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Info **SNACKS**

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BITE SIZED SUPPLY CHAIN/LOGISTICS INFORMATION

SMALL B2Bs DO BIG BUSINESS

93%

of small to mid-sized B2B companies now conduct some portion of their business online, up from 90% in December 2019.

43%

utilize e-commerce, an 8% increase during the same time period in 2019.

63%

of B2B companies report conducting some amount of cross-border B2B trade, up from 59% in December 2019.

+8%

The amount manufacturers' online B2B trade increased amid the pandemic-twice the rate of the 4% increase in all industries for the same period and tied with retail as the two industries with the most digital growth.

-ALIBABA.COM U.S. B2B SMALL AND MEDIUM BUSINESS SURVEY

Slow Supply Chain Idles Fast Car

The Corvette assembly plant in Bowling Green, Kentucky, temporarily closed its doors on October 12, 2020, due to a COVID-caused disruption in parts supply. Some parts are so specific to the Corvette that GM can't just go out and find a different supplier to pick up the slack. "Our supply chain, manufacturing, and engineering teams worked closely with our supply base to mitigate any further impact on production," said Kevin Kelly, Chevrolet spokesman. The plant revved back up on October 19.



"We'll always answer the call when our country needs us most. Trucking isn't just the backbone of our economy — it's the heartbeat of this nation."

- American Trucking Associations President and CEO Chris Spear



BRACING FOR A SHIP-A-THON

"We are preparing for what we call the Ship-a-thon. We are entering a peak season the industry has never before experienced."

-Jenny Robertson, SVP, integrated marketing and communications, FedEx, in a Barron's interview discussing how the rise in holiday volumes will strain already-stressed shipping network capacity.

REMOTE CONTROL

To identify the best and worst cities for remote workers, LawnStarter compared the 150 biggest U.S. cities across 15 key factors, including remote job opportunities, internet speed, and the cost of renting a home office.

BEST CITIES

McKinney, TX
 Frisco, TX
 Plano, TX
 Irving, TX
 Garland, TX
 Yonkers, NY
 Austin, TX
 Fort Worth, TX
 Dallas, TX
 Orlando, FL

WORST CITIES

141 Boston, MA
142 Oxnard, CA
143 San Bernardino, CA
144 Elk Grove, CA
145 Ontario, CA
146 Lexington, KY
147 Anchorage, AK
148 Bakersfield, CA
149 Moreno Valley, CA
150 Honolulu, HI

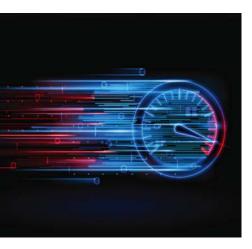


"We have the best logisticians in the world at the Department of Defense, working in conjunction with the CDC, to guide every logistical detail you could possibly think of."

– Paul Mango, deputy chief of staff for policy, U.S. Department of Health and Human Services, discussing how the U.S. military will lend its logistics expertise to ensure the COVID-19 vaccine is available across the nation.



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36 E-FULFILLMENT PICKS UP SPEED

E-commerce and transportation companies can accelerate processes at several points between the fulfillment center and the consumer's doorstep to meet demand when fast delivery isn't fast enough.

42 EXPEDITED CARRIERS GUIDE 2020

These expedited freight solution providers and the services they offer help shippers move their freight-and better serve their customers-at lightning speed.









48 AIR FREIGHT UPDATE: MANAGING THE TURBULENCE

The airfreight sector has experienced a bumpy ride during the past six months. How are carriers and airports stabilizing operations?

GOOD QUESTION

What's the most unexpected transportation move or logistics project you've been involved in?

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Find the carriers that can accelerate your freight at top speed



New rail service for fresh produce and more

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INPRACTICE

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How much does Dave Cox, president of Polaris Transportation Group, believe in building partnerships with clients? Enough to walk away from a million-dollar account that wasn't interested in developing a relationship.



C-Store Master is constructing a first-ofits-kind automated warehouse in Alabama

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NOVEMBER 2020

WHITEPAPER DIGEST

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MORE NEWS ONLINE



TIME FOR A WIRELESS SITE ASSESSMENT

Well-designed Wi-Fi networks reduce the time spent troubleshooting and keep users productive. But shifting inventory, shelving, and vehicles create unique connectivity challenges for warehouses. Here are three signs your warehouse could benefit from a Wi-Fi assessment. *bit.lv/WirelessAssessment*

HOW TO FULLY PREPARE FOR THE HOLIDAY SEASON

Americans will still spend money this holiday season, even during a pandemic. Smart retailers are taking these three steps to unwrap a joyous holiday season as they navigate e-commerce surges, increased transparency, and a focus on scalable redundancy. *bit.ly/HolidayRetailPrep*



EVALUATING LOGISTICS SERVICE PROVIDERS

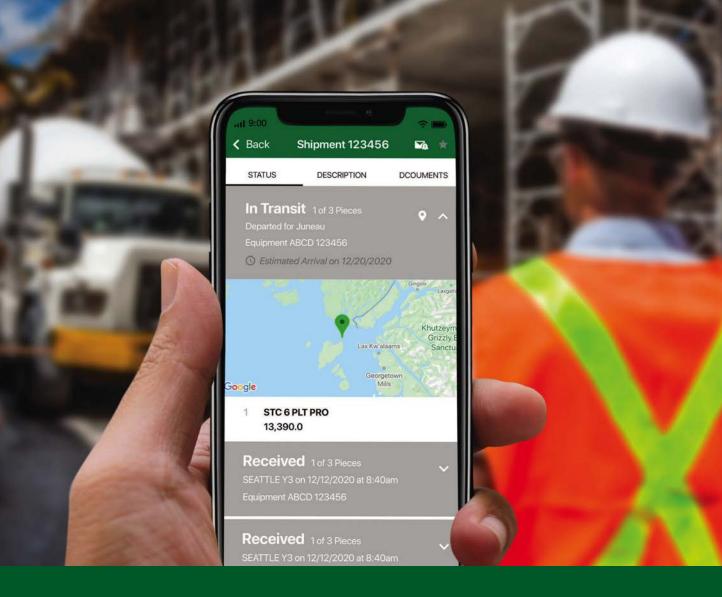
Shippers have increased their spend with outsourced logistics service providers in the past decade, leading to continuous industry improvement and rising consumer expectations. When evaluating providers, consider these five factors to ensure your freight is handled with care. *bit.ly/EvaluatingProviders*

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CHECKINGIN

Do You Like Raspberries?



Keith Biondo, Publisher

Initial and erroneous reporting on a Wuhan wet market renewed a focus on food supply chain management, or FSCM. The virus episode reminds us that reputations of food value chain partners—vendors, transport providers, governments, buyers, and retailers—can and will be severely damaged by any food chain fail.

Twenty-three million people get sick from unsafe food annually, and about 5,000 die, reports the World Health Organization. With a global focus on the virus, organic

products growing more popular, and governments failing to ensure safety at the source and destination, consumers demand more insight into the source of their food.

Before the pandemic, Zebra Technologies conducted the "Closing the Trust Gap: Technology and the Food Supply Chain" study, which found that across 13 different types of companies and brands within the supply chain, from distribution centers and warehouses to grocery stores, only 37% of food industry leaders place complete trust in the industry when it comes to safety while 80% of consumers do not have complete trust in the safety of what they eat.

According to Zebra's survey, here are the risks associated with food safety:

• Businesses connected to food safety fails may be forced to stop selling their products, creating a devastating financial impact up and down the supply chain.

• Brands are destroyed as a safety incident spreads forever on social media and the internet around the globe.

• Individual or class-action legal woes ensue.

• Regulations are increasingly enforced, up to and including tariffs and fines.

 Insidious guilt by association, as your current and future partners distance themselves from you — even if you are only tangentially connected to the food fail.

An exhaustive *Reuters* article entitled "Raspberry Racket" laid bare the ways in which businesses and consumers are at risk from bad actors in the food value chain. It relates how low-cost frozen berries exported from China were shipped through a middleman in New Zealand to a packing plant in South America. Hundreds of tons of raspberries were then labeled as premium South American-grown organics and sold to consumers in Canada and around the world at a large profit.

IBM has made great strides in applying blockchain solutions to FSCM. But blockchain use calls for artificial intelligence (AI) applications. The volume of supply chain data that U.S. Customs & Border Protection (CBP) deals with has skyrocketed since piloting blockchain. Only AI can make sense of it all in real time, offering CBP advice on what to interdict. Blockchain applications and identification technology increase transparency and traceability, possibly eliminating events like the raspberry racket.

Governments and customs entities need to do more. Until then, honest players in the food chain need to protect themselves and their trusted partners before the market gives you a raspberry.





THE MAGAZINE FOR DEMAND-DRIVEN ENTERPRISES

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GOODQUESTION Readers Weigh In

What's the most unusual or unexpected transportation move or logistics project you've been involved in?

I led EMEA logistics for a large shipper when the Icelandic volcano erupted in 2010, closing EU air space. We innovated quickly to meet substantial customer commitments and chartered three B747 freighters out of Spain for two weeks. However, not an order was missed for the quarter.

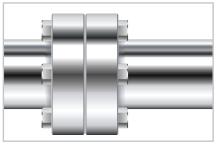
—Ronald Kleijwegt VP Global Sales & Managing Director EMEA, Blume Global

The multimodal logistics coordination

needed to move two 180-ton locomotives from Houston to Callao, Peru, in the middle of the COVID pandemic, utilizing ship, rail, and road, is one of my greatest professional memories.

—Eduardo Rey

Managing Director Air & Sea Logistics DACHSER Peru



Moving an overweight piece of pipe measuring 60 feet long with joints making it 22 feet at its tallest and widest point from Adelanto, California, to the Portland, Oregon, area. They had to lift powerlines/traffic lights and pull fire hydrants and post office boxes off the street corners along the journey. Any guesses on the average cost per mile? More than \$75/mile.

> *—Bill Madden* Group VP, Logistics as a Service BluJay Solutions

The most unusual thing I've transported is rhodium "dust." Rhodium is a precious metal 7 times more expensive than gold. The rhodium was used in an industrial chemical process and dust generated from the process was collected and transported to a special recovery facility. It required an escort because each drum was valued at more than \$1 million.

> *—Robert Gerwig* Senior Vice President of Distribution, Sweetwater

Shipping a building in a box. At

VersaTube, we pre-engineer carports and garages into do-it-yourself kits (think erector sets with Americanmade steel) and ship them to people's homes. It's funny, but packing the structure on an 88-inch pallet is the easiest part. The real challenge is delivering a 1,000+-pound pallet to someone's home and have the driver offload it without knocking down telephone poles in residential neighborhoods.

We partner with LTL freight companies who are also in the moving business. This means they have forklifts attached to the back of the truck and can offload these large pallets. This has been helpful but with sales growing due to e-commerce, COVID-19 home improvement projects, and skyrocketing lumber prices, we're running into challenges finding enough capacity.

> —Dusty Dean Founder and CEO BITCADET

Operating three expandable trailer

units that are essentially mobile surgery suites that are on the road 48 weeks out of the year to support one of our healthcare customer's sales and training efforts. They travel to set up at hospitals, educational institutions, and conventions, where they are used for community outreach programs, cadaveric training, and product showcases.

> *—Mike Pallo* VP, Transportation Sales, Kenco

When I worked for a German fashion

company in 2002, I had a small airplane standing by in Frankfurt, Germany, to pick up goods in Tunis, Tunisia, if regular airfreight wouldn't take the goods this particular night. It was never guaranteed.

Our customer had heavily advertised for goods to be available in the shops on a particular day. And we would have faced serious penalties if the goods were not available. So to have the pilot on standby was the cheaper and safer solution. The goods were taken by regular airfreight and the pilot could go home. Better safe than sorry. I don't remember if it was pants or blouses, though.

> *—Simone Ross* COO, Setlog Corp.



The new Miami Dolphins stadium.

Sunset's involvement in the construction of the new stadium in 2015 was the most unusual and complex. It went through so many changes over so many months, like outside vendors canceling work after raw materials were already onsite.

Sunset provided "superload" hauling of fabricated steel from St. Louis down to Miami, which was complex from start to finish for permitting, weight capacity, and tight scheduling. In this project, the supply chain was everchanging but the deadline was not. It was gratifying to see it all come together.

> —Scott Griffith Logistics & Project Management Supervisor Sunset Transportation

The Super Bowl. One of our customers supplies office equipment for the event, which means Ryder has not only transported equipment to several venues but also installed it. Essentially, we've helped set up the back office behind one of the biggest sporting events on the planet.

—Steve W. Martin SVP, Dedicated Transportation Solutions Ryder

Back-to-school shopping usually means notebooks or gym shoes. We were contacted in late July by a bedding manufacturer to deliver 10,500 vertical-standing, in-store mattress displays for college students. In four weeks, we trucked inbound, warehoused, cross-docked, built displays, planned outbound, shipped LTL, and zone-skipped pool deliveries into 3,500 Walmart stores.

> *—Dave Giblin VP, ODW Logistics*

Helping special-needs children

through returns processing. A major medical device maker asked us to launch a special returns-processing program to repackage returned, unused glucometers for distribution to special-needs children's camps, to help teach diabetic children how to check their glucose levels. We are proud of our role in helping them stay healthy.

> *—Ken Bays* VP Product Development Inmar Intelligence

GOODQUESTION

A customer was interested in moving

live cattle. I had to research what it involved and the legality behind it because the United States has rules in place to protect the animals. We began looking into vets who would be able to travel with the cows and tranquilize them during travel, "cowtainers" where the cattle can stay during the voyage, and seeking clearance from the government.

The customer didn't end up going forward with the move, but now I have all the knowledge on how to transport cattle so I can take that on in the future.

> **—Shani Atapattu** VP, ShipOCI

In partnership with the NYC Mayor's

office, this past spring we moved 150,000+ pounds of essential PPE to warehouses throughout New York City to ensure healthcare workers had adequate stockpiles of materials to protect them while caring for patients with COVID-19. This included masks, gloves, eye protection, and ventilators.

> *—Lily Shen* CEO, Transfix

Harvesting crickets. We had a customer who has expertise in alternative sustainable food sources and farms insects from hatch-toharvest. They came to us looking to incubate and harvest live crickets in an AS/RS solution, and we were able to use our products to help them.

> *—Hasan Dandashly* President and CEO, Dematic

Have a great answer to a good question? Be sure to participate next month. We want to know:

What supply chain adjustment would you have made at the start of 2020 if you knew then what you know now?

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

[INSIGHT] DIALOG @ILMagazine

Re. August Good Question: What's the most significant way COVID-19 has changed the supply chain? bit.ly/COVID_GoodQuestion

The pandemic has emphasized the importance of focused carrier relationship management. As supply options shrunk (air freight was nullified and ocean freight resorted to blank sailings), procurement became paramount to provide clients with viable transport options leveraging our core relationships.

> —Chris Matthews Chief Operating Officer Rhenus Canada

E-commerce sales have surged. While it's uncertain how this will change once social distancing restrictions are removed, supply chains must understand final-mile delivery. As even more fulfillment and distribution options are introduced, understanding and planning based on these new options will be key.

> —Melissa Runge Vice President of Analytical Solutions Spend Management Experts



digidispatch: This edition of *Inbound Logistics* says seed companies set a historic sales record as more people were worried about the U.S. food supply chain. I've been part of that boom by growing porch versions of basil, chives, parsley, and green onions. This experience and these trends hint to a greater awareness among the public of the importance of transparency in the supply chain of everything we buy.

Re. 15 Down & Dirty Ways to Get Green Now bit.ly/15ways_to_green



Today, the customer expects sustainability to be built into both packaging and delivery options. Route transportation needs to be

thought through—electric vehicles and ride shares can be utilized in some areas and route optimization saves money and natural resources in others.

Leverage these opportunities by allowing customers to choose if they would like to prioritize sustainability. You give them a chance to choose a pickup location or offer an alternative shipping timeline for those who will wait longer to be eco-conscious. With these practices built into retail protocols, companies can stand out.

-Daniel Binder



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READER EMAIL

I've seen low and unfair rates to haul freight below the price of \$2 per mile. The brokers who dominate all loads make more on a load than the carrier, and that is wrong.

> -LaVaughn R. Provo Owner/Operator, Smart Transport



Utilize demand planning tools and resources. Demand planning

tools can provide an accurate view of demand and the ability to adjust that view to navigate many types of events, including product launches, promotions, and holiday peaks, alongside unexpected events such as natural disasters and pandemics. This enhanced visibility and scenario planning capability suggests the optimum transportation mechanism for deliveries, maintains the correct levels of inventories, and creates a clear picture of how changes in demand will impact strategic, operational, and financial results.

> —Antony Lovell VP of Applications, Vuealta

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TIC Preparing to Automate Your Warehouse

Before investing in the latest automation trends, optimization is crucial. These steps can help you effectively optimize, connect, and—only then—automate operations.

1 COMMIT TO OPTIMIZING WAREHOUSE EFFICIENCIES.

Optimizing warehouse space, equipment utilization, and labor will help determine if your company is ready for automation and also identify priorities for implementing automated solutions.

> INVEST IN EDUCATION Z AND TRAINING.

Educating forklift operators and technicians will help you achieve better results. Reality simulators, for example, provide hands-on instruction that is designed to improve operator skills and keep them learning in a realistic virtual warehouse before they ever set foot on the floor—saving time and preventing potential disruptions.

ADOPT LEAN MANAGEMENT.

Lean management is a long-term operational discipline that systematically seeks to improve efficiency and quality by identifying expenditures and eliminating waste in time and materials.

GATHER MEASURABLE DATA.

You can't improve what you don't measure. Implement processes and telematics solutions that

provide measurable data and consistent utilization, including performance metrics and scheduled maintenance. Collecting data and implementing intelligent warehouse solutions connect vour entire fleet and identify issues such as hidden costs.

ESTABLISH OPERATIONAL **D**BASELINE EFFICIENCIES.

Even the most advanced technologies won't make your warehouse more efficient if you don't know how to measure and interpret the data. By analyzing data, identifying the problem, and applying a solution, you can create a more optimized warehouse that streamlines operations, creates more

space for product, increases workforce productivity, and identifies the equipment most suitable for specific tasks.

IMPLEMENT AN C EFFECTIVE LMS.

An effective labor management system (LMS) provides business analytics that are key to improving how your workforce works and maximizing labor utilization. An LMS can identify and implement best practices to control costs, increase margins, make well-informed staffing decisions, and analyze trends for effective forecasting. Labor studies provide valuable data for implementing effective training to boost productivity, monitor utilization, and promote employee accountability.

INVEST IN ENERGY MANAGEMENT.

The future of the material handling industry lies not only in automation and

telematics, but also in pioneering alternative energy solutions to operate more efficiently and sustainably.

8 ENGAGE PROFESSIONAL SERVICES.

You don't have to go down the path to automation alone. Third-party professional services can help identify areas of improvement by providing data on your labor force, analyzing costs and inefficiencies, and recommending solutions.

DETERMINE THE RIGHT SOLUTIONS.

It is not always necessary to jump into full automation. With shared autonomy, a human and autonomous forklift could see a problem remotely and quickly remedy it. Shared autonomy will play an integral role in the 21st century warehouse reducing human fatigue, improving warehouse throughput, and focusing on value-added processes.

PREPARE FOR CONTINUOUS IMPROVEMENT.

Don't be of the mindset that when you go through the optimization process once, you're done. There will always be opportunities for improvement. Ongoing data monitoring and analysis provide a road map to maximum operating efficiencies.

SOURCE: JOHN ROSENBERGER, DIRECTOR OF IWAREHOUSE GATEWAY AND GLOBAL TELEMATICS, THE RAYMOND CORPORATION



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THE GLOBAL CLINICAL TRIAL SUPPLY AND LOGISTICS FOR THE PHARMACEUTICAL INDUSTRY IS EXPECTED TO GROW FROM \$16.6 BILLION IN 2019 TO \$25.9 BILLION BY THE END OF 2025.

-ReportLinker Global Forecast

HEALTHY DEMAND FOR REAL ESTATE

The life sciences industry is experiencing a boom in real estate demand as it combats COVID-19, says a report from commercial real estate firm CBRE. Findings in the report reveal:

• Total commercial lab space increased by

12% in 2020 to 95 million square feet.

• Conversions of properties into lab space increased significantly, on top of another 11 million square feet currently under construction.

• Nearly all leading life sciences markets saw rising rents and low vacancy, which is expected to continue in 2021.



• Total capital venture funding for the life sciences industry for the year ending in the second quarter of 2020 hit a record \$17.8 billion, outperforming other sectors.

• Employment in the life sciences sector declined 1.3% in July 2020 from its peak in March, but was still 1% higher than one year ago.

• The biotech research and distribution sector saw high employment growth, increasing 4.9% from 2019.

• Boston-Cambridge, the San Francisco Bay Area, and San Diego remain the top three life science areas in the United States.

• San Diego has the fastestgrowing rents for lab space,



seeing an 18.4% increase since early 2019.

• Emerging markets like Pittsburgh and Austin are growing in popularity due to their focus on research and development.

• Property sales in life sciences continue to flow, with Ventas acquiring a 796,572-square-foot life sciences campus for \$1 billion.

• The life sciences sector has a positive outlook due to a boost in demand caused by COVID-19, a growing U.S. population, advances in technology, and governments and insurance companies pushing for solutions.

COVID-19 VACCINE PROGNOSIS

"Transportation from the manufacturer into a state is only the first step of what needs to be done. The real challenges that concern me have to do with the ultra-low cold storage."

–Julie Swann, North Carolina State University professor of industrial and systems engineering, on how the biggest complications in COVID-19 vaccine distribution will come closer to the final point of delivery.

Total delivery time, from distribution center to point of use, is expected to be an average of three days.

-Pfizer, on how long it will take to transport its COVID-19 vaccines. Hundreds of thousands of doses are already in its U.S. and Europe warehouses awaiting approval.

10 BILLION COVID-19 vaccine doses 15.000

long-distance flights

ZUU, UUU moves by pallet shippers

15 MILLION deliveries in cooling boxes

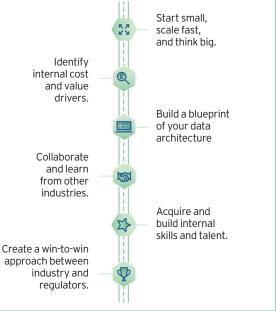
2 YEARS of global coverage

-DHL's Delivering Pandemic Resilience Report



ROADMAP TO DIGITIZING BIOPHARMA

Protecting the biopharma supply chain is critical for providing access to life-saving drugs, making intelligent monitoring imperative. However, the large volume of data generated is underutilized, finds a Deloitte report. Artificial intelligence can improve data processing to create a thriving, cost-effective supply chain, and requires a shift from a linear model to an interconnected digital network. Following this roadmap can lead the way to digital transformation, the report says.



DRONE COMPLETES CRITICAL COLD CHAIN DELIVERY

The first drone delivery of temperature-controlled medicine was completed in the United States by drone services provider Volansi in partnership with Merck. Volansi is piloting the delivery of cold chain medicines from Merck's North Carolina manufacturing site to a Vidant Health clinic to explore drones' ability to improve access to on-demand healthcare.

The all-electric drone can carry 10 pounds of cargo to locations up to 50 miles away. Its vertical take-off and landing system delivers fragile cargo with a soft touch and automated release at the delivery site. It also delivers items to support order information on the return flight, such as temperature tracking and shipping confirmation.

With 1.4 million people across 29 counties, Eastern North Carolina's rural environment creates challenges in healthcare access. Volansi will seek approval from the Federal Aviation Administration to provide deliveries in additional locations.



BOOSTING THE HEALTHCARE SUPPLY CHAIN

Before COVID-19, the healthcare supply chain represented just 35% of a U.S. hospital's expenses. Now, it's a key focus as medical facilities prepare for another wave, hoping to avoid delays and inefficiencies this time around. Here are six ways the healthcare supply chain can cope with another wave of COVID-19, according to Thomas Insights:

1. Centralize sourcing. This will help prevent inflated personal protective equipment (PPE) prices and equipment that does not meet regulatory standards, reduce duplicated efforts, and make it easier for medical centers to optimize their inventory.

2. Move away from lean practices. Healthcare providers must move away from the just-in-time supply chain model and focus on building a greater reserve of safety stock, known as the just-in-case model. Advanced analytics tools can help more accurately forecast demand.

3. Use enterprise resource planning (ERP). Investing in cloud-based ERP systems in healthcare could be transformative. For example, they enable the accurate tracking of critical supply levels across medical centers and hospitals.

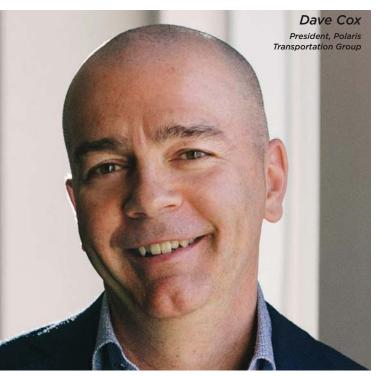
4. Find local suppliers. To address shortages, several manufacturers pivoted to produce PPE. Now, the healthcare supply chain should put its efforts into identifying good, local suppliers who can meet their needs. If an overseas supplier is the only option, it's important to develop trusting relationships to guarantee supplier loyalty.

5. Be proactive, not reactive. The hospital supply chain must take a more proactive approach in managing critical supplies as well as monitoring disease outbreaks locally and internationally. Medical facilities could also set up program buying procurement, which involves arranging quotas of products from a supplier that are automatically replenished when stocks drop below a certain point.

6. Make telemedicine easy and accessible. Telemedicine has become an important tool in fighting COVID-19, but the healthcare supply chain could further invest in technology that makes it easy and accessible for patients, including help desks that provide patient support.

LEADERSHIP Conversations with the Captains of Industry

Innovator of the Year



How much does Dave Cox believe in building partnerships with clients? Enough to walk away from a million-dollar account that wasn't interested in the same goal.

by Merrill Douglas

In the mid-1990s, Dave Cox was a self-described "starving student putting myself through university" when his father invited him to join the new family business, Polaris Transportation Group. Cox declined twice, maintaining that he didn't know enough to add value to the company.

Instead, Cox stuck with his job at Canadian trucking and supply chain company Challenger Motor Freight. In 1998, he decided he was ready to move to Polaris. In 2017, he took over from his father as the company's president.

We recently chatted with Cox about how he leads the company and where he's focusing his energy these days.

IL: What experience helped shape you as a leader?

I learned a lot about transportation at Challenger, but I learned more about people—the importance of the driver community and of treating people the right way.

I also learned about the value of safety in our industry. I once asked the safety manager at Challenger, "Are we running a safety department or are we moving cargo?" I was being flippant. He looked at me and said, "Dave, we do everything safely." He was 100% bang on. I said, "You're right. Freight will get there when it gets there — hopefully on time, of course. But we have to be responsible and safe." I never forgot that.

IL: Commercial Carrier Journal honored Polaris with its Innovator of the Year award for your use of digital automation. What role does that technology play in the company?

As a cross-border, less-than-truckload carrier, we move more than 300,000 orders between Canada and the United States each year. Any given piece of cargo could have one document attached to it, or 50. As our company grew, I saw smart employees bogged down in the minutiae of processing all those documents. It's not sustainable to keep adding more people. And that kind of work isn't a lot of fun. We want our people to exercise their intellect and creativity on the job.

So, since 2016, we've been investing in robotic process automation. Now, computer algorithms handle nearly all our documents. About 95% of transactions are entirely automated, and 5% go into the exception bucket, where smart people step in and rectify the problem with the right entity. Automation allows me to redeploy people, advancing their careers by going into areas where they can use their brains and creativity.

IL: How has COVID-19 affected Polaris' operations?

Because we've already digitized so much of what we do, the transition to working from home was easy. When COVID-19 came, we created a digital trucking company in less than 48 hours, with 85% of our typical building staff working remotely. Outside of our dock staff and a few key people, the building is empty. To our customers, however, nothing seems different.

IL: Which projects get most of your attention these days?

We continue to digitize and integrate our supply chain. We use analytics to identify new opportunities for our clients; for example, how our cross-border transportation clients might benefit from our warehousing and distribution services.

I also focus on best-in-class human resources practices. I want to get away from buying people's time, and instead buy people's results. Frankly, if you're here for just four hours and I get the results I want, that's powerful. Also, I want people to know that when they're at Polaris, they're being mentored to develop their skills to advance their careers.

IL: What qualities make you an effective president?

I've always been able to communicate. Whether you perform an important function on our dock, or you're a driver, or a chief financial officer, I talk to you and I listen. I'm fair. I present myself in a similar manner whether I'm happy or unhappy.

IL: How do you criticize or correct when that's required?

I try to ensure the individual understands the job's expectations and goals. I always set boundaries and I don't hold hands. If the person understands their job and the results the company is trying to accomplish, I give them room to do the day-to-day and experiment a bit. And if it doesn't work, fail fast and analyze what happened.

If I have to give a critique, I ask, "What is your logic for doing this?" I don't have all the answers, and maybe there's a good reason. If there is, we have a conversation about the outcomes we're trying to achieve. Nothing bad comes out of a conversation.

IL: Has a customer ever thrown you a curveball?

About 20 years ago, when we were a small company, we had a big customer that assumed we had a master-servant relationship. At Polaris, we believe that if there's no sense of

A Leader's Evolution

Dave Cox and his father worked together at Polaris Transportation Group for many years. Larry Cox handled the marketing, finance, and corporate vision. Dave, who had a more conservative bent, focused largely on operations. "We respected one another enough that we knew the other person would do a good job in their area of focus," he says.

Larry Cox passed away in 2017. As Dave Cox took over as president, he recognized that he faced a tremendous opportunity to try new things and grow the business. "Supply chain digitization amazes me," Cox says. "The impact that it has on our growth, and on making us a smarter, more efficient company is equally exciting."

Polaris' leadership team has always been progressive. "I'm not as conservative as I thought I was when I was younger," Cox says. "I've evolved, and that's exciting. I get to try new things to help the company. They don't always work, but we fail fast, and we have a lot of successes."

partnership, then we're just doing business, and business can go away. I said, "Thank you for your support in the past, but if there's no intent to develop our relationship, I can't offer you any value." It was a million-dollar account, and we walked away because it wasn't a good fit. We want relationships in which we care about our clients' business as much as they do.

IL: In the morning, what are the first things that you check?

Is everyone safe, and are the trucks running on schedule?

IL: What advice would you give someone starting a career in transportation and logistics?

Get experience in many different areas, be it pricing, operations, sales, finance, or rating. The more experience you have, the more well-rounded you'll become. This industry provides a tremendous opportunity for a young person to have a satisfying, long career and make some great money.

IL: How do you like to spend your time outside of work?

I climb mountains. I've done Kilimanjaro, and I often go climbing in the Canadian Rockies. I also like to kayak and go backcountry camping.

[IN FOCUS]



> GREEN SEEDS

DHL Global Forwarding

will neutralize the carbon emissions of all less-thancontainerload ocean freight shipments in January 2021. At no extra cost to the shipper, DHL



will replace the heavy oil that would be used with sustainable marine biofuel onboard a preselected container vessel.

Mars initiated a deforestation-free palm oil supply chain. The food manufacturer radically reduced the number of mills it sources from, awarding longer-term contracts only to suppliers who can commit to its environmental, social, and ethical standards. Mars will reduce its mill count from 1,500 to fewer than 100 by 2021.

Canadian Pacific Railway and **Maersk** will build and operate a transloading and distribution facility in Vancouver to provide sustainable intermodal options for shippers. Relying heavily on rail instead of trucks, Maersk's global integrator strategy reduces multimodal handoffs, creating more sustainable operations with less truck emissions.

Amazon unveiled its first custom, all-electric delivery vehicle, designed and built in partnership with startup Rivian. Amazon plans to have 10,000 vans on the road making deliveries to customers as early as 2022, with a total of 100,000 vehicles expected by 2030.

The Supply Chain in Brief

> GOOD WORKS

• Packaging solutions provider **Softbox** contributed insulating pallet covers to help



ship 800 donated temperature-sensitive medicines to the Democratic Republic of the Congo in partnership with International Health Partners.



• Volga-Dnepr Airlines moved 55 tons of humanitarian cargo for more than 12,000 refugees who were left without shelter at the Moria

refugee camp on the island of Lesbos in Greece after a fire destroyed the camp and neighboring territories.

• Worldwide Flight Services' team in Toulouse, France, provided ground and cargo handling services for a humanitarian flight to assist victims of the August 2020 explosion in Beirut. The team provided crew assistance and



handling for 11 stranded engineering students.

• **Raymond** hosted a Pink Pallet Jack Project online auction to support Breast Cancer Awareness Month. Participants bid on pink pallet jacks, and Raymond donated all proceeds to the Tina Fund, Northwest Hope and Healing, and Breast Cancer Angels.

> RECOGNITION

Transportation equipment lessor **Milestone Equipment Holdings** received the award for **Best Overall Chassis Provider in the Port of New York & New Jersey** from the Association of Bi-State Motor Carriers for providing drivers with high-quality equipment and offering responsive customer service.

.....

The East Bay Economic Development Alliance honored the **Port of Oakland** with the **Legacy Award** at its 2020 Innovation Awards for its contributions as a generator of jobs and economic vitality in Eastern California.

NOTED

> SEALED DEALS

• Home furniture manufacturer La-Z-Boy selected AIMMS Network Design's app to provide scenario modeling and results visualization. The tools enable La-Z-Boy to quickly evaluate various scenarios that drive supply chain efficiency and customer satisfaction.



• Happy Returns, a provider of return solutions, and third-party logistics provider **Ingram Micro Commerce & Lifecycle Services** are working together to enable quick e-commerce returns. Merchants using this fulfillment solution can offer online shoppers a branded portal to initiate returns and drop off items box-free and label-free at a Return Bar.

• **Staples** is partnering with tech firm **Optoro** to turn its stores into drop-off locations for returned goods sold by other online retailers. Consumers can bring returns to the more than 1,000 Staples stores in the United States and get credit for the items via QR code on their phones.

> SHOVEL READY

C-Store Master,

a convenience store supplier, is building a 120,000-squarefoot automated warehouse in Huntsville, Alabama—



the first of its kind in the United States. The warehouse's 70 robots will operate a multilevel shuttle system.

Goya Foods will nearly double the capacity of its North American processing center in Brookshire, Texas. The expansion includes new processing equipment and adds capacity for Goya beans and other products experiencing increased demand during the pandemic.

> IN MEMORIAM

Ken Johnson, former owner and chief executive officer at The Shippers Group, passed away on October 14, 2020. A relatable and inspiring leader, Johnson's career in the thirdparty warehousing industry spanned several decades,



starting as a warehouse worker and advancing to chief executive officer.

> M&A

■ Tank truck transporter and logistics provider KAG North America acquired Paul's Hauling, a Manitobabased provider of bulk transport services in Western Canada, through its Canadian subsidiary KAG Canada/RTL Westcan.

■ Americold Realty Trust acquired temperaturecontrolled warehouse company Agro Merchants Group.

■ Aptean, a provider of enterprise software solutions, acquired **agiles**, an enterprise resource planning software solution for the fresh food wholesale and trade industry in Germany, Austria, and Switzerland.

■ Global freight forwarder **Gebrüder Weiss** acquired logistics and distribution company **Ipsen Logistics**.

■ PINC, a digital yard solutions provider, acquired **RailcarRx**, a provider of rail industry software solutions and services.

> UP THE CHAIN

Bill Hancock joined **US Foods** as executive vice president and chief supply chain officer, and will oversee all warehousing, transportation, and supply chain strategy and operations, as well as safety and labor relations. Hancock previously served as senior vice president of supply chain operations at American Tire Distributors and vice president of global supply chain operations for Target Corporation, where he spent 14 years in various leadership roles. [IN FOCUS]

Shaping the Future of the Global Supply Chain

MACY'S PARADES DIGITAL LEAD

Digitally mature retailers better reacted to COVID-19 disruptions, finds a study by tech company Incisiv. Based on performance along the customer journey, the study names the top North American apparel retailers in digital maturity:

Overall

1. Macy's 2. Kohl's 3. Neiman Marcus 4. Target 5. Nordstrom 6. Ann Taylor 7. Chico's 8. J.C. Pennev Co. 9. Walmart 10. Ralph Lauren

Research and Discovery

1. Nordstrom 2. Ann Taylor 3. Kohl's

Online Ordering

1. Macy's 2. HOKA ONE ONE 3. Stride Rite

Fulfillment

1. Target 2. Walmart 3. Ann Taylor

Customer Engagement/ Service 1. Macy's

2. Neiman Marcus 3. Belk



USMCA FAO

KEA

The United States-Mexico-Canada Agreement (USMCA) replaced the North American Free Trade Agreement to drive mutually beneficial trade among the three countries. Thomas Insights answers some key questions about the agreement.

Why is a North American trade deal so important? Mexico and Canada are the United States' biggest export market, supporting 12 million American jobs and 40% of export growth. The USMCA will secure tariff-free trade in North America.

How will it help businesses mitigate risk? In a disruptive environment, businesses require stability. The USMCA offers the clarity and consistency they need to act on longterm business plans.

How will the U.S. auto industry benefit? The USMCA specifies that 75% of automobile components must be manufactured within the participating nations to qualify for zero tariffs, while 40% to 45% of parts must be manufactured by employees who earn more than \$16 per hour.

How will the USMCA support U.S. agriculture? Almost onethird of U.S. agricultural exports go to Canada and Mexico. With the trade war in China impacting agricultural exports, U.S. farmers will depend on the USMCA to improve their access to the North American market.

Will the USMCA drive economic growth? The USMCA will drive \$34 billion in investments in U.S. auto plants, \$23 billion in auto parts sales, and create 76,000 new industry jobs in the next five years, predicts The Office of the U.S. Trade Representative.

USMCA TIMELINE

JAN 23, 2017 President Trump announces plans to renegotiate NAFTA.

MAY 18, 2018 Negotiations for a new agreement begin.

AUG 27, 2018 Mexico and the U.S. reach

a deal on NAFTA 2.0. SEPT 30, 2018 NAFTA is renamed USMCA, and an initial draft of the agreement is released.

NOV 30, 2018

The final draft of the USMCA is released, totaling 2,325 pages. President Trump, **Canadian Prime Minister** Justin Trudeau, and former President of Mexico Enrique Peña Nieto sign the deal.

JUN 19, 2019

Mexico becomes the first nation to ratify the USMCA trade deal.

DEC 10, 2019

The "Protocol of Amendments to the Agreement Between the United States of America, the United Mexican States, and Canada", which includes 27 pages of amendments, is signed.

DEC 19, 2019 The agreement passes the U.S. House with a vote of 385 to 41.

JAN 16, 2020 The U.S. Senate approves the agreement.

JAN 29, 2020 President Trump officially ratifies the agreement.

MAR 13, 2020 Canada becomes the final nation to ratify the

agreement. JULY 1, 2020 USMCA goes into effect.

SOURCE: THOMAS INSIGHTS



The Need for Shipping Speed

Consumers now make 58% of their purchases online since COVID-19 began compared to just 32% before the pandemic, and many will spend more for expedited shipping, says a LaserShip survey. The study reveals:

• Gen Z and millennials are more likely to shop at new retailers if expedited shipping is provided compared to older generations.

• **40%** of Gen Z shoppers and 37% of millennials say they are more likely to shop at a new retailer if they offer next-day delivery at an additional cost.

• **39%** of Gen Z shoppers have paid for two-day delivery, 31% for next-day, and 32% for same-day.

• **47%** of baby boomers say they plan to shop more online after the pandemic ends.

• **63%** of consumers say offering faster delivery would influence signing up for a loyalty program.

• 28% of consumers say they are more likely to shop at new retailers with expedited same-day, next-day, or two-day shipping and are willing to pay for it.

• **26%** cite expensive shipping as a main reason to not shop online more.

• **73%** say they are more likely to buy from a new online retailer that offers some type of free shipping.

• **77%** say free shipping is the most important option.

• **35%** say offering next-day shipping is key for buying more online.

• **67%** are satisfied with the shipping experience during COVID-19 compared with 80% of consumers before the pandemic.

• **63%** of consumers have some tolerance for shipping delays during the pandemic.

• **37%** say lowering shipping costs and providing free returns make delivery delays more acceptable.

• **98%** say that shipping impacts brand loyalty.

• **84%** say they are unlikely to purchase from a retailer after one negative shipping experience.

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Shaping Future Supply Chains

Supply chains face an evolution that will change how chief supply chain officers (CSCOs) operate, according to a Gartner report. The following trends will shape the supply chain's future, the report says:

1. The rise of digital business. Many CSCOs struggle to create a holistic digital roadmap. At the same time, they face pressure from CEOs who want to digitize. The top barrier to a digital supply chain is culture, followed by legacy technology. CSCOs must work with partners across the business to overcome those barriers.

2. Competitor and trade uncertainty.

Almost half of CSCOs say their business is at risk of being disrupted in the coming years, with the greatest risk coming from startups. The U.S.-China trade war and Brexit cause trade uncertainty, and COVID-19 raises concerns about future pandemics.

3. Sustainability and the circular

economy. Supply chains play a critical role in every step of the circular economy: create, use, return, recycle, reuse. In fact, 28% of organizations already implemented circular design approaches in their innovation strategy in 2019, and 39% plan to do so within the next two years.

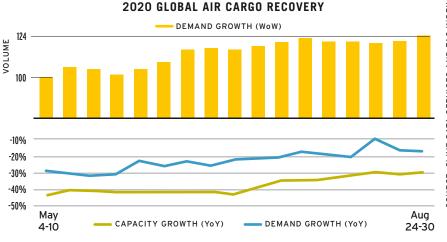
Air Cargo's Gradual Takeoff

The gradual movement toward recovery to pre-COVID market conditions continues for the global air cargo industry (*see chart*), according to data from CLIVE Data Services and TAC Index.

Year-on-year growth for the full four weeks of August 2020 showed a further narrowing of the gap in international air cargo volumes to -17% versus August 2019. This compares to a -41% year-over-year disparity in April 2020, the report says.

The receding gap in the decline between capacity and demand resulted in a global dynamic load factor drop from 70% in July 2020 to 68% in August. However, this is still exceptionally high, as August is traditionally air cargo's slow season.

Observing traffic flow from China, concerns about capacity demand dropping once the personal protective equipment peak subsided have not occurred. Volumes in the last week of August 2020 were 4% lower than the same week in 2019, finds the report.



FREIGHT DOES A FORWARD MARCH

Most professionals say they expect COVID-19 to shape their supply chain into the medium term. The pace of change will be unlike anything since 2008, accelerating existing trends and shifting priorities, says a Ti and Bollore Logistics survey. Key findings include:

• 28% of respondents say they plan to shift volumes away from air freight in favor of other transport modes, largely to secure capacity and lower rates after largescale disruption in the airfreight market. • **64%** plan to make more use of the spot market to better manage surge capacity and secure more favorable rates.

• **25%** will use more digital logistics offerings in the future, indicating that the need for greater visibility, reactivity, and flexibility is accelerating digitization.

• **76%** say the crisis has increased their demand for real-time visibility.

• **64%** plan to introduce more supply and flowplanning flexibility as a result of the pandemic. • **56%** say they plan to improve their business continuity planning for future crises.

• **80%** will continue to integrate new technology into their supply chains in the future, and plan to use a mix of off-the-shelf and in-house solutions.

• **26%** expect logistics service providers to offer their own technology solutions.

• **67%** say that sustainability will be a key factor in the development of their future supply chain.



EASING E-COMMERCE PAIN POINTS

Although key logistics capabilities are needed to build and maintain successful e-commerce operations, few brands excel at them, according to a study from Geodis and Accenture Interactive. The study highlights:

E-commerce acceleration: Brands estimate that e-commerce in 2020 will represent nearly half of their sales. Before COVID-19, companies were making 34% of their sales online. During lockdown, 65% of sales were made online.

The increase is more extreme in Europe than the United States: European companies without online sales solutions suffered, with 40% of brands estimating that sales lost due to COVID-19 will exceed 15% of their earnings on average.

Platform ownership: Most brands say their e-commerce potential is limited by their logistics capabilities, with 59% of European brands and 46% of U.S. brands opting to rely on marketplaces. Marketplaces held a 28% market share pre-COVID-19 and rose to 38% during the pandemic.

However, 64% of brands state that reducing their dependence on marketplaces is their first or second priority for the next six months. Within three years, 77% of U.S. and 56% of European brands want to sell directly from their websites.

Customer experience: Improving the customer experience is the biggest long-term challenge for 76% of brands. Currently, 38% of U.S. brands offer two- to three-day shipping nationwide, and 56% plan to do so within three years (25% and 57% for European brands).

No U.S. brands currently offer that for international shipping, but 17% plan to do so within the next three years. No European brands currently offer two- to three-day international shipping, but 7% plan to do so within the next three years.

Real-time visibility: Brands are working toward greater shipping flexibility and simplified returns—80% recently made efforts to provide a more practical return process. However, only 16% can get real-time key performance indicators. In addition, 40% of European brands say their analytical capabilities are too rudimentary or manual.



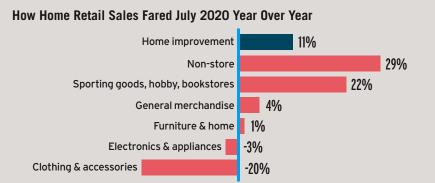
Home Improvement on a Winning Streak

The pandemic continues to boost sales for home improvement retailers as consumers spend much of their time at home. Total retail sales in the category were up 11% in July 2020 year over year according to the Department of Commerce (see chart), and consumer spending in the home category soared in April 2020 after stimulus checks were deposited.

Remaining open as essential retailers during the lockdown helped propel sales. The home improvement sector also saw increased demand due to consumers taking on more home improvement projects: 73% of consumers started a home or garden project in the second quarter, up from 56% who did so in 2019, the organization says.

Home Depot reports second-quarter net sales were up 23.4% to \$38 billion. The home improvement retailer also reports its net income increased 24.5% year over year to \$4.3 billion. It saw increased adoption of its fulfillment optionsmore than 60% of online orders were fulfilled at the store. Home Depot's digital platforms grew almost 100% during the same period.

Lowe's reports net sales of \$27.3 billion, a 30% increase from the same quarter in 2019. Lowe's aims to invest half a billion dollars each year from 2019-2021 to transform the technological makeup of its business. Those efforts are impactful, as the retailer reports a 135% year-over-year increase in website sales from the same period in 2019.





While the uptick in revenue from online sales during the pandemic has been positive, shippers still face ongoing challenges acquiring raw materials and tackling last mile delivery.

Companies are now in a position where they need to hedge against having too much inventory and working capital tied up, while seeking the necessary agility and resilience to manage multiple supply chains.

As businesses recover and re-imagine their world, leadership must ensure transparency, establish critical components, determine the origin of supply, and identify alternative sources.

Here are some key strategies for improving your supply chain in the current environment, as well as, preparing to adapt to the uncertainties ahead.

Discover opportunities with available inventory. Depending on the industry, assessing the inventory and value chain could provide additional sales opportunities for such items as spare parts or after-sale stock. Monetizing these assets could provide the necessary bridge to keep production and supply chain running efficiently.

Ensure employee and facility safety. In these uncertain times, safety is paramount. Prioritize the safety and well-being of your team to ensure a healthy workforce and foster loyalty. Continue supplying personal protective equipment (PPE), prioritize facility management, and develop health and safety contingency plans for both workforce and materials.

Assess capacity. Identify, estimate and secure your logistics capacity so your company is able to recognize and adapt to dynamic demand in real time.

Re-evaluate your technology stack. Your supply chain is only as good as the technology behind it. Whether you operate in B2C or B2B channels, supply chain technology must provide the highest level of visibility for inventory and facilities in today's environment. The goal is to ultimately provide the best velocity to market. Does your supply chain technology offer seamless integration, branded tracking and real time data?

Embrace VUCA. Volatility, uncertainty, complexity and ambiguity these are the watchwords for 2020 and the future. Embrace and adapt to these new norms to foster a mindset of preparation, readiness and planning. The new norm is an irregular puzzle that the world is solving together. With the right team and technology, your company can embrace change, move forward and turn those problems into solutions.

If there is a positive to come out of the current scenario, it is that business leaders can take this opportunity to assess and improve every aspect of their organization.



The last mile is taking on greater importance as retailing moves to a higher level of ecommerce supported by parcel and heavy goods home delivery.

Unless shippers adopt new last mile perspectives, the complexity of the fulfillment network can drive up costs and hinder efficiency, creating unhappy consumers. Here are some things to think about to combat last mile issues for 2020 and beyond.

- Zone skipping: Reduce handling within parcel networks by combining shipments to the destination region. This allows individual shipments to be sent for delivery, rather than each package moving across several zones.
- Balance delivery options: Today's tech-savvy consumers want a choice. Offer standard shipping for free, but add a premium for express shipping. For many consumers, free is a better attraction than fast, but offering choices allows consumers to control their own shipment journey. You can improve margins and serve customers at the level they're willing to pay for.
- Precision packaging: Optimize box sizes to reduce excess dimensions and void fills for lower dimensional rates.
- Diversify the carrier base: Add smaller regionals, 3PLs and couriers to complement existing networks.



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Top Priorities for 3PL Warehouse IT in 2021

Q: When looking ahead to 2021, what's the number-one priority companies should make to stay competitive?

A: Since labor is the most expensive component of the business, we say start there. Smartly planning your resources to best suit the needs of the company and the company's digital transformation and customer experience goals is paramount.

Barcoding and Honeywell agree outsourcing the management of mobile devices is one of the most effective ways to free IT resources for valueadded projects. Barcoding's team of service experts can handle everything from streamlined device roll-outs to MDM management, spare pool, and help desk.

Q: What risk factors exist today for IT leaders supporting 3PL warehouses, which are facing high demand?

A: After a disruptive, and in the realm of e-commerce, recordsetting year, we see three key areas of potential risk and reward for senior IT leaders in 2021.

First is in labor—there is, and continues to be, a shortage of technical labor available to IT teams. With a push for digital transformation and an increasingly larger number of channels to manage, IT and operations leaders must think about resource allocation. Barcoding's managed services can help relieve the burden around mobile IT management so that internal resources can be freed up to continue to innovate.

Second is security. With all kinds of mobile devices hitting the network,

IT leaders must be prepared to keep company and customer data secure. Working with Barcoding and Honeywell, we can review device data and ensure the right patching and security updates are handled appropriately.

Finally, we see a critical need to change how companies procure technology. At Barcoding, we offer an "as-a-service" option for devices and support services so IT can manage a monthly expense vs. a capex one, and so that the company can be better prepared for refresh cycles and new technology needs.

Q: Why should CIOs prioritize the upgrade to new Android-based mobile scanning devices in the warehouse?

A: Android as an operating system introduces a host of benefits. Counter to many beliefs, Android is more secure than legacy Windows Mobile (which is now end-of-life).

Android also allows for the proliferation of enterprise applications to be served up on one device so your traditional RF scanner can now be a multipurpose tool to drive productivity including voice capabilities like those from Honeywell. Also, Honeywell's Mobility Edge Platform ensures security updates will be available for your Honeywell device up to Android R and Beyond.

With more than 20 years of experience in portfolio, service, and supplier management, Keri Corbin is a valued member of the Barcoding leadership team. In her role, Corbin leads the client solutions group whose primary focus is on designing and delivering solutions that increase customer efficiency and accuracy, as well as creating lasting connections for Barcoding's customers, clients, employees, and trading partners.

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Supply Chain Challenge?



SEKO Partnership Provides Ecommerce Efficiencies for Retailers

Retailer Shein streamlined supply chain operations by leveraging the partnership between Air-City and SEKO, allowing shippers to move express ecommerce orders efficiently across international borders.

In June 2019, SEKO acquired New York-based freight forwarder and Cross Border ecommerce shipping expert, Air-City, Inc. to become **the only forwarder with the ability to process Type 86 (T86) shipments via air freight, as well as ocean freight.** Looking at clients through a different lens, the team approaches partnerships, not for the sale, but to build lasting relationships that make a difference.

THE CHALLENGE

After much research, initiative, and a trip to Shein headquarters in Guangzhou, China, e-tailer Shein agreed that swapping their ECCFs (express consignment carrier facilities) for a trial of T86 could drastically improve their supply chain.

Air-City's Section 321 and T86 entry expertise provided Shein with the ability to manage bulk parcel Customs clearance to avoid delays and allow for the quick release of thousands of parcels at low cost with service speed options.

THE SOLUTION

Although big e-tailers thoroughly understand their industry, sales can be restricted by not knowing what is needed. Air-City had the product to decrease time, reduce cost, and streamline their supply chain.

Shipping 1 million parcels a month, Air-City's swift implementation of T86 opened doors to combat Shein's sales



plateau by enabling more choices and providing increased promotional opportunities for new business.

Effective Oct. 1, 2019, T86 offered Shein an instant savings of \$1 per parcel—totaling a staggering \$1 million per month savings. In addition to the monetary savings, T86 supports remote filing and is completed electronically which enables expedited clearance of Section 321, T86 deliveries using the Automated Broker Interface (ABI) to provide the necessary information and receive the required release messages.

For all products being shipped, Air-City's innovative search software enables the conversion of shipper-provided HS codes for all products being shipped into U.S. acceptable Harmonization Codes.

Air-City's bonded warehouses in major gateways, such as JFK, enable Shein to control their own KPIs and service levels. Transit time is faster, and a steady foundation, based on a shared drive for efficiency and partnership, has been built.

Air-City is now one of Shein's biggest Cross Border brokers. Their Section 321 low value shipment and T86 Customs clearance expertise provides Shein with the necessary liaison to streamline operations and efficiently execute transactions to maximize profits.



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[INSIGHT]

LEANSUPPLYCHAIN

by Paul A. Myerson

Instructor, Management and Decision Sciences, Monmouth University, and author of books on Lean and the Supply Chain for McGraw-Hill, Pearson, and Productivity Press pmyerson@monmouth.edu | 732-571-7523

Omnichannel and Supply Chain Work Together for Competitive Advantage

The days of going to a department store to shop for a TV, viewing the options, and making a purchase now seem quaint. The emergence of the internet, smartphones, social media, and other technologies has opened a world of new options for consumers and businesses to review, research, and buy online with ever-increasing delivery choices.

The emergence of e-commerce has resulted in omnichannel marketing, in which customers engage with companies in a variety of ways—in a physical store and online via websites and mobile apps.

This puts the supply chain front and center, as increasingly demanding consumers browse, buy, and return goods through various channels, not just traditional brick-and-mortar.

Accomplishing omnichannel retail with high service levels, while remaining profitable, requires realtime inventory visibility across the supply chain and a single view of the consumer as they continuously move from one channel to another.

While omnichannel retail is a boon to consumers, it has made the already complex global supply chain even more challenging to manage.

The 2020 pandemic has accelerated the omnichannel trend as consumers need even more ways to order and receive deliveries, such as curbside pickup. The pandemic has exposed a lack of supply chain flexibility and readiness, resulting in shortages of everything from toilet paper and meat to personal protective equipment and ventilators due to capacity and inventory allocation issues.

BULLWHIP EFFECT IN ACTION

The pandemic has been a reallife example of the bullwhip effect in action. Variability at the consumer end of the supply chain results in increased variability upstream toward distributors, manufacturers, and suppliers, creating shortages and misallocations, and increasing costs.

An omnichannel retail strategy provides an integrated and consistent shopping experience across different channels and devices. Making this strategy a reality requires your supply chain to provide a smooth, positive experience for customers regardless of where and how they interact with your brand.

Companies have to decide when and how to invest in realigning their supply chains to accommodate an omnichannel pipeline. When e-commerce emerged, most retailers could use a small section of an existing distribution center to fulfill online orders. As demand grew, many retailers opened fulfillment centers dedicated to picking and packing individual orders.

"Omni" means that you must be present on the channels where your customers are. Your omnichannel retail and supply chain strategy must clearly set goals for what you want to accomplish, identify where your customers and prospects are, and determine your strengths, weaknesses, opportunities, and threats.

The benefits will be numerous: increased supply chain visibility with optimized inventory, more fulfillment options to reach more customers, a seamless shopping experience with greater customer service, fewer returns, and more opportunities to engage customers and increase sales.

Excerpted from: www.routledge.com

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[INSIGHT]

by Bindiya Vakil CEO and Co-Founder, Resilinc 408-883-8053 | Bindiya@resilinc.com

Reshoring Starts with Mapping Suppliers

When the book *How COVID-19 Changed Supply Chains* is written, it will include chapters on reshoring—bringing manufacturing back to the United States—and nearshoring—bringing them closer to home. But there won't be a chapter titled "How COVID-19 Ended China's Manufacturing Dominance."

After COVID-19 disrupted Chinesemade supplies of personal protective equipment, reliance on Chinese suppliers was portrayed as a critical strategic weakness. Now is an appropriate time for companies with suppliers in China to evaluate whether to reshore or nearshore parts of their supply chains.

Here are four key points to consider:

1. Map your supply chains first. Those companies that invested in monitoring and mapping their supply networks before the disruption occurred emerged from the pandemic in better shape. They had better visibility into the structure of their supply chains down to the second- and third-tier supplier level.

Without this kind of mapping, any strategy to shift manufacturing away from China is vulnerable to sub-tier dependencies. Apparel manufacturers that moved from China to other Asian countries found they were still dependent on Chinese suppliers for textiles, zippers, and other components, according to *The Wall Street Journal*. Visibility mapping also increases the potential to reshore a supply chain without having to switch suppliers. Consider this: By mapping its tier one, two, and three suppliers in China, a company may find that 30% of them have manufacturing sites outside of China (this percentage is typical).

Instead of onboarding new suppliers, which is labor- and time-intensive, the company could shift to a supplier's alternate location with minimal disruption. In this case, the value of the map will be greater than the cost and time to develop it.

2. Evaluate real costs and impacts. Even in a developing country, setting up a new factory can cost several billion dollars and take two or three years. If a supplier or contract manufacturer is making that investment, cost increases for parts and materials are almost certain to follow. Evaluate how much costs are likely to rise due to such a move, and how those will affect prices, demand for the affected products, and profitability.

3. Don't assume "near" equals "inexpensive" or "risk-free." With its close proximity and recent United States-Mexico-Canada Agreement ratification, Mexico is widely perceived as an ideal location for nearshoring supply chains. But Mexico is not an inexpensive country in which to operate compared to other Asian countries.

Both the United States and Mexico, or any other nearshore locations, have their own risks, constraints, and challenges. Leverage your mapping data and conduct a thorough analysis of suppliers in that region and their historical performance during disruptions.

4. Before you reshore manufacturing, take account of the skills needed, availability, and cost. With the current high unemployment rates, many companies—including foreign firms supplying U.S. customers—are looking to build domestic manufacturing capacity. While it's true that the available labor force will be much larger than it would have been one year ago, most of those workers have experience in service industries only, and would need significant training.

OPTIMIZE AND ANALYZE

An informed decision about reshoring or nearshoring requires optimizing the variables and thoroughly analyzing the risks, costs, and benefits. Supply chain design strategy should always be for longterm competitive advantage rather than in reaction to an event.

WELCOME TO THE NEW (AB)NORMAL LEARN HOW TO NAVIGATE THE PANDEMIC TODAY AND TOMORROW

YOSSI SHEFFI

Author of: The Resilient Enterprise The Power of Resilence

The New (AB)NORMAL

YOSSI SHEFFI

Reshaping Business and Supply Chain Strategy Beyond Covid-19

What is the supply chain's role in helping companies manage and recover from the pandemic?

In his new must-read book, The New (Ab)Normal: Reshaping Business and Supply Chain Strategy Beyond Covid-19, MIT Professor Yossi Sheffi explains how companies grappled with the chaos of the pandemic and how they can survive and thrive as the crisis subsides.

The book covers:

- The emergence of a "new normal" supply chain, where the acceleration of technology trends during the crisis could profoundly influence the future performance of supply chains.
- A post-pandemic outlook where technological advances inspired by the crisis could level the playing field between small and large companies.
- The essential lesson: flexibility and agility are critical to managing the pandemic's disruptions and the pivot toward a changed future.

Supply chains will be at the core of the recovery. As The New (Ab)Normal highlights, supply chains served humanity during this global crisis and will continue to do so when the pandemic subsides... and beyond.

The New (Ab)Normal is available as an e-book on Amazon.com Find out more: bit.ly/TheNewAbNormal

ABOUT THE AUTHOR

Dr. Yossi Sheffi is Elisha Gray II Professor of Engineering Systems and Director of the MIT Center for Transportation and Logistics, a world leader in supply chain management education and research for nearly 50 years. Sheffi is an expert in supply chain management and the author of five award-winning books.



E-FULFILLMENT

PICKS UP SPEED

36 Inbound Logistics • November 2020

How e-commerce companies and transportation services meet demand when fast delivery isn't fast enough. by Merrill Douglas

E-commerce customers cherish speed, and this love engendered the Amazon Effect, the competitive pressure to get products to consumers in two days, one day, or even a few hours.

Whether they ship parcels or big and bulky items, and whether they ship nationally, regionally, or locally, directto-consumer retailers can speed up processes at many points along the supply chain, from the fulfillment center to the consumer's door. Much of that effort might focus on transportation.

When shippers and their transportation partners seek to cut delivery times, some of their best strategies center on the way they design the transportation network, how they position inventory for future deliveries, how they deploy technology, and how they combine transportation modes.

STRATEGIC SITING

LaserShip, based in Vienna, Virginia, provides same-day, next-day, and two-day delivery in 20 Eastern and Midwestern states. For orders within those regions, an e-commerce merchant might choose LaserShip over a national parcel carrier because the regional service delivers the goods faster.

"We're looking to shave days, or even hours, off the transit whenever possible," says Josh Dinneen, chief commercial officer at LaserShip. "We have larger one-day and two-day footprints than the national carriers, depending on the product's origin."

For example, a product picked up in New Jersey could reach a destination in Florida via ground transportation in two days.

Although it can't compete with the likes of UPS or FedEx on national service, LaserShip claims to have an edge in regional deliveries thanks to the way it has engineered its hub-and-spoke network, which includes 60 locations and four sorting centers.

"We designed this e-commerce network for residential delivery," says Dinneen. Although LaserShip also goes to commercial destinations, its drivers all independent contractors—typically don't spend their days servicing high-rise office buildings or corporate campuses. So LaserShip doesn't site its facilities near those properties.

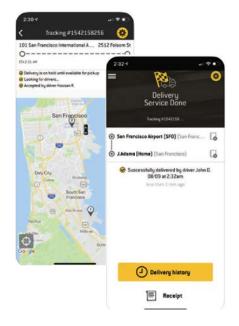
"We need to be where the dense urban and rural residential communities are," he says.

The pandemic has slowed things down, but LaserShip continues to expand its footprint, adding services in Raleigh and Durham, North Carolina, Wilkes-Barre, Pennsylvania, and Buffalo, New York, in 2020. "We're very strategic about the next metro areas we want to be in," Dinneen says. "We ask, 'How does that help our retailers, our current partners, our future relationships, get things to the consumer faster?"

OPTIMIZING THE LAST MILE

The Ryder Last Mile service, which delivers big and bulky items, carefully sites its facilities to optimize transportation time. When a consumer buys a product from a

Through its mobile, web, smart assistant, and messenger apps, Rapidus provides one-hour and same-day delivery for businesses 24/7/365.





Ryder's last-mile and white-glove delivery service offers retailers and their customers realtime, end-to-end visibility and tracking for the transportation and delivery of in-home orders.

Ryder Last Mile customer online or in the store, Ryder receives that order, schedules an appointment with the consumer, and then makes the delivery from a fulfillment center near the destination.

"We have about 90 unique facilities strategically located around the United States that receive consigned freight from the retailer or manufacturer," says Jeff Abeson, vice president of sales at Ryder Supply Chain Solutions. Consigned freight consists of items that consumers have already ordered.

Ryder's employees do quality checks on all products before they're shipped and, if required, assemble them before putting them on trucks for delivery.

WHERE TO PUT PRODUCT

Ryder also uses its last-mile facilities to position not-yet-sold inventory for merchants, keeping popular items near major markets to promote quick fulfillment. Merchants who forwardallocate unsold inventory have to think carefully about which products to put where, and in what quantities.

"They're trying to balance the service against the inventory carrying costs," Abeson says. "We work with them to try to figure out the optimal locations."

Ryder designed its last-mile fulfillment network for speed, and it

looks for opportunities to improve the configuration. "We continuously do network design exercises to make sure that we've got our locations in the right spots to support the volume," Abeson says. "We try to make sure that we're close to the population and that our facilities are right-sized to support a certain amount of growth."

ESTABLISHING A BOND

Bond, a last-mile fulfillment service in New York City, uses a network of "nano distribution centers" (NDCs) to place merchants' inventory as close as possible to customers for same-day delivery. The NDCs are small commercial spaces, such as storefronts, that Bond leases from large real estate firms.

Through links to its customers' e-commerce platforms, Bond collects data on past and projected demand, using that information to calculate where to store inventory. The placement, and even the number of NDCs in service, can change as merchants see demand fluctuate in various neighborhoods.

"We can launch another distribution center in 48 hours," says Dan Eblagon, Bond's chief marketing officer. "It can be two nano distribution centers that cover the city, or it can go up to 13. It's very dependent on volumes, delivery

SAME-DAY DELIVERY BOOSTS ONIA'S CUSTOMER EXPERIENCE

Direct-to-consumer swimwear brand Onia is far more than an online retailer; it is a consumer-centric lifestyle brand committed to providing a sun-sational experience throughout the entire customer journey. The brand aims to make easy living more attainable starting with an easy and enjoyable last-mile experience for its customers.

Nathan Romano, co-founder of Onia, discusses customer expectations and how offering same-day delivery has transformed the business.

What experience does Onia offer its online shoppers?

Customer service is at the root of everything we do, and we are always looking for ways to offer a more seamless service to our Onia family wherever they are shopping.

One positive review we repeatedly garner from our customers is that our deliveries are prompt and reliable. We also recently introduced sameday contactless delivery. We offer returns for all full-priced merchandise within 14 days of the delivery date.

You've been around since 2009. What has changed during the past few years when it comes to customer expectations?

Customers care a bit about the story behind the brand, the personality, the POV. They care about the world of social media and they want to interact with us there. But, since 2009, the main expectations continue to regard quality, fit, and style. That's something we never lose sight of.

Which channels do you use to manage your customer experience and relationships?

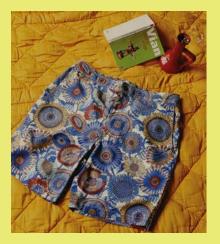
We try to be available to our fans in as many ways as possible. We have a dedicated customer service team that fields customer inquiries over the phone, on email, and through constant monitoring of social media, from DMs to comments.

Our consumers understand the brand so well, so we're always excited to hear their thoughts and see how we can continue to refine the CS process—and the brand in general—through our interactions.

How important is the last mile to Onia and its customers? How do you provide a brand experience that extends throughout the postpurchase phase?

The last mile is important, if not more important, than the first mile. Buying something from Onia is not just a transaction, it is an experience. And, as such, we offer our extended family everything from private sales to social media call-outs.

And, of course, your customer service doesn't end after a purchase. We are around for style advice, for article ideas, for recommendations...whatever our customers have to say, we want to hear.



Onia recently started offering same-day delivery in New York City. Why was it important for your brand to offer this and what has been the overall response?

First, in the midst of COVID-19, we thought this would offer customers a safe, expedient redemption experience—our entire same-day delivery process is contactless, ensuring the health of our consumers and employees.

We also believe in adapting to and servicing their lifestyles—we know the typical Onia customer is extremely busy and always on the go, so this is one way to offer instant gratification, especially, say, if you're packing at the last minute for a holiday or want to try things on immediately.

The response has been incredible—we see customers ordering more pieces than before and returning less, which we think is due to the immediacy and efficacy of the system.

SOURCE: WITHBOND.COM, JULY 2020

options, and other requirements the brands have."

Bond traces its roots to a directto-consumer grocery firm called Shookit in Tel Aviv. Discouraged by its experience with third-party delivery providers, Shookit developed its own network and supporting technology. It soon started to offer delivery to other e-commerce retailers.

A U.S. company, Bond is headquartered in New York, although its research and development arm remains in Israel. It is preparing to expand its service into several other cities. E-commerce merchants that work with UPS can choose from various options for inventory positioning. UPS' Ware2Go service lets merchants place product in any number of warehouses to shorten delivery distances. Merchants can also revise their positioning strategies as requirements change.



Bond offers post-purchase experience services that are tailored for direct-to-consumer brands and e-commerce ventures, giving them the ability to provide free, same-day scheduled delivery for their customers. To keep its footprint small, Bond uses special electric tricycles for all its deliveries.

"I might need a warehouse for six months in Orlando because I'm doing a promo only in Florida," says Nick Basford, vice president of global e-commerce and retail strategy at Atlanta-based UPS, by way of example.

For many small and mid-sized e-commerce firms, however, the UPS service of choice is eFulfillment, which lets them put merchandise in a fulfillment center in Bloomington, California, one in Louisville, Kentucky, or both.

UPS chose those locations because they are the optimal sites for taking advantage of its transportation network, Basford says.

Often, a retailer that has its own fulfillment center will use eFulfillment to add a presence at the other end of the country. "For example, a customer is already on the West Coast and wants to serve the East from a shorter zone [the unit on which UPS bases its rates] with faster ground time in transit," says Basford.

A merchant might also use the warehouses, and different UPS transportation services, to meet different time commitments for different shopping channels. For example, a shipper might arrange faster delivery for orders that come through the Amazon Prime Marketplace, and slower service for orders made through eBay or Etsy.

DIGITAL ADVANTAGE

Shippers and their transportation partners also rely on technology to

cut delivery time. "We continue to add automation into our delivery hubs, getting more material handling equipment to make things move faster," says Dinneen at LaserShip.

Technology plays a big role on the road as well. "We built our own mobile app, which helps our independent contractors get automated sequencing and turn-by-turn directions for making deliveries," Dinneen says. The app helps drivers build efficient routes and then helps them move smoothly from one stop to the next.

Another company that uses digital technology to support speedy service is Rapidus, a local courier service that currently operates in California and Colorado, and in the Seattle and Dallas areas. Rapidus serves a variety of traditional courier markets, delivering everything from paychecks to blueprints to organs for transplant.

It also serves e-commerce merchants, often through its partnership with the Shopify platform. A Rapidus app on Shopify lets merchants offer one-hour and same-day local delivery within Rapidus' service areas.

Rapidus uses an Uber-like model, partnering with small courier firms and independent professional drivers. Drivers use their phones to accept delivery jobs; Rapidus then uses the mobile link to track drivers' progress in real time and communicate as needed.

In addition, Rapidus and its drivers use the technology to plan for maximum efficiency. When Rapidus gets a request for a package pickup, it can offer the job to the driver who is closest to that location, and who is already headed in the right direction, says Olexandr Prokhorenko, co-founder and chief executive officer at Rapidus in San Francisco.

"We have that information because we learn as much as we can from the driving patterns of all the delivery partners, since they're using our apps and we track them in real time," Prokhorenko says. The company also taps into third-party information, such as traffic data services, to make decisions that can hasten deliveries. Recently, Rapidus added artificial intelligence (AI) to its arsenal, using historical data about deliveries and current data on market conditions to predict upcoming demand.

"For example, how likely are we to get a delivery at 8 a.m. from San Francisco to San Jose?" Prokhorenko says. "That allows us to expose that information to the drivers and let them do pre-booking."

Ryder Last Mile boosts fulfillment speed by using proprietary technology to plan deliveries, execute those plans, and monitor drivers' progress. In each fulfillment center, the process starts a few days before a set of delivery appointments, when Ryder optimizes drivers' routes.

"That allows us to look at all the freight we have in our building, run the optimization routine, and then build productive trucks," Abeson says.

THE RIGHT TRADEOFFS

One challenge in this process is how to make the right tradeoffs between speed and customer service. That's especially crucial when a customer needs Ryder not just to deliver a large item to a home, but to bring it inside and set it up.

"We and our customers try to achieve that balance between an effective route, being as efficient as we can, and making sure we've built in ample time to spend with the end consumer," Abeson says. Once delivery trucks hit the road, Ryder uses an app on drivers' phones to watch for traffic jams, slowerthan-expected in-home deliveries, or other delays.

"The application understands the estimated time of arrival against the planned ETA," Abeson says. "If a material deviation starts, our system automatically updates, so we can make an adjustment." A dispatcher then works with the driver to get things back on track.

At UPS, when a merchant's e-commerce platform transmits orders to the eFulfillment service, UPS' integrated order management and warehouse management systems determine which UPS service to use and where to induct the parcels into the transportation network.

"They would be delivered on either the air or ground service portfolio, or our Mail Innovations or SurePost portfolio, to match the time in transit that connects back to the rate cards the customer picked for those particular orders," Basford says.

Bond uses proprietary technology to keep its service fast, strategically assigning packages to drivers and sending them by the fastest possible routes.

DELIVERY A LA MODE

A fourth set of strategies involves the transportation mode. Bond, for example, keeps its speed up, despite big-city traffic, by sending drivers across New

LaserShip's last-mile ground delivery network consists of more than 60 distribution centers and four sort centers across 23 states, reaching more than 140 million U.S. consumers.







UPS' turnkey eFulfillment solution receives inventory from its e-commerce customers, and then picks, packs, and ships orders to consumers.

York's five boroughs on electric cargo tricycles. "They're fast, convenient, and eco-friendly," Eblagon says.

UPS commands a network that includes both ground and air transportation. And Rapidus will soon introduce a new service that combines ground and air to offer regional same-day delivery. The price for this transportation is competitive with next-day service from a national parcel carrier, Prokhorenko says.

"We have contracts with a number of airlines that we can combine with our last-mile delivery service," he says. For example, a Rapidus driver could deliver a package from a location in San Francisco to the local airport, putting it on a flight to Los Angeles. There, another Rapidus driver would take the package to the destination.

"If you're lucky, you can get it in three to four hours," he says. "And you can see on your phone or on the web exactly where your package is."

Neither Rapidus nor the other companies interviewed for this article have claimed credit for the man with a jet pack seen flying near Los Angeles International Airport in September and October 2020. But who knows? How long before some company seeks to cut delivery times even further by launching couriers into the sky?

EXPEDITED CARRIERS GUIDE 2020

Demand for expedited shipments has exploded during the past decade, thanks to e-commerce growth and the Amazon Effect. That demand has accelerated even quicker during the pandemic.

Direct-to-consumer shipping costs can take up as much as 70% of a company's total fulfillment budget, and can be a material percent of the average order value. That means shippers today are highly motivated to find ways to optimize transportation to be fast and affordable.

The shipping options available for e-commerce fulfillment seem confusing and never-ending: same-day, next-day, two-day, express, expedited, priority, standard, and others. Whatever option you choose, your customers expect their orders to be delivered faster and less expensively than ever before.

To help make sense of the expedited delivery options, *Inbound Logistics* compiled this A-to-Z guide to some leading expedited carriers who can get your shipments where they need to go, as fast as they need to get there.

Amazon Logistics freight.amazon.com freight-sales@amazon.com

Through its Amazon Freight service, Amazon Logistics offers shippers a supply chain network of more than 30,000 Amazon-owned trailers and more than 15,000 carrier partners, covering 48 contiguous U.S. states.

SOLUTIONS/FEATURES:

Self-service portal for booking freight. Dynamic pricing. Visibility from quote to delivery. Shippers can view spot prices for a lane up to 14 days in advance and choose a pickup date through an interactive calendar view. Telemetry devices on all trailers. GPS tracking. No blackout dates.

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Through its ground expedite service Panther Premium Logistics, ArcBest delivers time-sensitive and highvalue freight across North America. ArcBest also offers time-critical airfreight solutions, including sameday, second-day, hand-carry, and air charter options.



SOLUTIONS/FEATURES:

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SOLUTIONS/FEATURES:

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Averitt Express

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Averitt's regional LTL service offers next-day delivery to most points up to 600 miles and two-day delivery up to 1,500 miles. Its expedited air cargo solutions include dedicated charter cargo flights throughout the United States and next-flightout service. Additionally, its Asia Express Air service offers biweekly flights from points throughout Asia to Chicago and Dallas.

SOLUTIONS/FEATURES:

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Bolt Express

bolt-express.com 866-873-2658

Bolt Express provides shippers with a one-call solution for timecritical shipment needs throughout North America. Its 24/7/365 customer support team offers ground and airfreight shipping solutions to help customers avoid or recover from unexpected supply chain interruptions.

SOLUTIONS/FEATURES:

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Bond

withbond.com 516-418-8909

Last-mile fulfillment service company Bond provides sameday and next-day delivery via its network of nano distribution centers (NDCs), which place merchants' inventory as close as possible to customers. The NDCs are small commercial spaces, such as storefronts, that Bond leases from real estate firms.

SOLUTIONS/FEATURES:

Door-to-door service. Real-time order tracking. Visibility throughout the last mile. End customers can schedule a return pickup or dropoff exchange. Customer service team available 24/7.

Capstone Logistics

capstonelogistics.com 610-364-3300

Capstone's last-mile services include expedited freight/ distribution and reverse logistics at cross-docking facilities for pickup and delivery of shipments requiring consolidation, repackaging, and/or sorting. Capstone offers scheduled, same-day, and next-day delivery for partners requiring fast, secure, and time-critical shipments of highly sensitive items.

SOLUTIONS/FEATURES:

On-demand or STAT medical delivery. Mobile tracking app. Real-time visibility. Automated GPS tracking and shipment status updates are pushed to the shipper's system via EDI, API, or other integration method.

Continental Expedited Services

continentalexpedited.com 855-SHIPCES

Continental Expedited Services provides expedited surface solutions, offering door-to-door services covering the United States, Canada, and Mexico. The company also offers time-critical airfreight solutions through a network of more than 200 airfreight and air charter service providers.

SOLUTIONS/FEATURES:

Direct dual driver nonstop transit anywhere in North America. Satellite-tracked vehicles. ETA updates online, by phone, email, or EDI. Preclearance (PARS) and ACI/ACE certified. Emergency freight rescue service. Throughtrailer service with no transloading at North American borders. Temperature-controlled transport. Custom packaging.

DHL Express

dhl.com 800-225-5345



Along with global expedited parcel services through DHL Express, DHL offers expedited over-the-road LTL and TL solutions for freight in Europe though its DHL Freight division. Its DHL Door-to-More direct distribution solutions also help shorten delivery time to market by bypassing distribution centers/ warehouses in destination markets and combining intercontinental transportation capabilities with road freight, courier, or postal networks.

SOLUTIONS/FEATURES:

Same-day, time-definite, and daydefinite international express delivery. Day-definite LTL service in Europe. Consolidation of shipments at origin including air, ocean, and rail, as well as subsequent distribution via road freight, courier, or postal network. Direct pickup and delivery service with dedicated vehicles and control tower operations. End-to-end traceability.



FedEx Custom Critical

customcritical.fedex.com 866-274-6117

FedEx Custom Critical solutions include expedited ground services with temperature control capacity and increased security. Specializing in same-day and overnight delivery of expedited freight, the freight solutions team connects shippers' unique needs with the optimal carrier and transportation options.



SOLUTIONS/FEATURES:

Exclusive-use vehicles provide direct, door-to-door service throughout the United States and Canada. Continuous shipment monitoring with two-way, onboard satellites. Secure online shipment tracking. Flatbed trailers available for oversize shipments. Whiteglove services for valuable, fragile, high-security, or temperaturesensitive material.

FedEx SameDay

fedexsameday.com 800-399-5999

FedEx SameDay delivers urgent shipments in hours, depending on flight availability. The FedEx SameDay Freight service is for shipments more than 150 pounds composed of multiple packages or palletized freight. Skids exceeding 2,200 pounds, as well as skids exceeding 70 inches in height, 119 inches in length, or 80 inches in width, require prior approval.

SOLUTIONS/FEATURES:

Delivery confirmation. Time frame assurance: Shippers can request a refund or credit of shipping charges if the shipment misses its final quoted delivery time by 60 seconds or more. FedEx SameDay City is available for loose packages or palletized freight; unlimited total shipment weight.

Forward Air

forwardair.com 800-726-6654

Forward Air supplies expedited ground transportation to and from its terminals located close to major U.S. and Canadian airports. Its network encompasses stations and sort centers that reduce overall linehaul miles between points, providing expedited LTL ground transportation. Forward Air also offers TL services, airport-to-airport moves, and transborder shipping to Canada and Mexico.

SOLUTIONS/FEATURES:

Time-definite service. Its airportto-airport service offers late cutoffs, early recovery times, weekend service (select areas), and expedited lanes.

Holman Logistics

holmanusa.com/transportation 253-872-7140

Holman transportation services include truckload, LTL, expedited same-day delivery, sorting, and shuttle services. Its freight brokerage services provide expedited night delivery 24/7/365.

SOLUTIONS/FEATURES:

Managed shipment tracking and tracing. National coverage and availability. Refrigerated, frozen, and temperature-controlled capacity. GPS tractor tracking. Onboard driver communication.

Landstar System

landstar.com 877-696-4507

The Landstar Express America dynamic business model provides shippers instant access to capacity for expedited and emergency shipping needs. Landstar agents can help shippers expedite cargo via a dedicated cargo or sprinter van, straight truck, or tractor-trailer, while providing them with updates throughout the process.

SOLUTIONS/FEATURES:

Emergency, disaster, and expedited transportation services are available 24 hours a day, 365 days a year. Independent Landstar agents can expedite shipments via air using TSA-approved capacity, including commercial cargo aircraft and carriers, as well as air charters at major airports.

Load One

load1.com 800-957-4698

Load One operates a dedicated 24/7/365 staffed expedite operation serving the United States and Ontario, Canada. The division operates primarily sprinters, cube trucks, and straight trucks with both singles and teams. Additionally, the team works with more than 70 expedited carriers in the United States and Canada for seamless coverage of critical ground shipments.

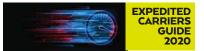
SOLUTIONS/FEATURES:

TSA-approved drivers. GPS tracked equipment. Real-time tracking service. In-cab scanning for fast proof of delivery. Hazmat authority.

Lynden International lynden.com

800-926-5703

From a single box to a full truckload, Lynden International picks up and delivers freight on time, damage-free, and within your budget. With a network of service centers serving more than 6,000 U.S. cities, Lynden offers expedited ground freight service with efficient routing, speed, and savings. Its staff is experienced with TL and LTL freight, heavy hauls, and hazardous and petroleum products.





SOLUTIONS/FEATURES:

With access to virtually any equipment and an expansive network, Lynden offers shippers responsive service and freight tracking through its EZ Commerce Center. The company can put together a custom ground transportation plan to meet time and cost requirements.

Magnate Worldwide

magnateworldwide.com 630-394-1030

Magnate is a portfolio of complementary logistics providers focused on expedited domestic transportation and global freight forwarding.

SOLUTIONS/FEATURES:

Magnate's companies provide specialized service levels for sensitive, time-definite, high-value, and white-glove shipments across many industries.

Old Dominion Freight Line odfl.com 800-432-6335



Old Dominion offers guaranteed same-day and next-day delivery, featuring Friday to Monday service to and from 95% of the continental United States by 5 p.m., or timespecific delivery as requested.

SOLUTIONS/FEATURES:

Upgrade guaranteed shipments for morning delivery. Whether time sensitive to the hour or an emergency, the company delivers expedited freight at the exact time needed. Customized door-todoor delivery.

Pegasus Logistics Group

pegasuslogisticsgroup.com 800-997-7226



Pegasus Logistics Group specializes in expedited ground and air services including white-glove delivery, air freight, hot shots, specialized equipment, time-critical FTL, and next flight out.

SOLUTIONS/FEATURES:

The 3PL manages shipments through 24/7 dedicated account teams and satellite tracking, web services, and interactive dashboards to ensure visibility.

Pilot Freight Services pilotdelivers.com 800-HI-PILOT

Pilot Freight Services provides domestic air and ground freight delivery options for nearly every type of shipment, with service to virtually all ZIP and postal codes throughout North America. First Flight is the fastest shipping service available from Pilot. Also available are next-day a.m./p.m. service as well as two- and three-day shipments. Pilot offers door-to-door control over goods via a wide range of vehicles including vans, cubes, straight trucks, and tractor-trailers.

SOLUTIONS/FEATURES:

24/7 customer support and integrated logistics. Exclusive-use vehicles eliminate potential for split shipments and require less handling, which means less chance of loss and damage. Specialized equipment availability, including flat beds, reefers, curtain side, and others.

Purolator International

purolatorinternational.com 888-511-4811

Purolator offers services for shipping time-sensitive shipments next-day, two-day, three-day, and two to five business day—to, from, and within Canada and the United States. Whether it's a one-time emergency shipment or a recurring need, Purolator's customizable network ensures the best routes. Purolator International maintains 30-plus locations in the United States, with dedicated nightly flights into Canada, and unique access to Canada's largest end delivery networks.

SOLUTIONS/FEATURES:

Saturday pickup available in select locations. For urgent shipments, Purolator's Elite service provides premium, guaranteed deliveries anywhere in the world, regardless of size, destination, or time of day. Service options include hand-carry, dedicated air charter, and next flight out.





Saia

saia.com 800-765-7242

Saia offers regional and interregional LTL, nonasset truckload service, and third-party logistics. With Saia Guaranteedthe company's reliable guaranteed service backed by an experienced team of logistics professionals-you pick the time: 12 p.m. or 5 p.m.



SOLUTIONS/FEATURES:

When shipments must arrive before standard delivery, Saia's Custom Solutions offer expedited shipments across a 48-state area in a shipper's delivery time frame.

SEKO Logistics

sekologistics.com 800-228-2711

SEKO's domestic expedited shipping service uses multiple shipment methods such as exclusive truckload, commercial airlines, charters and hot shots, via cargo van or straight truck, to ensure parcels arrive on time. Dedicated and part-charter flights to handle time-sensitive deliveries. Proactive communication with a personal touch. Express, standard, economy and charter services available.

SOLUTIONS/FEATURES:

SEKO Next Flight Out is a timecritical service for situations where even next-day isn't fast enough. Regular, accurate status and location updates throughout the delivery. All shipments are tracked online 24/7 via MySEKO. No weight restrictions. Also available Saturday, Sunday, and every holiday.

Team Worldwide

teamww.com 800-527-1168

Team Worldwide, a U.S./Canada cross-border specialist, offers expedited aircraft charter service for any size, any weight shipment to be picked up, shipped, and delivered same day. Express service also handles any size, any weight shipment to be delivered the next day. Standard service and deferred service provide time-definite delivery at a cost savings.

SOLUTIONS/FEATURES:

To meet the extended needs of shippers with specific demands, Team Worldwide offers 24/7 availability, a national accounts service center, on-site packing and crating services, dangerous goods handling, 24-hour charter service, and local pickup and delivery. No size or weight restrictions. Sameday courier services are available.

TransGroup Global Logistics *transgroup.com* 800-444-0294

TransGroup Global Logistics provides complete logistics coverage across the United States, Canada, and Mexico with integrated technology solutions.

SOLUTIONS/FEATURES:

Air/ocean charter services, express LTL and FTL. The company's TransTracker tool provides instant access to shipment and purchase order details. TransTMS enables shippers to quickly and easily generate accurate rates and transit times.

Uber Freight

uber.com/us/en/freight

Uber Freight is an app that matches carriers with shippers. Carriers can tap a button and instantly book a load, and the price you see is the price you get—no back-andforth negotiations.



SOLUTIONS/FEATURES:

Uber Freight offers transparency with clear, up-front pricing and visibility, shippers always have the information needed to make the right business decisions. Uber Freight's streamlined workflow and 24/7 support keeps businesses rolling.

UPS

ups.com 888-742-5877

UPS' extensive domestic ground and air network can get shipments to more U.S. ZIP codes earlier than other major carriers. For urgent shipments, UPS offers several guaranteed next-day and same-day delivery options, with time-definite next day delivery by morning, noon, or end-of-day, depending on your needs. UPS Express Critical service allows for same-day delivery of critical shipments.



SOLUTIONS/FEATURES:

UPS offers value-added services such as pickup and delivery options, delivery notification, and special handling to meet each company's shipping needs.



UTXL

utxl.com 800-351-2821

UTXL offers nationwide team and solo expedited services with online in-transit tracking, competitive pricing, customerfriendly technologies, and available capacity 24/7.

SOLUTIONS/FEATURES:

VuTrans, the registered mark of UTXL's patent-pending logistics software system, enables individual shippers to proactively (pre-pickup through delivery) monitor the in-transit visibility of all truck shipments of all truck transportation vendors (contract carriers, brokers, private fleet and dedicated trucks) within a single customized one-way or twoway platform.

Ward Transport and Logistics wardtlc.com/expedited-2

800-458-3625

Ward's Fast ForWARD Expedite Service handles time-sensitive shipments. Available 24/7, Ward provides national and international solutions in land, air, and sea modes. Maintains a network of 20 strategically placed service centers in the Mid-Atlantic region.

SOLUTIONS/FEATURES:

Guaranteed delivery, pool distribution. Protect from freeze/full-value insurance. LTL consolidation, dedicated spot quotes.

Werner

werner.com/shippers/expedited 800-228-2240

Werner's operating area reaches all of North America, via solutions such as transcontinental, engineered solutions with designated OD pairings, terminal-to-terminal, and lane-based. Ideal for small parcel packages, LTL purchase transportation, OEM manufacturing, freight forwarders, retail, and pharmaceutical/technology.

SOLUTIONS/FEATURES:

Provides a total team capacity of more than 1,000, delivering bestin-class service for those with team transit needs. Higher than 99% on-time delivery record for timedefinite shipments.



WSI Supply Chain Solutions

wsinc.com/service/transportation 920-830-5000

WSI spans a nationwide distribution network with global logistics reach. Together, WSI's state-ofthe-art transportation network and strategically located distribution centers help expedite shipments worldwide. Within the United States, WSI achieves same-day or next-day delivery to all major cities.

SOLUTIONS/FEATURES:

Parcel, LTL, FTL, same-day, and next-day service.

XPO Logistics

expedite-solutions.xpo.com 844-742-5976

With more than 30 years of experience in domestic and crossborder solutions, XPO manages time-critical shipments from origin to destination with end-toend digital visibility. Capable of facilitating time-critical shipments of all sizes. Largest web-based manager of expedite in North America. Quality solo and team transportation providers.



SOLUTIONS/FEATURES:

Skilled coordinators are available 24/7/365, with a large network of owner-operators who understand the urgent nature of expedite. Can adjust modes quickly within its transportation range if circumstances change. State-of-the-art digital visibility of freight in transit.

YRC Worldwide

yrc.com/services/time-critical 800-610-6500

With YRC's time-critical service, air and ground modes are coordinated to meet demanding timelines. Specialized equipment-from air cargo to cargo vans and dedicated trailers to liftgate equipmentsatisfy virtually all shipping requirements. Comprehensive North America LTL network and crossborder expertise ensure seamless service. Special handling surrounds the shipment from the time it's scheduled to its final destination. TSA-approved Certified Cargo Screening Facilities and Indirect Air Carrier status maintain shipment integrity and avoid delays.



SOLUTIONS/FEATURES:

Time-Critical accommodates customer-defined delivery dates and times, including holidays and weekends. Guaranteed deliveries. Dedicated customer service on call 24/7. Online tracking.

AIRFREIGHT UPDATE: *MANAGING THE TURBULENCE*

The air cargo sector has flown up, down, and sideways during the past half year. How are carriers and airports stabilizing?

BY KAREN KROLL

uring the past few months, Burlap & Barrel, a purveyor of singleorigin spices, has seen a higher percentage of its shipments delayed, and more have missed flights due to the increase in overall shipment volume, says Ethan Frisch, co-founder and co-owner of the Jackson Heights, New York-based firm. One shipment was split, with a portion sent back to Tanzania before Burlap & Barrel ultimately received it.

Like Burlap & Barrel's shipments, the airfreight sector has experienced multiple ups, downs, and tangents during the past six months. "With the pandemic, all rules have been thrown away," notes Glyn Hughes, global head of cargo with the International Air Transport Association (IATA). The first hurdle occurred in spring 2020, when most passenger air travel halted. "Passenger aircraft, which typically hauls about 50% of air cargo, was gone," Hughes says.

Belly capacity for international air cargo dropped 67% between August 2019 and 2020 due to withdrawn passenger services. Partially offsetting this was a 28.1% increase in dedicated freighter capacity, according to IATA.

DRAMATIC SHIFT

Equipment wasn't the only constraint. Lockdown orders and the need for pilots and other workers to quarantine after flying to certain regions meant fewer handlers to load, unload, and move cargo.

Along with these changes, many shipments of consumer items were

understandably delayed so personal protective equipment (PPE) could take priority.

"During the first few weeks of the pandemic, we saw a dramatic shift in what commodities were being tendered," says Wally Devereaux, managing director, cargo and charters with Southwest Airlines. "Instead of fresh seafood and other perishables, we saw a sharp increase in PPE and eventually COVID-19 related supplies," he says.

The explosion in e-commerce it grew by nearly one-third between the first and second quarters, the Department of Commerce reports has magnified these shifts. The growing number of consumers ordering everything from toothpaste to sneakers online further tightened air cargo



capacity constraints. "Since everyone was at home, we saw our e-commerce business take off," Devereaux says.

Clearly, the air cargo market has faced numerous challenges since the pandemic began. But, intrepid airlines, airports, shippers, and others are stepping up to meet those challenges.

REGULATORS AND AIRLINES PIVOT

Early in the pandemic, as the constraints on cargo capacity became clearer, a number of regulatory agencies around the globe, including the Federal Aviation Administration (FAA) in the United States, steadily began allowing passenger planes to transport cargo in what typically would be the passenger areas.

After all, "no people were moving but cargo still needed to move," says Donna

"The shift to allow cargo in passenger areas has been an economic lifeboat for many airlines."

-Brandon Fried, executive director, Airforwarders Association

Mullins, president with consulting firm Mullins International Solutions.

To address concerns about safety, the FAA identified a number of requirements the planes would have to meet. For instance, the cargo loaded onto each seat can't extend above the seat back.

The shift to allow cargo in passenger areas "has been an economic lifeboat for many airlines," says Brandon Fried, executive director with the Airforwarders Association. Southwest Airlines, for example, pushed forward plans to offer cargo-only charters, with freight flying in the belly of its Boeing 737s, Devereaux says.

Delta Cargo has dispatched idled aircraft on cargo runs to destinations around the world, says vice president Shawn Cole. Since February 2020, Delta has operated 1,400-plus cargo charter flights and now averages more than 50 cargo-only flights each week.

Several weeks after allowing cargo on passenger seats, the FAA allowed airlines to remove the seats from their passenger planes, enabling them to hold more cargo. Again, they had to meet safety criteria, such as loading cargo in such a way as to allow access to it for firefighting.

Cathay Pacific Airways pulled the seats from the economy and premium economy sections of two passenger airplanes, converting them to "preighters," says Frederick Ruggiero, vice president of cargo for the Americas.

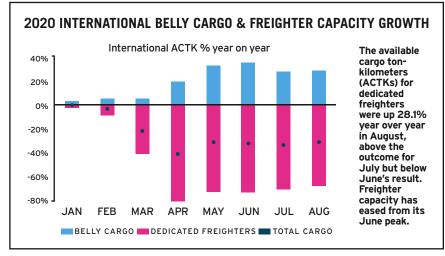
"It's isn't easy," he says. "There's a huge difference between a 777 freighter and a 777 passenger plane with the seats removed."

For instance, because the converted planes have less main deck support, they can't hold the same amount of freight. Even so, based on customer interest in the converted planes, the airline converted two more.

STEPPING UP

In another sign of growing demand for air cargo capacity, in September 2020, Cathay launched a new cargo service from Vietnam to Pittsburgh International Airport (PIT), adding to the airline's existing network of 19 cargo stations throughout the Americas. While this is intended to last for 12 weeks, it might become a regular route depending on interest, Ruggerio says.

Before the pandemic, about 80% of flights at cargo-focused Rickenbacker



Airport in Ohio were scheduled service and 20% ad hoc charter. With COVID-19, the numbers flipped. "The schedule went out the window," says Bryan Schreiber, manager, air cargo, business development with the Columbus Regional Airport Authority.

Rickenbacker retooled its handling operations to accommodate the growing number of passenger planes now carrying cargo. Offloading these planes tends to be more labor intensive than pure freighter aircraft, which have automated systems and palletized and containerized positions. For instance, with one airline, the airport gained permission to bring portable roller-conveyors into the cabins of the converted planes.



To alleviate congestion and move cargo more quickly once it's on land, some airports enter into airport partnerships. An example is the agreement between PIT and Ted Stevens Anchorage International Airport that allows both to work together to find innovative solutions for moving air freight faster and more efficiently by, among other steps, exchanging information in airport management and exploring alliances between air cargo industries. "We're partnering to find ways to move freight easier and faster," says Bryan Dietz, vice president of air service development with Allegheny County Airport Authority.

An airport community system is another tool for speeding the movement of air cargo. A neutral and open electronic platform, this system allows for intelligent, secure information exchanges. Truckers could use such a system to book appointments with ground handlers, even before driving into the airport.

"The handler would get a list of bills the trucker will pick up and thus knows the equipment they'll need, expediting land-side moves," Mullins says. The systems also reduce human contact—a key capability during a pandemic.

SECURITY CHANGES COMING

During the past few months, the airfreight market has shown signs of stabilizing. By August 2020, global air cargo demand, measured in cargo ton-kilometers (CTKs), was 12.6% below previous-year levels — not great, but a slight improvement from July's 14.4% drop, according to IATA.

On the other hand, global CTK capacity was down by nearly 30%. "Improvement is slow due to capacity constraints from the loss of available belly cargo space as passenger aircraft remain parked," IATA notes.

Another potential challenge is the upcoming rule change by the International Civil Aviation Organization (ICAO) that goes into effect in June 2021 and may require all cargo to be screened at its origin. "That would, of course, slow things down," Hughes says.

THE VACCINE'S IMPACT ON AIR CARGO

The availability of a safe and effective COVID-19 vaccine will be tremendous. At the same time, "transporting a vaccine will result in air demand, thus reducing capacity further for shippers," says Cathy Morrow Roberson, founder and president, Logistics Trends & Insights.

On top of the increased demands are the many unknowns, such as when a vaccine will be approved, when it will become widely available, and how it will be transported. It's also not yet clear how the vaccines will travel, or what temperatures and containers will be required.

Spice company Burlap & Barrel is among the global companies that saw air shipment disruption since the pandemic.



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Security is another concern. Even if each vaccine is relatively low value, a shipment containing millions of vials is apt to catch the attention of criminal organizations. "They can create chaos or mayhem, or hold shipments for ransom," Hughes says.

Finally, deciding how a vaccine will be distributed among 200-plus territories around the globe poses thorny ethical dilemmas. Who gets to go first? What happens if some with resources engage in "vaccine tourism" to move closer to the front of the vaccine distribution queue?

"We're in the 'ask a lot of questions' mode," Ruggiero says. While the answers may not be clear for a while, shippers should be aware that the emergence of a vaccine, while critical to life and health, will also impact air cargo travel.

TAKING THE TEST

Some in the airfreight industry are testing shipments of sensitive materials to prepare for vaccine transportation. For example, Russia-based AirBridgeCargo Airlines, working with third-party logistics company Kuehne+Nagel, transported more than 100 tons of sensitive products from Germany to China through Russia.

'With most of the anti-COVID-19

shipments switching to slow logistics, we could use this period to test our capabilities for vaccine transportation," says Nikolay Glushnev, general director, AirBridgeCargo Airlines.

"Although we have not used special containers for this particular charter flight, it is still essential to guarantee that all the stakeholders are ready for a considerable batch of pharma shipments," he adds.

STAYING AHEAD OF THE TREND

Given expected ongoing tightness in air cargo, shippers should continue to evaluate other modes of transportation. They'll also want to leverage technology that allows them to efficiently manage and book freight, as well as compare rates, lanes, and modes.

And while it's hard to precisely predict the direction of future air cargo rates, the likelihood of continued higher rates appears strong. Most airlines continue to suffer from a free fall in passenger volume, and cargo helps mitigate their losses.

To stay ahead of an ever-evolving market, Frisch says Burlap & Barrel has been "placing larger orders, getting tons of details from freight forwarders, and communicating clearly with our customers about the delays and the reasons for them."



in this section: 3PL

3PL



ECHO GLOBAL LOGISTICS • 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.

KENCO • www.kencogroup.com

Adding value to your bottom line? That's the mission of Kenco. For more than 50 years, Kenco has guided some of the most demanding supply chains in the world. Kenco's convergence approach can help you streamline your supply chain and bring a greater return on assets and investments. Kenco invites you to visit this website so that you might get to know its services. Then, contact Kenco so that you might truly understand its unique strategic advantages.





RUAN • www.ruan.com

Ruan's Integrated Supply Chain Solutions offer it all, including Dedicated Contract Transportation, Managed Transportation, and Value-Added Warehousing. We combine the flexibility of our non-asset and asset-based capabilities with optimal technology and superior service focused on continuous improvement, cost savings, and supply chain efficiency. The Ruan team partners with customers to evaluate, optimize, and deliver a one-source, integrated supply chain solution.



UTXL • www.utxl.com

Whether you need a core transportation service provider or a resourceful backup relief valve, turn to UTXL. UTXL handles truckload and multiple stop shipments (consolidated LTL) between any points in North America, and can arrange service to or from any state with satellite and/or cellular equipped teams and single drivers for your van, reefer, flatbed, or oversized shipments. Shippers nationwide rely on UTXL for reliable service and economical prices; you can, too. Check out the website for all the details.

IN THIS SECTION: Air Cargo - Drayage



AIR CARGO



APPROVED FREIGHT FORWARDERS • www.approvedforwarders.com

Since 1991, Approved has been dedicated to the unique shipping needs of the Hawaii and Guam trades, and provides freight forwarding throughout the mainland U.S. Approved accommodates all types of commodities and all sizes of freight. Its highly trained logistics experts use advanced technology to tailor shipping solutions that fit your specific requirements. Approved works hard to ensure that your shipment arrives on time and intact, and keeps you updated every step of the way. To learn more about Approved's freight and logistics solutions, sailing schedules, and competitive rates, visit the website.

SEKO LOGISTICS • www.sekologistics.com

SEKO prides itself on a commitment to customer service, whether it's a 2 a.m. pickup for a critical industrial part for a plant that is 4,000 miles away, or the cost savings achieved from proactive communication with your vendors overseas. SEKO offices have the knowledge and expertise to expedite or to consolidate, depending on your need. From Hong Kong to Amsterdam, SEKO knows how to serve its clients. As a non-asset-based third-party logistics provider, SEKO has the flexibility to meet your supply chain needs using a variety of modes and carriers.



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TFORCE WORLDWIDE (TFWW) • www.tfwwi.com

Experience the benefits that only come from working with a major global shipper that is also a top-ranked non-asset based logistics platform. We offer multiple transportation modes, an established multi-carrier network, volume-leveraged rates and service levels, along with technology-enabled systems and processes—all backed by the resources of a North American leader in transportation and logistics, TFI International. Visit our website and contact us today to see why customers rely on us.

DRAYAGE

GULF WINDS • www.gwii.com

Gulf Winds is a leading drayage, transloading, and domestic freight provider serving importers and exporters from around the globe—while redefining expectations for intermodal trucking through innovation, people, and purpose. Because of its commitment to continuous investment in technology, people, and supply chain infrastructure, Gulf Winds stands alone as the largest and most robust transportation provider for Port Houston—with locations in Houston, Dallas, Ft. Worth, Mobile, and Memphis.





IN THIS SECTION: Expedited Air - Ocean

EXPEDITED AIR



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.

INTERMODAL

ALLIANCE SHIPPERS INC. • www.alliance.com

Delivering The Perfect Shipment® from pick up to destination. With operating facilities in the United States, Canada and Mexico, Alliance Shippers Inc. combines excellent customer care with state-of-the-art rail, highway, ocean and air transportation solutions. Additional services include warehousing, distribution, customs clearance, equipment/driver leasing and expedited transportation. For cost-effective logistic solutions tailored to your company's exact needs, contact Alliance Shippers Inc.



OCEAN



A.P. MOLLER-MAERSK A/S • www.maersk.com

A.P. Moller-Maersk is an integrated container logistics company. Connecting and simplifying trade to help our customers grow and thrive. With a dedicated team of over 80,000, operating in 130 countries; we go all the way to enable global trade for a growing world.

COSCO SHIPPING LINES NORTH AMERICA • www.cosco-usa.com

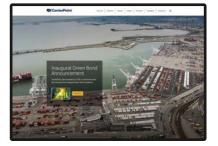
COSCO Shipping brings the highest quality of ocean cargo transportation services to every corner of the globe, with one of the largest, newest and "greenest" fleets making frequent and timely calls to the busiest ports worldwide. COSCO Shipping delivers your containerized cargo quickly, economically and securely, interfacing with rail, road, barge, air and more, with advanced equipment and technology leading the way to absolute supply chain efficiency. And, there is no other ocean carrier who knows China better.



IN THIS SECTION: Real Estate - Trucking



REAL ESTATE



CENTERPOINT PROPERTIES • www.centerpoint.com

CenterPoint is an industrial real estate company made up of dedicated thinkers, innovators and leaders with the creativity and know-how to tackle the industry's toughest challenges. And it's those kinds of problems—the delicate, the complex, the seemingly impossible—that we relish most. Because with an agile team, substantial access to capital and industry-leading expertise, those are exactly the kinds of problems we're built to solve.

PHARR BRIDGE • www.pharrbridge.com

The Pharr-Reynosa International Bridge serves as one of the most important ports of entry for the U.S.-Mexico border. It handles both commercial and passenger-operated vehicles and crosses about 175,000 vehicles monthly. The Pharr International Bridge is also the only commercial bridge crossing in Hidalgo County, and is the number two bridge in the country for crossing of fruits and vegetables. The Pharr International Bridge connects US Hwy. 281/I-69W to the City of Reynosa, Tamaulipas, the fastest growing city in Mexico.



SUSTAINABILITY

SITE SELECTION



EPA SMARTWAY • www.epa.gov/smartway

In 2004, EPA launched SmartWaySM—an innovative brand that identifies products and services that reduce transportation-related emissions. The impact of the brand, however, is much greater, as it signifies a partnership among government, business, and consumers to protect the environment, reduce fuel consumption, and improve air quality. All EPA SmartWay transportation programs result in significant, measurable air quality and/or greenhouse gas improvements while maintaining or improving current levels of other emissions and/or pollutants. Find out what you can do to save fuel, money, and the environment with SmartWay.

TRUCKING

OLD DOMINION FREIGHT LINE • www.odfl.com

Old Dominion Freight Line is a less-than-truckload carrier providing complete nationwide service within the continental United States. Through its four product groups, OD-Domestic, OD-Expedited, OD-Global, and OD-Technology, the company offers an array of innovative products and services to, from, and between North America, Central America, South America, and the Far East. The company also offers a broad range of expedited and logistical services in both domestic and global markets.



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webinar

SIMPLIFYING THE COMPLEXITY OF MULTI-CARRIER PARCEL MANAGEMENT

Offered by Logistyx Technologies

bit.ly/SimplifyParcel

Learn how to leverage multi-carrier shipping systems and their data to create an optimal delivery network during peak season. This free webinar covers controlling shipping and delivery processes across the extended multi-carrier network, managing portfolios for optimal rate and service selection, expanding delivery services by onboarding regional carriers, and proactively optimizing carrier interactions.



whitepapers



bit.ly/InforOCT20SCI

IDC Analyst Connection: Selecting a Cloud Warehouse Management System

Offered by Infor

The right cloud-based warehouse management system (WMS) can enable your distribution center to meet today's order complexities while offering swift connectivity and collaboration. Read this free whitepaper for tips on driving operational excellence in the warehouse, features to look for, key questions to ask potential vendors, and pitfalls to avoid during your WMS selection process.



bit.ly/PierbOCT20SCl

Multi-Shipper Management Tools Help Providers Meet Complex Parcel Shipping Requirements Offered by Pierbridge

Facing rising shipping volumes, capacity constraints, and costs, shippers reengineer their fulfillment processes to accommodate last-mile parcel delivery. In turn, many logistics solutions providers offer multi-carrier parcel management solutions that provide complete and independent control over end-to-end deployment, configuration, and support. Learn how the right multi-shipper management solution can help you help shippers.



bit.ly/PLGrpOCT20SCI

Case Study: Why Scalability Is So Critical

Offered by Port Logistics Group/ Whiplash

The direct-to-consumer model is undergoing a period of unprecedented growth. More merchants are beginning to cut out the middlemen, setting the stage for major disruption to traditional in-store retailing practices. New businesses are increasingly opting for a digital-first approach to avoid high overheads, leaving a lasting effect on consumer habits. Is your brand ready to scale? Download this free case study to find out why scalability is so critical.

Supply Chain Insights

whitepapers



bit.ly/NulogyOCT20SCI

Gartner Report: How Resilient Is Your Manufacturing Network After COVID-19?

Offered by Nulogy

For years, global manufacturing organizations have been lulled into a sense of complacency, prioritizing cost containment and efficiency. This research report, produced by Gartner and presented by Nulogy, helps supply chain leaders responsible for operations build greater resilience in their insourcing and outsourcing strategy to respond to disruptions.



bit.ly/SftboxOCT20SCI

Temperature Control Packaging That's Shrinking BioPharma's Environmental Footprint

Offered by Softbox Systems

Leading pharma companies are finding new sustainability initiatives that influence partners, suppliers, and vendors to pursue greener strategies. Softbox Systems produces highperformance passive temperature control packaging solutions that protect both product and planet. Discover how sustainability impacts packaging and how current solutions stack up on performance, customer expectations, and practical recyclability in this free whitepaper.



bit.ly/RamcoOCT20SCI

Command Center-**The Logistics Grandmaster** Offered by Ramco

Are you struggling with information overload? Read this whitepaper to learn how a command center in your enterprise resource planning can access multiple sources of real-time data, collate and process relevant data, and provide effective options after scanning all influencers, such as weather, driver safety rating, and regulations. The Ramco Command Center keeps suppliers, partners, and customers informed with timely data about the vehicle and shipment. Read on to see how you can make it happen.

podcast





How Suppliers and Retailers Can Alleviate Supply Chain Volatility

GUESTS: Brian Meents and Dan Sanker, Hub Group

Shippers continue to seek different solutions to find stable ground for themselves and their customers as they navigate an uncertain business landscape. What can suppliers and retailers do to better position their supply chains and alleviate volatility? Brian Meents and Dan Sanker of Hub Group share their observations and how the retail sector should respond.

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[IN FOCUS]



New Services and Solutions



> KION North America introduced the ergonomic Linde Series 1202 hydrostat forklift truck with low fuel consumption for indoor and outdoor materials handling operations. With 4,500- to 7,000-pound load capacities, the Linde Series 1202 has a hydrostatic drive system that powers the wheels with hydraulic fluid instead of a mechanical powertrain.

>PRODUCTS



> Letting conveyors run quietly and smoothly when moving light goods, the new roller from **daRoller** requires just 12 g (0.026 pounds) of turning effort to start the conveyor roller. The lightrunning roller is built with ABEC precision bearings and a grease/oil combination for lubrication, allowing the conveyor to run easily, quietly, and smoothly.

> Mezzanine Safeti-Gates offers a hingeless, selfclosing safety gate to provide fall protection in elevated pallet flow applications. Pallet flow lanes are often found in pick modules, elevated above OSHA's 48-inch fall protection requirement. The Pallet Flow safety gate automatically opens as the pallet is pushed through into the system, and closes behind the pallet once it is through.

>SERVICES

> RK Logistics Group expanded its warehousing capacity in Hayward, California, and plans additional warehouse capacity of up to 100,000 square feet in early 2021.

> Averitt Express opened a service center to boost its ability to handle freight flow in Greensboro and the Piedmont Triad region of North Carolina. Located less than 18 miles from downtown Greensboro, the new facility features a 46,000-squarefoot dock and 102 truck doors.



> Delta Cargo approved the DoKaSch Opticooler RAP container for use on Delta aircraft as part of its cold chain pharma program for the safe transportation of vaccines. Pharmaceutical and life science companies now have climate-controlled options, without the need for dry ice. The Opticooler has a large control panel and quadruple redundancy for all critical parts.



> The fresh produce rail route CoolRail expanded its network in Europe with new routes to the United Kingdom, the Nordic countries, Germany, and Poland, in addition to the main route to Rotterdam. Operating under the name CoolRail Powered by Transfesa Logistics, the expanded service is a result of the collaboration between Transfesa and Euro Pool System.



> Cainiao Smart Logistics Network, the logistics arm of Alibaba Group Holding Limited, partnered with Atlas Air Worldwide Holdings to launch a charter program to service cross-border trade between China and South America. Atlas Air operates three weekly charter flights dedicated to Cainiao, linking China with Brazil and Chile, offering average shipping times of three days.



>TRANSPORTATION



> cargo-partner is extending its air charter service from China and Hong Kong to Europe through the end of 2020. Introduced in March 2020, the service provides multiple weekly air charters from mainland China via gateways Shanghai, Beijing, Qingdao, Shenzhen, Xiamen, and Guangzhou, and distribution to destinations in Europe. > ZIM now offers direct service to Jebel Ali port in the United Arab Emirates to shippers in Israel and the East Mediterranean. Two existing ZIM services now provide service to and from Jebel Ali port in the UAE: ZIM India -East Med Express and ZIM Israel India Service.

> Dachser Air & Sea Logistics expanded its premium air charter program between Europe and Asia to include a Hong Kong-Frankfurt route. The route is in addition to Dachser's weekly transatlantic service connecting Europe and the United States.

>TECHNOLOGY

> Green Mountain Technology

launched an LTL spend management solution to help shippers ensure they are paying the correct amount on their LTL invoices and derive spend management insights for supply chain optimization and efficiency opportunities.

> Shippers now get enhanced live shipment tracking and visibility data directly linked to their transportation order in Alpega TMS with the partnership between Alpega and predictive supply chain visibility provider FourKites.



> Interactive live video shopping provider **Bambuser** launched Live Stream E-Commerce Experiences, a new integration with Salesforce Commerce Cloud, which lets retailers engage with customers through live, interactive online shopping.

> TMS system provider Kuebix's community of more than 24,000 shippers can now leverage dynamic pricing and additional truckload coverage from Convoy's carrier network. Kuebix users can book backup and spot capacity from Convoy within Kuebix's load matching platform. > Zebra Technologies and OMNIQ teamed up to offer an Al-based yard management solution that incorporates real-time location capabilities with automated identification and tracking features to optimize asset flow in distribution centers.

> Retailers gain a nimble approach to inventory allocation with Manhattan Associates' Active Allocation. The solution provides demand insight and helps shape allocation decisions based on fulfillment experiences for each product at the store and DC level.

> Blume Global launched Blume Street Turns, a software solution designed to enhance drayage operations and container utilization. Through the use of machine learning algorithms to improve driver and truck utilization and increase turns, the solution helps reduce congestion and CO2 emissions around ports and rail ramps.



E-CALENDAR Virtual Logistics Events 2020

These events went digital so supply chain professionals can connect with peers and discover the latest learnings remotely.



CLO Exchange Virtual

bit.ly/CLOExchange2020

Chief logistics officers discuss how to develop your organization's learning culture in the age of digital transformation. Learn how to create value in times of uncertainty, explore technologies like augmented reality, and address pressing leadership challenges.

.....

NOV-DEC 17, 2020

Food Safety Consortium Virtual Conference Series

bit.ly/FoodSafetyConsortium Every Thursday, the Food Safety Consortium hosts threeto four-hour broadcasts of themed episodes that consist of three presentations and two tech talks, followed by a panel discussion. The overarching theme is food protection, including COVID-19's impact on food safety management, food culture, supply chain management, and traceability.

NOV 23-24, 2020

3D Printing & Additive Manufacturing *bit.ly/3DPrintConference*

This international conference features keynotes and poster presentations focused on current topics in 3D printing and additive manufacturing. The event revolves around the journey from brainstorming an idea to creating a finished product. Applicable to a variety of industries, this event is for any business looking to enter additive manufacturing.

DEC 1-2, 2020 Operational Excellence in Energy, Chemicals & Resources

bit.ly/OperationalExcellenceVirtual Unlock value in your operations with insight from industry leaders and technology experts discussing how to drive innovation and data-based transformation. Deep-dive case studies illustrate how to build a high-reliability organization and explore intelligent automation and the connected worker.

DEC 1-2, 2020 Rail Live

bit.ly/RailLiveEvent Rail Live brings together leaders in the rail industry to discuss topics critical to future developments in technology, innovation, and strategy for the entire rail supply chain. Take a look at top rail projects from around the world and network with the leaders driving these projects. Roundtable discussions and keynote speakers cover topics such as light and urban rail, sustainability, IoT, smart mobility, and more.

DEC 1-2, 2020 TDWI Virtual World Conference bit.lv/TDWIEvent

Build essential skills and learn about the latest technologies with three days of in-depth education. Attend live, expertled training addressing modern analytics, including data literacy and self-service, data strategy and governance, data warehousing, machine learning, and more. Wherever you fit in the world of analytics and data management, you will discover the skills you need to take your organization to the next level.

DEC 1-3, 2020 Industrial IoT World bit.lv/IIoTWorld

Tech leaders come together for expert guidance on transforming operations with the Industrial Internet of Things (IIoT). Gain insight on standardization, cybersecurity, edge computing, data monetization, predictive maintenance, connected fleets, 5G, and more. Analyze dedicated case studies that address core challenges, from monetizing and securing data to updating legacy infrastructure.

DEC 3-4, 2020 World Digital Supply Chain & Logistics Summit bit.ly/WorldSCSummit

This two-day event focuses on improving operational efficiency by adopting gamechanging technologies. Discuss using blockchain and machine learning to establish faster and leaner global logistics. Get up to speed on the latest trends, network with industry leaders, and discuss the latest supply chain 4.0 solutions to drive your business forward.

FEB 7-9, 2021 Future Stores

bit.ly/FutureStoresMiami Discover how leading retailers overhaul their in-store experience. Attendees can take away actionable strategies to use store technology effectively, retool front-line associates, and create an innovative store experience. These learnings prepare senior retail executives in operations, design, and technology to take their businesses into the future.

.....

FEB 22-25, 2021 Logistics Business Exhibition

logisticsexhibition.com This international exhibition is a platform for interaction between logistics, IT, transport and supply chain services, warehousing, and materials handling manufacturing industries. Present your solutions to potential customers and participate in scheduled and spontaneous video meetings. Choose from six virtual hall categories, including automation systems, packaging and pallets, software and computing, and warehousing equipment.

JUN 8-10, 2021 GS1 Connect: Digital Edition 2021

gslconnect.gslus.org

Live-streamed and on-demand content focuses on adapting to supply chain and e-commerce challenges. Choose from six tracks, including healthcare, grocery, retail, and technology. Industry leaders share success stories leveraging GS1 standards and how to solve specific business challenges. The expanded program features a pitch competition, discussion groups, and a virtual classroom.

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UTXL *pg*. 29 utxl.com 816-891-7770

EQUIPMENT

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INTERMODAL

Alliance Shippers pg. 23 alliance.com 800-222-0451

OCEAN

COSCO Shipping *pg.13* cosco-usa.com 866-830-2550

REAL ESTATE LOGISTICS/ SITE SELECTION

Pharr International Bridge *pg*. 7 pharrbridge.com 956-402-4660

SOURCING PLATFORM

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SUSTAINABILITY

EPA SmartWay *pg*.8-9 epa.gov/smartway 734-214-4767

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CAN EVERYONE ON YOUR TEAM SOLVE THIS?

Icc = $\frac{C + T + I + W + X + (S - R1) + (O - R2)}{Annual # Material Cast}$

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SUPPLY CHAINS

Taking on building materials and labor shortages, these startups are demolishing inefficiencies and constructing platforms—both steel and electronic.

ASSEMBLY INSTRUCTIONS INCLUDED

Construction technology company Mosaic Building aims to streamline homebuilding with software that helps contractors build betterquality homes with greater speed and less waste.

With digital worksheets that eliminate redundant tasks and keep construction schedules on track, the software can calculate how much lumber a project needs and have the wood cut before delivery to the job site, lowering costs and speeding construction. The system can also provide lumber yards with precise instructions to pre-assemble wall panels.

The company recently teamed up with builder Mandalay Homes to construct 400 residences using software that converts blueprints into step-by-step assembly instructions. Mosaic and Mandalay Homes aim to build hundreds of single-family homes in Arizona over the next two years.

CONSTRUCTION KIT OF PARTS

The Bone Structure is a steel-based building kit that's manufactured by robots, then cut and shipped to the building site where it can be fastened together with simple tools, addressing a major hurdle in construction-the shortage of skilled tradespeople.

Made mostly with recycled steel and with foam insulation that can reduce energy costs up to 90% compared to a conventionally constructed home, the system can meet net-zero energy targets.

Available in dozens of predesigned home prototypes, it can also be used as the structural system for architectdesigned projects. The kit can shave off months from the traditional construction process.

IF YOU BUILD IT, THEY WILL COME

Startup Agora has erected the framework for a streamlined building materials supply chain. Linking construction managers, purchasing agents, and vendors, its platform tracks and manages orders in real time. Its subscription-only app allows workers to place product orders, track deliveries, and report errors. Purchasing teams can also use the app to compare prices and manage orders.

Processing about \$1 million in orders weekly, the company's user base grew 50-fold since March 2020. The average customer places 1,500 orders each year.

\$1.4 TRILLION

U.S. construction spending in September 2020, according to the U.S. Census Bureau

SOURCES: FAST COMPANY; THE REAL DEAL



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