IMPROVING SUPPLY CHAIN VISIBILITY:

PARTNERING FOR SUCCESS

welcome

Embrace the benefits of visibility

Today's logistics and supply chain management operations play a more critical role in a company's success than they ever have in the past. And the more dynamic your supply chain operations are, the better positioned your company will be to compete in our technology-rich, consumer-centric business environment.

In today's omni-channel fulfillment world—where the pressure is on to deliver anything, anytime, from anywhere—it's no wonder that a growing number of logistics professions are turning to third party logistics providers (3PLs) to help them gain critical shipment visibility that will help them effectively manage and orchestrate their own dynamic supply chains.

Over the next few pages, the editorial staff of *Logistics Management* has gathered several articles that will help shippers better understand the overall need for improved visibility across all logistics operations, define visibility as it relates to the complex supply chain, explain how optimizing a 3PL relationship can offer better shipment visiblity, and show how companies can go about improving logistics visibility and work smarter, better, and faster today—and in the future.

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IMPROVING SUPPLY CHAIN VISIBILITY:

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BY **BRIDGET MCCREA,** CONTRIBUTING EDITOR

How today's more complex logistics and supply chain management environment has ushered in the need for improved visibility into your logistics operations.

The growth of e-commerce, the evolution of omni-channel fulfillment, shortened lead times, and customers that have come to expect next-day and two-day shipments are all ushering in the need for improved visibility across the supply chain.

To meet these new, pressing demands, manufacturers, retailers, and distributors are all investing money and effort in logistics and supply chain management technology capabilities that can help them gain an edge in today's competitive business environment.

However, when it comes to managing today's e-commerce-centric, omni-channel fulfillment environment, industry analysts say that "too many companies are flying by the seat of their pants" and only hoping that their strategies pay off in the end. And while many are searching for established best practices to apply, a growing number of companies are turning to their third-part logistics provider (3PL) partners to help them achieve their visibility goals.

Defined as the ability of parts, components, or products in transit or at rest to be tracked from the manufacturer to their final destination, supply chain visibility improves and strengthens the supply chain by making useful data readily available to all stakeholders, including the customer. It also gives a clear view of inventory and supply chain activity and helps companies create global supply chains that are agile, flexible, and responsive.

Over the next few pages, we'll explore the overall need for better visibility across all logistics operations, define visibility as it relates to the complex supply chain, explain why visibility is elusive for so many, and show how companies can go about improving logistics visibility and work smarter, better, and faster today—and in the future.

Gaining visibility, one step at a time

In assessing how today's complex business environment has ushered in the need for visibility into logistics operations, it's clear that the growth of ecommerce and shortened leads times are the two main drivers. However, the need is also being driven by decreasing inventories, advancements in technology, increasing customer expectations, the desire to improve service levels, and increasing frequency of natural disasters or uncontrollable events across all industries.

A concept that an increasing number of companies are turning to in their quest to adapt and embrace the demands of today's customers, utilizing supply chain visibility as the key enabler to identify, capture, share, and predict events and transactions to translate data into useful information and a playbook to manage exceptions.

"It is crucial for all stakeholders to know where things are coming from, where they are at specific times, and where they are going," says Gary Allen, Ryder's vice president of Supply Chain Excellence. "But visibility for visibility's sake is not effective, unless you can drive down to very specific detailed data needed to make decisions, such as load specific details at sku level."

Supply chain visibility, while clearly defined and obviously beneficial, remains elusive for a large number of companies. Limited visibility, for example, can hold firms back from achieving the levels of productivity that would help them work more efficiently and successfully.

One of the biggest benefits of visibility in the supply chain is its ability to mitigate disruption. Having visibility gives companies the ability to preplan for possible disruptions and react when a situation occurs. Take the West Coast port issues—congestion and labor strikes—the industry has seen this year. Companies with supply chain visibility and plans in place were able to design the inbound flow of their products around the affected ports better than companies who had not recognized the importance of visibility sooner.

"The lesson learned from the West Coast port issue is that shippers need to have the ability to dynamically plan and adjust their supply chain design and have contingency plans in place to manage emergencies," says Allen. "Supply chain visibility is a key enabler to mitigate disruptions."

Visibility can also be hard to find because it is not a core competency for many businesses. Much like transportation management, logistics is not something most businesses have top-of-mind. "This is why working with a third-part logistics (3PL) provider can be beneficial," says Allen. "With the experience in running supply chains, 3PLs will give you the visibility you need, as well as the ability to focus on your core business."

By putting these six steps into action, companies can ensure a more streamlined, visible supply chain that truly meets its needs and those of its customers and business partners.

Overcoming key challenges

Today's companies face a litany of challenges when it comes to gaining greater supply chain visibility. Whether managing a single- or multi-source supply chain in any industry, companies without full visibility are challenged by a number of key factors, including the need to build cost-effective supply chains that align the movement of goods to delivery dates, configuring routes and transportation modes to accommodate different products and sources based on locations of suppliers, fulfillment centers, distribution centers, and stores.

Companies are also being asked to transform SKU-level data about supplier's scores into business intelligence; optimize shipping and transportation by accurately planning and forecasting demand; enhance inventory velocity across the supply chain to meet specific delivery dates; and comply with increased governmental regulations.

The good news is that there are steps that logistics organizations can take to overcome these and other challenges that are currently creating obstacles to visibility. To keep the chaos of an omni-channel supply chain from stopping a business in its tracks, companies should follow these six steps to keep their retail operations on course:

Analyze: Evaluate where branded and private-label products come from and assemble a supply chain that moves goods from source to store or fulfillment center efficiently.

Design: Set up supply chain routes, transportation modes and logistics networks to accommodate different products based on the locations of suppliers, manufacturing facilities, distribution points, consumer demand profiles and stores.

Use technology: This will help you gain visibility across the supply chain that allows you to coordinate prices, terms of payment, ship dates, and need-by dates and accommodate a range of customer sourcing strategies, production lead times, ship windows, transportation providers, and need-by dates.

Sense: Use advanced analytics, tracking, and planning technologies to ensure appropriate custody, control, and care of goods while planning for demand and anticipating disruptions.

Comply: Know how to comply with the rules, regulations, and practices of the destination country, including properly filing Importer Security Filings (ISF) forms.

Partner: Team up with a trusted 3PL with engineering, integration, and operations teams at the point of origin and destination – one that can manage inventory across the supply chain.

By putting these six steps into action, companies can ensure a more streamlined, visible supply chain that truly meets its needs and those of its customers and business partners.

Getting everyone involved

For any logistics operation, people involvement is the most important aspect of gaining visibility into the supply chain. This begins on the warehouse floor with the employees all the way to the C-suite. As one of the five key principles in implementing a LEAN culture of continuous improvement and human resources improvement helps a supply chain run more efficiently and with end-to-end visibility.

In addition, teaming up with a trusted third party logistics provider (3PL), such as Ryder, can help gain companies the visibility they need through engineering, integration, and the use of operations teams at the point of origin.

By tapping an outsourcing partner such as Ryder, companies can respond quicker to consumer demand, expand into new geographies, and improve productivity and efficiency. Partnering with a trusted 3PL gives you the opportunity to focus on your core business, while they focus on what they do best – providing a stronger supply chain.

A third-party partner such as Ryder also offers IT solutions that provide end-to-end visibility that leads to increased control, maximized uptime, and helps to manage overall logistics and transportation costs. Ryder also hosts a variety of advanced supply chain design tools to model scenarios that help design, plan, and execute against "triggers, events, or use cases" across the supply chain.

"For instance, in the retail and consumer packaged goods markets, visibility needs to be at the SKU and packaging level to be useful," added Allen. "The amount of product in the supply chain, on store shelves, in the warehouse, in transit, or being returned can be more effectively tracked at the SKU level."

By using this reference, the value of visibility is increased and decisions can be made in a much timelier way. Reduced inventory levels, increased stock and shipping accuracy, and lower total landed costs are all results of a SKU level reference increasing the visibility in these segments.

"The output of this goes into how Ryder deploys visibility solutions and manages its customers' supply chain networks," says Allen.

Role of traceability

Supply chain design, visibility, and asset tracking technologies have made significant strides in recent years, allowing shippers to respond to disruptions faster than ever before.

Good business practices today demand that producers, processors, distributors, transportation companies, and retailers go beyond simply providing the minimum tracking capability. Ryder provides traceability for every action and event across logistics processes, leading to comprehensive management reporting and metrics integral to today's demands within the supply chain.

End-to-end visibility translates to a more reliable and responsive supply chain. This leads to smoother transportation of goods and to greater customer satisfaction. The value of supply chain visibility is in the ability to capture information at an item level and improve the overall business processes supporting the supply chain because of it.

"The ability to track, trace, and manage inventory, support returns, and confirm the authenticity and quality of the product is enhanced when supply chain visibility is referenced at an item level detail," says Allen. "Having supply chain visibility also makes your company more reliable and responsive, which in turn will increase your customer satisfaction."

Visibility in action

A major technology manufacturer has trusted Ryder for more than 20 years to provide it with—among many other solutions and services—visibility into its supply chain. As the port issues on the west coast of the U.S. were occurring, Ryder used the visibility it had created into incoming shipments to reroute inbound freight to Manzanillo, Mexico.

The goods were then moved by rail to the manufacturer's warehouse in Texas. Ryder's ability to create option value services—services that can be turned on and off when needed—allowed from the freight to arrive on time at the warehouse, even when it was rerouted to a new port.

Without visibility into the supply chain at that point in time, the shipment could have stayed at sea for several days. The rerouting not only mitigated business disruption, but it allowed the manufacturer to avoid inventory carry cost and obsolescence.

OPTIMIZING 3PL RELATIONSHIPS:
A BIG STEP TOWARD MORE VALUE

BY **PATRICK BURNSON,** EXECUTIVE EDITOR

In today's dynamic global marketplace, increasing logistics flexibility is critical as shippers look for greater collaboration with their third-party providers on the way to seamless integration of supply chain activities

Third-party logistics providers (3PLs) have gotten the message: Shippers expect seamless, value-added logistics services or they're taking their business elsewhere.

Today's ideal, optimized offering will need to do more than simply address the bottom line of a shipper's transportation budget. To make this happen, most major 3PLs are investing heavily in Big Data capabilties to ensure direct-to-consumer customization, and they're asking shippers to join them in "gainsharing" relationships as they move forward in the global arena.

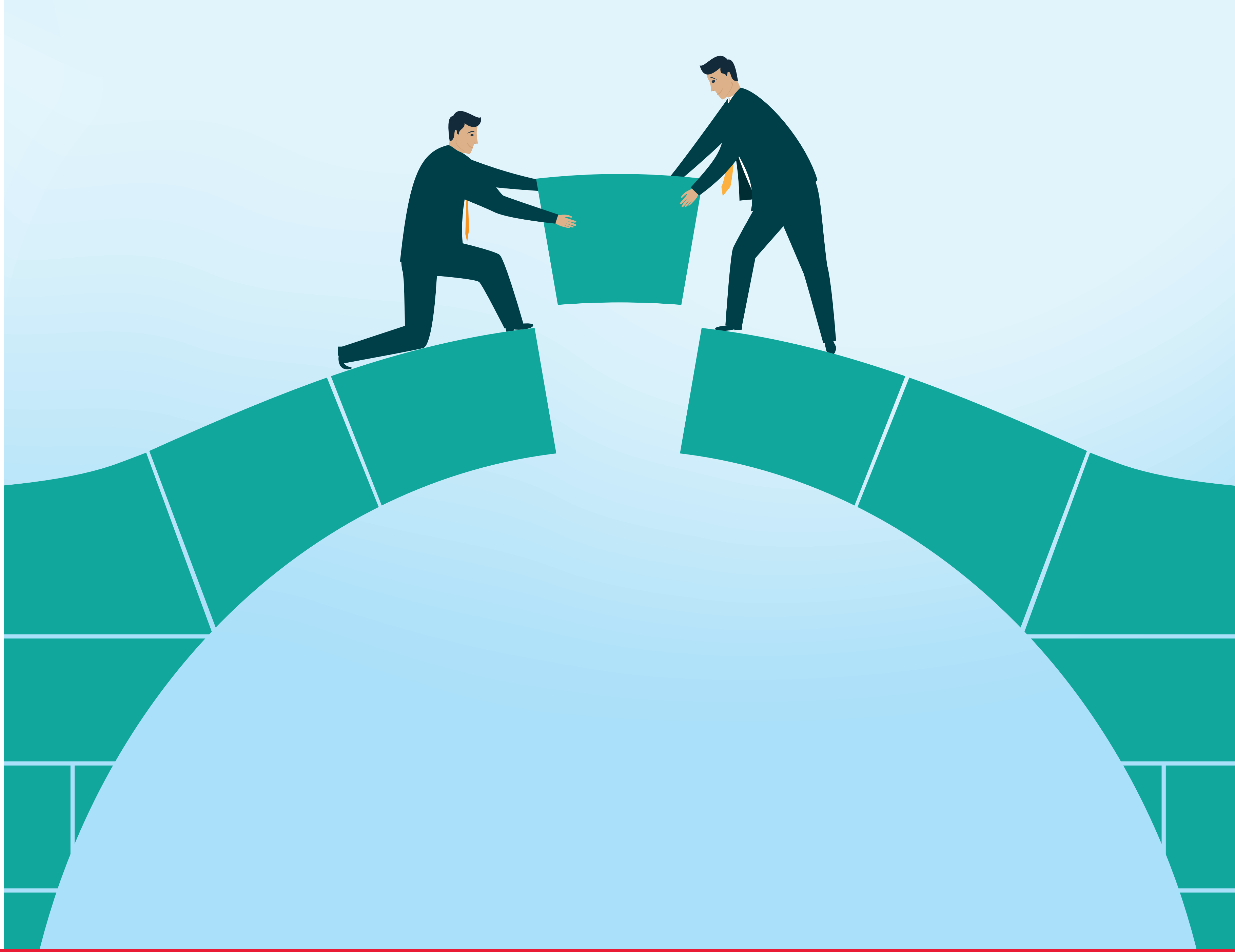
"Shippers should not be put off by a 3PL who brings in a team of experienced executives, nor should they feel threatened by this tactic," says Peter Moore, partner at the consultancy Supply Chain Visions and a Logistics Management columnist. "The shipper should embrace this as a valuable resource that will reduce risk as the joint shipper-3PL team develops innovative solutions."

Moore advises shippers to empower the people who will be responsible for the planning and execution of global strategies to lead the team in joint solution development. "Get facilitation help if you need it, but don't leave the table with less than a fair solution that incentivizes both parties to continuously improve the logistics of the shipper and their customers," Moore adds.

Evan Armstrong, president of 3PL market research firm Armstrong & Associates, endorses Moore's position, and says optimization tends to be the most important aspect of strategic 3PL relationships.

"Of the total 6,398 shipper-3PL relationships we track in our database, 1,184, or 18.5 percent, are strategic, with the 3PLs performing supply chain management or lead logistics provider services," says Armstrong.

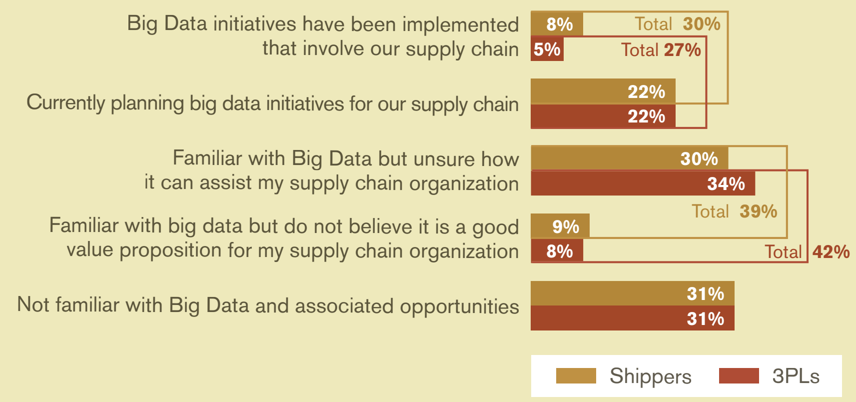
And while large automotive and technology shippers have dominated these types of relationships in the past, Armstrong says that his firm is now seeing an increasing number of strategic partnerships cropping up within the retail and industrial sectors. "To the extent that lead logistics provider relationships have been formed, they're most likely to occur with those that are more 'partnership-based' and often involve larger 3PL accounts," he says.



While other surveys have reported higher levels of participation, ours found that only 30 percent of shipper respondents and 27 percent of 3PLs indicate that they're planning or currently undergoing Big Data initiatives."

—Melissa Hadhazy, Analyst, Capgemini Consulting

Shippers and 3PLs report similar Big Data experiences



Source: *18th Annual Third-Party Logistics Study*, Capgemini Consulting

According to Armstrong's research, leads logistics services are prevalent in 35 percent of the 3PL customer relationships it tracks, while another 35 percent are evolving to become strategic.

"Where you have that 18.5 percent that represent a pure strategic relationship, 3PLs tend to be managing significant parts of customer supply chains," says Armstrong. "Therefore, they are expected to have significant systems, process engineering and control, and transportation planning and execution capabilities. These capabilities provide for truly optimized supply chain networks."

Armstrong views the ability to systematically optimize transportation networks as a key differentiator between those companies that are just freight brokers and those that are large scale network transportation managers. Good examples of this differentiation, according to Armstrong, are C.H. Robinson's TMC division; Menlo Worldwide; Transplace; Transportation Insight; and Ryder SCS. "Each of these providers has invested heavily in in-house and off-the-shelf modeling as well as supply chain execution systems," he adds.

Armstrong maintains that in any strategic supply chain and logistics outsourcing initiative, it's critical for the shipper to determine the requisite capabilities and best operational fit for a 3PL.

"We start by performing an internal analysis of a client's current supply chain network," says Armstrong. The firm then works with the shipper to identify its domestic transportation, international freight forwarding, and value-added warehousing and distribution requirements. "In addition, based upon our 3PL research and benchmarks, we develop a recommended 'future state,' which combines leading operations capabilities with 3PL pricing benchmarks," he adds.

The consultancy then supports the development of a comprehensive request for proposal (RFP). Armstrong then uses that knowledge base and future state forecast in evaluating 3PL candidates and facilitating the final provider selection.

"Warehousing and transportation key performance indicators are a must," says Armstrong. Other critical elements include IT requirements, network optimization skills, international and domestic transportation management capabilities, specific industry requirements, warehousing expertise, proposed pricing, and, of course, contract terms. "Cultural fit criteria should also be evaluated and never overlooked," he adds.

Are you fully leveraging your current 3PL relationships?

Joel Anderson, president and CEO of the International Warehouse Logistics Association, believes that every shipper needs a "check list" when selecting a 3PL that promises that services will be optimized. Here are some suggestions and questions that Anderson says every shipper should think through before signing on the dotted line.

1. The shipper/customer needs to clearly define its market and service expectations. For example, if the shipper does not have any trading patterns outside of a defined area, look for someone with a proven track record of services and promises kept within that service area.

2. The shipper should always be able to get answers to the questions of inventory in storage, in transit, expected delivery dates, immediate notification of any delays, and expected resolution of the delays.

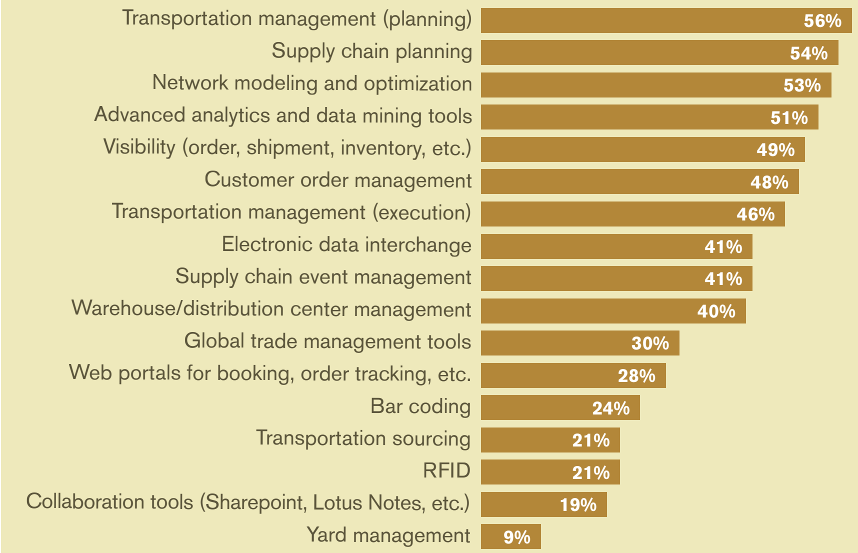
3. Did the 3PL, when presenting responses to an RFP, also ask deep questions about the shipper's supply chain and the shipper's customer requirements? Third-party providers provide substituted services for the shipper and to provide at the same level or better, the 3PL must know all the "ins and outs" of the shipper's supply chain, including what the shipper's customers expect.

4. Does the 3PL bring innovation to the shipper's supply chain? After examining the deep questions in No. 3, does the 3PL mull it over and then respond with an alternative approach that can reduce the time and cost, and improve the reliability and efficiency of the supply chain.

5. Does the shipper have the commitment of the senior management of the 3PL? Often, the most successful 3PLs that secure new business contracts are the ones where senior management participates in the service offering. Nothing says "I care" better than senior management participating in making the proposal a reality.

—Patrick Burnson, Executive Editor

Shippers report a variety of technologies/systems/tools for Big Data supply chain initiatives



Source: *18th Annual Third-Party Logistics Study*, Capgemini Consulting

Role of Big Data

More market intelligence on the importance of building the 3PL-shipper dynamic is expected to be forthcoming at Armstrong & Associate's "3PL Value Creation 2013" conference in Chicago this month. Among those giving presentations is Mike Stark, president and CEO of Pacer Distribution Services, Inc.

According to Stark, Pacer has grown its global presence thanks in part to its management of Big Data. He maintains that when systems integration is optimized, data savings are made—for the small shipper as well as giants like Walmart.

"As a general trend, we see that retailers are constantly evolving to direct-to-consumer service, thereby bypassing the middleman," says Stark. "But 3PLs must evolve right along with them, working with retailers like Cosco through their websites for parcel delivery service to ship direct."

The contention that we've clearly entered the Big Data era was among the major themes surfacing at the recent Council of Supply Chain Management Professionals convention in Denver. When Capgemini analysts unveiled the 18th Annual Third Party Logistics Study, they emphasized that shippers (97 percent) and 3PLs (93 percent) feel strongly that improved, data driven decision making is essential to the future success of their supply chain activities and processes.

But shippers differ widely in their levels of interest, understanding, and adoption, says Capgemini Consulting analyst Melissa Hadhazy. "While other surveys have reported higher levels of participation, ours found that only 30 percent of shipper respondents and 27 percent of 3PLs indicate that they're

Lead logistics provider relationships by industry category

Major industry	Number of relationships
Technological	248
Retailing	191
Industrial	153
Automotive	147
Food, groceries	122
Consumer goods	105
Elements	83
Healthcare	80
Other	55
Total	1,184

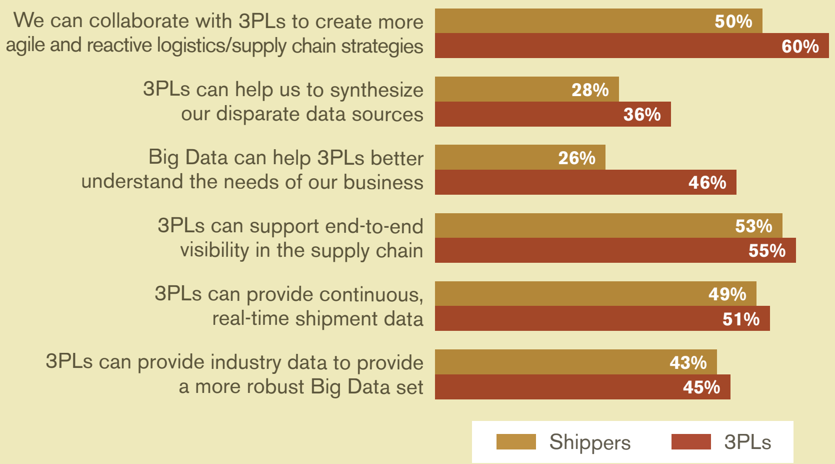
Source: Armstrong & Associates, Inc.

As a general trend, we see that retailers are constantly evolving to direct-to-consumer service, thereby bypassing the middleman. But 3PLs must evolve right along with them, working with retailers like Cosco through their websites for parcel delivery service to ship direct."

—Mike Stark, president and CEO, Pacer Distribution Services, Inc.

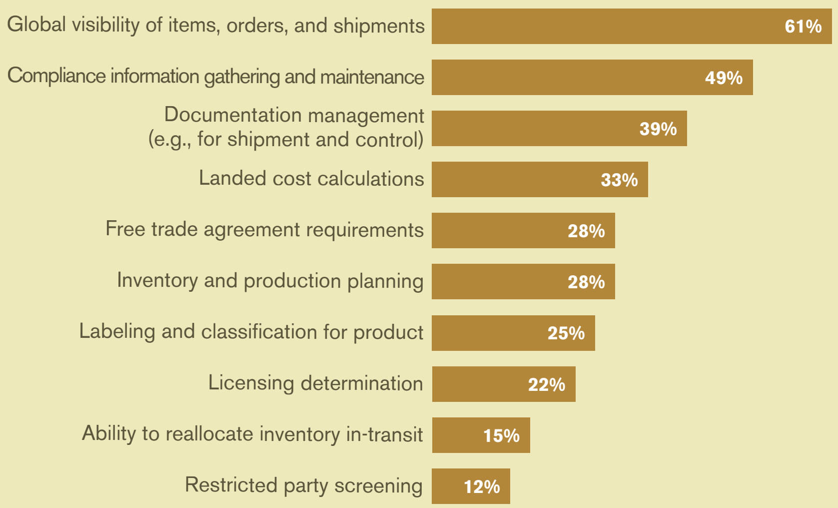
Improving Supply Chain Visibility

Opportunities abound for 3PL-shipper Big Data collaboration



Source: *18th Annual Third-Party Logistics Study*, Capgemini Consulting

Top global trade challenges invite strategic use of GTM



Source: *18th Annual Third-Party Logistics Study*, Capgemini Consulting

planning or currently undergoing Big Data initiatives," she says.

Interestingly, about half of each group disagree that Big Data currently fuels these decisions. Despite this, shippers and 3PLs concur that the concept can be leveraged in both functional and strategic aspects of supply chain operations—as well as to support visibility and the ability to create agile supply chains.

Gainsharing gaining steam

The 18th Annual Third Party Logistics Study—conducted in collaboration with Penske, Penn State University, and Korn/Ferry International—also showed the continuing and overall positive nature of shipper-3PL relationships.

According to the report, both parties view their current relationships as being "successful," while shippers report that they're seeing encouraging results again this year due to the work of their 3PL. By putting their 3PLs to work, shippers say they're seeing an average logistics cost reduction of 11 percent; an average inventory cost reduction of 6 percent; and an average fixed logistics cost reduction of 23 percent.

According to the results, shippers agree that 3PLs provide new and innovative ways to improve logistics effectiveness, and that they are sufficiently agile and flexible to accommodate future business needs and challenges.

And despite ongoing churn in shipper-3PL relationships, shippers report that they're increasing their use of outsourced logistics services, while both parties now say that they're about equally satisfied with the openness, transparency, and communication in their relationships. As suggested in last year's report, however, several ongoing factors are having an impact on the progress toward the advanced end of the maturity model for shipper-3PL relationships.

While "gainsharing" and collaboration with other companies—even competitors—to achieve logistics cost and service improvements would appear to be markers for advanced relationships, it seems that these approaches are more preferred in certain shipper-3PL relationships, and less in others. Capgemini says that there are some encouraging results that suggest a slight increase this year in the outsourcing of strategic, customer-facing situations, as well as IT-intensive logistics activities.

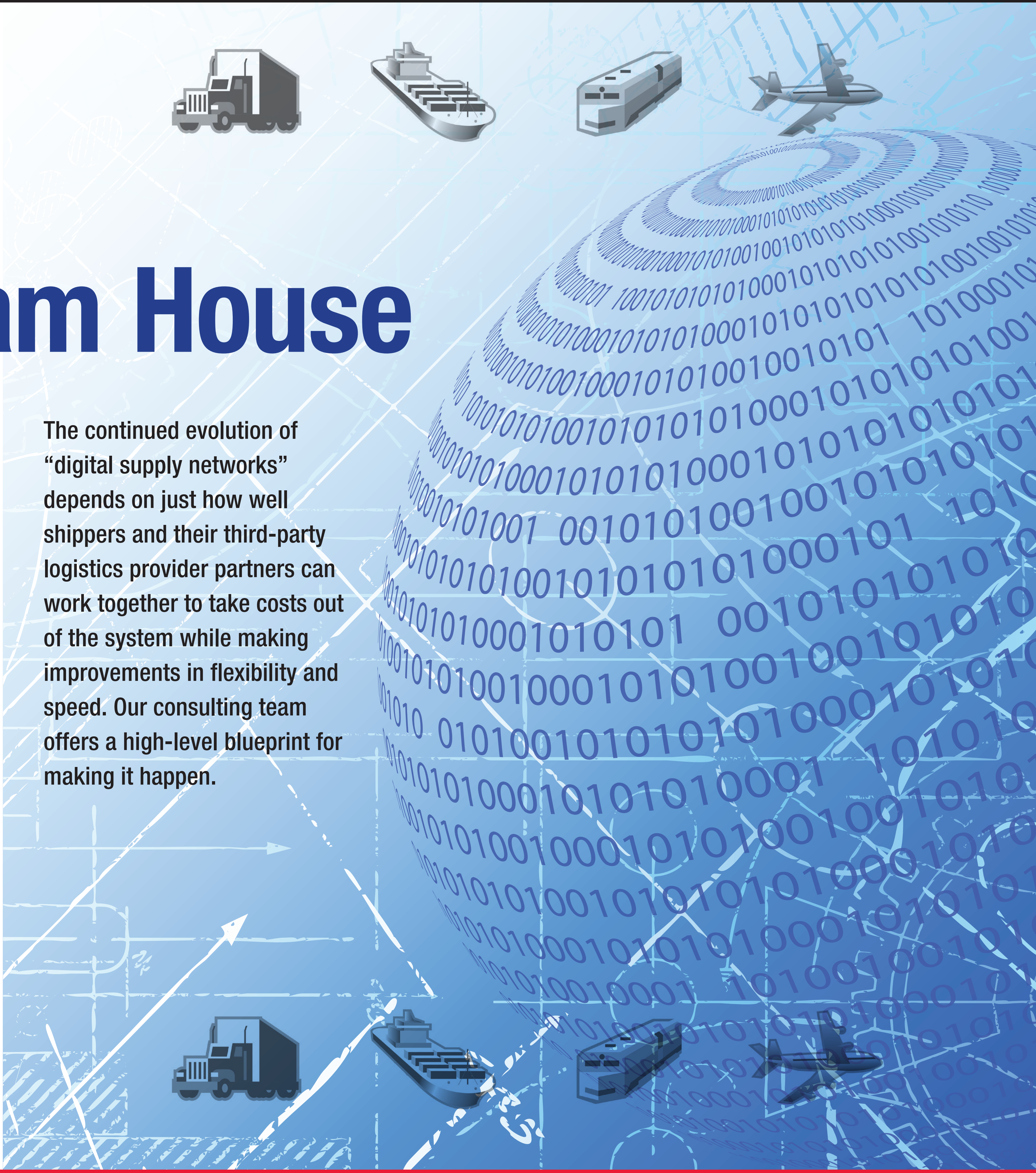
Hadhazy and others involved with the survey observed that innovation—when it finally surfaces in the optimization process—is fast, but not disruptive. "And disruption is often precisely what we need," concludes Hadhazy.

—Patrick Burnson is Executive Editor of Logistics Management

Ryder Ever better.™

BY **BROOKS BENTZ** AND **BILL KAMMERER**, ACCENTURE

3PL Management: Building the Dream House



The continued evolution of "digital supply networks" depends on just how well shippers and their third-party logistics provider partners can work together to take costs out of the system while making improvements in flexibility and speed. Our consulting team offers a high-level blueprint for making it happen.

Once, in what seems to be a very long time ago, companies took responsibility for their own logistics, from inbound freight to outbound finished product. The concept of an integrated supply chain did not yet exist.

The move to an integrated supply chain and, later, to the formation of partnerships with third-party logistics (3PL) providers, was a gradual one, spearheaded by the rise of airfreight companies such as FedEx and UPS. Over time, companies began to see the importance of getting logistics right, especially as changes in manufacturing processes stressed "just-in-time" delivery and other techniques for freeing up working capital.

While this was happening, new theories of management stressed the concept of core competencies and focusing on the activities that were central to the company's success. In most cases, those activities did not include logistics. So, the reasoning went, companies should let outside suppliers solve their logistics concerns and concentrate on important things, like manufacturing and customer service.

That concept isn't working nearly so well anymore. Companies have delegated a vast and ever-growing range of responsibilities to 3PL providers, but in doing so they have lost a degree of control over what has become one of the most important capabilities in the digital age—the ability to get an item from one place to another in a way that meets customer expectations.

The "meets customer expectations" part is critical. In the far distant past, customers really didn't have expectations about logistics. If the product arrived on schedule and wasn't damaged in the process that was satisfactory.

Technology changed all that. With the rise of organizations such as Amazon.com, logistics became not just a core competency, but the core competency for many organizations. Expectations—for both retail and commercial customers—changed, as well. "Next week" became "tomorrow," and customers soon came to expect the ability to track the whereabouts of shipments—not just online, but through mobile applications. If the 3PL was unable to deliver on these expectations, customer satisfaction suffered.

Of course, there are other forces at work in addition too. Companies have become accustomed to operating in an environment marked by volatility and uncertainty. Global supply chains increasingly depend on transportation and logistics in order to be effective, so the impact of disruptive events is greater than ever. The end result, though, is the same: Logistics are more important than ever—far too important for a 3PL provider to handle without careful strategic and tactical direction from the company.

With the rapid adaptation of digital technologies, logistics is no longer a discrete element in a supply chain made up of clearly defined links. Rather, we see and are helping companies realize the evolution of what we call the "digital supply network," where talent, mobility, social media, analytics and Big Data, cloud computing, and physical locations converge to create digital supply networks that offer four distinct advantages:

Speed. Companies benefit from enhanced responsiveness and proactive prevention; they can spot irregularities and address them long before they become full-blown problems. Resources are managed on an automated basis, leaving skilled personnel available to deal with non-routine, "exception" situations.

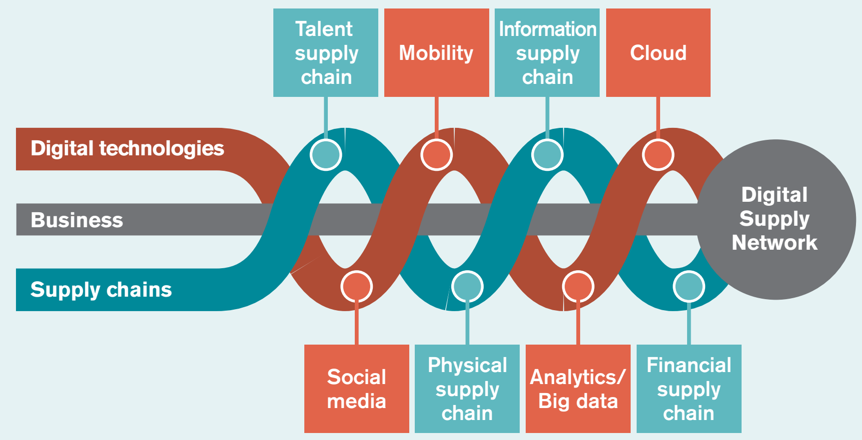
Scalable. In a digital supply network, integration of various elements of the supply chain creates organizational flexibility and provides the basis for a personalized customer experience.

Intelligent. Analytics based on high-quality data provide actionable insights and a strong foundation for innovation. Execution is automated, with uniformly high standards.

Connected. Organizations have real-time visibility into every stage of the supply process, from inward shipments to customer deliveries. Collaboration with other

Improving Supply Chain Visibility

Convergence of supply chains



Source: Accenture, 2014

parts of the organization as well as with key outside suppliers is seamless.

In the digital supply network, 3PL providers are not going away. If anything, their role becomes even more vital, as companies seek to take advantage of their unique assets, such as far-flung DCs and state of the art materials handling systems, using them as a shared resource without investing their own capital. The key question is how to make the 3PL relationship work best for the organization, taking costs out of the system, while making improvements in flexibility and speed.

Building the dream house

In our view, the big problem in the relationship between companies and their 3PL providers is conceptual, not operational. Too many companies say, in effect, we have a problem; here is some money; make the problem go away. It's a bit like handing a large check to a contractor and saying, I need a house; here is some money; let me know when the house is finished. Odds are that the homeowner will not be happy with the final results and neither will the company that behaves similarly when they contract with a 3PL provider.

Several forces are converging to highlight the importance of the relationship between companies and 3PL providers.

First, as noted, the buying public wants and expects high performance. Second, there is ongoing pressure on costs. Shareholders and management look for downward, rather than upward, cost trends. Third, the demarcation line between physical and digital assets is blurring. With machines and physical objects communicating with each other, organizations can act more quickly and more intelligently. Those that fail to adapt will lose competitive ground.

Some companies have moved from a 3PL to a so-called 4PL solution, which means managing a suite of 3PL service providers. In a 4PL environment, an outside provider takes end-to-end responsibility, not just for traditional logistics functions such as pick, pack, and dispatch and freight billing, but also for non-traditional activities such as online ordering—often through a proprietary website. They may even market the company's products.

While the 4PL concept might make sense in some circumstances, finding a truly "agnostic" 4PL provider—one with no attachments to, or ownership of, transportation or other fixed assets—is difficult, and determining where the company's responsibilities end and the 4PL provider's begin is not always easy.

One of the best approaches: Examine the existing supply chain to identify areas of underperformance as well as areas with high potential for improvement. With priorities identified, the next step is to make sure that lines of responsibility are in place to make the right decisions and act on them quickly.

In many cases, companies can gain the benefits associated with 3PL or even 4PL providers while establishing stronger control over every aspect of the supply network. One way to do this is by moving to a "control tower" model, bringing together the capabilities required to manage complex, end-to-end supply chain processes.

At their most basic level, control towers are integrated transactional systems, delivering real-time visibility as to what materials are where in relation to established schedules. Dashboards monitor progress and monitoring systems generate alarms to trigger rapid action when problems arise.

At the next level, control towers incorporate advanced analytics to determine the root cause of supply chain issues. They run simulations and "what if" scenarios to gauge the impact of potential disruptions as well as the feasibility of different approaches—they also analyze risks and the effectiveness of various responses to such risks.

At the highest level, the control tower delivers insights to improve decision-making and makes strategy easier to execute. This means more than having the company do a better job in meeting key performance indicators; it means KPIs are redefined to reflect new capabilities and greater growth potential.

Control towers may require capital expenditures, but the true charm of the model is its flexibility: From an in-sourced, conventional execution model to an out-sourced, cloud-based, variable cost model, the options are innumerable to get to the right solution.

The transformation from a traditional supply chain to a digital supply network—one that incorporates trusted 3PL and 4PL providers as part of a seamless, collaborative enterprise—is not a simple undertaking.

Companies need a high-level roadmap to get from their current state to a highly functional digital supply network. There can be little doubt, however, that supply chain and logistics will become ever more central to corporate strategies, so now is the time to plan—and to act—on building that dream house.

Brooks Bentz and Bill Kammerer are managing directors for Accenture Strategy, Operations, and are frequent contributors to Logistics Management

TRANSPORTATION NETWORK OPTIMIZATION

Your customers' needs are dynamic and constantly changing; your transportation network should be in perfect tune.

Businesses of all shapes and sizes know if they don't have a strong, reliable transportation network, their products won't reach customers. Let's face it, if customers aren't getting what they want, they will quickly move to another company that delivers what they need when they need it, damage-free.

Along with the challenge of delivering orders on-time, businesses have seen freight rates increase approximately seven percent since 2014. Freight volumes are also on the rise, up 13 percent in the past year. Coupled with a driver shortage, capacity constraints, changing federal safety regulations, and loss of productivity because of hours of service (HOS) changes, it's easy to see why companies have a difficult time managing their transportation network. These increasing complexities limit the time you can spend focusing on your core business.

So how do you meet customer demands and keep costs as low as possible given the challenges in today's trucking industry? The solution is simpler than you might expect – an optimized transportation network.

A truly optimized transportation network means it is flexible enough to adapt with your company's strategy, changing needs, and a variety of constraints and variables. It takes advantage of all available mode options in order to deliver the lowest possible cost, while providing visibility and reliability at every step of the way.

Keeping your transportation options open

Businesses have three major alternatives when it comes to transporting their freight over the road:

1. Private fleet - you own the equipment and employ your own drivers
2. Dedicated (outsourced) fleet - you use a third party provider to manage your equipment and drivers
3. For-hire carriers and freight brokers - you use a range of for-hire trucking and logistics partners based on available capacity and lane rates

Taken independently, each of these alternatives has worked well enough in the past, but the transportation landscape has changed. To meet these new challenges head on, companies are taking an "all-of-the-above" approach for their transportation network – blending a dedicated fleet with third party for-hire carriers, as well as private vehicles. This approach is what many are now calling an "integrated" transportation model or solution.

By considering all available modes of

Transportation industry trends

- 26 million trucks haul freight in the U.S.
- Freight shipments are up 13% over 2014
- Truckload rates increased 7% in 2014
- Industry is short more than 35,000 drivers
- Trucking industry expected to grow 21% in 2015
- Trucking capacity approaching 100% active truck utilization

-Source: American Trucking Associations

Even after considering all of these factors, optimization needs to take place on a regular cadence to reap the most benefit.

transportation, you can get the best of all worlds – dedicated drivers, guaranteed capacity, high levels of service, and predictable costs. What's more, you will gain the flexibility to ramp up your capacity using for-hire carriers when there are surges in demand. You can also take advantage of backhaul opportunities, negotiated rates, and fuel savings.

Moving to a more dynamic transportation strategy, you can realize gains in efficiencies and cost savings. Executed effectively, an integrated solution allows you to achieve significant network stability, guarantee capacity, and reduce costs. At the same time, there will be an increase in productivity that comes along with the benefit of right-sizing your fleet.

With an optimized network, you're able to adapt to the ebbs and flows of the business environment. You will also have a scalable transportation network that can easily adjust to customer demands, strategy realignment, and economic changes that may arise in the future.

Optimization in practice

The first step to optimizing your transportation network is to perform a complete evaluation of your current operation. Ask yourself these questions:

- Do my customers have fixed delivery windows, or would they be open to relaxing their delivery requirements –such as receiving larger shipments less frequently?
- How predictable are my shipment volumes and transportation needs?
- Do I have the right level of visibility to planned and in-transit shipments to make dynamic adjustments to my network?
- Are market factors like the driver shortage, hours of service, tightening capacity, and many others impacting my ability to maintain my 'current state' transportation solution?
- How much flexibility do I have today compared to how much I need to have in the future?

Implementing an integrated transportation solution can solve many of the challenges you face in today's transportation environment, but it is important to do your homework first. Along with the questions above, other factors that should be considered are distance traveled, number of stops, types of equipment, returns/vendor pick-ups, special handling, and delivery requirements. The goal is to deliver a more efficient and cost-effective operation, without jeopardizing operational constraints or service levels.

Even after considering all of these factors, optimization needs to take place on a regular cadence to reap the most benefit. For example, it might make sense to run a one-way lane with a for- hire carrier one week, and run the same lane with the dedicated fleet the following week, because of a backhaul opportunity.

In addition, not all changes are implemented instantaneously. But when you are open to these types of dynamic adjustments, versus a more fixed plan, you have the potential to claim huge savings and efficiencies. Visibility is paramount in any operation and that includes your transportation network. For many, the investment is not only purchasing, but also effectively implementing the transportation technology needed to get the right visibility. This can be a daunting, and often, insurmountable undertaking, as you are increasingly turning to providers for the technology that will help diagnose, remediate, and optimize your network.

Centralizing route planning and engineering can also simplify decision-making, provide dashboards to identify waste in the network, and ultimately make smarter decisions that save money.

Five ways an integrated solution can deliver for your transportation network

1. Flexibility. An integrated solution provides a foundation for core capacity and allows a better match of transportation resources with procurement capabilities when demand fluctuates.
2. Cost savings. Save money by making as-needed adjustments to lanes and other variables.
3. Transparency. Ensure you have full visibility into your transportation network across all modes.
4. Waste reduction. Make your network run LEAN through a reduction in miles driven, carbon emissions, and fuel consumption, and an improved utilization of resources.
5. Collaboration. As with any change to "the way things have always been," success through an integrated solution requires a commitment to collaboration across all parties involved – from purchasing to the shipping dock. Collaboration can transcend carrier network operations and private fleet management concerns to deliver the best for your transportation network.

An integrated solution requires a lot of planning and control throughout the process to manage the different modes being used – you're not just coordinating multiple vendors, but also the drivers and maintenance associated with the private or dedicated fleet. It is important to have a knowledgeable operating team in place to drive execution. The operating team should be armed with the right planning tools, deep knowledge on the transfer of goods, and have the right processes and procedures in place to manage tight delivery schedules. Setting your operations team up for success will ensure your transportation network is optimized.

A network that grows with you

Examples abound, showing how businesses are leveraging the flexibility inherent in an integrated solution to adapt to changing business requirements. Here are three case studies where Ryder has provided an integrated solution with positive results:

Case Study 1: Managing Seasonal Demand

One Florida plant nursery sought an integrated transportation solution to help it manage dramatic shifts in demand during peak season. The solution, which was contracted to Ryder, includes a dedicated fleet and transportation management of third-party for-hire carriers. The nursery ships plants to retailers in Florida, Alabama, Georgia, Arkansas, Mississippi, and Louisiana.

The nursery's fleet consists of a half-dozen dedicated trucks and drivers, which is sufficient for the majority of the year. However, when spring arrives each year, its capacity needs surge by 400 percent, as it rises to the task of stocking retailers' garden centers. The nine-week peak season from March to May accounts for nearly 80 percent of the nursery's annual revenue.

All businesses have peak seasons, and it is imperative to have a flexible transportation network that can handle the additional volumes, but ok when they are no longer needed. For many companies, this is no easy task, especially when deliveries must occur without interruption and on time to keep your customers happy. In this scenario, having reliable providers–both the dedicated fleet and for-hire carriers–will make or break the success of the company, especially considering that 80 percent of revenues came from the peak season.

By leveraging an integrated solution–that uses a dedicated fleet year round and flexes with for-hire carriers for the peak season –the nursery has benefited from an increased ability to successfully fulfill orders, while controlling costs and service levels. It also has a model to leverage its business expands with new retailers.

Case Study 2: Un-tightening capacity and reducing costs

For a company that manufactures paper rolls, liner sheets, and cardboard boxes from recycled corrugated materials, having an optimized transportation network helped alleviate the pressures of tightening truckload capacity in their geography.

Before outsourcing to Ryder, the company struggled with escalating costs and poor carrier performance. With Ryder, the company was able to establish an integrated transportation model consisting of a dedicated fleet and transportation management of third-party for-hire carriers.

They got started with a staggered implementation plan, which when said and done, led to a conversion of 22 percent of for-hire carrier shipments to their dedicated fleet. As a result, the company avoided more than $700,000 in for-hire carrier rate increases and saved $1.4 million in for-hire carrier surcharges.

Case Study 3: Fleet utilization and optimization deliver a one-two punch

In the Midwest, a vegetable canning company that supplies grocery retailers across North America knows having the right transportation network is the difference between keeping shelves stocked or losing loyal customers. Family-owned and operated for nearly a century, the company knew business was their strength, but struggled with their transportation network. They partnered with Ryder to evaluate their network and implement numerous optimization strategies. The company distributes its products from three different locations– two in the south and one in the Midwest–and prior to optimization, their average haul was between 700 and 1,000 miles.

At the time they decided to outsource, the company was running a private fleet of 100 power units and supplementing it with for-hire carriers. Ryder determined that the existing fleet was heavily underutilized, and proposed a 50 percent reduction in fleet size. Combining the remaining dedicated fleet with Ryder's Transportation Management capabilities gave the company the dedicated capacity and drivers it needs while leveraging Ryder's purchasing power of more than $5.2 billion annually to procure for-hire carriers at pre-negotiated rates.

The company's transportation spend went from $32 million to $28 million annually. The results in the second year of its partnership where even more staggering. As the data collected from the first year of operations was analyzed, further optimization opportunities were found, and the fleet was reduced again. In addition, significant backhaul opportunities were identified that ultimately saved the company several million dollars.

This begs the question: Why aren't more companies re-evalutating their networks if they can save millions by optimizing them?

Is an integrated solution right for you?

- Do you have a transportation network that consists of both a private or dedicated fleet and for-hire carriers?
- Do you have at least 48 hours to plan your routes in advance?
- Is your network impacted by seasonality or other variability in demand?
- Are you experiencing capacity constraints outside of your core network?
- Do you have significant LTL volumes that could be consolidated?

What's next for the industry

For decades, the transportation industry has relied on people to collect and analyze data manually, who would then decide which mode to ship an order. Depending on the size of the transportation network, this process could take anywhere from a few hours to a few days – or more. This process,

while necessary, keeps transportation managers up at night, wondering: Is the team analyzing the right data? Are the most cost effective decisions being made? What about the element of human error?

A recent survey of Fortune 500 companies conducted by the University of Tennessee's Global Supply Chain Institute revealed 76 percent of those surveyed use a combination of

for-hire carriers and a dedicated fleet to deliver freight. Of the companies that use an integrated model, 27 percent do not have a clear process to assign shipments; and 53 percent do not use a routing tool to optimize their fleet.

With new technologies entering the market every day, it was only a matter of time until tools are developed that enabled the automation of some or the entire network planning processes. But there is still room for improvement, and innovations in this area will greatly improve the performance of supply chains everywhere.

Conclusion

The facts are clear; a company that relies on trucks to ship its products over the road is only as strong as its transportation network. With continuous pressure for cost containment, improved efficiency, on-time performance, and high levels of customer service, an optimized transportation network can give your company the competitive advantage it needs. By continuously evaluating your transportation network and analyzing opportunities for optimization, you can achieve success.

Ryder specializes in integrated transportation solutions that help you improve performance across every mode of transportation, derive more value from transportation partners and take control of your operation. Ryder offers the insight, management expertise, purchasing power, and standard operating practices it takes to increase visibility, make better use of assets, reduce costs and improve customer service.

Discover how outsourcing with us can improve your fleet management and supply chain performance by calling 1-888-88-RYDER (option 1) or by visiting ryder.com.

FIVE TIPS FOR A LEAN REFRESHER FOR THE RETAIL SEASON

BY TOM ARNET

Lean Guiding Principles, Retail, Supply Chain, Warehousing & Distribution Management

A retail customer recently wondered whether his organization needed to review its LEAN warehouse and distribution strategy for the coming back-to-school and holiday shopping seasons. After all, systems were in place and all seemed to be running smoothly.

So a question was posed: Could the organization endure the margins lost by not preparing–especially if a breakdown meant the company failed to meet its peak season numbers?

From labor and material handling equipment (MHE) to space, safety and security, preparation is essential to ensuring success during the retail season.

With time on your side, review and refresh the following areas:

1. Labor needs.
From permanent employees to temporary staffing, the labor pool must be brought up to speed with each new shopping season. For contingent workers, review resource planning, capacity needs and your LEAN overview with the temp service provider. Review and update onboarding and training programs. If possible, create fast-track training on core processes, like materials, stocking, and higher-level logistics. This will help ensure temp workers are trained, ingrained with your systems and culture, and familiar with the work environment. Before hiring, remember to make clear how long the peak season will last and what vacation black-out periods will apply over the holidays.

2. MHE condition and capacity.
From the condition of the current fleet to expected needs for the coming season, a maintenance program combined with a utilization review will ensure you're prepared. First, perform routine maintenance and repair on existing equipment. Stock common replacement parts on site, like vehicle tires, safety lights and horns, and battery connections. Should a lift truck break down, for example, the service tech will have the parts needed to expedite the repair. Did capacity grow this year over last? Will current equipment accommodate your needs? Using capacity modeling software, conduct a historic needs analysis to match actual growth and projected increases to MHE capacity.

3. Space utilization.
The importance of well-used space during peak season cannot be overemphasized. Perform a space Kaizen prior to season to optimize utilization, reduce cycle time and increase effective throughput. For example, top runners should be placed in a centralized area closest to the outbound dock to enhance speed-to-market. Review and perform a refresher on your 6S program (Safety, Sort, Set in order, Shine, Standardize, and Sustain). This will minimize unproductive time chasing the materials and tools needed. Did your capacity modeling indicate you will require more square footage this season? If so, review alternative space options within your operations and or secure an off-site or short-term location.

4. Safety programs.
One preventable accident can bring the entire operation to a halt. This is especially important with the arrival of contingent workers unfamiliar with the facility, equipment and operations in plants that can easily double capacity and pace during peak season. Review and refresh safety protocols. Assign trusted "champions" to be your eyes and ears to spot problem areas, like drive aisles narrowed with excess product, or to direct personnel in case of emergency. Review key protocols, like shut down and emergency plans and evacuation routes, and perform mock emergency exercises.

5. Security.
From a single laptop to a pallet of sentimental candles, the value of stolen goods not only can impact an organization's bottom line. It can permanently spoil its reputation. Make it clear to staff and contingent workers alike that heightened security and surveillance are in effect during peak season. Screen employees. Install access controls. Regulate what's allowed in the warehouse or what must be stored in the locker–like purses, lunch bags and cell phones.

The retail season can stretch even the best organizations at the seams. A LEAN refresher now can help ensure labor, MHE, space, safety and security are in peak running order during the peak shopping season.

Learn how to make your retail supply chain LEAN by downloading our most recent white paper: Eliminate Waste in Retail Supply Chains.

Tom Arnet has spent 18 years in the technology and retail industry, and today is a Director of Customer Logistics with Ryder System Inc., specializing in supply chain and logistics solutions for the technology, retail and consumer goods segments.