if they are being shipped at the agreed-upon price; and if they are from authorized suppliers," says Parsley. "By having the visibility we want, we'll gain tighter control over those processes, which enhances food safety and quality, and everything else we strive to do."

Cooking Up Creative Solutions

Not surprisingly, the economy is driving this increased embrace of visibility technologies and supply chain management expertise within the restaurant business. With consumer spending down, competition to get diners in the door is intense, and rising commodity and fuel prices have cast a spotlight on reducing costs and increasing margins wherever possible.

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“The whole industry is faced with margin suppression and cost containment. Facing those challenges starts with understanding the necessary and added costs in every leg of the supply chain,” says Pat Brown, director of transportation for UFPC, the purchasing and supply chain management organization for Yum! Brands Inc., owner of the KFC, Pizza Hut, and Taco Bell chains.

The Del Taco restaurant chain focuses on superior supply chain management to help serve three million customers weekly through a network of four third-party distribution centers.

Louisville, Ky.-based UFPC—which negotiates the procurement of food, packaging, non-food, and equipment items for more than 20,000 restaurants in the Yum! Brands empire—is charged with securing the best cost for purchase, distribution, and delivery of supplies to Yum! restaurants.

“We have to ensure that Yum!-specified food and packaging moving through the supply chain is the right item from the right place at the right price—and that the price makes it all the way to the back door of the store,” Brown explains. To help accomplish its mission, UFPC has embraced the practice of redistribution, a strategy gaining favor among restaurant supply chains in these tough economic times.

Redistribution helps foodservice distributors and purchasing co-ops such as UFPC cut costs by avoiding the need to purchase goods in expensive less-than-truckload (LTL) quantities, explains Tom Varga, vice president of business development for Consolidated Distribution Corporation (CDC), a leading foodservice redistributor and UFPC’s redistribution provider.

CDC purchases food and other restaurant supplies in truckload (TL) quantities from a variety of manufacturers, then stores the goods in its warehouses in Chicago, Atlanta, and Dallas. UFPC and CDC’s other customers can then order multiple manufacturers’ products from CDC in whatever quantities they need—instead of in the bulk minimums most manufacturers require.

Next, orders are received from third-party distributors, and CDC ships TL quantities of the various goods UFPC has purchased on Yum! Brands’ behalf, then transports them back to the DCs. The goods—and the savings that come from TL shipments—will eventually make their way to the Yum! Brands restaurants.

“Redistribution is a necessary piece of the modern foodservice supply chain,” Varga says. “It helps companies move products from the supplier to the restaurant’s DC at the lowest landed cost, which is passed on to the restaurant.” A harsh economy and fuel cost volatility has helped to increase the popularity of redistribution services, Varga notes.

For its part, UFPC has been working with CDC since the mid-1990s, but has ramped up its redistribution activities over the past decade as part of concerted efforts to drive costs out of the Yum! Brands supply chain. UFPC purchases dry and frozen goods, packaging, and chemicals through CDC, and has experienced “significant growth in the volume we move through redistribution,” Brown says.

“Redistribution has helped us eliminate or minimize the volume of expensive LTL freight we move,” he explains. “And the win for the Yum! Brands distributors is that instead of getting 18 or 20 small LTL orders going to many different DCs, they can go to one place to purchase an aggregated order. Also, because we are ordering efficient quantities of each item, they can turn their inventory much faster.”

Enticing Consumers with LTOs

The industry’s increased focus on supply chain management and the need to adopt new strategies to cope with a challenging economy is playing out against a landscape already made difficult by the nature of the notoriously competitive restaurant business.

The NRA counts some 906,000 restaurants nationwide, with new dining destinations popping up all the time. In order to lure consumers through their doors, restaurants frequently rely on promotions and limited-time offers, which can have far-reaching supply chain implications.

“Consumers have a lot of options when it comes to dining out, so limited-time offers (LTOs) are a common way for restaurant chains to drive traffic and excitement,” explains C.H. Robinson’s Bernitt. “But restaurants have to carefully manage the inventory and logistics of those offerings. If an LTO is on the menu and the consumer is coming in to order it, they’d better have that item available.”

In addition, restaurants have to be careful not to overpromise or overpromote an LTO—and end up paying the price.

“Restaurants don’t want to offset

the additional receipts and higher turn they get from extra consumers coming in for an LTO by incurring cost increases from expedited transportation costs, having to quickly purchase more inventory, or dump extra inventory if they miscalculate how popular a promotion will be," Bernitt notes.

Also, restaurants must be smart about exactly what items they feature as promotions or LTOs. While it may be obvious that a strawberry salad is not a good winter promotion, it might also not make sense as a summer LTO if strawberry prices are higher than normal or if weather conditions have resulted in a poor strawberry crop.

"We have to be smart about selecting what products to feature on our menus," says Parsley of Brinker. "Supply chains need to work more collaboratively with marketing and culinary departments in deciding when to emphasize a product on the menu.

"It's all about adjusting the menu mix to take advantage of shifts in commodities that bring the value you want to your guests, but allow you to manage margins cost-effectively," he notes.

Supply Chain on the Menu

"We work closely with marketing when they are considering adding or subtracting items from the menu," adds Del Taco's Erickson. "We need to make sure that the supply chain can adjust, that we can get the necessary goods to the restaurants in time to support menu changes, and that we don't have too much or too little inventory.

"We want to be as nimble as we can to reduce the amount of obsolete inventory at the end of a promotion or a menu item, and to make sure we are forecasting accurately when we feature a new menu item," she says.

In addition, restaurant companies often need to adjust their menu mix to respond to consumer demand shifts. Given diet, allergy, and seasonal trends, certain foods fall in and out of favor with consumers. As restaurants change their offerings to reflect those trends, they must also be prepared to make changes to the supply chain.

When the Atkins diet was prevalent in the 1990s, for example, Brinker developed a low-carb menu for its Chili's chain. Today, Chili's boasts a "guiltless grill" section reflecting lower-calorie and lower saturated fat options, and Maggiano's features a gluten-free menu.

"Our culinary team works with our marketing teams and brands to keep current on what we need to be sensitive to," Parsley notes. "But the size and breadth of the Brinker brands require careful consideration to find menu items that we can both source and execute, and replicate in more than 1,500 restaurants."

Whether your next meal out comes from the drive-through, a casual dining chain, or an upscale restaurant, everything on your plate is the purposeful result of a complex combination of planning, development, procurement, and supply chain management. ■

Today's logistics and supply chain managers grapple with volatility, risk, and uncertainty. Learn what you can do to prepare for the unexpected.

MITIGATING SUPPLY CHAIN

by Perry A. Trunick

Asking "How's the weather?" can be much more than a conversation starter. For logistics and supply chain professionals, it may be a way of anticipating potential problems.

Tornadoes, hurricanes, floods, earthquakes, and other natural disasters can cause major supply chain disruptions, and it can take weeks or months to recover from their effects. Some businesses are still dealing with the aftershocks of the March 2011 earthquake and tsunami in Japan.

Although supply chain managers should be taking active measures to reduce future disruptions, many organizations lack a formal process for evaluating and minimizing risk, says Jim Lawton,

president and general manager of supplier management firm D&B Supply Management Solutions. That can lead to paralysis: being overwhelmed by the vast array of risks—where to begin?—or over-analyzing and trying to discover and address every risk.

To begin developing a risk management program, consider what you need to make your business successful. Evaluate the risks in the context of your business: What actions do you want to see occur, and when? What processes and technology do you need to make that happen? When does it need to happen?

Watch out for pitfalls, such as assuming an item's cost represents its significance, cautions Lawton. He cites an example of a highly engineered screw that a company needed to complete a subassembly. That screw didn't show up on the list of critical components that the company needed to carefully monitor, and its supplier wasn't among the strategic relationships the company managed closely. Yet, an interruption in the screw's supply disrupted the subassembly's production.

SHEDDING A TIER

To avoid the need to manage every supplier of every nut and bolt, many companies develop virtual vendor masters, says Lawton. These include Tier-1 suppliers and relevant or critical Tier-2 suppliers. Part of what they are outsourcing is the Tier-1 supplier's ability to manage Tier-2 supplier risk.

The same process a manufacturer might use to manage component supply risk can be applied to other industries and to logistics service providers.

"Japan's earthquake, tsunami, and subsequent problems at the Fukashima nuclear power plant illustrated how compounding disasters can affect a whole region," explains Jim Kelly, CEO of Huntington, N.Y.-based cost reduction and risk mitigation solution provider JV Kelly Group Inc.

"Most manufacturers have plans for Tier-1 supplier disruptions, but many are starting to consider how Tier-2 and Tier-3 suppliers interact," he continues. "Often, the answer is that they supply more than one of the manufacturer's Tier-1 suppliers, which adds a level of risk."

For example, a third-party distribution center (DC) may be served both inbound and outbound by carriers that provide services to other outsourced and in-house DCs. One of those carriers closing its doors could affect several DCs and the customers or plants those facilities serve.

Another critical factor in planning is competing for resources that grow scarce after a disruption. "A Tier-2 disruption means more competition for resources—whether components or raw materials used in manufacturing or logistics services—not only among your first-tier suppliers, but potentially from the larger marketplace as well," Kelly notes.

Consider the example of the St. Johnsbury Trucking Company, a Northeast carrier that fell victim to a slow economy and closed its doors in 1993. Shippers who had been using St. Johnsbury in the northeastern United States tried to shift to other carriers—all of whom had been steadily reducing capacity to cope with lower freight volumes. As a result, competition for resources was intense.

CHECK THE INDICATORS

Many logistics professionals are concerned about the next St. Johnsbury in their carrier network. One supply chain risk factor they are scrambling to cover is their service providers' dependability. Weaknesses in your carriers' financial health, capacity, and performance can introduce problems in your supply chain, so it's wise to evaluate these factors periodically.

Some carrier performance and financial indicators can help predict potential problems. For example, companies experiencing financial difficulty often pay off debts to improve their credit. Though this may not be an absolute indicator, it can be meaningful along with other signs.

Reduced maintenance spending is another tactic carriers might use to improve their cash position. If you experience missed appointments due to mechanical breakdowns and increased damage claims, reduced maintenance might be a root cause and raise some questions about a carrier's financial condition.

Financial matters aren't shippers' only concern about their carriers. In the past 12 months, shippers have turned their attention to validating carrier capacity, says Paul Martyn, vice president of supply chain strategy at BravoSolution, a global supply management software and professional services provider with U.S. headquarters in Chicago.

Martyn recommends assessing a carrier's "asset footprint" by overlaying your shipping lanes and needs with carrier capacity and performance.

"Using sophisticated tools to provide visibility on performance measures as well as price, shippers can monitor carrier relationships and performance in specific lanes," he explains. "This can reduce the time between measuring risk and response. You can't predict every disruption, but by measuring more often, you can model how to respond."

Cost pressures often lead to an undue emphasis on benchmarking rates instead of carrier performance. "Rates are important, but set and measure performance goals with the carrier, then share results," Martyn says. "You may want to keep a percentage of your business with carriers you know, but discussing and measuring performance builds trust with both carriers you use and new carriers you may want to try."

Through this process, shippers can better match their network to carrier capabilities, which helps create appropriate alternatives if your business changes, or a disruption occurs.

From an operations perspective, performance measures can lead to better alignment of processes among the shipper, carrier, and consignee. Those efficiencies can provide savings that are reflected in rates. Quantifying benefits in other areas—such as reduced damage or fewer paperwork errors—can help in evaluating rate performance, as well. Saving a few pennies per mile might be driving higher freight damage costs and poor customer service.

PUT IT IN WRITING

Another important factor in mitigating supply chain risk is ensuring that supplier and service provider contracts protect your company's interests. With U.S. imports continually increasing and exports in the trillions of dollars, companies are getting involved in more global sourcing arrangements and long-distance relationships with international suppliers, notes Dina Ribbink, assistant professor of operations management, University of Western Ontario.

Ribbink, who co-authored a study on the impact cultural differences have on contractual relationships, focuses on "contract completeness" as a means to mitigate some of the risk cultural differences and other factors introduce into global supply chain relationships.

"Uncertainty increases if you deal with partners from different cultural backgrounds, and that uncertainty can lead to more opportunistic behavior," Ribbink says. "Cultural background shapes values, expectations, and behaviors. Similarities in the partners' perceptions and background help companies reach more positive negotiation outcomes.

"Complete contracts can spell out expectations to bridge some of the

HOPE FOR THE BEST PREPARE FOR THE WORST

WHEN IT COMES TO PUTTING SUPPLY CHAIN RISK MANAGEMENT INTO practice, logistics leaders are most concerned with customer risk, demand channel volatility, and the chance of a double-dip recession, according to *Supply Chain Strategies and Practices for Volatile Conditions*, a financial security survey of 300 supply chain executives.

Management priorities are focused on efforts to reduce order cycle time to customers, improve throughput, and accelerate the supply chain, all of which reduce capital risk exposure. But, in addition to the economic focus, companies are greatly concerned about severe events affecting the supply chain and a sense that they need to get out ahead of those events, says survey author Lisa Harrington, senior fellow at the University of Maryland's Supply Chain Management Center, Robert H. Smith School of Business.

Key to the process of getting ahead of severe events is planning and rehearsing for disasters and for recovery. Companies that had previously experienced a disaster or disruption were more willing to invest in pre-event preparation. Rehearsal was also important for those companies. Companies that rehearsed performed better when confronting a crisis than those who had not planned, or had planned but never rehearsed.

Three other factors affect the degree of an event's impact: discovery, communications, and decision-making. The faster a company discovers and communicates that a severe event has taken place, the less impact it has, or the company sees more positive performance results.

Just as critical is decision-making. Recognizing the severity of an event, and communicating effectively, improves the outcome, but slow decision-making can significantly impact results, as well. In one example, a company calculated that a one-hour delay in making a decision on how to respond could result in a full day's delay in getting product to the affected site.

The greater the financial impact of a disruption, the higher the likelihood that it could have been managed better, suggests the study. There seems to be a direct correlation between how well an event is managed and the financial cost.

gap created by cultural differences," she continues. Detailed contracts are sometimes associated with higher transaction costs, however, so it's important to strike a balance.

KNOW THE LAW

The legal system in the country or countries where the parties are doing business can affect contracts, as well. In a common-law system such as the United States, contracts tend to be longer. In countries where civil law is the system, civil codes are often more inclusive, so some details already contained in the civil code can be excluded from the contract.

Contracts can only go so far in mitigating risk, however. In some countries, the issue can be enforcing contract terms if a supplier defaults.

Arbitration services can help resolve contract issues if the parties agreed to arbitration terms in the original contract. The Hong Kong International Arbitration Centre suggests specifying the terms under which a dispute would go to arbitration, then selecting a venue—preferably a country with a common-law system—and including that in the contract.

When it comes to international trade, the goals are simple. Buyers want to get what they paid for, and sellers want to get paid. "Reaching those goals, however, can be complicated," says Susan Altman, a partner with international law firm K&L Gates.

Altman cautions against inadvertently entering into "electronic consent" through a series of e-mail exchanges. "If you agree to a price and quantity in an e-mail, you may have entered into an enforceable contract," she says.

One way to reduce risk on imports is to deal with a U.S.-based entity. "But the foreign supplier's U.S. entity may have no assets in the event you need to seek a legal remedy, so be cautious," says Altman.

"With foreign contracts, spell out more details than you would with your U.S. purchases," she recommends. "These details can include what legal system applies to the contract; pricing, including currency and what date will be used to determine the exchange rate; delivery and payment terms; and dispute resolution."

If the risks of foreign sourcing sound high, it's because they are. But the value of relationships often outweighs the appeal of opportunistic or transactional behavior. "Even with significant cultural distance between parties, suppliers often won't default because they want to continue the relationship," Ribbink says.

Even if you've established strong relationships and solid contracts with all your suppliers and service providers, external events can jeopardize your supply chain.

QUANTIFYING SECURITY RISK

Even if you've established strong relationships and solid contracts with all your suppliers and service providers, external events can jeopardize your supply chain. For example, political upheaval, economic protests, national labor actions, and complete regime changes created turbulent conditions throughout the summer of 2011. While the media focused on the human and political struggles, some factors behind the scenes held the attention of logistics and supply chain professionals.

As protests in Egypt mounted and the government toppled, many supply chain professionals focused on the Suez Canal. Disruption of this vital trade link could have been devastating to many supply chains. These events naturally lead to questions about port security.

SHIPS AND PORTS SECURITY

After the terrorist attacks of Sept. 11, 2001, the International Maritime Organization developed a set of security procedures known as the International Ship and Port Facility Security Code (ISPS). The purpose of the ISPS is to assess and address risks on a case-by-case basis with measures that reduce the threat to, or vulnerability of, ships and ports.

Ensuring you work with ocean carriers and ports that are ISPS-compliant helps mitigate the risk to your own supply chain. Assessing the effectiveness of measures taken at each port is more difficult, however.

Risto Talas of England's University of Hull Business School has developed an approach that helps ports assess the efficiency of their own security spending against actual performance in reducing that risk. His model, currently applied to terror threats at ports, could be expanded to look at other risks throughout the supply chain.

Talas started by looking at the risks to port terminals themselves, including a bomb introduced by foot, car or truck; introduction of biological agents; mining of the port or structures; or a vessel attacked by suicide boat.

He worked with insurance underwriters to assess risk and probability, and with port security officials to calculate expected losses with no security systems in place, based on the probability of any of the security threats occurring within a 12-month period. In one example, Talas showed an expected loss for one port calculated at $5.6 million.

The simplified formula multiplies the threat by the vulnerability by the consequences. Evaluating security systems individually against each threat enabled Talas to find a correlation between effectiveness and expected loss.

For instance, access control at a port's landside gates have no effect on deterring a waterborne attack. However, gates, fences, access control, and biometric access control have a strong correlation in mitigating risk of a bomb delivered by foot, or a car or truck bomb.

Using those various correlations of effectiveness, Talas was able to show that the risk could be reduced to $1.9 million. He calculated the ratio of risk reduction to spending as $7.13—for every dollar spent on security, risk was reduced by $7.13.

This data allowed the ports to analyze loss by incident type and recognize their weaknesses or greatest vulnerabilities. It also helped demonstrate the value of spending on security, and indicated how to allocate that spend more effectively.

Using what he has learned about assessing security investment against residual risk in this terror-based scenario, Talas is now examining other types of risk. The potential exists to apply this approach to other types of supply chain disruption risks.

The result is one that every supply chain manager would be eager to see: the ability to allocate the right amount of resources to avoid the risks with the greatest probability for disrupting their supply chains and causing the greatest loss.

RECOGNIZING RISK

The sheer complexity of extended supply chains introduces and amplifies risk—whether related to economic stability or physical security. Recognizing where those risks are greatest—and which risks are the most potentially disruptive—can help focus resources on reducing potential losses.

Well-defined business practices, thorough contracts, good physical security, and active planning are just a few steps that can help keep your supply chain whole and strong, no matter what disruptions are thrown your way. ■


SUPPLY CHAIN GRADUATES:
NOW WHAT?

Top-performing supply chains focus on attracting and retaining talent—both technical ability and leadership. Here's how to find and nurture true supply chain competency. by Perry A. Trunick

We can all easily describe the attributes of top-performing supply chains. But can we as easily identify the skill sets and leadership qualities of the people who drive those operations?

The skill sets of supply chain managers typically follow two tracks. One track relates to technical skills; the other to leadership, which may include deep knowledge in one or more supply chain disciplines, and enough expertise in the others to lead a major portion of the business.

In the case of both skill sets, universities and businesses need to work farther upstream to reach younger talent and demonstrate the career opportunities available in supply chain management, says Lamar Johnson, executive director, University of Texas-Austin. High schools also need help in recognizing the career's potential and developing programs to train students in the technical skills employers crave.

Universities must have the ability to teach technical skills, but graduates won't come out with full mastery in any one area, Johnson suggests. To supplement formal education, companies need to develop training and education programs that build skills. These efforts will help them identify and develop supply chain management leaders.

Companies often fall short in this regard, according to doctoral student Trish Gibson, whose research shows that companies don't have good "induction programs" and ongoing professional learning. "Employers who complain of a skill gap among new graduates are suffering from amnesia," she says. "They are falsely remembering their own newly graduated selves as fully formed, and able to solve every problem in any business that would hire them."

Most new graduates lack life experience and confidence (though they may very well exhibit over-confidence in some of their own abilities). "Businesses can't expect 45-year-old heads on 23-year-old shoulders," Gibson says.

Johnson agrees. "Students who earn an undergraduate degree are 22 years old," he says. "There are things they don't know. They haven't hired or fired anyone. They haven't had enough life experience."

Universities can only go so far because they offer merely a classroom environment. "The only way to learn how to lead an organization is to get out and lead one," Johnson says. "You have to start by leading a small operation, then larger ones." Internships can help students gain some real-world experience, but the opportunities are still limited.

"Universities can assemble the ingredients, and may even stir them a bit, but employers have to finish baking the cake," Johnson says. Universities need to offer programs that develop promising leaders' deep-discipline technical skills, then move them to another supply chain discipline to develop a similar deep technical skill. After that, future leaders would move through various supply chain disciplines, gaining sufficient advanced-level skills.

Corporations play an ongoing role for individuals following the technical track. An individual who chooses to become a technical expert in one area, such as procurement or logistics, would remain in that field but develop some deeper knowledge and supplemental skills that will prove valuable in a supply chain environment.

FIRST JOB SKILLS: A TALL ORDER

Ideally, the supply chain career progression starts early, in high school, and continues through university education, and into the corporate setting. After all that training, what should new supply chain management graduates bring to their first corporate jobs?

"Statistical math skills, forecasting education, operations management education, an understanding of accounting, negotiation research ability, Excel skills beyond the basics, process mapping skills, inventory/materials management comprehension, logistics understanding, and procurement know-how," says Steven R. Killmer, purchasing consultant for global petroleum company Saudi Aramco.

That's a tall order, and it only includes hard skills. Soft skills such as public speaking and PowerPoint presentation experience, emotional intelligence, and strong writing ability are also necessary.

Soft skills, especially interpersonal communications, are a growing part of the debate about skill gaps in supply chain management. Those soft skills, and others, are part of Johnson's leadership track, but he adds them to the technical career track as well.

"Leaders need to be able to interface with the CEO, the CFO, and other disciplines," he says. "A technical procurement expert should also have that ability."

Many of the soft skills companies value, which fall under the banner "emotional intelligence," are illusive and difficult to define or measure. But that doesn't mean it's impossible. Michigan State University, for example, uses a mixture of psychometric tests, one-on-one interviews, and group discussions/problem-solving exercises as part of its graduate selection process, according to Nicholas Little, assistant director of executive development programs at Michigan State University's Broad College of Business.

> **"Universities can assemble the ingredients for a supply chain leader, but employers have to finish baking the cake."**
>
> —**Lamar Johnson,** executive director, University of Texas-Austin

Soft skills can be taught in the classroom as part of a larger course, but in some ways it may be too early in "work life" for a supply chain student to appreciate, understand, and implement the nuances of emotional intelligence. "We do, however, teach emotional intelligence in our undergraduate Hospitality Business program because it can have a huge impact on customer service," Little notes.

Companies tend to want both hard and soft skills in full measure. They scour manufacturing and other functions looking for talent who can manage across disciplines, but "it's the wrong time to do it," Johnson says. They need someone with overarching experience who can be trained in the vertical disciplines.

FINDING THE PERFECT FIT

Most companies will face a training gap between what they need and what recruits are capable of; this gap will vary by company and job.

"Some companies realize they will never find the perfect fit, and know that new-graduate recruits should receive broad training instead of focusing on just one job," says Little. "Those companies have developed rotational development programs for new-graduate hires to prepare them for future leadership. The programs expose them to many different parts of the supply chain during a long-term induction to the company."

The ideal program is for a supply chain graduate to spend a few years developing deep skills and expertise in a core area, then work toward an advanced skill level in other disciplines. At the same time, the individual needs to learn leadership skills. It's a long process, and, Johnson admits, there's a risk that an individual will be hired away before completing the full development process.

"Any company trying to develop leaders takes a risk," says Johnson. "But despite the chance of losing employees, companies still need to train."

Some companies may decide to buy talent instead—probably from a company that has a training and development program, he adds.

People who want to advance may decide to return to school and get the skills they need. "But I don't know of a single company that guarantees a promotion after earning an MBA," Johnson notes. "Instead, they say, 'Earn the degree, show us what you can do with these new skills, then we'll see.'"

SMALL COMPANIES, LARGE CHALLENGES

The training and development process sounds good for large companies with plenty of resources who are willing to reap the benefits while risking losing talented individuals before they realize their full potential. But what about small and medium-sized enterprises (SMEs)?

SMEs don't always have the in-house expertise or the money to search for, select, and hire skills and competencies the way larger global companies can, says Freek Brilleman of Netherlands-based BeSCOPE Consultancy.

But SMEs do have the resources to provide the right training. "They only have to prepare better," he insists. "With proper planning and preparation, SMEs can fill the gap quickly and cost-effectively, and the benefits of the training will be obvious."

It is normal for employees at a smaller company to handle multiple tasks, so by their nature, SMEs create an environment similar to the training ground Johnson describes. Setting priorities is a major skill at a smaller company. "But foremost, the employer/owner is well aware of the difference between core and side activities," Brilleman says.

The implication is that an individual whose core responsibility is logistics may also function to a lesser degree in other areas. Shifting needs will refocus priorities within that core function or in others. Setting priorities becomes a critical skill.

Brilleman projects that same set of characteristics on the

> **Top-performing supply chains are associated with companies that link a talent strategy to their business strategies.**

organization itself. "Small companies—up to 1,000 employees—often don't focus on skills training, which is part of setting priorities," he says. "If small companies would take more time to identify what core skills training they need, they'd see the improvement in effectiveness and cost savings."

In any organization, large or small, training must be a priority to yield benefits. But small companies face some additional challenges. Should they offer individual or group training? Are cooperation and collaboration ancillary goals of the training? Can they keep customers satisfied on days when staffers are in training?

Though a commitment to training and education sounds disruptive, especially to a small company, the lack of development can impair supply chain performance. Research conducted by Accenture suggests "supply chain masters" devote disproportionally more time and energy than their competitors to developing talent.

Educators are conducting similar discussions and debates. Is supply chain management a business discipline responsible for managing across other business functions as well as the supplier and customer network? They are struggling to develop education strategies to address the business community's needs in the constantly expanding supply chain management environment.

SUPPLY CHAIN IMPLICATIONS

Fifty-two percent of employers had difficulty filling supply chain positions in 2011—up from 14 percent last year, according to the *2012 Third Party Logistics Study* presented by CapGemini. Respondents to the global study indicate the top driver of organizational success is having the right people and leadership in place. This was true of both third-party logistics (3PL) provider respondents (77 percent) and users of third-party services (61 percent).

Universities aren't the sole source of talent. "Companies can invest in talent management, leadership skills, and succession planning," say the study's authors. "Talent management is the vigorous, systematic process of connecting a clear, well-defined business strategy to the recruitment, retention, and development of talent." In other words, top-performing supply chains are associated with companies that link a talent strategy to their business strategies.

There are clear reasons why 3PLs would view talent as a top priority. For one thing, that is what they are selling. But, 3PLs also need a culture and commitment similar to the clients for whom they perform supply chain tasks.

A subtle message lies within 3PLs' recognition of how important talent is. Suppliers to companies that emphasize supply chain performance need to be more than low-cost producers or leading product innovators. They need to match their customers' commitment to developing and maintaining a high-performing supply chain.

That circles back to Brilleman's point that developing supply chain talent is not a luxury for small companies. If they are, or want to be, suppliers to leading companies, their supply chain performance will have to match or exceed that of their customers.

There is no quick and easy solution to the supply chain management talent challenge. Universities are taking what they see and hear from industry, and developing programs to meet those needs. But the curriculum development process can be slow, especially where programs must withstand the review process of academic certification.

Many companies have strong ties to universities and work closely on developing programs and funding research. Even more companies have ties for recruiting purposes. But showing up at job fairs is not the same as volunteering for committees to help with curriculum development, providing funding and resources to support programs, and offering paid internships to help foster talent development.

THE TALENT SUPPLY CHAIN

Talent development operates a supply chain of its own. The employer acts as the consumer of the product—a newly graduated bachelor's degree holder in operations management or a freshly minted MBA—and may be buying on the open market, looking for the best talent, wherever it is.

Or, that consumer may have established close, collaborative relationships with core suppliers, sharing needs and goals, and supporting "product" development and innovation. Less likely is the prospect that either has a similar collaborative relationship with the next-tier supplier—the high school.

Taken literally, the supply chain that produces that new BS in logistics has a 16-year lead time. And, as much of the public school performance debate shows, parental involvement is a significant contributor to success. The crucial eight years for companies that will be beneficiaries of the supply chain education system are from high school through undergraduate degree.

After that, it's up to the business community to train and nuture the next generation of supply chain leaders. ■

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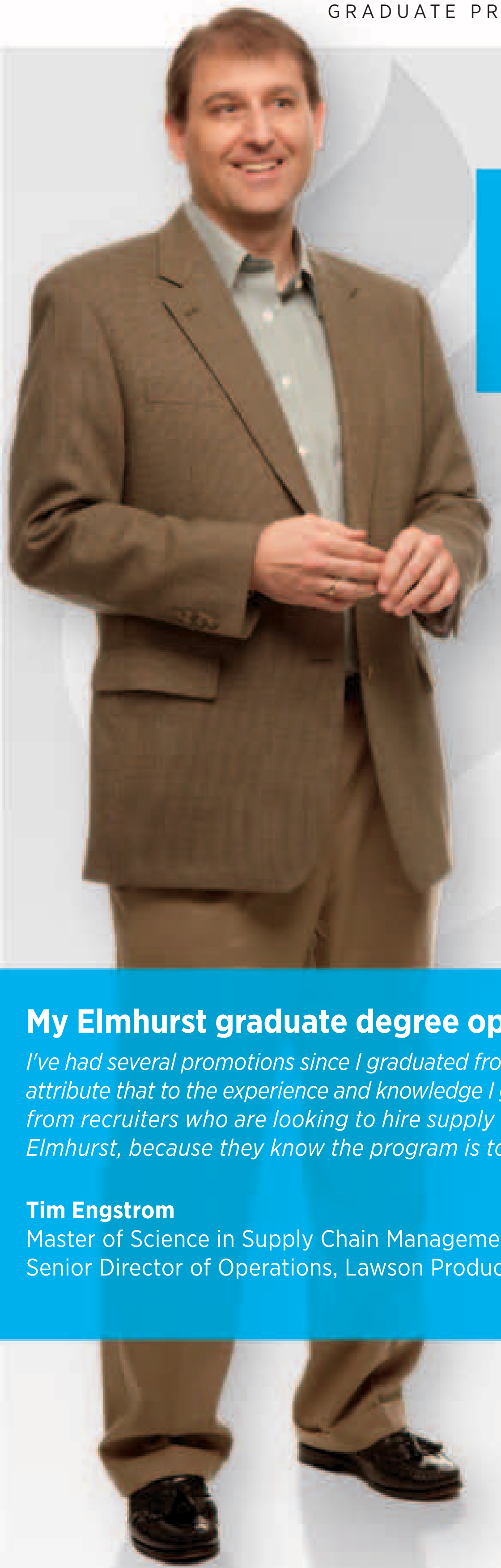

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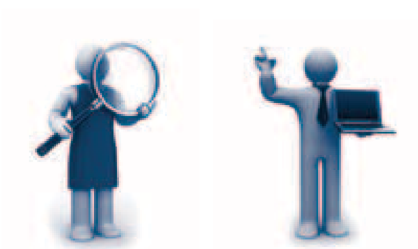

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Casebook

by Joseph O'Reilly

Managing Inbound Transportation: All On Board FOB

Tire importer TBC Corporation converts its inbound transportation to free-on-board terms and rolls out a supply chain transformation.

Given global trade's complexity and volatile pace of change, it's hard to conceive how simply altering a few letters on an ocean bill of lading (BOL) could radically change an organization's supply chain bearing. In the sea of everyday acronyms, Incoterms are adrift with countless other meanings. But on a BOL they mean everything.

Modifying Incoterms—the International Chamber of Commerce's commercial standards used to communicate the tasks, costs, and risks associated with transporting and delivering goods—isn't nearly as simple as playing alphabet roulette. It requires a deep commitment to supply chain business process change, often at the behest of a third-party partner or the directive of new leadership—sometimes both.

This was the reality for Palm Beach Gardens, Fla.-based TBC Corporation, a subsidiary of Sumitomo Corporation of America, one of Japan's major integrated trading enterprises. TBC is the nation's largest vertically integrated marketer of tires for the automotive replacement market, with retail operations under the Tire Kingdom, Merchant's Tire & Auto Centers, National Tire & Battery, and Big O Tires brands. The company also operates as a wholesaler to regional tire chains and distributors throughout North America.

When Jim Markey came on board in 2005 as vice president of logistics, he discovered a supply chain approach that was counter-intuitive to his previous experience managing transportation and logistics for various tire manufacturers, including Yokohama.

"TBC procured most of its

shipments from suppliers on a Delivered Duty Paid (DDP) basis," Markey recalls. "TBC does a lot of customer-direct container shipping, and the total cost of delivering goods to the customer was included in the price."

Because TBC's suppliers are tire experts, not shipping experts, freight costs were not being managed as efficiently as they could have been. "I argued that the volatility in ocean freight rates–which account for 10 percent of our total cost–makes it more sensible to directly control that spend," Markey explains.

"When working with suppliers, you have to keep an ear to the ground and understand market trends," Markey says. "Why not bite the bullet and control costs, rather than negotiate with suppliers?"

In 2009, TBC partnered with Atlanta-based non-vessel operator (NVO) American Global Logistics (AGL) to help convert its inbound shipping terms to free-on-board (FOB) and proactively manage its transportation costs.

A NEW NVO ORDER

Companies that buy on a landed cost basis pay the price of the goods and the transportation. When freight rates rise, the total swells accordingly. But when they drop, there's no guarantee suppliers will pro-rate that cost.

"We've seen swings of $1,500 per container within six months for shipments to the East Coast," says Chad Rosenberg, CEO of American Global Logistics. "When you're moving several thousand containers a year, that fluctuation creates considerable opportunity for cost savings."

AGL specializes in moving furniture from Asia to the United States. But the tire industry also fits well within its value proposition. The intermediary banks on large accounts that place a premium on service, which isn't the typical NVO model.

AGL's average client moves more than 1,000 40-foot equivalent units every year–more in line with what a steamship line does than an NVO.

"We bring value to companies that ship containers direct to many customers, rather than several thousand containers to one distribution center," says Rosenberg. "These shippers and their customers have specific demands, delivery windows, and challenges."

Tire importer TBC Corporation reduced costs by capitalizing on its buying volume and managing inbound freight on an FOB basis.

TBC was a good fit for AGL because it runs a complex operation, and ships all over the United States and North America. It also gave AGL a clean slate to work with.

"We evaluated our best practices and TBC's needs, then worked from origin to destination to offer documentation, visibility, and carrier selection recommendations," Rosenberg says. "TBC gave us the opportunity to provide a total solution that might not have been possible if we were working with a more mature inbound practitioner."

Controlling inbound transportation is an established trend among direct importers with large-item quantities that fill containers. But companies are growing more sophisticated.

"Tire and furniture industry end users are now dictating how freight moves, as well as negotiating with vendors to be the importer of record," Rosenberg explains. "They want the control, but not the liability and risk."

This is exactly what TBC aspired to do. FOB terms ensure suppliers use carriers "nominated by the buyer," as Incoterms 2010 stipulates. Cost and risk are divided when the goods are onboard the vessel, and the seller must clear them for export.

"As a tire distributor with a relatively high liability risk for the product, we try to limit being the importer of record," says Markey. "We arrange for our suppliers to pay all expenses involved in moving product to us–for example, insurance–apart from the freight cost. We haven't completely unbundled the FOB; we take a hybrid approach."

While there is occasional resistance from suppliers that count on TBC's volume to leverage their own discounted rates with carriers, there are generally opportunities for compromise.

"In the past, we have offered AGL's rates to our suppliers," Markey says. "It's still an arm's-length deal, but it helps soften some concerns about taking away their freight. You can't do that unless you deal with an NVO that has attractive pricing."

FOB FYI

While Rosenberg acknowledges that he has never entered an FOB conversion where cost wasn't the top priority, managing inbound transportation at point of origin unleashes a flood of efficiencies downstream in the supply chain.

"Shippers want to dictate carrier selection, transit and idle time, and transport mode," he says. "They can have visibility to all those decisions by controlling the flow of goods."

For example, consignees can operate a drop-and-hook system if they have enough volume and control over who transports the freight. When vendors dictate transportation, it becomes more complex, almost necessitating live unloads. Once they load the container at the point of origin, the invoice is on the way.

Companies such as TBC derive great value integrating with NVOs, especially in terms of direct input regarding bookings and shipment tracking.

"We have been able to integrate that information all the way to accounts payable," says Markey. "When we started out, AGL sent us paper invoices. Now, data enters directly into our system daily. The system provides granular data that helps us quickly and easily slice and dice ocean freight and drayage costs, or bills for detention per diem."

AGL provides visibility to this information on its Web site. It also has an iPhone application customers can use to track a hot shipment. This level of transparency opens up even more opportunities to reduce costs.

"We just constructed a 1.1-million-square-foot warehouse in Charleston, S.C.," Markey says. "We would typically have included drayage as part of the ocean freight rate, but we've broken that cost out so we can negotiate with trucking companies independently, and focus on service as much as cost. That gives us more flexibility unloading and moving containers, and helps us avoid accessorial charges."

In the ocean trade, volatility is a given. Even with rates stabilizing recently as a consequence of surplus oceangoing capacity and continuing recessionary dips in trade, other factors keep logisticians such as Markey busy.

In 2009, the Obama Administration imposed a 35-percent duty on certain types of tires coming out of China, which makes importing cost-prohibitive for many manufacturers and distributors.

"Chinese production is being re-sourced to Japan—where we originally procured tires—and to countries in Southeast Asia," notes Markey.

TBC now receives shipments from Japan, Indonesia, Thailand, and India. Markey has been busy exploring how the company must adapt when the Panama Canal expansion opens. He was involved in the decision to locate the new DC in Charleston. Change is fluid within TBC's supply chain.

Working with AGL has enabled the importer to cut costs by capitalizing on its buying leverage and managing inbound freight on an FOB basis.

But it's the value-adds and non-commoditized service intangibles—be it a hot alert on an iPhone or a better drayage contract—that make this partnership a competitive differentiator. ■

3PLs

Cardinal Logistics Management • www.cardlog.com

Cardinal Logistics Management is a fully integrated logistics and transportation solutions provider with industry-leading experience and hands-on involvement from our senior leadership team. Cardinal's logistics experts work directly with clients to optimize their supply chains by developing and implementing customized transportation solutions including specialized equipment and handling, and proven technology. Cardinal's services include dedicated contract carriage, home jobsite delivery, transportation management, supply chain consulting, SaaS solutions, warehousing, and distribution. Visit us at www.cardlog.com.

ProTrans International Inc. • www.protrans.com

ProTrans' customers are given complete visibility of their materials while having the flexibility of customized services that meet their unique needs. Enjoy the simplicity of having one contact manage your entire supply chain. ProTrans' diverse offerings include: land, air and ocean transportation; consolidation; inventory management; customs brokerage; logistics optimization; carrier management; transportation procurement; route execution; and supply chain network management.

Saddle Creek Corp. • www.saddlecrk.com

Saddle Creek Corp. is a nationwide third-party logistics company integrating warehousing, transportation, packaging, and fulfillment services to provide comprehensive supply chain solutions. Our turnkey logistics solutions can help you increase efficiency, streamline your business, and better manage costs.

DEDICATED CONTRACT CARRIAGE

Ryder • www.ryderscs.com

Ryder provides end-to-end supply chain, warehousing, and transportation solutions including: third-party logistics (3PL), fleet management, RFID operations, reverse logistics, supply chain management, transportation management/freight management, truck rental, truck leasing, warehousing, lead logistics provider, lead logistics manager, service parts operations, and distribution center management.

IN THIS SECTION:

Education • Temp-Controlled Shipping

EDUCATION

Elmhurst College
http://public.elmhurst.edu/admission/rsvp/graduate/scm/mail

Elmhurst College offers the Chicago area's only graduate program in supply chain management. In this program, you'll gain a sound technical foundation and hone skills that are absolutely critical for today's professional: communication, negotiation, team building, information technology, analytical thinking, working in diverse business environments, and sound business decision-making. All coursework maintains a balance between current theory and its real-world application.

Purdue University-Krannert School of Management
www.krannert.purdue.edu/stem

The Global Supply Chain Management Initiative at Purdue University's Krannert School of Management gives future managers the opportunity to be on the forefront of emerging ideas and technologies that promise to provide a differentiating advantage to businesses in the future. Krannert's strong core curriculum helps build your skills, hone your leadership ability through hands-on project learning, and gain a global perspective through international study trips.

University of San Diego • www.sandiego.edu/msscm

The University of San Diego's ISM-approved Master of Science in Supply Chain Management is delivered via e-learning with only a few on-campus sessions per year. Through relevant curriculum with applied learning, you'll develop leadership competencies that will enable you to initiate change and drive improvements across increasingly complex supply chain networks. Join us now for two years that will change your life!

TEMPERATURE-CONTROLLED SHIPPING

CRST International, Inc. • www.crst.com

CRST International, Inc. launched a new expedited Temperature Controlled Team Service (TCTS). TCTS caters to cold chain retailers and producers looking for high-quality service to deliver products such as fruits and vegetables, dairy, pharmaceuticals, wine, beer, and health and beauty aids. Get all the facts at www.crst.com and see why Temperature Controlled Team Service is the best value in refrigerated shipping.

White Paper Digest

Industry experts amass supply chain management best practices and skill sets, and invest in new research and evaluation tools. Now you can benefit. *Inbound Logistics* has selected this collection of whitepapers that will give you a jump on important supply chain issues. For more information on any of these whitepapers, visit the Web sites listed below.

Amber Road

TITLE: ***Aberdeen Group – Supply Chain Visibility Excellence: Fostering Security, Resiliency, and Efficiency***
LENGTH: *27 pages*
DOWNLOAD: *http://tinyurl.com/874hj4l*
SUMMARY: This new report from Aberdeen Group focuses on gaining visibility into critical elements across the end-to-end logistics network for improving cost and service. Additionally, it takes a look at how best-in-class companies are streamlining their supply chains.

Panasonic Solutions Company

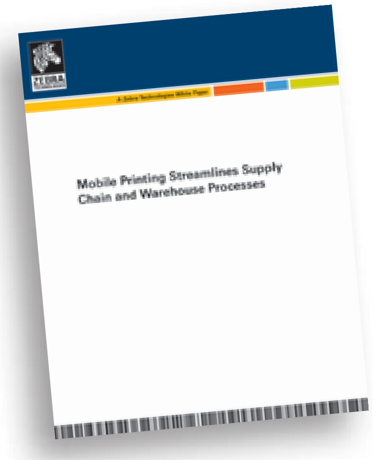
TITLE: ***Improving Customer and Driver Satisfaction with Mobile Technology***
LENGTH: *2 pages*
DOWNLOAD: *http://bit.ly/nMVd5k*
SUMMARY: Labatt Food Service is a San Antonio, Texas-based distributor of food and food-related products to restaurants in Texas, Oklahoma, and New Mexico. The company is widely recognized in the food service distribution industry as an innovative, customer-focused, and high-energy leader. In 2008, Labatt decided to use technology to improve driver satisfaction and delivery efficiency. After exhaustive research, the company selected the Panasonic Toughbook® U1 running on the AT&T mobile broadband network as their solution. Since adopting the solution, Labatt has seen process efficiency improvements and a reduction in fuel consumption. And, driver turnover has been cut in half.

Kiva Systems

TITLE: ***Creating a Distribution Powerhouse: Why Rapid Deployment Matters***
LENGTH: *7 pages*
DOWNLOAD: *www.kivasystems.com/2011/kivaspeed_ibl_nov2011*
SUMMARY: Create a distribution powerhouse with Kiva Systems! The speed to deploy materials handling, add capacity, and change operations is critical for long-term success. Fast system deployment can be the difference between kicking the competition out of the water and limiting your growth. Read about Kiva Systems' way to rapid deployment, then make the right automation decision for your business.

Ryder

TITLE: ***Lean Guiding Principles for the Supply Chain – Principle 5: Continuous Improvement***
LENGTH: *13 pages*
DOWNLOAD: *www.ryder.com/supplychain_resources_lean-guiding-principles.shtml*
SUMMARY: Ryder's Lean Guiding Principles are the foundation for operational excellence in all its customers' warehouses. Principle 5 is Continuous Improvement: small incremental, ongoing changes that combine to deliver significant gains in quality and efficiency. The stream of continuous improvements creates a powerful and constant force, promoting high performance throughout a facility and producing tremendous employee pride. Learn more by downloading this free whitepaper.

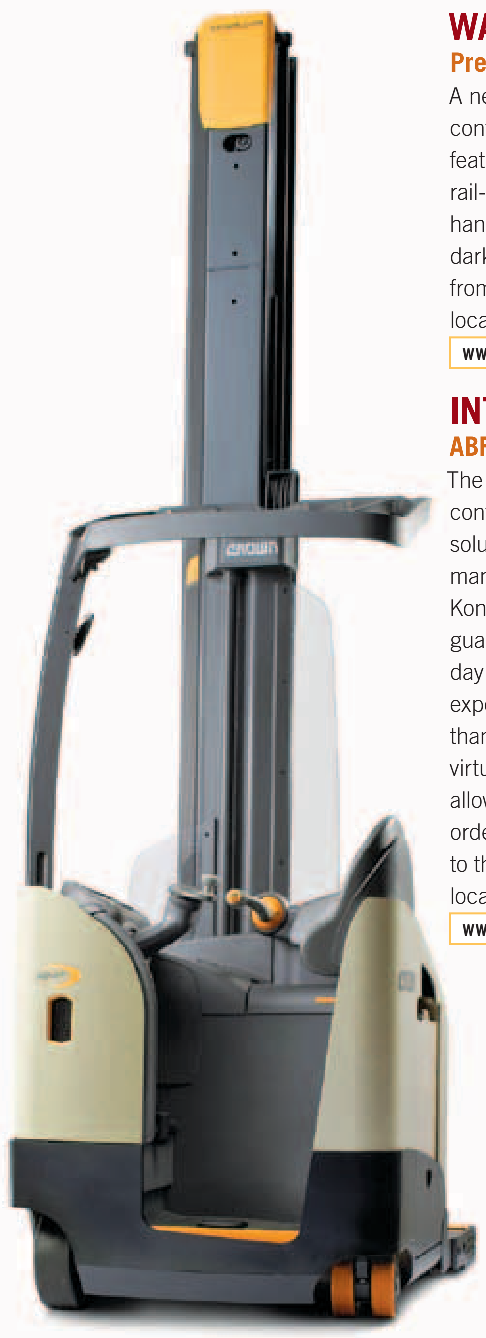


Zebra Technologies

TITLE: ***Mobile Printing Streamlines Supply Chain and Warehouse Processes***
LENGTH: *8 pages*
DOWNLOAD: *http://tinyurl.com/7ebmyvq*
SUMMARY: Global enterprises are looking for ways to reduce costs and improve efficiency and accuracy in their supply chains. To remain competitive, distribution centers, manufacturers, and short- and long-haul carriers must change the way they label and track goods. Success depends on maximizing efficiency throughout all supply chain operations – front to back. Optimizing mobile labeling technology is fundamental to achieving optimal efficiency.

Kane Is Able

TITLE: ***Managing Logistics Outsourcing Relationships: Why 3PLs Need to be Embedded in Your Business***
LENGTH: *4 pages*
DOWNLOAD: *www.kaneisable.com/whitepapers*
SUMMARY: Current models for managing outsourced logistics relationships limit the ability of third-party logistics providers (3PLs) to drive the innovation that their customers crave. Changes are needed that allow 3PLs to become strategically embedded in their customers' organizations, with full access to long-range business and supply chain plans. Empowered by this information, 3PLs can move beyond tactical execution to fulfill the more important and powerful roles of supply chain innovator and change agent.



WAREHOUSING

Preferred Freezer Services

A new 10-million-cubic-foot temperature-controlled warehouse in Elizabeth, N.J., features automated technology, including rail-guided robotic stacker cranes that handle pallet loads of goods in complete darkness, moving two pallets per minute from the loading dock to the freezers located at each door.

www.preferredfreezer.com 973-820-4044

INTERMODAL

ABF

The Ocean LTL expedited less-than-containerload (LCL)/less-than-truckload solution serves shippers importing from manufacturing centers in China, Hong Kong, and Taiwan. The service offers guaranteed weekly departures on a fixed day and schedule, which enables ABF to expedite shipments up to 40 percent faster than traditional LCL sources. In transit, virtual warehousing and dynamic rerouting allow on-the-water inventory allocation and order fulfillment directly from the container to the end user or multiple delivery locations.

www.abf.com 800-610-5544

Grafton and Upton Railroad (GU)

GU initiated operations at its new 38-acre Envirobulk transload terminal in West Upton, Mass. Part of the new Integrated Logistics Center created along the GU rail line, the facility is located at the intersection of Interstates 90 and 495, and serves as a truck transfer point for liquid, dry, and pellet products. The new facility provides full security, flexible operating hours, online inventory systems, and enhanced safety measures for liquid and bulk transfer.

www.graftonuptonrr.com 508-839-1701

DHL

DHL launched a new multi-modal service between China and Japan that transports 12-foot containers by ferry, rail, and truck. The service cuts costs by up to 60 percent compared to air freight alone, and reduces transit time by up to three days compared to solely using an ocean freight service. Using 12-foot containers cuts handling and transit time, as well as the potential for damage to goods, by eliminating the need to move goods from one type of container to another to correspond with each transport mode.

www.dhl.com 800-426-5962

◀ Materials Handling: Crown Equipment

The RM 6000 reach truck series now includes a 42-inch chassis truck that reaches 33 feet while delivering up to 1,000 pounds more capacity at full height. The truck design includes the Crown MonoLift mast, which reduces cylinder damage when working in tunnels, conveyors, and drive-in rack applications. The fuel cell-powered Crown RM 6000 features fuel cell controls and gauges integrated into the truck dashboard, and offers programmable performance settings and advanced diagnostics for the fuel cell power unit.

www.crown.com 419-629-2311

PRINTERS

Tharo Systems

The PA2000t/b tamp/blow label printer/applicator accessory for Tharo's H-Series thermal/thermal-transfer bar-code label printers features a small footprint – 16.5 inches wide x 30 inches long for the H-400 or 19.5 inches wide x 30 inches long for the H-600 – with a remote front panel for easy access, regardless of how the applicator is oriented. With or without a computer attached, the PA2000t/b can print and apply labels to convex, concave, or flat surfaces, on either the top or side of a package.

www.tharo.com 800-878-6833

WAREHOUSING EQUIPMENT

Zoneworks

The flexible, sliding Blast Freezer Curtain Wall provides an alternative to the heavy insulated panel doors used by food manufacturers and distributors to seal blast freezers/chillers. Comprised of 18-ounce panels of industrial vinyl surrounding anti-microbial polyester batting on a tubular steel frame, the lightweight barrier can seal openings up to 25 square feet.

www.zoneworks.com 800-553-4834

TRUCKING

U.S. Xpress Enterprises

Recent additions to U.S. Xpress' coast-to-coast temperature-controlled expedited team bring the carrier's reefer truck fleet to 100, with plans to expand to 250 by the end of 2012. The primary service lanes are from California to the Northeast, Mid-Atlantic, and Southeast, and back to California. U.S. Xpress can now provide transcontinental perishable goods delivery for the produce, pharmaceutical, chemical, chilled, and frozen food industries in 60 to 70 hours, depending on the origin and destination.

www.usxpress.com 800-251-6291

TRACKING DEVICES

Blue Tree Systems

The new R:COM Dot, a self-contained ruggedized dry trailer tracking solution, includes features for vehicle tracking, in-cab communication and navigation, fuel monitoring, engine and driver performance monitoring, reefer temperature management, automated fuel tax reporting, and driver Hours-of-Service management. The unit has no external antenna and is designed to be mounted covertly on the underside of trailers, including flatbeds and tankers.

www.bluetreesystems.com 800-477-7052

3PLs

Trademark Transportation

To integrate its warehousing and transportation services, Trademark Transportation moved from its Bridgeview, Ill., terminal to a larger facility in Joilet, Ill., that features a refrigerated dock and increased temperature-controlled storage space. Trademark offers food shippers refrigerated and frozen transportation services nationwide, specializing in less-than-truckload and multiple-stop shipments, consolidation and pool distribution, warehousing, and logistics services.

www.trademarktrans.com 800-646-2550

Globe Express Services

New offices in Moscow; Abu Dhabi; and Beijing and Nanjing, China, offer containerized import/export, project shipments, air freight, warehousing, and distribution services.

www.globeexpress.com 800-874-8827

REVERSE LOGISTICS

HomeDirectUSA

The new Direct Liquidation enhancement to HomeDirectUSA's Direct Recovery reverse logistics service manages the e-commerce sale of returned items for large consumer goods retailers. HomeDirectUSA picks up the returned goods from the home delivery site, transports them to its returns processing center for inspection, and reports their condition to the goods' owners, who can either set a fixed resale price, or offer items for sale in online auctions. HomeDirectUSA then ensures that the items sell at the best possible price, handles delivery to buyers, and manages payment processing.

www.homedirectusa.com 888-818-8668

SOFTWARE

Cheetah Software Systems

The *Cheetah Operations Simulator* analyzes the impact of operational changes, monitors performance, and identifies opportunities to dramatically increase operations performance. The simulator compares historical data against simulated data within the Cheetah system, allowing users to evaluate equipment and network needs.

www.cheetah.com 800-CHEETAH

▲ **Software: Paragon Software Systems**

The new User Defined Feasibility Checks tool, offered with all Paragon's routing and scheduling optimization software, allows users to apply their own business constraints to route planning and optimization processes. The option can be used to ensure that specific conditions are met; for example, deliveries are completed before any collections are scheduled; certain customers always go on the same route; certain delivery types are always completed before others; or specific customers are always first on a route due to unloading difficulties.

www.paragonrouting.com 972-731-4308

Roadnet Technologies

The vehicle routing and fleet management technology company launched a blog focused on educational information; industry issues; real-world success stories; tips for vehicle routing and GPS tracking; and vehicle telematics trends.

www.roadnet.com 800-762-3638

Appointment-Plus

Appointment-Plus online scheduling software allows drivers and carriers to schedule delivery times online and at their convenience, without having to call or receive information from a dispatcher. The tool also helps dock personnel manage inbound delivery flow and staff assignments.

www.appointment-plus.com 800-988-0061

▲ Materials Handling: Cabka

The completely recyclable CABKAN CPP-888 heavy-duty plastic pallet bears dynamic loads up to 3.85 tons, and maintains reliable stiffness at ambient temperatures up to 104 degrees F. The pallet resists insects, bacteria, and fungi, making it suitable for foodservice applications.

www.cabka.com 314-731-0302

Amber Road

Global trade management solutions provider Management Dynamics changed its name to Amber Road. Based in Tysons Corner, Va., the company offers 14 software products, including tools for global transportation management, import/export compliance, supplier management, and supply chain visibility.

www.amberroad.com 201-935-8588

January 16-18, 2012, Jump Start 2012, Atlanta, Ga. Join shippers, carriers, and logistics service providers at this transportation conference, sponsored by SMC³. Session topics include next steps in CSA compliance, capacity shifts, transportation technology innovations, cross-border trade, and cold chain loss prevention and claims. Former U.S. Comptroller General David M. Walker delivers a keynote presentation on achieving solutions to America's federal, state, and local fiscal imbalances.

800-845-8090
www.smc3conference.com

February 5-7, 2012, Georgia Foreign Trade Conference, Sea Island, Ga. Hosted by the Georgia Ports Authority, this event offers business sessions to senior-level shippers and maritime executives from across North America. An elite panel of speakers addresses issues facing shippers, carriers, ports, terminals, and the maritime community into the next century, as well as the changing legislation and new technologies affecting business.

888-645-7304
http://gaforeigntrade.com

February 6-9, 2012, MODEX 2012, Atlanta, Ga. At MODEX 2012, sponsored by the Material Handling Industry of America, connect and network with industry peers and learn the latest manufacturing, distribution, and supply chain trends and technologies from leading experts in three keynotes and 70 educational seminars. Attendees can also register for several co-located education partner events hosted by organizations such as the Council of Supply Chain Management Professionals, the American Society of Transportation and Logistics, and the Georgia Tech Supply Chain and Logistics Institute.

800-446-2622
www.modexshow.com

February 7-9, 2012, Reverse Logistics Association Conference and Expo, Las Vegas, Nev. Seminars cover reverse logistics-focused topics of interest to original equipment manufacturers, retailers, and third-party service providers. Learn the latest best practices and strategies for returns processing, service logistics, warranty support, and asset management.

801-331-8949
http://rltshows.com

RESOURCE CENTER

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3PLs

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  Move your temperature-controlled shipments and reach new markets easily and affordably with Americold.
  americold.com/inboundlogistics 888-808-4877

- **BNSF Logistics** pg. 7
  BNSF Logistics offers safe, secure, and cost-effective multi-modal transportation services and solutions around the globe.
  www.bnsflogistics.com 866-722-9678

- **C.H. Robinson Worldwide Inc.** pg. 29
  C.H. Robinson provides the capacity you need to keep your fresh, frozen, and floral shipments at the right temperature while en route to your customers.
  www.chrobinson.com/outsourceit 800-323-7587

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  Cardinal's experience, technology, and service can add up to profits for your company's bottom line.
  www.cardlog.com 800-800-8293

- **CaseStack** pg. 22
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  www.faclogistics.com 800-285-7004

- **GENCO ATC** pg. 5
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  www.genco.com 800-378-9671

- **Geodis Wilson** pg. 11
  Geodis Wilson provides shippers with integrated solutions and unrivaled customer service.
  www.geodiswilson.com 877-469-0510

- **Kane is Able** pg. 21
  Kane is Able helps CPG manufacturers distribute products nationwide with integrated warehousing, packaging, and transportation services.
  www.kaneisable.com 888-356-KANE

- **Kenco Logistic Services** pg. 45
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  www.kencogroup.com 800-758-3289

- **Lynden** pg. 58
  Lynden's exclusive Dynamic Routing makes it easy to change routing between modes to meet your delivery requirements.
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  www.ryderscs.com 888-887-9337

- **Saddle Creek Corporation** Cover 3
  For more than 40 years, Saddle Creek has provided leading companies with warehousing, transportation, and integrated logistics services.
  www.saddlecrk.com 888-878-1177

- **TransGroup Worldwide Logistics** pg. 63
  It's easy to lose track of shipments when you're managing the supply chain by yourself. Why not try TransGroup Worldwide Logistics, one of the big guns in the logistics business?
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- **UniGroup Worldwide Logistics** pgs. 26–27
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- **Vantix Logistics** pg. 35
  Vantix Logistics delivers smarter logistics solutions for virtually any industry.
  www.vantixlogistics.com 800-737-5423

Air Cargo

- **Alaska Air Cargo** pg. 23
  Alaska Air Cargo has the routes, schedules, and expertise to keep your perishable shipments in premium condition.
  www.alaskacargo.com 800-225-2752

- **Southwest Cargo** pg. 31
  With fast, friendly, and reliable service, Southwest Cargo ships your items from Point A to Point B on the same day.
  www.swacargo.com 800-533-1222

Career Development/Education

- **American Public University (APU)** pg. 74
  APU offers bachelor's and master's degrees in transportation and logistics management entirely online, designed for busy logistics professionals.
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- **Bellevue University** pg. 73
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Inbound Logistics' 2011 Holiday

GIFT GUIDE

It's that time of year again, when supply chain modeling gives way to model steamships, recycled pallet chairs, and desktop Feng Shui. If you're still in search of a present for that special family member, friend, or co-worker, let *Inbound Logistics* help gift wrap the perfect idea.

Magnetic Pallet Chair $250

by Trevor Elliott | uncommongoods.com

The quintessential Adirondack chair doesn't get any more rustic than this handmade recliner crafted from reclaimed industrial wood pallets. Each unique, collapsible chair features refurbished pine and oak with rare earth neodymium magnets that transform its design into a functional modular piece.

Emma Maersk $200

by Papa Foxtrot | papafoxtrot.com

At nearly 1,300 feet in length, the *Emma Maersk* is the world's largest containership. Now it can be yours—minus 1,299 feet and a few other elements. Inspired by today's modern infrastructure marvels, this hand-crafted, built-to-scale wooden replica features removable parts so families and ocean shipping "foamers" alike can explore its inner workings.

M112 Pod Miniatures $175-250

by Paris Renfroe Design | parisrenfroedesign.com

Welcome to the new world of design savvy, logistically oriented, eco-friendly doll houses. These diminutive counterparts to life-sized shipping container homes boast Baltic birch interior ceilings, walls, and floors, as well as frosted panel walls and sliding glass doors.

'In-box' Mini Cargo Crates $37

by Labyrinth | designboom.com

What do you get when Spanish craftsmanship, Russian matryoshka convention, and American organizational angst converge? Mini nesting crates, of course. Perfect for storing tools, silverware, pens, or any other odds and ends, these miniature shipping containers come in three different sizes that conveniently fit inside one another when not in use.

Linde Forklift Truck $319

by Big Toy USA | bigtoysusa.com

Budding warehouse managers will love this pedal-powered forklift knock-off that features a removable operator cab, precision chain drive, and Ackermann steering, with trailer couplings in the front and back. WARNING: Six-month warranty does not cover your dining room china.


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