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Executive Guide to Supply Chain Resources

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A Resource For The Year Ahead

By the time you receive your copy of the December issue of *SCMR*, the holiday rush should be ready to peak and taper off as we all look forward to the year ahead. This issue can help readers prepare in several important ways.

First, we offer an insightful look forward by Executive Editor Patrick Burnson. This year, he focuses on the prospects for global growth in 2015. And

this year *SCMR* is adding additional features to the December issue to complement the annual Outlook. Each offers some kind of prognostication or look to the future.

For instance, Cisco, Intel, P&G, and Unilever, four of Gartner's Supply Chain Top 25, talked to



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us about the initiatives they're launching to remain on top of their game. And, Tom Wroblewski, vice president of industry supply chains for Chainalytics, writes about what you need to know and which indicators you should be watching to win the re-balancing battle between inventory and transportation. Then, Robert C. Lieb looks back on 25 years of surveys of the 3PL user and supplier markets.

This issue also brings you our annual *Executive Guide to Supply Chain Resources*. This is a comprehensive guide to services, products, and educational opportunities targeted to supply chain professionals. The editors at *SCMR* wish all of our readers a successful year to come. We hope that the information and insights in this issue will play a part in that success.

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Outlook: GLOBALIZATION Heads Toward Recovery in 2015

By Patrick Burnson

Over the past five years emerging markets have maintained their “growth dynamic,” observes John Manners-Bell, CEO, of the London-based think tank, Transport Intelligence (Ti). At the same time, however, none of the upstarts have remained immune from profound economic and political upheavals. Furthermore, the Euro Zone crisis and political gridlock in the U.S. make it more difficult for aspirational nations to realize their destinies.

“Yet it is extraordinary that emerging markets have continued to grow so robustly,” notes Manners-Bell.

Indeed, Ti is forecasting expansion at 6 percent in the next 5 years—far out-stripping progress in the developed world. It is for this reason, say Ti analysts, that emerging markets remain so relevant to the global economy—and more specifically to the global logistics industry.

The Agility Emerging Markets Logistics Index contains some other revealing trends based on its annual survey, says Essa A. Saleh, CEO & President, Global Integrated Logistics, Agility.

“In 2014, slowing growth in China, India, Brazil, and other emerging economies prompted a reappraisal of their prospects and potential,” he says. “Many countries in the Index are at a crossroads, facing difficult policy choices. Others are threat-

ened by unrest or intractable social problems.”

Among the major conclusions drawn from this survey are that supply chain managers remain overwhelmingly upbeat about prospects for emerging markets in 2015, but are a bit more guarded than they were a year ago. Of the more than 800 managers interviewed, nearly 74 percent said prospects for emerging markets were either “very good” or “good,” as compared with 75 percent in 2014. But the percentage seeing emerging markets’ prospects as “very good” fell from roughly 22 percent to about 17 percent.

Not surprisingly, the Asia Pacific enjoys the brightest outlook. Nearly 58 percent believe emerging markets in this region will grow fastest in 2015. Latin American markets were the choice for roughly 25 percent of respondents.

“Respondents continue to see the greatest potential for growth in non-Asian emerging markets in extractive industries—mining, minerals, gas, and oil,” says Ti analyst, Cathy Roberson. “In Asia Pacific, where China in particular is trying to develop a more balanced economy powered by both exports and consumption, retail and consumer goods were identified as having the greatest potential.”

An overwhelming percentage—more than 63 percent—“agree” or “agree strongly” that manufacturing production will move away from China to other emerging markets countries. Vietnam, India, Mexico, and Indonesia were seen as the top alternative destinations.

“Growth, trade volume, and investment are far more important than security and lack of corruption

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As the global economic center of gravity shifts eastward many analysts say emerging economies will see bigger gains than advanced economies. At the same time, however, Europe remains the most “connected” region.

when it comes to factors driving the emergence of an economy,” adds Roberson.

Survey respondents believe supply chain risks vary by region. In Asia Pacific, the top risks identified were natural disasters and economic shocks. In Latin America, corruption and poor infrastructure were the leading risks. Government instability and terrorism were top concerns for the Middle East and North Africa. In Sub-Saharan Africa, poor infrastructure and government instability were seen as the greatest risks.

Global “Connectedness”

A slightly more nuanced conclusion has been recently posited by DHL in its third edition of the Global Connectedness Index (GCI). According to analysts here, “global connectedness”—measured by cross border flows of trade, capital, information, and people—has recovered most of its losses incurred during the financial crisis. Indeed, the depth of international interactions (or the proportion of interactions that cross national borders) gained momentum in 2013 after its recovery had stalled in the previous year.

Nonetheless, trade “depth,” as a distinct dimension of globalization, continues to stagnate and the overall level of global connectedness remains quite limited, implying that there could be gains of trillions of U.S. dollars if boosted in future years.

“In the aftermath of the financial crisis, globalization has increasingly come under pressure and international trade negotiations face growing resistance,” says Frank Appel, CEO Deutsche Post DHL. “In this environment of uncertainty, I am convinced that a prosperous world needs more, not less integration.”

The DHL Global Connectedness Index 2014 documents the substan-

tial shift of economic activity to emerging economies that is pushing the world's economic center of gravity eastward. Emerging countries are now involved in the majority of international interactions whereas before 2010, the majority of international flows were from one advanced economy to another. Notably, the 10 countries where global connectedness increased the most from 2011 to 2013 are all emerging economies, with Burundi, Mozambique, and Jamaica experiencing the largest gains.

Advanced economies have not kept up with this shift. This suggests that they may be missing out on growth opportunities in emerging markets.

“Counteracting this trend would require more companies in advanced economies to boost their capacity to tap into faraway growth,” says Professor Pankaj Ghemawat, co-author of the report. “This is particularly evident in light of the fact that a decades long trend toward trade regionalization has gone into reverse.”

In fact, the *GCI 2014* reveals that every type of trade, capital, information, and people flow measured has expanded over greater distances in 2013 than in 2005, the report's baseline year.

In addition to an overview on the state of globalization, the 2014 report also provides some insights into the

connectedness of individual countries and regions. The Netherlands retained its top rank as the world's most connected country and Europe is once again the world's most connected region. All but one of the top 10 most globalized countries in the world are located in Europe, with Singapore as the one standout.

North America is the second most globally connected region and leads on the capital and information pillars, with the United States as the most connected country in the Americas. Overall the U.S. is ranked 23rd out of the 140 countries measured by the GCI. The largest average increases in global connectedness from 2011 to 2013 were observed in countries in South and Central America and the Caribbean. Middle East and North Africa was the only region to experience a significant decline in connectedness.

Breadth vs. Depth

The GCI report was commissioned by DHL and prepared by Pankaj Ghemawat (Professor at New York University Stern School of Business and at IESE Business School in Barcelona, Spain) together with Steven A. Altman (Senior Research Associate and Lecturer in Strategic Management at IESE Business School).



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United Van Lines and **Mayflower Transit**, trusted providers of reliable specialized transportation and logistics services for over 50 years. Based on a network of 1,300 service centers in 146 countries, we are your single source for customized supply-chain solutions.

Unlike other established globalization indices, the GCI analyzes globalization in “3-D.” It looks at the depth of countries’ cross-border interactions, their directionality (outward flows versus inward flows) as well as their geographic distribution (breadth).

“With its unique 3-D approach, the GCI is the only one of the globalization indices to register what many observers regard as the biggest drop-off in the intensity of globalization during the financial crisis,” explains Professor Ghemawat. “That should boost confidence in using it as the basis for diagnosis and decision making.”

The 2014 DHL Global Connectedness Index draws on more than 1 million data points from international flows covering trade, capital, information, and people accumulated over the last nine years. The ranking encompasses 99 percent of the world’s GDP and 95 percent of the world’s population.

The International Monetary Fund, which produces the *World Economic Outlook*, takes a more measured approach to 2015 prognostications, noting that in some major emerging market economies, the negative growth effects of supply-side constraints and the tightening of financial conditions over the past year could be more protracted.

“In many advanced and emerging market economies, structural reforms are urgently needed to close infra-

structure gaps, strengthen productivity, and lift potential growth,” says economist Olivier Blanchard.

Still, in emerging market and developing economies, the IMF says growth is now projected to strengthen to 5.2 percent in 2015. In China, the authorities have resorted to limited and targeted policy measures to support activity in the second half of the year, including tax relief for small and medium enterprises, accelerated fiscal and infrastructure spending, and targeted cuts in required reserve ratios.

“For next year, although the outlook remains to an important extent a function of the government’s target, growth is projected to moderate to 7.1 percent as the economy transitions to a more sustainable growth path,” concludes Blanchard.

Finally, investment in human resources will remain flat, says Blanchard. “Job-creating growth is not projected to come as a consequence of globalization in 2015,” he says. “Such a development will require more confidence across all economic and geographical regions. ☺☺

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What's Your Supply Chain Priority?

What does it take to remain a supply chain leader? *Supply Chain Management Review* put that question to executives at four of the best performing global supply chains and asked about their plans to remain at the top of their games in the year ahead.

By Bob Trebilcock

We all know the best performing supply chains and what they have done to reach the top rungs in their industries. After all, *SCMR* publishes Gartner's annual Supply Chain Top 25 every September. But as with winning sports teams, no supply chain can rest on its laurels. The day after winning the Super Bowl, the World Series, or the Final Four, the best coaches begin preparing for the season ahead. So it is with supply chains: The best run organizations are constantly looking for the areas in which they have room for improvement, as well as the innovations that may put further distance between them and the rest of the pack.

So, what are the priorities for the coming year for supply chain leaders? That's a question we put to supply chain executives at four companies on this year's Supply Chain Top 25: Unilever (No. 4), P&G (No. 5), Cisco (No. 7), and Intel (No. 8). The initiatives they have put at the top of their To Do lists for 2015 are diverse and reflect the broad umbrella that covers supply chain management. They may also provide food for thought for your own organization.

Cisco: The Transformational Supply Chain

The Internet of Things, the Cloud, and Big Data are high on Cisco's priority list. The goal: enable the supply chain to support a new business model.

Cisco is undergoing a transformation. For years, this tech leader, with \$50 billion in revenue, was known as a networking hardware company with great software. "Buy the hardware and get the software for free," described Cisco's go-to-market strategy.

Today, that strategy has been turned on its head: Software and solutions are the name of the game. "Our customers are looking for us to provide a complete software and integrated solution, and not just ship the hardware," says John O'Connor, senior director of supply chain transformation. "That's a big shift."

As O'Connor's title suggests, Cisco's supply chain is also undergoing a transformation to support its company strategy. It is not easy. First, it is a complex, distributed global network, with 18 to 20 nodes. Cisco's 2,500 internal supply chain personnel manage some 25,000

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individuals outside the organization who are focused on Cisco's supply chain. More importantly, Cisco has spent the last two years replacing its legacy systems with new ERP and product lifecycle management systems, a data management platform, and a logistics control tower to facilitate the changes ahead. "To continue to scale, we had to get off of the highly-customized platforms we had been using," says John Kern, senior vice president of supply chain operations.

That work laid the groundwork for investments in new strategies and technologies that will drive the company's future. The big ideas include Big Data, the Cloud, Mobility, and the Internet of Things. "We are thinking about the strategies and technologies that will deliver the next generation of productivity and a differentiated customer experience," says O'Connor. They include:

The Connected Supply Chain.

Cisco is working on a radical expansion of its sensing capabilities by increasing its use of RFID, barcode scanning, and sensors on the manufacturing floor and across its network. "If you think of the Internet of Things, we're creating a comprehensive web of connectivity to pull data from people, processes, and things," Kern says. "We want to tap into every node in our network, upstream and downstream." By linking systems and processes, Cisco can use its control tower to automatically change production flows and reroute purchase orders in an instant.

The Mobile Supply Chain.

Free the people could be the rallying cry for Cisco's mobile strategy. Instead of working behind a desk on a PC or a Mac, Cisco wants to put its applications in the Cloud and decision-making capabilities in the hands of its supply chain personnel. "We want visibility into inventory up and down the supply chain, including inbound component inventory through product in our distribution channels, to enable our teams to use their smart phones to take real-time action," says O'Connor.

The Analytic Supply Chain.

More sensing devices and more nodes translate into more data—Big Data. That includes capturing unstructured data, like customer notes. The next step in Cisco's transformation is to analyze that Big Data in seconds in order to make real-time decisions. The real goal is to evolve from reacting to issues after the fact, to taking proactive steps before a quality or throughput issue occurs. "We want to look at the performance of products—all the way from sub-tier components through the manufacturing and shipment of finished goods—to identify quality or production problems or to proactively identify where we have an order that may need to be expedited," says O'Connor.

Those strategies are possible because of the core work over the last two years. "We have reliable data and a stable, mission-critical reporting environment," O'Connor says. "Now, we can leverage those resources for the next wave of supply chain productivity."

P&G: Customer Centricity and the Responsive Supply Chain

Long known as an efficient manufacturer, P&G is expanding its consumer-centric model to actively include the customers' needs. From the store shelves to the manufacturing floor, P&G is assessing what supply chain solutions provide the most value to retail customers and consumer alike, with faster-than-ever response times.

With approximately 73,000 team members powering a supply network that includes over 130 manufacturing sites and more than 200 distribution centers, P&G's supply management organization "touches each and every one of our retail customers across the globe," says Yannis Skoufalos, P&G's global product supply officer. Supply Network excellence and professionalism is a very significant contributor behind a planned \$6 billion reduction in P&G's cost of goods over five years, including the delivery of a \$1.6 billion reduction in 2013.

While metrics like cost of goods and case fill rates are traditional measurements, P&G is on a journey to deliver more on what its customers need—one whose brand equity is measured by how it touches the lives of its end consumers. P&G's supply chain performance is measured by the metrics that are important to its myriad of customers, each with its own yard stick. The goal is to align 80 percent of total business and services in the same way as those that are tracked by the customers. Think of it as Customer Centricity. "Service as measured by our customers is reshaping the way we engage with our market," Skoufalos says. "Some customers track on time delivery and some measure us on EDI data transmissions. As soon as you understand what measurements are important to them, it opens up an array of ideas about what service excellence is all about."

To that end, P&G has already announced to Wall Street a major redesign of its flagship supply networks in North America and Europe for 2015. Two ongoing initiatives illustrate how this restructuring is impacting the supply chain.

First, in North America, P&G is putting a premium on responsiveness with a distribution goal of being within one day's transit to 80 percent of retailers. To do that, P&G is building six mega-distribution centers in strategic locations across the country. The facilities are designed to receive and cross-dock product from all of P&G's business units for speedy and efficient delivery of mixed truckloads. Facilities in Moreno Valley, Calif. and Shippensburg, Penn. are already up and running. The

other centers will be operational by October 2015.

To support the network of mega-distribution centers, P&G is also planning to reconfigure its North American manufacturing base, again with responsiveness in mind. Rather than having a dispersed network that is forecast-driven, P&G is adopting a demand-driven replenishment model based on point of sale (POS) information coming from its retail customers. To speed up response time, it is asking suppliers to create "supplier villages" next to its plants, similar to the just-in-time model employed by the automotive industry. Suppliers can then respond much more quickly to P&G. "Having the ability to take an uninterrupted thread from POS data to the supplier base and on through the distribution network is what we are trying to address," says Skoufalos. "This is the future of supply chain management at P&G."

Intel: Managing a Supply Chain that Enables Moore's Law

Intel's goal is to stay several generations ahead of its competitors in the semiconductor industry. So, the supply chain must stay ahead of the curve.

"Intel's secret sauce is our ability to continue Moore's law," says Jackie Sturm, vice president and general manager of Intel global supply management. "To support that from a supply chain standpoint, we and our suppliers must be one or two generations ahead of our competitors."

Moore's law is named after Intel's co-founder, Gordon E. Moore, who wrote in 1965 that over time, the number of transistors in a dense integrated circuit doubles approximately every two years. Delivering a continuous and significant advance to Intel's technology every two years or less is a complex and challenging process, especially across a large and diverse supply chain. It requires collaboration between internal technology experts and suppliers of chemicals, specialty gasses, precision equipment, and metals and minerals to meet Intel's growing needs; it also is dependent on the ability to take the chemistry developed in a test tube in a lab—or a garage—and ramp it up to volume in a fab plant. And, given that many of the chemicals and raw materials are highly regulated, they must be sourced, handled, tracked, and disposed of in compliance with government regulations. To continue Moore's law, Intel has set at least three priorities for its supply chain for the coming years.

Ethical Sourcing. Intel is considered the electronics industry's leader in the effort to eliminate conflict

minerals from products, specifically tantalum, tin, tungsten, and gold mined in the Congo. “We can say to a high degree of certainty that we are free of conflict minerals in microprocessors and that work in the broader supply chain will continue in 2015,” Sturm says. Intel is also working to improve the health and safety of workers at suppliers in emerging markets. For instance, Sturm recently encouraged suppliers to ensure the availability and use of functioning personal protective equipment devices, like safety glasses and ear protection, at a keynote address in Shanghai where Intel suppliers gather annually for dialogue and learning on supplier sustainability.

Partner of Choice. Intel’s engagement with its customers is changing. “We are becoming the partner of choice,” says Mani Janakiram, director, supply chain strategy and analytics. “We are doing that by aligning our business strategies with their business values and by making the issues our customers face, our issues.” One example: Intel is extending its expansive portfolio of supply chain visibility and analytical tools to predict its customers’ demand. And, it is expanding those tools, with the addition of social media, mobile, and cloud technologies to better leverage Big Data in supply chain. “We have service level and vendor managed inventory agreements in place to lean out the supply chain,” he says. “But with visibility and predictive analytics, we will be more effective at positioning and delivering the parts that our customers require, when they are required.”

Demand Shaping. In addition to managing billions of dollars of capacity, Intel works closely with customers to shape demand for new products that then drives the demand for Intel products. At the dawn of the smart phone, for instance, Intel worked with suppliers to develop cost-effective touch displays when that was a nascent technology. It is also important in untapped, emerging markets. “We want to make sure that smaller manufacturers have access to memory and other components to produce the products they need for a market like China,” says Sturm.

Unilever: Building a Brighter Future with Supply Chain Management

In Europe, sustainable sourcing, logistics control towers, and distribution hubs are delivering growth and contributing to Unilever’s Sustainable Living Plan.

“In the supply chain at Unilever, our purpose is to deliver sustainable and profitable growth,” says Neil Humphrey, Unilever’s senior vice president

of supply chain for Europe. “We are looking beyond financial results to our impact on the world around us, from reducing our environmental footprint to improving the livelihoods of small farmers and the communities in which we operate.”

Humphrey is referring to Unilever’s heralded Sustainable Living Plan. While building a brighter future is a significant ambition, he says the job of the supply chain is to enable sustainable growth in the context of a brighter future. “For example, in Europe, our brand commands a premium over discounted brands, so we have to deliver an absolute better quality product with the highest standards of sourcing, manufacturing, and delivery.”

Those goals translate to European factories that are zero waste to the landfill and 50 percent of raw agricultural materials sustainably sourced, including challenging fields such as palm oil and tea. “With our scale, we can insist on certain standards for sustainably sourced raw materials, which in turn will change the way entire businesses operate,” Humphrey says.

Control Tower. Three years ago, Unilever implemented a control tower in Europe built around an end-to-end transportation management system that delivers full visibility into the three Cs of customer service, carbon, and costs. “We began by managing inbound material flows across 35 countries in Europe,” says Humphrey. “We’re now covering all logistics flows by rolling out secondary distribution that will also be managed from this central control tower in Poland.”

In-sourcing Rather than Outsourcing. While many companies outsource logistics services to concentrate on core competencies, Unilever is in the process of in-sourcing services that have been done by 3PLs to reduce carbon and costs. “We have the scale and capabilities to improve our service costs while taking one in five trucks off the road in Europe,” Humphrey says.

Centralizing the network. Unilever is in the process of opening five distribution hubs in Europe; this distribution network will eventually be expanded globally. The idea is to have all finished goods shipped through these hubs, which serves to consolidate shipments between customers, factories, and suppliers, reducing the number of deliveries as well as Unilever’s environmental footprint. “We’ll no longer have a supplier shipping to multiple factories,” says Humphrey. “Instead, they can ship to one supply hub that will consolidate shipments to service those factories.”

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Rebalancing Act 2015: This Year's Battle For Supply Chain's Life

By Tom Wroblewski

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What you need to know, and which indicators you should be watching, to win the re-balancing battle between inventory and transportation.

The most significant tradeoff companies make in short term supply chain decisions is the tradeoff between transportation cost and inventory. As nearly every reader of this article will know, the speed and reliability of transportation affects the amount of inventory in the supply chain; shifts in these costs tend to create a lag until a new equilibrium is established.

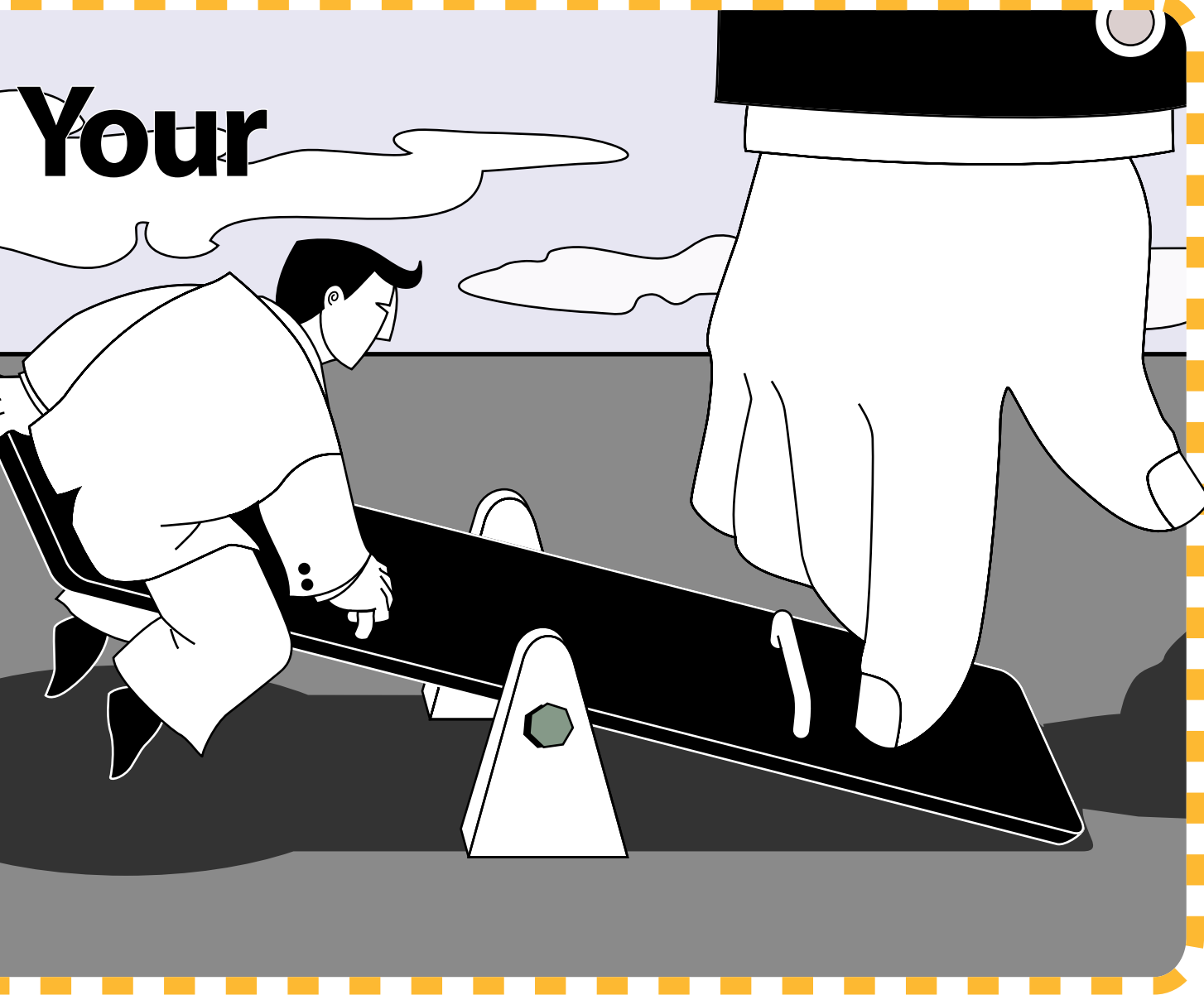
Direct transportation costs can be influenced internally through activities like regularly scheduled negotiations and forming core carrier relationships. However, overall market conditions exert a strong invisible hand on transportation rates to determine a cost range, which negotiations cannot change. Similarly, the cost of keeping inventory is largely driven by interest rates set by the Federal Reserve.

The largest economic component of holding inventory is the cost of capital. When the cost of debt shifts significantly up or down, there tends to be a lag of at least two quarters before equilibrium is reached.

When inventory costs go up, companies try to substitute transportation for inventory via premium levels of freight service “managing” inventory levels downward. Conversely, when freight costs rise, they try to substitute inventory for transportation increase shipping load factors or shift freight to intermodal with longer lead times and more variability.

Any looming “transportation crunch” is always a hot topic in supply chain management. Looking ahead, most analysts expect transportation rates to edge up as truck driver turnover increases—the top indicator of a worsening driver shortage. According to recent data from the Freight Market Intelligence

Your



Consortium, it's happening.

At the moment (Q4 2014), it appears supply and demand in the freight market is balanced. During the 2004 and 2005 capacity crunch, truck driver turnover was in the 150 percent range. During the recession that followed, driver turnover was in the 35 percent to 40 percent range. In Q3 2012, it climbed back to a much headier 90 percent and has been holding steady since.

If construction and home prices accelerate (they are

also currently remaining steady), rates will increase significantly as workers will choose the construction labor market over the tough life of over-the-road truck driving. For this reason, I watch the home price and construction data closely.

Examining the expected pace of interest rate increases and the corresponding impact on the cost of debt, it is easy to see that there will be a significant increase in the cost of inventory in 2015 that will outpace increases

in the cost of transportation. The Economist Intelligence Unit predicts Q3 2015 for the first U.S. Fed rate increase. If the Fed steps on the brakes too hard, the gap between inventory and transportation costs will become steeper and CFOs will look to hammer down inventory levels.

Bright supply chain minds recognize that external influencers are outside of their control, but they can be forecasted accurately to advise better decisions and better outcomes. Shippers must consider fundamental shifts to the way they transport freight to keep costs down and remain competitive. Six trends will emerge in 2015 that are direct results of economic forces pushing transportation and inventory costs up.

1. The Rebirth of Dedicated Fleets

Scarcity in the transportation market puts pressure on shippers to lock in both rates and capacity, and doing so as quickly as possible typically generates the best results. This can prove exceedingly difficult to guarantee because the more favorable market conditions become for carriers, the less reliable capacity gets. When carriers know they can obtain higher rates from competing shippers, they increase turndowns of freight at lower negotiated rates, sometimes even among core shipping partners. Turned down shippers are then left in a lurch where they must use tertiary shippers or go to the spot market, both of which result in higher transportation costs and, in many cases, lower service levels.

To hedge the risk of increased turndowns, large shippers can turn to dedicated fleets where capacity is guaranteed. There is precedence for this as dedicated fleets became quite popular in 2004 and 2005. During that transportation capacity crunch, pop-up fleets manifested as shippers scrambled to guarantee capacity. Many of them lost significant money in the end because capacity and lanes were not properly aligned.

Bright supply chain minds recognize that external influencers

are outside of their control, but they can be forecasted accurately to advise better decisions and better outcomes. Shippers must consider fundamental shifts to the way they transport freight to keep costs down and remain competitive.

The rebirth of dedicated fleets will be different from last decade's in a couple of ways. First, the arrangement between shippers and carriers has evolved to a more highly sought outcome—dedicated “capacity.” The difference between the two is that with dedicated capacity, freight movement is more or less guaranteed with the carrier maintaining all operational responsibilities. Previously, and occasionally still, shippers assume some operational duties in dedicated fleets. Dedicated capacity retains the benefit of stable pricing with no turn-downs, but does not force shippers to directly manage fleet personnel or equipment.

Second, still reeling from the wasted capacity that resulted from ill-conceived dedicated fleets 10 years ago, shippers will be much more rigorous in conducting due diligence and using disciplined analytics to determine where dedicated capacity makes the most sense. Model-based decision support systems make it easier to determine where dedicated capacity can save money and where it is better to use shipping partners. Shippers have the tools to make deliberate transportation decisions that properly balance the risks of market rate volatility and unused dedicated capacity.

2. Intermodal Moves Full Steam Ahead

Shippers using intermodal transportation enjoy reduced shipping costs from the efficiencies of rail transport—the tradeoff made for that cost savings is increased variability in lead times, which are typically longer than truck shipments. Volatility in the market is likely to drive more shippers to intermodal as this tradeoff appears more and more attractive in the face of rising trucking and inventory rates.

For many years, railroads have made large investments in improving services to make them more competitive with over-the-road trucking. According to the Association of American Railroads, both 2012 and 2013



Shippers using intermodal transportation enjoy reduced shipping costs from the efficiencies of rail transport—the tradeoff made for that cost savings is increased variability in lead times, which are typically longer than truck shipments.



saw record-breaking investments of \$25 billion each year in capital expenditures for rail infrastructure and equipment. Certain corridors have improved so much that they offer competitive alternatives right now. This has resulted in growth for intermodal transport, up 4.6 percent in container and trailer transportation during 2013. Mounting pressure from shippers eager for increasingly efficient alternatives to trucking will provide additional momentum to this effort, leading to more improvements that make intermodal an even more viable option for a wider diversity of shippers.

Improving service levels that attract more shippers incentivizes railroads and associated intermodal resources to continue developing and expanding services, leading to even more shippers signing on. Expanded capabilities coupled with uncertainty in the transportation market is creating real opportunity for intermodal providers, who are proving quick to capitalize on increased demand for cost effective freight movement. As these conditions accelerate in 2015, shippers can be expected to increase use of intermodal as a regular part of their transportation networks.

3. Is Same Day Delivery for Real? We'll Find out in 2015

We are about to find out if same day delivery is a real, sustainable service. The announced relaunch of Kozmo.com after a high profile failure in 2001 is representative of advances that have taken place in the supply chain, making this model more cost effective on a large scale. For most shippers, same day delivery will not rely on fulfillment via bicycle as Kozmo's model did, but will depend on the same network of regional distribution centers that are fueling the explosion of omni-channel fulfillment.

The key difference between the two is that while omni-channel fulfillment aims for reduced fulfillment time at a cost differential more or less identical to what

consumers currently pay, same day delivery is not likely to be possible without a price premium. While that premium will vary from shipper to shipper and is likely to see many iterations before an equilibrium is established, the big question is whether consumers are willing to pay for same day delivery.

If the answer turns out to be no, the experiment fails and same day delivery vanishes. But, if enough consumers are willing to pay for same day delivery, that will be disruptive to transportation models and will shift freight away from carriers that cannot deliver on this promise—which right now, is most of them. Should same day delivery prove to be successful, last mile delivery will be up for grabs to whoever can figure out how to make it a profitable model on a large scale.

4. Omni-channel Fulfillment Changes the Game

A fundamental change to the way freight is distributed to end users is leading to a reduction in overall miles traveled for merchandise to reach consumers. Omni-channel is here to stay, but independent of same day delivery.

As more retailers add fulfillment capabilities to existing storefronts, items ordered by customers are shipped from locations much closer to their destinations instead of warehouses that may be hundreds of miles away. Additionally, many customers are choosing to absorb transportation costs themselves and arrange their own pick-ups for items ordered through the e-commerce channel and fulfilled in store.

Omni-channel fulfillment has been discussed for years in retail channels, and 2015 is the year it will achieve critical mass. Shorter fulfillment times and travel distances to end consumers stand to disrupt current freight models, taking business away from parcel carriers for long distance transportation. Last mile fulfillment will vary between shippers, consumers, and product groups; but this service can be provided by regional carriers, the suppliers themselves, parcel carriers, or some combination of the three.

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With pressure mounting from consumers in the form of expected shortened delivery times and from parcel carriers in more expensive dimensional weight based rate policies, the industry is motivated to shift to an omni-channel model very quickly. Retailers that fail to adopt this methodology stand to get shaken out unless they provide a specialty product or service level.

5. Packaging Design Moves to Supply Chain Teams

Ship less air. It's the credo that drives transportation efficiency, but shipping less air is shifting from a "nice to have" to a "won't survive if you don't." Transportation rates are edging up to make shipping air an unsustainable model, and dimensional weight shipping policies set to go into effect from UPS and FedEx institutionalize discouragement of shipping small items in large boxes.

As a result, packaging design is becoming less of a marketing effort and more of a supply chain project. Some CPG manufacturers are even considering new, more generic product packaging for products sold online, with the view that flashy on-the-shelf packaging is NOT needed for products sold online, the packaging just needs to be functional. Omni-channel fulfillment is complementing the transportation rate pressure on this shift because digital representations of products are increasing in importance over packaging appeal. For certain products like electronics, packaging concerns are moving even further up the chain and becoming part of the actual product design process.

The goal of efficient packaging that enables cost effective transportation with minimal damage touches more phases of product development than ever before, and supply chain teams are the best equipped to oversee packaging decisions throughout the process. Don't expect marketing to lose its say altogether, but packaging decisions in both primary and secondary packaging are shifting away from what looks pretty on store shelves, is currently plentiful, and easy to use to what ships efficiently, takes out the air, and stays intact on the journey.

6. Integrated Involvement of the CFO

Complexities in the business environment are directly affecting how supply chain decisions are made, creating an environment where simple changes are rarely adequate to create optimized equilibrium cost structures. Instead, a constant re-balancing of factors involving interdependent tradeoffs is necessary to keep modern supply chains operating smoothly and avoid a surprise, negative impact on balance sheets. This dynamic process requires flexibility that can be unknowingly handi-

capped by financial constraints dictated by policy set in the CFO's office.

Successfully navigating current and future market environments requires more direct involvement from the CFO and regular communication with supply chain managers to advise sound financial policies. Flexibility in working capital and operating expense budgets is necessary to allow changes in inventory levels and transportation costs. Constraining either expenditure easily creates unintended consequences like increased costs from excess inventory or more reliance on expensive premium transportation options, which live in different real estate on the financial statements (inventory on the balance sheet, transportation costs on the income statement).

The most efficient supply chains in 2015 will belong to companies that have regular, candid, direct engagement between CFOs and CSCOs. Further, these two roles will become more integrated as their perspectives merge to create sound corporate supply chain and financial policies. Both will also increasingly rely on insights gained from rigorous analysis of market, demand planning, and supply chain data to plan effective strategy.

Increasing Importance for Supply Chain Management

Shifts to the structural nature of how commercial business is conducted are accelerating at an exponential rate while available data on every aspect of it is overflowing. Responses to these changes happen daily, but the most successful companies will not be those that are able to respond swiftly to those changes; the greatest prizes will be awarded for making fact-based, proactive, analytical decisions in anticipation of them.

Doing so requires acumen in the analysis of the data, the business sense to understand the drivers and their messages, and the rigor to engage in scenario modeling and plan for the most likely outcomes. Successful supply chains in 2015 will rely upon swift balancing of internal tradeoffs that plan for and consider macroeconomic and other uncontrollable external conditions. The above six trends are the most likely to gain the most traction in the year ahead, but only diligent forecasting, modeling, and planning can adequately prepare supply chains to thrive in the increasingly complex environment on the horizon.

Thoughtful supply chain planning that considers both known and forecasted unknown elements of the future is no longer mandatory for success. It is required for survival. ∞

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Looking Back Over Research on Third-

By Robert C. Lieb

Robert C. Lieb, Ph.D., is Professor of Supply Chain Management at the D'Amore-McKim School of Business at Northeastern University. Along with several co-authors, he has been conducting research into the 3PL industry for 25 years, and as written more than 50 articles on 3PL-related topics. This retrospective article reviews the stream of research conducted by Lieb and his co-authors and extracts the most important findings—for both future scholars and those companies that provide and use 3PL services to better understand the industry's evolution and its future potential. He can be reached at r.lieb@neu.edu. For more information, visit www.neu.edu.

It's hard to imagine today, but in the late 1980s, third-party logistics (3PL) was relatively new. Today, of course, logistics outsourcing has become an important option for logistics managers in many manufacturing, retail, wholesale, and service settings. The functions performed by 3PL service providers can encompass the entire logistics/supply chain process, or, more commonly, selected activities within that process.

Back then, few businesses were outsourcing their logistics processes to third parties. Nor were many professionals researching or writing about this emerging field. A few articles discussing the concept had appeared in academic and professional publications, but relatively little academic attention had been devoted to the concept at that point.

At that time, I was intrigued by the concept of logistics outsourcing. It was unclear to me how widespread the practice had become, but I believed that if it achieved any significant scale it might fundamentally change the logistics landscape. I also believed that the field was ripe for academic research. In 1990, I submitted a proposal to United Parcel Service Foundation seeking support for a survey of the vice presidents or directors of logistics of the Fortune 500 manufacturers to determine the extent to which they were outsourcing logistics services—and if they were, how it had affected their operations.

The initial response from the Foundation was essentially: “Why should we care about that subject?” My response was that if the 3PL concept gained traction in the logistics marketplace, United Parcel Service would probably want to establish an operation in that space. That appeared to strike a responsive chord. Soon after, the Foundation provided the support I sought, and I developed and administered the first survey conducted of 3PL users. It should be noted that UPS subsequently established UPS Supply Chain Solutions, a business that

25 Years of party Logistics

Over the past 25 years, the third-party logistics (3PL) industry has evolved from an emerging industry to a global best practice, setting the stage for the next 25 years of dynamic change.



now generates more than \$5 billion in annual operating revenues for the company.

The results of the first user survey were published in the *Journal of Business Logistics (JBL)* in 1992. While I initially thought this would be a one-time survey, the response to the JBL article was surprising. Literally every day after the article appeared, I received calls from companies considering the use of 3PL services, executives from existing 3PL companies, and individuals and companies considering entry into the 3PL industry. That led me to consider doing similar surveys of that group of companies on an annual basis. Yet, I had no idea that 25 years later I would still be conducting research into a global industry that now annually generates operating revenues of nearly \$750 billion.

My co-authors and I subsequently conducted annual surveys of Fortune 500 companies from 1994 until 2003. Over that period we also conducted three similar surveys of large manufacturers in Europe and one in Australia. Within a relatively short period of time, other scholars in the United States and many other countries began doing very similar surveys of 3PL users that focused on a variety of other user groups.

While many early 3PL relationships are essentially operational or tactical in nature, they often evolve into strategic relationships between the two companies.

After having conducted surveys of Fortune 500 Manufacturers for nearly a decade, we decided to examine the other side of the 3PL equation—3PL service providers. Generating provider data would give us another perspective on the status and evolution of the 3PL industry.

While there were thousands of companies in the United States that considered themselves 3PLs, we made a decision to once again focus on large companies. In particular, the focus was to be at the CEO level of many of the largest 3PLs serving the North American marketplace. The survey format was again used, and the target group for the first survey was the CEOs of the 20 largest 3PLs serving the North American marketplace. The first North American 3PL CEO survey was conducted in 1994 and all 20 CEOs agreed to participate.

An annual North American 3PL CEO survey has been conducted every year since, and in 1995 we decided to add a similar 3PL CEO surveys in Europe.

Several years later an annual 3PL CEO survey was added covering the Asia Pacific region. All three of the 3PL CEO surveys are still conducted each year. By adding the surveys in Europe and Asia we have been able to document regional similarities and differences in the global 3PL industry.

What follows are the most important observations we have made based on the data generated in the 3PL user and 3PL CEO studies over the past 25 years. We hope that they are of value to future scholars and to those companies that provide and use 3PL services to better understand the industry's evolution and its future potential.

The User Studies: 25 Observations

1. The initial use of 3PL services is generally triggered by specific events. Those trigger events include such changes as mergers/acquisitions, corporate reorganizations, changes in leadership, and the emergence of serious financial problems. Subsequent trigger events can also lead to expansion of the scale of the 3PL services used by companies already using 3PL services.
2. The mandate to consider the use of 3PL services most often comes from corporate presidents, and/or CEOs and CFOs. The process of considering the use of 3PL services typically involves a cross-disciplinary team that includes such groups as logistics, manufacturing, finance, IT, and human resource management. At that stage concerns are often expressed about managing the potential change, the related loss of control, downsizing the workforce, and possible overselling by the 3PLs being considered.
3. If a decision is made to use 3PL services, the initial buy usually involves a limited range of services and/or a limited geographical area. There is risk involved in outsourcing logistics activities and most companies move deliberately in doing so.
4. While many early 3PL relationships are essentially operational or tactical in nature, they often evolve into strategic relationships between the two companies.
5. The concept of logistics outsourcing is now much more widely accepted and used than it was when I conducted the first user survey. At that time 38 percent of Fortune 500 Manufacturers surveyed indicated they



used 3PL services. That number now exceeds 80 percent of those companies, and the percentage of the logistics spend given to 3PLs by such companies has also increased significantly over time. 3PL use also continues to grow substantially in other areas such as retailing and distribution, with increasing 3PL focus being given to the medical device and pharmaceutical sectors of the health care industry.

6. There is now a substantial database about the benefits that have been realized through 3PL relationships, not only in terms of cost reduction and service improvements, but also in terms of possible return of capital under certain circumstances such as transition to use of provider facilities and/or equipment.
7. 3PL user needs have evolved over time. In many instances, needs have become much more complex due to shifts in manufacturing, sourcing, selling and delivery practices, and the related globalization of business. Large users have often used their leverage to convince their 3PLs to follow them into new markets.
8. As a result of such factors, many of the buys are now much broader in terms of services used, geographical coverage, and contract scale.
9. Over time 3PL buyers have generally become better prepared and more sophisticated in the 3PL selection process. The process has become more clearly defined, and the user community has a much better understanding of logistics/supply chain management issues and options. In many companies, the procurement group has become more heavily involved in the 3PL selection process, and the related cost focus of the procurement types has often required more emphasis on value-selling by 3PLs.
10. Many 3PL relationships have problems at the implementation stage because the parties fail to clearly articulate expectations and metrics before starting the engagement. The desire of users to have the 3PLs “hit the ground running” is often the root cause of those problems. Those problems have become somewhat less common as users and providers have come to understand the importance of this pre-work.
11. Initial 3PL use typically leads to a reduction in user head count and the workforce reductions tend to increase as the size of the buys increase. Companies deal with this in a variety of ways including buyouts and retraining programs. It is also quite common for 3PLs to hire employees of their new customers to not only reduce their own staffing requirements, but also gain the operational knowledge and intellectual capital of their customers.
12. 3PL users must exercise caution in terms of the extent of their dependence upon 3PLs to avoid dumb-sizing of their internal intellectual capital in the logistics/supply chain area. Companies that cut internal human resources too deeply often have real problems in not only managing the relationship with the 3PL, but also in developing related internal strategies.
13. Recessions don't necessarily harm 3PL relationships. In fact, in many instances they actually improve the relationship. Our data has suggested that in times of significant economic downturns nearly one-third of those relationships improve as the parties focus on collaborative problem solving and seek mutually beneficial solutions to their problems.
14. The natural disasters of the past several years have demonstrated that many 3PL customers had not effectively developed business continuity plans and/or natural disaster recovery plans. That experience, coupled with the related financial and market position impacts, has led many users to rethink their strategies in those areas and broaden their supply base both numerically and geographically.
15. Most major 3PLs have made substantial commitments to environmental sustainability goals in the past decade. While many existing and potential 3PL users believe that is important, to this point it is not a major factor in the selection process. However, that may be changing. Many 3PL sustainability programs are now yielding direct customer benefits, and users are increasingly asking 3PLs to examine their operations for potential sustainability improvements.



16. Increasingly, 3PL users are looking to their logistics service providers to promote integration along their supply chains by also providing services to their key vendors and customers. In many instances, 3PL provision of a common IT platform has played a significant role in promoting that integration.
17. Early 3PL users typically expected relatively little from their 3PLs in terms of IT support and systems. Now, many expect comprehensive provider IT systems and expertise from those companies.
18. Reflecting not only the pace of economic change, but also experience with global recessions and natural disasters, many 3PL users want greater 3PL flexibility and agility—both in terms of operations and contracts.
19. They also expect 3PLs to be proactive in identifying ways of modifying processes and activities to yield cost and service benefits.
20. As long-term collaborative relationships have emerged in the 3PL industry, it is now increasingly common to have gain-sharing and pain-sharing provisions in 3PL contracts.
21. In pursuing cost and service improvements, many 3PL users now work with 3PLs to explore possible shared-use concepts with 3PLs. That concept has already gained considerable traction in the European market for 3PL services.
22. While some users have reduced the number of 3PLs

used, in many instances they are forced to use multiple providers due to the breadth of their needs. In response, many 3PLs offer 4PL or LLP services to clients to help manage those multiple relationships.

23. Not all 3PL relationships work well. When they fail, users generally migrate to another 3PL rather than bring those activities back inside their organizations. However, during the past several years some European companies have brought outsourced activities back inside as a means of redeploying employees who had become redundant due to the region's prolonged economic downturn. It is much more difficult to sever such employees in Europe due to stringent government regulations.
24. Many 3PL relationships have been long-term in nature, with some having gone through multiple contract renewals. It is not uncommon for contracts to be automatically renewed if agreed upon performance metrics have been met. Under those circumstances there is typically a related price increase to protect the provider against inflation.
25. When I began studying the 3PL industry in 1989, many viewed the use of logistics outsourcing as a radical departure from business as usual. That perception is no longer common. The 3PL industry has not only expanded in scale and become global in nature, it has also broadened its service offerings to meet the needs of an ever-changing marketplace. Logistics outsourcing is now an important strategic option for companies across a broad range of industries seeking to improve logistics costs and service levels while accessing the expertise of companies who, in some instances, have been in the industry for decades.

The 3PL CEO Studies: 25 Observations

1. Most major global 3PLs initiated operations as subsidiaries of transportation and warehousing companies that concluded there was a market for a broader range of service offerings to their customers as the margins on their traditional services were declining. Many of those 3PLs were relatively new to the industry when I began doing 3PL research in 1989.
2. Initially, the 3PLs were controlled quite closely by their corporate parents and were often required to use the services of their parent companies in developing solutions for their customers. However, over time

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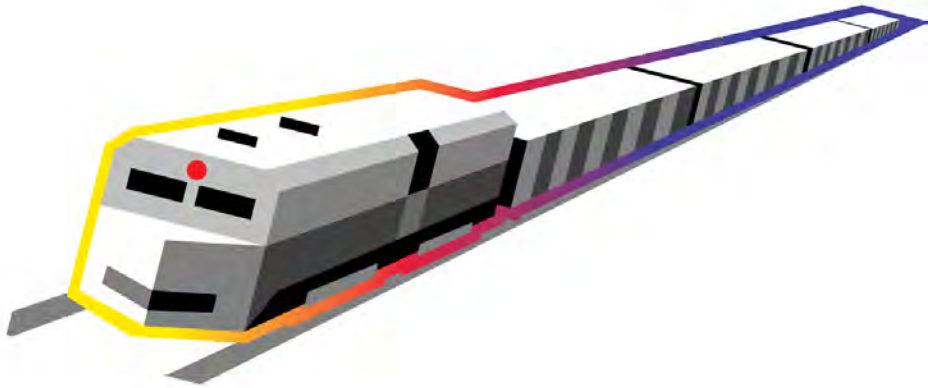
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many 3PLs have developed greater autonomy as customers questioned whose needs the 3PLs were most concerned with—their customers or their corporate parents.

3. The structure of the 3PL industry continues to evolve, and it has changed dramatically over the past 25 years. Mergers and acquisitions, some initiated by private equity companies, continue to be the major drivers of that structural change. In many instances, those transactions have been followed by significant post-acquisition problems such as systems incompatibility, redundant employees and facilities, and clashes in corporate cultures. The extent of the industry restructuring that has occurred is demonstrated by the fact that only seven of the 20 large 3PLs included in my first 3PL CEO survey in 1994 still exist as independent companies.
4. The scale of the 3PL industry has increased tremendously since my first CEO study was initiated in 1994. At that time, many of the companies perceived as the major players in the industry were generating annual operating revenues in the tens of millions of dollars. In many instances those companies now have annual operating revenues well in excess of a billion dollars per year. Collectively, the annual revenue base of the global 3PL industry is now estimated to be nearly \$750 billion.
5. The 3PL industry is now global in nature with many major global markets being served by large multinational 3PLs as well as local providers. Initially, most of those large companies operated in one of the three major markets—North America, Europe, and the Asia Pacific region. Now, with few exceptions, the industry's dominant players operate in all three regions. In many instances the movement of the 3PLs into foreign markets was driven by the requirements of their key customers as they expanded their global sourcing, manufacturing, and sales activities. To a great extent 3PLs still follow key customers as they shift their global locations.
6. The growth and market entry strategies used by large 3PLs still varies widely depending upon the market being entered and its stage of economic development.



Those strategies have included direct investment, acquisitions, business alliances, and joint ventures. In some situations, local regulations require foreign 3PLs to initially have a local business partner.

7. When 3PLs have relied upon business alliances and joint ventures to expand their service offerings and geographical coverage, they often subsequently acquire their “partners.”
8. The service offerings of today's large 3PLs continue to expand. While they initially reflected the services offered by their corporate parents, they have become far more robust over time stretching far beyond traditional logistics services into such areas value added activities, financial services, trade compliance, and support of purchasing activities and contract manufacturing.
9. Many long-term 3PL relationships are collaborative and strategic in nature. Initially they were primarily operational and tactical in nature. When asked what factors are most important in fostering such collaboration, the CEOs have most often cited common culture/trust, effective communications/information support, and common goals and objectives.
10. Over time, large 3PLs have become far more customer selective. Based on negative experiences during global economic downturns and natural disasters, they spend substantially more time and effort in “qualifying” new customers. They have learned that not all customers are good customers.
11. Large 3PLs now tend to focus on a limited number of verticals, usually five or six. Generally they include automotive, electronics, and fast moving consumer

goods. In the early stages of the industry's development, those companies often attempted to be all things to all customers. They now understand that cannot be done and that the expertise to develop a defensible market niche requires substantial time, talent, and resources.

12. Large 3PLs now routinely sell along the supply chains of key customers, linking them with their suppliers and customers. In doing so they play an important role in supply chain integration for those companies.
13. Over time, those 3PLs have clearly demonstrated their ability to reduce supply chain costs and improve service levels, and in many cases have fostered a return of capital to users. In most instances, that has involved customer use of 3PL facilities and equipment and the sale of the customer's related assets.
14. Large 3PLs remain concerned about commoditization of the industry and are increasingly emphasizing brand management. That involves efforts to differentiate themselves from their competitors in the marketplace. The differentiation strategies used by those companies have varied widely and have emphasized such things as their "greenness", their expertise in specific industry verticals, their IT systems, and their experience in particular geographies.
15. Many of these companies now supply and manage leading edge IT applications on behalf of their clients. Early 3PL users did not expect that level of technology and expertise from their providers,



but in many situations those are now "must haves." Meeting the current level of customer expectations has necessitated development of internal intellectual capital in that space and large scale investments. One chronic problem related to this development is the continuing reluctance of customers to pay the full cost of those services.

16. 3PLs now face an increasingly sophisticated and structured buying marketplace, with more corporate purchasing involvement in buying decisions. That has not only generally lengthened the sales cycle, but also led to the need for 3PLs to place greater emphasis on "value selling."
17. With few exceptions, during the past decade large 3PLs have made steadily increasing commitments to environmental sustainability goals. In some instances pursuit of those goals has subsequently led to lower costs for not only the 3PLs but also their customers. As noted earlier, some companies have attempted to use their environmental programs to create market differentiation. However, at this point relatively few customers consider the "greenness" of a particular 3PL to be a major factor in either expanding their use of 3PL services, or using them for the first time.
18. The large global 3PLs are quite resilient. In recent years, they have had to deal with major global recessions and natural disasters while meeting the needs of their customers. Those challenges have been formidable, often leading to lower earnings, asset redeployment, and layoffs. In some instances, "asset light" companies have fared better than those with a much larger asset base, because of their ability to more easily scale back operations. However, in either case the industry's largest companies have generally responded very well to those challenges and ultimately recovered financially.
19. Reflecting upon those experiences, collectively those 3PLs now place much greater emphasis on business continuity planning, and they are increasingly asked to discuss those plans with potential customers. In many instances, those plans now must be outlined in responses to customer RFPs.
20. Many of these companies have embraced and effectively used social media to pursue both internal and external company goals. Various forms of social media including Facebook, Twitter, and YouTube

have been used for such diverse purposes as recruiting, soliciting customer feedback, sending emergency messages to employees and customers, and providing company updates to the business community.

21. The dynamic nature of the global 3PL marketplace has made it increasingly difficult for large 3PLs to forecast market activity levels. In turn, this has caused ongoing challenges in not only staffing, but also asset deployment. To deal with this problem, many companies are attempting to build much closer relationships with their key customers.

Mergers and acquisitions, some initiated by private equity companies, continue to be the major drivers of structural change. In many instances, those transactions have been followed by significant post-acquisition problems such as systems incompatibility, redundant employees and facilities, and clashes in corporate cultures.

22. Regardless of the geographies served, these companies continue to struggle with finding and keeping management talent. Our research has shown that many large 3PLs have a difficult time competing for that talent with other industries that in many cases offer higher salaries, better benefits, lower workloads, and better career development opportunities. While this issue has received considerable attention in the past several years, there is little evidence that it will lessen in intensity and importance in the short-term.

23. While the market dynamics in a particular region at any given time may vary considerably, large 3PLs in all three regions will continue to face critical challenges including market selection, right sizing their organizations, integration of acquisitions, price com-

pression, and the need to constantly demonstrate value in the marketplace.

24. At the same time, the industry will be challenged to deliver on the promises it makes in the marketplace. Overselling is not uncommon in this industry, and that tends to be most prevalent during economic downturns as companies compete in markets that are either flat or declining. Obviously, that compromises the reputation of the industry in the longer term.

25. Large global 3PLs now play an important role in supporting the sourcing, manufacturing, and selling activities of many of the world's largest, most successful companies. They have established their presence in the world's largest markets, and their future success will be tied not only to growing their business in such markets, but also anticipating growth opportunities in such areas as e-commerce, health care, and emerging markets—and responding accordingly.

Setting the Stage for the Next 25 Years

As I stated at the outset, logistics outsourcing is now an important strategic option for companies across a wide variety of industries that seek to lower logistics costs, promote efficiencies, and improve service levels. In many instances, users may also be able to reduce capital requirements while focusing on their core competencies.

Over the past 25 years, the structure and scope of the 3PL industry have changed dramatically. Most of the major 3PLs in the marketplace when this research stream began have either been acquired by other 3PLs or failed.

While a limited number of large global 3PLs have emerged to play a vital role in supporting the sourcing, manufacturing, and sales activities of many of the world's largest companies, the global 3PL marketplace is also populated with thousands of smaller 3PLs serving a wide variety of niche markets.

Looking forward, I believe the 3PL evolution is far from complete. Over the next 25 years, the industry should provide a fertile area for future researchers to continue to examine the industry's dynamics and its impact on the field of logistics and supply chain management. ☺☺



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Transportation/ Logistics Services



The following is a representative sample; it is not intended to be an exhaustive listing of all the companies in this category.



AIRFREIGHT SERVICES



Company Name	Website	Company Name	Website
Air Canada Cargo 800-688-2274	www.aircanada.com/cargo/en/	KLM Cargo 800-556-9000	www.af-klm.com/cargo/portalb2b/home
Alaska Airlines 800-225-2752	www.alaskaair.com	Korean Air Cargo 866-782-2746	cargo.koreanair.com
American Airlines Cargo 817-355-6800	www.aacargo.com	Kuehne + Nagel, Inc. 201-413-5500	www.kn-portal.com
Associated Global Systems 516-627-8910	www.agsystems.com	Lufthansa Cargo 800-542-2746	www.lufthansa-cargo.de
BAX Global Inc. 714-442-4500	www.baxworld.com	Lynden International 800-926-5703	www.laf.lynden.com
Cargolux Airlines International S.A. 561-988-1868	www.cargolux.com	Mode Transportation 972-447-0075	www.modetransportation.com
Cathay Pacific Cargo 800-628-6960	www.cathaypacificcargo.com	Nippon Cargo Airlines 718-632-6500	www.nippon-cargo.com
Continental Airlines Cargo 800-421-2456	www.unitedcargo.com/	Northwest Airlines Cargo 800-692-2746	www.cargo.nwa.com
Damco 973-514-2076	www.damco.com	Panalpina Inc. 718-310-1000	www.panalpina.com
DHL 800-225-5345	www.dhl-usa.com	SATO America, Inc. 704-644-1650	www.satoamerica.com
Eva Air Cargo 718-995-5220	www.evaair.com	SEKO 800-228-2711	www.sekoworldwide.com
FedEx Express 800-463-3339	www.fedex.com	Singapore Airlines Cargo 718-656-1010	www.siacargo.com
JAL Cargo 718-656-9801	www.jalcargo.com	Southwest Airlines Cargo 800-533-1222	www.swacargo.com
Kintetsu World Express (U.S.A.), Inc. 800-275-4045	www.kweusa.com	Team Worldwide 800-832-6247	www.teamair.com
Kitty Hawk Cargo 800-486-3780	www.khcargo.com	TNT Express 800-558-5555	www.tnt.com

MOTOR CARRIERS

EXECUTIVE GUIDE TO SUPPLY CHAIN RESOURCES

Company Name	Website	Company Name	Website
United Cargo 800-822-2746	www.unitedcargo.com	UPS Air Cargo 800-535-2345	www.ups.com
United States Postal Service 800-275-8777	www.usps.com		



MOTOR CARRIERS



A. Duie Pyle, Inc. 610-696-5800	www.aduiepyle.com
AAA Cooper Transportation 334-793-2284	www.aacooper.com
ABF Freight System, Inc. 479-785-8880	www.abfs.com
Anderson Trucking Services, Inc. 320-255-7400	www.atsinc.com
Averitt Express 800-283-7488	www.averittpress.com
Con-way Freight 734-994-6600	www.con-way.com
CRST International, Inc. 319-396-4000	www.crst.com
Estes Express Lines 804-353-1900	www.estes-express.com
Express America Trucking 815-239-1652	www.expressamericatrucking.com
FedEx Freight 866-393-4585	www.fedex.com
Freight (NEMF) 908-965-0100	www.nemf.com
Heartland Express Inc. 319-626-3600	www.heartlandexpress.com
Holland 800-456-6322	www.hollandregional.com
J.B. Hunt Transport Services, Inc. 877-452-4674	www.jbhunt.com
Jevic Transportation, Inc. 888-465-3842	www.jevic.com
Kane is Able, Inc. 570-343-5263	www.kaneisable.com



Landstar System, Inc.

www.landstar.com

13410 Sutton Park Drive South
Jacksonville, FL 32224
877-696-4507

Toll Free: 877-696-4507

Email: solutions@landstar.com

Services: Providing global & domestic transportation management solutions including: truckload, LTL, heavy haul/specialized, expedited, intermodal, global air and ocean services, cold chain, freight optimization, complete shipment visibility, and carrier selection and management services. Landstar customers have access to more than 36,000 transportation capacity providers.

Description: Landstar, a worldwide, asset-light provider of integrated transportation management solutions offers complete transportation and logistics services, including truckload, LTL, heavy haul/specialized, expedited, intermodal, global air and ocean services. Landstar's transportation management solutions offer global shipment visibility, bidding & shipping tools, carrier selection & management, event management and freight optimization.

Lily Dedicated Logistics Services 781-449-8811	www.lily.com
Lynden Transport 206-241-8778	www.lynden.com
New Penn 800-285-5000	www.newpenn.com
NFI National Freight 856-691-7000	www.nfiindustries.com
Old Dominion FreightLine, Inc. 336-889-5000	www.odfl.com
Pacer Pacific Motor Transport 972-224-8121	

OCEAN CARRIERS

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Company Name	Website	Company Name	Website
Panther Premium Logistics, Inc. 800-685-0657		Southeastern Freight Lines 800-637-7335	www.sefl.com
Pitt Ohio Express 412-232-3015	www.pittohio.com	UPS Freight 800-333-7400	www.upsfreight.com
Reddaway 888-420-8960	www.reddawayregional.com	Velocity Express 888-839-7669	www.velocityexp.com
Ruan Transportation 866-782-6669	www.ruan.com	Werner Enterprises, Inc. 402-895-6640	www.werner.com
Saia Inc. 800-765-7242	www.saia.com	YRC 800-610-6500	www.yrc.com
Schneider National, Inc. 800-558-6767	www.schneider.com	YRC Glen Moore 800-848-9695	www.yrcglenmoore.com



OCEAN CARRIERS



APL 510-272-8000	www.apl.com	Hanjin Shipping 201-291-4600	www.hanjin.com
Atlantic Container Line 908-518-5300	www.aclcargo.com	Hapag-Lloyd (America) Inc. 877-523-8300	www.hapag-lloyd.com
ATS International Services, Inc. 320-255-7400	www.atsisi.com	Horizon Lines 877-678-7447	www.horizon-lines.com
Catalpult International 913-232-2389	www.gocatapult.com	Hyundai Merchant Marine 972-501-1100	www.hmm21.com
China Shipping North America 201-505-6900	www.chinashippingna.com	Italia Marittima S.p.A. 201-761-3000	www.italiamarittima.it/
CMA CGM 757-961-2100	www.cma-cgm.com	K Line America, Inc. 804-560-3600	www.kline.com
COSCO Container Lines Americas, Inc. 201-422-0500	www.cosco-usa.com	Kuehne + Nagel, Inc. 201-413-5500	www.kn-portal.com
Crowley Maritime Corporation 904-727-2200	www.crowley.com	Maersk Inc. 973-514-5410	www.maerskline.com
Damco 973-514-2076	www.damco.com	Matson Navigation Company 510-628-4000	www.matson.com
Evergreen AmericaLine 201-761-3000	www.evergreen-marine.com	Mediterranean Shipping Company (USA) Inc. 212-764-4800	www.msccva.com
FESCO Agencies North America 206-583-0860	www.fesco-na.com	Mode Transportation 972-447-0075	www.modetransportation.com
Great White Fleet (US) Ltd. 888-724-5493	www.greatwhitefleet.com	MOL (America) Inc. 925-688-2600	www.molpower.com

RAIL/INTERMODAL SERVICES

EXECUTIVE GUIDE TO SUPPLY CHAIN RESOURCES

Company Name	Website
NYK Line (North America) Inc. 888-695-7447	www.nyk.com



Odyssey Logistics & Technology Corporation odysseylogistics.com
39 Old Ridgebury Rd
Danbury, CT 06810
203-448-3900
Toll Free: 855-412-0199
Services: With operations in North America, Europe and Asia, Odyssey Logistics & Technology Corporation (Odyssey) operates in all modes of transport: TL/LTL trucking, containership, rail, air, and bulk including bulk truck, ISO Tank, railcar and tanker. Odyssey leverages four main components to drive process improvements and savings for clients: supply chain network evaluation & design; a proprietary, web-based information technology infrastructure; proven operational processes; and, volume aggregation that provides economies of scale. In addition to fully-managed logistics services, Odyssey offers individual 3PL services that include truck brokerage, intermodal transportation, customs brokerage, freight forwarding, facilities management, rail fleet management, and more.

OOCL (USA) Inc. 925-358-6625	www.oocl.com/eng
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Company Name	Website
Sea Star Line, LLC 10550 Deerwood Park Blvd Suite 509 Jacksonville, FL 32256 904-855-1260 Toll Free: 877-775-7447	www.seastarline.com

Services: Sea Star Line provides safe, reliable transportation at the fastest speed possible for the Puerto Rican and related Caribbean trades. Our high-speed roll-on/roll-off and lift-on/lift-off vessels are the most versatile in the trade and supported by a seamless network of port facilities, support systems and inland transportation resources. Sea Star Line's vessels can quickly transport dry and refrigerated container cargo, automobiles and heavy equipment for homeowners, major retailers and manufacturers within the Puerto Rico and related Caribbean trade.

Totem Ocean Trailer Express, Inc. 800-426-0074	www.totemocean.com
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Wallenius Wilhelm Logistics 201-307-1300	www.2wglobel.com
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Wan Hai Lines (America) Ltd. 602-567-9100	www.wanhaiusa.com
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Waterman Steamship Corp. 251-243-9100	www.waterman-steamship.com
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Yang Ming (America) Corp. 201-222-8899	www.yml.com.tw
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ZIM Integrated Shipping Services 866-744-7046	www.zim.co.il
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RAIL/INTERMODAL SERVICES



Alliance Shippers, Inc. 201-227-0400	www.alliance.com
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American Fast Freight 800-642-6664	www.americanfast.com
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Anderson Trucking Services, Inc. 320-255-7400	www.atsinc.com
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ATS International Services, Inc. 320-255-7400	www.atsinc.com
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BNSF Railway 800-795-2673	www.bnsf.com
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Canadian Pacific Railway 403-319-7000	www.cpr.ca
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CSX Rail/Intermodal Services 800-542-2754	www.csxi.com
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Dart Rail/Intermodal Services, Inc. 800-366-9000	www.intermodal.com/
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Hub Group, Inc. 630-271-3600	www.hubgroup.com
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Kansas City Southern 816-983-1303	www.kcsouthern.com
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THIRD-PARTY LOGISTICS SERVICES

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Company Name	Website
Landstar System, Inc. 800-872-9400	www.landstar.com
Mode Transportation 972-447-0075	www.modetransportation.com
Norfolk Southern Corporation 800-667-3655	www.nscorp.com



Odyssey Logistics & Technology Corporation odysseylogistics.com

39 Old Ridgebury Rd
Danbury, CT 06810
203-448-3900

Toll Free: 855-412-0199

Services: With operations in North America, Europe and Asia, Odyssey Logistics & Technology Corporation (Odyssey) operates in all modes of transport: TL/LTL trucking, containership, rail, air, and bulk including bulk truck, ISO Tank, railcar and tanker. Odyssey leverages four main components

Company Name	Website
to drive process improvements and savings for clients: supply chain network evaluation & design; a proprietary, web-based information technology infrastructure; proven operational processes; and, volume aggregation that provides economies of scale. In addition to fully-managed logistics services, Odyssey offers individual 3PL services that include truck brokerage, intermodal transportation, customs brokerage, freight forwarding, facilities management, rail fleet management, and more.	

Pacer Stacktrain 925-887-1400	www.pacerstack.com
Port Corpus Christi 361-882-5633	www.portofcorpuschristi.com
Schneider National, Inc. 800-558-6767	www.schneider.com
Triple Crown Services Company 260-416-3600	www.triplecrownsvc.com
Twin Modal, Inc. 651-697-8800	www.twinmodal.com



THIRD-PARTY LOGISTICS SERVICES



3PD, Inc. 866-373-7874	www.3pd.com/
A. N. Deringer, Inc. 802-524-8110	www.nderinger.com



a2b Fulfillment, Inc. www.a2bf.com

150 Stewart Parkway
Greensboro, GA 30642
866-843-3827 x 113

Toll Free: 866-843-3827 x 113

Fax: 706-454-0197

Email: allison@a2bf.com

Services: a2b Fulfillment, Inc. is an innovative 3PL provider of distribution support services including Warehousing, US & Canadian Order Fulfillment, Climate-controlled storage, Discounted Shipping, e-Commerce, Logistics, US-based Customer Service Contact Center and Value-Add services such as Kitting, Assembly, QC - Rework, and Reverse Logistics. We leverage low cost structure, state-of-the art

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Ability One 800-999-5963	www.abilityone.org
AIT Worldwide Logistics, Inc. 630-766-8300	www.aitworldwide.com
Alliance Shippers, Inc. 201-227-0400	www.alliance.com
Anderson Trucking Services, Inc. 320-255-7400	www.atsinc.com

THIRD-PARTY LOGISTICS SERVICES

EXECUTIVE GUIDE TO SUPPLY CHAIN RESOURCES

Company Name	Website	Company Name	Website
APL Logistics 16220 N Scottsdale Road Suite 300 Scottsdale, AZ 85254 602-586-4800 Toll Free: 866-896-2005 Email: global_marketing@apllogistics.com Services: APL Logistics provides integrated global supply chain solutions in more than 60 countries, with a staff of over 5600 employees. Our broad range of capabilities are enhanced by an approach that delivers tailored solutions, market expertise and a focus on key industries: Automotive, Consumer, Light Industrial and Retail. Our services include shipment consolidation and deconsolidation, freight management, customs brokerage, warehousing, distribution and technology. Our innovative IT solutions have been developed for maximum supply chain visibility and control. APL Logistics has the resources, knowledge and technology to deliver. APL Logistics is a unit of Singapore-based Neptune Orient Lines (NOL).	www.apllogistics.com	CRST Logistics 888-204-9607	www.crstlogistics.com
Associated Global Systems 800-645-8300	www.agsystems.com	CT Logistics 12487 Plaza Drive USA Location Cleveland, OH 44130 216-267-2000 ext 2190 Email: sales@ctlogistics.com Services: Celebrating 92 years, CT is the preeminent provider of global freight audit and payment services for all modes of transportation. All size firms, including Fortune 100, partner with CT to design and deliver supply chain solutions. CT's FreightRater® software, the industry's first choice for professional freight analysis and TMS solutions, calculates freight in all modes and currencies to support your international metrics. CT provides complete supply chain visibility using Business Intelligence for benchmarking and trending with dashboards for reports. CT has SOCII and ISO 9001: 2008 certifications. CT's professionals are skilled in leveraging expertise and technology to maximize your ROI.	info.ctlogistics.com
ATC Logistics & Electronics 800-466-4202	www.atcle.com	Damco USA Inc. 973-514-5126	www.damco.com
Barrett Distribution Centers 508-553-8800	www.barrettdistribution.com	DB Schenker 800-225-5229	www.dbschenkerusa.com
BNSF Logistics, LLC 877-853-4756	www.bnsflogistics.com	Delta Logistics, Inc. 800-240-2654	www.deltalogistics.com
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Cardinal Logistics Management 704-786-6125	www.cardlog.com	DHL Logistics Solutions 800-637-5502	www.dhl-usa.com
CAT Logistics 309-266-3591	www.catlogistics.com		
CEVA Logistics 904-928-1400	www.cevalogistics.com		
ChemLogix LLC 215-461-3805	www.chemlogix.com		
Conexus 918-234-4414	www.conexuslogistics.com/company.php		
Con-Way Multimodal 800-763-2222	www.con-way.com/multimodal		
Crowley Logistics Services 305-463-4800	www.crowley.com		

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Company Name	Website
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**DHX - Dependable
Hawaiian Express**

www.dhx.com

19201 Susana Rd
Rancho Dominguez, CA 90221
310-537-2000

Toll Free: 800-488-4888

Fax: 310-537-2000

Email: cammie.laster@dhx.com

Services: We ship freight to and from Hawaii, Guam and all 4 major West Coast ports on the USA Mainland including cargo, container shipping, transportation, warehousing, and logistics. Expect superior customer service as your single source for reliable, cost-effective freight forwarding from a company that cares. Headquartered in California, our services include LCL consolidation and FCL services including delivery.

DSC Logistics 800-372-1960	www.dsclogistics.com
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Echo Global Logistics 800-354-7993	www.echo.com
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Exel 614-865-8500	www.exel.com
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FedEx Global Supply Chain Services 800-222-7657	www.fedex.com
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FedEx Trade Networks 800-249-2953	www.ftn.fedex.com
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Fidelitone Logistics 847-487-3300	www.fidelitone.com
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GENCO 800-677-3110	www.genco.com
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Ingram Micro Logistics 714-382-5013	www.ingrammicro.com
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Inmar

www.inmar.com

635 Vine St.
Winston Salem, NC 27101
855-815-2646

Fax: 336-770-1939

Email: solutions@inmar.com

Services: Inmar is a technology company that operates intelligent commerce networks. Our platforms connect offline and online transactions in real time for leading retailers, manufacturers and trading partners across multiple industries who trust Inmar to securely manage billions of dollars in transactions. Our Promotions, Supply

Company Name	Website
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Chain and Healthcare platforms enable commerce, generate meaningful data and offer growth-minded leaders actionable analytics and execution with real-time visibility. Founded in 1980, Inmar is headquartered in Winston-Salem, North Carolina with locations throughout the United States, Mexico and Canada. For more information about Inmar's products and services, please contact 866-440-6917 or visit www.inmar.com.

Jacobson Companies 800-636-6171	www.jacobsonco.com
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Kane is Able, Inc. 570-343-5263	www.kaneisable.com
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Kenco

www.kencogroup.com

2001 Riverside Drive
Chattanooga, TN 37406
423-622-1113

Toll Free: 800-758-3289

Email: info@kencogroup.com

Services: Kenco provides integrated logistics solutions that include distribution and fulfillment, comprehensive transportation management, material handling services, real estate management, and information technology® all engineered for Operational Excellence. Woman-owned and financially strong, Kenco has built lasting customer relationships for more than 60 years. Kenco's focus is on common sense solutions that drive uncommon value.



Kenneth Clark Company

www.kennethclark.com

10264 Baltimore National Pike
Ellicott City, MD 21042
410-465-5116

Toll Free: 866-999-5116

Email: sales@kennethclark.com

Services: The Kenneth Clark Company is a global logistics and project management company specializing in the movement of over sized and over weight cargo. Our commitment to excellence and our vast experience in moving oversize cargo allows us to insure that your cargo will arrive at its destination on time and on budget. When you choose the Kenneth Clark Company you are selecting a company that can assist you at every level, from planning to execution.

THIRD-PARTY LOGISTICS SERVICES

EXECUTIVE GUIDE TO SUPPLY CHAIN RESOURCES

Company Name	Website
Kuehne + Nagel 201-413-5500	www.kuehne-nagel.com
Landstar Logistics, Inc. 904-398-9400	www.landstar.com



Landstar System, Inc.

13410 Sutton Park Drive South
Jacksonville, FL 32224
877-696-4507

Toll Free: 877-696-4507

Email: solutions@landstar.com

Services: Providing global & domestic transportation management solutions including: truckload, LTL, heavy haul/specialized, expedited, intermodal, global air and ocean services, cold chain, freight optimization, complete shipment visibility, and carrier selection and management services. Landstar customers have access to more than 36,000 transportation capacity providers.

Description: Landstar, a worldwide, asset-light provider of integrated transportation management solutions offers complete transportation and logistics services, including truckload, LTL, heavy haul/specialized, expedited, intermodal, global air and ocean services. Landstar's transportation management solutions offer global shipment visibility, bidding & shipping tools, carrier selection & management, event management and freight optimization.

www.landstar.com

Company Name	Website
LMS Logistics 314-692-8886	www.lmslogistics.com
Logistics Insight Corporation (LINC) 586-467-1500	www.4linc.com
Lynden Logistics 866-459-6336	www.llog.lynden.com



M33 Integrated Solutions

www.m33integrated.com

511 Rhett Street
Suite 3
Greenville, SC 29601
864-672-2862

Fax: 864-297-3955

Email: info@m33integrated.com

Services: M33 believes the best way to optimize logistics and drive business growth is through scalable technology tools and supply chain expertise. We are committed to helping organizations reduce costs, improve efficiencies and gain the ultimate competitive advantage by providing services such as industry-leading Technology, Co-managed Logistics, Freight Settlement, Capacity Management, Freight Brokerage, and Supply Chain Intelligence. Our philosophy is simple. We strive to give you the best logistics experience and service in the industry. M33's role as a lead logistics provider, complimented with technology, expertise and co-management support, help drive value and optimize solutions.

Menlo Worldwide Logistics 650-378-5200	www.menloworldwide.com
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Legacy Supply Chain Services

www.legacyscs.com/

99 Bow Street, Suite 300W
Portsmouth, NH 03801
603-422-0777

Toll Free: 866-560-8694

Fax: 603-422-7337

Email: contactus@legacyscs.com

www.LEGACYscs.com

Services: LEGACY Supply Chain Services is a U.S.-based 3PL with a nation-wide distribution footprint and over 35 years of supply chain experience. We have an integrated offering of warehousing and distribution, international and domestic transportation, and customs brokerage services. Our rapid evaluation and implementation approach, along with a leadership-driven culture, allows us to improve business performance for our clients, year-over-year. For more information, visit us at www.LEGACYscs.com.

MIQ Logistics

www.miq.com

11501 Outlook Street
Suite 500
Overland Park, KS 66211
913-696-7100

Toll Free: 866-972-9272

Fax: 913-696-7501

Email: contact_us@miq.com

Services: MIQ Logistics is a global logistics company headquartered in Overland Park, Kan., and with offices in North America, Asia, Europe and Latin America. MIQ Logistics enables companies to improve their transportation network and overall supply chain efficiency by offering flexible logistics solutions supported by Web-native technology and global logistics management capabilities. Our end-to-end supply chain and logistics services include: Air & Ocean International Freight Forwarding, Customs Brokerage and Clearance, Global Trade Management, Transportation Management, Truckload Brokerage, Value-added Services,

THIRD-PARTY LOGISTICS SERVICES

EXECUTIVE GUIDE TO SUPPLY CHAIN RESOURCES

Company Name	Website
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Project Logistics, Warehouse Management & Fulfillment, Supply Chain Management, Distribution Services, Origin Services, Supply Chain Visibility.

Company Name	Website
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MKM Distribution Services Inc
5304 W. 74th Street
Indianapolis, IN 46268
317-334-7900

Email: kmelendez@mkmdistribution.com

Services: It's a combination of services and dedication that allows us to satisfy the demands of daily and seasonal volume fluctuations, time-sensitive deliveries, and special packaging needs to keep your product moving as promised. Ecommerce fulfillment, value added services, store distribution, transportation.

Mode Transportation	www.modetransportation.com
972-447-0075	

NFI Interactive Logistics	www.nfiindustries.com
877-634-3777	

NRS – National Retail Systems, Inc.	www.nrsonline.com
201-330-1900	

NVC Logistics Group	www.nvclogistics.com
201-767-0911	



Company Name	Website
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Odyssey Logistics & Technology Corporation
39 Old Ridgebury Rd
Danbury, CT 06810
203-448-3900

Toll Free: 855-412-0199

Services: With operations in North America, Europe and Asia, Odyssey Logistics & Technology Corporation (Odyssey) operates in all modes of transport: TL/LTL trucking, containership, rail, air, and bulk including bulk truck, ISO Tank, railcar and tanker. Odyssey leverages four main components to drive process improvements and savings for clients: supply chain network evaluation & design; a proprietary, web-based information technology infrastructure; proven operational processes; and, volume aggregation that provides economies

Company Name	Website
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of scale. In addition to fully-managed logistics services, Odyssey offers individual 3PL services that include truck brokerage, intermodal transportation, customs brokerage, freight forwarding, facilities management, rail fleet management, and more.

ORBIS Corporation	www.orbiscorporation.com
262-560-5000	

Ozburn-Hessey Logistics	www.ohlogistics.com
615-401-6400	

Penske Logistics	www.penskelogistics.com
610-775-6291	

PLS Logistics Services	www.plslogistics.com
724-814-5100	

Port Logistics Group	www.portlogisticsgroup.com
973-249-1230	

Prologis	www.prologis.com
303-567-5000	

Company Name	Website
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Purolator International
2 Jericho Plaza
Jericho, NY 11753
888-511-4811

Services: Purolator International is the established leader in helping US businesses ship to, from and within Canada. As the only US subsidiary of Purolator Inc, we have unique, direct access to Purolator Canada's comprehensive distribution network enabling us to deliver your freight more effectively than any other carrier.

Quiet Logistics	www.quietlogistics.com
877-887-8438	

Ruan	www.ruan.com
866-782-6669	

Ryder Supply Chain Solutions	www.ryderscs.com
888-887-9337	

Ryder System, Inc.	www.ryder.com
305-500-3726	

THIRD-PARTY LOGISTICS SERVICES

EXECUTIVE GUIDE TO SUPPLY CHAIN RESOURCES

Company Name	Website
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Saddle Creek Logistics Services www.sclogistics.com

3010 Saddle Creek Rd.
Lakeland, FL 33801
863-665-0966

Toll Free: 888-878-1177

Email: sales@sclogistics.com

Services: Saddle Creek Logistics Services is a nationwide 3PL providing integrated warehousing, transportation, packaging and fulfillment services. Our strategic, turnkey logistics solutions help leading companies to increase supply chain efficiency, streamline their businesses and manage costs. With 37 locations nationwide, more than 16 million square feet of space, and over 2,400 associates, we have the resources and expertise to help you meet customer demands and accommodate business growth.

Description: At Saddle Creek Logistics Services, we leverage our warehousing, transportation, packaging and fulfillment capabilities to give you a competitive edge. With our integrated solutions, you can increase speed to market, accommodate fluctuations, control supply chain costs and improve service to your customers. That's our integrated advantage.

Schneider Logistics, Inc. 866-875-9046	www.schneiderlogistics.com
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Suddath Global Logistics 904-3522577	www.suddath.com
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Team Worldwide 800-832-6247	www.teamair.com
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TransGroup Worldwide Logistics 800-444-0294	www.transgroup.com
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Transplace 479-770-7391	www.transplace.com
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Transportation Insight 828-485-5000	www.transportationinsight.com
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TranzAct Technologies, Inc. 630-833-0890	www.tranzact.com
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UniGroup Logistics 855-605-8080	www.unigrouplogistics.com
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Company Name	Website
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Universal Truckload Services, Inc.

www.goutsi.com

12755 E. 9 Mile Road
Warren, MI 48089

586-920-0100 x2127

Email: jstanwick@goutsi.com

Services: Universal Truckload Services, Inc. (Universal) is a leading asset-light provider of customized transportation and logistics solutions. We provide our customers with supply chain solutions that can be scaled to meet your changing demands and volumes. We offer a comprehensive suite of services including transportation, value-added, intermodal and specialized services that can be utilized throughout your entire supply chain.

UPS Supply Chain Solutions 913-693-6151	www.ups-scs.com
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UTi Worldwide

www.go2uti.com

100 Oeangate Suite 1500
Long Beach, CA 90802
562-552-9400

Email: contactus@go2uti.com

Services: Integrated Supply Chain Management services encompassing: Contract logistics; Dedicated and Multi-Client Warehousing; Inventory Management and Optimization; Vendor Managed Inventory (VMI); Supply Chain Analysis and Consulting; Air and Ocean Forwarding; Distribution Services including LTL, FTL, Intermodal, Truck Brokerage and Specialized Trucking; Transportation Management; Customs Brokerage; Complete Supply Chain Visibility through proprietary web-based tools; Order Management; Value-added Services; Special Services for Auto, Aerospace/Defense, Consumer/Retail, Fashion, Hi-Tech, Healthcare/Pharmaceuticals, Industrial/Manufacturing, Projects/Mining, Chemical and Cruise Lines.

Versant Supply Chain 877-367-5288	www.versantsc.com
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Werner Global Logistics 402-895-6640	www.werner.com
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WSI Warehouse Specialists, Inc. 920-831-3700	www.wsinc.com
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YRC 800-610-6500	www.yrc.com
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Zoyto 866-469-6986	www.zoyto.com
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Supply Chain Software and Technology



The following is a representative sample; it is not intended to be an exhaustive listing of all the companies in this category.

Company Name	Website	Company Name	Website
4SIGHT Supply Chain Group 140 E. Ridgewood Ave. Suite 415 ST Paramus, NJ 07652 201-940-7311 greg.puckett@go4sight.com Services: 4SIGHT specializes in supply chain consulting, systems implementation and engineering. Our seasoned professionals average more than 19 years of experience helping companies solve their distribution and transportation challenges. Our expertise includes Operations Analysis/Improvement, Software/Technology Selection & Implementation, Distribution Network Optimization, Facility Layout/Design, Engineered Labor Standards and Transportation Optimization. As a testament to the value our clients place on our expertise, experience and integrity, 4SIGHT has received multiple industry awards, including recognition by the industry's leading information resources as a Top 100 Supply Chain Partner. For more information, email us at in4mation@go4sight.com or call (201) 940-7311.	www.go4sight.com	Description: SmartBOL software makes bills of lading and other shipping documents by reusing information from ERP/WMS/TMS systems. Eliminates redundant data entry and keystroke errors. Collect and save driver's electronic signature; eliminates signed office hard copy. Reduces printing costs. Retrieve e-signed documents easily for audits, claims or SOX compliance.	
		ALK Technologies - PC • Miler 609-683-0220	www.pcmiler.com
		Amber Road One Meadowlands Plaza East Rutherford, NJ 07073 www.AmberRoad.com 201-935-8588 Fax: 201-935-5187 Email: Solutions@AmberRoad.com Services: Amber Road's (NYSE: AMBR) mission is to dramatically change the way companies conduct global trade. As a leading provider of cloud-based global trade management (GTM) solutions, we automate import and export processes to enable goods to flow across international borders in the most efficient, compliant and profitable way. Our solution combines enterprise-class software, trade content sourced from government agencies in 139 countries, and a global supply chain network connecting our customers with their trading partners. We deliver our GTM solution using a SaaS model, leveraging a highly flexible technology framework to meet our customers' unique requirements around the world.	www.AmberRoad.com
Acuitive Solutions 704-847-4997	www.acuitivesolutions.com		
ADi SmartBOL 255 Old New Brunswick Rd #350-S Piscataway, NJ 08854 732-981-0444 Toll Free: 888-701-5005 Email: sales@smartbol.com Services: SmartBOL software makes bills of lading and other shipping documents, VICS BOL, for TL/LTL, Export and HazMat shipping. Interfaces ERP/WMS/TMS systems. Eliminates redundant data entry, saves labor costs. Interface with existing data source to eliminate keystroke errors. Reduces cost of chargebacks, penalties and increases to accounts receivable that result from shipping document errors. Eliminate the office hard copy of signed shipping documents. Driver's signature is collected electronically, applied to the document, and saved in a database. Retrieve e-signed documents easily for audits, claims or SOX compliance. Reduces costs associated with printing, scanning, storing and retrieving signed shipping documents.	www.smartbol.com/		
		Amosoft EDI Services 800-761-4268	www.amosoft.com
		Apriso Corporation 562-951-8000	www.apriso.com
		ASAP Automation LLC 502-266-9999	www.asap-automation.com
		BearCom 800-527-1670	www.bearcom.com
		Biznet Solutions Ltd 713-357-6555	www.biznetsolutions.com

SUPPLY CHAIN SOFTWARE AND TECHNOLOGY

EXECUTIVE GUIDE TO SUPPLY CHAIN RESOURCES

Company Name	Website
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C3 Solutions 514-315-3139	www.c3solutions.com
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Cadre Technologies, Inc.	www.cadretch.com
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7900 East Union Avenue
Suite 1007
Denver, CO 80237
303-217-7037
Toll Free: 866-252-2373
Fax: 303-217-7050
Email: roger.rountree@cadretch.com

Services: Cadence Fulfillment System features warehouse management system, order management and multi-carrier parcel shipping. System is build for 3rd party logistics, eCommerce fulfillment, distribution and retail distribution. Cadence is a total platform for logistics from order capture via EDI and direct ERP interface; warehouse management including all functions from product receipt, inventory mangagement, picking, and shipping; and multi-carrier parcel shipping including LTL. Cadence is built on the Microsoft platform including Windows Server and SQL Server. It provides real-time warehouse operations via advanced bar-code scanning. Also, LogiView, a SaaS visibility and execution system for shippers, logistics service companies and distributors.

Catalpult International 913-232-2389	www.gocatapult.com
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Celsis 312-476-1282	www.celsis.com
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Continental Wireless 972-926-7443	www.cntlwire.com
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CT Logistics	info.ctlogistics.com
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12487 Plaza Drive USA Location
Cleveland, OH 44130
216-267-2000 ext 2190
Email: sales@ctlogistics.com

Services: Celebrating 92 years, CT is the preeminent provider of global freight audit and payment services for all modes of transportation. All size firms, including Fortune 100, partner with CT to design and deliver supply chain solutions. CT's FreightRater® software, the industry's first choice for professional freight analysis and TMS solutions, calculates freight in all modes and currencies to support your international metrics. CT provides complete supply chain visibility using Business Intelligence for benchmarking and trending with dashboards for reports. CT has SOCII and ISO 9001:2008 certifications. CT's professionals are skilled in leveraging expertise and technology to maximize your ROI.

Company Name	Website
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CTSI-Global	www.ctsi-global.com
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5100 Poplar Avenue, 15th Fl.
Memphis, TN 38137
901-766-1500
Toll Free: 888-836-5135
Email: solutions@ctsi-global.com

Services: For over 58 years, CTSI-Global has provided supply chain management expertise and technology. CTSI-Global is a valuable resource to our clients by helping them manage and control all aspects of their supply chains - physical, informational and financial — within one global database. CTSI-Global provides customized Transportation Management System (TMS) applications, flexible freight audit & payment services, an array of Business Intelligence reporting and Logistics Global Consulting; that give clients more control, improved efficiencies and a cost effective process to result in greater savings. CTSI-Global is Your Link To Supply Chain Solutions.

Damco 973-514-2076	www.damco.com
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E2open 650-645-6500	www.e2open.com
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eCustoms 716-881-2590	www.ecustoms.com
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Elemica 610-786-1200	www.elemica.com
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Endicia 800-576-3279	www.endicia.com
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Epicor Software Corporation 949-585-4000	www.epicor.com
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FORTE 513-398-2800	www.forte-industries.com
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FREIGHTWARE from InFreight Logistics Inc	www.infreightlogistics.com
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538 Elizabeth Street
Midland , ON L4R 2A3
Canada
844-378-9273
Email: salesgroup@infreightlogistics.com

Services: FREIGHTWARE from InFreight Logistics provides web based software solutions to enhance shipping and distribution responsibilities. FREIGHTWARE transRate is a web based Freight Rate Management System (FRMS) for USA, Canada and Mexico based rating. FREIGHTWARE transPay utilizes the audit quality rating component of transRate and provides accurate processing and payment of your carrier invoices. EDI 204 and 210 capabilities are included for seamless data processing.

SUPPLY CHAIN SOFTWARE AND TECHNOLOGY
EXECUTIVE GUIDE TO SUPPLY CHAIN RESOURCES

Company Name	Website
FusionOps 408-524-2222	www.fusionops.com
Genpact 212-880-5358	www.genpact.com
GT Nexus 510-808-2222	www.gtnexus.com
HighJump Software 952-947-4088	www.highjumpsoftware.com
IBM 914-499-1900	www.ibm.com/us/en/
IES, Ltd. 800-419-8495	www.iesltd.com
IFS 847-592-0200	www.ifsworld.com
ILOG 408-991-7000	www.ilog.com
InfinityQS 800-772-7978	www.infinityqs.com
Infor 678-319-8000	www.infor.com
Inovis, Inc. 800-334-2255	www.inovis.com
Insight, Inc. 703-366-3061	www.insight-mss.com
Integration Point, Inc. 704-576-3678	www.integrationpoint.com
Interlink Technologies 419-893-9011	www.thinkinterlink.com
Invensys PLC 919-870-4700	www.invensys.com
JDA Software Group, Inc. 480-308-3000	www.jda.com
Jump Technologies 651-287-6000	www.jumptech.com
Kinaxis 613-592-3574	www.kinaxis.com
Kiva Systems Inc 781-221-4640	www.kivasystems.com
Knapp Logistics Automation 678-388-2880	www.knapp.com/us

Company Name	Website
Kronos 978-250-9800	www.kronos.com
Landstar System, Inc. 877-696-4507	www.landstar.com
LeanLogistics 616-738-6400	www.leanlogistics.com



Logility **www.logility.com**
 470 E Paces Ferry Road NE
 Atlanta, GA 30305
 800-762-5207
Email: info@logility.com
Services: With more than 1,250 customers worldwide, Logility is a leading provider of collaborative, best-of-breed supply chain solutions that help small, medium, large and Fortune 1000 companies realize substantial bottom-line results in record time. Logility Voyager Solutions is a complete supply chain management solution that features a performance monitoring architecture and provides supply chain visibility; demand, inventory and replenishment planning; Sales and Operations Planning (S&OP); supply and inventory optimization; manufacturing planning and scheduling; retail planning and allocation, and transportation planning and management.

LOG-NET, Inc. 732-758-6800	www.log-net.com
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M33 Integrated Solutions **www.m33integrated.com**
 511 Rhett Street
 Suite 3
 Greenville, SC 29601
 864-672-2862
Fax: 864-297-3955
Email: info@m33integrated.com
Services: M33 believes the best way to optimize logistics and drive business growth is through scalable technology tools and supply chain expertise. We are committed to helping organizations reduce costs, improve efficiencies and gain the ultimate competitive advantage by providing services such as industry-leading Technology, Co-managed Logistics, Freight

SUPPLY CHAIN SOFTWARE AND TECHNOLOGY
EXECUTIVE GUIDE TO SUPPLY CHAIN RESOURCES

Company Name Website

Settlement, Capacity Management, Freight Brokerage, and Supply Chain Intelligence. Our philosophy is simple. We strive to give you the best logistics experience and service in the industry. M33's role as a lead logistics provider, complimented with technology, expertise and co-management support, help drive value and optimize solutions.

Manhattan Associates, Inc. www.manh.com
770-955-7070

Mercury Gate www.mercurygate.com
919-469-8057

Microsoft Corporation www.microsoft.com
888-477-7989

Next Generation Logistics, Inc. www.nextgeneration.com
847-963-0007



Odyssey Logistics & Technology Corporation

39 Old Ridgebury Rd
Danbury, CT 06810
203-448-3900

Toll Free: 855-412-0199

Services: With operations in North America, Europe and Asia, Odyssey Logistics & Technology Corporation (Odyssey) operates in all modes of transport: TL/LTL trucking, containership, rail, air, and bulk including bulk truck, ISO Tank, railcar and tanker. Odyssey leverages four main components to drive process improvements and savings for clients: supply chain network evaluation & design; a proprietary, web-based information technology infrastructure; proven operational processes; and, volume aggregation that provides economies of scale. In addition to fully-managed logistics services, Odyssey offers individual 3PL services that include truck brokerage, intermodal transportation, customs brokerage, freight forwarding, facilities management, rail fleet management, and more.

One Network Enterprises www.onenetwork.com
972-385-8630

Open Sky Group www.openskygroup.com

1421 East Broad Street #305
Fuquay-Varina, NC 27526-1968
919-346-4500

Toll Free: 866-359-4437

Fax: 919-800-3404

Email: marketing@theopenskygroup.com

Services: Authorized Reseller for JDA WMS and WFM; Services include New Implementations of WMS and WFM;

Company Name Website

Software Upgrades for WMS and WFM; Material Handling Equipment and ERP Integration and Parcel Systems Implementation.

Oracle Corporation www.oracle.com
650-506-7000

PEAK Technologies, Inc. www.peaktech.com
800-926-8212

QAD Inc. www.qad.com
805-684-6614

Qualcomm Inc. www.qualcomm.com
858-587-1121

Quintiq software www.quintiq.com
610-964-8111

Sage www.sage.com
860-530-7243

SAP www.sap.com
866-379-4715

SICK, Inc. www.sick.com
952-941-9287



Softeon www.softeon.com

11700 Plaza America Drive
Suite 910
Reston, VA 20190
703-793-0005

Toll Free: 855-SOFTEON

Email: info@softeon.com

Services: Softeon is a global provider of supply chain solutions from planning through execution. Our modern platform is engineered to reduce complex problems into simple solutions for faster implementation and lower cost of ownership. Users can incrementally achieve their warehouse, distribution, transportation or planning goals in cost effective steps. We make it easy to solve specific challenges or to deploy a complete order-to-delivery system. Configurable solutions are rules driven to maximize productivity. Companies choose the flexibility and ease-of-use of the Softeon platform to drive higher business value and accelerate ROI.

Software AG www.softwareag.com
800-823-2212

Sterling Commerce www.sterlingcommerce.com
614-793-4041

SUPPLY CHAIN SOFTWARE AND TECHNOLOGY

EXECUTIVE GUIDE TO SUPPLY CHAIN RESOURCES

Company Name	Website
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<p>Streamline, Inc 9838 Old Baymeadows Road Ste 173 Jacksonville, FL 32256 Toll Free: 888-886-4621 Email: sales@streamline.bz Services: International ERP logistics software solution based on award winning Salesforce1 platform. Streamline Shipping delivers software solution for retail, manufacturing, NVOCC/brokers, freight forwarders and carriers with enterprise features that include: • Account/Contact Mgmt, • Quote Mgmt, • Multimodal Shipment Mgmt, • PO Mgmt, • Invoice Mgmt, • Payment Mgmt, • SDS Services (EDI Integration, Gov System Integration, etc), • Mobile (IOS/Android), Much more. Learn how to Streamline your business!</p>	<p>www.streamline.bz</p>
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<p>SupplyOn 248-758-2300</p>	<p>www.supplyon.com</p>
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<p>Syncon 855-298-7245</p>	<p>www.syncon.com</p>
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<p>SYSPRO 714-437-1000</p>	<p>www.syspro.com</p>
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<p>TCLogic 317-464-5152</p>	<p>www.tclogic.com</p>
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<p>TAKE Supply Chain 512-231-8191</p>	<p>www.takesupplychain.com</p>
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<p>Technogix Decision Sciences Inc. 905-889-2178</p>	<p>www.technogix.ca</p>
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<p>TECSYS Inc. 514-866-0001</p>	<p>www.tecsys.com</p>
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<p>The Descartes Systems Group Inc. 519-746-8110</p>	<p>www.descartes.com</p>
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<p>TraceLink Inc 781-914-4900</p>	<p>tracelink.com</p>
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<p>TZA 847-540-6543</p>	<p>www.tza.com</p>
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<p>Vitech Business Group, Inc. 4164 Meridian St. Bellingham, WA 98226 360-647-1622 Fax: 360-647-1684 Email: info@vitechgroup.com Services: Vitech's expertise in delivering solutions with HighJump Software's Supply Chain Advantage product suite and Vocollect Voice sets us apart as a leader in the supply</p>	<p>www.vitechgroup.com</p>
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Company Name	Website
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chain industry. This expertise is rooted in a long history of providing our customers with unique solutions that incorporate hardware, software, and value-added professional services. In 2014 our commitment to industry excellence was recognized when Vitech was named Premier Implementation Collaboration Partner of the Year by HighJump Software and the Vocollect Total Solution Provider Partner of the Year by Honeywell.



<p>Wolters Kluwer Transport Services - Transwide TMS</p>	<p>www.transwide.com</p>
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111 Eighth Avenue
 13th Floor
 New York, NY 10011
Toll Free: 800-763-3240
Fax: 973-453-8121
Email: info@transwide.com

Services: Transwide offers a global, modular, cloud-based TMS platform that enables shippers to connect, communicate and collaborate with logistics partners to improve logistics performance, increase customer satisfaction and reduce transportation costs. With offices in Brussels, New York and Shanghai, Transwide is deployed at 200+ customers in 80 countries across 4 continents -Carrier Sourcing (RFI/RFQ), •Routing Guide, •Intelligent Carrier Selection, •Electronic Load Tendering, •Web-Based Appointment Scheduling (Pick-Up/Delivery) Platform, •Shipment/Delivery Track & Trace, POD, •Real-Time Transportation Event Management, •Contract, Rate Management & Freight Bill Audit, •Centralized Shipper Carrier KPI Reporting, •Integration Services to ERP, WMS, TMS Applications.

Description: Transwide offers a global, modular, cloud-based TMS platform that enables shippers to connect, communicate and collaborate with logistics partners to improve logistics performance, increase customer satisfaction and reduce transportation costs. With offices in Brussels, New York and Shanghai, Transwide is deployed at 200+ customers in 80 countries across 4 continents.

<p>XpressRate 855-517-3777</p>	<p>www.xpressrate.com</p>
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Everything you need, every way you need it.

Supply Chain 24/7 is the ultimate online business resource for transportation, distribution, logistics and supply chain professionals. Find everything you need when researching companies, trends, and industries.

Your *best* business resource for:

- News
- Best practices
- Trends
- Case studies
- White papers
- Webcasts
- Research
- Special reports
- Blogs

and *much much* more!

Featured companies that are relevant to the specific topic

Search engine can search across content elements and by specific companies

Trending news and features



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Begin your experience today.



Sourcing and Procurement Solutions

The following is a representative sample; it is not intended to be an exhaustive listing of all the companies in this category.

Company Name	Website	Company Name	Website
1st Source Products, Inc. 812-288-7466	www.1stsourceproducts.com	MCS Management Services 800-473-5003	www.mcmmanagement.com
A. T. Kearney Procurement Solutions 312-223-6400	www.atkearneyprocurementsolutions.com	Motion Industries 1605 Alton Road Birmingham, AL 35210 205-951-1154 Toll Free: 800-526-9328 Fax: 205-957-5290 Email: MiMarketing@motionindustries.com Services: A leading industrial maintenance, repair and operation (MRO) replacement parts; distributor of bearings, power transmission, electrical & industrial automation, hydraulic & industrial hose, hydraulic & pneumatic components, industrial & safety supply products, and material handling. Motion Industries has over 500 operations including ten distribution centers throughout North America and serves more than 140,000 MRO and OEM customers from the food and beverage, pulp and paper, iron and steel, chemical, mining and aggregate, petrochemical, automotive, wood and lumber, and pharmaceutical industries. In addition, Motion Industries offers customers cost-saving programs such as asset and repair tracking, storeroom and replenishment tracking, and productivity savings tracking.	www.motionindustries.com
Ariba 650-390-1000	www.ariba.com	Next Level Purchasing, Inc. 412-294-1990	www.nextlevelpurchasing.com/free.html
BasWare 203-487-7900	www.basware.com	Odyssey Odyssey Logistics & Technology Corporation 39 Old Ridgebury Rd Danbury, CT 06810 203-448-3900 Toll Free: 855-412-0199 Services: With operations in North America, Europe and Asia, Odyssey Logistics & Technology Corporation (Odyssey) operates in all modes of transport: TL/LTL trucking, containership, rail, air, and bulk including bulk truck, ISO Tank, railcar and tanker. Odyssey leverages four main components to drive process improvements and savings for clients: supply chain network evaluation & design; a proprietary, web-based information technology infrastructure; proven operational	odysseylogistics.com
Battery Filling Systems of the Americas 336-714-0448	www.batteryfilling.com	Corporate United 440-895-0938	www.corporateunited.com
Beroe, Inc. 919-342-4569	www.beroe-inc.com	Enporion, Inc. 866-436-7674	www.enporion.com
Catapult International 913-232-2389	www.gocatapult.com	Epiq Technologies 858-467-9961	www.epiqtech.com
Fieldglass 312-279-8700	www.fieldglass.com	Genpact 212-880-5358	www.genpact.com
Greybeard Advisors 412-874-8410	www.greybeardadvisors.com	Hertzler Systems Inc. 574-533-0571	www.hertzler.com
IQNavigator 303-563-1500	www.iqnavigator.com	JPMorgan Xign Corporation 212-270-6000	www.jpmorganchase.com

SOURCING AND PROCUREMENT SOLUTIONS

EXECUTIVE GUIDE TO SUPPLY CHAIN RESOURCES

Company Name	Website
processes; and, volume aggregation that provides economies of scale. In addition to fully-managed logistics services, Odyssey offers individual 3PL services that include truck brokerage, intermodal transportation, customs brokerage, freight forwarding, facilities management, rail fleet management, and more.	
Perfect Commerce 757-766-8211	www.perfect.com
Promotional Product Solutions by Image Premiums 845-362-6135	www.imagepremiums.com

Company Name	Website
Puridiom 800-388-1415	www.puridiom.com
SICK, Inc. 952-941-6780	www.sickusa.com
Source One Management Services, LLC 215-902-0200	www.sourceoneinc.com
Zoyto 713-300-3000	www.zoyto.com
Zycus Inc. 609-799-5664	www.zycus.com



Professional Associations



The following is a representative sample; it is not intended to be an exhaustive listing of all the companies in this category.

Company Name	Website	Company Name	Website
APICS—The Association for Operations Management 800-444-2742	www.apics.org	ISM (Institute for Supply Management) 480-752-6276	www.ism.ws
APICS Supply Chain Council 202-962-0440	www.supply-chain.org	MHI (Material Handling Industry) 704-676-1190	www.mhi.org
AST&L 202-580-7270	www.astl.org	NITL (National Industrial Transportation League) 703-524-5011	www.nitl.org
CSCMP (Council of Supply Chain Management Professionals) 630-645-3491	cscmp.org	SIG (Sourcing Interests Group) 530- 582-8600	www.sourcinginterests.org
International Society of Logistics 301-459-8446	www.sole.org	TRB (Transportation Research Board) 202-334-2000	www.trb.org
IQPC 800-882-8684	www.iqpc.com	WERC (Warehousing Education & Research Council) 630-990-0001	www.werc.org



Financial Services

The following is a representative sample; it is not intended to be an exhaustive listing of all the companies in this category.

Company Name	Website	Company Name	Website
American Express 800-528-2122	www.americanexpress.com	HSBC Corporate Services 866-394-4722	www.us.hsbc.com
Bank of America Corporation 704-386-5681	www.bankofamerica.com	JPMorgan Chase & Co. 212-270-6000	www.jpmorganchase.com
Citigroup 800-285-3000	www.citigroup.com	MasterCard Worldwide 914-249-2000	www.mastercard.com
CT Logistics 12487 Plaza Drive USA Location Cleveland, OH 44130 216-267-2000, ext 2190 Email: sales@ctlogistics.com Services: Celebrating 92 years, CT is the preeminent provider of global freight audit and payment services for all modes of transportation. All size firms, including Fortune 100, partner with CT to design and deliver supply chain solutions. CT's FreightRater® software, the industry's first choice for professional freight analysis and TMS solutions, calculates freight in all modes and currencies to support your international metrics. CT provides complete supply chain visibility using Business Intelligence for benchmarking and trending with dashboards for reports. CT has SOCII and ISO 9001:2008 certifications. CT's professionals are skilled in leveraging expertise and technology to maximize your ROI.	info.ctlogistics.com	Meridian Finance Group 310-260-2130	www.meridianfinance.com
Euler Hermes 410-753-0753	www.eulerhermes.com	PowerTrack (US Bank) 800-417-1844	www.usbank.com
Gateway Commercial Finance LLC 340 SE 1st Street Delray Beach, FL 33483 561-734-2706 Toll Free: 855-424-2955 Fax: 561-734-2708 Email: gateway@gatewaycfs.com Services: Gateway Commercial Finance offers accessible cash flow solutions to pre-bankable, established, or fast growing businesses through receivable factoring services. We fund companies providing products or services to other companies operating in the US. Whether your business seeks to enhance cash flow, shed credit risk or seize new sales opportunities, Gateway Commercial Finance has the experience to make your objectives a reality.	gatewaycfs.com	PrimeRevenue 678-904-7100	www.primerevenue.com
		RBS 212-401-3200	www.rbsmarkets.com
		U.S. Bank 866-280-3751	www.usbank.com
		UPS Capital 800-637-0620	www.capital.ups.com
		Visa Inc. 800-847-2911	www.visa.com
		Wachovia 800-922-4684	www.wachovia.com



Education and Professional Development

The following is a representative sample; it is not intended to be an exhaustive listing of all the companies in this category.

Company Name	Website	Company Name	Website
Accenture Supply Chain Academy 312-842-5012	www.accentureacademy.com	Niagara University 800-462-2111	www.niagara.edu
Arizona State University 480-965-7579	www.wpcarey.asu.edu/exec	North Carolina State University 919-515-5560	www.mgt.ncsu.edu
Auburn University 334-844-4000	www.auburn.edu	Northeastern University 617-373-2000	www.northeastern.edu
Cranfield University/ School of Management 44-011-1234-758102	www.cranfieldmsc.biz/log	Northwestern University 847-467-7020	www.kellogg.northwestern.edu/execed
DePaul University 312-362-8300	www.depaul.edu	Ohio State University 614-292-8808	www.osu.edu
George Institute of Technology 404-385-1866	www.gatech.edu/	Penn State University 814-863-0448	Penn State University
Global Trade Academy 609-896-2020	www.learnatgta.com	Rutgers Business School 973-353-1234	www.business.rutgers.edu
Golden Gate University 415-442-6500	www.ggu.edu	Shippensburg University 717-477-1483	webpace.ship.edu/business/dept/scm/scmprg.htm
Indiana University 317-274-2147	www.kd.iu.edu	Stanford University 650-724-6301	www.gsb.stanford.edu/exed
Lehigh University 610-758-4372	www.distance.lehigh.edu	Syracuse University 315-443-3751	www.whitman.syr.edu/scm
Loyola University Chicago 773-274-3000	www.luc.edu	Texas A&M University 979-845-1616	www.business.tamu.edu
Massachusetts Institute of Technology (MIT) 617-253-5320	web.mit.edu/	Texas Christian Church (TCU) 817-257-7572	www.neeley.tcu.edu
Michigan State University 517-355-8377	www.bus.msu.edu/msc	The World Academy 908-354-7746	www.theworldacademy.com
		University of Arkansas 479-575-5949	www.uark.edu

EDUCATION AND PROFESSIONAL DEVELOPMENT

EXECUTIVE GUIDE TO SUPPLY CHAIN RESOURCES

Company Name	Website	Company Name	Website
University of Liverpool 31-0-20-713-0000	www.ohecampus.com	University of Tennessee 865-974-5001	supplychain.utk.edu
University of Maryland 301-405-2308	www.umd.edu	University of Wisconsin-Madison 608-441-7357	exed.wisc.edu/supplychain
University of Michigan 734-763-1817	exed.umich.edu	Walden University 866-492-5336	www.waldenu.edu
University of San Diego 619-260-4894	www.sandiego.edu	Washington University in St. Louis 314-935-9237	www.wustl.edu
University of San Francisco 800-609-4196	www.usanfranonline.com/ism		



Warehouse/DC

The following is a representative sample; it is not intended to be an exhaustive listing of all the companies in this category.

Company Name	Website	Company Name	Website
4SIGHT Supply Chain Group 201-940-7211	www.go4sight.com	Cadre Technologies, Inc. 866-25-CADRE	www.cadrettech.com
 <p>ADi SmartBOL www.smartbol.com/ 255 Old New Brunswick Rd #350-S Piscataway, NJ 08854 732-981-0444 Toll Free: 888-701-5005 Email: sales@smartbol.com Services: SmartBOL software makes bills of lading and other shipping documents, VICS BOL, for TL/LTL, Export and HazMat shipping. Interfaces ERP/WMS/TMS systems. Eliminates redundant data entry, saves labor costs. Interface with existing data source to eliminate keystroke errors. Reduces cost of chargebacks, penalties and increases to accounts receivable that result from shipping document errors. Eliminate the office hard copy of signed shipping documents. Driver's signature is collected electronically, applied to the document, and saved in a database. Retrieve e-signed documents easily for audits, claims or SOX compliance. Reduces costs associated with printing, scanning, storing and retrieving signed shipping documents. Description: SmartBOL software makes bills of lading and other shipping documents by reusing information from ERP/WMS/TMS systems. Eliminates redundant data entry and keystroke errors. Collect and save driver's electronic signature; eliminates signed office hard copy. Reduces printing costs. Retrieve e-signed documents easily for audits, claims or SOX compliance.</p>		CLARK Material Handling Company 859-422-6521	www.clarkmhc.com
ADSI 847-884-1940	www.adsionline.com	Conroll 910-202-4292	www.conroll.com
AmbaFlex Inc. 817-800-1634	www.ambaflex.com	Crown Equipment 419-629-2311	www.crown.com
AS/R Systems Inc. 847-955-0980	www.asrsystems.com	Cushman 706-798-4311	www.cushman.com
Ashland Conveyor Products 419-281-1235	www.ashlandconveyor.com	Datalogic, Inc. +39 051 3147011	www.datalogic.com
Axmann Conveying Systems 812-284-9285	www.axmann-fs.com/	Dematic 877-725-7500	www.dematic.com
		DENSO ADC 888-693-3676	www.denso-adc.com
		Digital Lumens www.digitallumens.com 374 Congress Street Boston, MA 02210 617-723-1200 Email: info@digitallumens.com Services: The Digital Lumens LED-based Intelligent Lighting System is proven in some of the world's leading warehouses, distribution centers, and manufacturing facilities to reduce lighting energy costs up to 90% while improving light levels. Smart high bay LED lights, all with integrated occupancy and daylight sensors, are wirelessly networked and centrally managed to deliver light when and where needed. LightRules software platform provides lighting system reports, and the ability to fine tune lighting settings.	
		Emerson Industrial Automation 866-743-4392	www.emersonindustrial.com
		EnerSys 610-208-1991	www.enersys.com
		Flexible Material Handling 678-745-3720	www.flexmh.com

WAREHOUSE/DC

EXECUTIVE GUIDE TO SUPPLY CHAIN RESOURCES

Company Name	Website
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FlexLink Systems 610-973-8200	www.flexlink.com
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Fortna Inc.

333 Buttonwood Street
West Reading, PA 19611
610-370-8000

Toll Free: 800-367-8621

Fax: 610-376-2861

Email: info@fortna.com

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www.fortna.com

Hal Systems 770-927-0700	www.halsystems.com
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HighJump Software 952-947-4088	www.highjump.com
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Hyster Company 800-497-8371	www.hyster.com
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Hyundai Construction 678-823-7777	www.hceamericas.com
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Intelligrated Inc. 866-936-7300	www.intelligrated.com
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Interlink Technologies 419-893-9011	www.thinkinterlink.com
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Intermec 425-348-2600	www.intermec.com
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Interroll Corporations USA 910-520-3382	www.interroll.us
--	--

IQG Products 484-924-9400	www.iogproducts.com
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Jervis B Webb Company 248-553-1000	www.daifukuwebb.com
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Jungheinrich AG 877-543-6757	www.jungheinrich.com
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Company Name	Website
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Kenco

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Toll Free: 800-758-3289

Email: info@kencogroup.com

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Komatsu Forklift USA 847-437-5800	www.komatsuforkliftusa.com
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Linde Material Handling North America 843-875-8000	www.linde-mh.com
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Lucas Systems, Inc. 724-940-7000	www.lucasware.com
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Mitsubishi Electric Automation, Inc. 847-478-2100	www.meau.com
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Motorola Solutions 847-576-5000	www.motorolasolutions.com
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Murata Machinery USA, INC. 800-428-8469	www.muratec-usa.com
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Narrow Aisle, Inc. 214-819-4180	www.narrowaisleinc.com
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Numina Group Inc. 630-343-2600	www.numinagroup.com
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Pflow Industries, Inc. 414-247-9800	www.pflow.com
--	--

Polymer Solutions International 877-444-7225	www.prostack.com
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Power Designers USA LLC. 608-231-0450	www.powerdesigners.com
--	--

Presto Lifts Inc. 508-952-4000	www.presto-lift.com
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Company Name	Website
Ralphs- Pugh Co. Inc. 707-745-6363	www.ralphs-pugh.com
Rapid Industries, Inc. 502-968-3645	www.rapidindustries.com
Redwerks Corporation 512-257-3031	www.reddwerks.com
Retalix 630-213-3080	www.retalix.com
Rite- Hite 414-355-2600	www.ritehite.com
Ryson International, Inc. 757-898-1530	www.ryson.com
S P G International, LLC. 847-541-6500	www.spgusa.com
Sackett Systems, Inc. 630-766-5500	www.sackett-systems.com
SAG (Securitag Assembly Group Co., Ltd.) +886-4-2492-5298	www.sag.com.tw
Sage Automation 409-842-8040	www.sagerobot.com
Sapient Automation 877-489-7301	
Schaefer Systems 704-944-4500	www.ssi-schaefer.us
Seegrid Corp. 412-621-4305	www.seegrid.com
Sencorp White 508-771-9400	www.sencorpwhite.com
SEW- Eurodrive Inc. 864-439-8792	www.seweurodrive.com
Shockwatch 214-937-4936	www.shockwatch.com
SI Systems 610-252-7321	www.sih.com
SICK 952-941-6780	www.sick.com
Snapfulfil SaaS W M S 843-577-5007	www.snapfulfil.com

Company Name	Website
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Softeon

www.softeon.com

11700 Plaza America Drive
Suite 910
Reston, VA 20190
703-793-0005

Toll Free: 855-SOFTEON

Email: info@softeon.com

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Speech Interface Design, Inc. www.speech-interface.com
412-323-1135

Speedrack Products Group, Ltd. speedrack.net
800-752-7352

Spiratex www.spiratex.com
734-722-0100

Stanley Vidmar www.stanleyvidmar.com
610-776-3810

Steel King Industries, Inc. www.steelking.com
715-341-3120

Supply Chain Services supplychainservices.com
866-205-4310

Swisslog Logistics Inc. www.swisslog.com
757-820-3400

System Logistics www.systemlogistics.com
207-784-1381

Systems Application Engineering (SAE) www.saesystems.com
713-783-6020

Tailift USA Co., Inc. www.tailift.com
909-930-9802

Taylor Made Cases www.taylormadecases.com
919-209-0555

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Company Name	Website
TECSYS Inc. 514-866-0001	www.tecsys.com
TEKLYNX International 414-837-4800	www.teklynx.com
TGW Systems 231-798-4547	www.tgw-group.com
The Raymond Coporation 607-656-2311	www.raymondcorp.com
Topper Industrial 262-886-6931	www.topperindustrial.com
TotalTrax, Inc. 302-514-0600	www.totaltraxinc.com
Toyota Materials Handling 510-675-0500	www.tmhnc.com/
TranSystems 800-800-5261	www.transystems.com
TriEnda LLC. 608-742-5303	www.triend.com
UNARCO Material Handling 615-384-3531	www.unarcorack.com
UNEX Manufacturing Inc. 732-928-2800	www.unex.com
UniCarriers Americas Corporations 815-568-0061	www.unicarriersamericas.com
United Sortation Solutions 410-363-6345	www.unitedsortation.com
UPS Logistics Technologies 410-847-1900	www.roadnet.com
Van der Graf 905-793-8100	www.vandergraaf.com
Vanderlande Industries 770-250-2800	www.vanderlande.com
VARGO Companies 614-876-1163	www.vargosolutions.com
viastore systems, Inc. 616-977-3950	us.viastore.com
Vidir Inc. 204-364-2442	www.storevertical.com

Company Name	Website
Vitech Business Group, Inc. 4164 Meridian St. Bellingham, WA 98226 360-647-1622 Fax: 360-647-1684 Email: info@vitechgroup.com Services: Vitech's expertise in delivering solutions with HighJump Software's Supply Chain Advantage product suite and Vocollect Voice sets us apart as a leader in the supply chain industry. This expertise is rooted in a long history of providing our customers with unique solutions that incorporate hardware, software, and value-added professional services. In 2014 our commitment to industry excellence was recognized when Vitech was named Premier Implementation Collaboration Partner of the Year by HighJump Software and the Vocollect Total Solution Provider Partner of the Year by Honeywell.	www.vitechgroup.com
Vocollect 412-829-8145	www.vocollect.com
W & H Systems 201-933-7840	www.whsystems.com
Webb-Stiles Co 330-225-7761	www.webb-stiles.com
Westfalia 717-764-1115	www.westtaliausa.com
Wildeck 262-549-4000	www.wildeck.com
Witron Integrated 847-385-6000	www.witron.com
Wynright 847-595-9400	www.wynright.com
Yale Materials Handling Corp. 252-931-5535	www.yale.com

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COMPANY PROFILES

The following Company Profiles offer important insight from top-level companies. Read through these pages and see all of the new opportunities that are being offered to help improve your company's supply chain and keep costs in check.



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Saia LTL Freight



Richard D. O'Dell
President and CEO



Honoring our past; Looking to the future

This year marked a wonderful milestone in the history of Saia as we celebrated the company's 90th anniversary - a remarkable feat when you consider our humble beginning back in 1924. That's when Louis Saia, Sr. decided there was more to be made in delivering produce via the family car than selling it.

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The LTL experts at Saia understand that exceeding our customers' expectations isn't possible without the right people on the job. That's why our team members use their knowledge and experience – backed by proprietary tools and technology – to find new and better ways to serve today's shippers. In fact, by equipping our Load Quality Inspectors with purpose-built handheld devices, we've achieved one of the industry's best claims-free ratios. So it's not just about touting the latest gadgets. It's about empowering our people to keep innovating – because in an industry that never stops moving, that makes all the difference.

The SAIA logo is a white, stylized script font on a red rectangular background.

LTL Freight

1-800-765-7242 / www.saia.com