APRIL 2020

SPECIAL REPORT

ALASKA: RESILIENT AND RESOURCEFUL

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THE MAGAZINE FOR DEMAND-DRIVEN ENTERPRISES

BLOCKCHAIN, MEET SUPPLY CHAIN

PLUS

TOP 100 LOGISTICS IT PROVIDERS & MARKET RESEARCH

COVID-19 STRATEGIES

3PLS FLEX TECH MUSCLES

ANNUAL WEB DIRECTORY

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Info **SNACKS**

BITE SIZED SUPPLY CHAIN/LOGISTICS INFORMATION

48%
of retailers

say they are in touch with suppliers about keeping merchandise flowing during the COVID-19 pandemic.

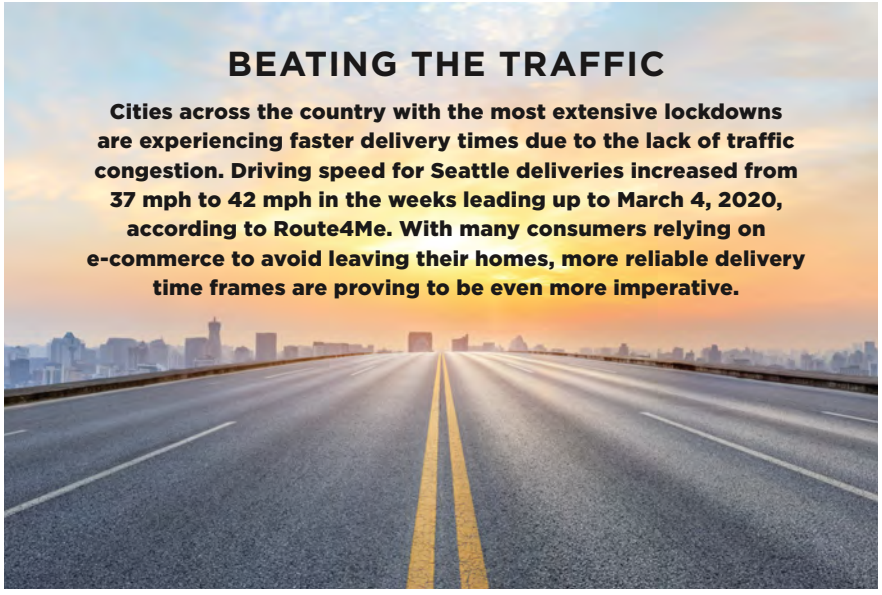
69%
of consumers

say they are mostly shopping online as they normally do, with 69% saying their online shopping habits have not changed. About 20% say they've placed a few more orders online since the COVID-19 outbreak hit, 6% say a lot more, and 5% say they placed fewer orders on retail websites.

—Digital Commerce 360 survey of 1,046 online shoppers in mid-March 2020

"We are open for business, and we need to stay that way."

—Derek Leathers, president and chief executive officer of Werner Enterprises, one of the top five U.S. truckload carriers, referring to strains on the trucking system in a Bloomberg interview



BEATING THE TRAFFIC

Cities across the country with the most extensive lockdowns are experiencing faster delivery times due to the lack of traffic congestion. Driving speed for Seattle deliveries increased from 37 mph to 42 mph in the weeks leading up to March 4, 2020, according to Route4Me. With many consumers relying on e-commerce to avoid leaving their homes, more reliable delivery time frames are proving to be even more imperative.

"It's like 10 hurricanes all at once."

–Clayton Slaughter, chief strategy officer and general counsel, FTR Transportation Intelligence, during a media briefing on COVID-19 supply chain disruption

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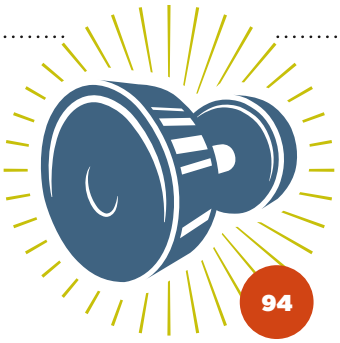

New technologies pump up 3PLs

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Logistics providers in Alaska are on top of the world, literally and figuratively. They are a special breed prepared to meet every challenge the Last Frontier poses.

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ANNUAL WEB GUIDE
WEB_CITE CITY
A comprehensive guide of leading transportation, logistics, and technology websites providing streamlined supply chain solutions.

Blockchain builds on tracking and transparency during production

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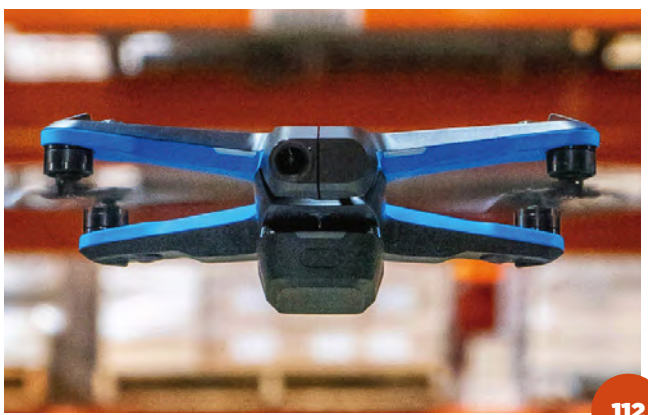

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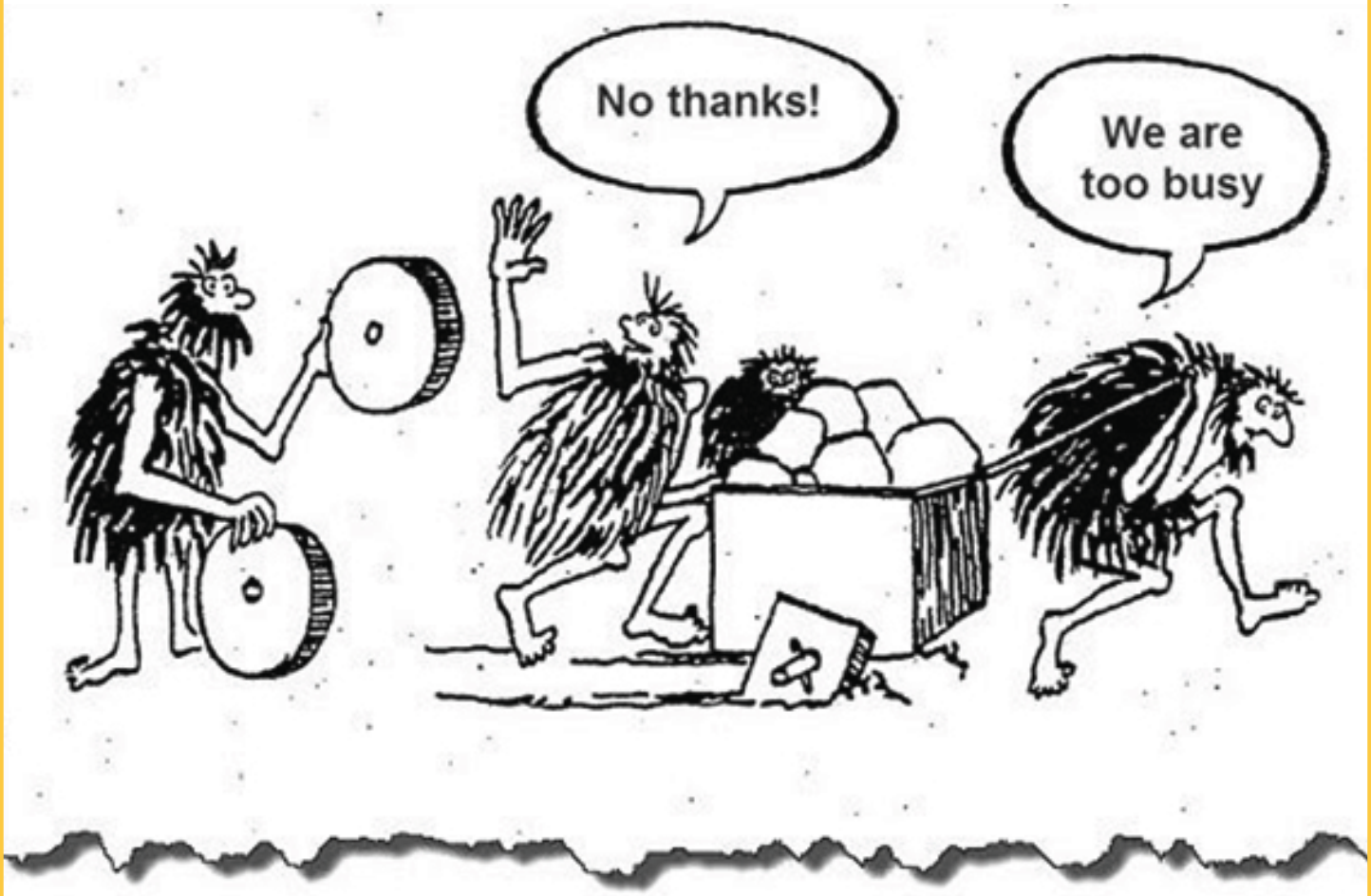

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IS YOUR SUPPLY CHAIN RESILIENT?

COVID-19 dramatically disrupted many global supply chains, and there is no way to tell when operations will return to "normal." Manufacturers can take certain steps to protect their operations and improve the global economy.
bit.ly/SCResilient

5 CRUCIAL WAYS TO IMPROVE WAREHOUSE EFFICIENCY

The all-important element that ensures supercharged performance is efficiency. In this competitive market, pressures have never been higher. Rev up your warehouse efficiency with these five helpful ideas and innovations, such as modern mobile devices, to stay ahead of the pack.
bit.ly/EfficientWarehouse

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CHECKINGIN

Now They Know

Keith Biondo, Publisher

Some search categories on the *Inbound Logistics* platform are up more than 108%. What are companies looking for? Logistics solutions, such as more carrier lift in certain areas, fulfillment help, warehouse solutions, transportation management technology, and 3PL solutions, to name a few. The scramble for logistics solutions and expertise is on.

Everyone needs what you do, and they need it now. And now they *really* know they need you.

What does it take for the highest levels of federal, state, and local governments to understand the importance of what you do? And to mention that importance every single day?

The most uninitiated, unaware consumer stuck in a Netflix silo now gets it. Even my three-year-old grandson is saying "supply chain."

Yes, there are many important parts to a fluid operational economy, but one thing is certain: Name any product from Amazon to Zappos, from apples to zip lines (that three-year-old again), and none of that would flow without you.

Your knowledge, experience, dedication, and, in some cases, courage in the face of real risks, make it work. Nothing would flow without you, and now they know.

And yet with all that, many in your profession are giving even more. Here are just a few examples:

• Tool and equipment retailer **Harbor Freight** donated its entire supply of personal protective equipment—N95 surgical masks, face shields, and nitrile gloves—to front-line hospitals with 24-hour emergency rooms in the communities served by its stores.

• **Ruan Transportation Management Systems** executives Dan Van Alstine, president and chief operating officer, and Blake Grolmus, dedicated operations leader, donated and handed out lunches to truck drivers on I-80 in the face of closed rest stops and restaurants.

• **SpotSee**, a supply chain and transportation monitoring service company, donated temperature indicators to Texas state health departments for COVID-19 specimens.

• **Lineage Logistics** made a $5 million donation and launched a Share A Meal campaign to help provide 100 million meals to people in need in response to COVID-19. It is also sharing its temperature-controlled warehouse space, supply chain logistics expertise, and financial resources.

• **J.B. Hunt Transport Services** provided a one-time $500 bonus to drivers and personnel at field operations and customer facilities supporting the drivers who have kept the country's freight moving during the pandemic.

Dedicated, hardworking, skilled, and unstoppable are those who work in transportation and logistics. If they didn't know that before, they all know it now. ■

Keith Biondo

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GOODQUESTION
Readers Weigh In

How should shippers adjust their supply chains in response to the disruption caused by COVID-19?

Keep a daily pulse on supply and customer demand. Daily monitoring on COVID-19 restrictions in supplier and customer locations is essential to understanding when and where to ramp up or down capacity within your supply chain limits. It's also important to communicate up and downstream projected manufacturing or demand signals so that your supply base can ramp up appropriately to your latest sales inventory operations plan.

Shift your shipments from using heavy brokerage models to asset-based carriers. Setting up contracts with asset-based carriers will lock in longer-term, lower rates and capacity that will help you through the end of the crisis and further.

—Ashley Yentz
Vice President, Supply Chain Solutions
LeanCor

Hone the power of data and technology to ensure access to capacity. The increased uncertainty has made it difficult for shippers to identify a carrier to keep freight moving. When shippers have to defer to the spot market, costs are typically higher, time windows to find a truck are shorter, and there's a higher probability of service failure. Digital freight marketplaces streamline the process by leveraging AI to generate instantly bookable rates and quickly match a given shipment to the best carrier.

—Jim Nicholson
VP, Carrier Sales and Operations
Loadsmart

Evaluate contracts, with an eye on two issues: first, whether those contracts can and should be subject to *force majeure*, the doctrine that permits delay or cancellation in the event of certain identified occurrences beyond the control of the parties; and second, whether suppliers for critical components and logistics services can be diversified. In the long term, shippers need to reassess the risks in their supply chain. Disruptions are a fact of life in a global economy. But what the pandemic has shown is how fragile these supply chains can be.

—Sarah Rathke
Partner
Squire Patton Boggs

Step By Step

Shippers shouldn't make rash decisions in the heat of the moment that could affect their businesses permanently. They should lay out a plan that allows them to adjust as the shipping environment continues to evolve.

Immediately, a shipper should connect directly with their carrier representative and ask to lock in their current discount tier if their shipping volume is down. If volume is up, they should ask for a better discount that reflects the increase.

After 30 days or so, shippers should look at their shipping data from the last month and watch for trends in what customers are buying and how they want it shipped. UPS and FedEx are no longer guaranteeing service times, so that must be taken into account when calculating total landed costs.

The global slowdown over the next few months offers a chance to reimagine shipping operations and the customer experience. A shipper's distribution centers likely offer plenty of opportunities for efficiency and improvement. They could optimize packaging, conveyor systems, and where products are in the distribution network for faster shipping if carrier guarantees don't return.

In six months, shipping and commerce could be closer to what we know as "normal," and if they are, shippers should compare this year's shipping data to last year's and consider how the changes they've made during the crisis will help them moving forward. In particular, they should consider the location of their distribution centers and how adding or relocating them might improve delivery times and preserve the customer experience.

—Andrew Brueckner
Head of Strategy
VeriShip, LLC

GOODQUESTION

Decentralize and regionalize supply chains. Bringing the supply chain closer to the customer will enable companies to mitigate risk and create more resilient systems. Increase consumer exposure to e-commerce and the digital world will stick. Recalibrating brands and service offerings will be key to successfully attracting and retaining customers.

—Ivan Barrios
CEO & President
World Trade Center Miami

Leverage on-demand production. An increasing number of companies are turning to localized and on-demand manufacturing alternatives to offshoring. Manufacturing locally—or closer to the point of consumption—has been made more economically feasible and created more production agility with the proliferation of digital manufacturing.

—Bernie Henderson
Director of Strategic Sourcing
Protolabs

Set up at least one backup for anything mission critical. Eliminate the single sourcing of any critical components. And look multiple tiers upstream in your supply chain, because having two parts suppliers that are both dependent on the same manufacturing location doesn't eliminate that single point of failure. In the e-commerce space, that applies to Amazon's fulfillment service, which introduced restrictions, causing many e-commerce stores to scramble to find new distribution channels.

—Jake Rheude
VP of Marketing
Red Stag Fulfillment

Adopt a continuous delivery experience (CDX) in order to more intelligently make decisions on moving goods from A to B and provide insight into real-time data about how your products are moving. A CDX platform provides a real-time and continuously updated view into shipment statuses.

—Adam Compain
CEO, ClearMetal

Collaborate with internal and external business partners (warehousing, manufacturing, transportation, etc.) to ensure alignment on supporting changing business needs. True two-way partnerships are critical for positive outcomes. Effective forecasting and consistent communication from the shipper to these partners, as simple as they sound, can be the biggest keys to the overall supply chain's performance during a difficult period.

—Jon Fish
SVP, Strategic Partnerships
Arrive Logistics

Diversify touch points along the supply chain. As we witness shutdown after shutdown, some shippers are being left with warehouses that are no longer in operation. By diversifying and expanding points throughout a 3PL's chain, everyone is better armed to handle disruptions. Additionally, we expect to see a needed shift in the industry to have a more prominent focus on predictive analytics.

—David Caines
COO, Kenco

Create a dynamic process for prioritizing risk and assessing exposure. Businesses should increase their decision-making frequency to adapt to a rapidly changing environment. As the crisis begins to become more controlled and the outcomes more predictable, leaders need to understand the long-term implications of an altered manufacturing and distribution landscape.

—Melvin Bosso
Principal
Myrtle Consulting Group

Optimize your labor configuration. If you mitigate your current demand plan, you can flatten out labor requirements and consumption. For example, it can be helpful to run two skeleton shifts in the place of one. This mitigates the risk of your entire workforce being out of commission. Manufacturing companies are going to try to retain their talent as much as possible, because it was so difficult to get them in the first place.

—Sam Dawes
Senior Manager
Leader, Consumer and Industrial Products Practice
West Monroe

Have a great answer to a good question?

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

What's the best but seemingly most counterintuitive advice you've ever received about the supply chain?

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[INSIGHT]

DIALOG

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Quick TIP

To mitigate supply chain risks, manufacturers should not only *not* source components from a single supplier but also, as COVID-19 has highlighted, shouldn't source from suppliers in a single location.

—Michael Larner
Principal Analyst, ABI Research

Re. Formulating a Predictive Flow
bit.ly/BASF_supplychain

Today's customer expects too much. They should provide the safety stock and cut some slack to the vendor by relaxing the just-in-time concept. Current events prove that an interruption is inevitable. A logistics manager operating in a Lean environment can't be expected to have a contingency plan for everything.

Paul M. Chandler, via email

Twitter **TALK**

Re. COVID-19 Supply Chain Resources Hub
bit.ly/SupplyChainCOVID

Shippers need to focus on diversifying sourcing and storage to gain flexibility, taking as much control as possible to avoid collateral disruption, evaluating the financial strength of key vendors, and building strong, long-term partnerships with those in the best position to excel in and after current conditions.

—Andrew Lynch
President and Co-Founder
Zipline

Forward-thinking shippers should be lining up scalable warehousing and storage space today, otherwise, they'll see tremendous pressure to unload containers and return them in a timely enough manner to avoid late fees, which can rapidly scale when transloading facilities are overwhelmed.

—Bobby Napiltonia
CRO, NEXT Trucking

Carriers are going above and beyond to ensure that goods flow freely from coast to coast. Most of them are small businesses, and as we face great uncertainty both in terms of the pandemic and the economy, it's vital that we do everything in our power to protect them. The CARES Act is a start—but truckers need a fast lane to access these benefits.

—Drew McElroy
Chairman and Founder
Transfix

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10 TIPS

Managing Inbound Freight

Inbound freight can be challenging to analyze or control, but it significantly impacts operational results and costs. Traverse this "final frontier" of supply chain management by collaborating on the following strategies across departments.

1 DIVE IN WITH YOUR SUPPLIERS.

Ask what cost and efficiency benefits your vendors are providing by using their carriers or shipping schedules. The customer pays one way or another, so push for carriers that demonstrate service and reliability, not those who move operational or cost inefficiencies from a vendor's dock to the customer's dock.

2 SET AND APPLY COMPLIANCE STANDARDS.

Expecting change is difficult if you haven't communicated expectations around overages, shortages, documentation, and damage. Whether you control the freight or not, focus requirements (or penalties) on issues with measurable impact. Many programs spell out fines as a backstop, but more often they exist to encourage problem-solving.

3 GET BUY-IN TO BREAK DOWN SILOS.

Look for sponsorship from the C-suite. Because logistics and transportation groups might not speak the language of procurement, find shared parameters that make this a must-do initiative. Consider go/no-go metrics in terms of impact to product margin, inventory cycle time, and safety stock.

4 USE TECHNOLOGY FOR COST COMPARISON.

Many vendors provide freight allowances for purchase orders or can be convinced to include them. However, it is a heavy lift to determine what is more cost-effective when managing a high volume of vendor shipments. To keep things real, use a transportation management system (TMS) to compare allowances against real-time market costs. Make decisions in the now rather than reviewing old data with multiple interpretations.

5 REVIEW NETWORKS AND MATCH FREIGHT FLOW.

Utilize inbound carrier capacity by matching outbound freight. Creating opportunities for carriers to plan loaded miles in two directions can be as simple as a map with an overlay of suppliers, distribution centers, and customer locations to visualize opportunities. In-depth network or center of gravity studies can help uncover the value your location or schedules create for both vendors and carriers.

6 CONSOLIDATE LOADS, CHOOSE THE BEST MODE.

The cost to unload 10 to 14 less-than-truckload shipments can be more than five times the cost of unloading a single truckload. Everyone wants to ship a full truck, and the right third-party logistics (3PL) provider or TMS can identify when loads can be consolidated from purchase orders or through milk runs across geographically similar vendors. Whether multiple times per week or per quarter, wins here add up.

7 MAKE VISIBILITY A PREREQUISITE.

Improving visibility can help operational planning, avoid lumper charges, and set customer expectations more effectively. Go beyond the advance shipping notification and push for enhanced shipment visibility during supplier negotiations. In-transit geolocation technology and predictive parcel updates have become more accessible through technology and 3PLs.

8 REMEMBER THE YARD.

Most purchasing groups can appreciate improvements in receiving cycle time. Aim to improve yard flow by implementing appointment scheduling in a user-friendly supplier portal.

9 CHOOSE HOW YOU CONTROL WISELY.

Inbound freight is a final frontier in supply chain management strategies for good reason. Appreciate whether the effort to analyze or take control of your inbound freight requires more overhead than your organization is ready to invest in. Consider choosing a partner who can validate whether there is an opportunity or if the status quo makes sense.

10 REVIEW INBOUND FREIGHT AND REPEAT.

When vendors change or distribution centers move, an inbound freight analysis can become obsolete. Set a regular cadence of review internally or with a partner who can shoulder some of the load.

SOURCE: MARTY SHEA, SALES MANAGER, ODW LOGISTICS

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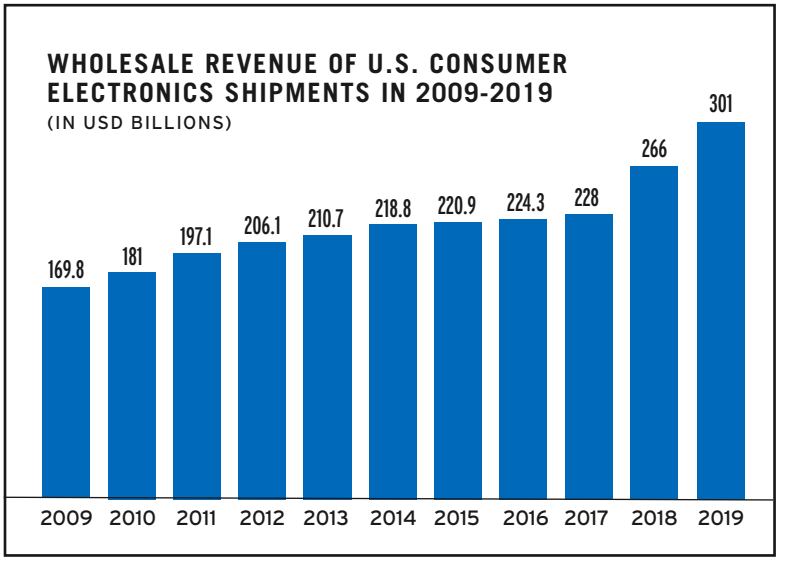
ELECTRONICS

SOURCE: STATISTA 2020



INDIA INKS PLAN TO ATTRACT ELECTRONICS MAKERS

India has launched two new programs designed to attract electronics manufacturers. The first—the Production Incentive Scheme for Large-Scale Electronics Manufacturing—offers a 4% to 6% incentive on incremental sales for goods manufactured in India. This plan is designed to benefit the major global players in mobile manufacturing and specified electronics components in the hopes of bringing large-scale electronics manufacturing to the country.

The second program offers a 25% financial incentive for capital expenditures that go toward manufacturing goods that constitute an electronic product's supply chain. This incentive aims to help develop an electronic components manufacturing ecosystem in the country.

Another goal of the two new incentives is to reduce large-scale manufacturers' dependence on imports of components, which will also improve the nation's digital security.

SOMETHING FISHY

Fish scales could provide an eco-friendly alternative to plastic for use in flexible displays for electronic devices.

Flexibility is important for wearable electronics because it enables the creation of displays that bend, fold, or twist easily, says Hai-Dong Yu at Nanjing Tech University in China. Plastic has been the go-to material for achieving this kind of flexibility but because of its harmful impact on the environment, electronics companies seek sustainable, low-cost alternatives.

Fish scales account for 3% of the 70.5 million metric tons of fish produced globally each year. They usually are not eaten and go to waste, but Yu and his team saw potential for the scales in flexible electronics.

The team used gelatin extracted from fish scales to create an extremely thin film. They then incorporated tiny silver nanowires into it to act as electrodes. To provide light for the electronic display, they added a light-emitting material made of zinc sulphide and copper.

The result was a flexible electronic display, which fully biodegrades after 24 days in soil compared to the centuries it takes for a plastic display to break down. The displays can also be recycled by dissolving them in warm water. This means fish-scale films could also be useful for creating disposable wearable electronic devices, says Yu.

In addition to biodegradability, the fish-scale films have other advantages, such as high transparency, low surface roughness, and low cost, according to Yu.

"Even as China comes back online, we are beginning to wonder if COVID-19 will impact other supply-oriented geographies. While China is improving, the supply chain for the electronics industry may yet see substantial disruptions."

—Brad Gastwirth, chief technology strategist, Wedbush Securities, in a note to investors

LET'S GET SMALL

Scientists made a breakthrough in developing a new generation of electronics that require less power and generate less heat. The process involves exploiting the complex quantum properties of electrons—in this case, the spin state of electrons. Researchers, led by a team of physicists from the University of Leeds in England, created a "spin capacitor" that can generate and hold the spin state of electrons for a number of hours. Previous attempts have only held the spin state for a fraction of a second.

That ability to capture the spin state opens up the possibility that new devices could be developed that store information so efficiently that storage devices have the potential to get very small. A spin capacitor measuring just one square inch can store 100 terabytes of data.

While many transportation companies are merely adapting to industry technological advancements, Landstar is leading the way.

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LEADERSHIP

Conversations with the Captains of Industry

Peak of Perfection

An authentic leader with an open-door policy, Juliann Larimer chooses justice over peace when fighting for her company and employees.

by Merrill Douglas

Years ago, when working for a software developer, Juliann Larimer learned that a large, influential channel partner had been breaking the rules of the relationship. Calling out this behavior would have caused trouble. But Larimer reported the problem to her boss.

"He looked at me and said, 'I have six kids at home, and I've figured out that there are two kinds of people in the world—those who choose peace and those who choose justice. I choose peace,'" Larimer recalls.

That didn't sit well with her. "As I walked out of the office, I said to myself, 'I choose justice. As a leader, I want people to believe that I will fight for them.'"

Years later, Larimer leads supply chain systems integrator Peak-Ryzex in Columbia, Maryland, as its chief executive officer. She recently gave us a look at how she operates.

***IL:* What do you mean when you say "I choose justice?"**

I like working with people who are aligned from a value standpoint. I always want my team to believe that if they have a strong conviction about something, they'll be supported. If I can't support them, it won't just be because I choose peace. They deserve more of an answer than that.

***IL:* When you were named chief executive officer of Peak-Ryzex in 2018, what were your top goals?**

The first goal was to do no harm. I wanted to make sure we could continue the momentum the company had created prior to my arrival. The team had a plan, they were executing against it, and I would support them where I could.

The second goal was to look for areas where we could improve, especially with regard to structure, strategy, and talent. We restructured the company by reorganizing the leadership team directly below me and streamlining the sales and operations organizations. We started to look more strategically at where we were best positioned to create value for our customers, and we shut down lines of business that didn't serve that goal.

We also brought in a strong human resources leader to be my strategic partner on culture and talent. And we created a dedicated chief information officer position to make sure that our technology investments kept pace with customer demand.

***IL:* What keeps your customers awake at night, and how does Peak-Ryzex help with those concerns?**

First, we help our customers keep up with the shifting demands of *their* customers. For example, we worked with a car rental company to implement a more frictionless checkout solution at airports.

Second, in a tight labor market, we help customers design solutions that will free up time for existing employees, so they can redeploy that talent in higher-value areas. For example, for a large retailer in the U.K., we deployed software that reduced the time it takes to receive perishable goods by 50%.

Third, there's the impact of e-commerce. Companies are shipping single items rather than pallets or cartons, which creates new labeling requirements to ensure visibility throughout the supply chain. One transportation customer has gone from doing deliveries six days per week to seven. We have to make sure they have true 24/7 up time, because they no longer have the luxury of not working on Saturday and Sunday.

***IL:* What are the first things that you check in the morning?**

I check my phone for text messages, emails, or missed calls that indicate any immediate action items. Since our U.K. business is several hours ahead, I need to make sure there's nothing urgent going on there. Then I do an informal scan of private social media groups that our customers use to make sure there's no chatter indicating that people are not having a good experience. And, depending on where I am, I might call one of my direct reports or someone else to do a check-in.

***IL:* How do you nurture talent at Peak-Ryzex?**

We have talent discussions at quarterly meetings, and focus on something different each time—succession planning, how we're doing on our quarterly engagement scores, or how we're doing in developing our high-potential employees.

We have clearly articulated values, and we reward behavior that recognizes those values. In 2019, we rolled out a mentoring program.

Finally, we remain deliberate and true to the performance management life cycle. We set goals at the start of the year and capture them in our human resources system. Then we hold every manager accountable for mid-year check-ins and a structured review process.

Hands-On Leadership

When Peak-Ryzex won a contract to decommission laptops for a federal agency, the company anticipated a simple process involving a few thousand machines. But as it turned out, the customer actually needed 60,000 laptops wiped clean within eight weeks, using a process spelled out in 30 pages of instructions.

"UPS trailers backed up into our building to deliver floor-to-ceiling boxes of laptops," says Larimer, recalling the scene at Peak-Ryzex's facility in Alpharetta, Georgia. "The project required special clearance, so only a few people were allowed to work on it. And they were short-staffed."

To help meet the deadline, Larimer volunteered for the project herself, laboring over laptops for one week, side by side with employees from Peak-Ryzex, two partner companies, and the customer.

It was a wonderful experience, Larimer says. "We were there first thing in the morning until late at night. In those moments of being able to talk, laugh, and listen, I felt connected. Spending time with the team that week felt as though everything I stood for as a leader was crystal clear."

***IL:* How would you describe your leadership style?**

Other people have described me as an authentic leader. You'll get transparency from me. My door is always open. I'm not afraid to say that I made a mistake.

I am also not afraid to hold people accountable. I very much believe in servant leadership. My job is to hire people who are way smarter than I am, give them the tools they need to be wildly successful, and make sure I help connect the dots where I can. I also take time to understand that we are human in everything we do at work.

***IL:* Outside of work, how do you like to spend your time?**

The two words that come to mind are "family" and "faith." Being available to our twin daughters who are away at college when they need to have a conversation is important. Our son in middle school plays ice hockey, so that's a full-time weekend activity. I serve on the board at my church. For "Juliann time," I take some early morning spin classes at the gym. And I love taking our dogs for walks in the forest reserve near our home. ■

[IN FOCUS]

NOTED

The Supply Chain in Brief

> GREEN SEEDS

The **Port of Indiana-Burns Harbor** and **South Shore Clean Cities** reduced diesel emissions throughout the port and started several sustainable projects, such as constructing a trucker lounge and paved truck-marshalling yard.

H&M is sharing its sustainable supply chain expertise—in everything from product development and sourcing to production and logistics—with smaller brands. The fast-fashion retailer aims to be carbon-neutral by 2030.

> SHOVEL READY

BMW Group broke ground on a fully automated automobile manufacturing plant in San Luis Potosi, Mexico. The central car body storage facility is equipped with three stacker cranes that can store and retrieve 180 cars per hour.

Amazon plans to build two operations facilities in Virginia, including a multistory robotics fulfillment center in Suffolk and a 650,000-square-foot processing center in Chesapeake.

m&a

■ **3Gtms**, a transportation management software provider, acquired **Pacejet**, a provider of enterprise cloud-based, multicarrier shipping software.

■ Enterprise software solutions provider **Aptean** acquired U.K.-based **Paragon Software Systems**, a transportation management software solution.

■ **BluJay Solutions** acquired **Expedient Software**, a provider of customs and forwarding software in Australia and New Zealand.

■ **C.H. Robinson** acquired **Prime Distribution Services** from Roadrunner Transportation Systems.

■ Software-as-a-Service solutions provider **Descartes Systems Group** acquired warehouse management solutions provider **Peoplevox**.

■ German materials handling equipment manufacturer **KION Group** acquired **Digital Applications International Limited**, a U.K.-based software company.

■ **Trimble Transportation** acquired transportation management system provider **Kuebix**.

> UP THE CHAIN

Target Corporation hired **Heath Holtz** as senior vice president of field operations, overseeing the retailer's supply chain and logistics field network. Holtz comes to Target from Nissan Motor Corporation, where he most recently served as senior vice president of manufacturing, supply chain management, and purchasing in North America.

> SEALED DEALS

• **ASICS** selected robotics company **Magazino** for its mobile-picking technology. The sports retailer will use the robots at its distribution center in Germany to automate the picking process in its shoe warehouse.

• **Odyssey Logistics & Technology** signed a multiyear managed logistics service agreement with global petrochemical products manufacturer **Trecora Resources**.

• **Boeing**, through its subsidiary Tapestry Solutions, secured a five-year **U.S. Air Force** contract to modernize its Global Decision Support System, the platform that supports Air Mobility Command missions.

• **Würth IT**, the IT service provider for wholesaler Würth Group, selected **NiceLabel**, a developer of label design software and label management systems, to create a standardized supplier labeling process via the NiceLabel Label Management System, a web-based printing solution.

> GOOD WORKS

Partnering with the Good Shepherd food bank in Maine, **L.L. Bean** is using its shipping hub to pack food for pantries across the state. The retailer's workers sort and package food in boxes that Good Shepherd ships to food pantries in all 16 counties.

Quick Cargo, based in Germany, supported several humanitarian aid shipments to China. **Hainan Airlines** transported the equipment between Berlin and Beijing with logistics support from Quick Cargo in both countries.

Transplace donated $150,000 plus its advanced logistics technology and services to Feeding America, and helped plan a new food bank hub that will serve as a distribution center in Northern California.

RLS Logistics, a temperature-controlled logistics provider, created the Pallets 4 Plates program. Every pallet moved through its employees' work triggers a charitable donation, which totaled 305,500 plates of food supplied to charities in 2019.

> RECOGNITION

• The LTL Carrier Customer Value/Loyalty Benchmarking Survey ranked **Averitt** as the **No. 1 interregional less-than-truckload carrier** and the **No. 3 carrier nationwide.** Shippers rated carriers based on performance, pricing, and customer service.

• Sam's Club recognized **Saddle Creek Logistics Services** as its **Logistics Partner of the Year** for having two distribution centers in the top nine Operations Index rankings and achieving operational and financial benchmarks.

• **Ascent Global Logistics'** Ascent On-Demand expedited solutions team received Yanfeng Automotive Interiors' **Supplier Excellence – Customer Satisfaction Award,** honoring its commitment to excellence.

• **CN** was recognized as one of Canada's **Best Diversity Employers** and one of Canada's **Top 100 Employers for 2020.**

• **Kenco Logistics** was named the **Top Woman-Owned Supplier** by General Mills. The logistics company is certified by the Women's Business Enterprise National Council for its commitment to diversity.

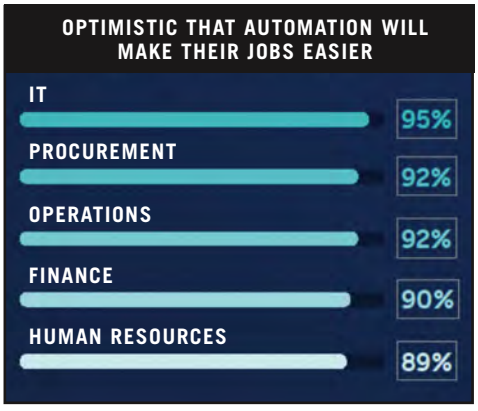
• **Logistics Plus** founder and chief executive officer Jim Berlin was recognized with a **CEO Great Place to Work For All Leadership Award** for his industry-leading commitment to corporate responsibility.

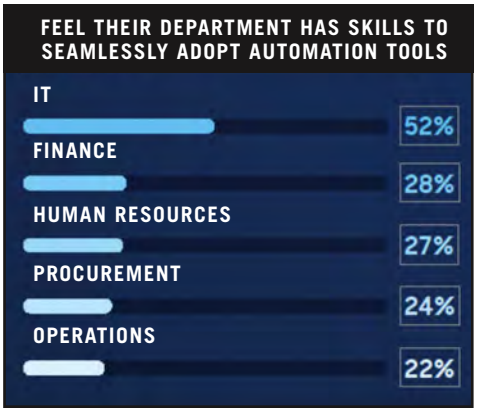
• **Southeastern Freight Lines** was recognized as the **2019 LTL Carrier of the Year** by the Hillman Group, a hardware solutions provider, for its exceptional transportation services to distribution centers and customers throughout North America.

TAKEAWAYS

Shaping the Future of the Global Supply Chain

SOURCE: McKINSEY





Uncorking Automation Bottlenecks

Although 57% of organizations say they're piloting automation processes and 93% of employees are optimistic automation will make their jobs easier, digital transformation efforts often fall apart, according to a new McKinsey survey.

Many companies rely on IT to drive transformation without engaging other departments, creating bottlenecks. Company size and the structure of automation efforts are key differentiators, according to McKinsey.

LEADERSHIP PERSPECTIVES

• Most organizations surveyed take a centralized approach to automation. However, those using distributed implementation strategies are most likely to consider their automation efforts as significantly ahead of industry peers.

• Most automation leaders (69%) say automation and digital transformation initiatives delivered higher returns than expected, regardless of how their companies opt to structure the journey.

• Leaders at smaller companies are more likely to rank their organizations as significantly ahead of industry peers in adopting new technology.

• A majority of leaders (79%) feel confident in their organization's automation efforts, characterizing them as "intermediate" or "advanced."

• The C-suite is more likely than managers to characterize automation efforts as "pro," which may result from being removed from front-line challenges.

COMMON ROADBLOCKS

• The majority (89%) of managers and higher-ups surveyed say they're plugged into process automation decision-making at their company; however, only 41% of managers say they are extremely influential in decision-making, indicating there could be more room to involve front-line employees in the process.

• Fewer than one-third of respondents characterize their department's staff as "extremely skilled" when it comes to "seamlessly adopting automation-driven solutions."

• About 96% of IT teams say they're confident they can achieve the company's automation goals, and most business leaders are optimistic that automation has the potential to make their jobs easier. However, 47% of IT respondents rate IT bottlenecks and delivery time frames as extreme challenges.

How Shippers Are Handling COVID-19

Shippers are quickly responding to the COVID-19 outbreak, according to a survey by Echo Logistics. Shipping volumes demonstrate the resilience of companies and their ability to produce essential products during disruption, and highlight the important role transportation plays, according to Echo. Shippers' responses shifted during just a two-week period:

• 28% of shippers said the virus impacted their business on March 5, 2020. Two weeks later, that number rose to 60% of shippers.

• 47% of shippers who were not impacted expect COVID-19 to affect their business in the future, which is a 23% increase from two weeks prior.

• When asked how COVID-19 was affecting their business, the top three responses were supply chain slowdown (52%), reduced travel (43%), and creating contingency plans (42%).

• 79% of shippers did not alter their long-term shipping plans due to COVID-19.

UPS UPGRADES UNMANNED DRONE FLEET

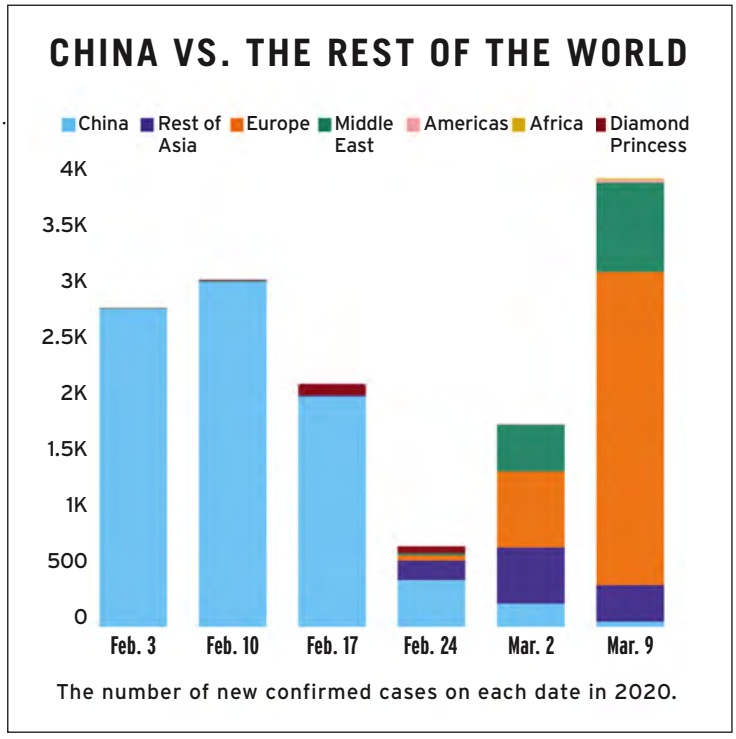
UPS drone delivery subsidiary UPS Flight Forward will collaborate with German drone-maker Wingcopter to develop the next generation of package delivery drones for multiple uses in the United States and internationally.

Both companies will work toward earning regulatory certification for a Wingcopter unmanned aircraft to make commercial delivery flights in the United States and build a fleet of drones with diverse capabilities.

The Wingcopter drones execute vertical takeoffs and landings in tight spaces. Their main function is the patented tilt-rotor mechanism, which enables a seamless transition between hovering and high-speed forward flight. These capabilities may allow UPS to develop solutions that go beyond the healthcare and retail industries and into high-tech, industrial manufacturing, hospitality, and entertainment.

Wingcopter has completed multiple global projects, such as delivering insulin to an Irish island in the North Sea that is frequently cut off from the mainland due to bad weather.

SOURCE: WORLD HEALTH ORGANIZATION



The number of new confirmed cases on each date in 2020.

TAKEAWAYS

Sysco Shifts Fleet to Grocery Supply Chain

Multinational food distribution company Sysco Corporation, based in Houston, launched several new grocery sector-focused initiatives in response to reduced customer demand during the COVID-19 pandemic.

Sysco has one of the largest trucking fleets in the United States, with approximately 14,000 delivery vehicles consisting of tractors, trailers, vans, and panel trucks. The company employs 69,000 people.

The company, along with other food service providers such as US Foods and Aramark, have taken a hit as a result of the closure of universities and bans on public gatherings, such as sporting events, in an effort to slow the spread of COVID-19.

As part of the new grocery-focused initiatives, Sysco started providing logistics services and products to retail grocery customers, enabling small restaurants to start up home delivery operations and online order pick-up services. It is also distributing cleaning supplies to restaurant kitchens.

To help mitigate the impact of COVID-19, Sysco repurposed its fleet to provide logistics services and products to retail grocery customers.

China's Road to Restoration

After reporting no new cases of COVID-19 in March 2020, people are going back to work in China—but companies still face a slow return to production. Not only do China's original equipment manufacturers (OEMs) face many challenges in resuming their production capacity, but global manufacturers also feel the impact of shortages in their supply chains. Here's how companies in China are rebuilding post-COVID-19:

Alternative solutions. Many global manufacturing OEMs are shifting orders to secondary or tertiary suppliers to make up for the missed deliveries from their primary suppliers, and are moving some core business priorities back to their own factories.

New products. When automotive business was down by more than 90% in China in February 2020, automaker Shanghai-GM-Wuling began producing medical face masks, which helped mitigate the COVID-19 spread and generated revenue.

Workforce. Some Chinese firms negotiated with local governments for permission to use chartered buses and airplanes to bring workers back from remote regions. Others used automation and technology to make up for labor shortages and to train new employees.

New competition. In certain sectors, such as electric vehicle (EV) production, the bargaining power has shifted to suppliers. CATL, for example, now supplies EV batteries to Tesla's Model-3 production in China, shifting away from Panasonic's sole supply. Toyota and Panasonic also initiated a joint venture to produce EV batteries.

Supply chain transparency. New infrastructure and technologies are needed to create transparency within global supply chains, and new predictive models will help corporate decision-makers adapt to similar events in the future.

Government collaboration. The U.S. and Chinese governments may eliminate some tariffs to fly more supplies and goods across borders.

3 WAYS TO MITIGATE SUPPLY CHAIN SLOWDOWNS

As the supply chain faces factory closures and limited access to employees and logistics to move goods amid the COVID-19 outbreak, leaders can help ease disruption by focusing on their workforce, products, and costs. Gartner recommends:

1. SUPPORT YOUR WORKFORCE

To limit the impact of COVID-19, governments and employers instructed many employees to stay at home. For factories, this resulted in goods not being produced or exported to dependent markets or other factories.

Supply chain leaders must figure out how to protect workers' health and support those who become ill. Providing clear and consistent communication through your human resources department as well as travel security is essential, Gartner says.

2. REASSESS PRODUCT AVAILABILITY

Suppliers of commoditized products risk losing market share, as customers will search for substitute suppliers when they don't receive their products on time, Gartner says. Products associated with a higher degree of brand loyalty are likely to feel less of an impact in the short term, because their customers are more willing to wait.

Supply chain leaders must analyze the impact of COVID-19 on customer demand and product availability, and trade off based on high-revenue, in-demand products.

3. ANALYZE COSTS AND PLAN AHEAD

Any additional cost related to COVID-19 should be treated as an organization-wide issue. This makes it easier to assess the costs against the organization's ability to achieve its strategic objectives and manage stakeholder expectations, according to Gartner.

Meet with your legal team and make sure that your organization is financially protected against similar situations in the future.

Our Business Priorities:

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☑ The Customer ☑ Service
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Disruptions in Today's Economy: How Can Supply Chains Prepare?

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How can we better prepare to minimize the risks that disruptions present and mitigate their impact? Here's how to build a more flexible and agile supply chain.

2020 has had a rough start. With COVID-19, we've seen firsthand the domino effect of disruption on global supply chains. And we know similar risks are posed by natural disasters like the bushfires in Australia, economic factors like plunging stocks and tariff wars, political disruption like Crimea and Ukraine, and labor factors like driver shortages. These events confirm how interconnected we all are–regardless of geography.

While it's difficult to predict the short- and long-term impacts of these types of supply chain disruptions, we can learn from the impacts of past events (SARS outbreak, Hurricane Katrina, the earthquake and tsunami in Japan, Brexit, etc.) to better prepare for future events and build contingency plans–especially as we recognize disruptions of all types seem to be happening more frequently.

Most companies' supply chains operate very lean today, and it makes them more vulnerable to disruptions.

How can we better prepare to minimize the risks that disruptions present and mitigate their impact on our supply chains? How can we make supply chains more dynamic in order to respond to changes such as a loss of supplier or a logistics service provider?

Regardless of your business or vertical, there are ways to build a more flexible and agile supply chain:

Planning and Preparation through Simulation

Strategic planning, simulations, and optimization exercises should identify and evaluate contingencies IF needed so they can be implemented WHEN needed.

Building various types of disruption scenarios into supply chain modeling is key–especially when needing to identify routes for carriers outside your preferred network, reposition inventories of available resources/product, or reallocate limited or constrained capacities.

Practicing contingency responses provides perspective and the ability to make informed, data-based decisions–not reactive ones. The ability to perform strategic, tactical, and dynamic planning using real-time, current-state data is essential to minimizing the impact of disruptions to supply chains.

Responsive Freight Procurement

Responding to supply chain disruptions may require sourcing new carriers. In the case of the coronavirus, China suppliers are impacted. As a result, companies need to rely heavily on secondary suppliers and source transportation accordingly. The ability to build a new preferred carrier network or analyze different modes of transportation is needed to ensure the most cost-effective options are on the table. Spot bidding capabilities allow access to alternate carriers if contracted backup carriers aren't enough to meet current needs.

Supply chain disruptions pose great risks to corporate bottom lines, but can also be used to uncover real opportunities to effectively mitigate the impact of these events. Conducting proper analysis in advance can help companies better prepare for what lies ahead. Is there an over dependence on a finite set of suppliers or carriers? Would near-sourcing or second sourcing a subset cost more but incorporate more resiliency into the supply chain–which could cost less long term?

By building flexibility and balance into supply chains, companies can minimize their vulnerability and lessen the impact of the next challenge we'll face. Don't let the opportunity to learn from current disruptions pass by.

This Is Not a Drill

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Create an agile, real-time approach. Have an effective communication strategy, one that includes internal users, vendors, and carrier partners.

With the one-two punch of the coronavirus outbreak and the nearly unprecedented economic shock, we're forced to deal with uncertainty amid constantly changing conditions.

It is highly likely the number of issues your business is facing will rapidly escalate; now is the time to take action to get ahead of what may be forthcoming.

You need to start establishing multiple contingencies as, more than ever before, maintaining flexibility in logistics is essential.

You need to be prepared to address capacity, supply chain instability, and vendor viability, to name a few issues. The recent surge in demand across nondiscretionary product categories is slowly diminishing excess capacity.

Just last month trucking demand increased by 150% year over year, while freight costs have also soared. Carriers seem to be favoring the spot market over existing contracted rates.

If you haven't already, now is the time to search out secondary and tertiary trading partners to mitigate any potential issues with your primary partners.

Take Decisive Action

Don't delay. Create an agile, real-time approach. Have an effective communication strategy, one that includes internal users, vendors, and carrier partners. This will have a critical impact on your success.

Quick and proactive communication could help you avoid breaking the transportation link in your supply chain and help contain any pain and damage by alerting your trading partners to act fast and in accordance with your ever-adapting requirements.

In preparing any communications, you should clarify your ideas before you communicate them, be clear, simple, and succinct, respond in a timely manner, adapt readily to any situation, practice positivity, and put your audience at ease.

Take advantage of tools that will help automate your communication tasks. Now is not the time to be scouring the market for all-encompassing solutions; however, there are a host of simple, incremental solutions available today that can be deployed quickly and with minimal interruption to your process. You can achieve many advantages and mitigate risk by deploying these.

Make Timely Adjustments

To help source backup carriers or to effectively purchase in the spot market, consider engaging a Bid solution. Many solutions afford you the ability to shop on the open market or in a closed market with trading partners that you've already qualified. This should also allow you to manage ad hoc lanes, manage repetitive shipments, and support your global, cross-functional teams.

With the landscape ever changing, you'll need to be able to easily communicate new carriers, new receiving policies, and a variety of other changing rules of engagement to your suppliers and team members.

With a Routing Guide solution, you'll be able to make immediate adjustments to adapt to requirements and simultaneously push these to your trading partners without impacting your supply chain. The good solutions are easy to use and easy to implement.

Whatever you decide, do something, take action. Be smart, be bold, be nimble, and be well.

[INSIGHT]

ECOMMERCE

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Agility On Demand

An instantaneous experience. It's what consumers expect and the environment online retailers face. When consumers are captured by a product they must have, online retailers have only a few swipes and a few minutes until their brand's reputation is on the clock.

Couple this breakneck pace with the historically tight labor market and unpredictability of the global trade landscape, and e-commerce businesses must be just as fast as they are flexible to succeed in today's market.

This starts by having an agile supply chain that values efficiency, but also provides the ability to change direction in a split second. How do you create a nimble and flexible supply chain? By striving for the following characteristics:

1. Capacity to scale. Thanks to the internet, dreams can happen instantly. If your brand goes viral after an online influencer mentions it, do you have the capacity and flexibility to fulfill the orders?

Campus-based warehousing—a network of multitenant warehouse operations located in close proximity to each other—enables businesses to share key resources such as technology, labor, and equipment. If sales boom overnight, you can quickly assemble resources across the campus to fulfill orders and scale up.

Pop-up warehousing can also help address volume surges. These temporary, strategically placed facilities provide extra space and can be leveraged in specific regions to reduce shipping costs and speed final-mile transit time.

2. Innovation to optimize your workforce. Even with shared resources, the pace and volume that distribution facilities face can be extraordinary. Mix in a tight labor market and the result is that traditional picking methods, especially for single-piece orders, are no longer sufficient to keep pace with the demand placed on workers. An agile supply chain blends smart technology with a talented workforce to meet ever-changing demands.

Autonomous solutions play a crucial role in optimizing the workforce and increasing efficiency at distribution facilities. For example, autonomous robots can eliminate wasted movement by picking and bringing pieces to workers. Not only do goods-to-person robots expedite picking and increase throughput, but they can also improve accuracy and reduce mis-picks or order errors.

Technology like conveyance or automation can help accelerate tasks and provide employees with support. For example, a robot that recognizes and speaks an employee's native language can improve training, speed the learning curve, and ultimately make that individual more successful in their job.

3. Visibility to adjust. The ability to change is only useful when you know when to adjust. Having end-to-end visibility is paramount for supply chain executives to be able to make decisions as quickly as they need to today.

True end-to-end visibility for an e-commerce company is not solely knowing where a product is in its path to the consumer. It may include knowing the inventory positions of its supplier to know if it can offer a new promotion or accommodate a surge in orders.

This begins with intelligent data collection and management. Supply chain executives must define, from a strategic standpoint, any mission-critical information to avoid data overload. Once they determine that criteria, they need to ensure the right technology is in place to gather real-time, reliable data to ultimately achieve the visibility needed to make confident decisions and adjustments.

An agile supply chain enables businesses to thrive and deliver the instantaneous experience consumers seek today. ■

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[INSIGHT]

REVERSELOGISTICS

by Ana Maria Giménez
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Get RIP-Roaring Results with IoT

Companies are increasingly investing in returnable industrial packaging (RIP) to ship products to customers as sustainably as possible.

Reusable pallets, racks, and containers allow manufacturers and their customers to reduce the amount of packaging-related waste they create, while improving efficiencies and cutting costs.

While RIP is great from a cost-cutting and sustainability perspective, it adds complexity to already difficult supply chain processes. By making trips two-way, tracking containers becomes infinitely more complicated because customers ship the containers back to the manufacturer—adding a whole second leg to the journey.

This doesn't just extend the shipping loop; not knowing where RIP is or when it's expected to arrive at a warehouse or plant could have bigger impacts on a company's bottom line.

Luckily, the Internet of Things (IoT) can solve some of these tough challenges by providing visibility into container whereabouts and conditions. Here's how:

• **Visibility when it matters most.** Unlike normal shipments, RIP not only goes down the supply chain to customers, but also has to make its way back to the manufacturer. If the RIP doesn't return, manufacturers will have insufficient packaging to ship new items, and face costly fees that come with losing RIP; a lost pallet or container costs hundreds of dollars to replace. And this doesn't even account for the production and delivery delays that can occur from not having enough containers present.

By placing IoT sensors on RIP, supply chain managers can secure instant visibility into the location of the RIP as well as container conditions.

But this information means nothing if it's not readily available to users. Manufacturers must choose a reliable network to ensure they have a live feed of information on the RIP. While networks like Wi-Fi and cellular seem promising, they often require close range and high costs to work effectively, which isn't always practical for global shipments.

Alternative options, like 0G networks, enable the transmission of remote data at the right time and at an affordable cost. IoT devices connected to a 0G network can transfer small amounts of data across long ranges and around the world to communicate critical information, such as RIP location. Plus, this all can be done with a simple message and reduced battery consumption, which translate to lower costs.

• **Keep production lines and shipments running smoothly.** In many cases, RIP can contain valuable pieces of equipment needed to keep the production line moving. A delay in the arrival of RIP could mean a loss of production and profits for manufacturers.

With IoT solutions, manufacturers can receive critical information, such as where and when RIP has to be moved from one location to the next. By using all the data the IoT devices collect along the journey, supply chain managers have access to insights that indicate the most efficient routes in the supply chain in the context of its surroundings. This ensures the parts contained in the RIP get back in time to be used on the production line.

• **Keep customers happy.** IoT sensors attached to RIP give manufacturers the ability to present customers with accurate and real-time shipment updates, as well as a friendly nudge for when customers need to send back the RIP.

Devices can also alert customers and manufacturers when shipments have made it to the destination safely so both can feel at ease knowing the shipment arrived, while also knowing that they aren't wasting shipping materials.

By leveraging the insight IoT provides, supply chain managers can reduce complexity and streamline processes—while becoming more sustainable and appealing to customers. ■

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[INSIGHT]

IT MATTERS

by Ralf Duester
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The High Cost of Invisibility

The research is well documented and it's not pretty. Supply chain visibility is a key driver to a company's success, yet remains a top challenge. Nearly 7 in 10 procurement executives say they do not have full visibility of their supply chains, according to the Business Continuity Institute (BCI).

It's shocking how many companies operate with email and spreadsheets alone. The BCI's Supply Chain Resilience Report 2019 says that 63% of companies do not use any technology to monitor supply chain performance.

Loss of productivity and customer complaints due to supply chain disruption have severe financial costs associated with them. A company's reputation is also at risk, as is internal morale.

Supply chain professionals say an internal wake-up call permeates their companies. Here's why:

Pressure to digitize. Supply chain professionals face huge pressure to reduce costs, digitize operations, and integrate systems. More than 70% of chief supply chain officers believe that by 2020 their supply chains will be a key driver of better customer service for their organizations, according to Accenture.

The Amazon Effect. Keeping up with the competition, faster go-to-market times, and operating with 24/7 logistics has never been a higher priority.

Economic and political forces are tougher than ever. Recent changes in global tariffs directly impact manufacturing and transportation costs. Cyberattacks, unplanned outages, adverse weather, and new laws also top the list of concerns for 2020.

Distribution and warehouse centers are feeling a direct impact. According to Forbes Insights, 48% of supply chain/transportation executives say they are experiencing the need to reevaluate warehouse locations due to shifting trade patterns resulting from changes in the U.S. economy.

Climate change. It creates unprecedented infrastructure and logistics risks, resulting in real costs (e.g., recent flooding in the Midwest, fires in California and Australia).

My message to you is to focus on the solution. Here are three suggested steps:

1. Admit you have a problem; commit to a software solution. You can't realistically grow a business when your supply chain exists with just emails and spreadsheets. The more channels, regions, and partners, the more room for error. It is critical to digitize your processes for efficient manufacturing, production, quality control, distribution, tracking, and reporting.

2. Involve the right internal and external partners. Start with your biggest internal and external pain points and work with a trustworthy partner who can help connect your relationships and digitize the processes. The more upfront work you do to lay a foundation, the faster results you'll realize. This will help you further roll into improved digitization as you grow.

It is easier than you expect to get connected with your supply chain partners. The same is true for connecting with existing software, such as enterprise resource planning. The beauty of entering data once into the right system is that it can be shared across all supply chain partners. Tasks pop up in the dashboards according to an agreed timetable and process flow. Visibility should be your goal.

Being able to see the priority tasks right away, without shuffling through hundreds of emails and entering data in a spreadsheet, is a game changer.

3. Keep building on success. Digitizing processes and creating full visibility will lead you to major efficiency improvements. In fact, many companies report that they reduced lead times by as much as 50% in just a few months. ■

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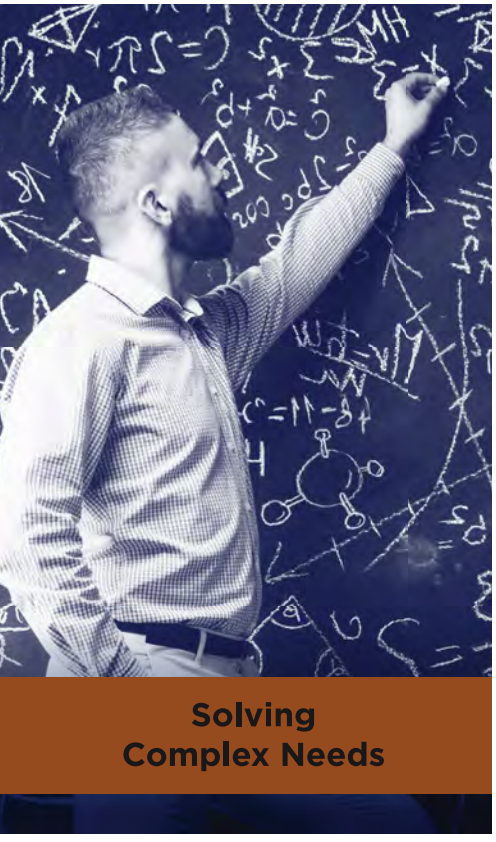

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Supply Chain Challenge?
SOLVED

Continued Support Through Seasonality

A premium consumer packaged goods (CPG) company turned to Hub Group to develop a dynamic solution to eliminate supply chain inefficiencies and support a surge in volume.

THE CHALLENGE

A fragmented transportation network can have weighing effects on a supply chain as multiple touch points increase the possibility of freight being mishandled and products becoming damaged. Such issues loomed over a premium CPG brand as its misaligned network pressed numerous over, short, and damaged (OS&D) claims from retailers.

With an expanding customer base and recent surge in volume, the company engaged Hub Group to perform a network analysis and construct a dynamic solution to help with these challenges and support expansion. After finding inefficiencies with the picking and outbound transportation processes, Hub Group's dedicated teams sought to optimize the company's inventory handling throughout the entire transportation network.

THE SOLUTION

The customer moved to a dual warehouse inventory hold solution with Hub Group to alleviate chargebacks and improve on-time efficiency for its retail business. This solution minimized touch points throughout the network, essentially streamlining the handling process while increasing service levels and drastically reducing chargebacks.

Shortly after this implementation, the customer's inventory volume quickly grew to more than 15,000 pallet locations, significantly higher than the 10,000 to 12,000 pallet forecast. Hub Group worked through the client's request to receive approximately 6 to 10 inbound appointments per day, align inbounds on slip sheets versus pallets, and manage an enormous product catalog, as well as implement display build solutions.

As the company's business grows, so does its collaboration with Hub Group. After seeing the benefits of the inventory hold solution, the company allowed Hub Group to prepay for less-than-truckload shipping when experiencing capacity issues. The company received full order visibility and shipment tracking through Hub Group's 24-hour online freight management portal. Now, with enhanced visibility and a streamlined network, the company entrusts Hub Group to manage its transportation process to additional retailers throughout its network.

With Hub Group, customers receive dynamic solutions within a flexible network, putting their teams in a ready position to support volume surges and business expansion.

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Supply Chain Challenge?
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Helping Shippers Make Efficient and Effective Truckload Decisions

HNRY Logistics boosted its truckload brokerage offering with Logistical Labs' LoadDex, accelerating response rates and letting shippers initiate rate requests.

THE CHALLENGE

HNRY Logistics set out to revamp their truckload brokerage offering when they recognized pricing and faster response times as their biggest hurdles to success. HNRY was able to utilize some data through rigid imports, but there was no built-in intelligence to adjust rates for capacity surpluses or shortages on the fly.

Sales representatives had to download lane data and manually adjust rates in a 22,000-line Excel document to account for market fluctuations. While effective, the process was slow and repetitive; the upload process alone took an hour or longer. With speed and accuracy of the utmost importance, HNRY Logistics needed a faster way to respond to quote requests and safeguards to ensure sales reps were not getting burned due to limited available data.

THE SOLUTION

Through a seamless API integration with HNRY's transportation management system, 3Gtms, Logistical Labs' LoadDex provided accurate truckload rates in seconds. Taking it a step further, HNRY Logistics was able to connect the integration with their customer-facing portal, myHNRY, so that HNRY's customers can initiate their own rate requests.

The LoadDex integration, alongside 3Gtms, has enabled HNRY Logistics to run approximately 5,000 searches in LoadDex per day. HNRY's response rate went from 2-3 hours down to 7 minutes.

With all of the extra time, reps are better equipped to make more efficient and effective decisions for their customers. In addition to time savings, HNRY Logistics saw a 30% increase in web quotes and a $25 million increase in business.

With the industry moving toward real-time pricing, companies are spending hundreds of millions of dollars building out technology with those capabilities. LoadDex allows HNRY to compete with those companies for a fraction of the cost.

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Supply Chain Challenge?
SOLVED

Packaging Improvements: Reducing Costs and Improving Visuals

MagicLogic Optimization's BlackBox significantly improved cartonization for True Manufacturing. The solution determines the optimal size and fill material for each box, optimizing fulfillment.

THE CHALLENGE

Reliable, high-quality refrigeration is essential for the food and beverage industry, so when customers need parts, they want to place their order quickly and efficiently. While it might have been easy to place these orders, True Manufacturing knew that order fulfillment could run more smoothly and be more cost effective. True Manufacturing's Replacement/ Spare Parts operations wanted to review its packaging and reduce costs, improving the legacy process.

The current packaging selection comprised a few standard boxes purchased from a vendor. It was down to the warehouse person to select the most suitable sized carton, and they had to facilitate the process of producing the shipping boxes. The warehouse person would then decide on the best way to physically pack the products, including any bubble wrap or fill material necessary to ensure the customer received their order in perfect condition. When packing multiple parts, it was often tricky to identify the correct sized carton quickly so packaging expenses were often higher than necessary. Producing the shipping boxes, packing the items so any shipping rules were followed accurately all took time to complete.

After assessing logistics solutions available, True Manufacturing opted to work with MagicLogic Optimization Inc. using their BlackBox™ for Cartonization. Because BlackBox is customizable and scalable to accommodate business expansion it was the perfect choice to accommodate True's planned improvements.

THE SOLUTION

MagicLogic Optimization's BlackBox significantly improved the process of cartonization. Initially, True purchased an automated packaging system. Items to be packed were scanned to give the length, width, and height. BlackBox uses this information to determine the optimal box size. The automated packaging system can then create the correct box based on BlackBox calculations. Introducing BlackBox into the mix improved the process by leaps and bounds.

BlackBox now serves as the calculator and communicator between the ERP system and the automated packaging system. BlackBox contains all the information pertaining to parts items and any specific packing rules that apply. Now, when an order is released to fulfillment, information about the item and quantity is sent to BlackBox. The software automatically determines the optimal size and fill material needed for the box, transmitting the information so the box is automatically created. The box is created with a unique reference number, ensuring it is matched with the correct sales order.

Personnel are no longer needed to facilitate the process of producing the shipping boxes, thanks to BlackBox positioning and functionality. During the first year of implementation, True Manufacturing reduced packaging expenses by $213,000. Additionally, the logistics software improved the visual of how the parts shipments are presented to the customer, all while ensuring loading rules were strictly adhered to and products continued to arrive in perfect condition. MagicLogic is continuing to offer custom BlackBox solutions to accommodate True as its business changes.

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How to Manage LTL Spend with a TMS

If you don't know how much your company spends on LTL shipments, you're not alone. Because of the complex nature of LTL moves and the complicated pricing structure, you may be paying more than you need to and leaving margin dollars on the table.

For small to mid-size companies that ship LTL several times a week, but don't have an in-house transportation director and analysts on staff, managing a $10 million annual LTL spend can be challenging. There's a tipping point of around two or more LTL shipments per day where managing LTL manually becomes overwhelming for existing staff.

Partnering with a 3PL that offers a comprehensive transportation management system can help your enterprise take control of LTL spend. A TMS geared toward mid-size shippers can be like a travel booking site where you can compare rates for carriers all at once. Rather than making phone calls to get quotes, the TMS pulls quotes from three carriers and allows the shipper to make an informed decision without a lot of back-and-forth with phone calls and emails.

Like an airline booking site, the user inputs origin, destination, and freight characteristics. The system connects to multiple LTL providers to retrieve quotes. The shipper can select the carrier, rate, and service level that fits their budget and shipping requirements.

The system automates the quote and booking process and allows for gathering and analyzing data about your transportation spend that isn't very easy to manage with spreadsheets.

The data will help CFOs analyze the transportation spend, which can be a hidden expense. The TMS can shine a spotlight on transportation costs so that companies can be assured their money is being well spent. Larger companies may have the headcount for a transportation analytics staff. With a comprehensive TMS, smaller organizations can benefit from the same functionality.

In partnering with a 3PL, the shipper can use a DIY model or a DIFM, or "do it for me" model. The 3PL can handle the quote and booking process, or the shipper can manage that internally.

As the competitive landscape in global and domestic supply chains gets tougher every day, managing transportation spend is a powerful tool for maximizing a company's financial health.

A TMS can help a company get a handle on the variables in the supply chain, and reduce the opportunity to make mistakes due to lack of information. Adopting a TMS to simplify the LTL quote and management process can reduce spend, improve service, and give management the information they need to manage for success.

7 THINGS A TMS CAN DO FOR YOU

- **1. GET MULTIPLE RATE QUOTES:** Stop back-and-forth calls.
- **2. BOOK FREIGHT:** Use a click instead of a phone call.
- **3. PRINT BILLS OF LADING:** Automate document flow.
- **4. PRINT PACKING LISTS:** Use a single source of information.
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ALASKA

Logistics providers in Alaska are on top of the world, literally and figuratively. They are a special breed prepared for every challenge the Last Frontier poses.

Alaska is unique for many reasons, not the least of which are its rugged terrain, logistical challenges–and, yes, logistical advantages too. Its geography makes it one of the roughest places on earth but also, quite literally, it sits at the top of the world. Given that dichotomy, Alaska has been called both a frontier and a global crossroads. For manufacturers seeking to move product from here to there, Alaska's unique location means the logistics providers that serve them must be as rugged and relentless as the landscape itself.

REWARDING THE RESILIENT AND RESOURCEFUL

ALASKA REWARDING THE RESILIENT AND RESOURCEFUL

Span Alaska, a subsidiary of Matson Logistics, ships more than 400 million pounds of freight annually to Alaska. The logistics provider owns and operates terminals in Anchorage, Fairbanks, Kenai, Kodiak, and Wasilla. Its assets include more than 700 pieces of rolling equipment.

Alaska is one of only two U.S. states (Hawaii is the other) that is not bordered by another state. At the same time, it has more ocean coastline than all of the other states combined.

"Customers in Alaska are from everywhere," says Tom Souply, president of Span Alaska Transportation, which provides freight transportation services to and from the state. "They need a partner who can deal with extreme conditions. They need a partner who can operate in those conditions safely. They need a service provider who can offer predictability and consistency."

In Alaska, it also is vital that logistics providers have the means to deal with all the obstacles that are unique to the Frontier State. "Trucks, ships, barges—all need to operate in extreme conditions," says Curt Dorn, director of sales and marketing for Span Alaska. "Trucks need special cold-weather parts and lubrication to keep the engines running and deliveries on schedule.

"You need a partner that is good in the transition between modes," he adds.

"Providers need to have tracking and monitoring technology," notes Souply. "Span provides excellent tools that help customers keep an eye on their cargo. We provide extreme reliability and shipment visibility with all the necessary tools and experience to provide creative and consistent solutions."

OVERCOMING OBSTACLES

Alaska contains only 5,000 miles of paved roads winding through its 663,000 square miles of land. Compare that to Texas, which has 79,000 paved miles in its road system tracking through 269,000 square miles of land.

"Reaching 100% of residents in Alaska takes a creative supply chain of land, water, and air," Souply says. "Knowing the right way to move a shipment takes experience and a team that has been trained to execute these unique challenges."

Span Alaska, a subsidiary of Matson Logistics, ships more than 400 million pounds of freight annually to Alaska. Span Alaska is headquartered in Auburn, Washington, where it operates out of a 93-door terminal on 15 acres. Span Alaska operates all its terminals in Anchorage, Fairbanks, Kenai, Kodiak, and Wasilla, and owns more than 700 pieces of rolling equipment.

In addition to its vast volume of shipments from the lower 48 to Southcentral Alaska (the portion of the state consisting of the shorelines and uplands of the central Gulf of Alaska), the company also offers overnight service from Anchorage to Fairbanks and the Kenai Peninsula, and provides LTL service via barge from Seattle to Southeast Alaska.

Through Matson, Span Alaska serves the lower states from the Port of Tacoma to the Port of Anchorage, a total of 1,700 nautical miles. Shipments leave Tacoma twice a week on Wednesday and Friday.

"A core value of our business since our inception in 1978 has been a keen focus on employee and customer relationships," Dorn says. "We direct load to the last-mile delivery terminal." This seamless service, he adds, minimizes

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ALASKA REWARDING THE RESILIENT AND RESOURCEFUL

University of Alaska Anchorage students board a jumbo freighter jet for an immersive learning experience. The university contributes to the state's logistics assets through master's and bachelor's level logistics and supply chain management programs.

handling and transit time and provides quality service, which reduces stock-outs for various supply stores, retailers, construction sites, and medical supplies.

"We make sure our customers have the items their customers want and need on their shelves," he says.

In October 2019, Span Alaska opened its Anchorage Service Center (ASC), "a 540,000-square-foot, 88-dock-door, and 180-trailer and container parking space cargo-moving game-changer," Souply says.

"Anchorage is the main cargo distribution hub for Alaska," he adds. "Eighty-five percent of the state commerce comes through the Port of Alaska, located in Anchorage. This flagship facility strengthens Span's commitment to serving Anchorage and beyond, and its modern design will provide greater efficiency and faster cargo delivery for customers.

"We are grateful to our Span/Matson families for the support and this incredible investment in our future and the future of Alaska," says Souply.

COVID-19 RESPONSE

The global health crisis has created additional concerns for shippers, calling on logistics providers to be even more protective. Span Alaska, for example, early on imposed its own travel restrictions for office-based employees.

Span Alaska and other providers are monitoring developments closely and ensuring compliance with all local, state, and federal government reporting and prevention directives for offices and operations. The company has no reported cases of coronavirus associated with its operations. To date, Span Alaska has been able to continue all operations uninterrupted. Drivers are practicing enhanced hygiene techniques while on the road, and have been trained to maintain appropriate physical distance from others during pickups and deliveries.

PROVIDING CONTINUITY

Matson, Span Alaska's service provider (and parent company), continues to operate its northbound and southbound vessel schedules without interruption. This includes twice-weekly service between Tacoma and Anchorage. A Communications Response Team has been formed, and the company continues to monitor developments daily.

Span Alaska has Emergency Action and Business Disaster Recovery plans in place for each of its locations. These will go into effect if circumstances warrant. They are designed to keep company offices safe and staff and drivers healthy, and to recover or maintain operations with minimal disruption for customers. IT, telephone, email systems, and most processes are cloud-based, enabling employees to work from remote locations as needed.

MANAGEMENT IS KEY

It comes down to sound management. "Alaska is the most expansive and challenging logistics laboratory in the United States," says Dr. Darren Prokop, professor of logistics, College of Business and Public Policy, University of Alaska Anchorage. "I like to say that if you can manage logistics to, from, and within Alaska, you can manage logistics anywhere in the world."

The socioeconomic fabric of Alaska is highly dependent on logistics, Prokop says. To point, he cites these facts:

- Alaska is the largest state in the United States (more than double the size of Texas).
- The state is separated from the rest of civilization and surrounded by the vast Pacific and Arctic oceans and the Yukon wilderness.
- It is one of the least populous states, but its population is widely dispersed across an environment subject to earthquakes, tsunamis, volcano eruptions, blizzards, and floods.

Additionally, Prokop points out, Alaska's transportation infrastructure is concentrated only in the center of the state between Anchorage and Fairbanks.

"You can't fake logistics," Prokop says. "Either the shipment is on time or it isn't. This is especially crucial for Alaska. With about half of Alaska's population centered in Anchorage and Fairbanks, the Port of Alaska has become the only reliable gateway for large-volume freight deliveries to those cities. About 90% of Alaska's inbound freight arrives by water. The Port of Alaska's share of this serves about 85% of all Alaskans.

"Importantly, of the amount that arrives in Anchorage, only half is for local residents," he adds.

Alaska's abundant natural resources are shipped throughout the world. Alaska's fisheries (e.g., halibut and king

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crab) are delicacies caught in the world's most treacherous waters. Alaska's oil helps power the nation and is transported from one end of the state to the other by the 800-mile engineering marvel known as the Trans-Alaska Pipeline System (TAPS).

Apart from its challenges, Alaska possesses highly valuable logistics management assets. Ted Stevens Anchorage International Airport is one of the top air cargo facilities in the world. Its geographic advantage is that it is 9.5 hours flying time to 90% of the industrialized world.

Being at the center of the great circle route between U.S. and Asia markets, most cargo planes stop in Anchorage to refuel. This gas-and-go operation allows the planes to carry more revenue-earning freight and less cost-inducing fuel.

ARCTIC RESOURCES

Alaska makes the United States an Arctic nation, Prokop says. As such, the state is on the frontier of the wealth of resources that are being discovered in the Arctic Ocean. In the decades ahead, he adds, Alaska also will play a major role in the opening of the Arctic to transportation via the Northwest Passage and the Northern Sea Route.

The University of Alaska Anchorage contributes to the state's logistics assets through master's and bachelor's level logistics and supply chain management programs. "We have taught students from all over the United States and nearly every country in Far East Asia and Russia," Prokop says. "Being aware of how fragile Alaska's supply chains can be, we teach students how to plan well and how to use their imagination. It took a lot of imagination and daring to build Alaska into the logistics powerhouse that it is today. Our graduates carry on that legacy in careers that span the globe."

The university is particularly proud of its 100% online Master of Science in Global Supply Chain Management Program. Designed for executives and upper management, its courses provide in-depth analysis of strategic planning, leadership, international business practices, the cutting edge of information technology, and measuring success along highly complex supply chains.

"Our professors and their industry partners have developed a unique set of online tools to give students a wealth of opportunities to wrestle with real-world challenges in order to demonstrate value-add from the C-suite all the way to the shop floor," Prokop says.

PREPARATION PREVAILS

It is a lesson well known by every adventurer: "Be prepared." That lesson is certainly understood by every logistics provider with the heart and might to move products to and from Alaska, the state of unparalleled adventure.

"If you ship to Alaska, you have to be ready for anything and over-prepared whenever possible," says Grace Greene, president, TOTE Maritime Alaska. TOTE, a leading owner/operator of domestic shipping in the United States, specializes in moving cargo between North America and both Puerto Rico and Alaska.

"TOTE, like Alaska, understands the need to face every challenge head-on and be prepared no matter what," Greene says. "Safety has and always will be at the forefront of every decision and action we make, so we can continue to give our customers and the communities that rely on us the best service on the market."

In 2020,TOTE Maritime Alaska celebrates its 45th anniversary. "Since 1975, TOTE has been committed to making sure we have the safest, most innovative fleet on the market," Greene says. "These investments make sure we can adapt to the needs and challenges of our customers to deliver best-in-class service, no matter what."

A CLASS OF THEIR OWN

An expression of that commitment was the company's development of "Orca-class" vessels. In 2003, TOTE built two Orca-class cargo ships, the *M.V. Midnight Sun* and the *M.V. North Star*. These ships were specially built for Alaska and provide state-of-the-art protection from the elements.

"When we built the Orca-class vessels in the early 2000s, we took painstaking measures to ensure the safety of our crew and our customers' cargo through the challenging waters of the Gulf of Alaska," Greene explains.

"Whether that was our turtleback cover [an arched structure erected over the deck of a ship as protection from heavy seas] on the forward deck of the ship to protect cargo from 50-foot swells, the ice-strengthened hull at the ships' bow, or reinforced propellers and rudders for operation in the ice, these ships really were built for Alaska," she adds.

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ALASKA REWARDING THE RESILIENT AND RESOURCEFUL

PHOTO: FRANK KELLER

Alaska Railroad specializes in moving goods such as lumber, heavy machinery, rebar, pipe, and hazardous material. Its Class I railroad network encompasses the lower 48 states and Mexico, a port operation in Seattle, Washington, and final destination in Alaska.

The company additionally exhibits its commitment to Alaska by converting its fleet to dual-fuel capabilities and to run on liquified natural gas (LNG).

"Converting to LNG makes sense to us because it is out in front, leading the industry," Greene says. "Once converted, our vessels would not only meet current EPA regulations but far exceed them."

TOTE Maritime Alaska offers twice-weekly shipping between the ports of Anchorage and Tacoma at an industry-leading transit time of 66-72 hours.

"We are committed to saving customers time and money with features like our efficient roll-on/roll-off system, which expedites cargo loading and unloading," says Greene. "Real-time tracking technologies enable customers to easily monitor the status of their cargo on phones, tablets, or desktops.

"We believe in a Continuous Improvement mindset and are always improving our vessels, equipment, terminals, and technology to make sure customers can deliver their best to Alaska," she adds.

Cargo includes essential items such as food, household goods, vehicles, construction materials, and the weekly supply for the Army and Air Force Exchange Service military base at Fort Wainwright, Alaska.

ALL (CARGO) ABOARD

Among the hearty and resourceful logistics providers powering through the logistics challenges of the Alaska landscape is Alaska Railroad, a connecting carrier with Class I railroads.

Through its rail network, fully loaded railcars begin their journey in the lower 48 states and Mexico to the railroad's port operation in Seattle, Washington. There, railcars of pipe, mining equipment, and chemicals are seamlessly moved, thus avoiding costly transload, to a rail-barge and onward to Alaska. Upon arrival, the railcars are rolled off the barge for continued movement to their final destination within the state.

Alaska Railroad specializes in moving goods such as lumber, heavy machinery, rebar, pipe, and hazardous material. "We can transload commodities to and from ship, railcar, and truck," says Tim Williams, director of freight sales and marketing. "This is a popular option for customers without rail service directly to their facility.

"Our longstanding partnerships with surface transportation companies allow us the ability to provide customers with an all-inclusive transportation service," he adds. "You only need to contact one company and deal with one invoice. It's affordable, efficient, and minimizes handling."

When transloading is not needed, commodities that go on the train stay on the train all the way to and from Seattle, Canada, and other destinations.

"In addition to operating a wonderful passenger service, Alaska Railroad is also the only railroad in Alaska providing rail freight service moving consumer goods and heavy freight from three strategic ports up the rail belt to and from Fairbanks with transload connections to Prudhoe Bay," says Dale Wade, vice president, marketing and customer

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ALASKA
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ALASKA REWARDING THE RESILIENT AND RESOURCEFUL

Alaska Airlines, the largest scheduled cargo carrier in the state, transports perishable and time-sensitive products year-round. It connects with international and integrated carriers to deliver e-commerce goods and other critical supplies.

service. "As Alaska is predominately an inbound logistics market, the railroad helps hold down the cost of living in the state."

In addition to serving as an important asset for Alaskan businesses and residents, the railroad figures significantly into U.S. defense operations. Well before statehood, the U.S. military conducted operations from the numerous bases within Alaska, as it does today.

Alaska Railroad provides service to all these facilities. In addition, Wade says, Alaska Railroad has played a vital role in supporting the readiness of military forces by providing rail support to transport equipment for the U.S. Army between Fort Wainwright and the Port of Alaska during deployments and redeployments in support of contingencies and training exercises.

The railroad's marine shipping schedule includes arrivals and departures from Anchorage and Fairbanks seven days a week. The railroad provides numerous customer tools to help shippers navigate surcharges, tariffs, and regulations governing shipping to and from the state.

For all of the challenges posed by its rugged terrain, you might say that when it comes to logistics in Alaska, the sky is the limit.

AIR POWER

"Alaska Airlines has made a large investment in the state of Alaska in terms of cargo service," explains Torque Zubeck, managing director, cargo, Alaska Airlines. "We've converted three new 737 freighters from our own feed stock, built a state-of-the-art hangar to support the freighter and passenger fleet in the state, and made many enhancements to our facilities."

Headquartered in SeaTac, Washington, just outside Seattle, Alaska Airlines connects with large international and integrated carriers to carry e-commerce goods and other critical items such as medicine, medical supplies, and perishables into and around the state. It is the fifth-largest airline in the United States when measured by fleet size, scheduled passengers carried, and number of destinations served.

Alaska Airlines, the largest scheduled cargo carrier in the state of Alaska, transports perishable and time-sensitive products year-round. The airline is focused on continual improvement.

"In the past year, we have worked hard to fine-tune our freighter schedule in the state to ensure we're servicing the 19 communities we serve in the most efficient way possible while providing the best connectivity to the continental U.S. markets," Zubeck says. "We are proud of the role we play in being a lifeline to many communities by shipping daily necessities, medical samples, life-saving medication, and more.

"Alaska Airlines has also innovated the customer experience by installing self-service delivery kiosks at our facilities in Anchorage, Juneau, and Bethel to speed delivery times for customers," he adds. "In summer 2020, we also plan to launch freighter service to a new Alaska destination, Unalakleet, which we're excited about."

From his unique vantage point, Zubeck says Alaska's role in logistics—and Alaska Airlines' place in it—will grow even more over the next few years.

HUB OF ACTIVITY

"The Anchorage airport in particular has broad plans to transform into an even more robust airfreight hub, resulting in job creation locally and supporting the greater Alaska economy," he notes. "For Alaska Airlines, this could mean easier and quicker connections from rural Alaska to global markets, which is especially important for the efficient and fast export of wild Alaskan seafood.

"There is potential for e-commerce and other goods coming into the state to be transported around Alaska more quickly as well," Zubeck adds. "This would be beneficial for communities not on the road system, allowing faster delivery of goods around the state."

Shipping services include the "GoldStreak" package express, next-available-flight service for items up to 150 pounds that need to arrive within one day. Shippers pick their flight and drop their package at one of the airline's cargo locations 60 minutes before departure.

Priority airfreight, meanwhile, is ideal for time-sensitive shipments that are larger than GoldStreak service allows, and need to be at a destination by a

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- Grace Greene

GRACE GREENE
PRESIDENT, TOTE MARITIME ALASKA

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ALASKA REWARDING THE RESILIENT AND RESOURCEFUL

Offering a hovercraft service in the state, Lynden has Alaska covered. The Lynden family of transportation companies also provides over-the-road, barge, air freight, and domestic and international forwarding services.

specific time. Priority goods must be accepted at the cargo facility at least two hours prior to scheduled aircraft departure. Dangerous goods and shipments traveling on the freighter should be tendered at least four hours prior to scheduled aircraft departure.

General airfreight is the lowest-cost alternative for customers that do not have time-sensitive shipments, and can wait for space available service. Target shipment arrival dates are within 48 hours of acceptance. Goods are available for customer pickup within two hours of flight arrival on passenger flights, and within four hours of flight arrival for freighter service.

ROAD WARRIORS

The challenges of Alaska's weather, terrain, and remote locations are exacerbated by its transportation infrastructure—or lack thereof. "Relative to Alaska's size, the road system is a tiny fraction of any other state," points out Alex McKallor, executive vice president and COO of Lynden Inc.

Lynden is a family of transportation companies with the combined capabilities of truckload and less-than-truckload transportation, scheduled and chartered barges, intermodal bulk chemical hauls, scheduled and chartered air freighters, domestic and international forwarding and customs services, sanitary bulk commodities hauling, and multimodal logistics.

It is from this broad-based perspective that McKallor sees the logistics strengths of the state through all the obstacles that might obscure the vision of those who, in a real sense, fail to see the forest for the trees.

"Although there have been only minor infrastructure improvements in Alaska in recent years, there have been substantial service improvements as carriers such as Lynden apply new approaches to connecting communities," McKallor says.

Furthermore, he points to the three factors that override all others in the field of logistics: location, location, and location.

"Alaska is strategically located as a key trans-shipment hub for businesses targeting Asian, European, and North American markets," he notes. "The state also has enormous energy, mineral, and seafood resources with an abundance of natural beauty and recreation opportunities.

"Lynden has played a major role in improving logistics in Alaska by pioneering and providing dependable transportation to the state and expanding its service to remote and previously inaccessible points," McKallor says. "From Ketchikan to Kaktovik, we have enhanced and improved logistics in Alaska, and we consider this a major enticement for business development."

Lynden's service center network is the largest in the state. By leveraging its hubs and the company's multimodal capabilities, Lynden is able to connect Alaska's people and businesses seamlessly to each other and to the world.

"A good example of this is our cargo planes that fly scheduled service to Kotzebue, Nome, St. Mary's, and Bethel from our hub in Anchorage," McKallor says. "From Bethel, our hovercraft service supplies the villages on the lower Kuskokwim River. Just over one year ago, our barge service expanded into additional Arctic Alaskan villages like Barrow and Wainwright. We mean it when we say we cover the entire state of Alaska.

"We have earned a reputation for getting it there, no matter where 'there' is," he says. "We like to say we can get freight from anywhere to anywhere."

AHEAD OF THE CURVE

As customers' needs change along with technology and innovations, McKallor says, Lynden works hard to not only stay on the right path but to be ahead of the curve.

"We continually ask customers for feedback on our service and products," he says. "We regularly travel to different locations and host customer gatherings to listen and learn. We also conduct surveys and touch base with them by phone. We respond by making changes, if necessary, and developing offerings based on the information we receive."

As an example, Lynden developed a mobile app after customers shared that they would like the convenience of checking on shipments from their mobile devices. Now they can track freight, view shipment information, submit claims, and contact the company quickly and easily through the Lynden app.

Matson
Matson
Matson

ALASKA REWARDING THE RESILIENT AND RESOURCEFUL

Carlile Transportation provides LTL services for many of the state's retailers. Based in Anchorage, Carlile has six terminals in Alaska as well as facilities in Tacoma, Washington; Houston, Texas; and Edmonton in Alberta, Canada.

"Lynden has a very strong culture of continuous improvement and innovation, which is reflected in our services and service quality," McKallor says. "We have been providing transportation and logistics solutions to customers since 1906, and we pioneered the first scheduled over-the-road truck service to and from Alaska in 1954.

"With the potential of new oil and gas production on the North Slope, we're optimistic for the future of Alaska and we are proud of our reputation as an innovative transportation partner to our customers," he says.

BEEN THERE, DONE THAT

Experience, they say, is the best teacher. It is no wonder, then, that the lessons of logistics in Alaska have been learned so well by one of its most experienced logistics providers, Carlile Transportation.

Carlile has been doing business in the state since the company was founded as Carlile Enterprises in 1980 by brothers Harry and John McDonald with their two trucks. In 1985, they made their first haul to Prudhoe on the Dalton Highway

Based in Anchorage, Carlile now has six terminals in Alaska as well as facilities in Tacoma, Washington; Houston, Texas; and Edmonton in Alberta, Canada.

Carlile's logistics experts support exploration, production, and building projects throughout Alaska and across North America with over-the-road, ocean, air, and rail solutions. The company's truck cabs, cargo trailers, fuel tankers, and flatbed trailers travel Alaska's road system to and from Deadhorse (Prudhoe Bay), Fairbanks, Kenai, Kodiak, and Seward from its main terminals in Anchorage and Tacoma. The company is a major LTL provider for many of the state's retailers.

"Carlile was born and raised in Alaska," says Terry Howard, company president. "We've been connecting the world to the Last Frontier for 40 years."

A member of the Saltchuk family of companies, Carlile leverages its relationships with sea, air, and rail partners to provide comprehensive transportation solutions no matter where the cargo originates or where it is destined to be delivered in Alaska. Saltchuk is a diversified family of companies providing transportation and distribution services in North America and the Caribbean.

Howard says that as Alaska manages economic challenges related to oil price volatility—the state's economy is heavily dependent on oil and gas—Carlile continues to meet the changing needs of its clients by providing custom solutions and customer service excellence. The company is focused on innovation and technology to improve efficiency and better connect customers to their cargo and supply chains.

Climate change means Alaska is increasingly being seen as a "gateway to the Arctic," Howard says.

"Deepwater port exploration and a newly commissioned icebreaker means maritime commerce through northern waters is more promising than ever," he adds. "Also, Alaska is becoming more and more critical for strategic defense. All these conditions present unique challenges and opportunities for Alaska's logistics marketplace."

Logistics professionals serving in this ever-changing environment, Howard says, need to be "nimble and alert."

In addition to online access to shipping and tracking data, Carlile is introducing an electronic proof-of-delivery solution during the second quarter of 2020. The app will provide real-time, electronic notifications of freight deliveries to customers, improving the overall efficiency and shipping experience. The new service is part of Carlile's e-commerce and "go green" focus and will replace a paper-heavy process.

Carlile owns its equipment and other assets. It is one of the largest asset-based trucking companies in Alaska and has the largest heavy-haul trailer serving the state. Carlile has 175 tractors and 1,700 pieces of trailering equipment.

"Carlile remains focused on the shipping needs of Alaskans and continues to explore innovative ways to meet customer requirements now and in the future," Howard says. "Carlile has a long history of serving Alaska and we are well-positioned to recognize opportunities."

NOTHING ELSE LIKE IT

"Alaska's sometimes extreme weather and susceptibility to north Pacific storm systems pose challenges we don't see in other trades," says Bal Dreyfus, senior vice president, Alaska, at Matson. "Despite the difficulty, we are able to deliver goods to Alaska with a high degree of reliability because of the deep

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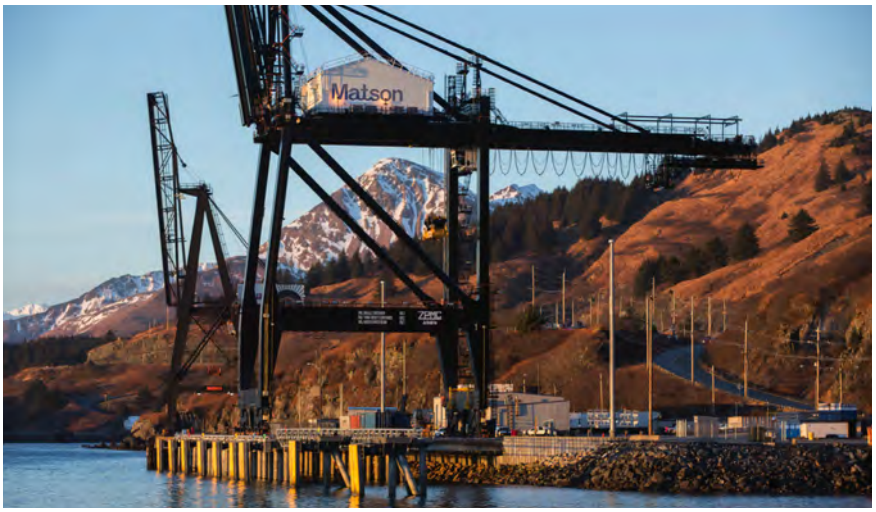

Offering truck, rail, and barge connections throughout Kodiak *(pictured above)*, Central Alaska, and the Aleutian Chain, as well as the lower 48, Matson provides a vital lifeline to the economies of Alaska, Hawaii, Guam, Micronesia, and islands in the South Pacific.

institutional knowledge of our employees and our collective commitment to providing lifeline services to the Last Frontier."

The importance of Matson's service to Alaska and the resiliency of the state's supply chain have been in the spotlight and a reassurance to Alaskans during the COVID-19 pandemic as 80% of goods that come to Alaska enter the state via the Port of Alaska, where Matson calls twice each week.

After delivering approximately 600 containers per arrival at the Port of Alaska, Matson's network of trucking, rail, and air cargo carriers distributes the goods that restock grocery shelves throughout the state. Matson also delivers supplies directly to Kodiak twice weekly and Dutch Harbor once per week.

The special responsibility Matson feels to serve as a lifeline to Alaska during normal operations and during times of crisis has led the company to develop contingency plans to ensure the continuity of its services, such as having reserve vessels available to deploy.

Matson also acted quickly to implement CDC and U.S. Coast Guard protocols that protect its workers, vendors, and the community, while allowing it to maintain the integrity of its Alaska service uninterrupted.

Headquartered in Honolulu, Matson has been a leader in Pacific shipping since 1882. With multiple subsidiaries, the company's transportation network offers comprehensive ocean transportation services providing a vital lifeline to the economies of Alaska, Hawaii, Guam, Micronesia, and islands in the South Pacific.

EXPERIENCE IS VITAL

Its Alaska operations are built on the experience of predecessor companies that have served Alaska communities for more than 50 years. "This team knows what Alaska businesses need and how to maintain and use our vessels, terminals, and equipment to provide the highest levels of service," Dreyfus adds.

"We specialize in carrying the wide range of commodities needed to support economies that rely on ocean transportation to continually replenish their inventories and supplies," Dreyfus says. "That has never been more important than right now, and every Matson employee comes to work with a sense of obligation to our community to make sure we maintain the reliable service our customers expect."

Matson offers truck, rail, and barge connections throughout Central Alaska, Kodiak, and the Aleutian Chain, as well as the lower 48, with a full range of equipment—including dry and refrigerated containers, open top containers, car carriers, flat racks, and insulated containers—with efficient terminal operations dedicated to Alaska service.

After acquiring the Alaska assets of Horizon Lines in 2015 in a $469-million transaction, Matson invested tens of millions more in upgrading the infrastructure of its business with ships, terminals, and new equipment.

"This included replacing a crane at our Kodiak terminal and installing emission-cleaning systems on all our Alaska ships to make them compliant with new IMO fuel emission standards in advance of rules that took effect in January 2020," Dreyfus says.

He also cites the purchase of 2,450 new dry and insulated containers for the Alaska trade, new Kenworth tractors at Matson's Anchorage terminal, and facility improvements at its Anchorage, Kodiak, and Dutch Harbor terminals.

"We also upgraded the gate at our Anchorage terminal, installing new technology that has simplified and shortened transaction times for our customers," Dreyfus adds.

Such investments serve as testimony to Matson's strong belief in the growing importance of Alaska's place in the ever-changing logistics marketplace. "Matson invested in its Alaska service at a time when the state's economy was in decline, due to dropping oil prices," Dreyfus says. "We did so because we have confidence there will be stronger years ahead. Alaska is strategically important to our national defense and the energy sector, both of which are likely to continue supporting the state's economy into the future.

"Matson invests for the long term," he adds. "We are committed to providing the frequent, reliable cargo services that Alaska needs, now and in the future."

Whatever the future holds, logistics providers in Alaska know they must adapt to changes even as they accept that the uniqueness of the state—and therefore its unique challenges—will remain. ■

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Carlile Transportation Systems is a full-service transportation company, providing superior service, safety, and efficiency in the Alaska market. It takes teamwork and commitment to meet transportation demands in the Last Frontier. Distance and weather challenges, a limited road system, and dynamic industry activity demand innovation and flexibility to succeed in moving valuable cargo. Transportation is our only business and our recognized leadership makes us a preferred operator for our multimodal partners in air, land, and sea shipments.

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Matson is a leader in Pacific shipping and most noted for its long-standing service to Hawaii, Guam, and Micronesia. Matson's China-Long Beach Express offers premium, expedited service from Ningbo and Shanghai to Long Beach, including a guaranteed expedited service option to many U.S. destinations. Its subsidiary, Matson Logistics, is one of the nation's leading logistics providers, with expertise in all aspects of U.S. mainland transportation: truck, rail, and air.

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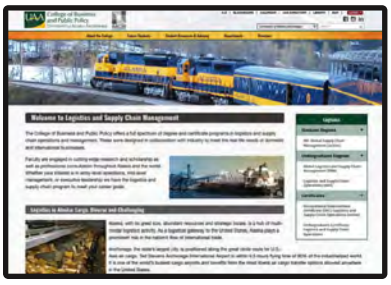

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The Department of Logistics at the University of Alaska Anchorage offers a Master of Science in Global Supply Chain Management (30 credits, 20 months, emphasis on strategy, leadership, knowledge management, and international business practices). Also offered are: a BBA in Global Logistics and Supply Chain Management (4 years); an Associate of Applied Science in Logistics and Supply Chain Operations (2 years); and a Certificate in Logistics and Supply Chain Operations (1 year).

BLOCKCHAIN, MEET SUPPLY CHAIN

When distributed ledger technology joins supply chain management, companies can make reverse logistics more efficient, better track product history, generate trustworthy freight invoices, and more.

BY MERRILL DOUGLAS

Supply chain solutions built on blockchain are turning up everywhere these days. In the early weeks of 2020, for instance:

- Researchers at Auburn University announced they had been working with Nike, PVH, Herman Kay, Kohl's, and Macy's to test a blockchain-based system for tracking products throughout the supply chain.
- Food producers in France, Tunisia, and Ecuador became some of the newest members to join the blockchain-based IBM Food Trust.
- Companies involved in maintenance, repair, and overhaul (MRO) in air transportation formed the MRO Blockchain Alliance to test the technology for tracking and tracing aircraft parts.

How much impact blockchain will have on supply chain management is still up for debate. But this distributed ledger technology already plays an important role in some supply chain operations, letting disparate parties share data in a way that is secure, trustworthy, and tamper-proof. Here are some recent developments.

WHEN PRODUCTS COME BACK

Blockchain can play a crucial role in reverse logistics. Data held in the blockchain can confirm that returned products are genuine, identify the retailer that sold them, and then track items as they are refurbished for resale, liquidated, or sent for disposal.

This is helpful, for instance, when a consumer returning a product lacks a sales receipt. "The retailer could scan a serial number, barcode, or other unique identifier on that product and quickly validate within its internal system that this specific item came from that retail store and company, and when it was purchased," says Pratik Soni, founder and chief executive officer of Omnichain, a technology firm in El Segundo, California, whose supply chain management platform connects trading partners on a distributed ledger.

When the manufacturer receives the returned product, data on the blockchain details the item's history, from manufacturing through sale and return. "Now they can remanufacture that item, replace the motherboard or screen or whatever is needed, validate that it is remanufactured with OEM-grade material, and then prepare it for resale in the aftermarket," Soni says.

Because the data tracks individual items and components, and because no one can alter that data, the blockchain helps protect brand integrity. "A big challenge for brands is how to negate counterfeits and identify when counterfeit product has leaked into the supply chain," Soni says. Organizations use serial numbers to identify genuine product. "Blockchain and the distributed ledger validate that and make it immutable, where nobody can tamper with the life cycle of the specific product," he adds.

When a manufacturer disposes of returned products, data in the blockchain can confirm that it did so sustainably. "You can tie in a certificate of destruction and various disposal practices, especially when it comes to electronics recycling, or even consumables," Soni says. This reassures consumers that the company follows responsible practices.

Because the data tracks individual items and components, and because no one can alter that data, the blockchain helps protect brand integrity by identifying when counterfeit product has leaked into the supply chain.

OIL'S WELL

From the time it launched its Terra Delyssa brand of olive oil, Tunisian company CHO has promoted the product's provenance, smooth texture, and purity. A few years back, company officials decided they needed new ways to share information about those qualities. So CHO joined the IBM Food Trust.

"It takes the transparency that we had to the next level," says Chris Lyons Fowler, account manager at CHO America in Baytown, Texas. Starting in summer 2020, consumers who scan a quick response (QR) code on a Terra Delyssa label can view the history of the oil in that particular bottle at every step of production.

"We have eight quality checkpoints, which begin at harvest when the olives are processed at the mill," she says. Consumers can learn about each of those steps.

"They see the orchard, the region where the olives came from, and the mill where they were crushed," she adds. They also see lab analysis results and the date the oil was bottled. Distributors and retailers use an app to get even more detailed information about the product.

Blockchain provides an excellent way to share facts about food products because it lets supply chain partners add data as they complete each process, and that data can't be altered, says Ramesh Gopinath, vice president for blockchain solutions and research at IBM's Thomas J. Watson Research Center in Yorktown Heights, New

Olive oil company CHO uses a blockchain solution from IBM to let distributors, retailers, and customers trace the steps in the production of individual bottles of olive oil.

Walmart Canada rolled out an automated blockchain-based network to track freight and manage payments. The new system enables users to automatically trace deliveries, verify transactions, and handle payments and reconciliation.

York. This is an important point in the olive oil industry, in which counterfeit products and misleading labels have generated much distrust.

The Food Trust also provides a platform for food traceability, which is invaluable in situations such as product recalls. A third use case involves supply chain efficiency. A company might use the Food Trust, for example, to record the temperature of fresh beef, documenting that it stays within the right range as the product moves through the supply chain.

Supply chain partners have different options for entering data into the Food Trust blockchain. A small farmer might upload a spreadsheet, while a large retail company might transmit data from an enterprise resource planning system. "But all of them send specific information on what supply chain activities they do on that specific product," Gopinath says.

INVOICE INTEGRITY

Walmart Canada uses blockchain to build trust with its transportation partners, eliminating time-consuming freight bill audits.

Working with Toronto-based DLT Labs, a developer of blockchain-based solutions, Walmart Canada developed and rolled out a system that tracks deliveries, captures information used to compute accessorial charges, and automatically generates invoices based on data that the shipper and carrier agree is correct.

Each time a carrier takes a load from Walmart, the system's distributed ledger collects data from three sources: the carrier's internal management systems, Walmart's internal management systems, and objective sources such as truck sensors and fuel purchasing systems.

"They know what time the load was picked up, where it went, how much fuel was used, and what the taxes are," says Loudon Owen, chief executive officer at DLT Labs. "By the time it arrives, the invoice has been built jointly."

In the past, a carrier would use its own information systems to generate an invoice based on the contracted rate, plus accessorials such as the fuel surcharge, Canada's carbon surtax, and charges for special equipment and wait times. At the same time, Walmart Canada's systems would calculate the bill. If the two parties reached different conclusions, they would have to compare data and calculations to reach an agreement.

"Walmart has said that on average it might take eight weeks to process a single invoice and figure out how much was owed," Owen says.

The new system uses the same data and the same math to calculate, in real time, a charge that both parties will accept. "They don't reconcile invoices anymore; they co-create invoices," Owen says. "It moves the companies from what can be an antagonistic relationship to a partnership."

Walmart Canada ran a pilot of the system with one of its carriers, Bison Transport, for much of 2019. The system went live with all the company's carriers in February 2020.

BLOCKCHAIN SUPPORTS THE CIRCLE

One area where blockchain could play an important role in the near future is in the circular economy. That's the business model that encourages companies to reuse materials rather than continuously consume new resources.

When Gartner recently surveyed supply chain leaders on their plans to invest in the circular economy, one question focused on investments in blockchain. Few respondents said that their companies use that technology now, but 38% of them said that in the next five years they will explore its use in circular economy applications.

Those companies expect to use blockchain, for example, to identify materials and then track them through their successive uses.

"Say you have a printer part," explains Sarah Watt, senior director and analyst at Gartner in London. "It goes back into the system to be remanufactured and put into a new printer." Blockchain would let data about the part follow the part through its life cycle.

Although none of the leaders surveyed are doing this now, respondents suggest they may use blockchain to support relationships for swapping materials and parts in the future.

Today, some technology companies refurbish and resell not only their own used products, but also products made by competitors. "What if we started to use those materials in different markets, and we really get to an ecosystem?" Watt asks. "How do we have visibility? Blockchain's whole potential is wrapped around visibility."

Mercedes-Benz launched a pilot blockchain network program to enforce supplier contractual obligations, particularly for sustainability and ethical compliance.

UPHOLDING HIGH STANDARDS

Responsible practices are the driving force behind a series of pilots that Mercedes-Benz Cars, part of Daimler AG in Stuttgart, Germany, is exploring for the use of blockchain in procurement. The goal is to better enforce vendors' contractual obligations to protect the environment, safeguard human rights, and honor other important values.

Contracts with Mercedes-Benz require suppliers not only to meet the automaker's standards for those values, but also to ensure that suppliers farther up the chain—the vendors' vendors and beyond—meet them as well. Blockchain is a good tool for enforcing those standards because it receives immutable data that is reliable and transparent.

"Preventing manipulation is one of the most important arguments for blockchain, which represents a real breakthrough compared to complex databases or paper-based certification systems," says Gunnar Güthenke, vice president of procurement and supplier quality at Mercedes-Benz Cars. "Because every transaction is linked to the prior and subsequent transactions, and all network partners need to confirm later changes, the blockchain sets a high threshold for any kind of noncompliance or misconduct."

As an example, Güthenke explains what happens when one of Mercedes-Benz's direct suppliers agrees to the Daimler Sustainability Standards, and promises to hold its own supply chain to similar requirements. "The sub-suppliers then attest to their compliance, providing proof as required," he says. "The process is repeated down the supply chain. The data provided by suppliers at all tiers is encrypted and becomes visible in the blockchain."

After a successful pilot in February 2019, Mercedes-Benz has continued to refine and test the use of blockchain to enforce its code of conduct. A more recent initiative focuses on environmental sustainability. "With the current pilot project, we are pursuing further approaches to mapping carbon dioxide emissions and the proportion of recycled material in the supply chain," Güthenke says.

DIRECT FROM THE ELD

Like Omnichain, ShipChain in Greenville, South Carolina, uses blockchain to share data among numerous partners on a supply chain management platform. ShipChain focuses on transactions between shippers and carriers, aiming to enhance visibility and trust.

"We can prove documents haven't been tampered with," says John Monarch, chief executive officer of ShipChain. "We can show the full history of every document and shipment along the way."

Trucking companies and shippers have used GPS, temperature sensors, and other technologies to monitor shipments for many years. But those systems usually haven't communicated with one another, nor could most shippers find all the data about a shipment in one place. "They had to go into spreadsheets and log into different systems," Monarch says. ShipChain is designed to solve that problem.

Why can you see where your pizza is in transit but not your million-dollar freight shipment? The ShipChain-KeepTruckin partnership corrects that disparity.

Data about a shipment can enter the blockchain from numerous sources. As of early 2020, one of those sources is the onboard electronic logging device (ELD) made by KeepTruckin, a San Francisco-based firm with a major following among owner-operators.

Unlike large trucking companies, owner-operators generally don't have sophisticated fleet management technology. To report the status of a shipment, a typical owner-operator makes a phone call (possibly on a flip phone) to the freight broker that tendered the load.

The new partnership eliminates the need to make those calls. Instead, ShipChain pulls location information from the KeepTruckin ELD and transmits it over a wireless network, storing it in the blockchain. The system encodes this location data to protect the privacy and security of individual drivers.

Shippers use a web portal or a mobile app to view real-time shipment data and learn when shipments will arrive at their docks.

"We like to joke, 'Why can I see where my pizza is in transit but not my million-dollar freight shipment?'" Monarch says. The ShipChain-KeepTruckin partnership corrects that disparity.

Companies that use blockchain in supply chain solutions certainly didn't invent the idea of sharing data to foster visibility, traceability, and efficiency. But blockchain proponents say this technology creates a stronger level of trust among supply chain partners, and between brand owner and their customers. As more companies embrace blockchain, we'll have plenty of opportunities to see how well that promise holds up. ■

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Transport Topics TOP 2020 FREIGHT BROKERAGE FIRM

PROS KNOW 2020 EXECUTIVE

INBOUND LOGISTICS TOP 100 3PL PROVIDER 2019

INBOUND LOGISTICS TOP 100 LOGISTICS IT PROVIDER 2019

2020

TOP 100

LOGISTICS IT PROVIDERS & MARKET RESEARCH

SURVEY

WHAT ARE THE MUST-HAVE LOGISTICS TECHNOLOGY SOLUTIONS? WHAT CHALLENGES DO SOFTWARE VENDORS AND USERS FACE? FIND THE ANSWERS IN OUR ANNUAL LOGISTICS IT MARKET RESEARCH REPORT.

BY MERRILL DOUGLAS

Efficient supply chain operations are more crucial than ever—not only to company success, but to our society at large.

As the world combats COVID-19, hospitals, governments, and suppliers work overtime to get respirators, masks, test kits, and other medical products to facilities that need them, as fast as they can. Retailers struggle to keep shelves stocked with food, toilet paper, hand sanitizer, and other essentials. Facing a tsunami of e-commerce orders, Amazon recently announced it would add more than 100,000 workers. Restaurants forced to shift from table service to takeout are putting hordes of delivery drivers on the road.

Whether they staff up to meet this unprecedented challenge, or they get the job done with an existing workforce, companies rely on information technology to manage their supply chains as productively as possible.

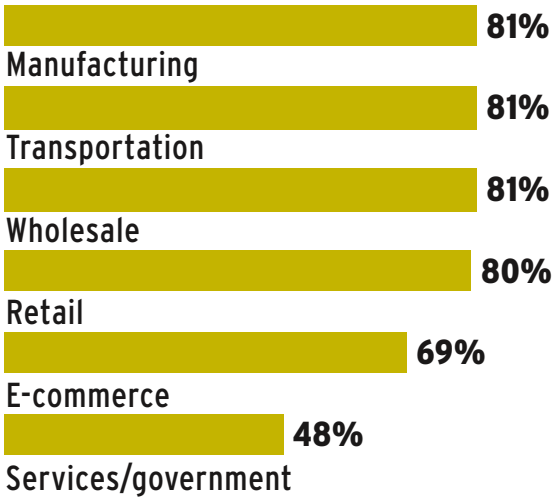
Logistics IT may also prove a lifesaver for companies that use data to peg inventories to market demand. Imagine having three distribution centers filled with clothing for your company's 200 retail locations when social distancing requirements force you to shutter all those stores. Or what if you sell surgical gowns, and your screens light up with orders, but you're running out of product? Companies that use technology to support demand-driven planning and execution have a leg up in today's volatile environment.

When the crisis ends, and the economy starts to recover, demand for many products will surge, creating opportunities for companies that can respond to the need. Logistics IT will play a crucial role then as well.

To help logistics professionals plan for the future, *Inbound Logistics* conducts an annual survey of logistics technology providers. Assembling data on current logistics IT trends, we paint a picture of the capabilities available today and the technology investments shippers are making to gain a competitive edge.

Along with this report, it's helpful to look at the annual *Inbound Logistics* Top 100 Logistics IT Providers list *(see page 74)*, our guide to the leading logistics IT solutions providers in the market. Next time you're ready to add to your company's logistics IT tools, you'll find this guide an invaluable resource.

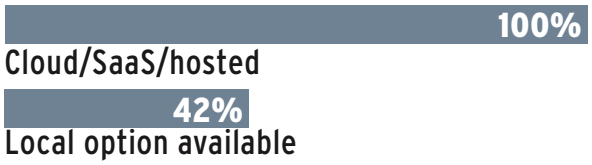
WHAT INDUSTRIES DO YOUR SOLUTIONS SERVE?



Transportation service providers such as carriers, third-party logistics providers, and freight forwarders have traditionally composed a big market for logistics IT. That's true in 2020, as well: 81% of respondents tell us they sell to the transportation service industry. But that number has fallen since 2019, when 93% of respondents counted transportation service providers among their customers. This year, three other industries play just as big a role in the market as transportation services: manufacturing (81%), wholesale (81%), and retail (80%).

SOURCE: *INBOUND LOGISTICS* MARKET RESEARCH

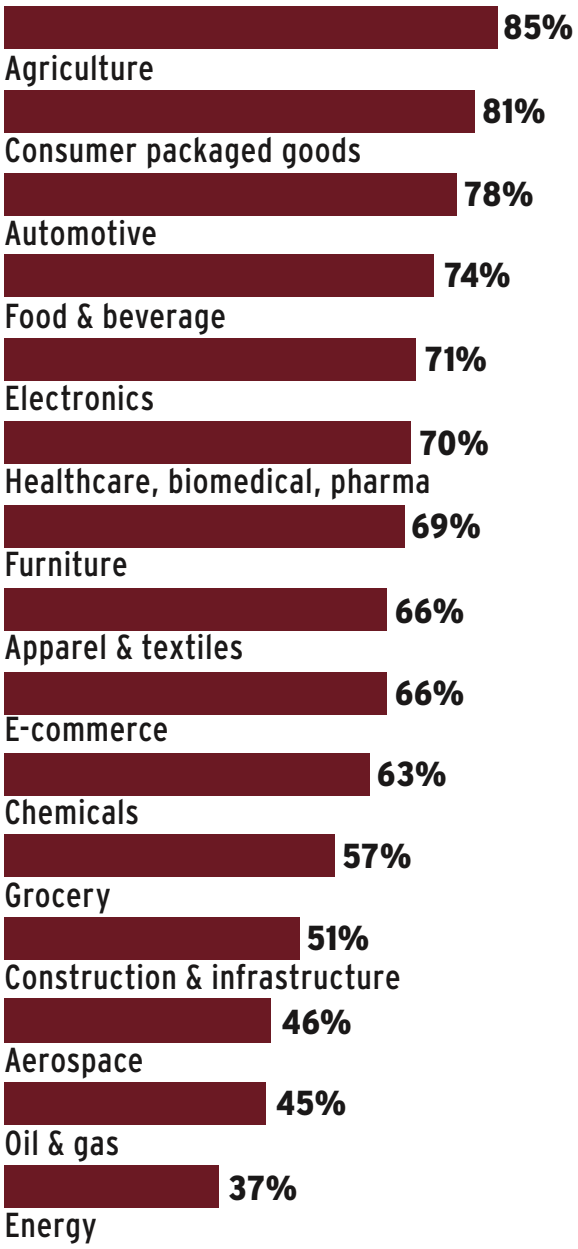
PLATFORM: HOW DO YOU DELIVER YOUR SOLUTIONS?



If anyone had doubts about the ascendance of cloud computing in logistics IT, this year's survey clears them away once and for all. In 2019, 55% of respondents told us their solutions were cloud-based, Software as a Service (SaaS), or hosted. But in 2020, 100% of respondents report they offer such solutions. Forty-two percent give customers a choice: they may implement solutions in the cloud or on a customer's own premises—the same as in 2019. The number of vendors who offer on-premise solutions only—already a mere 1% in 2019—dwindled to zero this year.

SOURCE: *INBOUND LOGISTICS* MARKET RESEARCH

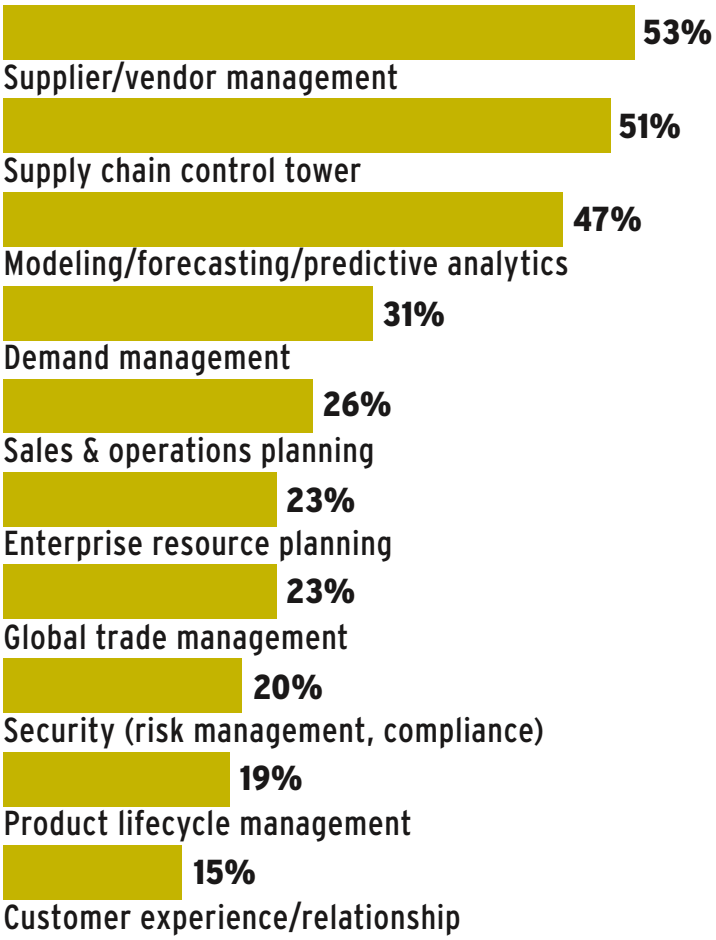
VERTICAL SPECIALIZATION: WHAT VERTICALS DO YOUR SOLUTIONS SERVE?



Within industries such as manufacturing, transportation, and wholesale, logistics IT vendors serve a wide range of vertical categories. The largest among them—those that provide a market for more than 70% of respondents—are: agriculture (85%), consumer packaged goods (81%), automotive (78%), food and beverage (74%), and electronics (71%).

SOURCE: *INBOUND LOGISTICS* MARKET RESEARCH

SUPPLY CHAIN SOLUTIONS OFFERED

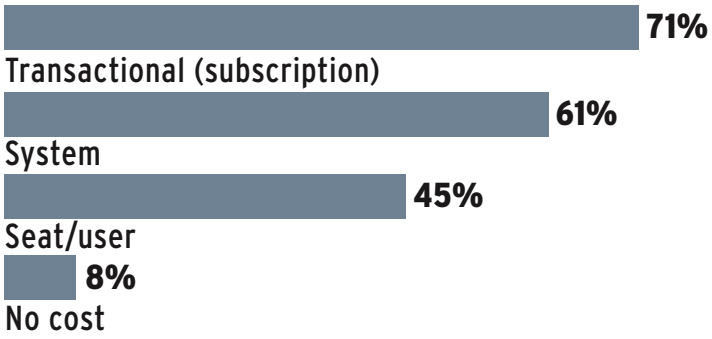


Beyond solutions for logistics functions, many respondents also provide technology to address broader supply chain concerns. In 2019, 47% of survey takers said they offered solutions for managing vendors or suppliers, and 41% offered supply chain control tower solutions. Those two applications remain at the top of the list in 2020, becoming even more prevalent. This year, 53% of respondents offer supplier/vendor management solutions, and 51% provide control tower capabilities.

One especially striking increase comes in the area of modeling/forecasting/predictive analytics. In 2019, 23% of vendors offered solutions in that category. This year, the number jumped to 47%. Several other areas have seen significant gains as well: demand management (31% in 2020 vs. 25% in 2019), global trade management (23% in 2020 vs. 17% in 2019), and product lifecycle management (19% in 2020 vs. 12% in 2019).

SOURCE: *INBOUND LOGISTICS* MARKET RESEARCH

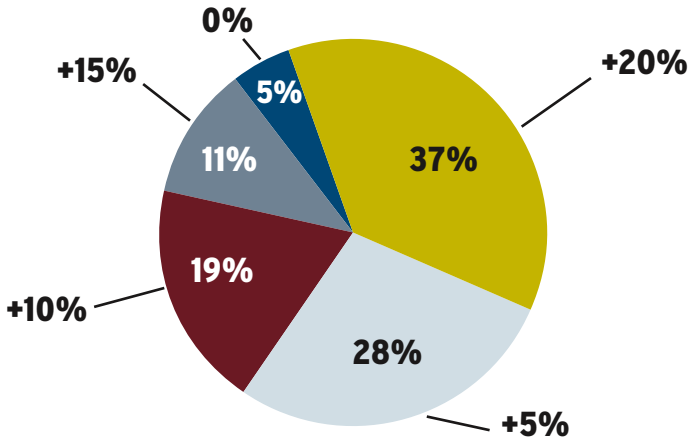
COST BASIS: HOW DO USERS PAY FOR TECHNOLOGY SOLUTIONS?



Just as some vendors let customers choose whether to implement a solution in the cloud or on premise, some offer a choice about how to pay for their solutions. Among our respondents this year, 71% provide solutions by subscription, slightly down from 75% in 2019. Sixty-one percent will sell a system at a flat rate, an increase from the 48% who named that option last year. In 2020, 45% of vendors offer a per-seat or per-user payment option, and 8% make at least some of their solutions available to users at no cost.

SOURCE: *INBOUND LOGISTICS* MARKET RESEARCH

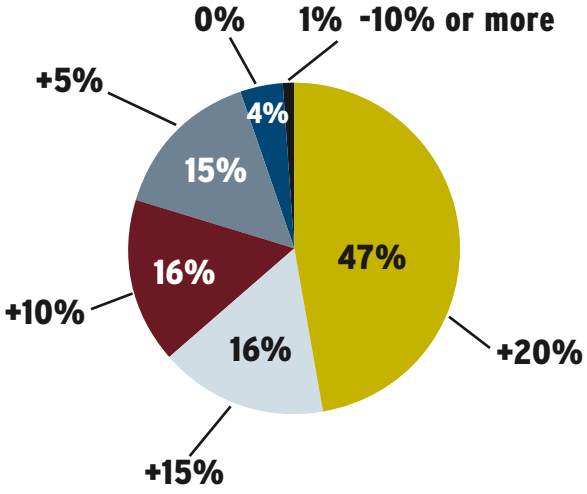
CUSTOMER BASE: DURING YOUR LAST MEASUREMENT PERIOD DID YOUR CUSTOMER BASE GROW? BY HOW MUCH?



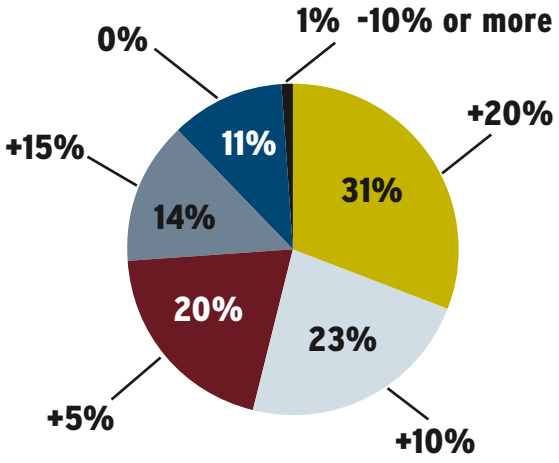
Customers' concerns about transportation and logistics challenges are driving healthy sales for logistics IT vendors. Nearly all respondents—95%—say they have recently seen their customer bases expand (only 5% report zero growth). For 37% of vendors, that growth topped 20%; for 11% of vendors it was by more than 15%; for 19% of vendors it exceeded 10%; and for 28% of vendors it was by more than 5%.

SOURCE: *INBOUND LOGISTICS* MARKET RESEARCH

SALES: DURING YOUR LAST MEASUREMENT PERIOD WERE SALES UP OR DOWN? BY HOW MUCH?



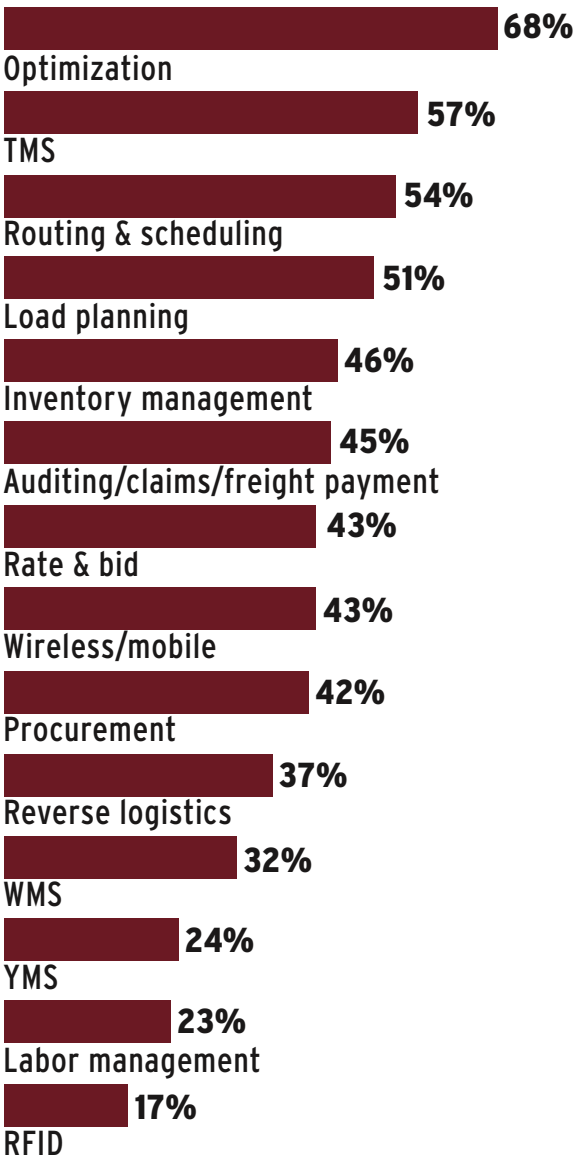
PROFITS: DURING YOUR LAST MEASUREMENT PERIOD WERE PROFITS UP OR DOWN? BY HOW MUCH?



Vendors find new customers in a wide variety of quarters. Asked where they have seen growing demand for logistics technology, respondents offer answers such as: "USA, Latin America, Asia"; "cross-border visibility in Mexico"; "managed services, European markets, retail, food, 3PLs/LSPs, manufacturing"; "zero-touch automation and visibility"; and "U.S. cannabis market." Whatever drives those customers to seek technology solutions, they have certainly made a positive impact on the balance sheets of logistics IT providers. Among our respondents, almost half report robust sales growth of more than 20%. Only 5% report zero sales growth or decline. Eighty-eight percent tell us they'd seen profits grow in the most recent measurement period. For 31%, profits went up by more than 20%.

SOURCE: *INBOUND LOGISTICS* MARKET RESEARCH

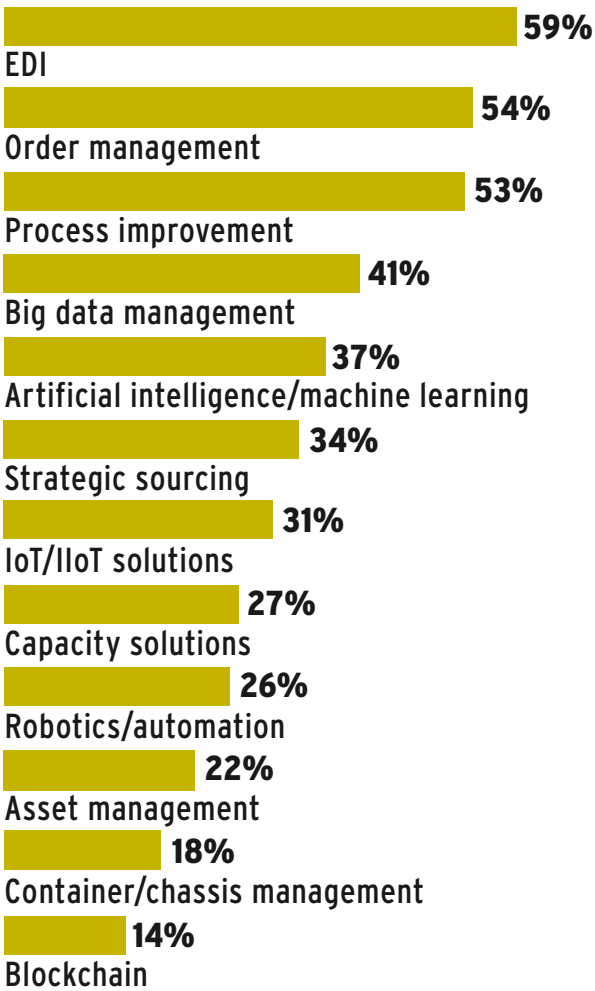
LOGISTICS SOLUTIONS OFFERED



Given customers' concerns about cost reduction, visibility, and transport optimization, the list of logistics solutions our respondents are most likely to offer should come as no surprise. As in 2019, the top three applications in 2020 are optimization (cited by 68% of vendors), transportation management systems (TMS, cited by 57%), routing and scheduling (54%), and load planning (51%). One category reported by half of respondents in 2019—rate and bid solutions—seems to be slightly less prevalent in 2020; only 43% of this year's respondents say they offer those products.

SOURCE: *INBOUND LOGISTICS* MARKET RESEARCH

ADDITIONAL SOLUTIONS OFFERED



The survey also asked vendors about additional solutions they offer, beyond logistics and supply chain capabilities. The most popular among those is electronic data interchange (EDI), available from 59% of respondents. Other popular offerings include order management (cited by 54%) and process improvement (53%). In addition, some cutting-edge technologies are starting to gain a foothold in the market. Forty-one percent of respondents say they offer technology for big data management, and 37% say their solutions incorporate artificial intelligence (AI) or machine learning.

SOURCE: *INBOUND LOGISTICS* MARKET RESEARCH

SOURCES OF LOGISTICS IT DEMAND

One question in the annual survey asks software providers to discuss the most important needs their customers address with information technology. Here's a sampling of responses.

Integration and collaboration

There is a growing demand for technologies that can provide end-to-end visibility and connectivity across the supply chain. The problem is that today's supply chains are plagued by silos, with stakeholders using their own systems, processes, and key performance indicators (KPIs) within their respective roles. These silos create uncertainties that make it difficult to understand product provenance, track product status and location, and make sound decisions to drive efficiency and business growth.

E-commerce

3PLs and distributors are being challenged to efficiently handle the multichannel requirements of the e-commerce space. The different workflows required by the channel (i.e. direct to consumer) will force companies to update or replace their logistics technology in order to handle new requirements.

Visibility

Because consumers increasingly want to have confidence in the origin of their food, traceability programs are in higher demand in grocery. Additionally, track-and-trace software continues to be top of mind to track shipments throughout their journeys. Consumers expect fast shipping, which leads to higher demand for last-mile delivery programs as well, facilitating faster delivery to end users. There is also a higher demand for visibility among companies, with best ship method technology allowing them to explore a variety of shipping methods based on visibility into product location and availability, as well as vendor drop ship programs to avoid an excess of inventory being shipped to retailers that are unequipped to store or sell it. Transportation management system technologies are also in high demand, because they allow for visibility into consumer demand, which helps strategically manage distribution networks.

As shippers shift their sourcing from China to other regions in Asia, this is increasing the complexity to monitor cargo that requires transshipment routes. We see growing demand for logistics technology visibility solutions that can help U.S. importers measure performance of new suppliers and routes and to manage their incoming cargo as they respond and adjust their shipping patterns to help them grow their businesses.

Expense analytics

Visibility into transportation spending continues to drive the majority of our demand. Customers are becoming more aggressive in their desire and use for spend analytics to gain better control over their transportation spend. The ability to capture, cleanse, and provide visibility into spending trends, KPIs, carrier information, and execution to plan is becoming critical across all industries.

Labor

With an unpredictable labor market and increasing pressure to get more efficient, solutions that allow operations to make more informed decisions and maximize returns from equipment and labor will continue to become more popular in warehouses.

Artificial intelligence

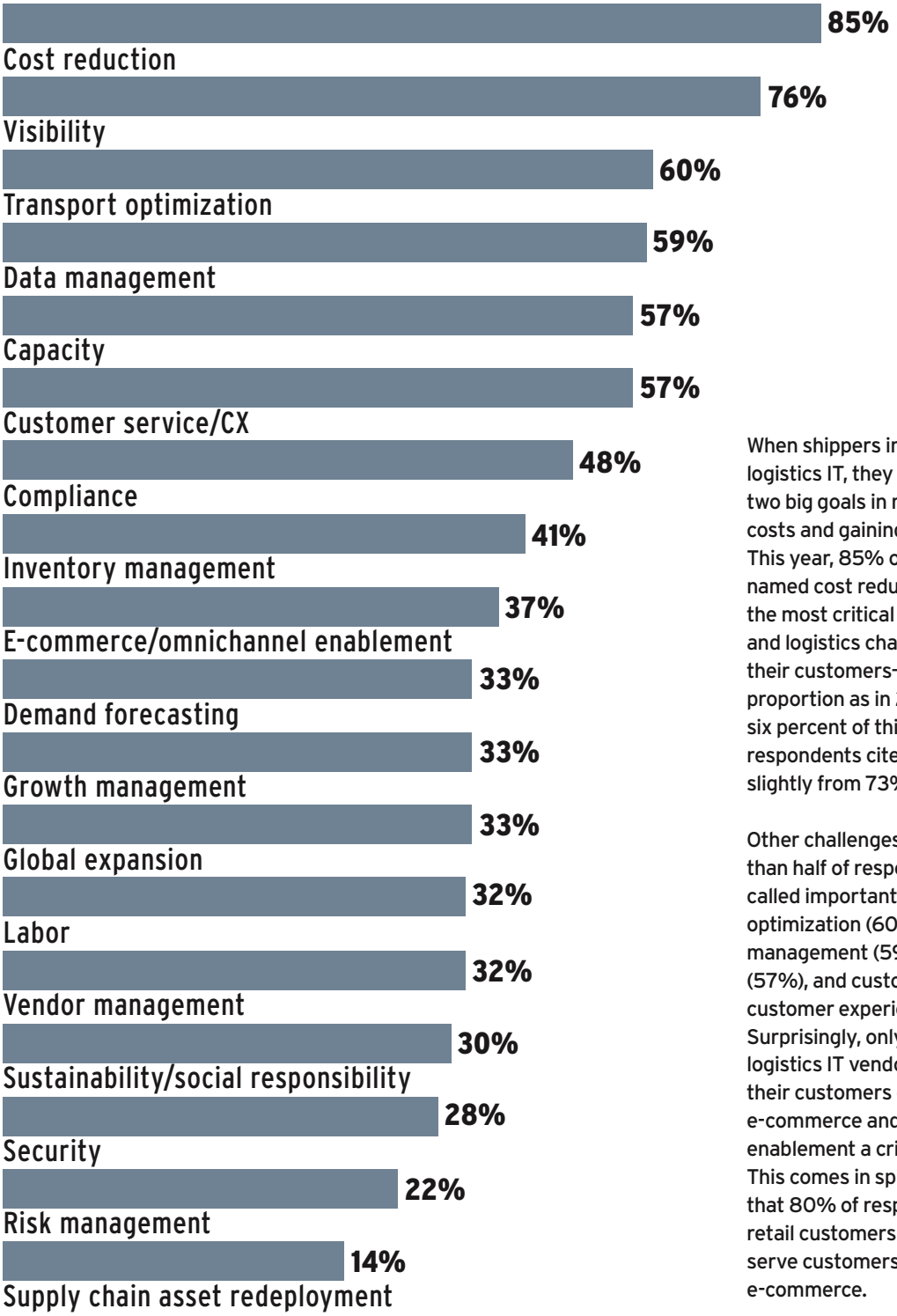
With AI and machine learning data science, supply chains can analyze a vast array of information—from past sales data across thousands of products and hundreds of stores, to weather predictions, and events like football matches—and weigh the factors against each other to deliver accurate predictions of customer demand. Further, companies have become committed to environmental responsibility and are looking for AI-enabled solutions that help them meet their sustainability goals. Though the sustainability challenge grows more complex every day, AI-based tools can consider all the factors that come into play, gather and analyze relevant data, and make the most sustainable and profitable business decisions.

Customer experience

The modern supply chain has become consumerized. Today's buyers have used their many purchasing options to seize control of their relationships with manufacturers and distributors. They're buying online by default. They're overbuying stock with the intention of returning whatever they don't end up using. They demand speedy—and often even immediate—delivery. They expect retailers to be able to ship items from brick-and-mortar stores, warehouses, or distribution centers to meet their needs. The only way to address these complex problems is to digitize the supply chain so retailers, distributors, and manufacturers have a complete supply chain picture and can make decisions based on real-time information.

Customers are more demanding than ever—placing greater needs on the supply chain to be more intelligent, predictive, and capable of delivering to customers when, how, and where they want it. Like never before, companies rely on their supply chains to deliver differentiated customer experiences and business outcomes. AI-driven supply chain solutions can help leaders innovate and navigate the complexities of today's global, consumer-driven marketplace.

WHICH TRANSPORTATION/LOGISTICS CHALLENGES ARE MOST CRITICAL TO YOUR CUSTOMERS?



When shippers implement logistics IT, they tend to have two big goals in mind: reducing costs and gaining visibility. This year, 85% of respondents named cost reduction one of the most critical transportation and logistics challenges for their customers—the same proportion as in 2019. Seventy-six percent of this year's respondents cited visibility, up slightly from 73% last year.

Other challenges that more than half of respondents called important are transport optimization (60%), data management (59%), capacity (57%), and customer service or customer experience (57%). Surprisingly, only 37% of logistics IT vendors said their customers consider e-commerce and omnichannel enablement a critical challenge. This comes in spite of the fact that 80% of respondents serve retail customers and 69% serve customers engaged in e-commerce. ■

SOURCE: *INBOUND LOGISTICS* MARKET RESEARCH

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PRICING: Transactional

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LOGISTICS SOLUTIONS: TMS

ADDITIONAL SOLUTIONS: EDI Integration

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PLATFORM: Cloud/SaaS/Hosted, Local

PRICING: Transactional

INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale, Services/Government, Transportation

SUPPLY CHAIN SOLUTIONS: TMS

LOGISTICS SOLUTIONS: Auditing/Claims/Freight Payment, Load Planning, Optimization, Routing & Scheduling

ADDITIONAL SOLUTIONS: EDI, Order Management

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PLATFORM: Cloud/SaaS/Hosted

PRICING: Transactional

INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale, Services/Government, Transportation

SUPPLY CHAIN SOLUTIONS: WMS

LOGISTICS SOLUTIONS: Inventory Management, Load Planning, Optimization, Rate & Bid, Routing & Scheduling, Wireless/Mobile

ADDITIONAL SOLUTIONS: 3PL-Specific Billing, API, Big Data Management, Developer Community, Dock Scheduling, EDI, Mobile Barcode Scanning, Order Management, Paperless Workflows, Process Improvement, Rate Shopping, Small Parcel Shipping

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PLATFORM: Cloud/SaaS/Hosted

PRICING: Transactional

INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale

SUPPLY CHAIN SOLUTIONS: GTM, Supplier/Vendor Management, Supply Chain Control Tower

LOGISTICS SOLUTIONS: Auditing/Claims/Freight Payment, Inventory Management, Optimization, Procurement, Rate & Bid, TMS

ADDITIONAL SOLUTIONS: Order Management, Process Improvement

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PRICING: Transactional

INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale, Services/Government, Transportation

SUPPLY CHAIN SOLUTIONS: ERP, Modeling/Forecasting/Predictive Analytics, Supplier/Vendor Management, Supply Chain Control Tower

LOGISTICS SOLUTIONS: Auditing/Claims/Freight Payment, Optimization, Procurement, Rate & Bid, TMS

ADDITIONAL SOLUTIONS: Artificial Intelligence, Big Data Management, EDI, Machine Learning, Process Improvement, Robotics/Automation, Strategic Sourcing

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PLATFORM: Cloud/SaaS/Hosted

PRICING: Transactional

INDUSTRIES SERVED: Services/Government, Transportation

SUPPLY CHAIN SOLUTIONS: GTM, Supply Chain Control Tower

LOGISTICS SOLUTIONS: Inventory Management, Optimization, TMS, WMS

ADDITIONAL SOLUTIONS: EDI, Process Improvement

ACUITIVE SOLUTIONS

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PLATFORM: Cloud/SaaS/Hosted

PRICING: Transactional

INDUSTRIES SERVED: Transportation

LOGISTICS SOLUTIONS: Auditing/Claims/Freight Payment, Logistics Management, Rate & Bid, Routing & Scheduling

ADDITIONAL SOLUTIONS: Container/Chassis Management

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PLATFORM: Cloud/SaaS/Hosted

PRICING: Transactional, System

INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale, Services/Government, Transportation

SUPPLY CHAIN SOLUTIONS: GTM, Modeling/Forecasting/Predictive Analytics, Supplier/Vendor Management, Supply Chain Control Tower

LOGISTICS SOLUTIONS: Auditing/Claims/Freight Payment, Inbound and Third-Party, Load Planning, Optimization, Procurement, Rate & Bid, Reverse Logistics, Routing & Scheduling, TMS

ADDITIONAL SOLUTIONS: Artificial Intelligence, Big Data Management, EDI, Machine Learning, Order Management, Process Improvement

ALPEGA

877-763-3240
na.alpegagroup.com

PLATFORM: Cloud/SaaS/Hosted

PRICING: Transactional

INDUSTRIES SERVED: Manufacturing, Retail, Wholesale

LOGISTICS SOLUTIONS: Load Planning, Optimization, Procurement, Rate & Bid, Reverse Logistics, Routing & Scheduling, TMS

ADDITIONAL SOLUTIONS: Capacity, Order Management, Process Improvement, Strategic Sourcing

AR TRAFFIC CONSULTANTS

212-736-8565 • www.artraffic.com

PLATFORM: Cloud/SaaS/Hosted, Local

PRICING: Transactional

INDUSTRIES SERVED: Manufacturing, Wholesale, Services/Government

LOGISTICS SOLUTIONS: Optimization, Rate & Bid, TMS

ADDITIONAL SOLUTIONS: EDI

CRM/CX: Customer Relationship Management
DRP: Distribution Resource Planning
ERP: Enterprise Resource Planning
GTM: Global Trade Management
MRP: Manufacturing Resource Planning
PLM: Product Life Cycle Management
TMS: Transportation Management System
WMS: Warehouse Management System
YMS: Yard Management System

Find more. Search here:
BIT.LY/IT-DST

ASC SOFTWARE

937-429-1428
www.ASCsoftware.com

PLATFORM: Cloud/SaaS/Hosted, Local

PRICING: System, Seat/User

INDUSTRIES SERVED: E-Commerce, Manufacturing, Wholesale, Services/Government, Transportation

SUPPLY CHAIN SOLUTIONS: CRM/CX, Demand Management, EDI for Supply Chain, ERP, GTM, Modeling/Forecasting/Predictive Analytics, Supplier/Vendor Management, Supply Chain Control Tower with Vendor Portals

LOGISTICS SOLUTIONS: Inventory Management, Labor Management, Load Planning, Optimization, Procurement, Rate & Bid, Reverse Logistics, RFID, Routing & Scheduling, TMS, WMS, Wireless/Mobile, YMS

ADDITIONAL SOLUTIONS: Asset Management, Capacity, Container/Chassis Management, EDI, IoT/IIoT, Order Management, Process Improvement, Robotics/Automation, Supply Chain Accounting

2020 TOP 100 LOGISTICS IT PROVIDERS

USE THE LOGISTICS IT DECISION SUPPORT TOOL

SEARCH ON ANY OF THESE DATA POINTS TO MATCH YOUR REQUIREMENTS TO THE TOP 100: BIT.LY/IT-DST

AVERCAST

208-538-5380 • www.avercast.com

PLATFORM: Cloud/SaaS/Hosted, Local

PRICING: Transactional, System, Seat/User

INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale

SUPPLY CHAIN SOLUTIONS: Demand Management, Modeling/Forecasting/ Predictive Analytics, PLM, Sales & Operations Planning, Supplier/Vendor Management

LOGISTICS SOLUTIONS: Labor Management, Load Planning, Optimization, Procurement

ADDITIONAL SOLUTIONS: Artificial Intelligence, Capacity, Container/Chassis Management, IoT/IIoT, Machine Learning, Robotics/Automation

BLUE YONDER

833-532-4764
www.blueyonder.com

PLATFORM: Cloud/SaaS/Hosted

PRICING: Seat/User

INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale, Services/Government, Transportation

SUPPLY CHAIN SOLUTIONS: Demand Management, DRP, ERP, Modeling/ Forecasting/Predictive Analytics, MRP, PLM, Sales & Operations Planning, Supplier/Vendor Management, Supply Chain Control Tower

LOGISTICS SOLUTIONS: Auditing/Claims/ Freight Payment, Inventory Management, Labor Management, Load Planning, Optimization, Procurement, Rate & Bid, Reverse Logistics, RFID, Routing & Scheduling, TMS, WMS, Wireless/Mobile, YMS

ADDITIONAL SOLUTIONS: Artificial Intelligence, Asset Management, Big Data Management, Capacity, IoT/IIoT, Machine Learning, Order Management, Process Improvement, Robotics/Automation, Strategic Sourcing

BLUJAY SOLUTIONS

866-584-7280
www.blujaysolutions.com

PLATFORM: Cloud/SaaS/Hosted, Local

PRICING: Transactional

INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale, Services/Government, Transportation

SUPPLY CHAIN SOLUTIONS: GTM, Supply Chain Control Tower

LOGISTICS SOLUTIONS: Load Planning, Optimization, Procurement, Rate & Bid, Reverse Logistics, Routing & Scheduling, TMS, WMS, Wireless/Mobile, YMS

ADDITIONAL SOLUTIONS: EDI

C3 SOLUTIONS

514-315-3139
www.c3solutions.com

PLATFORM: Cloud/SaaS/Hosted

PRICING: Transactional

INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale, Transportation

SUPPLY CHAIN SOLUTIONS: Dock Scheduling and Yard Management Systems

LOGISTICS SOLUTIONS: Dock Capacity Planning, Routing & Scheduling

ADDITIONAL SOLUTIONS: IoT/IIoT

CRM/CX: Customer Relationship Management
DRP: Distribution Resource Planning
ERP: Enterprise Resource Planning
GTM: Global Trade Management
MRP: Manufacturing Resource Planning
PLM: Product Life Cycle Management
TMS: Transportation Management System
WMS: Warehouse Management System
YMS: Yard Management System

Find more. Search here:
BIT.LY/IT-DST

CADRE TECHNOLOGIES

866-252-2373 • www.cadretech.com

PLATFORM: Cloud/SaaS/Hosted, Local

PRICING: Transactional, System, Seat/User

INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale, Transportation

SUPPLY CHAIN SOLUTIONS: Supply Chain Control Tower, Order Management

LOGISTICS SOLUTIONS: Inventory Management, Labor Management, Reverse Logistics, RFID, TMS, WMS, Wireless/Mobile, YMS

ADDITIONAL SOLUTIONS: EDI, Order Management, Process Improvement, Robotics/Automation

CARGOSMART

408-325-7600 • www.cargosmart.ai

PLATFORM: Cloud/SaaS/Hosted

PRICING: Transactional, System

INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale, Services/Government, Transportation

SUPPLY CHAIN SOLUTIONS: CRM/CX, GTM, Security, Supplier/Vendor Management, Supply Chain Control Tower

LOGISTICS SOLUTIONS: Auditing/ Claims/Freight Payment, Optimization, Procurement, Rate & Bid, Routing & Scheduling, TMS, Wireless/Mobile

ADDITIONAL SOLUTIONS: Artificial Intelligence, Blockchain, EDI, IoT/IIoT, Machine Learning

CASS INFORMATION SYSTEMS

314-506-5500 • www.cassinfo.com

PLATFORM: Cloud/SaaS/Hosted

PRICING: Transactional

INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale, Services/Government

LOGISTICS SOLUTIONS: Auditing/Claims/Freight Payment

ADDITIONAL SOLUTIONS: Working Capital Solutions

CHEETAH SOFTWARE

805-373-7111 • www.cheetah.com

PLATFORM: Cloud/SaaS/Hosted

PRICING: Transactional, System, Seat/User

INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale, Services/Government, Transportation

SUPPLY CHAIN SOLUTIONS: DRP, Modeling/Forecasting/Predictive Analytics, Sales & Operations Planning

LOGISTICS SOLUTIONS: Load Planning, Logistics Operations Optimization, Reverse Logistics, Routing & Scheduling, TMS, Wireless/Mobile

ADDITIONAL SOLUTIONS: Artificial Intelligence, Capacity, EDI, Machine Learning, Order Management, Process Improvement, Strategic Sourcing

CLEAR DESTINATION

866-493-0610
www.cleardestination.com

PLATFORM: Cloud/SaaS/Hosted, Local

PRICING: Transactional, System, Seat/User

INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale, Services/Government, Transportation

SUPPLY CHAIN SOLUTIONS: Last-Mile Delivery Management (Big and Bulk)

LOGISTICS SOLUTIONS: TMS

ADDITIONAL SOLUTIONS: Order Management

CLEARTRACK

877-377-4400 • www.cleartrack.com

PLATFORM: Cloud/SaaS/Hosted

PRICING: Transactional, System

INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail

SUPPLY CHAIN SOLUTIONS: GTM, Modeling/Forecasting/Predictive Analytics, PLM, Supplier/Vendor Management, Supply Chain Control Tower

LOGISTICS SOLUTIONS: Auditing/Claims/Freight Payment, Procurement, Rate & Bid, Shipment and Order Visibility

ADDITIONAL SOLUTIONS: Artificial Intelligence, Big Data Management, Container/Chassis Management, EDI, Machine Learning, Order Management, Strategic Sourcing

COMMAND ALKON

770-642-2080
www.commandalkon.com

PLATFORM: Cloud/SaaS/Hosted

PRICING: Transactional, System

INDUSTRIES SERVED: Services/Government, Transportation

SUPPLY CHAIN SOLUTIONS: CRM/CX, Modeling/Forecasting/Predictive Analytics, Supplier/Vendor Management

LOGISTICS SOLUTIONS: Inventory Management, Labor Management, Optimization, Procurement, Rate & Bid, Routing & Scheduling, TMS, Wireless/Mobile

ADDITIONAL SOLUTIONS: Asset Management, Big Data Management, IoT/IIoT, Process Improvement, Supplier Collaboration Network

CT LOGISTICS

216-267-2000 • www.ctlogistics.com

PLATFORM: Cloud/SaaS/Hosted, Local

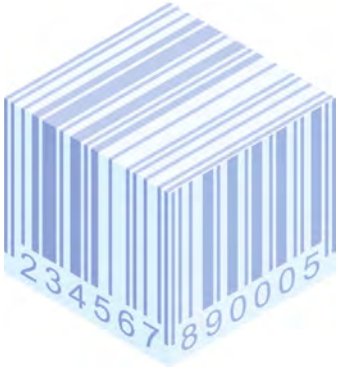
PRICING: Transactional, System, Seat/User

INDUSTRIES SERVED: Manufacturing, Retail, Wholesale, Services/Government, Transportation

SUPPLY CHAIN SOLUTIONS: Modeling/Forecasting/Predictive Analytics, Supplier/Vendor Management, Supply Chain Control Tower

LOGISTICS SOLUTIONS: Auditing/Claims/Freight Payment, Load Planning, Optimization, Procurement, Rate & Bid, Routing & Scheduling, TMS

ADDITIONAL SOLUTIONS: Big Data Management, EDI, IoT/IIoT, Process Improvement



CRM/CX: Customer Relationship Management

DRP: Distribution Resource Planning

ERP: Enterprise Resource Planning

GTM: Global Trade Management

MRP: Manufacturing Resource Planning

PLM: Product Life Cycle Management

TMS: Transportation Management System

WMS: Warehouse Management System

YMS: Yard Management System

Find more. Search here:
BIT.LY/IT-DST

CTSI-GLOBAL

888-836-5135 • ctsi-global.com

PLATFORM: Cloud/SaaS/Hosted

PRICING: Transactional, Seat/User

INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale, Services/Government, Transportation

SUPPLY CHAIN SOLUTIONS: Supplier/Vendor Management

LOGISTICS SOLUTIONS: Auditing/Claims/Freight Payment, Optimization, Routing & Scheduling, TMS

ADDITIONAL SOLUTIONS: Blockchain, EDI, Order Management, Process Improvement

CYBERLOGITEC

855-757-6787
www.cyberlogitec.com

PLATFORM: Cloud/SaaS/Hosted

PRICING: Transactional

INDUSTRIES SERVED: Manufacturing, Services/Government, Transportation

SUPPLY CHAIN SOLUTIONS: GTM, Security

LOGISTICS SOLUTIONS: Optimization, Routing & Scheduling, WMS, Wireless/Mobile

ADDITIONAL SOLUTIONS: Freight Forwarding, Liner Management, Terminal Operating System

2020 TOP 100 LOGISTICS IT PROVIDERS

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CYPRESS INLAND (YARDVIEW)

303-781-3430 • www.yardview.com

PLATFORM: Cloud/SaaS/Hosted

PRICING: Transactional, System

INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale, Services/Government, Transportation

SUPPLY CHAIN SOLUTIONS: YMS

LOGISTICS SOLUTIONS: Auditing/Claims/Freight Payment, Inventory Management, Load Planning, Optimization, Routing & Scheduling, Wireless/Mobile

ADDITIONAL SOLUTIONS: Asset Management, Container/Chassis Management, EDI, Order Management, Process Improvement, Robotics/Automation

DATA2LOGISTICS

609-577-3756
www.data2logistics.com

PLATFORM: Cloud/SaaS/Hosted

PRICING: Transactional, Seat/User

INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale, Services/Government

SUPPLY CHAIN SOLUTIONS: Modeling/Forecasting/Predictive Analytics, Security, Supply Chain Control Tower

LOGISTICS SOLUTIONS: Auditing/Claims/Freight Payment, Procurement, Rate & Bid

ADDITIONAL SOLUTIONS: Big Data Management, Process Improvement, Strategic Sourcing

DATEX

727-571-4159 • www.datexcorp.com

PLATFORM: Cloud/SaaS/Hosted, Local

PRICING: Transactional, System, Seat/User

INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale, Services/Government, Transportation

LOGISTICS SOLUTIONS: Inventory Management, Labor Management, Load Planning, Procurement, Rate & Bid, Reverse Logistics, Routing & Scheduling, WMS, YMS

ADDITIONAL SOLUTIONS: EDI

DELMIA QUINTIQ

610-964-8111 • www.quintiq.com

PLATFORM: Cloud/SaaS/Hosted, Local

PRICING: Seat/User

INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Service/Government, Transportation

SUPPLY CHAIN SOLUTIONS: Sales & Operations Planning

LOGISTICS SOLUTIONS: Inventory Management, Load Planning, Optimization, Reverse Logistics, Routing & Scheduling

ADDITIONAL SOLUTIONS: Order Management

DEMAND MANAGEMENT

800-886-3737
www.demandsolutions.com

PLATFORM: Cloud/SaaS/Hosted, Local

PRICING: Transactional, System, Seat/User

INDUSTRIES SERVED: Manufacturing, Retail, Wholesale, Services/Government

SUPPLY CHAIN SOLUTIONS: Demand Management, Modeling/Forecasting/Predictive Analytics, PLM, Sales & Operations Planning, Supplier/Vendor Management, Supply Chain Control Tower

LOGISTICS SOLUTIONS: Inventory Management, Optimization, Procurement

ADDITIONAL SOLUTIONS: Artificial Intelligence, Big Data Management, Deployment, Machine Learning

CRM/CX: Customer Relationship Management
DRP: Distribution Resource Planning
ERP: Enterprise Resource Planning
GTM: Global Trade Management
MRP: Manufacturing Resource Planning
PLM: Product Life Cycle Management
TMS: Transportation Management System
WMS: Warehouse Management System
YMS: Yard Management System

Find more. Search here:
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DEPOSCO

770-597-4864 • www.deposco.com

PLATFORM: Cloud/SaaS/Hosted

PRICING: Transactional

INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale, Transportation

SUPPLY CHAIN SOLUTIONS: Supply Chain Software

LOGISTICS SOLUTIONS: Inventory Management, Optimization, WMS

ADDITIONAL SOLUTIONS: Order Management, Strategic Sourcing

DESCARTES

519-746-8110 • www.descartes.com

PLATFORM: Cloud/SaaS/Hosted, Local

PRICING: Transactional, System, Seat/User

INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale, Services/Government, Transportation

SUPPLY CHAIN SOLUTIONS: GTM, Modeling/Forecasting/Predictive Analytics, Security, Supply Chain Control Tower

LOGISTICS SOLUTIONS: Auditing/Claims/Freight Payment, Dock Appointment Scheduling, Inventory Management, Load Planning, Optimization, Rate & Bid, Reverse Logistics, Routing & Scheduling, TMS, WMS, Wireless/Mobile, YMS

ADDITIONAL SOLUTIONS: Artificial Intelligence, Asset Management, Big Data Management, Capacity, EDI, IoT/IIoT, Machine Learning, Order Management, Robotics/Automation, Strategic Sourcing

USE THE LOGISTICS IT DECISION SUPPORT TOOL
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2020 TOP 100 LOGISTICS IT PROVIDERS

E2OPEN
866-432-6736 • www.e2open.com

PLATFORM: Cloud/SaaS/Hosted
PRICING: Transactional
INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale, Services/Government, Transportation
SUPPLY CHAIN SOLUTIONS: GTM, PLM, Supplier/Vendor Management
LOGISTICS SOLUTIONS: Inventory Management, Optimization, TMS, WMS, Wireless/Mobile
ADDITIONAL SOLUTIONS: Collaborative Manufacturing, Demand Sensing, Visibility

ELEMICA
770-241-3950 • www.elemica.com

PLATFORM: Cloud/SaaS/Hosted
PRICING: System
INDUSTRIES SERVED: Manufacturing, Transportation
SUPPLY CHAIN SOLUTIONS: Demand Management, GTM, Modeling/Forecasting/Predictive Analytics, Security, Supplier/Vendor Management, Supply Chain Control Tower
LOGISTICS SOLUTIONS: Auditing/Claims/Freight Payment, Load Planning, Optimization, Procurement, Rate & Bid, Reverse Logistics, Routing & Scheduling, TMS, Wireless/Mobile
ADDITIONAL SOLUTIONS: Artificial Intelligence, Asset Management, Big Data Management, Blockchain, EDI, IoT/IIoT, Machine Learning, Order Management, Process Improvement, Strategic Sourcing

enVISTA
317-208-9100
www.envistacorp.com

PLATFORM: Cloud/SaaS/Hosted, Local
PRICING: Transactional, System, Seat/User
INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale, Services/Government, Transportation
SUPPLY CHAIN SOLUTIONS: CRM/CX, Demand Management, ERP, GTM, MRP, PLM, Sales & Operations Planning, Security, Supplier/Vendor Management, Supply Chain Control Tower,
LOGISTICS SOLUTIONS: Auditing/Claims/Freight Payment, Inventory Management, Labor Management, Routing & Scheduling
ADDITIONAL SOLUTIONS: EDI, Order Management, Robotics/Automation, Strategic Sourcing

EPICOR
800-999-1809 • www.epicor.com

PLATFORM: Cloud/SaaS/Hosted
PRICING: Transactional, System, Seat/User
INDUSTRIES SERVED: E-Commerce, Wholesale
SUPPLY CHAIN SOLUTIONS: CRM, Demand Management, DRP, ERP, Modeling, PLM, Sales & Operations Planning, Security, Supplier/Vendor Management
LOGISTICS SOLUTIONS: Inventory Management, Labor Management, Optimization, Procurement, Rate/Bid Management, Routing & Scheduling, WMS, Wireless/Mobile
ADDITIONAL SOLUTIONS: Category Management, EDI, Mobile Order Management, Strategic Sourcing

FLEXE
855-733-7788 • www.flexe.com

PLATFORM: Cloud/SaaS/Hosted
PRICING: Transactional
INDUSTRIES SERVED: E-Commerce, Retail, Transportation
SUPPLY CHAIN SOLUTIONS: Modeling/Forecasting/Predictive Analytics, Supplier/Vendor Management
LOGISTICS SOLUTIONS: WMS

CRM/CX: Customer Relationship Management
DRP: Distribution Resource Planning
ERP: Enterprise Resource Planning
GTM: Global Trade Management
MRP: Manufacturing Resource Planning
PLM: Product Life Cycle Management
TMS: Transportation Management System
WMS: Warehouse Management System
YMS: Yard Management System

Find more. Search here:
BIT.LY/IT-DST

FLOW SPACE
323-741-1325
www.flow.space/wms

PLATFORM: Cloud/SaaS/Hosted
PRICING: Transactional
INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale
SUPPLY CHAIN SOLUTIONS: Fulfillment
LOGISTICS SOLUTIONS: Inventory Management, WMS
ADDITIONAL SOLUTIONS: Warehouse Storage

FORTIGO
512-372-8884 • www.fortigo.com

PLATFORM: Cloud/SaaS/Hosted
PRICING: Transactional
INDUSTRIES SERVED: Retail, Wholesale, Transportation
SUPPLY CHAIN SOLUTIONS: Supply Chain Control Tower
LOGISTICS SOLUTIONS: Auditing/Claims/Freight Payment, Optimization, TMS, Wireless/Mobile
ADDITIONAL SOLUTIONS: EDI

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FOXFIRE SOFTWARE

864-630-3238
www.foxfiresoftware.com

PLATFORM: Cloud/SaaS/Hosted, Local

PRICING: System

INDUSTRIES SERVED: Manufacturing, Retail, Wholesale, Transportation

SUPPLY CHAIN SOLUTIONS: Demand Management, Supply Chain Control Tower

LOGISTICS SOLUTIONS: Inventory Management, WMS, YMS

ADDITIONAL SOLUTIONS: Process Improvement

FREIGHT MANAGEMENT

714-397-3262
www.freightmgmt.com

PLATFORM: Cloud/SaaS/Hosted

PRICING: Transactional

INDUSTRIES SERVED: Manufacturing, Retail, Wholesale

SUPPLY CHAIN SOLUTIONS: ERP, Modeling/Forecasting/Predictive Analytics, Supplier/Vendor Management, Supply Chain Control Tower

LOGISTICS SOLUTIONS: Auditing/Claims/Freight Payment, Load Planning, Optimization, Procurement, Rate & Bid, Reverse Logistics, Routing & Scheduling, TMS

ADDITIONAL SOLUTIONS: EDI, Process Improvement, Strategic Sourcing

CRM/CX: Customer Relationship Management
DRP: Distribution Resource Planning
ERP: Enterprise Resource Planning
GTM: Global Trade Management
MRP: Manufacturing Resource Planning
PLM: Product Life Cycle Management
TMS: Transportation Management System
WMS: Warehouse Management System
YMS: Yard Management System

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FREIGHTGATE

714-799-2833
www.freightgate.com

PLATFORM: Cloud/SaaS/Hosted, Local

PRICING: Transactional, System, Seat/User

INDUSTRIES SERVED: Transportation

SUPPLY CHAIN SOLUTIONS: CRM/CX, Demand Management, ERP, Modeling/Forecasting/Predictive Analytics, PLM, Sales & Operations Planning, Security, Supplier/Vendor Management, Supply Chain Control Tower

LOGISTICS SOLUTIONS: Inventory Management, Labor Management, Load Planning, Optimization, Rate & Bid, Reverse Logistics, RFID, Routing & Scheduling, Wireless/Mobile

ADDITIONAL SOLUTIONS: Container/Chassis Management, EDI, Order Management, Process Improvement, Strategic Sourcing

GTG TECHNOLOGY GROUP

281-826-5750
www.gtgtechnologygroup.com

PLATFORM: Cloud/SaaS/Hosted

PRICING: Transactional, System

INDUSTRIES SERVED: Transportation

SUPPLY CHAIN SOLUTIONS: Sales & Operations Planning

LOGISTICS SOLUTIONS: Auditing/Claims/Freight Payment, Inventory Management, Load Planning, Optimization, Rate & Bid, Routing & Scheduling, TMS, Wireless/Mobile, YMS

ADDITIONAL SOLUTIONS: Artificial Intelligence, Asset Management, Capacity, Container/Chassis Management, EDI, Machine Learning, Order Management, Process Improvement

HIGHJUMP

800-328-3271 • www.highjump.com

PLATFORM: Cloud/SaaS/Hosted, Local

PRICING: Transactional

INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale, Transportation

SUPPLY CHAIN SOLUTIONS: Supply Chain Management

LOGISTICS SOLUTIONS: Inventory Management, Labor Management, Reverse Logistics, Routing & Scheduling, TMS, WMS, YMS

ADDITIONAL SOLUTIONS: Order Management, Process Improvement, Robotics/Automation

HIGHWAY 905

908-874-4867
www.highway905.com

PLATFORM: Cloud/SaaS/Hosted

PRICING: Transactional, System

INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale, Transportation

SUPPLY CHAIN SOLUTIONS: Modeling/Forecasting/Predictive Analytics, Supply Chain Control Tower

LOGISTICS SOLUTIONS: Auditing/Claims/Freight Payment, Inventory Management, Load Planning, Optimization, Procurement, Reverse Logistics, RFID, Routing & Scheduling, TMS, WMS, Wireless/Mobile

ADDITIONAL SOLUTIONS: Big Data Management, EDI, Order Management, Process Improvement, Strategic Sourcing

INFO-X

646-915-0333 • www.infoxusa.com

PLATFORM: Cloud/SaaS/Hosted, Local

PRICING: Transactional, System, Seat/User

INDUSTRIES SERVED: Retail, Transportation

SUPPLY CHAIN SOLUTIONS: CRM/CX, Demand Management, GTM, Modeling/Forecasting/Predictive Analytics, PLM, Sales & Operations Planning

LOGISTICS SOLUTIONS: Auditing/Claims/Freight Payment, Compliance, Data Feed Services for Global Ocean Scheduling, Inventory Management, Load Planning, Optimization, Rate & Bid, TMS, WMS

ADDITIONAL SOLUTIONS: Satellite Tracking System

INFOR

800-244-5479 • www.infor.com

PLATFORM: Cloud/SaaS/Hosted

PRICING: Transactional, Seat/User

INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale, Services/Government, Transportation

SUPPLY CHAIN SOLUTIONS: Demand Management, DRP, ERP, GTM, MRP, Modeling/Forecasting/Predictive Analytics, PLM, Sales & Operations Planning, Security, Supplier/Vendor Management, Supply Chain Control Tower

LOGISTICS SOLUTIONS: Auditing/Claims/Freight Payment, Inventory Management, Labor Management, Load Planning, Optimization, Procurement, Rate & Bid, Reverse Logistics, Routing & Scheduling, TMS, WMS, Wireless/Mobile, YMS

ADDITIONAL SOLUTIONS: Big Data Management, Blockchain, Capacity, EDI, IoT/IIoT, Machine Learning, Order Management, Process Improvement, Strategic Sourcing

CRM/CX: Customer Relationship Management
DRP: Distribution Resource Planning
ERP: Enterprise Resource Planning
GTM: Global Trade Management
MRP: Manufacturing Resource Planning
PLM: Product Life Cycle Management
TMS: Transportation Management System
WMS: Warehouse Management System
YMS: Yard Management System

Find more. Search here:
BIT.LY/IT-DST

INTELLIGENT AUDIT

201-880-1110
www.intelligentaudit.com

PLATFORM: Cloud/SaaS/Hosted

PRICING: System, Seat/User

INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale

SUPPLY CHAIN SOLUTIONS: Modeling/Forecasting/Predictive Analytics

LOGISTICS SOLUTIONS: Auditing/Claims/Freight Payment, Load Planning, Optimization

ADDITIONAL SOLUTIONS: Artificial Intelligence, Big Data Management, Blockchain, Machine Learning

INTELLITRANS

800-551-8851
www.intellitrans.com

PLATFORM: Cloud/SaaS/Hosted

PRICING: Transactional

INDUSTRIES SERVED: Manufacturing, Wholesale, Services/Government, Transportation

SUPPLY CHAIN SOLUTIONS: Demand Management, Modeling/Forecasting/Predictive Analytics, Sales & Operations Planning, Supplier/Vendor Management, Supply Chain Control Tower, TMS

LOGISTICS SOLUTIONS: Auditing/Claims/Freight Payment, Inventory Management, Load Planning, Optimization, Procurement, Rate & Bid, RFID, Shipment Visibility, WMS, Wireless/Mobile, YMS

ADDITIONAL SOLUTIONS: Big Data Management, Capacity, EDI, IoT/IIoT, Machine Learning, Order Management, Process Improvement, Strategic Sourcing

INTERLINK TECHNOLOGIES

419-893-9011
www.thinkinterlink.com

PLATFORM: Cloud/SaaS/Hosted, Local

PRICING: Seat/User

INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale, Transportation

SUPPLY CHAIN SOLUTIONS: Demand Management, Modeling/Forecasting/Predictive Analytics, Sales & Operations Planning

LOGISTICS SOLUTIONS: Inventory Management, Labor Management, Load Planning, Optimization, Reverse Logistics, Routing & Scheduling, WMS

ADDITIONAL SOLUTIONS: Robotics/Automation, EDI, Order Management, Process Improvement

KLEINSCHMIDT

847-945-1000
www.kleinschmidt.com

PLATFORM: Cloud/SaaS/Hosted

PRICING: Transactional

INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale, Services/Government, Transportation

SUPPLY CHAIN SOLUTIONS: E-Commerce

LOGISTICS SOLUTIONS: TMS

ADDITIONAL SOLUTIONS: Blockchain, EDI

LLAMASOFT

734-418-3120 • www.llamasoft.com

PLATFORM: Cloud/SaaS/Hosted, Local

PRICING: Transactional

INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale, Services/Government, Transportation

SUPPLY CHAIN SOLUTIONS: Demand Management, Modeling/Forecasting/Predictive Analytics, Enterprise Decision-Making Platform

LOGISTICS SOLUTIONS: Inventory Management, Optimization, Reverse Logistics, Routing & Scheduling

ADDITIONAL SOLUTIONS: Artificial Intelligence, Capacity Solutions, Machine Learning, Process Improvement

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LOG-NET

732-758-6800 • www.log-net.com

PLATFORM: Cloud/SaaS/Hosted

PRICING: Transactional, System, Seat/User

INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale, Services/Government, Transportation

SUPPLY CHAIN SOLUTIONS: CRM/CX, Demand Management, DRP, ERP, GTM, MRP, Modeling/Forecasting/Predictive Analytics, PLM, Sales & Operations Planning, Security, Supplier/Vendor Management, Supply Chain Control Tower

LOGISTICS SOLUTIONS: Auditing/Claims/Freight Payment, Inventory Management, Load Planning, Optimization, Procurement, Rate & Bid, Reverse Logistics, RFID, Routing & Scheduling, TMS, WMS, Wireless/Mobile, YMS

ADDITIONAL SOLUTIONS: Big Data Management, Capacity, Container/Chassis Management, EDI, Machine Learning, Order Management, Process Improvement, Strategic Sourcing

LOGILITY

800-762-5207 • www.logility.com

PLATFORM: Cloud/SaaS/Hosted, Local

PRICING: Transactional, System, Seat/User

INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale, Transportation

SUPPLY CHAIN SOLUTIONS: Demand Management, Modeling/Forecasting/Predictive Analytics, PLM, Sales & Operations Planning, Supplier/Vendor Management, Supply Chain Control Tower

LOGISTICS SOLUTIONS: Inventory Management, Optimization

ADDITIONAL SOLUTIONS: Big Data Management, Machine Learning

LOGISTICAL LABS

312-999-9762
www.logisticallabs.com

PLATFORM: Cloud/SaaS/Hosted

PRICING: Seat/User

INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale, Services/Government, Transportation

SUPPLY CHAIN SOLUTIONS: CRM/CX, Modeling/Forecasting/Predictive Analytics, Sales & Operations Planning, Supplier/Vendor Management

LOGISTICS SOLUTIONS: Load Planning, Optimization, Procurement, Rate & Bid, Routing & Scheduling, TMS

ADDITIONAL SOLUTIONS: Big Data Management, Capacity, Process Improvement, Strategic Sourcing

LOGISTIVIEW

919-800-0018
www.logistiview.com

PLATFORM: Cloud/SaaS/Hosted, Local

PRICING: Seat/User

INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale, Services/Government, Transportation

LOGISTICS SOLUTIONS: Digital Workforce Platform, Labor Management, Optimization, Wireless/Mobile

ADDITIONAL SOLUTIONS: Process Improvement, Workforce Augmented Reality

LOGISTIX SOLUTIONS

703-203-1274
www.logistixsolutions.com

PLATFORM: Cloud/SaaS/Hosted, Local

PRICING: Transactional, System, Seat/User

INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale, Services/Government, Transportation

SUPPLY CHAIN SOLUTIONS: Demand Management, Modeling/Forecasting/Predictive Analytics, PLM, Supply Chain Control Tower

LOGISTICS SOLUTIONS: Inventory Management, Labor Management, Load Planning, Optimization, Reverse Logistics, Routing & Scheduling, TMS

ADDITIONAL SOLUTIONS: Capacity, Order Management, Process Improvement, Strategic Sourcing

MADE4NET

201-645-4345 • www.made4net.us

PLATFORM: Cloud/SaaS/Hosted, Local

PRICING: Seat/User

INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale, Transportation

SUPPLY CHAIN SOLUTIONS: WMS

LOGISTICS SOLUTIONS: Inventory Management, Labor Management, Routing & Scheduling, TMS, YMS

CRM/CX: Customer Relationship Management
DRP: Distribution Resource Planning
ERP: Enterprise Resource Planning
GTM: Global Trade Management
MRP: Manufacturing Resource Planning
PLM: Product Life Cycle Management
TMS: Transportation Management System
WMS: Warehouse Management System
YMS: Yard Management System

Find more. Search here:
BIT.LY/IT-DST

MAGAYA

786-845-9150 • www.magaya.com

PLATFORM: Cloud/SaaS/Hosted, Local

PRICING: Transactional, System

INDUSTRIES SERVED: E-Commerce, Retail, Wholesale, Transportation

SUPPLY CHAIN SOLUTIONS: Demand Management, Sales & Operations Planning

LOGISTICS SOLUTIONS: Inventory Management, Optimization, RFID, WMS

ADDITIONAL SOLUTIONS: Order Management, Process Improvement

MAGICLOGIC OPTIMIZATION

206-274-6248
www.magiclogic.com

PLATFORM: Cloud/SaaS/Hosted, Local

PRICING: Transactional, System, Seat/User

INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale, Services/Government, Transportation

SUPPLY CHAIN SOLUTIONS: Load Planning

LOGISTICS SOLUTIONS: Optimization

ADDITIONAL SOLUTIONS: Artificial Intelligence, Machine Learning, Robotics/Automation, Process Improvement

MANHATTAN ASSOCIATES

877-596-9208 • www.manh.com

PLATFORM: Cloud/SaaS/Hosted, Local

PRICING: Transactional, System, Seat/User

INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale, Services/Government, Transportation

SUPPLY CHAIN SOLUTIONS: Modeling/Forecasting/Predictive Analytics, Sales & Operations Planning, Supplier/Vendor Management

LOGISTICS SOLUTIONS: Inventory Management, Labor Management, Optimization, Procurement, Reverse Logistics, RFID, Routing & Scheduling, TMS, WMS, Wireless/Mobile, YMS

ADDITIONAL SOLUTIONS: Capacity, Machine Learning, Order Management, Process Improvement, Robotics/Automation

MANTIS

678-784-4015 • www.mantis.group

PLATFORM: Cloud/SaaS/Hosted, Local

PRICING: System, Seat/User

INDUSTRIES SERVED: E-Commerce, Retail, Wholesale, Transportation

SUPPLY CHAIN SOLUTIONS: Modeling/Forecasting/Predictive Analytics, PLM

LOGISTICS SOLUTIONS: Business Intelligence, Dock Scheduling, Gate Management, Inventory Management, Labor Management, Light-Directed, Voice-Directed, Vision-Oriented Picking & Put-Away, Optimization, Reverse Logistics, RFID, Routing & Scheduling, WMS, Wireless/Mobile, YMS

ADDITIONAL SOLUTIONS: Robotics/Automation, Container/Chassis Management, EDI, Order Management, Process Improvement

McLEOD SOFTWARE

205-823-5100
www.mcleodsoftware.com

PLATFORM: Cloud/SaaS/Hosted, Local

PRICING: Seat/User

INDUSTRIES SERVED: Transportation

SUPPLY CHAIN SOLUTIONS: CRM/CX, ERP, Modeling/Forecasting/Predictive Analytics

LOGISTICS SOLUTIONS: Auditing/Claims/Freight Payment, Load Planning, Optimization, Rate & Bid, Routing & Scheduling, TMS

ADDITIONAL SOLUTIONS: Big Data Management, Blockchain, Container/Chassis Management, EDI, Machine Learning, Order Management, Strategic Sourcing

MERCURYGATE

919-469-8057 • mercurygate.com

PLATFORM: Cloud/SaaS/Hosted

PRICING: Transactional, System

INDUSTRIES SERVED: Manufacturing, Retail, Wholesale, Transportation

SUPPLY CHAIN SOLUTIONS: Supply Chain Control Tower, Transportation Management

LOGISTICS SOLUTIONS: Load Planning, Optimization, Procurement, Rate & Bid, Routing & Scheduling, TMS

CRM/CX: Customer Relationship Management
DRP: Distribution Resource Planning
ERP: Enterprise Resource Planning
GTM: Global Trade Management
MRP: Manufacturing Resource Planning
PLM: Product Life Cycle Management
TMS: Transportation Management System
WMS: Warehouse Management System
YMS: Yard Management System

Find more. Search here:
BIT.LY/IT-DST

MP OBJECTS

646-520-0841 • www.mpo.com

PLATFORM: Cloud/SaaS/Hosted

PRICING: Transactional

INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale, Transportation

SUPPLY CHAIN SOLUTIONS: Supplier/Vendor Management, Supply Chain Control Tower, Transportation Management

LOGISTICS SOLUTIONS: Auditing/Claims/Freight Payment, Inventory Management, Load Planning, Optimization, Order Management, Reverse Logistics, Spare Parts, TMS

ADDITIONAL SOLUTIONS: Order Management, Process Improvement

2020 TOP 100 LOGISTICS IT PROVIDERS

USE THE LOGISTICS IT DECISION SUPPORT TOOL

SEARCH ON ANY OF THESE DATA POINTS TO MATCH YOUR REQUIREMENTS TO THE TOP 100: BIT.LY/IT-DST

NAVEGATE

651-379-5030 • www.navegate.com

PLATFORM: Cloud/SaaS/Hosted

PRICING: Transactional, System

INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale, Services/Government, Transportation

SUPPLY CHAIN SOLUTIONS: Demand Management, ERP, GTM, Landed Cost Management, Modeling/Forecasting/Predictive Analytics, PLM, Sales & Operations Planning, Security, Supplier/Vendor Management, Supply Chain Control Tower

LOGISTICS SOLUTIONS: Inventory Management, Labor Management, Load Planning, Optimization, Procurement, Rate & Bid, Routing & Scheduling, TMS, Track and Trace, Wireless/Mobile

ADDITIONAL SOLUTIONS: Artificial Intelligence, Asset Management, Big Data Management, Capacity, Container/Chassis Management, EDI, Machine Learning, Order Management, Process Improvement, Self AES Filing, Strategic Sourcing

NGC SOFTWARE

800-690-0642
www.ngcsoftware.com

PLATFORM: Cloud/SaaS/Hosted, Local

PRICING: Seat/User

INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale

SUPPLY CHAIN SOLUTIONS: Demand Management, ERP, Modeling/Forecasting/Predictive Analytics, PLM, Sales & Operations Planning, Supplier/Vendor Management, Supply Chain Control Tower

LOGISTICS SOLUTIONS: Inventory Management, Load Planning

ADDITIONAL SOLUTIONS: Artificial Intelligence, Big Data Management, Capacity, EDI, Machine Learning, Order Management, Process Improvement, Strategic Sourcing

NULOGX

416-816-3341 • www.nulogx.com

PLATFORM: Cloud/SaaS/Hosted, Local

PRICING: Transactional, System, Seat/User

INDUSTRIES SERVED: E-Commerce, Retail, Wholesale, Transportation

SUPPLY CHAIN SOLUTIONS: Supply Chain Control Tower

LOGISTICS SOLUTIONS: Auditing/Claims/Freight Payment, Load Planning, Optimization, Rate & Bid, Reverse Logistics, Routing & Scheduling, TMS

ADDITIONAL SOLUTIONS: EDI

nVISION GLOBAL

770-474-4122
www.nvisionglobal.com

PLATFORM: Cloud/SaaS/Hosted, Local

PRICING: Transactional, System

INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale, Transportation

SUPPLY CHAIN SOLUTIONS: ERP, Modeling/Forecasting/Predictive Analytics, Supplier/Vendor Management, Supply Chain Control Tower

LOGISTICS SOLUTIONS: Auditing/Claims/Freight Payment, Optimization, Procurement, Rate & Bid, Routing & Scheduling, TMS

ADDITIONAL SOLUTIONS: Big Data Management, EDI, Order Management, Strategic Sourcing

CRM/CX: Customer Relationship Management
DRP: Distribution Resource Planning
ERP: Enterprise Resource Planning
GTM: Global Trade Management
MRP: Manufacturing Resource Planning
PLM: Product Life Cycle Management
TMS: Transportation Management System
WMS: Warehouse Management System
YMS: Yard Management System

Find more. Search here:
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OMNICHAIN

310-696-1503
www.omnichains.com

PLATFORM: Cloud/SaaS/Hosted

PRICING: Transactional

INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale, Transportation

SUPPLY CHAIN SOLUTIONS: Demand Management, ERP, Modeling/Forecasting/Predictive Analytics, Network Orchestration, Omnichannel Merchandising, Product Lifecycle Management, Sales & Operations Planning, Security, Supplier/Vendor Management, Supply Chain Control Tower, Supply MPS/MRP

LOGISTICS SOLUTIONS: Inventory Management, Load Planning, Optimization, Procurement, Reverse Logistics, Routing & Scheduling, TMS, WMS, Wireless/Mobile

ADDITIONAL SOLUTIONS: Artificial Intelligence, Asset Management, Big Data Management, Blockchain, Capacity Solutions, EDI, IoT/IIoT, Machine Learning, Order Management, Process Improvement, Repair/Refurbishment Process Automation, Robotics/Automation, Strategic Sourcing

OPTORO

908-578-8303 • www.optoro.com

PLATFORM: Cloud/SaaS/Hosted

PRICING: Transactional

INDUSTRIES SERVED: Retail

SUPPLY CHAIN SOLUTIONS: Returns Optimization Platform

LOGISTICS SOLUTIONS: Reverse Logistics

ADDITIONAL SOLUTIONS: Machine Learning

USE THE LOGISTICS IT DECISION SUPPORT TOOL

SEARCH ON ANY OF THESE DATA POINTS TO MATCH YOUR REQUIREMENTS TO THE TOP 100: BIT.LY/IT-DST

OPTRICITY

919-237-4846 • www.optricity.com

PLATFORM: Local

PRICING: Seat/User

INDUSTRIES SERVED: E-Commerce, Retail, Wholesale, Services/Government, Transportation

SUPPLY CHAIN SOLUTIONS: Modeling/Forecasting/Predictive Analytics, Profiling, Slotting Optimization

LOGISTICS SOLUTIONS: Optimization

ADDITIONAL SOLUTIONS: Integration, Process Improvement

ORACLE NETSUITE

877-638-7848 • www.netsuite.com

PLATFORM: Cloud/SaaS/Hosted, Local

PRICING: Transactional, System, Seat/User

INDUSTRIES SERVED: E-Commerce, Retail, Wholesale, Services/Government, Transportation

SUPPLY CHAIN SOLUTIONS: CRM, Demand Management, DRP, ERP, GTM, MRP, Modeling, PLM, Sales & Operations Planning, Security, Supplier/Vendor Management, Supply Chain Control Tower

LOGISTICS SOLUTIONS: Auditing/Claims/Freight Payment, Inventory Management, Labor Management, Load Planning, Optimization, Procurement, Rate & Bid, Reverse Logistics, Routing & Scheduling, TMS, WMS, Wireless/Mobile, YMS

ADDITIONAL SOLUTIONS: Category Management, Container/Chassis Management, EDI, Mobile Order Management, Strategic Sourcing

PARAGON SOFTWARE

972-731-4308
www.paragonrouting.com

PLATFORM: Cloud/SaaS/Hosted, Local

PRICING: System

INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale, Transportation

SUPPLY CHAIN SOLUTIONS: GTM, Route Planning & Execution

LOGISTICS SOLUTIONS: Optimization, Routing & Scheduling, TMS

ADDITIONAL SOLUTIONS: Proof-of-Delivery Software

PIERBRIDGE

508-630-1220
www.pierbridge.com

PLATFORM: Cloud/SaaS/Hosted, Local

PRICING: Transactional, System, Seat/User

INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale, Services/Government, Transportation

SUPPLY CHAIN SOLUTIONS: CRM/CX, Modeling/Forecasting/Predictive Analytics, Security Supplier/Vendor Management

LOGISTICS SOLUTIONS: Inventory Management, TMS, WMS

ADDITIONAL SOLUTIONS: Enterprise Management, Inbound Shipping Quotes & Execution, Visibility

PINC

510-474-7500 • www.pinc.com

PLATFORM: Cloud/SaaS/Hosted

PRICING: Transactional, System

INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale, Services/Government, Transportation

LOGISTICS SOLUTIONS: Inventory Management, RFID, YMS

ADDITIONAL SOLUTIONS: Artificial Intelligence, Asset Management, Container/Chassis Management, IoT/IIoT, Machine Learning, Robotics/Automation

CRM/CX: Customer Relationship Management
DRP: Distribution Resource Planning
ERP: Enterprise Resource Planning
GTM: Global Trade Management
MRP: Manufacturing Resource Planning
PLM: Product Life Cycle Management
TMS: Transportation Management System
WMS: Warehouse Management System
YMS: Yard Management System

Find more. Search here:
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PRINCETON TMX

800-435-4691
www.princetontmx.com

PLATFORM: Cloud/SaaS/Hosted

PRICING: Transactional

INDUSTRIES SERVED: Manufacturing, Retail, Wholesale, Transportation

SUPPLY CHAIN SOLUTIONS: CRM/CX, Demand Management, Modeling/Forecasting/Predictive Analytics, Supplier/Vendor Management, Supply Chain Control Tower

LOGISTICS SOLUTIONS: Auditing/Claims/Freight Payment, Dock Management, Inventory Management, Load Building, Load Planning, Optimization, Procurement, Rate & Bid, Real-Time Track & ETA, Routing & Scheduling, Tender & Execution Management, TMS, Wireless/Mobile, YMS

ADDITIONAL SOLUTIONS: Blockchain, Big Data Management, Capacity Solutions, EDI, IoT/IIoT, Order Management, Process Improvement, Strategic Sourcing

2020 TOP 100 LOGISTICS IT PROVIDERS

USE THE LOGISTICS IT DECISION SUPPORT TOOL

SEARCH ON ANY OF THESE DATA POINTS TO MATCH YOUR REQUIREMENTS TO THE TOP 100: BIT.LY/IT-DST

PROACT INTERNATIONAL

+44(0)174-581-6315
www.proact.net

PLATFORM: Cloud/SaaS/Hosted

PRICING: System, Seat/User

INDUSTRIES SERVED: Manufacturing, Retail, Wholesale, Services/Government, Transportation

SUPPLY CHAIN SOLUTIONS: GTM, Supply Chain Control Tower, Yard Management

LOGISTICS SOLUTIONS: Inventory Management, Load Planning, Optimization, Procurement, Routing & Scheduling, TMS, WMS, Wireless/Mobile, YMS

ADDITIONAL SOLUTIONS: Container/Chassis Management, Order Management

PROJECT44

312-376-8883 • www.project44.com

PLATFORM: Cloud/SaaS/Hosted

PRICING: Transactional

INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale, Transportation

SUPPLY CHAIN SOLUTIONS: Modeling/Forecasting/Predictive Analytics, Security, Supply Chain Control Tower, Visibility

LOGISTICS SOLUTIONS: Auditing/Claims/Freight Payment, Load Planning, Optimization, Rate & Bid, Routing & Scheduling, Visibility

ADDITIONAL SOLUTIONS: Big Data Management

CRM/CX: Customer Relationship Management
DRP: Distribution Resource Planning
ERP: Enterprise Resource Planning
GTM: Global Trade Management
MRP: Manufacturing Resource Planning
PLM: Product Life Cycle Management
TMS: Transportation Management System
WMS: Warehouse Management System
YMS: Yard Management System

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QUESTAWEB

908-233-2300
www.questaweb.com

PLATFORM: Cloud/SaaS/Hosted, Local

PRICING: Transactional, System, Seat/User

INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Transportation

SUPPLY CHAIN SOLUTIONS: GTM, Security, Supply Chain Control Tower

LOGISTICS SOLUTIONS: Global Trade Management

ADDITIONAL SOLUTIONS: Order Management, Process Improvement, Strategic Sourcing

RATELINX

262-565-6150 • www.ratelinx.com

PLATFORM: Cloud/SaaS/Hosted, Local

PRICING: Transactional, System

INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale

SUPPLY CHAIN SOLUTIONS: Modeling/Forecasting/Predictive Analytics

LOGISTICS SOLUTIONS: Auditing/Claims/Freight Payment, Load Planning, Logistics Data, Optimization, Procurement, Rate & Bid, Routing & Scheduling, TMS

ADDITIONAL SOLUTIONS: Artificial Intelligence/Machine Learning, Big Data Management, Process Improvement, Strategic Sourcing

SAAS TRANSPORTATION

901-832-2401
www.saastransportation.com

PLATFORM: Cloud/SaaS/Hosted

PRICING: System, Seat/User

INDUSTRIES SERVED: Manufacturing, Transportation

SUPPLY CHAIN SOLUTIONS: Modeling/Forecasting/Predictive Analytics, Supplier/Vendor Management

LOGISTICS SOLUTIONS: Auditing/Claims/Freight Payment, Load Planning, Optimization, Rate & Bid, Routing & Scheduling, TMS

ADDITIONAL SOLUTIONS: EDI, Order Management, Process Improvement

SAP

800-872-1727 • www.sap.com

PLATFORM: Cloud/SaaS/Hosted, Local

PRICING: Transactional, System, Seat/User

INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale, Services/Government, Transportation

SUPPLY CHAIN SOLUTIONS: Demand & Supply Planning, PLM, Sales & Operations Planning, Visibility

ADDITIONAL SOLUTIONS: AI, Predictive Analytics, Strategic Sourcing

SHIPPERSEDGE

952-224-2400
www.shippersedgeTMS.com

PLATFORM: Cloud/SaaS/Hosted

PRICING: Transactional

INDUSTRIES SERVED: E-Commerce, Manufacturing, Wholesale, Transportation

SUPPLY CHAIN SOLUTIONS: Supplier/Vendor Management

LOGISTICS SOLUTIONS: Auditing/Claims/Freight Payment, Custom Applications, Dock Scheduling, Load Planning, Optimization, Rate & Bid, Reverse Logistics, Routing & Scheduling, TMS

ADDITIONAL SOLUTIONS: API Development, EDI, IoT/IIoT, Process Improvement

SMC³

800-845-8090 • www.smc3.com

PLATFORM: Cloud/SaaS/Hosted, Local

PRICING: Transactional

INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale, Services/Government, Transportation

SUPPLY CHAIN SOLUTIONS: Modeling/Forecasting/Predictive Analytics

LOGISTICS SOLUTIONS: Auditing/Claims/Freight Payment, Optimization, Procurement, Rate & Bid, Routing & Scheduling

ADDITIONAL SOLUTIONS: API, EDI, Strategic Sourcing

USE THE LOGISTICS IT DECISION SUPPORT TOOL
SEARCH ON ANY OF THESE DATA POINTS TO MATCH YOUR REQUIREMENTS TO THE TOP 100: BIT.LY/IT-DST

2020 TOP 100 LOGISTICS IT PROVIDERS

SOFTEON
703-793-0005 • www.softeon.com

PLATFORM: Cloud/SaaS/Hosted, Local
PRICING: Transactional, Seat/User
INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Services/Government, Transportation
SUPPLY CHAIN SOLUTIONS: Demand Management, Supplier/Vendor Management, Supply Chain Control Tower
LOGISTICS SOLUTIONS: Inventory Management, Labor Management, Load Planning, Optimization, Procurement, Reverse Logistics, Routing & Scheduling, TMS, WMS, Wireless/Mobile, YMS
ADDITIONAL SOLUTIONS: Artificial Intelligence, Machine Learning, Order Management, Robotics/Automation, Warehouse Execution System

SPHEREWMS
818-678-2601
www.spherewms.com

PLATFORM: Cloud/SaaS/Hosted
PRICING: System
INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale, Services/Government, Transportation
LOGISTICS SOLUTIONS: Inventory Management, Labor Management, Reverse Logistics, RFID, WMS, Wireless/Mobile
ADDITIONAL SOLUTIONS: Asset Management, EDI, Order Management

SUPPLY VISION
847-388-0065
www.supply-vision.com

PLATFORM: Cloud/SaaS/Hosted
PRICING: Seat/User
INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale, Services/Government, Transportation
SUPPLY CHAIN SOLUTIONS: ERP, Supply Chain Control Tower
LOGISTICS SOLUTIONS: Inventory Management, Load Planning, Optimization, Rate & Bid, Reverse Logistics, Routing & Scheduling, TMS, WMS, Wireless/Mobile
ADDITIONAL SOLUTIONS: EDI, Order Management, Process Improvement

SYNERGY (SNAPFULFIL)
720-372-1250 • www.snapfulfil.com

PLATFORM: Cloud/SaaS/Hosted
PRICING: Transactional, System, Seat/User
INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale, Transportation
LOGISTICS SOLUTIONS: Inventory Management, WMS
ADDITIONAL SOLUTIONS: Robotics/Automation

SYSTEMS LOGIC
519-740-2580
www.warehouseinabox.com

PLATFORM: Cloud/SaaS/Hosted, Local
PRICING: System, Seat/User
INDUSTRIES SERVED: E-Commerce, Manufacturing, Wholesale, Transportation
SUPPLY CHAIN SOLUTIONS: Demand Management, ERP, Supplier/Vendor Management, Supply Chain Control Tower
LOGISTICS SOLUTIONS: Inventory Management, Load Planning, Optimization, Procurement, Reverse Logistics, RFID, Routing & Scheduling, WMS, Wireless/Mobile
ADDITIONAL SOLUTIONS: Big Data Management, EDI, Order Management, Process Improvement

TECSYS
514-866-0001 • www.tecsys.com

PLATFORM: Cloud/SaaS/Hosted, Local
PRICING: Transactional, System, Seat/User
INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale, Services/Government, Transportation
SUPPLY CHAIN SOLUTIONS: Demand Management, Supply Chain Control Tower
LOGISTICS SOLUTIONS: Inventory Management, Optimization, Procurement, Routing & Scheduling, TMS, WMS
ADDITIONAL SOLUTIONS: Order Management, Process Improvement

TIVE
617-631-8483 • www.tive.co

PLATFORM: Cloud/SaaS/Hosted
PRICING: Transactional, System
INDUSTRIES SERVED: Manufacturing, Retail, Transportation
SUPPLY CHAIN SOLUTIONS: Supply Chain Control Tower, Visibility
ADDITIONAL SOLUTIONS: IoT/IIoT Solutions, Big Data Management

TRANSPOREON
267-281-1555
www.transporeon.com

PLATFORM: Cloud/SaaS/Hosted
PRICING: Transactional
INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale, Transportation
LOGISTICS SOLUTIONS: Auditing/Claims/Freight Payment, Load Planning, Optimization, Procurement, Rate & Bid, TMS
ADDITIONAL SOLUTIONS: Big Data Management, Capacity Solutions, EDI, Strategic Sourcing

CRM/CX: Customer Relationship Management
DRP: Distribution Resource Planning
ERP: Enterprise Resource Planning
GTM: Global Trade Management
MRP: Manufacturing Resource Planning
PLM: Product Life Cycle Management
TMS: Transportation Management System
WMS: Warehouse Management System
YMS: Yard Management System

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TRANSPORTGISTICS

631-567-4100
www.transportgistics.com

PLATFORM: Cloud/SaaS/Hosted, Local

PRICING: Transactional, System, Seat/User

INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale, Services/Government, Transportation

SUPPLY CHAIN SOLUTIONS: GTM, Supplier/Vendor Management, Supply Chain Control Tower

LOGISTICS SOLUTIONS: Auditing/Claims/Freight Payment, Optimization, Procurement, Rate & Bid, Reverse Logistics, Routing & Scheduling, TMS, Visibility

ADDITIONAL SOLUTIONS: Big Data Management, EDI, Order Management, Process Improvement, Strategic Sourcing

TRAX TECHNOLOGIES

800-755-0110 • www.traxtech.com

PLATFORM: Cloud/SaaS/Hosted

PRICING: Transactional

INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale, Services/Government

SUPPLY CHAIN SOLUTIONS: Spend Management, Transportation Spend Intelligence

LOGISTICS SOLUTIONS: Auditing/Claims/Freight Payment, Optimization

ADDITIONAL SOLUTIONS: EDI, Strategic Sourcing

TRIMBLE TRANSPORTATION

866-920-3345
www.transportation.trimble.com

PLATFORM: Cloud/SaaS/Hosted, Local

PRICING: Transactional, System, Seat/User

INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale, Services/Government, Transportation

SUPPLY CHAIN SOLUTIONS: Demand Management, ERP, Modeling/Forecasting/Predictive Analytics, Security, Supplier/Vendor Management, Supply Chain Visibility

LOGISTICS SOLUTIONS: Auditing/Claims/Freight Payment, Inventory Management, Labor Management, Load Planning, Optimization, Procurement, Rate & Bid, Reverse Logistics, Routing & Scheduling, TMS, Wireless/Mobile

ADDITIONAL SOLUTIONS: Artificial Intelligence, Asset Management, Big Data Management, Capacity, EDI, IoT/IIoT, Machine Learning, Order Management

U.S. BANK

866-274-5898
www.usbpayment.com/freight-payment

PLATFORM: Cloud/SaaS/Hosted

PRICING: Transactional

INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale, Services/Government, Transportation

SUPPLY CHAIN SOLUTIONS: Freight Benchmarking, Modeling/Forecasting/Predictive Analytics, Working Capital Optimization

LOGISTICS SOLUTIONS: Auditing/Claims/Freight Payment, Optimization, Small Parcel Optimization: Network Design and Yield Management

ADDITIONAL SOLUTIONS: Process Improvement, Strategic Sourcing, U.S. Bank Freight Payment Index

ULTRASHIPTMS

800-731-7512 • www.ultraship.com

PLATFORM: Cloud/SaaS/Hosted

PRICING: Transactional

INDUSTRIES SERVED: E-Commerce, Manufacturing, Retail, Wholesale

SUPPLY CHAIN SOLUTIONS: Freight Settlement, TMS, YMS

LOGISTICS SOLUTIONS: Load Planning, Optimization, Routing & Scheduling

ADDITIONAL SOLUTIONS: Capacity, EDI, Process Improvement

UROUTE

313-600-5308 • www.uroute.net

PLATFORM: Cloud/SaaS/Hosted

PRICING: Transactional

INDUSTRIES SERVED: Manufacturing, Retail, Services/Government, Transportation

SUPPLY CHAIN SOLUTIONS: Supplier/Vendor Management

LOGISTICS SOLUTIONS: Auditing/Claims/Freight Payment, Load Planning, Optimization, Procurement, Rate & Bid, Reverse Logistics, Routing & Scheduling, TMS, Wireless/Mobile

ADDITIONAL SOLUTIONS: Artificial Intelligence, Machine Learning, Order Management, Process Improvement

WEB INTEGRATED NETWORK

855-946-4739 • www.gowithwin.com

PLATFORM: Cloud/SaaS/Hosted

PRICING: Transactional

INDUSTRIES SERVED: Manufacturing, Retail, Wholesale, Transportation

SUPPLY CHAIN SOLUTIONS: Supply Chain Control Tower

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THOUGHT LEADERS

Do You Have Bad Strategies or Bad Data?

Shannon Vaillancourt

President, Founder
RateLinx
sales@ratelinx.com
www.ratelinx.com
262-565-6150

Q: ***Why do most supply chain strategies fail?***

A: It comes down to data. Most companies have data quality issues. Companies make decisions with no data, partial data or, worse, misleading data. The misleading data is the worst because it looks right, but is inaccurate. Decisions made with incorrect data lead to no cost savings and compounding incorrect data throughout the supply chain.

Q: ***What is the definition of data quality?***

A: A quick research project will reveal there are two definitions of data quality. Data is of high quality if:

1. It represents the real world that it describes;
2. It is fit for its intended use.

Really, you have two criteria, not two definitions, because they are not mutually exclusive.

For example, a freight invoice record may have the right data to calculate a rate. If you are talking with the accounts payable team, they would say the data collected is of high quality. The freight invoice has the origin, destination, ship date, weight, and miles. From a financial perspective, this data accurately represents the real world that it describes, and is fit for its intended use.

When the supply chain department is tasked with finding a more cost-effective way to package their products, they ask the accounts payable team if they have high-quality data they can use to perform the transportation piece of the analysis. Based on our above review, the answer would be a resounding, "Yes."

However, the freight invoice is missing data about the shipped product, so it can't be used to do a financial analysis based on changing the packaging of a given product. In this case, the data is unfit for its intended use.

Q: ***What is the challenge of creating data quality?***

A: The challenge is the many different uses a company needs for what appears to be the same record. Back to our example, we have two departments with very different needs.

Most companies ultimately create data silos. The accounts payable team will copy the invoice data and match it up to another shipment dataset with product information. The team sorts the data and "cleanses" it by actually removing assumed anomalies. As a result, the company now has partial data at best and misleading data at worst.

Q: ***How can a company create data quality? What is the payback to having data quality?***

A: Bad data is estimated to cost companies more than $3 trillion annually in the United States. Companies have to create a data strategy that defines the different intended uses of their data along with the data elements required to fulfill these uses. With data-quality tools, companies can achieve 10:1 ROI or greater. The payback is enormous.

Battling Through Crisis Together

As society adjusts to the impact of the new coronavirus, COVID-19, many households have stockpiled goods for safety reassurance. With retail stores being one of the few businesses that remain open to the general public, supply chain operations have had to embrace creativity to deliver effectively.

Q: ***What are some of the bigger challenges that COVID-19 has inflicted on supply chain operations with respect to delivering into retail?***

A: Well, first off, I want to thank all of the truck drivers out there who are working diligently to deliver goods across the country. They've battled through new regulations such as limited off-road breaks with increased emergency shipments and continue to deliver for our country. It's really inspiring to all of us.

Unfortunately, we've seen multiple retail stores close down as well as some states adhere to full quarantine orders. So that's obviously going to have a huge impact on supply chain operations.

However, we've seen open retailers really embrace creativity to replenish orders. For example, store hours are being limited to give teams enough time to restock shelves.

We've also seen distribution centers prioritize items that are most needed by the general public, which has increased our 'days of supply' (DOS) settings in our replenishment systems.

Some retailers have also adjusted their compliance requirements during this time, which is really encouraging. We all understand the most important thing on everyone's agenda is to make sure people have everything they need.

Q: ***What advice would you give retail suppliers during this time?***

A: My advice would be to prioritize essential items. Some retailers have already suspended non-essential shipments into their warehouse network.

Fortunately, we have already seen our customers exhibit this as we've had to free up capacity to make sure retailers have enough inventory to meet the new demand of the public. We're really fortunate to work with great customers who have adjusted to these trying times.

Q: ***What has been Hub Group CaseStack Retail Supplier Solutions' strongest attribute during this period?***

A: The beautiful thing about supply chain is there are many moving parts and sectors that all play a key role in delivering for the public. Without strong business relationships with these companies, you're limited in how effective you will be.

Our focus has always been to form strong lasting relationships with retailers, suppliers, warehouse providers, and carriers. It really does take a village to keep things moving. We try to play our part by assuring we can deliver with speed and precision in a safe manner for all parties. Our team is seeing record shipping weeks to most retailers, and this has been because of our ability to collaborate with these companies.

Dan Sanker

President
CaseStack Retail Supplier Solutions
Hub Group
www.hubgroup.com
630-271-3600

THOUGHT LEADERS

Choose a 3PL with a Culture and Vision that Match Your Own

Marty Wadle

Senior Vice President of Commercial Solutions
Ruan
solutions@ruan.com
www.ruan.com
866-782-6669 ext. 1

Transportation has often been considered a commodity. Equipment, fuel, software, and wages are all very similar from a cost perspective. A 3PL's culture can be a competitive advantage.

Q: ***Why does culture matter?***

A: Today, cost is just one of many factors to consider when selecting a 3PL. A low-cost provider may produce short-term savings but will not deliver sustainable efficiencies and the level of service shippers expect. Strategic partnerships that are mutually beneficial stand the test of time and drive waste out of shippers' supply chains.

An organization's culture is critically important to attracting talent, creating partnerships, and sustaining outstanding performance.

Q: ***How does cultural alignment produce results?***

A: Shippers are looking for long-term strategic partners that are culturally aligned. When company cultures mesh, it is difficult to determine if the 3PL team member works for the shipper or the provider. Trusting a 3PL to manage all or a portion of your supply chain is a big decision—and selecting the right culturally aligned partner makes all the difference.

A 3PL's team members who are empowered to take actions that positively impact a shipper's supply chain stay engaged in the improvement process. The strategic shipper-3PL relationship is strengthened whenever value is created by providing proactive notification of a late load, producing savings by combining LTL orders into a multi-stop truckload, or eliminating empty miles with a backhaul.

Q: ***Is a cultural connection enough to sustain a business partnership?***

A: Culture alone won't sustain a shipper-3PL relationship. But having a culture focused on continuous improvement along with the right people, processes, and technology is a formula for success. A flexible 3PL will customize transportation management system (TMS) software to meet the needs of each shipper partner by understanding the intricacies of their unique freight.

Implementing a TMS as a shipper can be very time consuming and costly, and there is no guarantee the software will produce expected results. Shippers often don't have in-house expertise and may depend on third-party integrators for future configuration changes and upgrades. The right 3PL has a team solely focused on implementation and integration yet closely aligned with operations.

A TMS is a requirement for all 3PLs, but does the 3PL provider bring value with the right people, processes, and platform behind the software?

Find a 3PL that has a culture and vision that match your own. If you are successful at that, you will have a long and mutually beneficial partnership.

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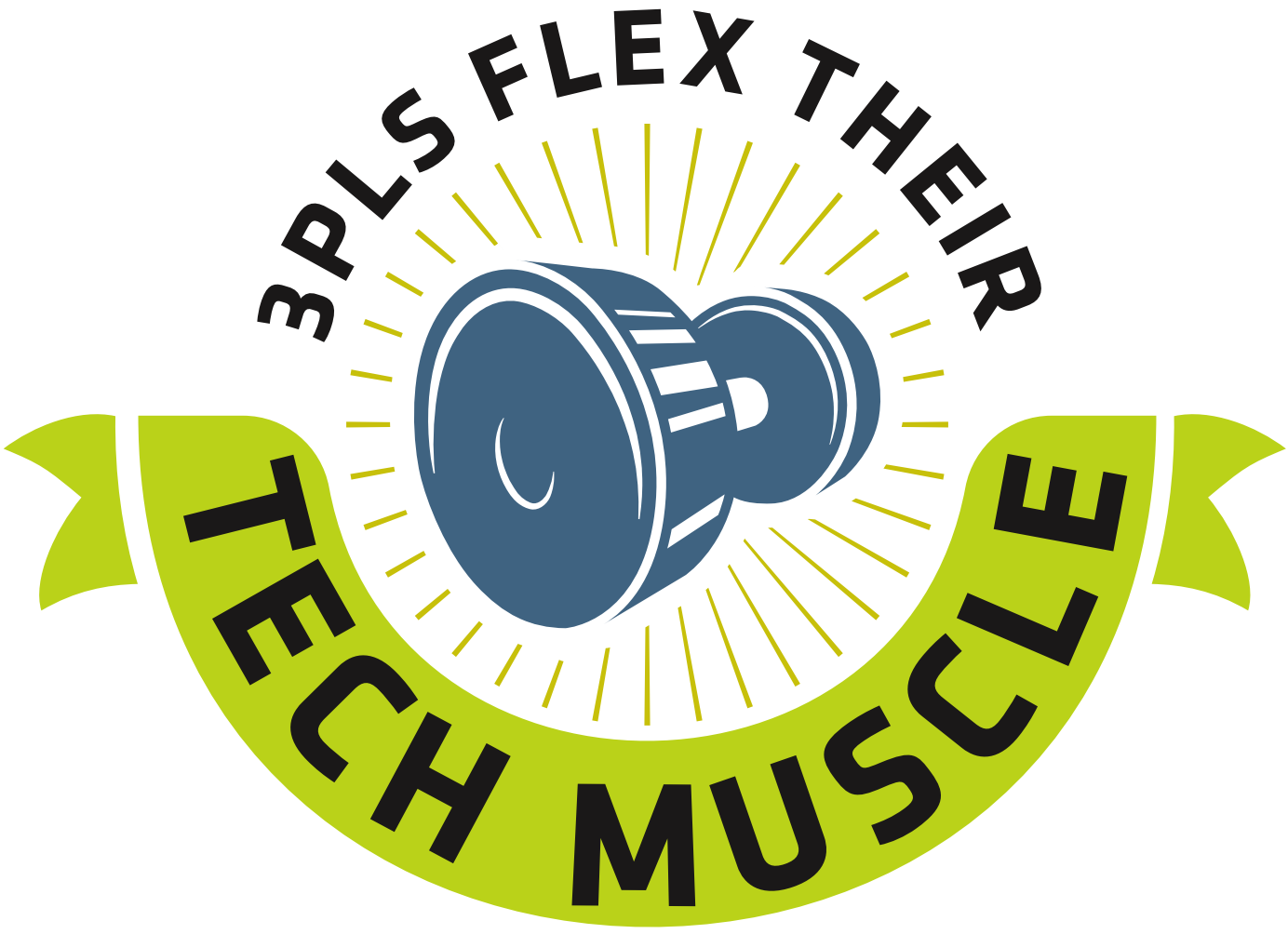


By increasing visibility, flexibility, and accuracy, the latest technology pumps up 3PLs' ability to move, store, and fulfill shippers' orders—even amidst supply chain disruptions.

Efficient and effective supply chains have become a key competitive factor for many shippers, given the growth in e-commerce, as well as the upending of many operations due to COVID-19. To get supply chains in shape, shippers increasingly are turning to third-party logistics providers (3PLs).

In turn, many 3PLs are deploying a range of technical tools that enable them to more effectively move, store, and fulfill shippers' orders. "We know technology is the future of distribution and fulfillment," says Brian Southwell, vice president of business development and marketing with 3PL Taylored Services. "It's necessary to maintain efficiencies and enable proper labor planning."

Many of the technical tools 3PLs are deploying focus on improving supply chain visibility, flexibility, collaboration, and accuracy. In doing so, the tools boost shippers' efficiency and enhance their ability to make informed decisions.

One example is collaborative robots—cobots—that assist human workers. They can increase, often substantially, the efficiency of workers handling jobs such as picking and packing. The cobot market will jump to $5.6 billion by 2027, up from $550 million in 2018, predicts Interact Analysis, a market research firm. The biggest applications will include materials handling, assembly, and pick-and-place, the research finds.

While deploying robots to make residential deliveries is "nascent," 3PLs and others are conducting trials around the globe, says Susan Beardslee, principal analyst of freight, transportation, and logistics with ABI Research. One method is to pair human drivers and robots, so that a driver makes a delivery at one residence, while the robot heads to the next one. These efforts can both blunt the impact of the driver shortage and mitigate concerns about human contact in the age of COVID-19.

Drones, or unmanned aircraft systems (UAS) and unmanned aerial vehicles (UAV), also are attracting 3PLs' interest. That's particularly the case within large warehouses and distribution centers, where these tools can quickly move items.

Similarly, autonomous, automated delivery pods can efficiently move goods across the ground, again within 3PLs' warehouses and corporate campuses, Beardslee says. Once the regulatory and safety issues are addressed, these pods also may eventually play a role in last-mile delivery. Because they can do so without a human driver, their value can increase during a pandemic.

Wearables, such as smart glasses that provide workers with information they'd otherwise have to get from handheld devices, can help 3PL employees more efficiently pick and fill orders. As a result, they're continuing to gain adherents, Beardslee says. The market for industrial wearables will enjoy a 9.2% compound annual growth rate between 2019 and 2024, forecasts ResearchandMarkets.com.

SOFTWARE BULKS UP

Along with hardware and devices, the software used within many 3PL warehouses and distribution centers continues to advance. Digital freight matching—sometimes known as the "uberization of freight"—is one such area, says Neil Menzies, managing director with L.E.K. Consulting. This refers to mobile or web platforms that match shippers' demands for capacity with carriers that have it, streamlining the process. Many 3PLs and brokers are investing in this technology, he adds.

Solutions that enhance supply chain visibility, including track-and-trace systems, are also gaining steam and attracting investments. "Shippers want to know where their shipments are at any point in time," Menzies says. 3PLs that can provide this information can gain a competitive edge.

Often, boosting supply chain visibility requires solutions that connect systems across an organization and even with supply chain partners. This might mean linking a shipper's ERP with the 3PL's warehouse and transportation management systems. "3PLs gain efficiency, transparency, and flexibility for their clients," Beardslee says.

Say a shipper learns a shipment will be delayed by several weeks, so it instead secures air capacity, albeit at a higher cost. By connecting the systems so information can flow between them, management can use advanced analytics to better understand the impact on costs, inventory, and sales and operations planning. This insight can improve operations and provide a better experience for shippers.

While it's still early, blockchain or distributed ledger technology likely will emerge as particularly muscular in some supply chain sectors, including fresh foods and pharmaceuticals. "Blockchain provides transparency and efficiency," Beardslee says.

Polaris Transportation Group, a transportation and logistics company, has embarked on a blockchain initiative with its business partners. "Our goal is to provide a quick, efficient way to manage freight movements and billing reconciliations, and optimize payments, among other functions," says Dave Brajkovich, chief technology officer with the Toronto-based company.

RETURN SOLUTIONS GET A WORKOUT

Just as critical as the solutions that help 3PLs manage most forward shipments are the ones that come into play with reverse logistics, Beardslee says.

E-commerce return rates tend to run several times higher than those for brick-and-mortar sales. Once an item is returned, it must be transported to a warehouse, inspected, and sorted. After that, companies have to decide how best to handle it. 3PLs that can provide an integrated, closed-loop approach can differentiate themselves.

To be sure, it's too early to precisely identify which of these technologies will prove most valuable. "Many 3PLs are engaging in a lot of experimenting and investing," Beardslee says. Their goal? To identify and implement the technologies that can best help the shippers with which they work.

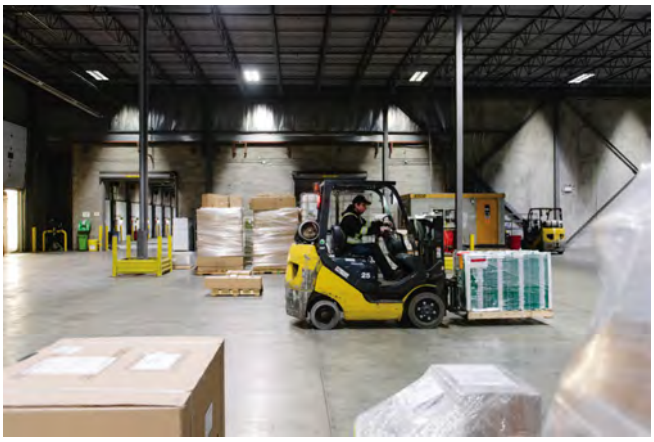
Shippers appear to recognize this. More than 80% of logistics professionals indicate their budget for outsourcing logistics services to 3PLs would increase in 2020, according to research firm Gartner.

FITNESS CHECKLIST

When assessing whether a 3PL fits as a business partner, consider the technology it deploys. Some guidelines:

- **Check whether the 3PL's technology has a reasonably proven track record, says Brian Southwell of Taylored Services. If not, decide whether you want to take a chance on unproven technology.**
- **Ask about the 3PL's ongoing investment in and maintenance of the technology in place. You want to be confident they're supporting it, Southwell adds.**
- **Ask whether the 3PL's technology provides a seamless solution with end-to-end visibility, says Neil Menzies of L.E.K. Consulting. Say the 3PL contracts with a transportation carrier. Can it link together both systems, so they act as one? Visibility is key to squeezing extra dollars from the supply chain and developing reliable supply and demand models.**

PHOTOS: STEPHANIE BRAJKOVICH



By digitizing its warehousing, transportation, and broker divisions, 3PL Polaris Transportation Group is moving freight more quickly and seamlessly, ultimately enhancing the customer experience.

For Polaris Transportation Group, innovation drives its industry-leading technological advancements. Each year, it moves approximately 300,000 orders between the United States and Canada, making it the largest independently owned less-than-truckload (LTL) cross-border carrier in Canada, says president Dave Cox.

For the past several years, Cox and Dave Brajkovich, chief technology officer, have led an initiative to digitize the entire operation, including Polaris' warehousing, transportation, and broker divisions. The goal? "To make it easier for our customers and our partners to do business with us," Cox says.

Through its subsidiary, NorthStar Digital Solutions, Polaris employs robotic process automation (RPA), machine learning, the Internet of Things (IoT), and artificial intelligence to create an intelligent document processing solution. This technology automates the handling of most of the thousands of emails Polaris receives each year that contain order requirements, customs information, and other data and documents.

LET'S GET DIGITAL

The solution electronically sorts and categorizes the emails. Those in which the information is accurate automatically move through a workflow connected to Polaris's enterprise system, which checks and validates the information before forwarding it to the company's customs broker—often, within seconds.

The process is both quicker and more accurate than the previous manual steps. "It allows our people to manage by exception," Brajkovich says. "As a result, shippers' freight moves more quickly." In addition, data produced by the intelligence engines provide insight that enables its shipping agents to more proactively manage their activities.

As shipments move to their destinations, enhanced IoT sensors on Polaris' trucks provide robust, live tracking. Clients can access this tracking information through Polaris' client portal, where they also can obtain quotes and process orders, among other functions. "These capabilities reduce the email back-and-forth that can otherwise consume so much time," Brajkovich adds.

Polaris also has launched a blockchain initiative. The goal is to connect its transportation carrier partners and clients in a shared ledger program using smart contracts. Linking shippers and transportation carriers streamlines reconciliation for invoicing, billing, and shipments, and enables supply chain transparency. "It gives our shippers and consignees the ability to see their freight without having to call or email," Brajkovich says. What's more, the security of the solution helps keep Polaris' drivers safe.

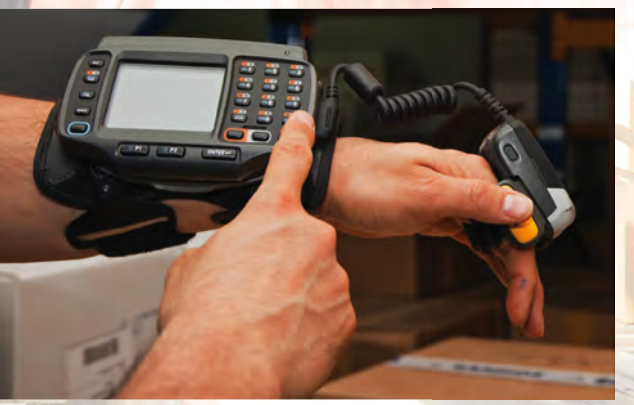
While Polaris has made great strides in implementing new technology, it's not resting on past successes. Brajkovich and his team are studying ways to further enhance the IoT devices currently on the trailers, to gain a better view of capacity.

"We're a small but mighty development group," Brajkovich says, adding that they're well on their way to completing the supply chain digitization initiative. "That's allowing us better insight to shipments, which ultimately helps to enhance the customer experience," he notes.

GAINING MIGHT AND MUSCLE

From its modest start in 1992, Taylored Services has grown to a fully integrated third-party logistics provider focused on the wholesale, retail, and direct-to-consumer sectors. Its 1.5 million square feet of warehouse and distribution spaces are located on both coasts and near the ports of Los Angeles/Long Beach and Newark, New Jersey.

One key to Taylored Services' capabilities is its embrace



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of technology, Southwell says. For example, the company recently deployed autonomous robots that can boost warehouse pickers' efficiency by three to four times.

"Employees are more efficient because the robots eliminate much of the walking pickers previously did, reducing idle time and allowing pickers to focus on accurate picking," he adds.

In early 2020, after testing a half-dozen robots at one location, Taylored launched 17 units that support several clients, handling many of the smaller orders that tend to make up e-commerce sales, Southwell says. The robots can handle products of varying sizes and weights, including jewelry, apparel, outerwear, and footwear.

Just as important, the business intelligence the robots employ "help with order accuracy and speed," Southwell says. For instance, when a robot arrives at a pick location, its screen shows a picture of the product as well as its barcode, providing multiple ways to confirm accuracy.

3PL Taylored Services deployed autonomous robots that can boost warehouse pickers' efficiency by three to four times. The robots allow pickers to focus on accurate picking and spend less time walking.

STEPPING UP WITH TECHNOLOGY

Transportation and logistics companies, like most businesses, have been impacted by the COVID-19 pandemic. Shipments have been delayed, and the drop in passenger flights, many of which were also used to transport cargo, will prolong the return to normal operations.

However, transportation and logistics companies that have invested in technology should be better positioned to work with their shippers. For instance, Polaris' network and cloud-based infrastructure allow all of its administrative staff to work from home. "We moved 75% of our administrative workforce to work from home and were still able to sustain delivery commitments," says president David Cox.

The pandemic and resulting stay-at-home orders also prompted Polaris to deploy other small-but-significant technical improvements. One example: scanners that allow drivers to scan proof-of-delivery and other documents, minimizing their contact during the document handoff process.

Along with the robots, Taylored Services' clients can call on its high-capacity Bombay sorters, also known as flat sorters. "While not new technology, the sorters are high tech and can handle large volumes in a short time frame," Southwell says.

Taylored maintains two warehouse management systems. "Having two systems offers flexibility and varying levels of sophistication," Southwell says. One is more basic and easier to integrate. The other can handle greater complexity, and often is a fit for shippers that, for instance, must send goods to multiple retail locations. The solutions can interface with many ERP systems to provide real-time communication of order and delivery status, among other data.

To move e-commerce transaction information even more rapidly, Taylored Services is implementing an application programming interface or API-based platform. This will transmit order information directly from the e-commerce system to the warehouse; previously, the data would first flow through a client's IT department. "With this, information moves in near real time," Southwell says.

HIGH-IMPACT IMPROVEMENTS

Through Taylored Services' web portal, shippers can access real-time information on order status and inventory levels. "Not only do they not have to spend all day on the phone tracking orders, but access to this information helps them make better decisions," Southwell says.

Technology will be key for both 3PLs and shippers, as they emerge from the COVID-19 pandemic and in the longer-term. "Shippers that have access to the technology needed to quickly handle growing volumes will be better positioned to support clients," Southwell says.

The value proposition all 3PLs can offer has grown thanks to investments in technology that allows them to collaborate and communicate with partners throughout the supply chain—a key factor in realizing efficiencies and adapting to change. ■

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COVID-19

SUPPLY CHAIN RESOURCES & STRATEGIES

REDEFINING GLOBAL SUPPLY CHAIN MANAGEMENT

The traditional ways of managing the supply chain may have changed forever as COVID-19 brings heightened awareness of its fragility.

Every shipper, carrier, and logistics manager appreciates there could be a significant paradigm shift for future sourcing and inventory management.

While just-in-time shipment delivery with tight inventory-to-sales ratios were the priorities to lowering carrying cost and efficiency, COVID-19 may shift the focus to a more conservative and safety inventory stock supply strategy. With careful planning, shippers and logistics managers will minimize some of the risks we experienced with the COVID-19 supply bottlenecks.

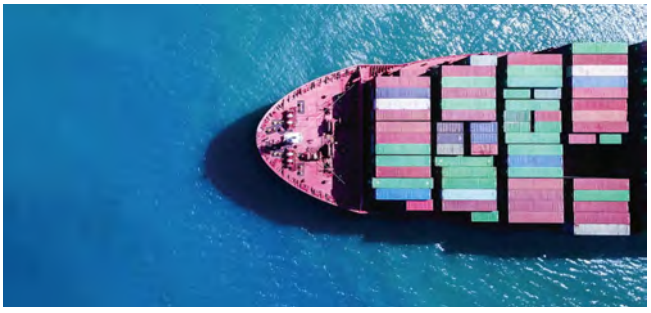
Container shipping operators realized during the outbreak of COVID-19 that container fleets could become quickly imbalanced and that the dependency of cargo flows from few countries can put the supply chain at risk.

Container availability is now being considered one of the most significant risks to the recovery from COVID-19 economic challenges. This is primarily due to the country border flow impediments that have occurred due to strict quarantine measures.

Shippers have also realized how the overdependence on key primary China suppliers can create significant risk on revenue streams. Just-in-time network designs may become a thing of the past.

Global retailers and suppliers will now have to consider adequate contingency: surplus inventory supply and network integrity. Some retailers and importers may revert to inventory safety stock, higher sales-to-inventory ratios with multiple suppliers, and having suppliers closer to consumption markets to protect the corporate valuation and offer business continuity during the next pandemic.

—Gregory Tuthill, Chief Commercial Officer, SeaCube Containers



"THE UNCERTAINTY THAT COVID-19 IS CAUSING HAS BEEN EXTRAORDINARY. ONE THING THAT IS CERTAIN, HOWEVER, IS THAT SUPPLY CHAINS HAVE NEVER BEEN MORE VISIBLE AND MISSION-CRITICAL."

—Eddie Capel, President and Chief Executive Officer, Manhattan Associates

DIGITAL PUSH

Retailers should immediately implement a digital supply chain to manage disruptions. A digital solution can mitigate the impact of the coronavirus in the following ways:

Improve transparency and visibility. When planning, sourcing, design production, and logistics are part of one connected enterprise system, retailers can thoroughly assess problems to mitigate damage.

Collaborate globally. A digital supply chain platform helps companies access one "single version of the truth." Workflow calendars and exception management are critical as companies scramble to update production schedules when factories are shut down.

Improve postponement. Once manufacturing capacity returns, retailers can use postponement tactics to delay critical production decisions until the last possible minute.

Manage raw materials more effectively: A supply chain platform that is digital helps retailers manage raw materials so they can be quickly deployed to the right factories.

Boost vendor management and sourcing. Diversifying sourcing strategies will help retailers manage a crisis like COVID-19. A digital supply chain platform's features such as vendor onboarding and management will let companies handle multiple sourcing locations.

Provide omnichannel inventory visibility and fulfillment. The coronavirus will impact inventory throughout 2020, so it's essential to prepare for a variety of fulfillment options.

—Mark Burstein, President, NGC

STAY AGILE, RESPONSIVE, AND INFORMED

Listen to customer needs, personalize offers in real time, and engage across every channel, digital and otherwise. Make sure to:

Focus on short-term strategic planning. Shippers, forwarders, and carriers have to accept the new reality emerging from this crisis: digital selling. While not a new trend, its adoption will be dramatically accelerated by the profound impact of COVID-19.

Organizations need to be able to work in real time and have tools in place allowing them to analyze and draw actionable insights from customer and market data. Speed is everything when planning and translating this insight into responding to requests and spot bids.

Implement strategic pricing. This is the most effective way to improve margins. With such dramatic volatility in supply and demand, origin and destination companies must have the ability to work in real time and provide tailored offers at the right (profitable) price consistently across all points of customer engagement particularly through digital channels. These companies are also facing significant challenges in optimizing the price of their services while managing their payables.

Focus on responsibly optimizing prices through agile, dynamic management, based on an understanding of market signals, shifting customer needs, volatile supply and demand, and strong pricing discipline throughout the business.

—Richard Blatcher, Director, Industry Marketing & Business Intelligence, PROS

RETHINKING FULFILLMENT

Implement a plan that doesn't rely too heavily on a single link in the chain. For example, Amazon has shut down non-essential shipments into distribution centers. For a retailer that is heavily reliant on Amazon, this single move is crippling. Retailers should evaluate the flexibility of the entire fulfillment network and work to create alternate options that help keep their business flowing.

If Amazon is no longer an option, create a plan to quickly tap into other fulfillment options such as an e-commerce outlet or secondary fulfillment options like ShipBop or FedEx Fulfillment, for example. Creating these connections now helps with agility later. The faster retailers can pivot and drive more orders to other channels, the less pain they will feel as they transition.

Additionally, retailers need to think about the productivity of each fulfillment point, now and over the next few months. Perhaps it's worth the work to pivot and turn stores into mini-distribution centers to take some weight off the main distribution center. If a store is able to generate demand, or is experiencing a surge in orders, it could be valuable to retain retail staff to help fulfill orders and help with total network capacity. In the long term, as different areas of the supply chain reopen, brands will be set up to pivot again as needed.

—Meyar Sheik, President and Chief Customer Officer, Kibo

"COMPANIES THAT ONCE HAD A PLAN TO AUTOMATE THEIR SUPPLY CHAIN IN THE NEXT 3-5 YEARS ARE NOW WORKING TOWARD IMPLEMENTING A MORE FLEXIBLE AND SCALABLE SYSTEM AS SOON AS POSSIBLE. MOVING GOODS FASTER AND MORE EFFICIENTLY IS NEEDED. FOR SUPPLY CHAINS TO SURVIVE AND GET BACK IN GEAR, THEY MUST ADOPT AUTOMATION."

Jeff Cashman, COO, GreyOrange

CHIEF RETAIL CONCERNS

To manage during the COVID-19 crisis, retailers should answer these key questions:

• Where does my inventory currently sit? Do my customers need to know this information?

• What are my shipping partners' current guarantees in light of COVID-19? Are there major disruptions? How will I communicate these to my customers?

• If I become aware of a problem with a supplier and/or carrier, how will I communicate and/or mitigate the situation with the consumer? Will I offer the customer the ability to cancel the order at a full refund?

These are questions that, if addressed now, can help you build a loyal customer base and effectively manage your order-to-customer cycle in the long term.

Additionally, if your company can afford to do so, invest in a role dedicated to managing the supply chain, such as a chief supply chain officer (CSCO). This role can provide visibility into the supply chain as it pertains to each area of the business, from marketing and procurement to finance and operations.

This gives the CSCO a unique view of the order-to-delivery process—from managing suppliers to how the product gets conveyed to the end customer. In light of COVID-19, it is critical the CSCO has a prominent voice in how decisions are made, as a misstep in managing these touch points can then have a magnifying effect on how products make it to the end customer.

—Krish Iyer, Head of Industry Relations, ShipStation

7 IMMEDIATE ADJUSTMENTS FOR RETAILERS

Here are impactful ways retailers can bring their supply chain and delivery operations up to speed.

1 Ensure contactless payment and deliveries. As social distancing becomes the norm, retailers must provide contactless or "tap-and-go" payment options by eliminating cash transactions. One-time-password-based transactions or even payment by touching cards are highly recommended. Businesses also need to follow leave-at-door deliveries allowing customers to choose where an order should be placed and when.

2 Leverage crowdsourcing capabilities. To meet unprecedented demand for home deliveries, businesses must immediately optimize key assets such as staff and vehicle capacity. They can leverage advanced crowdsourcing technologies to optimize staff capacity by onboarding temporary or part-time delivery personnel from across disparate delivery provider ecosystems.

3 Encourage employees to drive decision making. To respond to immediate supply chain challenges, build a crisis team and give them authority to make decisions. Retailers should have the confidence to leave certain key aspects of decision making to employees below their management levels as these teams have first-hand knowledge about ground-level activities.

4 Implement real-time dynamic routing. Businesses must immediately introduce real-time and dynamic routing capabilities to maximize staff-vehicle utilization capacity. Such capabilities not only increase delivery productivity and shrink fuel consumption expenses, but also ensure businesses can efficiently plan multiple drops on a particular delivery route. It's also crucial to develop capabilities that allow emergency collections and deliveries while a driver is out on the road.

5 Control price and reduce promotions. Increasing prices of necessary commodities to manage margins will lead to high levels of customer disappointment, negative media coverage, and hefty government fines. Fortunately, most retailers are shrinking their margins further to keep the prices of essential commodities the same. Retailers need to introduce additional layers of control to ensure prices do not increase even by mistake. Another important strategy is to stop promotions, which can further increase demand and manpower requirements. Shift investments to more vulnerable areas like operations, inventory, and last-mile delivery.

6 Embrace the dark store strategy for online orders. Surging demand amid lockdowns makes inventory management extremely difficult. One way to deal with this challenge is to open up 'dark stores,' something that U.S. retailers have already started doing. These stores look like supermarkets but are closed to customers. These stores can be treated as mini-warehouses that are closer to customer locations. This ensures that pickup orders are executed faster, and automating pickups within these stores will make inventory even more efficient.

7 Onboard new platforms remotely. If businesses are willing to invest in new technologies to ensure rapid scalability, they should look for platforms with short go-live cycles that can be implemented remotely without physical intervention.

—Kushal Nahata, CEO, FarEye

OVERCOMING DEMAND DISTORTION

The demand on the supply chain today is dramatically outside the boundaries of what supply chains are designed for. This is causing distortion.

Products such as hand sanitizers, soap, and painkillers have experienced a 100-250% increase in demand during the initial COVID-19 response. Conversely, in some product areas, such as beauty and cosmetics, the supply side has been forced to adapt and look for new opportunities as sales decline.

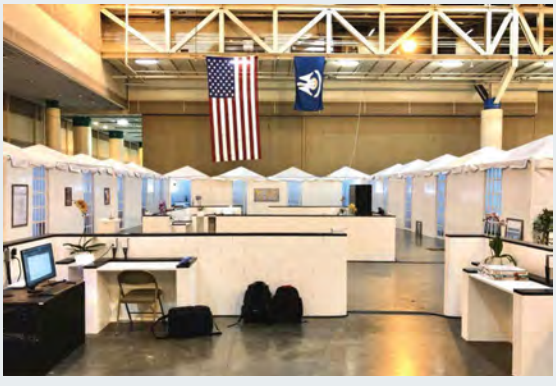
Some e-commerce retailers are seeing a 250% increase in orders being fulfilled and supply chains are becoming tangled due to the massive and sudden increase in demand in some areas combined with a significant demand dip in other areas. In addition to worker health disruptions, there is a scarcity of places to cross-dock because distribution centers are currently filled to capacity.

To cope with a dramatic bottleneck all the way from supplier to consumer, here are some tips for shippers, suppliers, and distributors:

- **Be incredibly aware of signals.** Sense what's happening both in immediate transportation networks and beyond. When it comes to essential health needs, such as masks and goggles, it's important to check on inventory levels and in areas with higher incidences. As product demand shifts, establish stronger communication channels for information sharing to more accurately identify regional demand patterns.
- **Prepare the distribution center and receiving department equally.** Stay on top of personnel on both ends. Have a plan for drivers and shippers on the outbound end, and be just as cognizant of the receiving and on-loading end. A lack of trained personnel creates a need for additional oversight and planning.
- **Address the need to adjust labor.** With the distribution network in place, be ready to absorb that surge of inbound movement and have a strategy to nimbly get product to all distribution centers including stores and homes. Companies that move high-volume products should also consider identifying non-standard labor options.
- **Augment current automated methodologies with human capital.** A confluence of record low distribution capacity and an increase in demand has created a need for more human capital. Companies want more shipments to be turned around quickly, which requires more personnel and workers with legacy experience to execute.

—Suketu Gandhi, Partner, Global Tower Leader, Digital Supply Chain, Kearney

BUILDING A POP-UP HOSPITAL IN NEW ORLEANS



Quick manufacturing response and expedited transport capabilities are proving essential. For instance, expedited shipments of thousands of modular wall panels and life-size building blocks are enabling the rapid construction of a temporary hospital facility in the Ernest M. Morial Convention Center in New Orleans.

The pop-up hospital for COVID-19 patients consists of sleeping pods, isolation units, nursing stations, bed areas, and testing sites from manufacturer EverBlock Systems' modular building blocks and its EverPanel modular sanitary divider walls.

EverBlock immediately shipped the materials needed to construct more than 2,000 sleeping pods. While the company quickly organized and prepared products, its 3PL partner Echo Global Logistics coordinated the transport, rapidly securing 35 team truckloads to expedite shipments from the Bronx, New York.

STRENGTHENING BACKUP PLANS

By identifying redundant sources of supply in different regions, supply chain managers can save critical time and effort during a crisis.

Another step supply chain managers can take is requesting their suppliers provide contingency outsourcing plans, establishing backup plans as the crisis spreads to impact other areas. If this doesn't work and companies find themselves in a position where they need to identify new sources of supply due to a crisis, there are steps they can take.

First, supply chain managers can work to identify suppliers in their networks who offer the same or similar manufacturing technology. By doing so, they can shift critical items to these companies to more quickly patch their supply chain. There is always a non-recurring engineering (NRE) cost associated with retooling new suppliers, so it is important to assess the opportunity cost associated with supply chain disruption to weigh the pros and cons.

Second, not all product lifecycle management and supply chain management software enables logging of supplier manufacturing technologies. Another way new sources can be identified is through geometric identification.

This is done by reviewing each component at risk for a delay, then working with engineers to group these components with others that are coming from "stable" manufacturing partners by complexity, material, geometric similarity, and required manufacturing processes. Manufacturers can identify other sources who can make the same parts and avoid delays.

—Jason T. Ray, Co-founder and CEO, Paperless Parts

EMBRACING THE NEW NORMAL

Supply chain strategies will shift toward:

Utilizing technology. Expect a rise in the use of AI, chatbots, the Internet of Things, and robotic process automation to facilitate supply chains. This will be done not only as a pretext to bring manufacturing jobs back from China, but also for purely practical reasons, because bots do not get sick.

Deemphasizing the lowest-cost supplier. Companies typically find the lowest-cost supplier, but if you have a single source, you're vulnerable, and that's what's happening now. This will move companies more toward mitigating risk. That requires making investments. They could stabilize their supply chains by boosting inventories or investing in more diverse ways of distribution.

Localizing more manufacturing and transporting. Dependence on China for their manufacturing has put small and mid-sized businesses in jeopardy. The pandemic exposes the vulnerability of companies that rely heavily on a limited number of trading partners. What will result is businesses will look to restructure their global supply chains, and some companies will look at localizing more than they would have in the past. A shift in that direction had already started during the U.S.-China tariff fight.

Planning for future disruptions. The pandemic's impact on supply chains will compel companies to anticipate disruptions in the future and build in quick responses to their supply chain. This involves a process called mapping, in which companies engage suppliers in order to better understand their sites and processes. It's imperative for businesses running a global supply chain to be in the know about news that could cause disruptions. You have to be proactive and not reactive. Knowing where the disruption will come from and how that will impact their products allows companies lead time and the ability to create a mitigation strategy.

—Hitendra Chaturvedi, Professor, Supply Chain Department, W.P. Carey School of Business, Arizona State University

"AT SOME POINT, SMALL BUSINESSES WILL NEED TO CONSIDER SWITCHING SUPPLY CHAINS TO ACCOMMODATE CHANGES. THE KEY IS DIVERSIFYING INBOUND AND OUTBOUND OPTIONS. FREQUENTLY, SMALL BUSINESSES ARE SINGLE-THREADED WITH ONE LOCATION AND ONE PARTNER, AND WHEN THINGS GO SIDEWAYS, THEY ARE AT SIGNIFICANT RISK."

—Steve Denton, CEO, Ware2Go

FIVE STEPS FOR A PROACTIVE APPROACH

1 Take care of people first, then customers, suppliers, and shareholders. The top priority is ascertaining people's safety and welfare worldwide and implementing business plans to maintain their well-being. From there, companies should communicate with customers to understand their evolving needs, and with necessary suppliers to determine inventory levels and potential issues that may arise in the short and long terms.

2 Activate a global supply chain command center. The goal of the command center is to actively seek real-time information and feed it into an agile response planning and execution process. This team should create a daily demand review process to understand the impact of disruption across sourcing, labor, materials, and logistics—so companies can not only survive, but thrive in times of crisis.

3 Scenario plan, quantify, and develop plans to address risk exposure. Once the command center has been set up, it's essential to assess the company's business and supply chain impact for the short, middle, and long term. The command center and its focus on obtaining real-time information to feed into scenario-driven response planning is key to achieving resiliency.

4 Harness the entire ecosystem in a response action plan. Trade partners, suppliers, and customers should be included in command centers to develop a view of true demand and supply. When everyone is planning concurrently, and therefore, working with the same set of real-time data, it's faster, easier, and more profitable to agree on the best plan of action.

5 Prepare for the new normal. There's no such thing as "business as usual" when it comes to the global supply chain. As companies plan their recovery from COVID-19, they must be prepared to navigate future uncertainties, including tariffs, political upheaval, financial crises, and natural disasters.

—Jay Muelhoefer, CMO, Kinaxis

KEYS TO RESILIENT SUPPLY CHAINS

The most successful businesses and supply chain leaders engage customers and suppliers in open and transparent dialog early and often about their efforts—from safety to forecasting and supply chain response. Here are a few best practices:

- **Supplier meetings:** Gathering raw material, component, logistics, and transportation suppliers together for reoccurring common calls to discuss business continuity efforts and needs is critical.
- **Demand planning:** Determine now what indicators will best inform your demand forecast as product demand returns. Triangulate information such as complementary industries, proxy industries, or economic indicators that can provide demand-related insights earlier.
- **Extended supply chain resiliency:** Capture insights on supply node dependencies, gaps, and abilities. As demand returns, identify the capabilities and limitations which impact lead times.
- **Transportation strategies:** Modal networks are out of their optimized patterns. Shippers are already leveraging a broader portfolio of modes in an effort to minimize disruption today and plan for realignment challenges. For one LTL shipper, that could mean choosing to shift some volume to consolidation due to congestion at LTL terminals resulting from freight that can't be delivered to closed businesses. Shippers should know there are options for freight to shift across the modal portfolio rather seamlessly.

—Steve Raetz, Director, Research & Market Intelligence, C.H. Robinson

INVENTORY LESSONS FROM PAST EPIDEMICS

Based on my experience working in the retail supply chain in Asia following the SARS and H1N1 epidemics, I recommend retailers take the following actions to prepare their supply chains for recovery:

1. Assess total inventory on hand and clearly understand what is still on order. It will be important to identify the key items and most demanded SKUs and prioritize these by channel. Create a new demand forecast that ensures the pipeline for this segment of inventory is protected and correctly projected. The remaining balance of inventory will be imbalanced and probably aged. Build a clear inventory liquidation plan that addresses this product. This will be difficult to manage all at once, so it's optimal to set monthly goals that progressively drive incremental achievement of targeted total liquidation.

2. Re-sort and re-direct offshore goods or those held with brands in order that goods in immediate need are flowing first and can cross-dock efficiently to desired locations.

3. Create makeshift relay distribution facilities to handle inbound goods that are in immediate demand and need to quickly be distributed to the point of sale. This will reduce dependency on current logistics structure, and create some immediate efficiencies and cycle time improvements.

4. Strengthen current allocation policies so that inventory available for sale is prioritized and focused where it will be most productive.

5. As business improves, think ahead strategically so that you have clear, renewed inventory plans by channel, focused on new season goods and basics.

—Daniel Binder, Partner, Columbus Consulting

CAN EVERYONE ON YOUR TEAM SOLVE THIS?

$$ICC = \frac{C + T + I + W + X + (S - R1) + (O - R2)}{\text{Annual \$ Material Cost}}$$

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ICC=inventory carrying costs **C**=capital **T**=taxes **I**=insurance **W**=warehouse costs **X**=shrinkage **S**=scrap **O**=obsolescence costs **R**=recovery

CASEBOOK

Molson Coors Brews the Right Transportation Mix

THE CUSTOMER
Molson Coors Beverage Company (formerly MillerCoors), one of the world's largest brewers with approximately $10.6 billion in 2019 net sales.

THE PROVIDER
Echo Global Logistics, a provider of technology-enabled transportation management services.

by Jennifer Baljko

Take a look at the loading area of Molson Coors Beverage Company's breweries, and the word "complexity" comes to mind. It's not just the vast quantity of beer and beverage products moving out of its seven North American production facilities that turns up the volume on logistics and supply chain operations. It's also the frequency of trucks being loaded and the pace of activity all week long—including weekends—that add to the challenge of delivering products to its 700 distributors on time.

Molson Coors (formerly MillerCoors), which recently moved its headquarters from Denver to Chicago, has been working for many years with Echo Global Logistics Inc., a third-party logistics provider (3PL) based in Chicago, to streamline its last supply chain leg and improve its transportation activities.

HAULING IT OUT

From a bird's-eye view, Molson Coors, which has been brewing beer for more than two centuries and posted $10.6 billion in 2019 net sales, has thousands of SKUs across dozens of product lines. The brands are familiar names, including Coors Light, Coors Banquet, Miller Lite, Molson Canadian, Carling, Staropramen, Sharp's Doom Bar, Leinenkugel's Summer Shandy, Blue Moon Belgian White, Hop Valley, Creemore Springs, and Crispin Cider.

The company's U.S. operations include seven brewery campuses in California, Colorado, Georgia, Ohio, Texas, Virginia, and Wisconsin. The company generally concentrates its shipping density within a 500-mile radius of these sites.

"We try to ship in and orbit around each one of those locations," says Jake Kilgore, transportation logistics manager. "It's not always possible, because not every brewery makes every product in our portfolio.

"In those cases, we do long-distance interplant transfers," he says. "We ship products from one brewery to another to marry up with another product, and then fulfill orders to customers from that location."

MANAGING LARGE VOLUMES

The company ships about 8,000 loads each week through its network. During peak season from Memorial Day in May to Labor Day in September, that volume can jump to 10,000 to 12,000 loads per week. That adds up to roughly 400,000 to 450,000 loads annually.

About 90% to 92% of this volume is short-haul road shipments made by trucks

CASEBOOK STUDY

Brews Cruise

THE CHALLENGE

Molson Coors wanted to better maneuver through market volatility and improve its weekend coverage for the last leg of its supply chain—shipping from its seven North American brewery sites to its 700 distributors.

THE SOLUTION

Echo Global Logistics technology solutions EchoDrive and EchoAccelerator, plus the strategic added-on capabilities to manage weekend transportation needs and flexibility for activities such as drop-trailer loading and pickup.

RESULTS (AS OF MARCH 2019)

- Since 2013, Echo and Molson Coors' volume has doubled in size and continues to grow year over year.
- On-time delivery runs consistently around 97.9%.
- Echo's weekend coverage helped reduce Molson Coors' weekly carryovers—loads that were supposed to ship during a particular week, but are delayed and carried over to the following week—by 10% to 20%.

NEXT STEPS

Molson Coors plans to leverage technology to better track drivers, increase productivity, and continuously improve efficiencies. The beverage company is also considering the ideas of running dedicated fleets and adding intermodal transportation options.

Molson Coors Beverage Company produces, markets, and sells beer and other beverages across the Americas, Europe, and Asia. U.S. operations include seven brewery campuses in California, Colorado, Georgia, Ohio, Texas, Virginia, and Wisconsin. The company generally concentrates its shipping density within a 500-mile radius of these sites.

or vans, with the remaining long-distance hauls moving intermodal by boxcar and rail.

Like other large companies, one of Molson Coors's biggest transportation challenges is managing carriers and transportation rates. Since the company doesn't have its own fleet of trucks, it relies on asset carriers, broker carriers and Echo to smooth out these pieces. Kilgore expects that these areas will continue to need tweaking as the company begins to rationalize its existing SKU base and volumes shift as it expands beyond beer into other beverage categories.

"Our main issue is battling market volatility" he says. "One year, it could be in a shipper's favor, and the next year, it's in the carrier's favor. So rates go up and down, and you don't have that steady three to five years you can budget for.

"Our big challenge was to find a partner that could ebb and flow with us and also think long-term while meeting market rates and meeting our service expectations," Kilgore adds.

Another pain point was having enough transportation coverage over the weekend and finding a solutions provider who could accommodate those requirements.

"One critical issue was being able to tell our partners that our business has changed," Kilgore says. "We're no longer just a Monday through Friday operation. We're truly going at a pace of seven days a week, and we are heavy on the weekends.

"We had to tell prospective solutions providers, 'If you want to partner with us, we will need some type of solution for the weekend and off hours,'" he adds.

TAKING A TEAM APPROACH

To solve some of these issues, Molson Coors turned to Echo in 2013. Echo provides freight brokerage and managed transportation solutions and works with a network of 50,000 carriers.

"We were in a place of need," Kilgore recalls. "Echo had done some transactional moves for us and they knocked it out of the park. We stepped up our work with them, and gave them some new projects, new lanes, and new volumes.

"We slowly grew with them to where we are today, which is a significant relationship," he says.

Since 2013, Molson Coors and Echo's volume has doubled in size and continues

With such a complex manufacturing system, along with the need to continuously ship their product to meet customer demand, Molson Coors turned to 3PL Echo Global Logistics. The Echo team's technology solutions provide the beer and beverage company with real-time visibility information about loads, documents, shipment status, invoices, and other related data.

to grow year over year. Echo's solutions, specifically its EchoShip web portal built on the EchoAccelerator platform, provide Molson Coors with real-time visibility information about loads, documents, shipment status, invoices, and other related data.

More importantly, however, was Echo's strategic approach to meeting Molson Coors' demands. Creating a weekend team, adding capacity as needed, adhering to proposed rates, and being attentive on the follow-through were other pieces that helped expand the relationship.

"As we've grown in volume, we've added team members and services," notes John Giacone, an Echo national sales representative. "We've added weekend teams to help with the weekend freight.

"This is part of the comprehensive solution we've brought to the table," he adds. "As companies continue to grow, they've got to keep improving because there's a new challenge every year."

Flexibility also proved to be a critical element, particularly with the management of drop trailers, where a truck trailer is left at a location, loaded, and then picked up later. Some Molson Coors facilities use a drop-trailer method as a way to offset production issues.

For example, if a truck was supposed to load on a particular day but the line goes down, having the trailer in the yard gives the company flexibility to reschedule the load later in the day or the next day. This can sometimes cause difficulties for logistics partners because of the inherent complexity of scheduling and coordinating drop-off and pickup times, but Echo has been able to manage that dynamic.

"Working with drop trailers is more challenging," says Andy Hafertepe, Echo's division vice president. "We've had to roll up our sleeves to manage that aspect of the business.

"But we have managed to take over a lot more of that freight in the past two years, and that has been a big part of our growth with Molson Coors," he adds.

And, of course, creating an active problem-solving feedback loop has turned out to be essential.

"If something happens, Echo says, 'We heard you, we are working on it, we will get you something tomorrow.' And then there is a solution tomorrow," Kilgore adds.

COUNTING THE WINS

The long-term relationship has led to many gradual wins during the past several years. One consistent milestone is Molson Coors' on-time delivery rate, which is now running at about 97.9%.

Molson Coors has also reduced its weekly carryovers—loads that were supposed to ship during a particular week, but for whatever reason get delayed and are carried over to the following week—by 10% to 20% because of Echo's weekend coverage.

Going forward, Molson Coors and Echo will continue to leverage technology to better track drivers, boost productivity, and continuously improve efficiencies. The EchoDrive web portal and mobile app helps drive additional improvements, including real-time tracking to reduce driver check-ins and full document transfers between drivers, carriers, and shippers. ■

Supply Chain Insights

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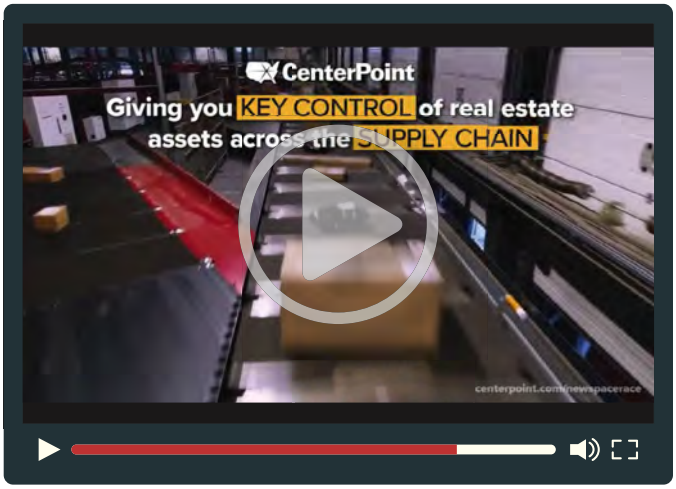

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podcasts

Tony Uphoff

How Manufacturers Are Pivoting in Response to COVID-19

Guest: Tony Uphoff, President & CEO, Thomas

bit.ly/ThomasMar20POD

Manufacturing is a critical function—especially during a pandemic. Tony Uphoff, president and chief executive office of Thomas, discusses how manufacturers are producing medical equipment on the fly and accelerating their digital transformation in response to this unprecedented disruption.

Jan Van Niekerk

Preventing Shipment Damage

Guest: Jan Van Niekerk, Vice President of Engineering and Innovation, SpotSee

bit.ly/SpotseeMar20POD

Once a shipment leaves the warehouse, how can you ensure that it's handled with care? Jan Van Niekerk, vice president of engineering and innovation at SpotSee, explains how radio-frequency identification technology can monitor and even deter damage—ultimately reducing costs and improving the customer experience.

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[IN FOCUS]

INBRIEF

New Services and Solutions

>PRODUCTS

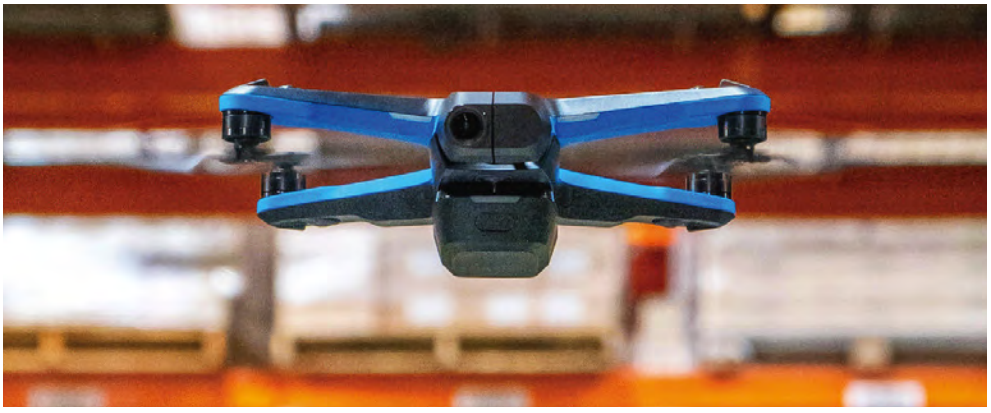
> APS Resource launched an aluminum Tactical LED Dock Light, which features a compact design and a dimmable, automatic on/off function. Its built-in secondary warning alert technology protects dock operations by alerting workers when a change in dock status occurs.

> Hyster released the J60XNL counterbalanced lift truck, the first to have a fully integrated lithium-ion battery pack. The lift truck weighs approximately 700 pounds less than lead-acid battery models, and provides more free space for operators.

> Toshiba America Business Solutions unveiled its FP2 barcode printer, a portable, high-speed device that produces two-inch receipts, tickets, and labels. Its color display enables visibility of battery levels, printer status, and internet connectivity.

>SERVICES

>Fleet management solutions provider **Coretex** introduced CoreTemp, a real-time temperature-monitoring solution that provides early temperature warnings and alerts, and detects compartment mismatches and automatic routes.



> Technology company **Ware** launched a drone-based warehouse inventory automation system designed to help users increase the frequency and accuracy of inventory tracking. The system delivers full counts monthly, using drones to capture images of each bin location and provide a visual audit history of inventory status.

> RLS Logistics created a temperature-controlled less-than-truckload service for grocery warehouses. The service requires no upcharges, helping manufacturers deliver within narrow time frames and avoid penalties.

> Third-party logistics provider **Weber Logistics** added a 353,361-square-foot distribution center in Jurupa Valley, California, to its warehousing and distribution network. Its footprint in Southern California now spans about 1,6 million square feet.

> Germany-based logistics company **Rhenus Logistics** opened its first regional headquarters in America in Miami, Florida, with a new 160,000-square-foot warehouse designated as a Foreign Trade Zone.

>TECHNOLOGY

> Sewio, a real-time location technology solution, provided free consulting and software licenses to help manufacturers implement its technology before operations resume after COVID-19. The system tracks employees' locations to help prevent the spread of infection.

> In response to demand spikes caused by COVID-19, final-mile delivery platform **OneRail** introduced QuickStart, a service that enables retailers to launch and scale their delivery services nationwide with no integration or cost.

> Voxware, a cloud-based voice and analytics solutions provider, released an augmented reality solution that combines voice, scanning, image capture, and vision to improve worker performance and optimize warehouse processes.

> Software solutions firm **enVista** offers virtual assessments to help warehouses manage peaks in operations resulting from COVID-19. enVista provides

clients with GoPros and iPads to virtually walk through their operations. Certified consultants then diagnose the assessments and discuss recommendations.

> To aid businesses facing increased demand during the COVID-19 outbreak, **Bringg** initiated an early release of BringgNow, a free last-mile delivery solution that helps retailers launch and scale delivery operations.

>TRANSPORTATION

> **Etihad Cargo** introduced a fleet of Boeing 787-10 aircrafts that operate 34 flights per week to help the United Arab Emirates import and export goods while passenger services are suspended during the COVID-19 outbreak. Each aircraft contains 12 lower-deck pallets and four containers.

> **Southwest Airlines** offered cargo-only charter services on its Boeing 737 aircrafts to help transport essential products for nonprofits working to combat the COVID-19 pandemic. Cargo is shipped in the belly of the aircrafts, with only pilots and other essential crew members onboard during the flights.

> Virgin Atlantic now operates cargo-only charter flights to ease operational challenges brought by COVID-19. The first, flight VS698, traveled from London to New York City with two pilots, one cabin crew member, and a hold filled with pharmaceutical and medical supplies.

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DELIVER.
REPEAT.

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NEXT DAY.
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LET'S GET GOING. CALL 1-877-PCF-6668 OR VISIT PCFCORP.COM

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view online: bit.ly/il_wcc

WEB_CITE CITY

This handy directory of logistics, transportation, and supply chain websites provides an easy and efficient way to surf relevant sites without dealing with search engine overload.

View Web_Cite City online:

- **New search capabilities enable you to find specific companies by company name, or you can search using keywords such as "LTL" or "Warehousing."**
- **Preview sites quickly — don't waste time visiting sites that don't fit your needs.**
- **Save time — all URLs and images are live links.**

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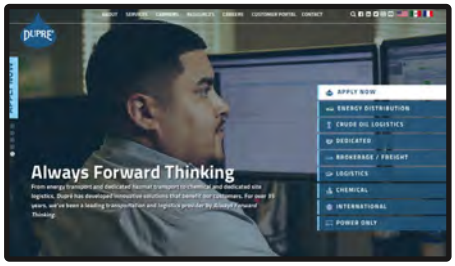


DUPRÉ LOGISTICS www.duprelogistics.com

With specific emphasis in the chemical, consumer products, and beverage industries, Dupré's unique solutions provide expertise in dedicated fleets, transportation management/logistics, materials handling, and reverse logistics. Dupré works to understand your business and measure how our system meets your expectations.

HANOVER LOGISTICS www.hanoverlogistics.com

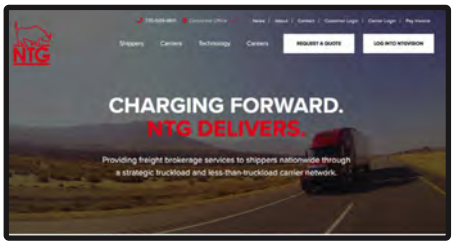
Hanover Logistics is an asset-based logistics services company providing customers superior supply chain management solutions in a variety of third- party logistics (3PL) disciplines, including warehousing, distribution, fulfillment, and transportation services. Hanover Logistics is equipped to expertly handle various types of logistics services, including: freight brokerage, food/grocery storage and distribution, intermodal/cross-dock services, warehousing solutions for a variety of products (AIB certified, food grade), and general transportation management including truckload, LTL, and container hauling services.

METRO PARK WAREHOUSES www.mpwus.com

Metro Park Warehouses is a full-service 3PL offering 2 million square feet in Kansas City of modern food-grade warehousing space, including air-conditioned & medical temperature-controlled space with licensed beverage and med/vet/pharma distribution, AIB Superior rating, and 5 rail facilities, all open to reciprocal switching. We also provide in-house local and regional trucking transportation and value-added services such as retail store displays, kitting, labeling and light assembly. Contact Metro Park to gain the competitive edge.

NOLAN TRANSPORTATION GROUP www.ntgfreight.com

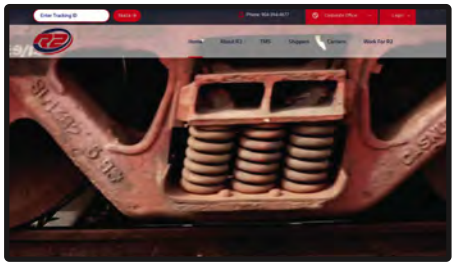
NTG, a leading third-party logistics provider, has invested significantly in its network of over 40,000 independent trucking companies to provide its customers with the best service at the best price. The NTG team is made up of seasoned problem solvers that are committed to servicing customers 24/7. NTG provides truckload, expedited, LTL, drayage, and intermodal services across the United States, Canada, and Mexico.



IN THIS SECTION:

3PL – Barcode/RFID

3PL



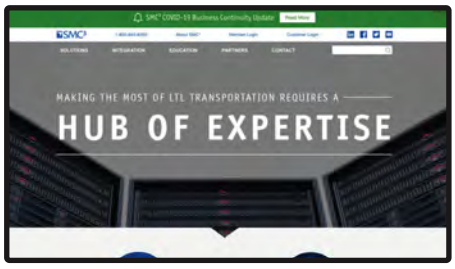
R2 LOGISTICS www.r2logistics.com

Founded in 2007, R2 Logistics is a national provider of transportation services and logistics solutions. As a third-party logistics (3PL) company, we provide access to thousands of contracted transportation providers. With offices located across the United States, we are able to provide your company with any possible over-the-road shipping need nationwide, including Mexico and Canada. Backed by game-changing technology and our culture for Reliable Service and Relentless Passion, we've built a strong reputation as an industry leader.

SMC³ www.smc3.com

SMC³—the leading provider of freight transportation technology data and solutions—delivers the only integrated suite of intelligent technology data solutions geared toward the less-than-truckload and truckload industries. As a leader in both transportation software innovation and supply chain education, more than 5,000 North American shippers, carriers, logistics service providers and freight-payment companies rely on SMC³'s sophisticated LTL base rates, content, and expert bidding tools to make the best business decisions, achieve higher returns on their transportation investments, and meet the dynamic demands of the market.

ASSOCIATIONS



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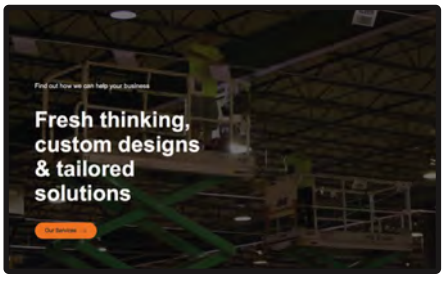
BARCODE/RFID

ASG SERVICES www.asgservices.com

ASG Services is a warehouse identification and marking specialist. We manufacture custom warehouse labels and warehouse signs in Atlanta, Georgia, while providing fully managed installation services and warehouse striping solutions throughout the United States, controlled centrally from our head office.



BARCODE/RFID

CDM SOFTWARE SOLUTIONS www.s-c-technology.com

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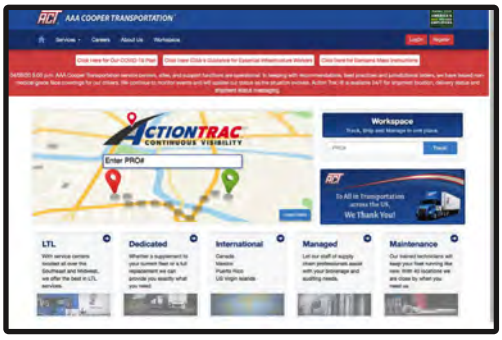
BULK: LIQUID-DRY

AAA COOPER TRANSPORTATION www.aaacooper.com

AAA Cooper Transportation has been providing safe and efficient transportation solutions for more than 60 years. With 70 plus strategically located service centers, we give individual attention to your transportation needs. Services include Less-than-Truckload, Dedicated Contract Carriage, Managed Services, Port and International, and Fleet Maintenance. AAA Cooper Transportation is committed to the long-term sustainability of the environment and continues to implement processes that will make the world a better place to live for generations to come. Visit our website to learn more.



LYNDEN www.lynden.com

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

CARTONIZATION/PALLETIZATION SOFTWARE

MAGICLOGIC OPTIMIZATION www.magiclogic.com

MagicLogic provides complete Load Planning solutions using advanced algorithms developed in-house. Our software is capable of handling the most complex requirements, including mixed-mode load planning, mixed case palletization software for packstations and robots, and high-speed cartonization. Industry-standard APIs ensure our software is adaptable and fast to integrate. Comprehensive loading and stacking rules are modeled with ease. Solutions are available on-premise or the cloud.

CHEMICAL LOGISTICS

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CUSTOMS BROKERAGE

AIRSCHOTT, INC. www.airschott.com

AIRSCHOTT, Inc., founded in 1977, is involved in various aspects of international and domestic transportation. Our operating licenses and services include: Licensed Customs Broker (#7584), Air Freight Forwarder (CNS), Indirect Air Carrier (Consolidator), Duty Drawback Specialist, FMC Licensed OTI (#4399NF—Freight Forwarder and NVOCC), Insurance Broker (Marine & Bonds), Foreign Trade Zone Operator, and Trucker. We are C-TPAT certified and validated. We specialize in the handling of sensitive and "special needs" cargo, including time-sensitive shipments, perishables, hazmats, USML goods, oversized/overweight, and high-value merchandise.

DEDICATED CONTRACT CARRIAGE

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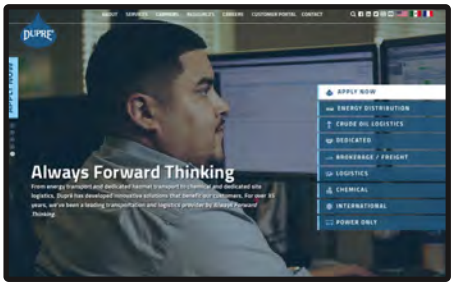
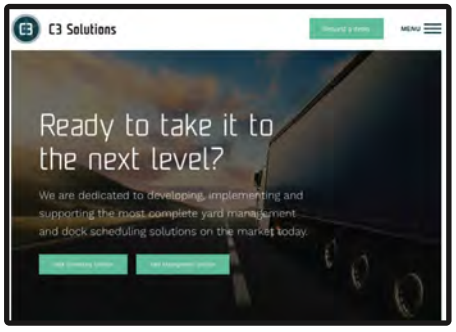


DOCK SCHEDULING



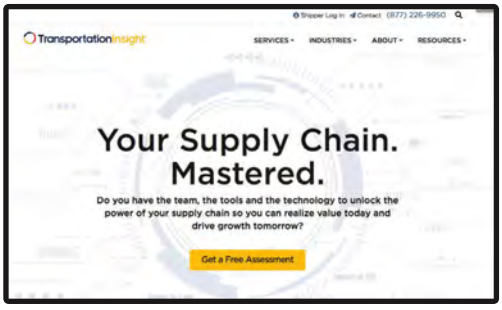
C3 SOLUTIONS www.c3solutions.com

C3 Solutions is an information technology company specialized in yard management (YMS) and dock scheduling (DSS) systems. Since its founding in 2000, C3 has gained the confidence of clients around the world and across many industries including retail, grocery, distribution, manufacturing and parcel post. Headquartered in Montreal (QC), Canada and privately owned, C3 is dedicated to developing, implementing and supporting the most complete yard management and dock scheduling products on the market today. For more information on C3's products, schedule a free online demonstration: www.c3solutions.com/live-demo-request

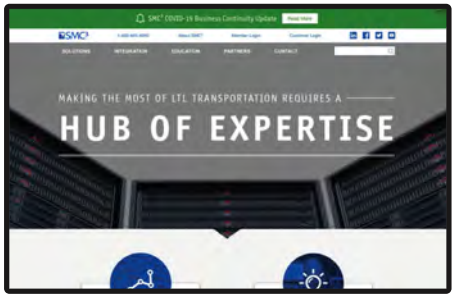
E-COMMERCE

TRANSPORTATION INSIGHT www.transportationinsight.com

The first 4PL invited to join the International Warehouse Logistics Association, Transportation Insight is one of the largest and most experienced global lead logistics providers in North America. Our service and technology offerings include Tier One North American truckload, LTL and parcel logistics solutions, international freight forwarding and warehousing services—creating end-to-end supply chain solutions. Our core services include carrier sourcing, freight bill audit and payment, transportation management system technology and supply chain analytics and reporting. Contact us at info@transportationinsight.com or call 877-226-9950.



EDUCATION



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UNIVERSITY OF TEXAS DALLAS scm.utdallas.edu

UT Dallas' Bachelor and Master of Science in Supply Chain Management (SCM) programs deal with issues related to developing, producing, and delivering goods and services from suppliers to customers. Students enrolled in the supply chain management programs gain the knowledge, skills, and expertise necessary to manage and improve the efficiency and productivity of business operations, and to improve the quality of services and goods produced. The faculty has significant teaching, research, and business expertise in logistics, purchasing, sourcing, supply chain, and operations management, offering students a unique, accurate perspective.

IN THIS SECTION:

Freight Forwarding – Freight Payment/Audit Services

FREIGHT FORWARDING

LYNDEN www.lynden.com

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

FREIGHT PAYMENT/AUDIT SERVICES

AR TRAFFIC CONSULTANTS, INC. www.artraffic.com

AR Traffic has been providing shippers with advanced transportation management software and third-party logistics services since 1964. All its products and services are designed to improve your efficiency, accuracy, record-keeping, control and auditability as well as to lower your freight costs. For a free study to show how you can cut costs, improve customer service, and streamline your business, visit the website today.

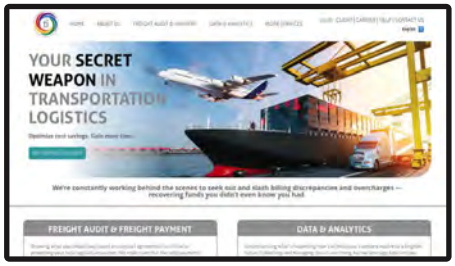
RATELINX www.ratelinx.com

RateLinx delivers all your logistics data in one cloud-based platform with accurate data, advanced analytics, and reports to power visibility across orders, tracking, and invoices. The PayLinx module uses AI-driven data quality to enable freight spend control and real-time visibility, eliminating exceptions, and rate tolerances. Improve decision making and carrier partnerships with PayLinx. Accelerate your supply chain and connect with other RateLinx modules to maximize your visibility and savings.

TRANS AUDIT www.transaudit.com

Trans Audit, the world's largest and most successful global freight and parcel post audit specialist, has performed worldwide post payment transportation audits on a contingent basis for hundreds of Fortune and Global 1000 corporations. Trans Audit's freight and parcel post audit services address all modes of global transportation and have delivered over $1 billion of benefit to our clients' bottom line by recovering overbillings and overpayments, correcting erroneous billing, and reducing future expenses.

FREIGHT PAYMENT/AUDIT SERVICES



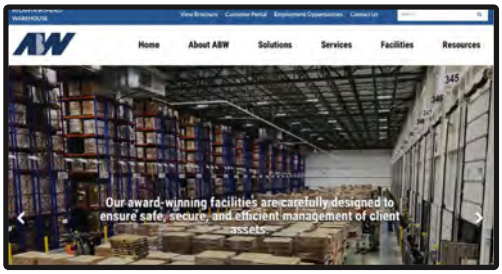
TRANS INTERNATIONAL www.ticominc.com

Trans International provides FAIR—Freight Audit & Information Reporting—services. We provide our clients completely customized transportation management solutions—leading-edge, best practices-driven freight bill processing, client rules-based audit, and six levels of safe, secure carrier funding options. We are a WBENC-certified Women's Business Enterprise, serving clients ranging in size from Fortune 100 to mid-markets. Contact Trans International for freight audit, freight pay, logistics consulting, business intelligence analytics, scalable and affordable TMS, and exceptions management. Call 262-253-3500, ext 0 or visit www.ticominc.com

FULFILLMENT

ATLANTA BONDED WAREHOUSE www.atlantabonded.com

Atlanta Bonded Warehouse (ABW) has been providing public and contract food-grade, temperature controlled distribution services for 70 years. ABW is a leader in providing integrated asset-based logistics solutions for the food, pharmaceutical, household durables, and CPG industries. Our goal is total customer satisfaction through continuous innovation in technology and in best practices by focusing on teamwork, integrity, and accountability, all in a safe working environment



FURNITURE TRANSPORT & LOGISTICS

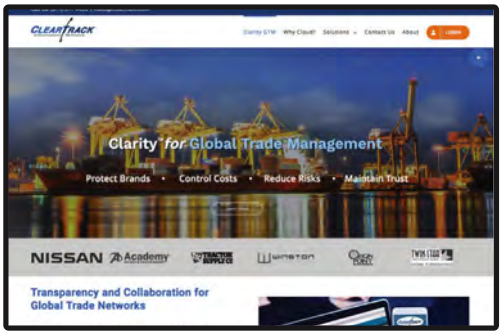
NORTH CAROLINA PORTS ncports.com

North Carolina Ports has convenient locations in Wilmington and Morehead City, plus an inland port in Charlotte. Our customer-focused approach offers shippers excellent port communication and customized service. Customers experience the fastest turn times on the United States East Coast, with Wilmington featuring three neo-Panamax cranes and a new, 101,000-square-foot, on-terminal storage facility that can accommodate more customers than ever.

GLOBAL LOGISTICS

CLEARTRACK INFORMATION NETWORK www.cleartrack.com

ClearTrack operates a global cloud-based business network and collaboration platform for supply chain management software enabling the global sourcing of goods, management of supplier and product compliance, logistics collaboration and visibility and the sourcing of ocean and domestic freight. ClearTrack's configurable software solutions and services connect over 26,000 suppliers, factories, service providers and shippers to improve the flow of goods, reduce costs and minimize risk every day. Contact us to learn how ClearTrack can help you transform the management of your multi-enterprise supply chain.



GLOBAL TRADE

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QUESTAWEB www.questaweb.com

QuestaWeb is a premier provider of integrated, web-based global trade management software. QuestaWeb's applications unify import, export, logistics, compliance, and financial processes under one roof. The applications include U.S. Customs, self-entry, foreign trade zone, landed costs, HTS, PO management, export licensing, drawback, reconciliation, denied party screening, product catalog, tracking, and international document repository. The centralized global database maintains up-to-date trade content and currencies. QuestaWeb can also be efficiently integrated to your ERP system if designated.

INSURANCE

ROANOKE TRADE www.roanoketrade.com

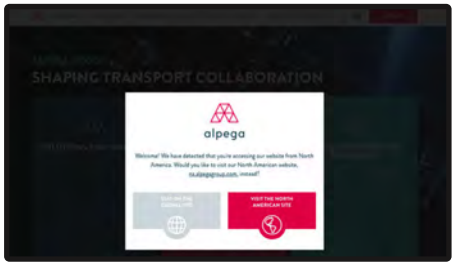
Roanoke Trade, a division of Roanoke Insurance Group and part of Munich Re Specialty Group Ltd., operates as a specialty insurance broker focused on surety and insurance solutions for transportation intermediaries, 3PLs, customs brokers and companies with supply chains, and is a leading provider of customs bonds, marine cargo insurance and ATA Carnets for the industry.

INTERMODAL

HUB GROUP www.hubgroup.com

Hub's extensive service network—built over many years—enables it to provide innovative transportation solutions that are versatile, flexible, and designed to deliver maximum efficiency. With this advantage, Hub Group is able to collaborate with customers daily to help them meet their transportation challenges. With intermodal, highway, and logistics transportation offerings, the Hub Network is your single source—coast to coast, border to border. Visit the website to learn what Hub can do for you.

LOGISTICS IT



ALPEGA www.alpegagroup.com

Alpega's cloud-based TMS solutions connect supply chain partners across logistics ecosystems via a SaaS platform to collaboratively manage end-2-end transportation activities. Global, flexible and modular, Alpega solutions address the needs of simple to complex logistics networks and can stand-alone, integrate, and scale appropriately. Through collaboration with trading partners, increased visibility across networks, and improved asset utilization, companies can reduce freight spend and carbon footprint—providing an efficient, sustainable logistics IT solution for today's supply chain.

CASS INFORMATION SYSTEMS www.cassinfo.com

Cass is the leader in freight bill auditing, rating, payment and business intelligence services. We also provide visibility to global transportation spend for effective supply chain management. By understanding our customers' critical transportation and accounting processes, we provide customized business intelligence solutions that help create a competitive advantage through reduced costs, increased efficiency, and better decision making capability.

CDM SOFTWARE SOLUTIONS www.s-c-technology.com

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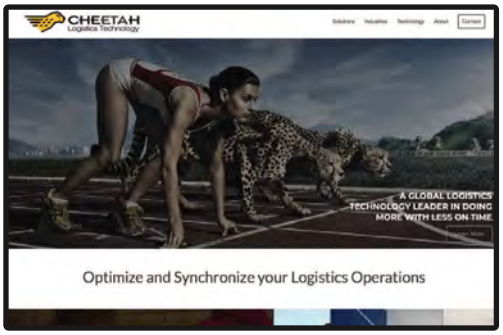
CHEETAH SOFTWARE cheetah.com

Cheetah is a premier provider of a dynamic, adaptive Logistics Operations Optimization Platform (LOOP) for retailers and carrier for hire companies in the logistics space, with a passion for the consumer. Cheetah's team of experts address the logistics needs of healthcare, retail and carriers that operate courier, less than truckload, truck load and private fleets. Cheetah's LOOP plans, dynamically manages, adapts and optimizes fleets and drivers, resulting in companies using less trucks, driving fewer miles and making more on-time deliveries.



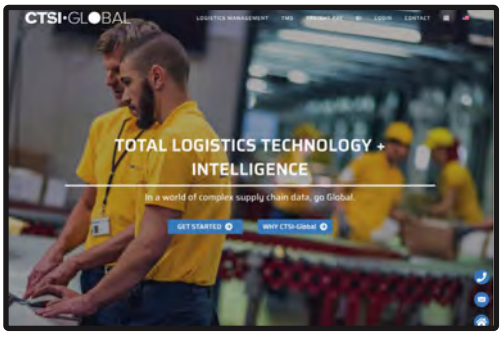
LOGISTICS IT

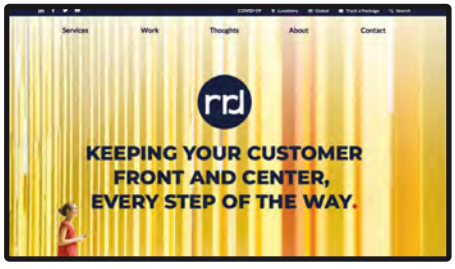
CT LOGISTICS www.ctlogistics.com

Since 1923, organizations have leveraged CT Logistics to provide global freight audit & payment and transportation management solutions. Partner with CT to design and implement customized supply chain and rate management solutions. CT's Business Intelligence platform provides global spend visibility and data analysis using SOCII and ISO 9001:2008 certified processes. Services also include: Shipment Execution, Bid Management, Shipment Planning and Execution Software, and Professional Services for consulting and advising.

CTSI-GLOBAL www.ctsi-global.com

For more than 50 years, CTSI-Global has been a valuable resource to companies by providing the technology and industry expertise to help them manage all aspects of their supply chain—physical, informational, and financial—through freight audit and payment, transportation management systems (TMS), information management tools, and global consulting. The end results are improved shipping efficiencies, greater control, and significant ongoing savings. CTSI-Global is your link to supply chain solutions.





DLS WORLDWIDE/RR DONNELLEY www.rrd.com

Experience the benefits that only come from working with a major, global shipper that is also a top-ranked 3PL. We offer multiple transportation modes, an established multi-carrier network, volume-leveraged rates and service levels, along with technology-enabled systems and processes. Visit our website and contact us today to see why customers have relied on us for nearly 150 years.

ECHO GLOBAL LOGISTICS, INC. www.echo.com

Echo Global Logistics, Inc. (Nasdaq: ECHO) is a provider of technology-enabled transportation and supply chain management services. Echo maintains a proprietary, web-based technology platform that compiles and analyzes data from its network of more than 50,000 transportation providers to serve its clients' needs. Offering freight brokerage and managed transportation services across all major modes, Echo works to simplify the critical tasks involved in transportation management.

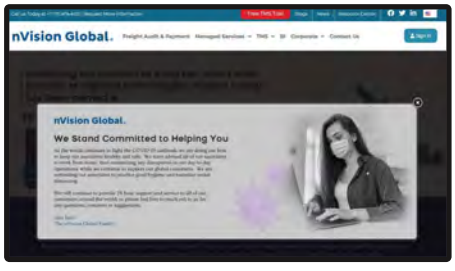
LOGISTICS IT

HIGHWAY 905 www.highway905.com

Highway 905 is a cloud-based supply chain execution solution provider focused on "personalization" and faster time to market. We enable you to: ensure cost reductions and maintain an error-free warehouse; deliver differentiated customer experiences with the power of real-time visibility and actionable insights; simplify your last mile; and reduce paperwork hassles with automated freight payments and digitized document processing. If you are looking for a solution that adapts to your business, and not the other way around, call us at 908-874-4867 or visit: www.highway905.com

INFO-X www.infoxusa.com

Since 2001, Info-X has been a premier provider of logistics management software and back-office support services for global transportation companies in the ocean, air and ground sectors. Info-X specializes in outsourced back-office services and is a quality-driven, professional, and experienced outsourcing partner. Leveraging its extensive industry knowledge of logistics, and understanding of the complexities involved, it helps companies improve efficiencies, get 99.9% accuracies, and experience cost reductions of up to 40%.

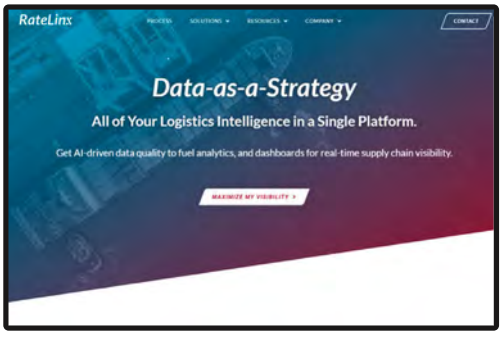


nVISION GLOBAL TECHNOLOGY SOLUTIONS www.nvisionglobal.com

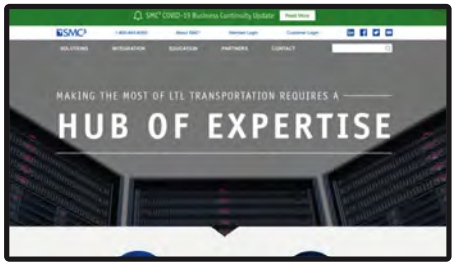
nVision Global is an industry leader in providing configurable logistics services and solutions for customers around the world, enabling them to optimize their supply chain and gain access to critical data. We offer a full suite of logistics services and solutions that allow for end-to-end shipment and supply chain management and visibility. Our solutions include a global, multi-modal TMS application, international freight audit and payment, loss & damage/overcharge/service failure claims management, as well as industry leading logistics analysis solutions. We process and pay freight invoices from more than 190 countries, in more than 40 currencies.

RATELINX www.ratelinx.com

The RateLinx cloud-based data-cleansing technology leverages AI and machine learning to eliminate errors, omissions, and exceptions in your freight tracking & payment data. It delivers powerful insights, accurate analytics, and tailored reporting through an all-in-one logistics data and analysis platform. It can be implemented with your carriers in as little as 45 days with no IT.



LOGISTICS IT

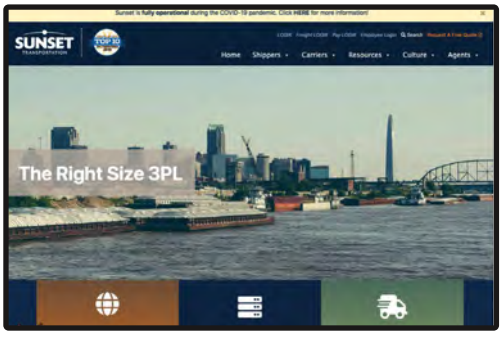


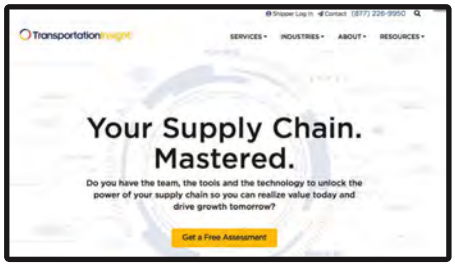
SMC³ www.smc3.com

SMC³—the leading provider of freight transportation technology data and solutions—delivers the only integrated suite of intelligent technology data solutions geared toward the less-than-truckload and truckload industries. As a leader in both transportation software innovation and supply chain education, more than 5,000 North American shippers, carriers, logistics service providers and freight-payment companies rely on SMC³'s sophisticated LTL base rates, content, and expert bidding tools to make the best business decisions, achieve higher returns on their transportation investments, and meet the dynamic demands of the market.

SUNSET TRANSPORTATION www.sunsettrans.com

Sunset Transportation isn't just another 3PL. We are driven by the right-size fit for each business, using all levels of global and domestic supply chain resources and services. Our culture allows customers to feel like family, while offering advanced TMS solutions, reporting, and shipment reliability. Our approach is simple: through analysis of historical shipping data, we identify opportunities for optimization, service improvement, and technology enhancements. All this is done with five promises we make to every customer, every day: savings, visibility, data-driven decisions, continuous improvement, and relationships. Sunset is the right size 3PL for your growing business.





TRANSPORTATION INSIGHT www.transportationinsight.com

The first 4PL invited to join the International Warehouse Logistics Association, Transportation Insight is one of the largest and most experienced global lead logistics providers in North America. Our service and technology offerings include Tier One North American truckload, LTL and parcel logistics solutions, international freight forwarding and warehousing services—creating end-to-end supply chain solutions. Our core services include carrier sourcing, freight bill audit and payment, transportation management system technology and supply chain analytics and reporting. Contact us at info@transportationinsight.com or call 877-226-9950.

TRANSPORTGISTICS www.transportgistics.com

TransportGistics is a global, multi-product and services company that provides market-leading, simple, incremental solutions for transportation management and logistics functions within the supply chain. Our web-based solutions enable our customers to source, procure, and execute transportation services; enable collaboration; reduce costs; improve processes; identify hidden costs of transportation; improve vendor compliance routing guides; improve Supplier Relationship Management; monitor vendor performance; improve shipment visibility; generate automatic, status-driven alerts; and monitor carrier performance with respect to time in transit, service failure, and billing.

IN THIS SECTION:

Multi-Modal – Project Logistics

MULTI-MODAL

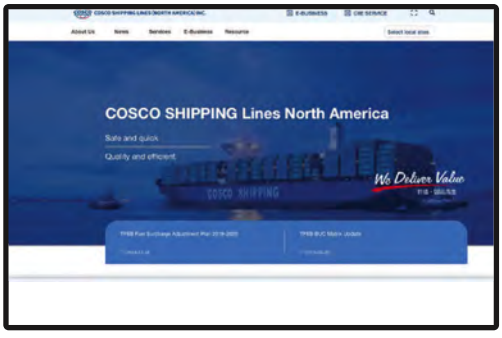
LYNDEN www.lynden.com

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

OCEAN

COSCO www.cosco-usa.com

China Ocean Shipping (Group) Company (COSCO), the national flag carrier of the People's Republic of China, is one of the world's premier full-service intermodal carriers. The company utilizes a vast network of ocean vessels, barges, railroads, and motor carriers to link the international shipper with the consignee. COSCON's 20 main-line services connect over 100 ports worldwide to reach more direct ports of call than any other carrier in the world, with weekly, fixed-day service to many destinations.



PRINTING SOLUTIONS

ASG SERVICES www.asgservices.com

ASG Services is a warehouse identification and marking specialist. We manufacture custom warehouse labels and warehouse signs in Atlanta, Georgia, while providing fully managed installation services and warehouse striping solutions throughout the United States, controlled centrally from our head office.

PROJECT LOGISTICS

LYNDEN www.lynden.com

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

IN THIS SECTION:

Rapid Response Logistics – Site Selection

RAPID RESPONSE LOGISTICS

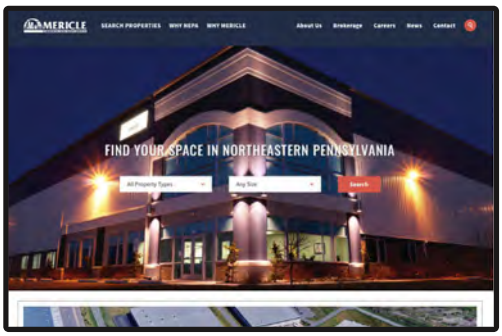
LYNDEN www.lynden.com

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

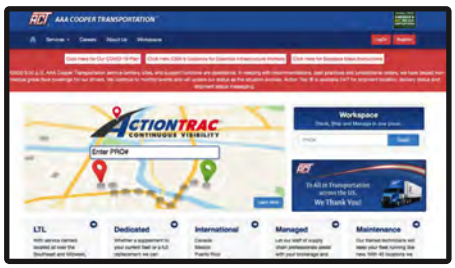
REAL ESTATE

MERICLE COMMERCIAL REAL ESTATE SERVICES www.mericle.com

Mericle Commercial Real Estate Services has developed more bulk industrial space and fully prepared sites than any other private developer along Pennsylvania's I-81 Corridor. Mericle has a wide variety of space available—all with ceiling clear heights in excess of 30 feet and all located immediately adjacent to an interstate. Mericle lists many 3PLs and 13 of the nation's top e-commerce fulfillment companies among its numerous tenants and clients. All of Mericle's available industrial properties can be reviewed at www.mericlereadytogo.com.



RETAIL LOGISTICS



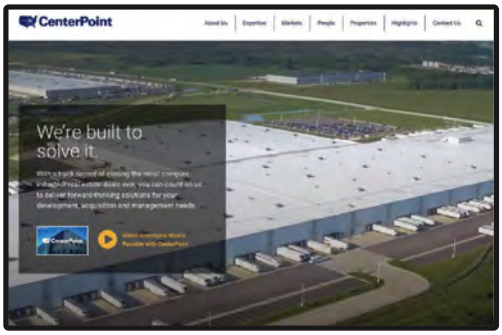
AAA COOPER TRANSPORTATION www.aaacooper.com

AAA Cooper Transportation has been providing safe and efficient transportation solutions for more than 60 years. With 70 plus strategically located service centers, we give individual attention to your transportation needs. Services include Less-than-Truckload, Dedicated Contract Carriage, Managed Services, Port and International, and Fleet Maintenance. AAA Cooper Transportation is committed to the long-term sustainability of the environment and continues to implement processes that will make the world a better place to live for generations to come. Visit our website to learn more.

SITE SELECTION

CENTERPOINT PROPERTIES www.centerpoint-prop.com

CenterPoint Properties is focused on the development, ownership, and intensive management of industrial real estate, and related rail, road, and port infrastructure. We add value to our customers through forward-thinking solutions aimed at enhancing supply chain and operating efficiencies. We seek long-term relationships with customers, public and private business partners, internal colleagues, and the communities where we invest and operate. Member of NASCO.



SOURCING/NEGOTIATIONS

RATELINX www.ratelinx.com

Stop overspending with traditional sourcing methods. Utilize the industry preferred way to procure LTL rates and leverage the power of the RateLinx Modeling engine to significantly reduce your freight spend. Create competition by adding specific carriers that align with your network requirements. Carriers hauling their preferred freight lowers your costs. RateLinx's all-in-one logistics solution helps you measure and monitor your network performance, minimizing your costs and maximizing your visibility.

SUPPLY CHAIN EXECUTION

SMC³ www.smc3.com

SMC³—the leading provider of freight transportation technology data and solutions—delivers the only integrated suite of intelligent technology data solutions geared toward the less-than-truckload and truckload industries. As a leader in both transportation software innovation and supply chain education, more than 5,000 North American shippers, carriers, logistics service providers and freight-payment companies rely on SMC³'s sophisticated LTL base rates, content, and expert bidding tools to make the best business decisions, achieve higher returns on their transportation investments, and meet the dynamic demands of the market.

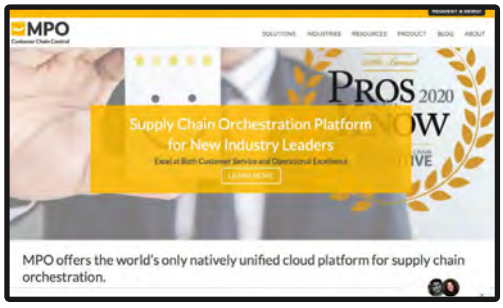
SUPPLY CHAIN MANAGEMENT/OPTIMIZATION

CDM SOFTWARE SOLUTIONS www.s-c-technology.com

CDM Web Freight is a true global web-based freight forwarding and NVOCC solution. Key benefits include CDM Shipment Flow where export shipment data—documents, compliance details, tracking—from an origin forwarder easily transfers to an import shipment of the destination forwarder. Other benefits—in multiple languages (English, Japanese, Simplified Chinese, Spanish, French and German)—include shipment compliance for US, Canada, EU, UK, Japan, Israel and South Africa; as well as air and ocean carrier integration. CDM Web Freight also includes cutting-edge technologies such as RFID, IoT, and Blockchain to further enhance the product offering.

MPO www.mpo.com

MPO offers the world's only natively unified cloud platform for supply chain orchestration. The platform helps hundreds of Logistics Service Providers, Retailers, Manufacturers, and Distributors embrace their complex, global supply chains to drive operational excellence and customer satisfaction and reduce inventory and transportation costs. With Supply Chain Orchestration for inbound, outbound, after-market, and return order flows, customers get actionable end-to-end visibility, whether it's for a small, e-commerce parcel or an overseas order requiring multi-modal fulfillment.



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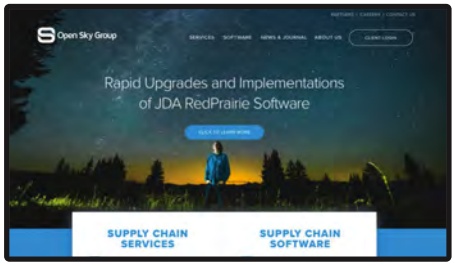
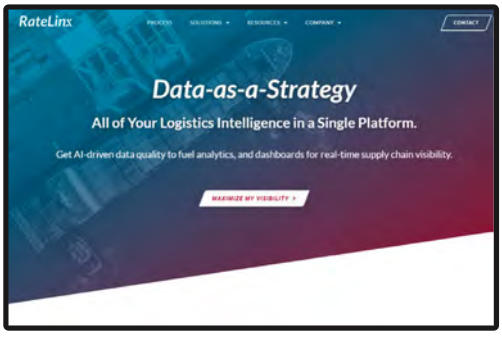


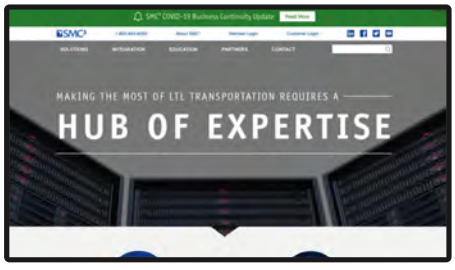
OPEN SKY GROUP www.openskygroup.com

Open Sky Group specializes in rapid implementation of the newest versions of JDA Warehouse and Labor Management for mid-market companies. Authorized Reseller of JDA WMS, WLM and TMS, Open Sky Group strives to be the best consulting partner on the planet for companies implementing supply chain solutions. Contact Open Sky Group today to learn more about how we help mid-market companies have less risky and shorter supply chain software implementations.

RATELINX www.ratelinx.com

The RateLinx cloud-based data-cleansing technology leverages AI and machine learning to eliminate errors, omissions, and exceptions in your freight tracking & payment data. Delivering accurate and comprehensive freight analytics and reports, power your end-to-end visibility in real-time. With TMS, track and trace, and freight invoice management capabilities, analyze logistics performance and optimize strategies—all in one place. Gain confidence in your data so you can make better decisions.





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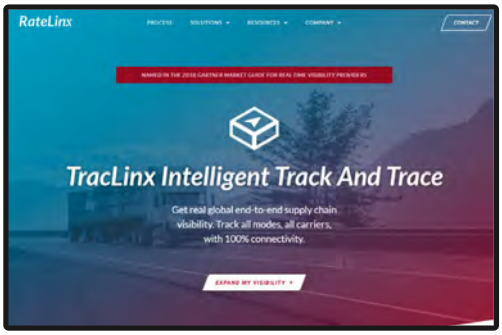
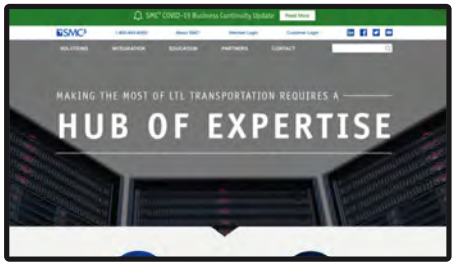
SUPPLY CHAIN VISIBILITY

RATELINX www.ratelinx.com

RateLinx delivers all your logistics data in a single cloud-based platform with accurate data, advanced analytics, and reports to power end-to-end visibility across orders, tracking, and invoices. Our TracLinx module provides real-time visibility across all modes. Carrier data is cleansed to create accurate tracking and ETAs, optimizing operations. Onboard new carriers quickly. Accelerate your supply chain and connect with other RateLinx modules to maximize your visibility and savings.



SUPPLY CHAIN VISIBILITY



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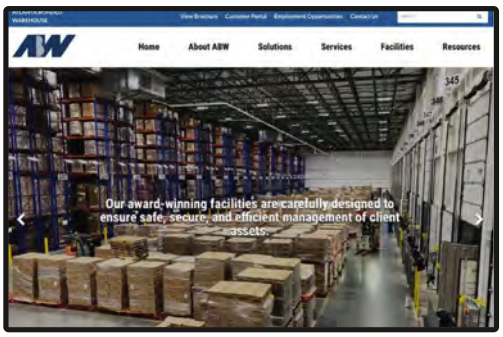
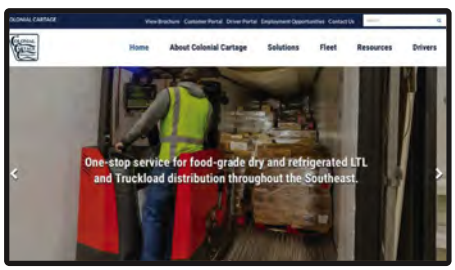
TEMPERATURE-CONTROLLED SHIPPING

ATLANTA BONDED WAREHOUSE www.atlantabonded.com

Atlanta Bonded Warehouse (ABW) has been providing public and contract food-grade, temperature-controlled distribution services for 70 years. ABW is a leader in providing integrated asset-based logistics solutions for the food, pharmaceutical, household durables, and CPG industries. Our goal is total customer satisfaction through continuous innovation in technology and in best practices by focusing on teamwork, integrity, and accountability, all in a safe working environment.





COLONIAL CARTAGE CORPORATION www.colonialcartage.com

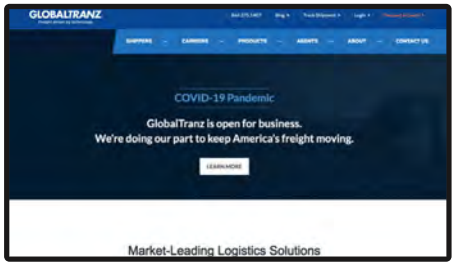
Colonial Cartage Corporation, the in-house carrier for Atlanta Bonded Warehouse, is a full-service asset-based carrier providing food-grade, dry and refrigerated TL, LTL, and pool distribution services for over 64 years. Colonial provides weekly scheduled temperature-controlled LTL delivery to all points in the Southeast, Midwest, Southwest, and Great Plains, as well as truckload and plant support services throughout its service area from its Atlanta terminal. Colonial's services include cross dock, consolidated order selection (bulk picking), and inbound consolidation to outbound cross-dock.

TMS

AR TRAFFIC CONSULTANTS www.artraffic.com

AR Traffic has been providing shippers with advanced transportation management software and third-party logistics services since 1964. All its products and services are designed to improve your efficiency, accuracy, record-keeping, control and auditability as well as to lower your freight costs. For a free study to show how you can cut costs, improve customer service, and streamline your business, visit the website today.

TMS



GLOBALTRANZ www.globaltranz.com

GlobalTranz is a technology-driven logistics company specializing in multimodal shipping, project logistics, and managed transportation solutions. Our mission is to help shippers and carriers succeed by providing full-service transportation and logistics solutions. Our innovative, proprietary technology and industry expertise work hand-in-hand to solve your unique supply chain needs. If you're looking for a logistics partner that delivers results through unparalleled relationships and technology, visit globaltranz.com today.

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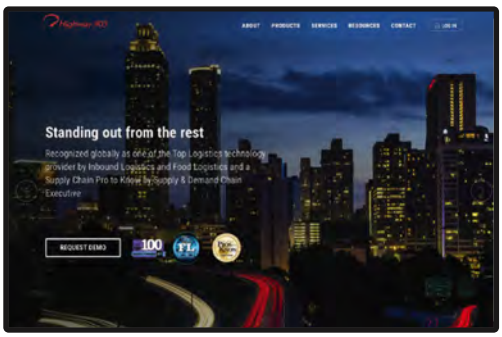
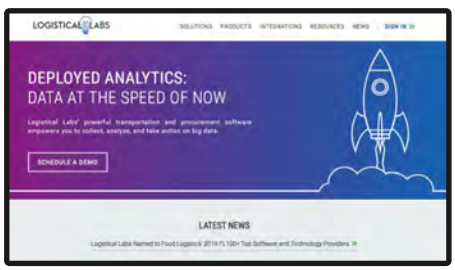


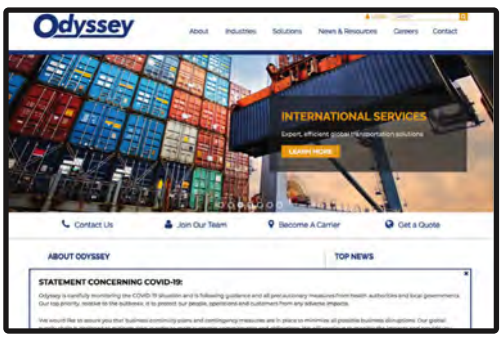


LOGISTICAL LABS www.logisticallabs.com

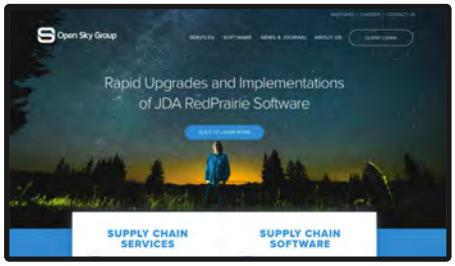
Logistical Labs builds software for collecting, analyzing, and deploying supply chain data. With their suite of analytics products, users can make better informed decisions through data-driven insights and social collaboration. Product capabilities include cost benchmarking, mode and route optimization, RFP hosting and management, and more. Open API access allows users to easily integrate products into their existing business applications for improved process efficiency.

ODYSSEY LOGISTICS & TECHNOLOGY www.odysseylogistics.com

Odyssey Logistics & Technology Corporation (Odyssey) combines deep industry expertise with leading technology to provide multimodal logistics management services to the chemical industry and other process manufacturers. Odyssey enables clients to outsource any part of their logistics processes to achieve savings through reduced transportation and infrastructure costs, measurable customer service and process improvements, and improved data quality and management. Odyssey is a leader in intermodal with expertise in liquid food, chemicals, and metals transport.



TMS



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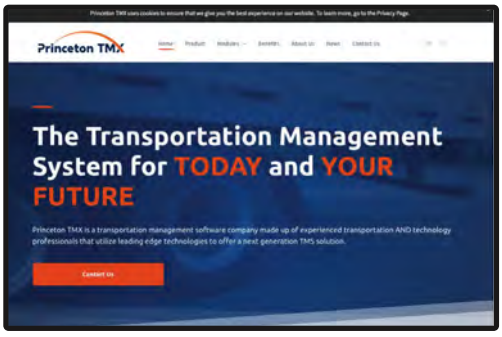
PRINCETON TMX www.princetontmx.com

Princeton TMX offers a transportation management solution utilizing the most modern software available. It empowers shippers to focus their resources on exceptions, while providing management with the tools to better analyze and minimize transportation expenses. Princeton TMX products are offered as a Software as a Service (SaaS) solution. These solutions are integrated with customers' systems to create a seamless experience for users. Princeton TMX's software modules are configurable to meet customers' specific business requirements.

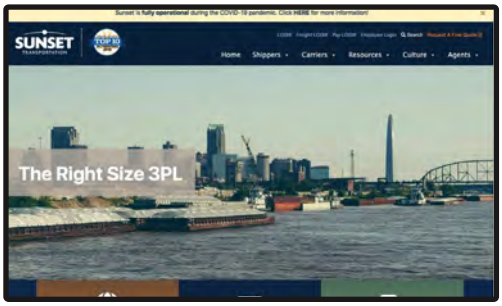


RATELINX www.ratelinx.com

RateLinx delivers all your logistics data in a single cloud-based platform with accurate data, advanced analytics, and reports to power visibility across orders, tracking, and invoices. Ensure you're optimizing across all carriers across all modes with the ShipLinx module. ShipLinx offers advanced rate modeling, business rules, a freight marketplace, and is small-parcel compliant. Accelerate your supply chain and connect with other RateLinx modules to maximize your visibility and savings.

SUNSET TRANSPORTATION www.sunsettrans.com

Sunset Transportation isn't just another 3PL. We are driven by the right-size fit for each business, using all levels of global and domestic supply chain resources and services. Our culture allows customers to feel like family, while offering advanced TMS solutions, reporting, and shipment reliability. Our approach is simple: through analysis of historical shipping data, we identify opportunities for optimization, service improvement, and technology enhancements. All this is done with five promises we make to every customer, every day: savings, visibility, data-driven decisions, continuous improvement, and relationships. Sunset is the right size 3PL for your growing business.



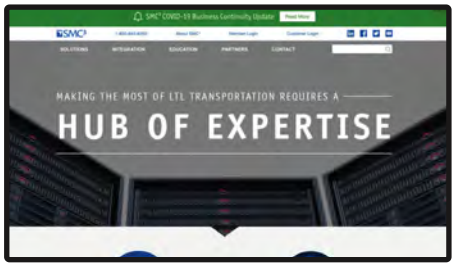
TRANSPORTATION

AAA COOPER TRANSPORTATION www.aaacooper.com

AAA Cooper Transportation has been providing safe and efficient transportation solutions for more than 60 years. With 70 plus strategically located service centers, we give individual attention to your transportation needs. Services include Less-than-Truckload, Dedicated Contract Carriage, Managed Services, Port and International, and Fleet Maintenance. AAA Cooper Transportation is committed to the long-term sustainability of the environment and continues to implement processes that will make the world a better place to live for generations to come. Visit our website to learn more.

LYNDEN www.lynden.com

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



SMC³ www.smc3.com

SMC³—the leading provider of freight transportation technology data and solutions—delivers the only integrated suite of intelligent technology data solutions geared toward the less-than-truckload and truckload industries. As a leader in both transportation software innovation and supply chain education, more than 5,000 North American shippers, carriers, logistics service providers and freight-payment companies rely on SMC³'s sophisticated LTL base rates, content, and expert bidding tools to make the best business decisions, achieve higher returns on their transportation investments, and meet the dynamic demands of the market.

TRANSPORTATION MANAGEMENT/FREIGHT MANAGEMENT

SMC³ www.smc3.com

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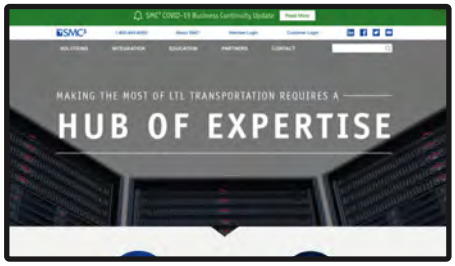
TRUCKING



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TRUCKING-LTL

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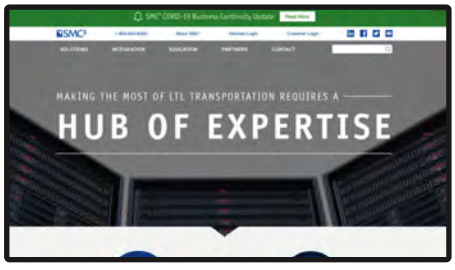

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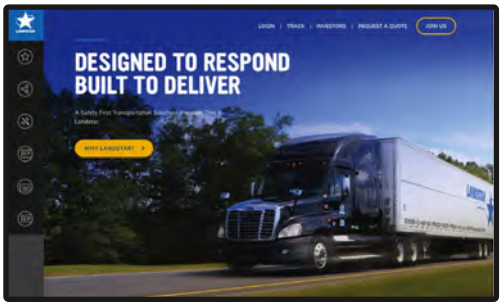
LANDSTAR SYSTEM www.landstar.com

Landstar is a network of independent sales agents and transportation capacity providers offering greater flexibility and a local presence that has a global reach. The Landstar network is unmatched in the industry. With more than 1,200 independent agents, 10,000 leased owner-operator trucks, 17,000 trailers and 56,000 other available capacity providers, we have the flexibility and experience to find a solution to your transportation challenge.



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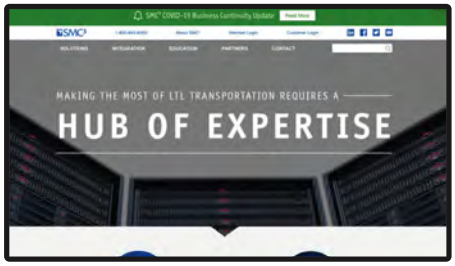
Trucking-LTL - WMS

TRUCKING-LTL



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WAREHOUSING

D&D DISTRIBUTION SERVICES www.dd-dist.com

D&D is a full-service public warehousing and distribution services provider. We are located in York, PA placing us near the mid-Atlantic region's major metropolitan areas and seaports. We serve customers around the globe, developing customized logistics and customer service solutions. We handle raw materials at the front end of the supply chain and finished goods at the back end. D&D develops flexible programs to accomplish customers' goals.

METRO PARK WAREHOUSES www.mpwus.com

Metro Park Warehouses is a full-service 3PL offering 2 million square feet in Kansas City of modern food-grade warehousing space, including air-conditioned & medical temperature-controlled space with licensed beverage and med/vet/pharma distribution, AIB Superior rating, and 5 rail facilities, all open to reciprocal switching. We also provide in-house local and regional trucking transportation and value-added services such as retail store displays, kitting, labeling and light assembly. Contact Metro Park to gain the competitive edge.

WMS

CAMELOT 3PL SOFTWARE www.3plsoftware.com

A market leader since 1987, Camelot 3PL Software provides Warehouse Management Systems (3PL WMS) exclusively for third-party logistics warehouses to streamline their operations, eliminate costs and increase service levels. Offering cloud (SaaS) and on-premise solutions, Camelot's highly configurable solutions are ideal for small, medium and enterprise-level warehouses.

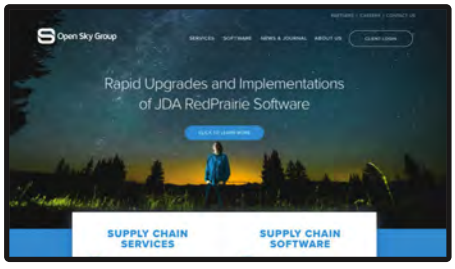
WMS

INTERLINK TECHNOLOGIES www.thinkinterlink.com

Discover the full potential of your warehouse with Warehouse-LINK® Warehouse Management Systems. Warehouse-LINK® utilizes barcode and mobile computing technology to support all distribution activities and provide web-based access to real-time information. Warehouse-LINK® integrates seamlessly with business systems and material handling systems such as conveyors, scales, automated scanners, pick-to-light, dispensing systems, and shipping systems. Warehouse-LINK® benefits the warehouse and DC by increasing inventory accuracy, improving space utilization, increasing worker productivity and decreasing fulfillment times.

MADE4NET www.made4net.us

Made4net levels the playing field for mid-sized businesses that need real-time, robust warehouse management solutions. The company's Warehouse Management System—WarehouseExpert™—optimizes inventory, as well as the resources and required material handling equipment. The WarehouseExpert WMS collects data on every transaction and movement in the warehouse, and uses this information to provide real-time visibility of your resources and equipment on a warehouse map, pallet locations, and performance and utilization metrics. To learn how Made4net can help you improve productivity, increase service levels, improve order fulfillment times, and reduce overall operation costs, visit www.made4net.us today.

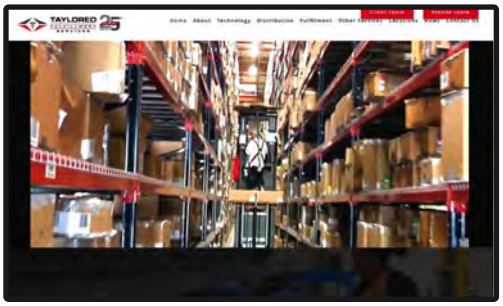


OPEN SKY GROUP www.openskygroup.com

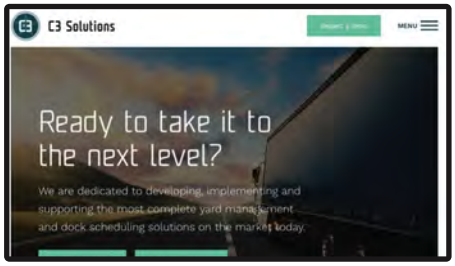
Open Sky Group specializes in rapid implementation of the newest versions of JDA Warehouse and Labor Management for mid-market companies. Authorized Reseller of JDA WMS, WLM and TMS, Open Sky Group strives to be the best consulting partner on the planet for companies implementing supply chain solutions. Contact Open Sky Group today to learn more about how we help mid-market companies have less risky and shorter supply chain software implementations.

TAYLORED SERVICES www.tayloredservices.com

At Taylored Services, we look at your business as if we were a box moving through your supply chain. Our goal: to provide a comprehensive array of fulfillment services that best fit your business needs. Award-winning retail experts. Strategically located bi-coastal facilities. Expertise in wholesale and retail distribution. Best-in-class systems and technology. A full range of logistics services including: drayage management, transload, DC bypass, crossdock, case distribution, unit fulfillment (B2B, B2C, Digital), and value-added distribution solutions (repacking, reticketing, point of purchase, display assembly, inserts and labeling, returns).



YARD MANAGEMENT



C3 SOLUTIONS www.c3solutions.com

C3 Solutions is an information technology company specialized in yard management (YMS) and dock scheduling (DSS) systems. Since its founding in 2000, C3 has gained the confidence of clients around the world and across many industries including retail, grocery, distribution, manufacturing and parcel post. Headquartered in Montreal (QC), Canada and privately owned, C3 is dedicated to developing, implementing and supporting the most complete yard management and dock scheduling products on the market today. For more information on C3's products, schedule a free online demonstration.

SENTIER SYSTEMS (YARD COMMANDER) www.yardcommander.com

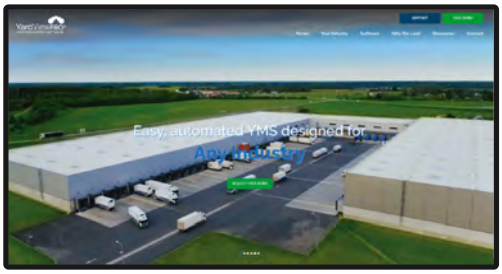
Yard management software shouldn't be complicated or expensive. Yard Commander is a Web-based YMS that's simply effective. We've made the software fully functional while avoiding unnecessary "features." At the same time we've kept it intuitive and user friendly. Yard Commander offers the most affordable and easy-to-use YMS on the market.

YARD MANAGEMENT SOLUTIONS www.yardmanagementsoftware.com

Eagle Eye by Yard Management Solutions is your ultimate partner as it works 24/7 to increase efficiencies, streamline operations and reduce costs. Real-time visibility and instant analytics on all assets, shipments and workforce activities deliver the moment-to-moment pulse on your operation. Powerful functions lighten your workload and do the heavy lifting for you and our alert system will notify your team of problems before they arise. Our cloud based software is easy to learn, simple to use and will keep your team informed, on track and in motion. Call 800-766-6197.

YARDVIEW www.yardview.com

YardView is a web-based yard management system that is easy to learn and simple to use for operations personnel. Managing yard inventories, movements, appointments, drivers, carriers, time-related events, and other yard activities can be difficult. YardView works for any size operation. YardView is experienced with helping operations become more effective. YardView gets everyone on the same page. The benefits of a software program to help manage these processes are proven and can be realized by your operation. Contact our experts to discuss how we can translate what you are doing now into a more efficient system.



CALENDAR

JUN 16-19, 2020

SAN DIEGO, CA

United Fresh Live!

unitedfreshshow.org

In this unique digital experience for the fresh produce industry, attendees can explore a virtual expo floor and video networking experience to discover the latest in marketing, packing and processing, sustainable packaging, and more.

These events were scheduled to proceed as of press time.

CONFERENCES

AUG 25-27, 2020
ATLANTA, GA

Circularity 20

greenbiz.com/events

This program of workshops and networking opportunities for professionals in every industry aims to accelerate the circular economy. Program tracks cover the topics of business model innovation, design and materials, next-generation packaging, food and water systems, and logistics and infrastructure.

SEPT 13-15, 2020
NEW ORLEANS, LA

ASCM Connect

apics.org

Supply chain professionals from around the world come together for this event, which builds on the American Production and Inventory Control Society certification and training. Attendees learn about the accelerated pace of change in supply chain across topics ranging from inventory and materials management to robotics and virtual reality.

SEPT 13-15, 2020
LONG BEACH, CA

Intermodal Expo 2020

intermodalexpo.com

Intermodal industry professionals focus on key issues facing the intermodal supply chain at Intermodal Expo 2020, including carriers, third-party logistics providers, marine terminals, manufacturers, and more. Both experienced and early-career professionals speak with exhibitors and industry experts to see the products and trends affecting the future of the industry.

SEPT 22, 2020
LOS ANGELES, CA

94th Annual World Trade Week Southern California Kickoff

worldtradeweek.com

World Trade Week promotes the aspects of international trade that benefit the global economy through educational programs and events. Join executives and members of diplomatic corporations to kick off this month-long celebration for a morning of thought leadership and networking.

SEPT 28-30, 2020
NASHVILLE, TN

Parcel Forum 2020

parcelforum.com

First-timers and veterans in the small-package supply chain industry can learn how to ship more packages efficiently and cost-effectively through peer-to-peer networking, educational sessions, and the unique exhibit hall experience at the Parcel Forum 2020 conference.

SEPT 29-30, 2020
DALLAS, TX

American Supply Chain Summit

supplychainus.com

This leadership-focused meeting focuses on improving supply chain and procurement strategy around the globe. Examine key case studies on how workforce management, advanced analytics, process improvement, and automation are rolling out in the world's best facilities.

OCT 5-6, 2020
HOUSTON, TX

LogiChem

bit.ly/logi-chem

LogiChem is a networking event tailored for supply chain, logistics, and transportation management executives in the chemical manufacturing industry. The event offers coverage of the latest chemical industry trends, with a focus on strategic supply chain topics as well as logistics, transportation, and distribution challenges.

OCT 29-30, 2020
PHILADELPHIA, PA

Home Delivery World 2020

bit.ly/HomeDeliveryWorld20

This annual retail logistics conference and exhibition covers the latest in parcel, heavy goods, grocery, and more, with more than 5,000 attendees participating in 260-plus expert speaker sessions. Subjects range from last-mile innovations, autonomous vehicles, C-stores, and heavy goods to cannabis, fleet technologies, alternative fuels, and real estate.

JAN 25-27, 2021
ATLANTA, GA

Jump Start 2021

smc3jumpstart.com

This three-day event focuses on logistics and supply chain education for middle- to senior-level decision-makers responsible for moving domestic and foreign freight. Jump Start features targeted sessions, thought leaders, substantive seminars, and networking opportunities.

Logistics Planning Software

- Continuous Move Planning
- Backhaul Matching
- Fleet Deployment
- Network Design
- Routing and Scheduling
- Fleet Sizing
- Supply Demand Matching
- Paratransit Routing

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Intermodal

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Logistics Lexicon
FOR THE TIMES

Replenishment algorithms

If-then inventory scenarios that can be adjusted to ensure grocery supply chains can respond to surging demand.

No-contact or contactless delivery

Completing transport to a pre-arranged location without any face-to-face interaction.

Digital disconnection

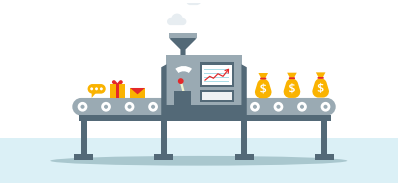
Rest phase recommended for truck drivers and work-from-home personnel.

Always responder

Logistics professional who keeps goods moving at all times, including crisis situations.

Isolate and operate

Strategy of using wide spaces to separate key personnel and keep port terminals running.



Surge capacity

Built-in additional manufacturing capacity put in place as a result of a previous crisis. Can be reactivated when demand spikes.

Non-signature POD

Waiving signature requirements for proof-of-delivery confirmation.

Vessel sharing

Arrangement between ocean container carriers to increase capacity and provide more connections for shippers.

Port of New York & New Jersey

Roadways, railways, seaways, all ways.

Whether it's by truck, rail, ship, or barge, the Port of NY & NJ has your cargo needs covered. Our six terminals service all major ocean carriers and are ready to handle all types of cargo. We have access to over 3,000 trucking companies and four on-dock ExpressRail facilities and are in close proximity to all major regional roadways and highways. Moving cargo by road, rail, or sea — consider it done.

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