inbound logistics

a THOMAS™ company

THE MAGAZINE FOR DEMAND-DRIVEN LOGISTICS • OCTOBER 2017

A FRESH LOOK AT INTERMODAL

ALSO IN THIS ISSUE

THE ART OF THE STEAL: HOW SAFE IS YOUR CARGO?

HOW OCEAN ALLIANCES AFFECT YOUR FREIGHT AND CONTRACTS


SAIA
LTL Freight
SAIA
LTL Freight
14.4V

info **snacks**

BITE SIZED SUPPLY CHAIN/LOGISTICS INFORMATION

How to Engage a Remote Workforce

- Host "Driver Appreciation" celebrations featuring food, beverages, activities, and pictures.
- Recognize employees throughout the year, highlighting accomplishments or acts that reflect your company's core values.
- Provide personalized company-wide achievement recognition for employees meeting company milestones.
- Highlight select success stories in both internal communications and social media platforms.

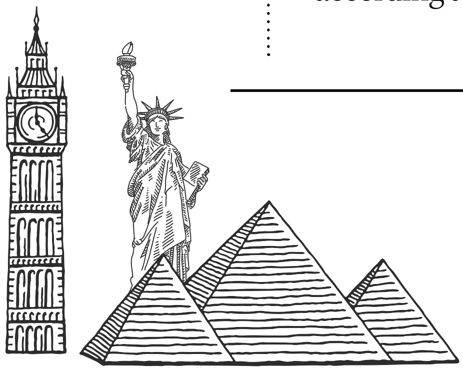
Source: A. Duie Pyle

Stolen Moments

Most cargo theft occurs in parking lots and garages, docks/wharfs, and freight terminals, the FBI reports. The top types of stolen cargo are food and drink, home and garden products, and electronics, according to SensiGuard's *Cargo Theft* report.

(See The Art of the Steal, p. 60)

What's the Big Idea?



2 Great Pyramids of Giza.
4 Big Bens.
8 Statues of Liberty.
Lay them end to end, and you've got the equivalent length of the CMA CGM *Theodore Roosevelt*, the largest capacity vessel to ever transit the Panama Canal's expanded locks.

(See Panama Canal Expansion Hits the Big Time, p. 29)

Loads of Love

"Especially in the 3PL sector, we're only as good as those individuals loading the trucks day to day."

Denis Reilly, President and CEO, Kenco Logistics

(See LeaderShip, p. 16)

$171,340 PER YEAR

That's how much the average U.S. business loses through clunky payment practices such as chasing purchase order numbers, processing paper invoices, and responding to supplier inquiries, says Tungsten Network.

(See Facts About Friction, p. 27)

October 2017 • Vol. 37 • No. 10

INSIGHT

INPRACTICE

INDEPTH

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October 2017 • Vol. 37 • No. 10

INSIGHT

INFO

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INFOCUS

The average U.S. cargo theft is $233,000.*
What's more surprising?
You're probably not protected.
Most companies assume it won't happen to them. But in the U.S., more than 800 of them are proved wrong every year. And they'll need a lot of new sales to cover just one bottom-line loss. Bad guys are plotting, but so are we. UPS Capital Insurance Agency, Inc. will customize a policy for your business and even cover losses to the full retail value. Better yet, with more than 100 years of supply chain expertise, we can help prevent them in the first place. Protect yourself. upscapital.com
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UPS Capital insurance Agency, Inc., and its licensed affiliates are wholly owned subsidiaries of UPS Capital Corporation. Insurance coverage may not be available in all jurisdictions. Insurance is underwritten by an authorized insurance company and issued through licensed insurance producers affiliated with UPS Capital Insurance Agency, Inc., and other affiliated insurance agencies. ©2016 United Parcel Service of America, Inc. UPS, UPS Capital, the UPS brandmark and the color brown are trademarks of United Parcel Service of America, Inc. All rights reserved.
*FreightWatch International, Supply Chain Intelligence Center: Annual Cargo Theft Report 2014.

HOW SHIPPERS CAN PREPARE FOR THE ELD MANDATE
bit.ly/ELDready

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Looking for insight into supply chain best practices and trends? Want to review the latest logistics sector research? Our whitepaper database is packed with up-to-date information on all aspects of supply chain operations.
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The most comprehensive and clutter-free online directory of supply chain websites–organized by category, cross-referenced, and fully searchable. You can browse by category or search for companies by name.
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ONLINE COMMENTARY

3 Signs of a Siloed Supply Chain— And How to Fix Them bit.ly/NOtosiloes

Retail supply chains must be faster and more agile than ever. Siloed systems bog down the process, causing customers to take their business elsewhere. Here are three signs of siloed supply chains and what to do about them.

How Shippers Can Prepare For the ELD Mandate bit.ly/ELDready

The upcoming electronic logging device (ELD) mandate affects more than just the carriers and owner/operators that will be directly responsible for using the devices in their trucks. Here's how shippers should adjust their truckload strategy.

Supply Chain Commentary: Leveraging Mobile Commerce bit.ly/M_commerce

Mobile commerce is expected to become a $250-billion market by 2020, with an increasing number of sales being done via smartphone apps. Find out what retailers should be doing now.

FOR MORE NEWS, TRENDS, AND COMMENTARY SEE INBOUNDLOGISTICS.COM

3PL RESOURCES

3PL Decision Support Tool bit.ly/IL3PLDST

Choose the services and capabilities you need from a provider and the Decision Support Tool will find matching companies from our Top 100 3PL database—and more than 100 other leading 3PLs.

3PL Request for Proposal bit.ly/IL3PLRFP

Describe your supply chain challenge, then browse the list of top 3PLs and select companies to receive your RFP. They'll provide advice, solutions, and information for your logistics management needs.

CHECKING IN

Felecia Stratton

by Felecia Stratton | **Editor**

Masters of the Future

I have a secret: I can see the future. Anyone who reads business media can tell you that many professionals in my generation fear for the future of the workforce. Doomsayers claim that all millennials are lazy, and Generation Z is needy and co-dependent on Google and their devices. I'm lucky, however. I get an annual glimpse into the future of the logistics workforce—and I can say with confidence that we'll be just fine.

Inbound Logistics and APICS offer an annual scholarship to college students studying for a supply chain career. We choose the winner based on essay submissions describing why they want to pursue a supply chain career and what they hope to accomplish. While reviewing this year's essays, I found myself confident about the future of our field thanks to several recurring themes across each submission.

Young professionals don't just want a paycheck, they want to use the supply chain to leave their mark and make a difference in the world. "I have learned a great deal about the role logistics must play in helping to feed the world," Shannon Atkins, a senior at Georgia Southern University, wrote in her scholarship essay. "The challenge is great and is a large part of what drives me toward this profession."

These students grew up in the world of Amazon, Google, and social media. They not only understand technology solutions and big data—they embrace them. "As companies become more integrated in their ERP systems and turn towards automation through computer processes, new leaders with technical experience will have to take charge and manage the implementation of high-functioning systems," wrote Jordan Kremer, a junior in the University of Dayton's industrial engineering technology program.

Students also understand the impact of the logistics skills gap, and want to be part of the solution. "Supply chain and logistics has room for improvement and needs more people to come on board," Christine Lac wrote. "I want that challenge. Supply chain and logistics never sleep. I won't sleep on it either."

Feeling both heartened and intimidated after reading all the essays, I turned to the task of choosing a winner. Picking only one of these inspiring, intelligent, and motivated students was quite the challenge. After much consideration, I chose Vivian Leung as the winner of the 2017 *Inbound Logistics*/APICS scholarship. Vivian is an industrial engineering major at the Häme University of Applied Sciences in Finland. I was impressed with her drive, practical experience, and dedication to correcting supply chain inefficiencies.

I asked Vivian what she hoped to accomplish with a supply chain career, and her answer ensured me I had made the right choice. "Making supply chains more efficient will hopefully result in less unnecessary waste while making the supply chain more profitable, creating a win-win for both the business and the earth," she said. "I also would like to help bridge the gap between Europe and North America by promoting and encouraging networking between the two continents, as well as the sharing of logistics and supply chain practices. Hopefully as a result, it will improve the quality of supply chain management around the world."

Fear not. If you depend on supply chain excellence, you're in good hands, now...and in the future. ■

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Good Question…

READERS WEIGH IN

What is the best piece of leadership advice you ever received?

Treat 'em like family.

Sean Ford
Operations Manager
Home Depot

Stay humble and lead by example. Never ask members of your team to perform any task that you would not perform yourself, and remember that your plans, actions, and decisions have a direct effect on the team members that you depend on.

Tom Poduch
Director of Logistics Design
Transervice Logistics

Praise in public; criticize in private.

Kelly Clark
Account Manager
Davidson Surface Air

Always under-promise and over-deliver. This is especially true for the logistics world, where the margin of error is minimal, some factors are out of our control, and we all want our clients to be extremely satisfied.

Tommaso Tamburnotti
Co-Founder, Easyship

In any given week, you will have more than 200 hours of things that should be done. A week contains 168 hours. Choose wisely. The to-do list of a logistics professional is infinite. The best decision makers know which improvements have the best return, but more importantly, who is best suited to execute the change.

Peter Shin
Director of Pre-Sales,
North America, Quintiq

In whatever you do, focus on what your audience needs (whether it's your customers, prospects, or even your internal audience such as executive management). Do *not* focus on what you have to sell. If you focus on their needs, it naturally can lead back to what you have to offer.

Brian Everett
CEO
Transportation Marketing and Sales Association

My father was the best manager I ever saw. I learned an important lesson from him: Always treat others as you would want to be treated. He was a great leader and looked at management as a privilege.

Glenn P. Clinger III
Co-Owner
Clinger Group

Midcareer at Baxter Healthcare, I got a new boss. We did not hit it off from the beginning. When I complained to a mentor about the new boss and the little new rules and restrictions, the mentor said: "If you think this is chicken-[bleep] stuff, it is. Don't worry about it. Look forward and continue to use your instincts that have made your work successful."

Don Kirchenberg
Principal
QUALOGISTICS

Surround yourself with outstanding individuals and then give them all of the support they need to succeed in their jobs and to reach their own goals.

Noah Wilmot
President
MESCA Freight Services, An Ascent Global Logistics Company

HAVE A GREAT ANSWER TO A GOOD QUESTION?

Be sure to participate next month. We want to know:

What is the best business book you ever read and why?

We'll publish some answers. Tell us at editorial@inboundlogistics.com or tweet us @ILMagazine #ILgoodquestion


Shipping to Alaska or Hawaii?
KAUAI
OAHU
MOLOKAI
MAUI
LANAI
HAWAII
CENTRAL
WESTERN
SOUTHEAST

DIALOG

THE ONGOING CONVERSATION
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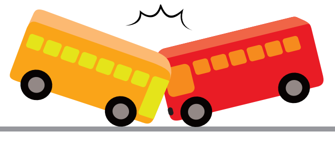
"We are now entering *the* most important period for both carriers and the global retailers they service. High consumer confidence and strong job growth in the United States bode well for the industry, with shops intent on stocking up for the Thanksgiving-Christmas rush. The National Retail Federation has forecast U.S. container imports to grow by as much as 13 percent in October (year-on-year)."

Patrik Berglund
CEO, Xeneta
a benchmarking and market intelligence platform for containerized ocean freight, which crowdsources real-time global shipping data from more than 700 businesses, covering more than 160,000 port-to-port pairings. The company charts an eye-catching recovery for the container segment in 2017.

Highlighted

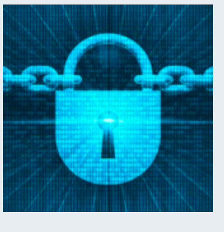
3 Signs of a Siloed Supply Chain—and How to Fix Them
bit.ly/NOtosiloes

Dot Coull
Loving this article! Particularly the definition of a supply chain without a manager: 'Having no oversight into the entire operation is equivalent to sending out a crew of buses without a central dispatch.'



Gamechanger

The Future of Blockchain in Ocean Shipping



Blockchain will reshape ocean shipping. Here's how.
bit.ly/BCinoceanshipping

Gene Hotten
About time we start seeing blockchain incorporating its way into our supply chain technology.

Supply Chain Shout Out

In Appreciation of Truck Drivers
bit.ly/truckdriverkudos

Barton Jennings
All the planning and strategy work gets down to a simple idea: Those who physically move the shipments are the ones who actually do what the company gets paid for.

Where I Read *IL*

Frank Mullens
@FrankMullens

Two-piece chicken combo at El Pollo Loco with *Inbound Logistics*' "E-Commerce: The Great Retail Equalizer."

Send us a photo showing where you read *IL*!
We'll publish your pictures in future issues.
Email editorial@inboundlogistics.com or tweet us pics. **#IreadILhere**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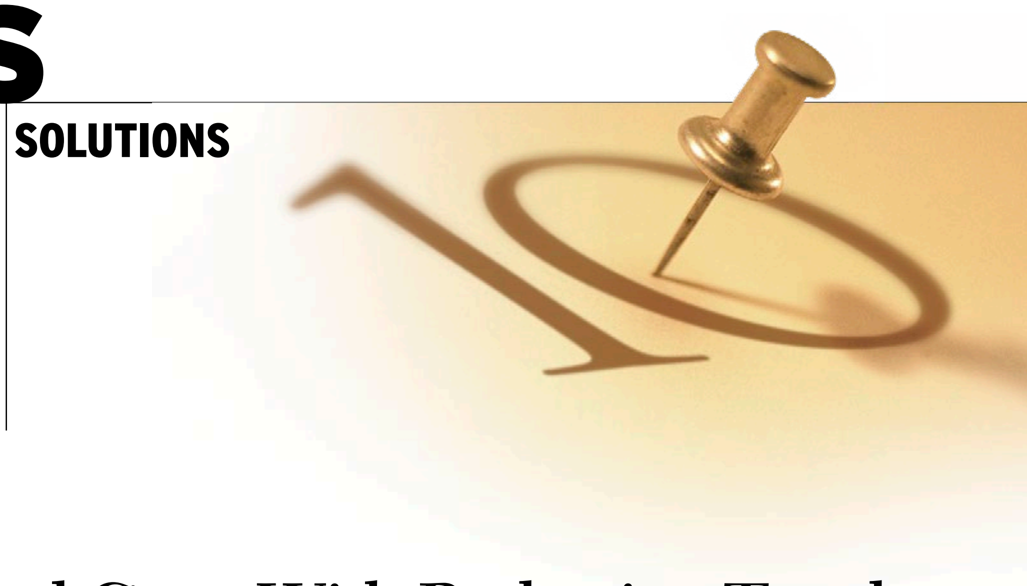
10TIPS

STEP-BY-STEP SOLUTIONS



Reducing Parcel Costs With Packaging Tweaks

While most businesses are ramping up for peak season, some parcel carriers sent their own early greetings with holiday surcharges. Fortunately, that doesn't mean your company has to raise prices or take a financial hit. Try these packaging moves to help offset higher parcel costs farther up the supply chain, says Rajiv Saxena, supply chain solutions head for APL Logistics.

1 **Get smart(phone) about using the right box sizes.** Using a larger-than-specified box to ship a product is a mistake many product pickers can easily make. Have employees or supervisors at your fulfillment centers take smartphone photos of some packed boxes before they're sealed. That way someone higher up the chain can check these images to ensure proper product-to-box alignment is taking place.

2 **Spot the signs of inefficient packaging configurations.** Be aware of packaging inefficiencies such as excessive amounts of interior stuffing in a box; empty space when packages are opened; cardboard boxes, plastic containers, or filler materials that need to be hauled away from your distribution centers.

3 **Go with durable, reusable packaging.** About one-third of e-commerce orders are returned. Be mindful of how well any packaging materials you use will hold up under multiple possible journeys. That way, your still-salable goods will make it safely through the reverse transit process.

4 **Update your dimensional information.** Encourage your Lean or engineering professionals to spend a few weeks measuring the contents of your outgoing trucks. Then run new trailer cube utilizations with this refreshed data to reduce transits.

5 **Build and test prototypes.** Work with the packaging materials and configurations your simulations have helped you select. Real-world experience reveals which packaging recommendations are as durable, executable, and feasible as proposed.

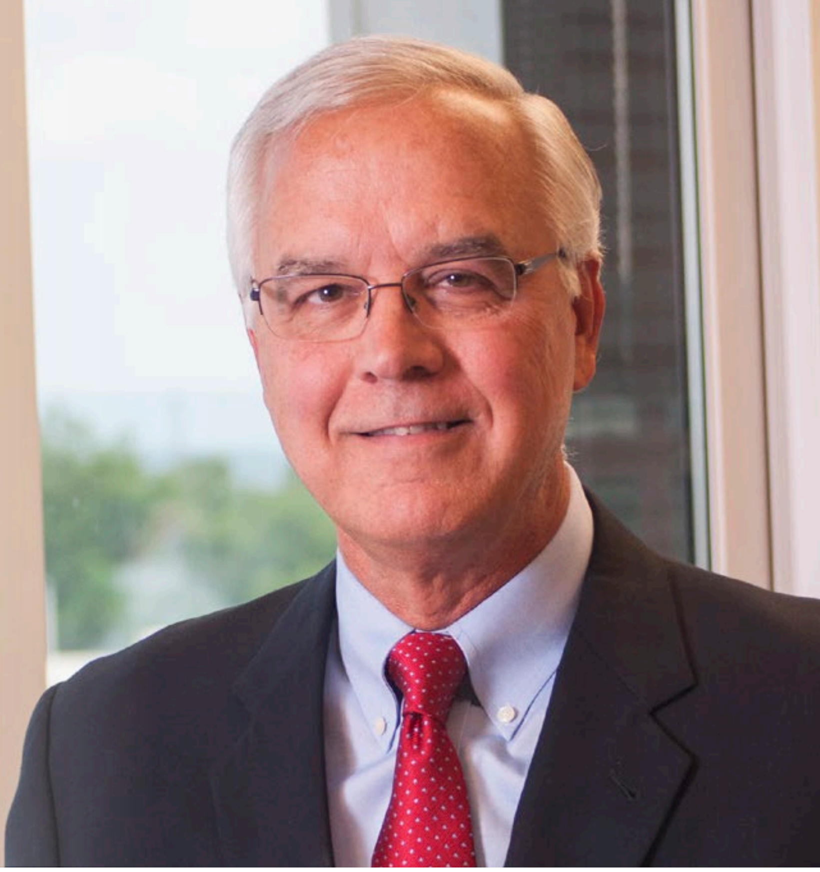
6 **Recheck your freight classifications.** With significant differences in the cost to transport each of the National Motor Freight Traffic Association's 18 different classifications, it pays to periodically check to ensure all freight traveling in your packages is being classified correctly.

7 **Create clear deterrents for supplier overpackaging.** The typical supplier contract levies penalties for product damage, not excessive packaging costs. Include contractual language that holds suppliers equally accountable for packaging efficiency.

8 **Don't hesitate to replace or refurbish.** If the exterior packaging on an item has accumulated dust, dirt, or any other form of wear and tear, a customer could refuse delivery. Wipe the packaging down or even replace it to minimize returns and reshipments.

9 **Look into impact, shock, or tilt indicators.** These devices let you know when a potentially damaging behavior such as jolting or bumping has taken place, adding accountability to package handling. They also allow you to assign financial penalties.

10 **Dispense with your disposal.** Don't just eat the cost of your plastic/cardboard waste's haul-away and disposal (close to $200 per ton). Many businesses such as polymer companies need this kind of trash—and some are willing to haul it away for free or pay for it. Look into this option for packaging disposal savings. ■



LEADERSHIP

Conversations With The Captains of Industry

By Merrill Douglas

Denis Reilly
President and CEO
Kenco Logistics

Finding the Right Strategy for Each Situation

DENIS REILLY'S FATHER WORKED IN distribution for 38 years. So when Reilly started college at the University of Tennessee, it was no surprise that he was drawn toward that school's renowned logistics program. "It was a natural fit," he says. "Even some of my summer jobs were in logistics, with Union Carbide."

After college, Reilly went to work at Frito-Lay and then rose through leadership positions at Menlo Logistics, MIQ Logistics (formerly YRC Logistics), Geodis (formerly Ozburn-Hessey Logistics), and St. George Logistics, among others. In June 2017, he became president and CEO of Kenco Logistics, a provider of integrated logistics solutions, real estate services, and materials handling equipment, based in Chattanooga, Tennessee.

In a recent conversation with *Inbound Logistics*, Reilly described some of the influences that shaped him as a leader, and discussed his first months on the new job.

***IL:* Since you joined Kenco, what have been your main priorities?**

I've held about 45 one-on-one meetings, both in Chattanooga and in the field. My initial objective is to listen and learn. I want to understand our people's capabilities, identify the challenges they see, find out if there are common themes I can help address, and solicit their ideas about how Kenco can grow. Second, I've been visiting all our operations across the United States and Canada, to understand our capabilities and the types of services we provide.

More recently, I've been meeting with customers, getting their perceptions on what we're doing right and wrong, and what challenges we can assist them with in the future.

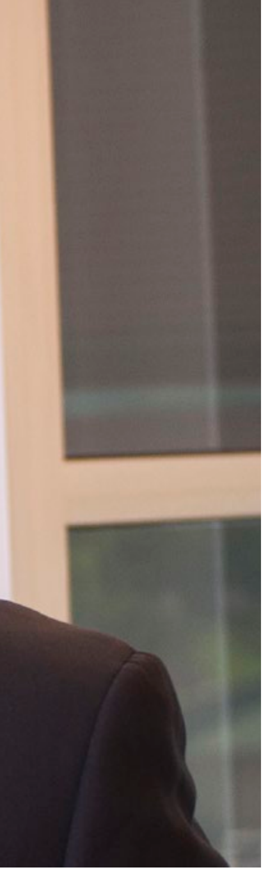
***IL:* What are your biggest priorities for the next year or two?**

We expect to have a new strategic plan in place by the end of 2017. Over the next couple of years, we'll stay close to our customers and proactively address their supply chain challenges, so we can help with their future goals. Some of our customers foresee a lot of change in the next few years, such as the dramatic increase of speed in the supply chain as a result of the ongoing growth of e-commerce, the "Amazon effect," and emphasis on final-mile delivery. We'll expand our service capabilities to continue to meet those needs.

***IL:* Across the span of your career, what are some of the most important changes you've seen in the logistics sector?**

Twenty years ago, implementing a warehouse management system or a transportation management system was very expensive. Now the technology is cheaper and more robust. That's obviously good for shippers, because this technology helps drive efficiencies across their operations.

Also, supply chain topics are more frequently discussed in the C-suite. Supply chain has become of strategic importance to



our customers. They tend to look at things as a cradle-to-grave process, rather than asking, "What's going on in my warehouse?" or "What's going on in transportation?" Considering the whole supply chain process at a much higher level in the organization gives them more opportunities to optimize across their networks.

IL: **Describe your leadership style.**

It's flexible, depending on the situation I'm in. If I'm doing a business turnaround, I'll be a lot more hands-on, making day-to-day decisions quickly because there isn't time to collaborate. But at Kenco, our senior executive team is well versed in supply chain and the needs of our customers. I spend more time on strategic planning, making sure that our organization is centered on the customer, that we're developing our managers and driving continuous improvement. Here, my style will definitely be more collaborative, leveraging the extensive experience of our executive management team.

IL: **Does it take special skills to lead a family-owned business when you're not a member of the family?**

Our chairwoman, Jane Kennedy Greene, manages our governance process, striking the right balance between the family and the company. But we have to make sure we're following clear rules, policies, and agreements that are already in place. One important thing is that our shareholders actually have faces. They're normal, everyday people who count on us to do well as a company. I have to be sensitive to those relationships and build up trust with those members. I need to make sure the company stays aligned with and sensitive to the family's culture, which focuses on respect, integrity, and humility.

We put a lot of emphasis on employees, customers, and the community. It's not just lip service; it's lived day in and day out. We have people who have been here 20 or 25 years, and they stay here because of our culture. The family is especially concerned about our impact on the community, and focused on the well-being of employees, all the way down to the floor level.

IL: **What's one of the most surprising lessons you've learned from a customer?**

At one of the 3PLs where I worked, we once won a deal that was worth about $120 million. It was a complex contract, involving multiple warehouses and a lot of transportation. It was a gain share agreement: We had to provide savings, or the impact on our company would not be good.

As we went into negotiations, we found out that one member of the customer's team was formerly a senior procurement person at GE. We thought, "Oh, no, this is going to be a bloodbath!" But it was fantastic. Early on, this person established that we were going to protect both companies. If we disagreed on any particulars, we came to a good compromise. Since then, whenever I've negotiated similar deals, I've made sure to establish that sort of trust on the front end. That sets the tone for the whole relationship.

IL: **How do you like to spend your time when you're not working?**

Now that the kids are grown, my wife and I spend a lot of time outdoors, mostly hiking. We also have a German shepherd puppy. He's running the show now, and he's going to keep us in shape. ■

A Shift in Perspective

In 1983, new MBA degree in hand, Denis Reilly headed to Dallas for a job with Frito-Lay. "I was going to be an analyst," he says. But on his second day, the third-shift supervisor at one of the large distribution centers quit without warning. "So they threw me on third shift," he says.

Reilly knew little about managing people. "I was stuck trying to figure out how to motivate 150 warehouse workers," he says. He quickly figured out that simply telling workers what to do was useless. Many of the associates had long experience in the warehouse; Reilly had none. "I had no credibility," he notes.

As time passed, and Reilly got to know the employees, he discovered something important. "They didn't feel that they were respected, as a group, in relation to the other shifts," he says. But whenever the first and second shifts left any of their work undone, it was the third shift that cleaned up the mess before the morning delivery trucks headed off on their routes.

So Reilly—a numbers guy, after all—turned to metrics. "We started measuring and ranking the work we did, compared to the other shifts," he says. "I would post this on the board before I left in the morning. Our team got excited about the results and started crushing the metrics." That great performance caught the distribution manager's attention. "He bought their lunches for a whole month," Reilly notes.

That experience taught Reilly an important lesson: "Especially in the 3PL sector, we're only as good as those individuals loading the trucks day to day."

as told to Karen M. Kroll

Tim O'Brien: Exuding Star Power

Tim O'Brien is senior director, supply chain, with Purchasing Power, a specialty e-commerce retailer that provides goods and services to customers who make payments through payroll deductions. He has held this position since October 2012.

RESPONSIBILITIES

Transportation and logistics, including carrier and 3PL relationships, vendor compliance, and onboarding.

EXPERIENCE

Director, e-commerce shipping strategies and vendor fulfillment, director of transportation, and traffic manager, all with Toys "R" Us; logistics manager, Lechters, Inc.

EDUCATION

B.S., Business Administration, Temple University, 1989.

PURCHASING POWER IS A DROP-SHIP OPERATION. WE hold no inventory and have no warehouses. We take orders through our website and send them to our network of suppliers, who ship directly to our customers. We ship anything from small consumer electronics and jewelry, to large-screen televisions and furniture sets.

In 2017, we focused on improving the customer experience. For instance, we're launching an expedited shipping program that will allow consumers to choose standard, two-day, or next-day delivery on parcel shipments.

This program requires changes to our website and help from our carriers to make sure they can ship to these different service levels. My transportation and logistics manager has to negotiate rates for the new services, and we need our network of suppliers to identify which shipments will use standard and expedited shipping.

Another customer service improvement involves adding a white-glove service for large freight items. Later in 2017, we will partner with a new carrier to offer a full-assembly option for furniture. We're excited about all these new programs.

The Big Questions

If you could invite anyone, living or not, to a dinner party, who would you ask?

John F. Kennedy and Barack Obama. What impresses me is their ability to remain calm under tremendous pressure. We could use more leading with respect, calmness, and humility.

You're representing the United States in the Olympics. What sport would you choose?

Long-distance running. I do a little running myself. There's a personal journey in running that I find inspiring.

What book have you read that has had an impact on you?

The last great book I read was *The Dog of the South* by Charles Portis, a southern writer who also wrote *True Grit*. The book shows it's worthwhile to follow a dream, no matter how unlikely success is. It's the journey that matters.

You're given $1 million to start a business venture or philanthropic endeavor. What would you do?

Start a food bank. There are people in any city in this country who don't have enough to eat. That doesn't make sense.

What advice would you give your 18-year-old self?

Take more vacations. Sometimes, we get on that hamster wheel and don't want to stop. De-stress and unplug, and you'll be more productive.

We're also committed to better communication with customers throughout their delivery experience. We partnered with a third party to offer a tracking solution that can send text message alerts if a shipment is late, or reminders about delivery appointments. These changes improve the supply chain experience and customer engagement.

When I came to Purchasing Power in 2012, we shipped about 300,000 units, and had 25 suppliers and several thousand stock-keeping units (SKUs). In 2017, we'll process about 1.3 million shipments, have 150 suppliers, and 50,000 to 75,000 SKUs. Everything has grown exponentially.

I rely on partnerships with distributors, manufacturers, and even other retailers, so it's critical we have good relationships with them.

When I joined the company, many of our partners did things their own way. There wasn't consistency, and the model wasn't scalable. I've been able to put together strategic partnerships. I learned to find partners who are aligned with what we're doing and our vision, and can grow with us. That makes the difference.

It's also important to be advocates for those aligned with your ideas. We're ambassadors for our partners internally.

Not every partnership has worked out. You can't be afraid to make mistakes; you can't play scared. When I fail, I try to do it early and learn from it.

My first job out of college was handling inside sales with a trucking company. After the company went under, I ran the second shift of a break-bulk facility with another LTL carrier.

So, I got into supply chain management by accident, but enjoy it very much. It's an important part of any organization's value chain. Over the past few years, companies have come to realize that supply chain is not a necessary evil, and they need to excel at it because their supply chains represent them. ■

NOTED

THE SUPPLY CHAIN IN BRIEF

GOOD WORKS

Cargo airline **CargoLogicAir** completed three flights carrying relief goods to the Caribbean after Hurricane Irma struck. Two flights delivered more than 220 tons of relief supplies for the French government to Pointe-à-Pitre Le Raizet Airport, Guadeloupe, as well as special equipment to restore power supplies on the island. The third flight to Barbados' Grantley Adams International Airport carried more than 121 tons of goods on behalf of the UK government.

Crane Worldwide Logistics partnered with the American Red Cross to provide free warehousing in Houston in the aftermath of Hurricane Harvey. The 3PL also deployed trucks from its Crane Freight fleet to deliver donations to the Houston area from Florida. During the storm, Crane Worldwide Logistics helped deliver critical pharmaceuticals that had become stranded in the floods to local Houston hospitals.

m&a

Positioning technologies provider **Trimble** acquired **10-4 Systems**, a provider of multimodal shipment visibility solutions and related technologies for shippers and transportation providers. 10-4 Systems solutions offer real-time shipment visibility, regardless of provider and mode, to shippers, third-party logistics providers, and carriers. The acquisition expands Trimble's portfolio of transportation management systems to include a shipper RFP platform and a cloud-based solution for small carriers.

Pitney Bowes, a technology company that provides commerce solutions, acquired **Newgistics**, a provider of parcel delivery, returns, fulfillment, and digital commerce solutions for retailers and e-commerce brands. The acquisition boosts Pitney Bowes' offering for retailers and small- to mid-sized businesses by enabling faster shipping, flexible options, and tools to manage shipping and returns processes, including complications impacting the customer experience.

GREEN SEEDS

Liner shipping company **Hapag-Lloyd** is recycling three UASC containerships using an environmentally friendly process. It transferred the three older ships to certified shipyards in Turkey and China, which are specially equipped and certified for safe and environmentally sound recycling. The ships have a capacity of 4,101 TEUs each and were delivered to UASC from Japanese shipyards in 1997 and 1998. They have been part of the Hapag-Lloyd fleet since its merger with UASC in May 2017. The process complies with Hapag-Lloyd's internal Ship Recycling Policy, which it adopted in May 2014.

SEALED DEALS

▶ **BASF Corporation**, a producer and marketer of chemicals and related products, deployed the Descartes *MacroPoint* freight visibility solution. The cloud-based freight tracking solution from logistics IT provider **Descartes Systems Group** gives BASF real-time visibility into load status. BASF is using the solution across its supply chain, customer care, sales, and logistics business units to improve the delivery reliability and productivity of transportation providers servicing its North American supply chain.

Professional measuring equipment and precision instruments maker **Mitutoyo Europe GmbH** awarded its European distribution operation to **Yusen Logistics**. After receiving inbound air freight and ocean freight through the port of Rotterdam and Amsterdam Schiphol airport, Yusen stores the manufacturer's goods at its Rotterdam warehouse. It then dispatches goods to Mitutoyo dealers and distributors, as well as end users throughout Europe. The logistics provider allocated approximately 69,965 square feet of storage space in the Rotterdam warehouse for the Mitutoyo product range, which comprises more than 12,000 SKUs.

◀ Bread and roll maker **Martin's Famous Pastry Shoppe** installed storage systems provider **Westfalia Technologies**' warehouse automation technology at its Chambersburg, Pennsylvania, facility. With Westfalia's automated storage and retrieval system (AS/RS) and *Savanna.NET* warehouse execution system, the manufacturer aims to improve the efficiency, accuracy, and traceability of its finished goods. Westfalia's AS/RS stores pallets of reserve product in a rack structure six pallets deep, housing approximately 2,000 pallets.

recognition

The *mobe3* warehouse management system by **EVS**, a warehouse management and supply chain technology solutions provider, won a **2017 Cloud Computing Security Excellence Award** in the cloud-delivered security category, presented by *Cloud Computing Magazine*. In the cloud-delivered security category, winners are selected based on their ability to utilize the cloud as the delivery model for security against hacks and intrusions so that applications, services, data, and devices remain safe.

The GT Nexus Shipper Council, a group of supply chain executives from global companies, recognized **Expeditors**, a logistics provider, as the recipient of the **2017 Air Performance Award**. The award recognizes Expeditors' timely and accurate information related to the airfreight shipments that are handled on behalf of Shipper Council member companies. During the measurement period, Expeditors delivered all but 200 of an expected 35,000 milestone events.

GOOD WORKS

Transportation and logistics provider **Werner Enterprises**, in partnership with The Home Depot, dispatched a convoy with a Florida State Patrol escort to deliver essential Hurricane Irma relief aid and supplies from Lake Park, Georgia, to southern Florida. Werner Enterprises coordinated convoy efforts with The Home Depot's Hurricane Command Center and the Florida Attorney General. In total, Werner sent more than 100 trucks to support hurricane relief efforts.

UP THE CHAIN

Jon Lindekugel was appointed senior vice president, supply chain, at global science company **3M**. Lindekugel previously served as senior vice president, business development and marketing-sales, at 3M. This appointment reflects 3M's continued commitment to developing leaders and leveraging experience across business and functional areas.

TRENDS

SHAPING THE FUTURE OF LOGISTICS

Urban Logistics: You Can't Fight City Haul

The impact of urbanization—population increases in cities and towns as opposed to rural areas—on business growth and sustainability concerns nearly all companies surveyed in *The Road to Sustainable Urban Logistics*, a new report by UPS and GreenBiz Group. However, only 47 percent feel prepared to address the associated business challenges, according to the survey.

Further, respondents cite air quality (58 percent) and traffic congestion (53 percent) as top concerns over other urban challenges. And 65 percent of respondents say insufficient collaboration across sectors, including government, is a key barrier to well-managed logistic operations in urban areas.

"Increased urbanization and congestion make logistics far less predictable and harder to manage," says Mark Wallace, UPS senior vice president, global engineering and sustainability. "Without implementing innovative solutions supported by technology and logistics ingenuity, we run the risk of increasing congestion and emissions. We need solutions, and collaboration is the key."

The movement of goods is an essential function supporting businesses and residents, and a fundamental source of economic growth in cities. Access to e-commerce is part of what makes alternative transport modes and walkable urbanism a viable choice. At the same time, transportation and delivery can contribute to pollution and gridlock, and can be challenging for companies to manage sustainably.

When asked how the rise in e-commerce, increased urbanization, and congestion have affected how they conduct business in urban areas, 81 percent of survey respondents note some form of impact on their business, such as the ability to meet e-commerce customer expectations (33 percent), make deliveries to retail locations (32 percent), and meet city requirements for emission levels (31 percent).

Continuing population growth and urbanization will add 2.5 billion people to the world's urban population by 2050, according to UN projections. The UPS study offers insights on strategies and pilot projects being explored to better manage the movement of goods in cities, now and in the future.

The results point toward data-driven technologies that increase efficiencies and reduce traffic, renewable and alternative energy and fuels that help address air quality issues, the accurate measurement and management of carbon emissions, and supply chain optimization.

The real difference-maker, though, isn't any single piece of technology. It's the commitment to partner with cities, academics, and other business leaders to develop solutions together.

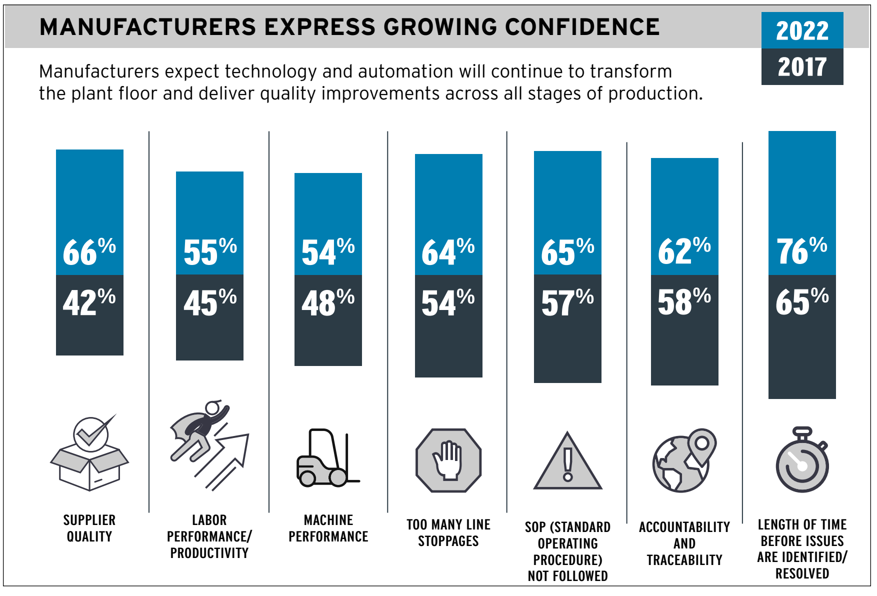
"Smart collaborations, continued research, and investments in infrastructure will remain critical to meet the logistical and environmental demands cities face," notes John Davies, GreenBiz Group's vice president and senior analyst. "Driving policy discussions and decisions based on data is essential to ensuring operational efficiencies for companies and preserving a desirable quality of life for city dwellers."

The majority of survey respondents (63 percent) say businesses play a critical role in accelerating, piloting, and adopting innovative approaches to creating more sustainable urban environments. And an overwhelming 72 percent of respondents want to work closely with city officials to do so.

Manufacturers Take to Technology, Automation

Driven by globalization, intensifying competition, and rising customer demand for more options and higher quality products, a connected plant floor has become a necessity. As a result, manufacturers are adopting the Industrial Internet of Things (IIoT) to enhance visibility and improve quality, with the number of organizations achieving a fully connected factory expected to rise dramatically over the next five years.

That's one finding of Zebra Technologies Corporation's *2017 Manufacturing Vision Study*, which analyzes emerging global trends shaping industrial manufacturing. The study reveals:



■ Manufacturers will continue to adopt Industry 4.0 and the smart factory. Workers will use a combination of radio frequency identification (RFID), wearables, automated systems, and other emerging technologies to monitor the plant's physical processes and enable companies to make decentralized decisions. By 2022, 64 percent of manufacturers expect to be fully connected, compared to just 43 percent today.

■ Fifty percent of manufacturers plan to adopt wearable technologies by 2022. And 55 percent of current wearable users expect to expand their usage in the next five years.

■ Manual processes are expected to dramatically decline. Today, 62 percent of respondents use pen and paper to track vital manufacturing steps; this is expected to drop to one in five by 2022.

■ Executives across all regions cite achieving quality assurance as their top priority over the next five years. Forward-looking manufacturers are embracing a quality-minded philosophy to drive growth, throughput, and profitability. By 2022, only 34 percent expect to rate this as a top concern—signaling that improvements made by both suppliers and manufacturers will ultimately improve the quality of finished goods.

■ Manufacturers state investments in visibility will support growth across their operation. Sixty-three percent cite tracking as a core focus with a blend of technology—barcode scanning, RFID, and real-time location systems—expected to be deployed to achieve the desired visibility.

■ Fifty-one percent of companies responding to the Zebra survey say they plan to expand the use of voice technology in the next five years. The most dramatic growth for voice technology will be in the largest companies—more than $1 billion—with reported use growing to 55 percent by 2022.

Facts About Friction

The average U.S. business loses $171,340 per year through clunky payment practices causing friction in their supply chain, according to new research by Tungsten Network. This equates to almost 6,500 man hours spent chasing purchase order numbers, processing paper invoices, and responding to supplier inquiries.

Businesses estimate they spend an average of 55 hours per week on manual, paper-based processes and checks; 39 hours chasing invoice exceptions, discrepancies, and errors; and 23 hours responding to supplier inquiries, according to Tungsten Network's *Friction Index* report.

They also spend five hours on compliance-related tasks such as handling international taxes and three hours tackling invoice fraud, according to the report.

Understandably, given the wasted money and manpower, 36 percent of businesses responding to the survey state that removing friction from the payment process is a top priority for 2017. However, a full 20 percent of respondents state it is not a priority at all—perhaps an indication that the scale and cost of the problem is largely unseen.

"If businesses aren't tied up chasing invoices, they have more time to explore opportunities for growth," says Rick Hurwitz, CEO of Tungsten Network. "If all the data from past invoices is easily accessible, opportunities to identify variances that will target inefficiencies are more visible.

"The technology exists to remove this supply chain friction," he adds. "We challenge U.S. businesses to embrace digitization and enjoy the benefits of a frictionless back office."

GLOBAL

THE WORLD AT A GLANCE

The CMA CGM *Theodore Roosevelt* transits the Panama Canal's new Cocoli Locks.

Panama Canal Expansion Hits the Big Time

Two Great Pyramids of Giza, four Big Bens, eight Statues of Liberty. Lay them end to end, and you've got the equivalent length of the CMA CGM *Theodore Roosevelt*, the largest capacity vessel to ever transit the Panama Canal's expanded locks. At 12,028 feet long, the Neopanamax containership has a total capacity of 14,414 TEUs, .

The CMA CGM *Theodore Roosevelt* is part of a series of six CMA CGM ships bearing the name of the U.S. presidents. It began its voyage in Shanghai and called on ports along the U.S. East Coast, including Norfolk, Savannah, and Charleston, which have seen strong growth and record-breaking tonnage following investments made to accommodate the larger vessels now able to transit the expanded canal. The ship made its final stop on Sept. 7, 2017, at the Port of New York/New Jersey for the inauguration of the Bayonne Bridge, which was raised to handle the larger ships.

The CMA CGM *Theodore Roosevelt* is deployed on the new OCEAN Alliance's weekly South Atlantic Express (SAX) service, which connects Asia and U.S. East Coast ports via the Panama Canal. The SAX service is composed of 11 vessels ranging in size from 11,000 to 14,000 TEUs, including vessels that also transited the expanded canal earlier in May 2017, becoming the largest capacity ships to do so at the time.

Looking to 2018, the Panama Canal Authority projects it will accommodate approximately 13,000 vessels—including 2,335 Neopanamax vessels—for a record tonnage of 429.4 million Panama Canal tons.

Reaching a Point of No Returns

Online shoppers can no longer take free returns for granted. The number of UK and European retailers offering customers free returns in at least one international market dropped from 55 percent in the first quarter of 2017 to just 28 percent in the latest benchmark report from research firm ReBOUND.

Most brands are still not being up front about their returns policy, with only six percent of retailers promoting their returns policy at all three key stages of purchase—product page, basket page, and checkout page.

The Great Returns Race report tracks the return policies of more than 200 retailers using seven key metrics that measure various aspects of returns—from choice of returns options and time frames for refunds, to policy reminders and free returns.

One noticeable trend to emerge is the large drop in free returns being offered in the UK, Ireland, Germany and the United States—despite them potentially boosting online purchases by a huge 357 percent. The challenging political and economic landscape likely influenced this fluctuation, with some brands only temporarily removing free returns as a benefit for customers.

The report also shows a five-percent increase in brands offering customers different returns periods to account for varying transit times, and a three-percent improvement in website accessibility, which considers the number of "moves" it takes for a customer to access returns policies online.

"If brand loyalty is the dream, then an awesome customer returns experience can absolutely influence repeat purchase decisions," says Charlotte Monk-Chipman, head of marketing at ReBOUND. "But many top brands are still missing a trick here. The return journey begins online, long before a customer buys something and tries it on."

The Great Returns Race: Key Findings

- **7%** OF BRANDS NOW ADVERTISE **DIFFERENT RETURN PERIODS** TO ACCOUNT FOR **LONGER TRANSIT TIMES** IN MARKETS FURTHER AFIELD
- **17%** OF BRANDS STILL **DO NOT OFFER CHOICE OF LOCAL RETURN METHOD** TO THEIR CUSTOMERS.
- ON AVERAGE, IT TAKES **3 MOVES** TO NAVIGATE TO A BRAND'S RETURN POLICY ON A **DESKTOP**, **4 MOVES** ON A **MOBILE** AND **3 MOVES** ON A **TABLET** DEVICE.
- **18%** OF THE TOP GLOBAL FASHION BRANDS SIMPLY HAVE A **BLANKET RETURN POLICY** FOR THEIR INTERNATIONAL CUSTOMERS.
- ON AVERAGE, ACROSS THE **206 BRANDS** IT TAKES **10 DAYS TO PROCESS A REFUND.**
- **8%** OF BRANDS NOW OFFER **FREE RETURNS** TO ALL MARKETS **WORLDWIDE.**
- **39%** OF BRANDS STILL **DO NOT** OFFER **FREE RETURNS** IN ANY MARKET **GLOBALLY.**
- **30%** OF BRANDS USE RETURNS AS A **MARKETING TOOL** THROUGH A **PROMOTIONAL BANNER** ON THE HOMEPAGE.

SOURCE: The Great Returns Race, ReBOUND

Cold Cuts: Refrigerated Transport's Global Forecast

Globalization and technological advancements in refrigerated transportation systems and equipment are driving increased demand for temperature-controlled food across the globe. As a result, the refrigerated transport market is projected to reach 3.25 billion tons by 2022, at a compound annual growth rate (CAGR) of 2.5 percent from 2017 to 2022, according to the latest study from market research firm ASDReports.

Lack of transport infrastructure support in emerging markets and skilled resources in developed markets, and maintaining integrity during transportation of perishables commodities are the factors limiting market growth, according to ASDReports.

Among the report's key findings:

■ **Bakery and confectionery is projected to be the fastest-growing segment** in the refrigerated transport market, and is projected to grow at the highest CAGR.

Bakery and confectionery have always been attractive, with developing economies contributing more and developed economies adding value to it. Refrigeration is needed in the manufacture of other bakery products as well, to maintain product uniformity, prevent spoilage, and for storage.

■ **Asia Pacific is projected to be the fastest-growing region in the refrigerated transport market.** The region's refrigeration transport revenue is increasing rapidly due to growth in the bakery and confectionery segment.

■ **Air-blown evaporators represent the largest segment in the refrigerated road transportation market, by technology**. In this system, refrigeration unit fans direct the air to circulate around the inside portion of the refrigerated space to remove the heat. The air is returned to the cooling coil through the floor or the space under the pallets. The air-blown evaporators system is not complicated and has been used for the past few years. Refrigerated truck manufacturers widely use this technology because of its low cost and easy serviceability.

Water Works

Unmanned surface and underwater vessels will dominate maritime activity in the United Kingdom and across Europe over the next decade, according to a new report on the future of autonomous maritime systems.

Networks of autonomous surface and underwater vessels are set to radically change the nature of maritime operations, according to the follow-up to *Global Marine Technology Trends 2030*, produced by Lloyd's Register, QinetiQ, and the University of Southampton.

"Developments widely reported in the media, such as those in autonomous shipping, are happening with greater pace than expected as little as two years ago," explains Tim Kent, technical director, marine and offshore, for technical and business services organization Lloyd's Register. "These developments enabled by technology provide new opportunities and potential for disruptive business models."

The principal challenges, however, will be integrating these autonomous systems into current maritime operations, meeting legal and regulatory requirements, and determining the impact on seafarers.

"Technological advances in consumer and adjacent markets are a real opportunity for the maritime sector," adds Bill Biggs, senior campaign leader for autonomy at QinetiQ.

Applied artificial intelligence, low-cost and smaller sensors, increased connectivity, improved cyber security, and improved energy management are all likely to drive rapid and disruptive change, Biggs notes.

Some navies and transport companies have already begun trials to demonstrate the opportunities that autonomous maritime systems present. For example, in 2016, QinetiQ supported Unmanned Warrior, the largest demonstration of its type ever conducted, running as part of a major multinational naval exercise.

"It's just one example of the steps the United Kingdom is taking to keep up with the accelerating pace of change," Biggs says. ■

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The Last Mile – History Repeating As Supply Managers Face Peak Season

Nothing new is ever really created, just updated to meet the current environment or situation. When looking beyond the "hype" of all the new, innovative services and suppliers in the logistics space, we find that delivery service capability has already been efficiently and successfully implemented in the past. We only need to look back to the 1940s and the successes America experienced during World War II.

As the U.S. emerged from World War II, military tacticians credited a majority of the U.S. military's success to the U.S. capabilities of mass production, enabling the buildup of large inventories of supplies and the ability to combine civilian and military storage and transportation operations to move vast quantities of supplies to the battlefield when and where they were needed, and in the right configuration. These important logistics lessons were quickly forgotten as the war concluded.

Shifting from a wartime to peacetime economy unleashed years of pent-up consumer demand. The mass production processes that were able to produce war supplies were quickly adapted to consumer goods. However, the processes of efficient distribution methods to deliver goods to the point of consumption were not given as much emphasis—even after noted logistician Ohio State University professor Bernard J. (Bud) LaLonde provided research showing the positive impacts efficient delivery methods could have on consumer satisfaction and profitability. Consumers were content to acquire their products wherever they were available, as long as they were purchased at the "right" price.

This situation, while being updated with modern processes and technology, persisted within the retail sector for the next 60 years until the emergence and now dominance of the e-commerce retail channel and delivery of consumer goods. Moving from its status of being a consumer novelty to view goods online, it has rapidly risen to being the preferred shopping channel, enabling consumers to having virtually 24/7 access to a wide variety of products across domestic and now international geographical boundaries, bringing goods directly to their homes in a matter of days.

The efficient delivery operations that focused on movement of goods from a manufacture to a retail location are being radically redesigned to handle movement of consumer goods from a manufacture, distribution, or retail location. The lessons learned during World War II regarding the importance of being able to deliver goods when and where needed, and in the right configuration, to consumers have now become the guiding concept.

As e-commerce continued to grow throughout the 2000s, consumers continued to demand faster delivery of goods to their homes. As this shopping channel has increased, delivery time requirements have decreased. Today e-commerce business is driving approximately 12 percent of total U.S. retail sales. During 2016, same-day delivery service usage increased over 30 percent from 2015. These rapid changes are severely challenging traditional retail logistics models and operations.

To prepare for this coming shopping season, supply chain managers need to engage key stakeholders (consumers, buyers, manufacturers, procurement/sourcing, service suppliers, etc.) to review current logistics operations and strategically assess whether or not they are prepared to meet existing consumer expectations.

To achieve this goal, supply chain managers and service providers will need greater levels of collaboration and trust, to honestly and openly operate their combined logistics network. Development of a collaborative partnership framework is essential to success in this endeavor.

To learn more about Crane Worldwide Logistics:
www.trycraneww.com or
888-870-2726

LOGISTICS knowledgebase©

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Hazmat 101: Exceeding Safety and Compliance Standards

Hazmat transportation's multifaceted nature makes logistics particularly complicated, especially when companies don't realize that they're transporting such goods. Even though a manufacturer may be an expert at producing goods, it may not be as well-versed in the intricacies of transporting those materials, including unknowingly offering carriers non-compliant hazmat shipments.

Compliance is a team effort, and shippers, carriers and drivers must work together and play interdependent key roles in ensuring hazmat shipments are transported safely. By shippers giving business only to carriers well-versed in the transportation of hazmat materials, the company can ensure the shipment will remain compliant.

Defining & Identifying Hazardous Materials

Any company working with hazardous materials of any type must understand the nature of hazardous materials and the steps that should be taken to ship those goods in the safest possible manner.

By definition, a hazardous material is a substance or material that the Secretary of Transportation has determined is "capable of posing an unreasonable risk to health, safety, and property when transported in commerce and has been designated as hazardous under the federal hazardous materials transportation law." The term includes substances, hazardous waste, marine pollutants, elevated temperature materials, and other materials designated as hazardous. There is a distinction between the obvious hazardous materials, such as liquid gasoline, ammunition and explosives, and less obvious hazmat such as Class 9 commodities like lithium batteries and dry ice that don't require the transport vehicle to be placarded for domestic transport.

Hazmat Transportation "Must Haves"

All hazard classes pose risk of fines, penalties and violations if not transported properly.

Shippers that transport hazardous materials must:

- Maintain hazmat authority (either with an Environmental Health, Safety & Security expert or an outside consultant)
- Secure qualified carriers with hazmat-certified drivers
- Ensure that only qualified and trained employees have access to any part of the hazmat operation
- Stay abreast of changing regulations
- Maintain constant vigilance over *exactly* what is being shipped, how it's being shipped, and what entities are handling those shipments

Any business that uses, stores or offers chemicals of any kind should consider bringing in an expert to evaluate their processes. The risk, liability and exposure are too severe to *not* have a clear understanding of how to properly handle the hazardous products.

How to Qualify a Hazmat Carrier

When selecting a carrier, shippers should seek out one that has a hazmat department that offers high levels of service and either meets or exceeds safety and compliance standards. For insurance and regulatory reasons, many general commodity carriers have moved away from hauling hazmat over the last few years. Shippers should not assume that all carriers *will* haul hazmat or that the carriers they select will look after their best interests by ensuring shipments are compliant.

Companies should really vet the carriers they're working with. A few steps a shipper can take to qualify a hazmat carrier are:

- Verify that the carrier utilizes stringent compliance programs that go beyond what state and federal laws require.
- Request proof of operating authority, permits, safety rating, and years in business providing hazardous materials transportation services.
- Look at the carrier's financial stability, whether they hold appropriate insurance, whether they understand the classes of hazmat and if they employ experienced personnel.
- Meet with a carrier's hazmat experts to discuss processes and to get insight into a carrier's level of hazmat expertise.

Using carriers that scrutinize the hazmat shipments they accept can and does catch shipment discrepancies that could otherwise result in unsafe situations or violations at roadside DOT inspections. Such carriers minimize potential risk and liability of non-compliant shipments to the company.

LOGISTICS knowledgebase©

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Florida Seaports Weather the Storm and Thrive Through Meticulous Emergency Response Preparedness

Hurricane Irma tested the emergency response preparedness at every seaport in Florida. This unique hurricane covered the entire state and closed every major fuel and cargo operation at our seaports over several days, and provided us with some keen insights concerning local and state continuity of operations and resumption of business plans.

Many lessons were learned in 2005 from Hurricane Wilma, including the critical securement of infrastructure and terminal power. As a result, the ports sustained minimal damages from Hurricane Irma, kept terminals open as long as possible, and reopened in record time.

Ports worked with the Governor's Office, law enforcement, U.S. Customs and Border Protection, U.S. Coast Guard, U.S. Army Corps of Engineers, harbor pilots, Department of Transportation, and state Emergency Operations Centers. The coordination of these entities secured ports and made allowances for priorities: petroleum, cruise passengers, and perishables.

Coast Guard, U.S. Army Corps of Engineers and the harbor pilots expedited channel surveys so ships could return to port and we could resume normal business activities as soon as possible. The petroleum terminal operators at the ports maintain a storm reserve supply that protects their tanks during the storm, and so that they can begin making deliveries to retail gas stations following the storm before ships are even allowed to re-enter the port.

Off-port staging areas for empty tank trucks away from the coast were established so the truckers could be ready to return to the port as soon as it was safe to resume fuel deliveries. The terminal operators helped us prioritize the reentry of petroleum ships to meet the highest needs after the port re-opened; many ships waited a safe distance offshore for the storm to pass in order to start moving in as soon as the port condition status was decreased.

While fuel was getting on to the ports quickly, there was a problem in the supply chain because distributors and truckers could not possibly keep pace with the demand, and highways were full of evacuees. In some cases, debris was blocking roads and powerlines were down, further prohibiting deliveries.

To solve the issue, Florida Governor Rick Scott directed the Florida Highway Patrol to escort fuel trucks from Florida's petroleum seaports to the gas stations to re-supply the gas stations quickly. He also appealed to the federal government to temporarily lift the Jones Act so non-U.S. petroleum tank ships could enter the ports directly. Governor Scott also waived truck weight limits and engaged other states to do the same.

After the storm passed, the port's highest priority was completing a damage assessment of access roads to the terminals so that they would be clear for trucks to resume operating as soon as the systems at the petroleum terminals were restored. Since having power restored was critical for the petroleum terminals to receive deliveries, ports worked closely with power companies to focus on this critical need.

The preparations done before Hurricane Irma allowed Florida seaports to perform efficiently and safely before, during and after Hurricane Irma. The state's ports are always growing and developing, and will continue to implement emergency preparedness techniques to ensure our practices and equipment are on the cutting edge.

E-COMMERCE

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Leverage Holiday Fever with Collaborative Supplier Management

The holiday season—and accompanying spike in product demand—is no longer confined to the end of the year. With holiday celebrations in at least eight months each year—from Valentine's Day to Easter and the Fourth of July—and nearly every product category from candy to clothing and home furnishings affected, retailers need to fine-tune their e-commerce strategy to capitalize on consumers' growing appetite for seasonal items.

The biggest challenge in this increasing focus on seasonal merchandise lies in the lifespan of these events. Retailers face short cycles as well as mounting pressure to reduce costs and minimize risk. These constraints—along with added emphasis on responsible sourcing, the disruption created by Amazon's e-commerce operations, and the competitive pressure to innovate the supply chain—create a compelling need for supply chain teams to rethink how they engage, manage, and sustain supplier relationships.

Seasonal Shift

The intensity of the seasonality-driven retail paradigm requires a shift from short, tactical models to strategic, collaborative models that emphasize the value logistics suppliers can deliver to the overall business.

Integrated technology platforms that bring innovation in spend analysis, sourcing, sourcing optimization, contract management, and supplier value management to bear on complex and critical categories can help teams get the answers they need to pressing questions such as:

1. Who are we spending with? How much? Where are they located? What are the shipping transit times? What is their capacity?

2. Are there other suppliers with whom we might engage to reduce risk?

3. Which suppliers have worked with us on potential obstacles and ways to resolve them?

4. Which suppliers repeatedly bring forth innovations that drive top-line growth or cost savings?

5. Can supplier production keep pace and exhibit the flexibility needed to adapt to the fickle demands of today's e-commerce consumers?

6. Can suppliers deliver the products at a price point that results in purchased online shopping carts?

Savvy supply chain teams are then able to design and implement the sophisticated strategies necessary to navigate the vagaries of consumer demand, market conditions, and unexpected disruptions. Examples include:

- Using routing guides, developed through sourcing initiatives for carrier selection based on capacity, price, and performance to drive load tendering to the best value carriers.
- Identifying emerging lanes to ensure that freight pricing remains competitive even as the network changes.
- Working closely with carriers and internal stakeholders to minimize unnecessary expenditures driven by costly surprises that may drive a transit mode shift.
- Continuously improving data consistency to drive even more value from future sourcing initiatives.

By leveraging a collaborative approach to sourcing, and having a strategy in place for ongoing management and measurement of logistics and supply chain partners, supply chain teams can work together with their stakeholders to make the most of the holidays—every single one of them. ■

BY KEITH LA LONDE
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Buying a Cloud-Based WMS? Get Grounded

Warehouse management systems (WMS) run the gamut from sophisticated and flexible standalone options to supply chain execution suites to enterprise resource planning tool extensions. As with many data-driven functions, cloud-based solutions have grown in prominence and mindshare. One of the biggest misconceptions, however, is that adopting a cloud solution naturally drives cost savings. But hidden costs can negate potential savings, so be sure to carefully evaluate cloud-based offerings.

One of the most compelling reasons managers consider a cloud-based WMS solution is its potential for scalability. The cloud seems to offer an almost infinite amount of room to grow and adapt as your organization's needs change. But this perceived flexibility comes with several caveats that buyers often overlook in the fine print. Here are five points to consider when purchasing a WMS:

1. Data restrictions. Most contracts for cloud-based WMS solutions include restrictions that limit the amount of data that can be stored. Depending on your particular needs, this may equate to only one week's worth of data. Do you understand your needs, and know what happens if you require a larger database footprint? What is the additional cost for that extra capacity?

2. Customization. Can the cloud-based WMS you are considering be customized and modified? Many solutions offer a take-it-or-leave-it platform with little flexibility for additional screens, reporting, and workflow rules.

Because multiple users need to run on a single instance of the WMS, most modifications are not possible because they risk impacting others. The result is that someone who needs a specific workflow or rule change will often be steered to the cloud offering's "single tenant" mode, which ends up being more expensive than a typical on-premise solution.

3. Data ownership. If the time comes for your company to migrate from one cloud offering to another provider, how easily can you accomplish this? And what happens to the data stored in the current system? Most cloud offerings do not provide data export routines or a direct connection to the database. Don't underestimate the value of your data.

4. Pricing. Although a low initial price can be enticing, many cloud-based WMS users quickly discover there are extra costs involved in using these platforms. Just how many different ways can users be charged? By database size or by network utilization? Or perhaps by CPU utilization?

5. Training and support. A successful WMS deployment requires hands-on expertise and knowledge of best practices to ensure that processes get up and running smoothly. WMS platforms can be complex, causing a warehouse's operations to grind to a halt if things go wrong. Without adequate training and support, even a seemingly affordable WMS can quickly become costly.

Conducting a Grounded Review

The WMS plays a pivotal role in the supply chain, tracking the movement of products and materials within the four walls of the warehouse. Users should measure the effectiveness and cost of every WMS, including cloud-based solutions, by the same comprehensive yardstick.

Can it support warehousing needs, including receiving, adding, picking, quality control, shipping, reporting, and forecasting? Can it streamline warehouse processes and optimize product flow? Conduct a grounded review and read the fine print. ■


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VIEWPOINT

BY ERIC R. BYER
President, National Association of Chemical Distributors
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Reliable Rail Service Hinges on Reform

Freight rail is a vital link in the logistics professional's arsenal, connecting businesses with downstream users and consumers. America's railway system has a long and storied history, playing a pivotal role in the growth of our nation. Until recently, 26 railroads were in operation. Today, there are only seven rail providers, with just four controlling 90 percent of the traffic.

While freight rail companies have decreased in number, they've also been protected from competition for nearly 35 years. More than 140,000 miles of rail lines crisscross the country, but more than 75 percent of rail stations are serviced by only one major railroad. Imagine if our nation's busiest airports were serviced by only one airline. You'd expect astronomical prices, long lines, and mediocre service. These are the problems many freight rail shippers are experiencing around the country.

Freight rail service has experienced a 98-percent rate increase since 2001, and the higher rates aren't paying for better service. Shippers wait the same amount of time for their loaded cars to move today as they did in 2005, according to the Rail Customer Coalition. Instead, shippers' revenues that could be dedicated to creating more jobs or investing back in the community are often siphoned off to pay dramatically increasing freight rail rates or to make accommodations and improvements driven by their sole rail provider.

Lack of competition also leads to unexpected disruptions, which can significantly impact shippers. Whether it's a sole rail provider refusing to adhere to switching timelines, a small chemical distributor being denied service, or any of the problems outlined in a recent letter from the Surface Transportation Board (STB) to the president and CEO of CSX, the arbitrary decisions freight rail providers are able to make in the absence of competition sideline companies depending on rail service.

The STB is charged with resolving issues for the industries relying on freight rail. In past years, the STB has been thwarted in finding solutions to unreasonable rates or poor or denied service. Recently, a diverse group of trade associations and businesses from the manufacturing, distribution, energy, and agricultural industries—including small, family-owned businesses that depend on rail service—came together to support STB reform in hopes that it would provide much-needed rail competition throughout the country.

Full Steam Ahead

STB reform legislation was successful, and a newly invigorated STB is examining proposals that would add more rail competition by adjusting the requirements for competitive switching, a process by which shippers currently served by one major rail carrier can gain access to another at a nearby switch point served by more than one railroad. Under the proposed process, rail customers pay the costs involved in the switch, but they gain access to free-market competition. The STB is also looking at ways to streamline the process by which companies resolve rate disputes with their rail carriers. We applaud their efforts.

By letting market forces dictate rates and improve service, freight rail competition can be accomplished. Taking these steps will improve the ability of the essential industries that are reliant on rail—as well as the many other businesses that help power America—to grow and to thrive for years to come. ■

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Smooth Sailings: Roll-on-Roll-off

When weighing ocean transportations options, you want more than the price. You want the full picture. Cost, time, quality and risk assessment are some of the many parameters that need consideration. Among the plethora of ocean transportation options is Roll-on Roll-off, better known as RoRo.

As reducing damages reduces cost, so too does reducing time.

RoRo vessels provide great flexibility to accommodate different types of cars, trucks, project cargo, construction and agriculture equipment. Not all types of cargo are built to fit in containers, so why force the round peg through a square hole?

RoRo vessels have multiple deck heights and adjustable deck heights to accommodate tall, wide, heavy and out-of-gauge cargo. The vessels' ramps also reduce the need to lift cargo onto a vessel during loading and discharging operations. Instead the cargo can be loaded via the vessel's ramp, and in many cases, under the cargo's own power. In turn, the cargo is less likely to sustain damages.

The way cargo is secured on a RoRo vessel for transport can also reduce damage. Whether it's a component of a machine being loaded on a trailer, or a construction excavator being driven aboard on its own power, each piece of cargo is secured directly to the vessel to limit movement during transit. And while at sea, vessel staff makes routine rounds, checking on all cargo to ensure lashings are properly securing the cargo. All of these safety measures offer peace of mind and reduce extra costs.

As reducing damages reduces cost, so too does reducing time. When preparing cargo for transport in a container, time and resources are dedicated to disassembling the cargo for transport, assembling the cargo upon arrival, or both. It can cost thousands of dollars to break a piece of cargo down and rebuild it, where loading the cargo onto a RoRo vessel in one piece drastically reduces those costs. In addition, RoRo carriers offer extensive networks in all major trade lanes to get your cargo to market frequently and on time.

Wallenius Wilhelmsen Logistics (WWL) recently completed the first shipment of machine components from Japan for a vehicle manufacturing plant in Nevada. The customer traditionally shipped components in containers and was looking for a solution to their costly disassembly and assembly processes. Instead of placing the components into containers and reassembling them upon arrival, WWL's approach allowed for the machines to be transported fully assembled. The switch to RoRo saved the customer millions of dollars in assembly costs. This is just one example of many customers who've realized the benefits and cost effectiveness of going RoRo.

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Supply Chain Challenge?
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Creating an Omnichannel Approach For a Sporting Goods Maker

THE CHALLENGE

The client is a leading global designer, manufacturer, and marketer of consumer products in the global outdoor and sporting goods market with distribution through wholesale and e-commerce retail chains.

The client faced:

- Dependence on a primary wholesale business model for the majority of its revenue.
- Increasing global demand for its products (9.8% CAGR in the segment).
- Increasing buying and distribution pressures from specialty retailers.
- Loss of large retail sporting goods chains due to bankruptcy.

The client determined that in order to remain competitive in the segment in the near and long term, it would need an omnichannel strategy that would allow its products to be distributed seamlessly via e-commerce, retail, and wholesale channels.

Realizing this would enable it to take advantage of the rapidly changing outdoor and sporting goods market, along with addressing the challenges and opportunities, it turned to Crane Worldwide Logistics to help develop this new strategy.

THE SOLUTION

Working with the client, Crane Worldwide Logistics participated in the analysis of the client's current business model, which included a detailed review of:

- Consumer market growth trends impacting the outdoor and sporting goods market.
- Growth and strategic direction of wholesale customers.
- Growth of e-commerce retail at 13% CAGR in the segment.
- Profitability analysis of current customers and product distribution mix.
- Review of supplier sourcing countries and current supplier relationship management programs.

This was to determine the optimal logistics network structure to support the client's new strategy as well as allow them to establish a large online presence and branded retail chain using a small specialty store format. The proposed network structure was jointly developed using both Crane Worldwide Logistics and the client's logistics capabilities and technology, resulting in seamless distribution to their e-commerce, retail and wholesale clients. At Crane Worldwide Logistics, we are committed to continuously seeking out innovative solutions to bring value to our clients and their customers.

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INTERMODAL BENEFITS COME INTO FOCUS

Intermodal is looking sharp to a growing number of shippers, thanks to tightening truck capacity, new service options, and infrastructure improvements.

BY MERRILL DOUGLAS

Following a slow stretch in 2016, intermodal transportation is picking up speed in North America. Total intermodal volume in the second quarter of 2017 was 4.5 percent higher than in Q2 of 2016, according to the Intermodal Association of North America (IANA). That represents the strongest growth in three years, IANA says.

The biggest increase came in international intermodal freight; volume rose by 5.6 percent compared with 2016. But North American shippers have been moving more domestic containers and trailers, too. Volume for those boxes increased by 3.2 percent and 3.9 percent, respectively.

Intermodal volumes ebb and flow in response to several related forces: truck capacity, trucking rates, and general demand for transportation. Until recently, in the United States, those forces were working against the intermodal market. "Increased competition by way of surplus truck capacity, paired with only modest increases in consumer demand, have been a driving force behind these trends," says Mark McKendry, vice president, intermodal at asset-based third-party logistics (3PL) provider NFI in Cherry Hill, New Jersey.

NFI equips its intermodal containers with technology that allows shippers to track their freight from origin to destination.

Today, the trucking market is starting to tighten. "As truckload spot pricing increases, shippers are once again looking to rail to save money and add capacity," says Matthew Decker, vice president of intermodal at Chicago-based Coyote Logistics.

Coyote, owned by UPS, provides door-to-door intermodal solutions via its wholesale relationships with the railroads, as well as customized door-to-ramp solutions and drayage management, with services throughout North America.

The Price is Right

Shippers turn to intermodal when they're looking for better prices, says Rick LaGore, CEO at Intek Freight and Logistics in Indianapolis. Intek provides door-to-door intermodal service through its direct relationships with the railroads. It also provides ramp-to-ramp service with drayage at either end, and it repositions sea containers.

"Not every rail intermodal lane will be able to save you money," says LaGore. But when the origin and destination are reasonably close to intermodal terminals, that mode can provide advantages.

Today, shippers who keep an eye on over-the-road (OTR) capacity and pricing are especially concerned about what will happen after December 2017, when carriers must comply with a new federal requirement to install electronic logging devices (ELDs) on commercial trucks. The rule could force some carriers out of the market and—by monitoring hours of service (HOS) compliance more precisely—cut the number of hours that drivers are available to move freight. Those constraints could push more shippers toward intermodal.

Among shippers making that move could be companies that need to transport temperature-controlled products such as fresh produce, frozen foods, and pharmaceuticals. "Many shippers don't know that temperature control is an option on intermodal," says LaGore. The rails don't carry a great many temperature-controlled intermodal containers today, he says. But service providers could start to boost those numbers as more shippers realize the value such boxes offer in certain lanes.

The pricing for temperature-controlled intermodal works out best when the origin and destination are both within 50 miles of a rail terminal. "More of this product will be moving between major cities, such as Los Angeles to Chicago, Chicago back to Los Angeles, or Seattle to Chicago," says LaGore.

NFI customers that use temperature-controlled intermodal can monitor the condition of their products en route, and NFI makes sure those products stay in good shape. "Our state-of-the-art, telematics-equipped containers provide the ability to adjust temperatures remotely," says McKendry. Customers also can get real-time reports on a container's location and estimated time of arrival, plus a suite of diagnostic tools.

Rails Keep Getting Better

Along with better pricing, proliferating service options and improved performance are also drawing shippers toward intermodal. "The rails' intermodal service is far better than it was from a historical perspective, even compared to five or six years ago," says Decker. "Many lanes with competitive intermodal services simply didn't exist a decade ago."

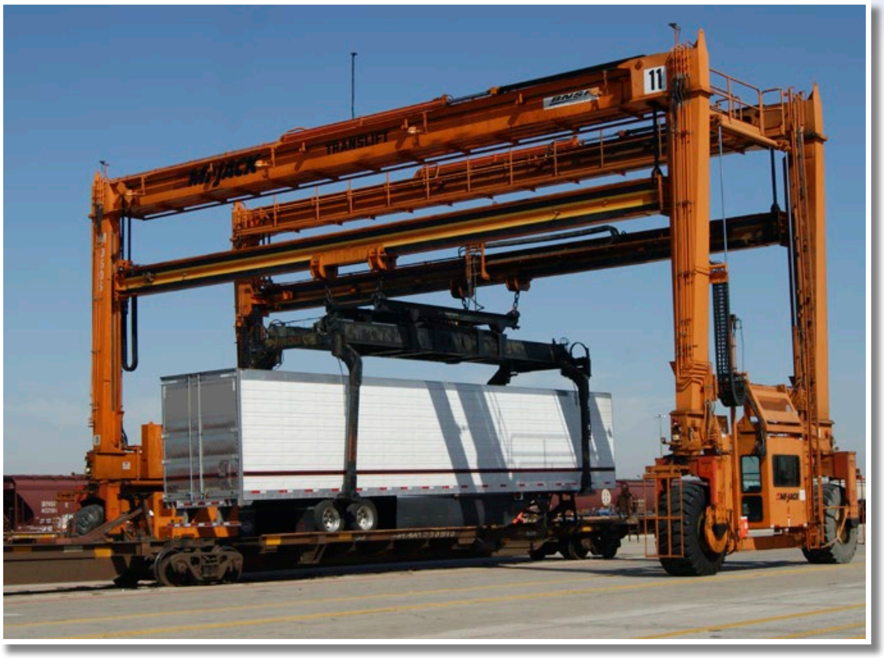
Weather events in the West and significant network changes in the East accounted for a downturn in service quality in 2017, Decker says. But the railroads continue to make improvements, adding double tracking in new areas, adding or expanding terminals, and applying technology to make their networks operate smarter and faster.

As one example, Decker points to CSX's new terminal in Pittsburgh. "CSX also announced plans to build a

Rocky Mount, North Carolina, facility, currently slated for a 2020 opening," he says. "Whether it's new facilities that reduce the length of drayage hauls, or new lane offerings between existing terminals, any increase in intermodal network density makes the service that much more attractive to shippers."

Sometimes, a Class I railroad doesn't even need to build a facility to make new options available. "CN [Canadian National] has been very creative, partnering with various shortline railroads to help them provide service in areas where they otherwise would not have a ramp," says LaGore.

For example, through a partnership with the Indiana Railroad, CN now offers service from Canada's West Coast ports to Indianapolis, letting shippers avoid the congestion they would encounter in Los Angeles-Long Beach and Chicago.



Intermodal railroads, including BNSF, continue to upgrade services and infrastructure to lure shippers away from using over-the-road transportation.

Intermodal Across the Border

Shippers that move freight between the United States and Mexico received good news in December 2016, when BNSF and Kansas City Southern jointly launched a new set of cross-border intermodal services. One new lane links Chicago and Dallas/Fort Worth with five-day-a-week service to and from Monterrey and San Luis Potosi or Toluca, with additional service to Laredo, Texas.

"These services provide transit times that are competitive with over-the-road options and, unlike truck shipments, they don't have to stop at the border for customs clearance," says Tom Williams, vice president, consumer products at BNSF. "Instead, shipments travel in-bond, clearing customs at origin and destination in Mexico."

BNSF also started a new intermodal service in 2016 between the Northwest and Texas.

Besides adding terminals and routes, the Class I railroads also continue to upgrade their infrastructure. BNSF, for example, has been adding double track to its Southern Transcon—the corridor between southern California and Chicago—since 1992.

"In 2016, we constructed the new Pecos River Bridge and secondary mainline in New Mexico, so that we are 99.8-percent double tracked along this route," Williams says. "This allows for increased volume and improved velocity and fluidity." BNSF has also spent $5 billion over the past several years on maintaining and expanding its Northern Corridor, from the Pacific Northwest to Chicago.

Along with track improvements, terminal upgrades are crucial to fast, reliable intermodal service. BNSF has spent more than $1.2 billion since 2002 on projects to expand capacity and improve velocity at its intermodal hubs, says Williams. On the capacity side, it is adding more track, more cranes to load and unload trains, and more parking for trailers and containers.

BNSF is also implementing technology to speed freight in and out of its facilities. For instance, at its Phoenix, Houston, and St. Paul terminals, the railroad is adding new automated gate system (AGS) technology, with biometric driver identification, license plate recognition, and tire inspection portals.

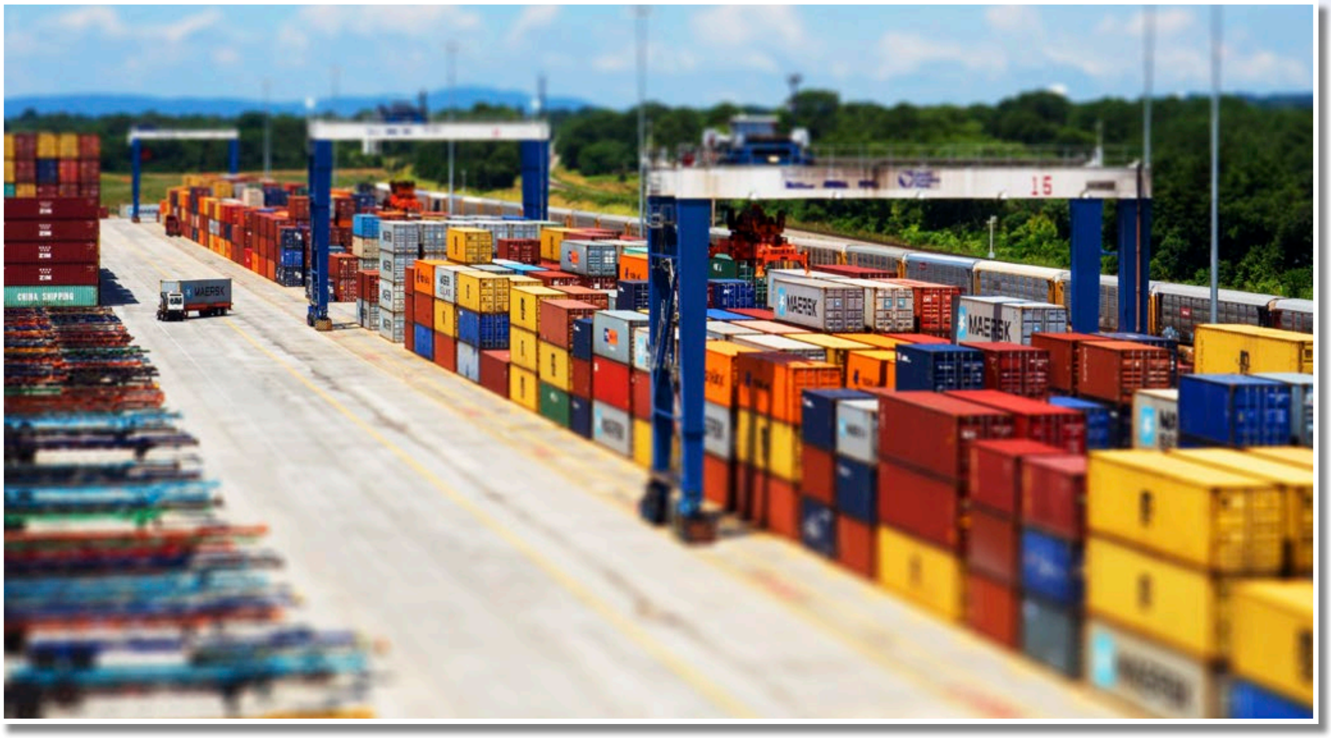
"The AGS reduces the amount of time that a driver spends at our gate from three to five minutes to as fast as 30 seconds," Williams says. Eighty-five percent of freight moving through BNSF facilities will go through an AGS when the technology is fully up and running at those three terminals.

Despite upgrades of that sort, terminal congestion continues to pose challenges for intermodal freight. "It's a complex problem that's connected to the shipping community's seasonality and weekly patterns," says McKendry. Some regions have seen improvement, but others, such as Chicago, continue to struggle due to the volume of demand and the concentration of the network in that area.

Moving With Precision

Promising solutions do exist. "Reservation systems, although imperfect, can help to give rails and port operators visibility to inbound and outbound truck arrivals," McKendry says. "Precision railroading can lead to timely departure and placement of trains at terminals. Consensus on better rail routing around or through Chicago would also lead to reduced congestion."

Precision railroading, a concept championed by Hunter Harrison, the new chief executive officer at CSX, operates trains on a tight schedule, regardless of whether they are empty or full. The move to precision railroading has gained a great deal of publicity.



In the second quarter of 2017, total intermodal volume posted its strongest growth in three years.

"It has been off to a rocky start," Decker cautions. "It is unknown whether those changes will pay off with long-term service improvements."

While railroads improve their networks, 3PLs and intermodal marketing companies also work to give shippers more bang for the intermodal buck. NFI, for instance, promotes its use of containers that are built to sit on an intermodal well car, which allows for double stacking—a strategy the railroad can't use when it loads an OTR trailer on a flatcar.

"Double stacking often carries significant economic advantages to the shipping community and to the railways themselves," McKendry says.

Since UPS acquired it in 2015, Coyote Logistics has gained inexpensive access to intermodal containers that UPS needs to reposition, and which would otherwise move empty. Coyote has used those containers to help some customers.

For example, one major packaged foods shipper used to run truckloads from the Greensboro, North Carolina, area to Chicago and New Jersey. "UPS consistently had surplus equipment in Greensboro, and access to the Greensboro intermodal ramp, which, until recently, was exclusive to UPS," Decker says. "Coyote put this excess capacity to use and created an intermodal solution that wasn't previously available."

Coyote offered similar help to an importer that used to truck high-value freight from PortMiami to a distributor in Alabama. The truckload service was much less expensive than the available intermodal option. But after several on-the-road cargo thefts, the shipper looked for an alternative.

"Miami to Jacksonville happened to be an empty-reposition lane for UPS," Decker says. "Coyote used that empty intermodal capacity and dedicated a competitive drayage option from Jacksonville to the distributor in Alabama." The solution cost about the same as OTR and offered tighter cargo security.

Rail Takes Ports Inland

One more force that has made intermodal attractive to shippers in recent years is the development of new inland ports—rail terminals that provide manufacturing plants and distribution centers with easy connections to major seaports.The South Carolina Ports Authority (SCPA) has operated an inland port in Greer since 2013. In March 2017, it broke ground on a second facility, Inland Port Dillon.

Inland Port Greer extends the Port of Charleston's operations 200 miles into the interior. "Any time you can build infrastructure related to short haul, containerized rail to have overnight train service, that's a good thing," says Jim Newsome, SCPA's president and CEO.

A base of eight to 10 customers close to Greer, plus the presence of a Norfolk Southern (NS) line, encouraged the SCPA to develop Inland Port Greer. One of those key customers was BMW Manufacturing.

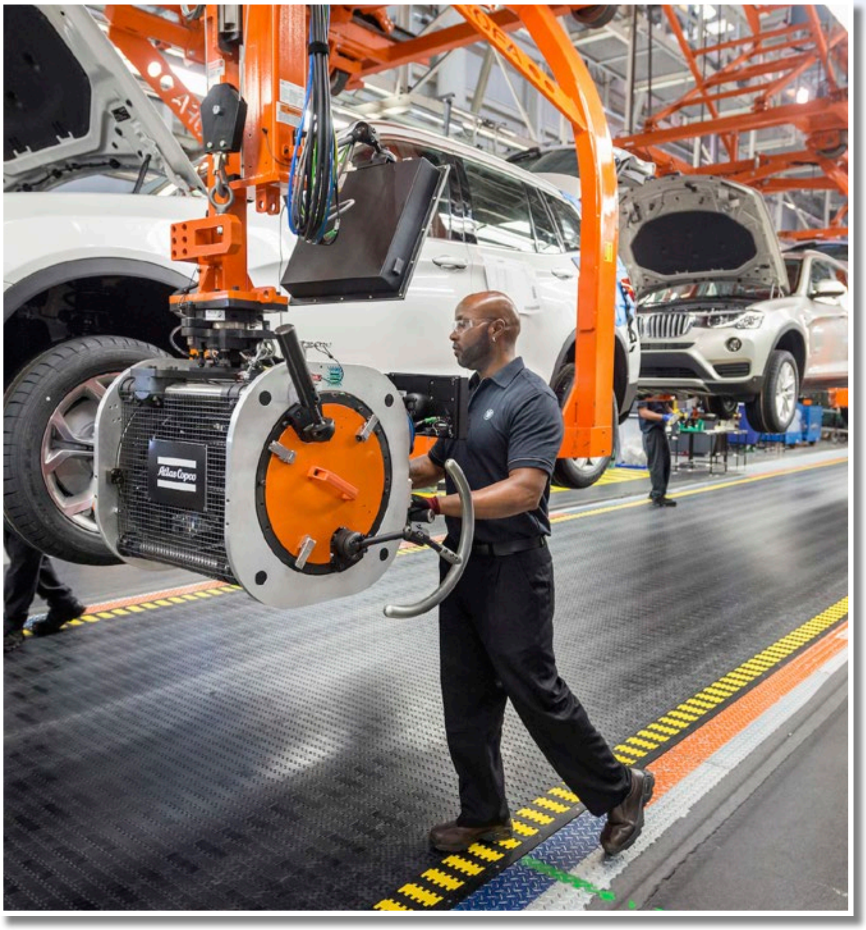
"BMW had signaled a willingness to NS to shift their containerized volume to short-haul rail," Newsome says. "We said, 'We have some property in Greer, and we'd like to build an inland port.' That's how it started."

BMW's plant in Spartanburg, South Carolina, next door to Greer, is its largest manufacturing facility in the world. In 2016, it assembled about 411,000 vehicles. The plant imports components from Europe through the Port of Charleston. It also uses Charleston to export car assembly kits—painted bodies and all the necessary components—to Russia, Brazil, Thailand, and other markets where import regulations encourage companies to do final assembly at local plants.

Before the SCPA developed the inland port, BMW used trucks to move containers to and from Charleston.

A few years ago, however, shipment volumes reached a point where intermodal made better economic sense. "BMW was looking to move freight from the road to rail, NS was ready for this business, and the SCPA was ready to expand its business into an inland port," says Alfred Haas, department manager, material and transportation control at BMW Manufacturing in Spartanburg.

NS moves about 250 containers from the port to Greer for BMW each night. Thoroughbred Direct Intermodal Services, an NS subsidiary, manages BMW's inventory at the inland port, delivering components to the assembly line as needed. "We give a signal to the inland port, and they pick up the sea container and put it on a chassis," Haas says. "We have agreed on about a 90-minute window to move the containers to our place and get them unloaded so that parts are being used several hours later on the assembly line."



The South Carolina Ports Authority invested $5.3 million to upgrade its 50-acre inland port in Greer. The operation enables manufacturers such as BMW to store and move materials quickly to meet tight production deadlines.

Reducing Costs and Footprint

The logistics partner also delivers parts from Spartanburg to a BMW consolidation center, where it loads and delivers sea containers to Inland Port Greer for rail transfer to the Port of Charleston.

Besides saving money, BMW has reduced its carbon footprint by switching from OTR to intermodal. "With 250 trucks moving two ways, we achieved a tremendous reduction in CO_2 emissions by bringing those trucks onto the rail," Haas says.

Facilities at Inland Port Dillon will be similar to those at Inland Port Greer—a set of long concrete pads with lift machines along the mainline rail network. The new port is on the CSX line that runs between Charleston and Rocky Mount. Retailer Harbor Freight Tools will serve as the anchor customer in Dillon, receiving cargo that it imports through the Port of Charleston.

The Dillon region is also home to several exporters, such as companies that produce wood pulp and agricultural products, that could send containers on the rails back to Charleston.

"It's important to have a reasonably balanced flow of containers," Newsome says. Too heavy an emphasis on either imports or exports at an inland port can drive up costs, as empty containers need to be relocated.

The inland ports are part of the SCPA's ongoing strategy to encourage and attract intermodal shipping. "When I joined the port in 2009, we were doing only 12 percent of our volume by intermodal container rail," Newsome says. "Now we do 22 percent on much higher volume."

Because the Port of Charleston doesn't have on-dock rail facilities, it started its own rail drayage program, controlling and coordinating all container movements to and from the railroads. "We made it easier for shipping lines to do rail via our port," Newsome says. "We've grown from about 80,000 rail intermodal containers per year to about 300,000."

Along with the new Inland Port Dillon, intermodal shippers can look forward to a new facility at the Port of Charleston itself. This is a container transfer facility under construction by the Palmetto Railway, a short-haul line owned by the state of South Carolina. It will be close to the new Hugh K. Leatherman, Sr. container terminal, which the SCPA expects to open in 2019.

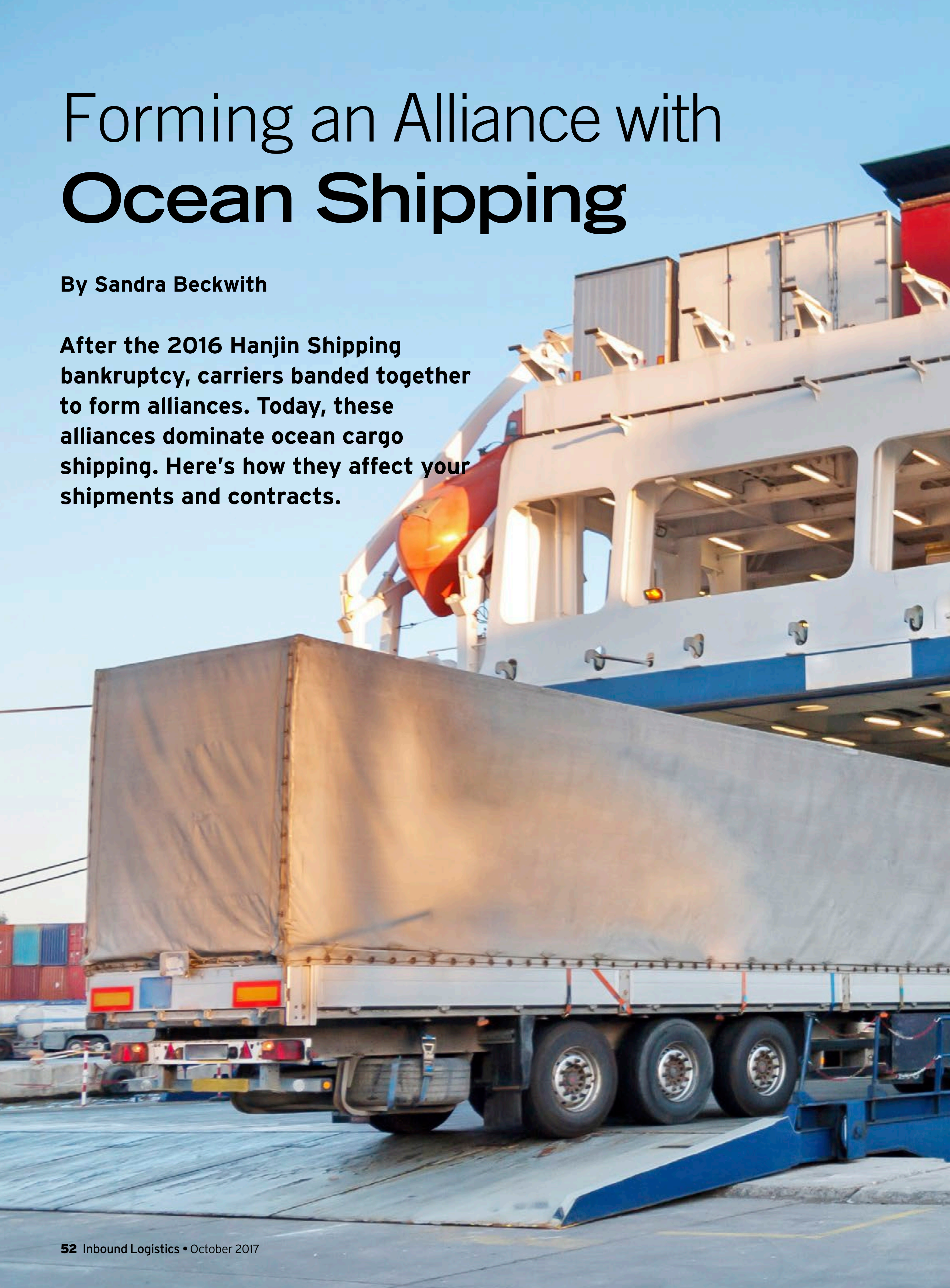
"This facility will have a private access road to the intermodal transfer facility," Newsome says.

Thanks to developments such as the ones in South Carolina, plus the efforts of the railroads, and ongoing concerns about trucking capacity, even more shippers could soon include rail intermodal in their strategies for cost-effective transportation. ■

Forming an Alliance with **Ocean Shipping**

By Sandra Beckwith

After the 2016 Hanjin Shipping bankruptcy, carriers banded together to form alliances. Today, these alliances dominate ocean cargo shipping. Here's how they affect your shipments and contracts.



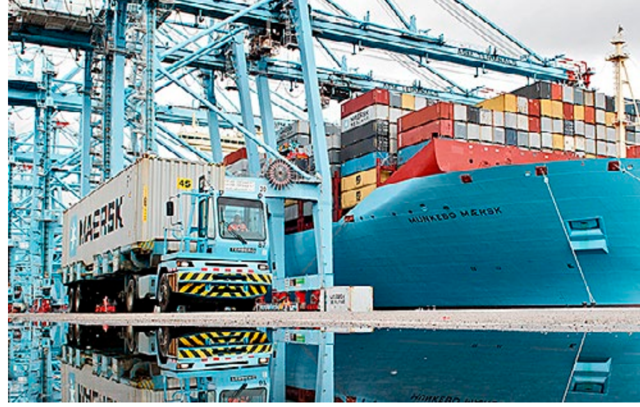
Without ocean cargo, there would be rough seas ahead for the U.S. import-export business. Water is the leading international transportation mode in terms of both weight and value, according to the U.S. Department of Transportation's Bureau of Transportation Statistics. In 2015, ships transported 71 percent of international trade weight and 48 percent of its value.

But the ocean cargo waterfront changed for shippers earlier in 2017 when most major ocean carriers further consolidated from four alliances to three: 2M, Ocean Alliance, and THE Alliance (*see sidebar, page* 56).

While carrier alliances existed already, the new partnerships are more than the slot charter or vessel-sharing agreements of the past. "These alliances are much more proactive about planning what the future holds for members," says Molly Bailey, director, international, for Transplace, a non-vessel-operating common carrier (NVOCC) based in Frisco, Texas. "It's not just about how they can share getting cargo from Point A to Point B. There's much more proactive thought going into how these carriers are collaborating."

Today's ocean alliances can be traced back several years to Maersk Line's investment in a fleet of ships that were larger than any other carrier's. Because the expanded capacity helped the company lower operating costs per container, it could reduce its rates. To remain competitive, other carriers followed suit with larger vessel purchases—which led to too much capacity in the marketplace. It became harder for carriers to remain profitable, as evidenced by the 2016 Hanjin Shipping Co. bankruptcy.

So carriers began banding together to manage capacity and routes. The current alliances now represent more than three-quarters of all global container capacity. The remaining volume is spread over niche operators serving smaller regions.



Maersk Line partnered with Mediterranean Shipping Company, Hyundai Merchant Marine, and Hamburg Süd to form the 2M Alliance.

The impact of the new relationships on shippers remains to be seen, but some had to adjust when new partnerships forced alliances to change some lanes and ports served. "Shippers were tolerant of the changes and accepted that they had to find alternatives for certain lanes, even when contracts were in place," Bailey says.

Those same changes have had an impact on timelines, too. "In some cases, transit times are longer because some ports are losing direct calls," says Nerijus Poskus, vice president of global pricing and procurement at Flexport, a web-based freight forwarder headquartered in San Francisco.

For example, Portland, Oregon, generally doesn't have enough cargo to fill the largest vessels, so freight destined for the city is often delivered to Seattle and transported to Portland by ground.

Capacity and Congestion

In addition, increased capacity and port congestion can cause delays. "Once freight moves to the level of a 22,000 TEU (20-foot equivalent unit) vessel, the time to unload at the port will increase," says Vince Santinello, ocean business development and route manager, global forwarding, at C.H. Robinson, a Minnesota-based third-party logistics provider. "Having a chassis available for that freight also becomes an issue."

Shippers can feel reassured that their carriers are less likely to repeat the Hanjin bankruptcy scenario, where container delivery was delayed for months in some cases, Bailey says.

"While it's still to be determined, it seems that these carriers working together through alliances must trust that each partner is financially solid," she says. A March 2017 announcement from THE Alliance reinforces that message, stating that the group has a contingency plan designed to protect shippers from risks associated with any participant carrier's bankruptcy.

Getting on Track

The alliances offer greater potential for capacity management, according to Fauad Shariff, CEO of The CoLoadX Corporation, a New York company that provides a technology platform used by both freight forwarders and NVOCCs.

"The black hole of logistics has been tracking," he says. "Partners have an opportunity to develop a unified tracking standard within the alliance that integrates with railroads and trucks, creating better access to information about container capacity at inland ports."

To help shippers get the most from their relationships with the ocean alliances, experts recommend the following best practices:

1. Spread cargo across all three alliances. "The ability to work across all alliances will be critical," says Santinello.

Bailey agrees, adding, "When negotiating rates and space, divide your business as equally as possible across all three alliances so you don't have all your eggs in one basket."

2. Look for dedicated space allocations with specific carriers. An allocation is a commitment from the carrier that the space will be there when you need it.

It's a solution to a problem caused by a shipper's ability to cancel a booked shipment, even at the last minute, without being penalized. That leaves the carrier with reserved space that is now empty. As a result, carriers overbook.

Current ocean freight alliances represent more than 75 percent of all global container capacity.

"It's not unusual for an ocean carrier to book 100 percent more than it can transport," Poskus says "If you don't have an allocation, your cargo could get bumped." Allocations are with carriers, not alliances, he adds.

3. Pay attention to alliance partnerships on the ground. Because ocean carriers manage the inland portion of the cargo's journey, too, alliance contracts with rail lines will determine how your cargo moves to its post-port destination. Contracts that fall outside of the shipper's control will have an impact on cargo timelines.

"Rail lines offer potentially different transit times," cautions Poskus. "Some have better connection points than others, and some have on-dock rail while others don't. Be certain to take all of this into account when making carrier decisions."

4. Revisit contract language. Deal with potential risks by addressing them in the contract.

"In the past, a shipper's biggest risk was predicting and locking in freight rates for the upcoming year," says Cory Margand, co-founder and CEO of SimpliShip, a Rochester, New York, technology company that develops APIs—software-to-software connections—with companies such as Kuebix, a transportation management system provider. "The potential for carriers to change alliances and/or form new ones creates risks associated with capacity and port callings as well."

Because of the Hanjin bankruptcy crisis, Bailey has seen shippers now require that a certain percentage of cargo be moved on the carrier's own vessels rather than those of others in the alliance. "It can give some peace of mind, but could cause logistical challenges or delays if a partner vessel is in the rotation when you need to ship," she says.

Some shippers are adding contract language that allows them to negotiate to reduce the committed volume if the carrier's performance metrics, such as on-time delivery, fall or the carrier changes direct port calls.

5. Leave it to the experts. Managing ocean transportation can be a complicated, detail-oriented business. One carrier's cut-off date for the port of loading on a certain day might be different from another carrier's for the same day. Miss that cut-off and cargo sits for one week, waiting for the next sailing. Or, changing carriers at the last minute means you've got an empty container you can no longer use because it's a different carrier's asset.

Freight forwarders and NVOCCs are skilled at managing costs, meeting all cargo requirements, and guiding strategic decisions.

"We see more shippers working with freight forwarders and NVOCCs because they can make changes seamlessly," says Margand. "The shipper, to a lesser extent, doesn't have to deal with the problems that result from capacity or port changes. It's the most efficient way to manage these risks."

As ocean freight volumes continue to grow, implementing these and other best practices will lead to smooth sailing for both shippers and carriers. ■

Freight Forwarder Or NVOCC?

"There's often confusion around the terms freight forwarder and non-vessel-operating common carrier or NVOCC," says Fauad Shariff, CEO of The CoLoadX Corporation, which provides an ocean freight procurement platform for forwarders and NVOCCs.

To differentiate the terms, Shariff uses a travel analogy: The freight forwarder is like a travel agency but with a significantly higher value-added service offering, while the NVOCC is more like an airline consolidator that might offer freight forwarding services as well.

"NVOCCs make massive capacity commitments to carriers, so their job is to fulfill those commitments by re-selling that capacity to shippers or freight forwarders," Shariff explains.

Here's how the Federal Maritime Commission officially defines the terms.

An ocean freight forwarder:

- Arranges for cargo to move to an international destination.
- Dispatches shipments from the United States via common carriers, and books or arranges space for those shipments on behalf of its shipper customers.
- Handles the documentation and performs related activities for those shipments.
- Must be licensed and provide proof of financial responsibility for paying any claims generated by the transportation-related activities.

An NVOCC:

- Is a common carrier that provides ocean transportation, issues its own house bill of lading, and doesn't operate the vessels providing the transportation.
- Acts as a shipper in its relationship with the vessel-operating carrier moving the cargo.
- Must be licensed and provide proof of financial responsibility for paying any claims generated by the transportation-related activities.
- Must publish a tariff and apply for an ocean transportation intermediary license.

One big advantage of working with NVOCCs is that they can consolidate smaller shipments to form a containerload. "This is a significant value-add for many less-than-containerload shippers," Shariff says.

Ocean Alliance Overview

On April 1, 2017, major ocean carriers further consolidated from four alliances to three that now represent more than three-quarters of all global container capacity. Here are the essentials based on information provided by the alliances.

2M Alliance

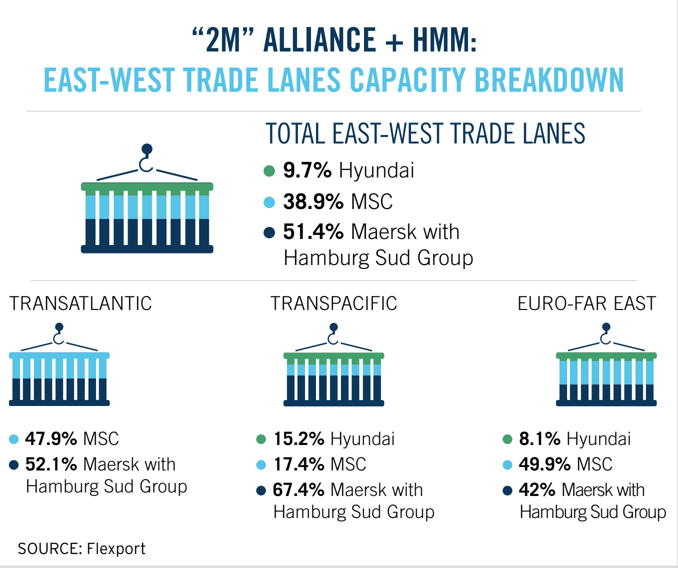
Partners:

Maersk Line and Mediterranean Shipping Company (MSC), with a three-year strategic cooperation agreement with Hyundai Merchant Marine (HMM) and a slot purchase agreement with Hamburg Süd.

Overview:

The 2M Alliance was formed in 2014 with a 10-year vessel-sharing agreement between Maersk and MSC on the Asia-Europe, Transatlantic, and Transpacific trades. HMM and Hamburg Süd signed on in early 2017.

"2M has run stable for almost three years and is the only alliance not to undergo major structural changes in 2017," says Mikkel Elbek Linnet, Maersk press officer.



Trades:

- Transpacific: 13 loops, 41 ports
- Transatlantic: 7 loops, 29 ports
- Asia-Europe: 6 loops, 29 ports
- Asia-Mediterranean: 4 loops, 36 ports

Ocean Alliance

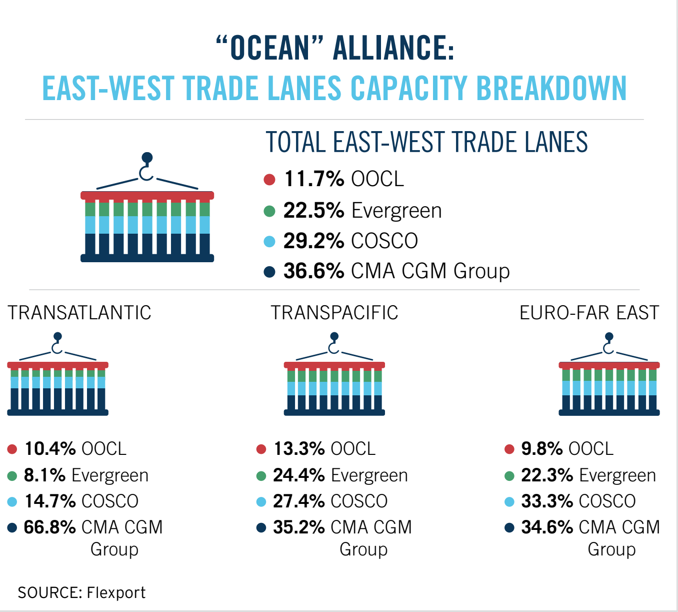
Partners:

CMA CGM Group, COSCO Container Lines, Evergreen Line, and Orient Overseas Container Line (OOCL).

Overview:

Providing 40 services on the East-West trades with approximately 100 ports of call and almost 500 port pairs, the Ocean Alliance operates a fleet of nearly 350 vessels with about 3.5 million TEUs in total capacity. As the main contributor, the CMA CGM Group has the largest capacity share within the alliance—35 percent—deploying a fleet of 119 vessels.

"This new offering is a cornerstone of our strategy as it reinforces our competitiveness and strengthens our position as a key player in the shipping industry," says Rodolphe Saadé, CMA CGM Group vice chairman.



Trades:

- Transpacific: 20 loops, 52 ports
- Asia-Northern Europe: 6 loops, 31 ports
- Transatlantic: 3 loops, 21 ports
- Asia-Mediterranean: 4 loops, 33 ports
- Asia-Red Sea: 2 loops, 12 ports.
- Asia-Middle East: 5 loops, 25 ports

THE Alliance

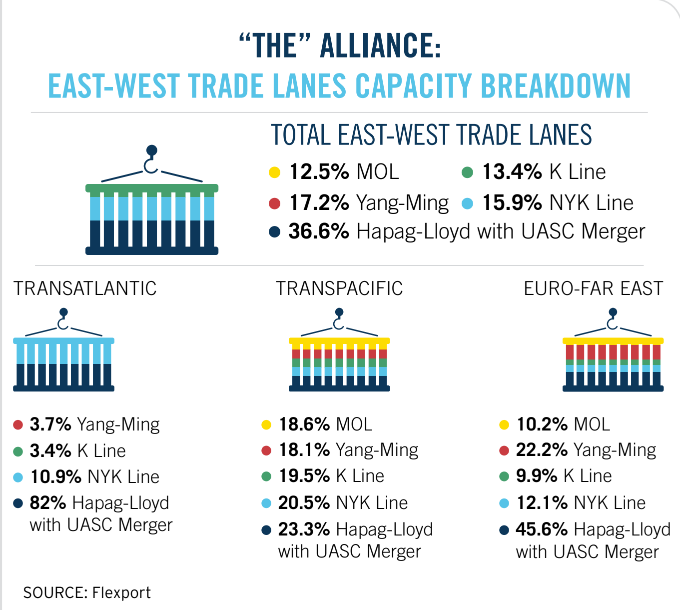
Partners:

Hapag-Lloyd, Nippon Yusen Kaisha Line (NYK), Mitsui O.S.K. Lines (MOL), "K" Line, and Yang Ming Line.

Overview:

The largest member, Hapag-Lloyd, is joined by three Japanese carriers and the Taiwanese Yang Ming Line. Using 240 vessels, the group offers 32 services in three trades: the Far East, North Atlantic, and Transpacific. The alliance makes it possible for the Hapag-Lloyd network to be better connected to the Middle East through four Red Sea and Arabian Gulf services. Ships deployed include the *MOL Triumph*, the largest containership in the world. It measures 400 meters long, almost 59 meters wide, and has a capacity of 20,170 TEUs.

In March 2017, alliance members announced a contingency plan designed to protect shippers from risks associated with a participant carrier's bankruptcy.



"Customers' reaction to the Hanjin incident showed a clear demand for such a safety net and the partners of THE Alliance are proud to present the first contingency plan of its kind in liner shipping," says Monika Gabler, Hapag-Lloyd AG press officer.

Trades:

- Asia-North Europe: 5 loops, 33 ports
- Asia-Mediterranean: 3 loops, 23 ports
- Asia-Middle East: 1 loop, 11 ports
- Transpacific-West Coast: 11 loops, 18 ports
- Transpacific-East Coast (via Panama and Suez): 5 loops, 33 ports
- Transatlantic: 7 loops, 35 ports

Visibility Fills the Gap

Vin Ramundo

Solutions Consultant, Amber Road

Q: ***Is supply chain visibility really a problem in today's high-tech, connected world?***

A: In today's technologically advanced world, a lack of data is not the problem. We are currently inundated with information from various sources. Rather, we need tools that consolidate this information, normalize it, and predictively notify users of potential risks. This enables companies to harness information to better control their supply chain.

Digitization enables levels of sharing that could not be achieved in the past but it opens our customers up to greater issues around information overload and synchronization. We need tools that can holistically look at the problem and proactively advise customers on the best corrective action plan.

Q: ***How do you define end-to-end visibility?***

A: Ten years ago, visibility could only be provided at the shipment level. But that has now evolved into a complete view of the international supply chain. Supply chains have been getting more complicated over the past few years, for the following reasons:

- Increased government regulations and protectionism
- More creative sourcing strategies to qualify for trade preferences, i.e. CAFTA, AGOA
- More creative routings like sea/air routings, or multi-country consolidation and deconsolidation
- Multiple service providers can touch one delivery of goods

Because of these complexities, we cannot just think that knowing where the shipment is equates to good visibility. We must understand all aspects of the life cycle, from product design to delivery to the end consumer.

Shippers need to know these data points:

- If the goods were produced ethically
- If the production is on time
- If the product was manufactured to specification
- The sourcing locations of raw materials
- If a product qualifies for a preferential trade program
- If the product complies with various governmental regulations (REACH, CPSC, FDA, etc.)
- The total cost of importing these goods including logistics, commissions, duties, taxes, etc.
- Where the product is currently and when it is predicted to arrive

Many companies look at visibility to only the shipment leg of the transaction. We need to step back and look at the problem as a whole. Decisions, at any stage of the life cycle, can have a direct impact on the cost and on the time it takes for goods to be sold and delivered.

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THOUGHT LEADERS

Shippers Seek 3PL Efficiencies Amidst Capacity Constraints

Thomas Griffin
President, DLS Worldwide

Q: ***What efficiencies that you offer as a 3PL are in the highest demand this year where we've seen tremendous capacity constraints?***

A: From a high level perspective, we always take a collaborative approach on which core competencies we can offer and streamline for our clients.

We work with a very diverse group of customers/shippers, and most are open to extending the services we can offer that could include simple consolidation and mode shifts to integration with client order management systems and our TMS/Client Interface modules.

The vast majority of our customers realize they have core competencies in terms of what they manufacture or the varied services they provide, allowing the 3PL they choose to partner with focus on logistics competencies that may have required the customer much larger staff costs if they had chosen to perform internally.

Specific value offerings we see in the most demand this year seem to be related to the capacity constraints we saw beginning in the second quarter. The majority of what we manage still involves LTL and we have done a good job negotiating increases this year on behalf of both large and small shippers that our locally based Station/Agents have worked with for years, often prior to the inception of our Leveraged Platform.

This is the first year I have seen both National and Regional LTL providers asking for multiple increases. Some are warranted and expected and often we've had to shift customers to our other core vendors who have managed the capacity issue better this year than others.

We have shifted to working with providers who have not become overly engaged with a couple of large retailers (I will leave unmentioned) and had good success getting our customer base to switch with us.

Managing the TL capacity constraint has also become much more intensive in 2017. The ability to manage many return trips while maintaining visibility to where our loads will deliver often provides us an immediate truck once the driver(s) are good with hours.

A key initiative this year will be our own consolidation with larger LTLs into our static TLs moving between distribution centers that we have unused space to ride along with our mail deliveries. In most cases, customers have been open to this option and the savings in exchange for what is usually one additional transit day over premium LTL service.

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CARGO SECURITY: THE ART OF THE STEAL

Keeping your cargo safe from theft is a bigger challenge than you might think. Follow these steps to reduce the risks that make your company a target.

By Karen Kroll

In 2015, 628 incidents of cargo theft resulted in about $27.9 million in stolen cargo, according to the FBI's 2015 *Report on Cargo Theft*. Less than 20 percent was recovered.

What's more, many incidents go unreported, making cargo theft a larger challenge than official numbers indicate. "There's a dark side to reporting bad information," says Frank Scafidi, spokesperson with the National Insurance Crime Bureau, based in Des Plaines, Illinois. Potential shippers might think twice about using carriers that were targeted by cargo thieves.

Shippers also stand to lose by making thefts public. "A theft will hit the media immediately," says Erik Hoffer, president with CGM Security Solutions, Punta Gorda, Florida. The stock may take a beating, as investors know the company likely is out the potential revenue the products would have generated.

Rather than risk negative publicity, companies often accept a small percentage of shrinkage. "They eat their loss, and leave," Hoffer says.

To be sure, letting incidents of theft go unreported can exact human and financial costs. Stolen food and medicine that's not properly stored can inflict real harm if used by unsuspecting consumers. Terrorists

can introduce bioweapons into cargo obtained by theft.

"Companies need to report theft," says Keith Lewis, vice president of operations with CargoNet, a provider of cargo theft solutions in Jersey City, New Jersey.

Moreover, under-reporting these crimes leaves shippers, carriers, regulators, and law enforcement with a poor understanding of the scope of the problem, as well as the tactics criminals use. "It's difficult to get legislators to buy into the idea that cargo theft is a big problem if the numbers are under-reported," says Chuck Forsaith, director, supply chain security with Purdue Pharma, and chair of the Pharmaceutical Cargo Security Coalition (PCSC). "And, you can't defend what don't know."

Reducing the risk of cargo theft starts with understanding the ways in which most thefts happen. Nearly three-quarters of cargo thefts are of full truckloads, according to the *Cargo Theft* report. Most thefts occur in parking lots and garages, the FBI reports. Next in line are docks/wharfs and freight terminals.

The top types of stolen cargo are food and drink (17 percent), home and garden products (16 percent), and electronics (13 percent), according to the second quarter *Cargo Theft Report* from SensiGuard, a provider of global logistics security services.

Choosing reputable carriers is one way to reduce the risk of theft. DHL, for example, was the first global freight forwarder to establish an in-house security department, and runs an internal training program to create security awareness among employees.

Why the large numbers of food and beverage cargo thefts? One reason is the sheer volume of products on the move. In addition, most of these products lack serial numbers or other identifying information, says Aaron Henderson, director of loss prevention with Penske Logistics, a third-party logistics provider based in Reading, Pennsylvania.

New Types of Theft

Traditional cargo thefts—thieves making off with stolen goods—still vastly outnumber online thefts, which occur when an individual or company uses the internet to pretend to be a legitimate carrier, secures a load, and then takes off.

"Some sham truckers create false documents, present them at the warehouse, and drive away with a load," says Rich Kolbusz, special agent in charge at U.S. Customs and Border Protection in Miami/Fort Lauderdale, with DHL Global Forwarding.

While not technically thefts, incidents in which contraband, such as drugs, is introduced into freight also are cause for concern, Hoffer notes.

A disturbing trend is what's sometimes referred to as disruption. Here's how it can occur: A carrier takes a full truckload of freight, and then spends one or more days reorganizing it to cram in yet more freight and make more money. "It puts shippers into a panic because they think they're missing a load or a driver," Lewis says. Before the driver reappears, the shipper up against a production deadline may have to pay to move another load of the same product.

While no cargo is completely immune to the risk of theft, you can reduce your exposure. Here are 10 guidelines:

1. Develop a company culture of security. Where permitted, include background investigations and drug screenings when you hire. Conduct mandatory security and ethics training, so employees know what to look for and how to report suspicious incidents.

2. Know who is moving your goods. Forsaith uses Department of Defense qualified carriers. Among other security measures, he receives the name and a photo of the driver, and a description of the vehicle, 24 hours before a scheduled shipment. "While not every shipment requires that level of security, strive to know who you're doing business with," he says.

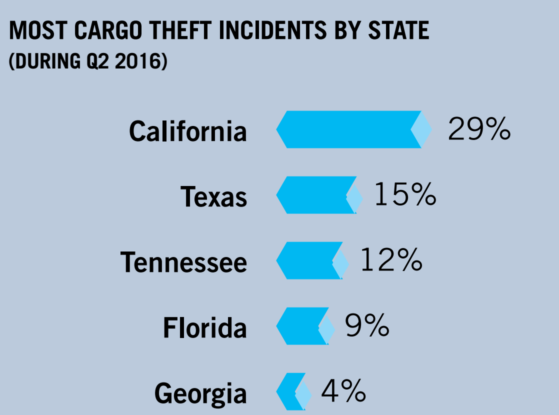
3. Work with carriers that use technology. GPS and other tracking devices allow trucks to be monitored in real time, so carriers can quickly

It Takes a Thief

The number of cargo thefts in 2017's second quarter was down from the first quarter of the year, while the value of cargo thefts was up, according to cargo theft recording firm SensiGuard.

The firm recorded 126 cargo thefts in the United States during the second quarter, which is a 10-percent decrease from the first quarter. The $140,162 average loss value of those thefts was a 12-percent increase when compared to the first quarter of the year. Compared to 2016's second quarter, thefts were down 28 percent in volume and 13 percent in value.

The majority of cargo thefts (74 percent) involved the theft of a full truckload, according to SensiGuard's quarterly report.



Source: SensiGuard quarterly report

respond to any deviances from the planned route.

4. Remember physical security. Implement access control solutions, security camera systems, motion sensors, fences, and other tools at your warehouses and distribution facilities. Let would-be thieves know they won't have an easy time.

5. Put together a security plan. In high crime areas, for instance, you might identify alternate routes or transportation modes.

6. Thieves prefer not to confront a driver, but will look for times when a truck is unattended. By using two-driver teams, carriers reduce the chances of leaving a truck unoccupied.

7. Follow the "200-mile rule." Instruct drivers to wait until they've traveled at least 200 miles before they stop, unless there's an emergency. Some thieves will follow trucks until the drivers stop, reasoning they might leave the truck unattended. However, few thieves will follow a truck for 200-plus miles, Kolbusz says.

8. Package cargo to deter potential thieves. For instance, place small, easily stolen products in larger containers; perhaps put containers inside containers. "If criminals want to get into the freight, they'll have to make a mess," Hoffer says.

9. Secure the shipping information. Forsaith says he instructs his carriers to ensure the fewest number of people necessary know about the shipments. In some parts of the world, the packages don't explicitly identify the product. Thieves may be less likely to target containers if they don't know what they're getting.

10. Watch shipping dates. Cargo that leaves a warehouse on Friday may need to remain in the truck over the weekend, when it's harder to secure.

The Benefits

The actions you take to reduce cargo theft can have an impact. When the PCSC started about 11 years ago, cargo theft within the industry was "significant," Forsaith says. By reviewing incidents, sharing information, and improving security, the number of large-scale thefts plummeted from 47 in 2009 to fewer than 15 in 2016, according to information from the PCSC. The average value of the thefts dropped from $4.2 million to $200,000.

"We got smarter," Forsaith says. ■

Bee Secure

The bright yellow "Bees" produced by Roambee Corporation, an enterprise asset visibility provider based in Santa Clara, California, are the size of a few sticks of butter. But they are more than just cute gadgets. Every Bee contains numerous sensors that monitor the condition and location of the goods it's protecting. One Bee can run up to 90 days, with an hourly ping rate, on a single battery charge. Each has a unique identifier and can be tracked worldwide.

"The bee is a data collection platform," says Vidya Subramanian, vice president of products. The company created the device in response to customers who faced "a big hole in visibility when their products left the manufacturing facility," he says.

One Roambee customer, CEAT Tyres, produces more than 15 million tires each year. Its rubber had been diverted and stolen when traveling from southern India to CEATS plants in the western part of the country. The company tried GPS vehicle tracking, RFID, and other tools, but "none could monitor vehicles hired per trip," says Kunal Arora, senior manager, materials with the India-based company.

In 2013, the company began attaching Roambees to each vehicle. The Bees don't need to rely on the vehicle battery or the operator, and management quickly knows if a shipment is delayed or deviated from its route. The result? CEAT can better manage the movement of rubber, and can track inventory in transit, says A.P. Satesh Kumar, manager of rubber purchasing.

Roambee used its Bees when its own offices were burglarized in May 2017. Along with computer and office equipment, the thieves took 100 Bees.

"Maybe they thought they were phone chargers," Subramanian says. It's also possible the Bees' bright yellow color convinced the thieves the devices were innocuous.

Once company executives discovered the theft, they used the Bees to transmit real-time information on each device's location. They learned that most of the devices were in a storage facility. The Bees led them not just to the facility, but also to the specific unit where the Bees and other stolen goods were stored.

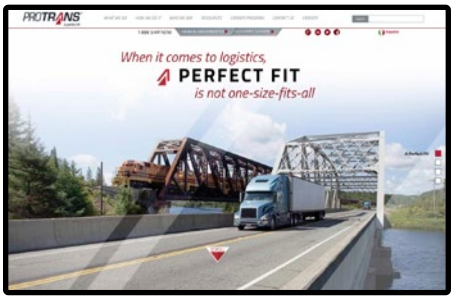
Roambee worked with law enforcement to follow the thieves, gather evidence, and obtain a search warrant. The thieves also had two Bees in their car, broadcasting their location. "It was the best outcome possible: an arrest without incident," Subramanian says. Moreover, the police were able to return items the criminals had stolen from other businesses, including a photo album from World War II.

Roambee customers use Bees in various ways. Some track high-value items, and others monitor their cold chain. Some focus not on the value of the product, but on the loss of productivity if it doesn't reach its destination on time.

For instance, a carton with several hundred dollars of products that doesn't show up on time might create bottlenecks in a production line that churns out millions of dollars of products each week. A Bee can let the company monitor the carton's movement and react immediately to any deviations from its route. "When you peel back the onion, that information can do so much for you," Subramanian says.

IN THIS SECTION:
3PL - Financial Services

3PL



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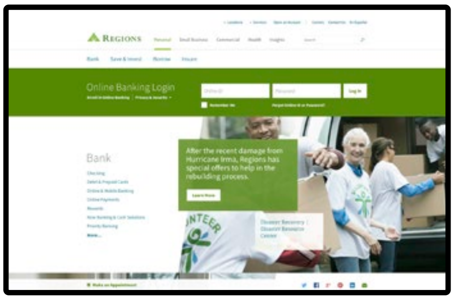

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Freight Forwarding – Intermodal

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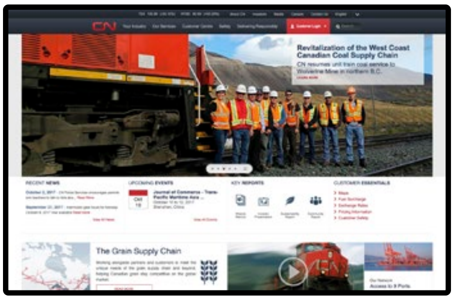
INTERMODAL



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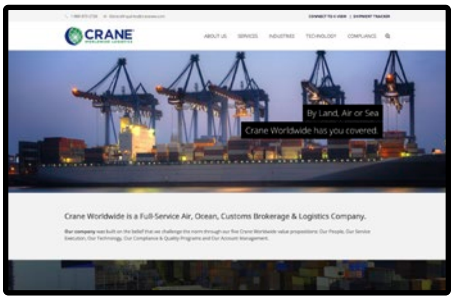

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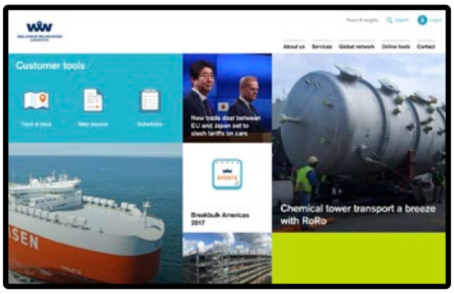
Over land, on the water, in the air—or in any combination—Lynden has been helping customers solve transportation problems for almost a century. Operating in such challenging areas as Alaska, Western Canada and Russia, as well as other areas around the globe, Lynden has built a reputation of superior service to diverse industries.



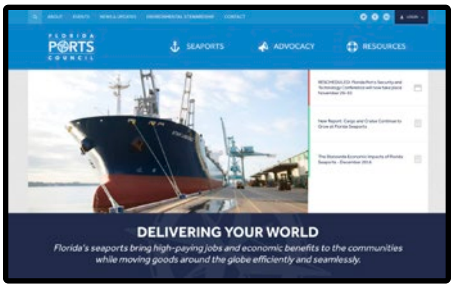
Wallenius Wilhelmsen Logistics • www.2wglobal.com

Looking for an industry leader with a global network and modern fleet? Wallenius Wilhelmsen Logistics (WWL) caters to the automotive, construction, and agricultural equipment industries, and specializes in handling complicated project cargo such as rail cars, power generators, mining equipment, and yachts. WWL deploys 60 modern eco-friendly vessels, serving 20 trade routes to six continents. WWL transports between 2.7 and more than 4 million vehicles per year via land and sea. Visit WWL online for info on services, fleet, vessel schedules, route maps and rates, and to secure a booking.

Yang Ming (America) Corp. • www.yangming.com

Yang Ming is an independent, global, all-water/intermodal #95-fleet containerized, reefer & bulk cargo carrier. Fully integrated worldwide network boasts fastest transit times. The 24/7 interactive website emails cargo tracking/schedules to your desktop. Worldwide YM offices optimize seamless comprehensive global shipping.

PORTS

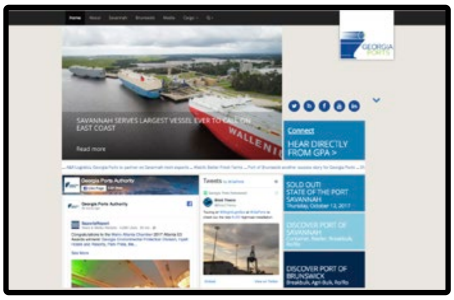


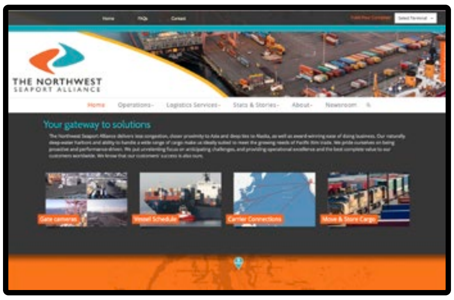
Florida Ports Council • www.flaports.org

The Florida Ports Council (FPC) is a nonprofit corporation that serves as the professional association for Florida's 15 public seaports and their management. The FPC provides advocacy, leadership, and information on seaport-related issues before the legislative and executive branches of state and federal government. The FPC believes a strong, strategic, public/private partnership between Florida's ports and state and local government will enable the diverse seaports to continue their vast economic contributions to every region of the state.

Georgia Ports Authority • www.gaports.com

The Georgia Ports Authority (GPA) includes the Port of Savannah, the Port of Brunswick, the Bainbridge Inland Barge Terminal, and the Columbus Inland Barge Terminal. Its home page offers history and background about the Ports Authority, a port directory, shipping directory, GPA statistics, maps, photos, and more.





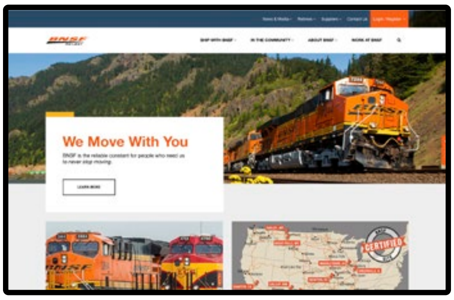
Northwest Seaport Alliance • www.nwseaportalliance.com

The Northwest Seaport Alliance brings together two of the nation's premier harbors to form a single, integrated gateway. Located in the Pacific Northwest, we offer shorter Asia transits and are the first and last ports of call for many transpacific services. Our combined terminals, carriers and ports of call provide flexibility to suit unique supply chain needs. And our commitment to provide cost-effective, innovative shipping solutions is unparalleled.

Port of Long Beach • www.polb.com

The Port of Long Beach is one of the world's busiest seaports, a leading gateway for trade between the United States and Asia. During the next 10 to 15 years, the Port of Long Beach plans to create at least four container terminals of more than 300 acres each, and to build at least one other large terminal. The new terminals will have dockside rail facilities, which allow cargo to be transferred directly between ships and trains. Such transfers speed deliveries between Long Beach and markets nationwide. For more information on the advantages and services offered by the Port of Long Beach, visit www.polb.com.

RAIL

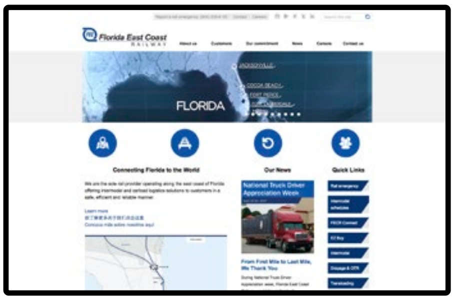


BNSF Railway • www.bnsf.com

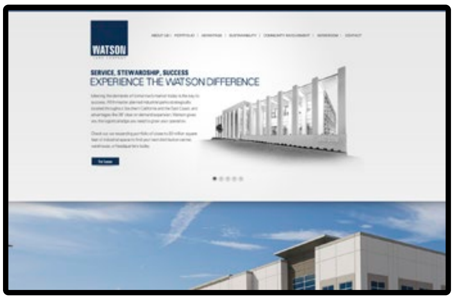
BNSF Railway is one of North America's leading freight transportation companies, with a rail network of 32,500 route miles in 28 states and three Canadian provinces. BNSF is one of the top transporters of the products and materials that help feed, clothe, supply and power communities throughout America and the world. BNSF moves those goods more safely and efficiently, on significantly less fuel, with fewer emissions than the all-highway alternative..

Florida East Coast Railway • www.fecrwy.com

The Florida East Coast Railway (FEC) is a 351-mile freight rail system located along the east coast of Florida. It is the exclusive rail provider for PortMiami, Port Everglades, and Port of Palm Beach. FEC connects to the national railway system in Jacksonville, Florida, to move cargo originating or terminating there. Based in Jacksonville, FEC provides end-to-end intermodal and carload solutions to customers who demand cost-effective and premium quality.



REAL ESTATE



Watson Land Company • www.watsonlandcompany.com

Watson Land Company is a developer, owner, and manager of industrial properties throughout southern California. With a legacy spanning more than two centuries, Watson's dedication to customers is based on delivering functional, high-quality buildings within masterplanned centers, coupled with unmatched customer service. Watson Land Company's long-standing tradition of integrity, innovation, and fiscal responsibility has made it one of the region's most respected names in commercial real estate, and one of the largest industrial developers in the nation.

TRUCKING

Saia LTL Freight • www.saia.com

For nearly 90 years, Saia LTL Freight has been providing customers with fast, reliable regional and interregional shipping. With 147 terminals located in 34 states, Saia LTL Freight offers a range of products and services that are backed up by a guarantee like no other in the industry. Our Customer Service Indicators, or CSIs, allow us to measure our performance each month against a set of six indices that our shippers said are the most important to them.

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.

J.B. Hunt

TITLE: ***A Leaner Supply Chain***

DOWNLOAD: *http://bit.ly/JBHuntWP*

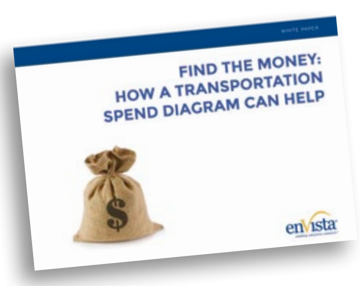
SUMMARY: Supply chains are inherently complex and interconnected. And the greater the number of products produced or destinations for goods, the greater the potential for complexity and the greater the necessity for systematic, enterprise-level approaches to preserve value for the company at every link in the supply chain. Download this whitepaper to discover how a more integrated supply chain can contribute value to your company.

Kane is Able

TITLE: ***The Ultimate Guide to Being a Great 3PL Customer***

DOWNLOAD: *http://bit.ly/KaneisAble*

SUMMARY: Many shippers commoditize the services of third-party logistics (3PL) providers, believing that the best result will come from micro-management and constant price pressure. In fact, the opposite is true. The more you, as the outsourcing company, invest in the relationship—as a partner, not an overseer—the more value is delivered. Here are 12 suggestions on 3PL relationship management that, while they create some work for you, pave the way for breakthrough supply chain performance.



enVista

TITLE: ***Find the Money: How a Transportation Spend Diagram Can Help***

DOWNLOAD: *http://bit.ly/enVistaWP*

SUMMARY: Transportation leaders are constantly looking for ways to reduce costs while improving service levels as they conduct strategic assessments. Using the Spend Diagram to document freight flows and costs on a single page is the best way for a transportation team to collect data and focus their efforts. Read this whitepaper to learn how a Spend Diagram can identify savings opportunities throughout your transportation operations.

Amber Road

TITLE: ***4 Keys to Digitizing Your Global Supply Chain***
DOWNLOAD: *http://bit.ly/AmberRoadWP*
SUMMARY: Global trade is a fast, complex environment that many organizations struggle to keep up with. Its ever-changing nature means that your supply chain processes and technology must transform just to keep up the pace. Digitization allows full transformation. Digitizing your supply chain enables four key methods of transformation leading to value, including: collaboration, automation, analytics, and flexibility. Download this eBook today and discover how your organization can yield value through supply chain digitization.

CSX

TITLE: ***What's in Store for Supply Chains in 2017?***
DOWNLOAD: *http://bit.ly/CSXTWP*
SUMMARY: A pool of more than 150 supply chain professionals was asked about the factors and trends impacting their transportation networks and supply chains in 2017. Respondents state they must balance conflicting supply chain priorities and goals with ongoing optimization strategies and tactics if they are going to support their companies in achieving the growth goals set for 2017. They are focused on both growing business and reducing costs – a sometimes tricky balancing act. Download the *2017 Supply Chain Trends Survey* to learn the top supply chain priorities and concerns for 2017, how supply chain managers and transportation leaders are preparing to support growth in 2017, the logistics trends setting the stage for growth, and the top cost drivers within the supply chain.

Evans Distribution Systems

TITLE: ***Not Your Mama's 3PL***
DOWNLOAD: *http://bit.ly/EvansDist*
SUMMARY: Being a successful 3PL in this day and age means stepping outside of the box, and finding creative solutions for today's fulfillment needs. But how do you find those creative solutions? What will make you stand out in the traditional 3PL environment? In this whitepaper, you'll learn how to strategically approach the development of customer solutions, how to support a wide variety of customers and achieve innovative results, how to collaborate and involve all members of your operation, and how Evans has approached meeting unique customer needs.

Descartes

TITLE: ***2017 Forwarder/Broker Benchmark Study***
DOWNLOAD: *http://bit.ly/DescartesSurvey*
SUMMARY: Descartes' forwarder and broker benchmark survey is different – it asks the right questions of the right market segments to reveal some interesting (and surprising) results. What is different about the survey? The questions and results speak to what the competition is doing, which is one of the main concerns of forwarders and brokers. In addition, the survey reveals differing perceptions among higher margin and lower margin respondents, as well as views of technology.

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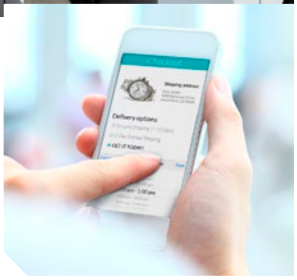
WhitePaper Digest **is designed to bring readers up-to-date information on all aspects of supply chain management. We're building a database of SCM whitepapers, and you can help. E-mail us with whitepaper recommendations: editorial@inboundlogistics.com**

Orient Overseas Container Line (OOCL) added New York's Maher Terminal to its port rotation to provide express services from Central China. Transit times to New York from Shanghai and Ningbo are 23 and 25 days, respectively, among the most competitive in the market. This OOCL service enhancement takes advantage of the Bayonne Bridge's new air draft clearance, which can now accommodate 13,000- to 14,000-TEU containerships.

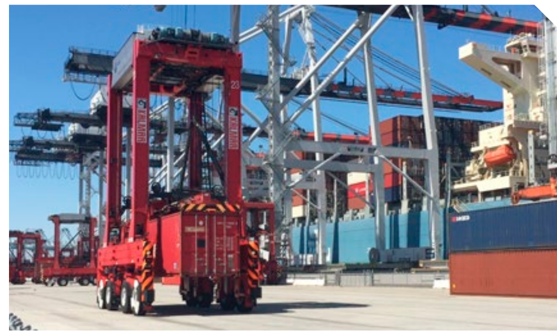
// Services //

UPS now offers UPS Returns Manager, a free online tool that allows e-commerce merchants to customize return shipments according to their policy. With this tool, shippers can manage return shipments without having to integrate new technology into their IT systems. Consumers using the service can print a return shipping label directly from ups.com and from email alerts. The new service allows UPS shippers to administer authorized return shipments, set their service level, request a reason for return, and see shipment reports. The outbound and return packages are linked in tracking.



◀ Crowdsourced, last-mile logistics company **Deliv** expanded to 33 markets and more than 1,400 cities nationwide to allow retailers to offer speed and delivery convenience to customers. Deliv lets omnichannel retailers compete with Amazon's same-day delivery programs by turning their brick-and-mortar locations into fulfillment centers to enable same-day delivery. Deliv gives retailers' end customers the option of selecting delivery options and time windows from the retailer's mobile app or website.

▶ The **Port of Los Angeles** TraPac Terminal is one of the first port facilities to implement fully automated straddle carriers *(pictured)* in the United States. The TraPac Terminal automation project, part of $1-billion in planned capital improvements, also features automatic stacking cranes. Aside from preparing the terminal to accommodate the latest containerships, the project aims for more efficient use of capital assets, less downtime, reduced human error, lower capital and human asset costs, increased productivity, and safety.



LTL carrier **Consolidated Fastfrate** moved to an expanded crossdock, transload, and warehousing facility in Edmonton, Alberta, Canada. The new location, closer to the CP intermodal yard and major roadways, allows the company to enhance customer service and increase capacity to the northern Alberta marketplace. Additionally, the facility's five-bay area for tractor, trailer, and chassis service is expected to increase fleet safety and performance.

LTL freight carrier **Dayton Freight** opened a Sioux City service center, which enables the company to provide direct coverage for the entire state of Iowa. Opened in response to increased demand, the new facility allows Dayton Freight to offer shippers faster and more consistent LTL transportation service.

Truckstop.com, a transportation solutions provider, introduced an LTL option for its CargoShield insurance product. CargoShield provides transactional, shipper's interest cargo coverage, protecting freight from origin to destination for $12 per load. The LTL option pays claims based on the invoice value of goods, as stated on the bill of lading, instead of released value or freight class formula, which typically pays a claim at a fraction of the load value. For $12 per load, policy holders receive $50,000 in coverage.

Refrigerated warehousing company **Henningsen Cold Storage** opened its second facility in Salem, Oregon. The 176,000-square-foot facility offers 6 million cubic feet of cold storage capacity. The 26,000-pallet structure serves food processors, which account for approximately 50 percent of the region's manufacturing base. Future build-out of the 34-acre site will allow other processors to also co-locate on site.

//Transportation//

CSX began operations at its new Pittsburgh intermodal rail terminal, located in McKees Rocks, Pennsylvania. The facility provides shippers a new transportation option to move freight to and from western Pennsylvania. The Pittsburgh intermodal terminal is a key component of CSX's National Gateway Initiative, an $850-million public-private partnership designed to create a network of double-stack rail and intermodal terminals, connecting East Coast markets to Midwest consumers, manufacturers, and businesses.

◀ Packaging machinery manufacturer **TAB Industries** introduced the TAB Wrapper Tornado orbital wrapping machine, which wraps palletized loads up to 107 inches tall and 53 feet in length (or longer) to suit the height and length of standard trucks and trailers and take advantage of available space inside. The new TAB Wrapper offers the company's largest-ever wrapping ring that spans 125 inches in diameter to accommodate the required load dimensions on pallets sized up to 48 inches x 48 inches. The new orbital wrapper allows large, long, and oddly shaped products to be delivered stretch-wrapped onto a pallet, replacing rigid containers.

Short-line railroad company **Southwest Gulf Railroad Company** (SGRR) broke ground on The Medina Line, a common carrier railroad located approximately 30 miles west of San Antonio, Texas. Expected to be complete in 2019, the 9-mile line will help shippers leverage SGRR's access to the Union Pacific and BNSF railroads, as well as U.S. Route 90, to serve growing markets in Texas and beyond. The existing limestone quarry at the northern end of the line, operated by SGRR parent Vulcan Materials Company, will serve as The Medina Line's initial, anchor customer.

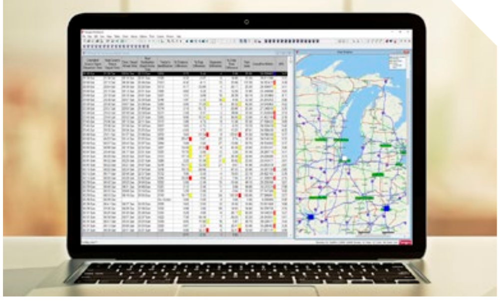
▶ **Averitt** launched an ocean-based import service called the Asia-Dallas Express. The Asia-Dallas Express integrates ocean, rail, and LTL transportation to provide shippers in Texas and surrounding states with an all-in-one direct LCL import service. From consolidation points in Central China, cargo moves via vessel and transits through the Ports of Long Beach and Los Angeles and then moves in the ocean container via rail direct to Averitt's bonded CFS service center in Dallas *(pictured)*. Cargo is then deconsolidated and distributed through Averitt's LTL network to the importer's facility or direct to the final consumer.

//Technology//

3PL **C.H. Robinson** introduced *Navisphere Vision*, a supply chain solution that provides real-time global visibility across all modes and regions in one platform. In addition to providing visibility down to a SKU level, *Navisphere Vision* provides insights and impacts of potential disruptions from weather, traffic, or current events, as well as predictive analytics to help shippers make faster decisions. Shippers can gain a single view of all global inventory to support working capital needs and cash-to-cash cycle management.

FreightRover, a freight exchange and management app, now integrates with web-based transportation management software *AscendTMS*. Users access FreightRover's load posting and load searching/selection, tracking and analytics, and QuickPay options, directly within the *AscendTMS* platform. FreightRover's current integrations (MacroPoint, Transflo, TriumphPay, and SaferWatch) are also available to *AscendTMS* users who utilize FreightRover's services. The *AscendTMS* logistics software, including the FreightRover integration, is available to FreightRover customers at no charge.

Food supply chain startup **Verigo** released a new Internet of Things quality management system for improving freshness and reducing shrink of fresh produce in transit. The quality management system, called *Pod Quality*, enables growers, shippers, and retailers to enforce process standards based on a new standard quality metric: the remaining shelf life of each shipment. Combining wireless devices, mobile apps, and cloud-based recordkeeping to provide metrics to stakeholders, *Pod Quality* translates the recorded temperature data into an actionable continuous quality score, called "Product Life."



◀ **Paragon Software Systems**, a provider of vehicle routing and scheduling optimization solutions, added a fuel usage enhancement to its routing and scheduling software. The update lets logistics operations compare planned versus actual levels of consumption, leading to greater fuel savings. It takes into account truck weight, cargo weight, number of drop offs, and more factors to create fuel usage information, helping maximize usage and reduce carbon emissions.

Surgere, a provider of RFID, location, and environment sensors for supply chain applications, launched its Robotically Optimized and Balanced Inventory (ROBi) product to help automate cycle counts and improve accuracy of on-hand inventory in warehouses. ROBi integrates RFID technology with robotics solutions company Fetch Robotic's mobile robot platform to autonomously capture RFID label information from all angles and directions. ROBi's data acquisition accounts for height of stacked or racked product above floor, depth within shelving, and the speed of robotic travel. ROBi also provides a 3D map of the facility and part location.

//Products//

Startup **Avancon SA** now offers a zone-powered conveyor (ZPC) system, a highly adaptable conveying solution for distribution centers. Each zone of the conveying system is controlled and driven separately. The solution is capable of slow or fast transporting in any desired line and, where necessary, can accumulate without pressure. Additionally, it transports goods in all directions.

Labelmaster, a dangerous goods transport solutions provider, and **Procyon-Alpha Squared** (PA^2), a technology provider with experience in aerospace applications, developed and manufactured Obexion, a line of protective packaging solutions for shipping and storing lithium batteries and devices that contain them. The packaging uses passive technology to offer ballistic and pressure management and fire resistance. It is available in a metal design and a fiberboard box for reverse logistics needs.

Precision instruments maker **Mettler Toledo** released an updated conveyor scale and controller. The Mettler Toledo 9477 is an in-motion scale for weighing large boxes, cartons, cases, bags, sacks, and other packages. It makes accurate measurements quickly, even in high-vibration environments, making it suitable for food and beverage/chemical processing and logistics operations. It can be paired with Mettler Toledo's IND570dyn terminal to support high-speed weighing operations.

Transportation companies group **TCompanies** introduced Photo Equipment Interchange Receipt (PEIR), a system designed to accurately assign costs based on responsibility for damaged shipping containers. The solution guides personnel at inspection points or truck drivers in the field through the inspection process with a step-by-step set of prompts. The PEIR automated identification process then verifies the equipment numbers, and the solution provides a summary for the user to review and revise if necessary. Within minutes, the entire report is available through a blockchain-enabled web app, allowing authorized users to trace the history and images associated with the equipment.

CALENDAR

YOUR LOGISTICS DATEBOOK

JAN 29

National Industrial Transportation League (NITL)

2018 Transportation Summit

bit.ly/NITL2018 | Dallas, Texas | JAN 29-31, 2018

AUDIENCE: Logistics professionals
FOCUS: Navigating the intergenerational workforce; rail, ocean, and highway freight transportation issues; trends in rail and ocean transportation; highway transportation update; energy outlook

CONFERENCES

NOV 13–14, 2017 Philadelphia, Pa.
Worldwide Business Research

LogiChem

logichemus.wbresearch.com

AUDIENCE: Chemical supply chain and logistics professionals
FOCUS: Strategies for a customer-centric supply chain; exploring digitization to improve supply chain performance; driving value through effective cargo securing; partnering with suppliers to ensure sustainability

NOV 30 – DEC 1, 2017 New York, N.Y.
Progressive Railroading

RailTrends 2017

railtrends.com

AUDIENCE: Rail industry professionals
FOCUS: State of the rail industry; exploring the interrelationship of railroads, regulation, and technology; Kansas City Southern's operating strategy; digitalization of rail; updates from Florida East Coast Railway, Union Pacific Railroad, and Amtrak; precision scheduled railroading at CSX

JAN 22–26, 2018 Orlando, Fla.
PEX Network

OPEX Week: Business Transformation World Summit 2018

opexweek.com

AUDIENCE: Operational excellence and business transformation executives
FOCUS: Building a successful operational excellence program; shifting focus from cost stripping to customer-centric growth opportunities; leveraging continuous improvement to boost customer experience

FEB 4–6, 2018 Sea Island, Ga.
Georgia Ports Authority

Georgia Foreign Trade Conference

gaforeigntrade.com

AUDIENCE: Senior-level shippers, maritime executives, senior managers, and decision-makers
FOCUS: Challenges facing shippers, carriers, ports, terminals, and the maritime community; changing legislation and new technologies impacting global trade; current and future market conditions and growth opportunities

FEB 25–28, 2018 Phoenix, Ariz.
Retail Industry Leaders Association (RILA)

Retail Supply Chain Conference 2018

bit.ly/RILA2018

AUDIENCE: Stakeholders in the retail supply chain; logistics, supply chain, and distribution professionals
FOCUS: Changing retail landscape; the supply chain's key role in serving customers; leveraging analytics for supply chain advantage

MAR 11–13, 2018 Tampa, Fla.
International Warehouse Logistics Association (IWLA)

2018 IWLA Convention & Expo

bit.ly/IWLA2018

AUDIENCE: Warehouse logistics stakeholders
FOCUS: Motivating employees for continued growth; effective warehousing strategies; the latest in warehousing innovation

MAR 26–28, 2018 Orlando, Fla.
Express Carriers Association (ECA)

22nd Annual MarketPlace 2018

expresscarriers.org/marketplace

AUDIENCE: Supply chain and logistics professionals
FOCUS: Forming logistics partnerships; finding regional and specialized carriers that can provide a viable supply chain alternative; new technologies and transportation services

APR 9–12, 2018 Atlanta, Ga.
MHI

MODEX 2018

modexshow.com

AUDIENCE: Manufacturing and supply chain professionals
FOCUS: How Industry 4.0 and the Industrial Internet of Things is impacting supply chains; exploring the latest equipment and technology solutions from more than 850 providers; futureproofing your company's supply chain

APR 18–19, 2018 Atlanta, Ga.
Terrapinn

Home Delivery World 2018

bit.ly/homedelivery2018

AUDIENCE: Retail logistics and supply chain professionals
FOCUS: Strategies for optimizing product fulfillment, delivery, and customer satisfaction through supply chain, logistics, warehousing, and transportation operations; trends in delivery operations.

SEMINARS & WORKSHOPS

NOV 7–8, 2017 Cambridge, Mass.
MIT Sloan Executive Education

Supply Chain Strategy and Management

executive.mit.edu

AUDIENCE: Logistics and supply chain professionals
FOCUS: Improving supply chain performance; strategic sourcing and make-buy decisions; integrating e-business thinking into supply chain strategy and management

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d) 1. Free Distribution by Mail	1,316	1,309
d) 4. Free Distribution Outside the Mail	2,049	858
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f) Total Distribution	50,351	50,010
g) 1. Copies not Distributed	2,535	2,490
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The Red Wings Beneath My Feet

Sometimes supply chain success comes down to a sturdy pair of boots. That's why the Red Wing Shoe Company collects customer stories for its Wall of Honor. Drive one mile—or one million—in these shoes:

2 Million Steps

I drive a tractor trailer and deliver beer for a living. The trucks have no air conditioning and neither do the trailers. So, if it's 95 degrees outside, the inside of the trailer is at least 15 to 20 degrees hotter. I live in New England and if you know anything about the weather, it's all over the place. Red Wing boots are the only boots I will put on my feet. They keep my feet dry in the humid sweaty summer months, during the rainy spring and fall, during the freezing snowy winter, and every New England day in between.

These boots have walked more than 2 million steps in the past six months. They've seen Gillette Stadium and some of the best NFL players while driving tractor trailers and delivering beer. – **Jon Kerstein**

Living the Railroad Life

I started working on the railroad 10 years back. The first thing I was told by an old head was, "Kid, two things you need to know out here. Keep your head on a swivel and get some good boots."

Railroad life is tough. Many days are spent kicking rocks, riding rail cars, and delivering goods to businesses across the country that keep America going. Whether it's switching out cars in the railyard or riding a freight train from Detroit to Chicago, I know I've got good boots on my feet that get me through the day. I still have my first pair of Red Wings, plus a few others. The pair I currently wear is seven years old. I'm proud to put my Red Wings on every day I go to work. – **Tom Dillon**

Fuel for Thought

I work as a transport driver in Indiana. My Red Wing boots help me haul fuel and keep America moving. I work in all types of weather and surfaces and my feet are always comfortable. – **Cyndi Donnelly**

You Get What You Pay For

My go-to work boots for work as a truck driver in the air cargo industry. They've kept my feet dry and comfortable during aircraft ramp operations, kept my toes from getting crushed by moving aircraft containers on a roller deck, and they're still comfortable after a 12-hour line haul run. I'm often asked why I pay that much for a pair of work boots and my response is that it's worth it to go home without your feet or back hurting from cheap boots (been there, done that). A cheap pair of boots I had bought literally fell apart on my feet. I've never looked back. – **John Kronberg**

No More Cold Feet

Driving a fuel tanker is always challenging. Mix mud, snow, and freezing rain and it can be deadly. My Red Wing 4420 boots have never let me down or let my feet get cold, even when everything else is freezing. Best boots ever. I own four pairs and wouldn't trade 'em for anything. – **Robert "Till" Tillinghast**