

WELCOME

Hello and welcome to the first ever *Package Fulfillment, Logistics & Delivery North America Technology Showcase*! This is the official show publication for North America's newest and only end-to-end e-commerce fulfillment, parcel logistics and delivery event, covering the complete supply chain and delivery process, from order fulfillment through to the final delivery and returns.

Taking place at the Duke Energy Convention Center in Cincinnati, Ohio, on July 13 and 14, 2022, the event will provide a great opportunity to network with key decision makers and buyers from e-retailers, fulfillment companies, shippers, third-party logistics (3PL) providers, consumer-packed goods (CPGs), grocery delivery firms, couriers, home delivery companies and postal services from around the world.

While most industries reeled under the weight of the pandemic, the fulfillment, logistics and delivery sectors have all witnessed sensational growth, transforming how businesses approach their supply chain forever.

Record parcel volumes and revenues are great news for the sector, but they do present new challenges. Unprecedented surges in consumer demand have led to supply chain bottlenecks and capacity issues for retailers nationwide. As a result, shippers and suppliers have quickly turned to 3PL providers to help alleviate the pressure, increasing gross revenues for the US 3PL market by more than 50% in 2021, reaching US\$347.9bn (see *Record breaker*, page 56).

In the US, Amazon accounts for nearly half of the B2C e-commerce retail market, its dominance secured by its game-changing offering, Fulfilled by Amazon (FBA). Yet, a new wave of 3PL innovators and startups have found a way to thrive, particularly in the direct-to-consumer market, providing value to brands in areas overlooked by larger operators. In *Wrapped up* on page 6, Helen Norman speaks to some of the latest players who are carving out a niche in this ever-changing landscape.

Supply chain issues have been further exacerbated by talent shortages, with staff turnover in the US transportation and warehousing sector increasing from just over 40% in 2017 to nearly 50% in 2021. Warehouse automation and robotics, such as autonomous mobile robots, mechanical picking arms, automated forklifts and even exoskeleton lifting suits, all provide an appealing way to plug recruitment gaps while complementing the existing workforce (*Pick of the bunch*, p20).

With the global warehouse automation market set to reach US\$69bn in 2025, more than double pre-pandemic levels, adopters must also consider what other aspects of their business need to undergo a digital transformation. A survey by DHL found that only 5% of supply chain providers and internal corporate departments consider themselves to be at a 'transformational adoption stage' for the digitalization of hardware and information/analytics. DHL Supply Chain explains how its accelerated digitalization strategy aims to benefit partners in this area (*Digital evolution*, p14).

It is inevitable that with greater package volumes will come a greater number of returns. Managing this pain point is an ongoing battle for supply chains and an area that can provide big savings if done properly. In *Supply pain* on page 42, Cathy Roberson from the Reverse Logistics Association provides some vital insight into ways to keep costs down.

In such a diverse, thriving landscape, it's critical to have the right partners in place to ensure success and help your business grow. Package Fulfillment, Logistics & Delivery Expo will showcase the latest technologies, systems and services needed to flourish in the sector, featuring both US and international exhibitors, such as Alfi Technologies (France), Arka Industrial Automation (Romania), Caja Robotics (Israel), Customs Clearance (UK), ForwardX Robotics (China), Leopard Systems (Australia), Purolator (Canada) and MailAmericas (Argentina). For a flavor of what's on show, turn to our 13-page Expo preview on page 28, and to book your place at this year's event, visit www.pfldexpo.com.

Dan Symonds, editor

**IN SUCH A DIVERSE,
THRIVING LANDSCAPE,
IT'S CRITICAL TO HAVE
THE RIGHT PARTNERS IN
PLACE TO ENSURE
SUCCESS AND HELP YOUR
BUSINESS GROW**

ADVERTISERS

Alfi Finmec.....	39
Doddle.....	Inside front cover
Habasit Services.....	39
MHS.....	19
Package Fulfillment, Logistics & Delivery Expo North America 2022.....	11, 12, 13, outside back cover

Parcel+Post Expo 2022.....	45
Purolator.....	27
Tension Packaging & Automation.....	3
Workhorse.....	Inside back cover
www.parcelandpostaltechnologyinternational.com	49



EDITORIAL

Editor
Dan Symonds
(dan.symonds@ukimediaevents.com)

Production editor
Alex Bradley
Sub editors
**Sarah Lee, Alasdair Morton,
Mary Russell**
Editorial assistant
Elizabeth Baker

DESIGN

Art director
Craig Marshall
Art editors
Nicola Turner, Ben White

PRODUCTION

Head of data and production
Lauren Floyd
Production manager
Catia Rocha

ADVERTISING

Publication director
Matthew Gunn
Publication manager
Helena Hunt

MANAGEMENT

CEO
Tony Robinson
Managing director, magazines
Anthony James



Published by UKi Media & Events,
a division of UKIP Media & Events Ltd,
Abinger House, Church Street, Dorking,
Surrey, RH4 1DF, UK
Tel: +44 1306 743744
Email: helena.hunt@ukimediaevents.com
Web: www.ukimediaevents.com

Printed by William Gibbons & Sons Ltd,
PO Box 103, 26 Planetary Road, Willenhall,
West Midlands, WV13 3XT, UK

The views expressed in the articles and technical papers are those of the authors and are not necessarily endorsed by the publisher. While every care has been taken during production, the publisher does not accept any liability for errors that may have occurred.
ISSN 2755-1091 (print); ISSN 2755-1105 (online)
This publication is protected by copyright ©2022

Moving on? To amend your details, or to be removed from our circulation list, please email datachanges@ukimediaevents.com. For more information about our GDPR-compliant privacy policy, please visit www.ukimediaevents.com/policies.php#privacy. You can also write to UKi Media & Events, Abinger House, Church Street, Dorking, RH4 1DF, UK, to be removed from our circulation list or request a copy of our privacy policy.

▶ **ATR****BOOTH 632**

MODULAR SORTING SYSTEM

ATR will present RollerBall, a new package sorting system it claims is more flexible and inexpensive than many traditional sorters. First introduced in 2021, RollerBall is already a proven performer with an attractive ROI. For example, one of ATR's last-mile customers reported a 45% increase in packages processed using fewer people than before. Sorting operations that once took 15 people are now performed with 8. That's a 45% increase in volume with 46% fewer people.

This innovative design uses Regal Rexnord System Plast roller-top belting and is driven by safe, low-voltage motorized drive rollers. It will sort all package types and boasts a small footprint, low noise and low operating costs. RollerBall is a modular design, constructed from identical sections that connect to provide up to 200 sort points. New sort sections can be added at any time with no change in software. The modular design keeps spare parts requirements to a minimum, and modules are designed for rapid remove-and-replace servicing if necessary.

Installation is quick and easy with fully assembled sorter sections that are readily moved by hand and fit through a standard double door. Most installations can be accomplished in no more than a day, with minimal disruption to ongoing operations. A standardized induction station accepts packages that are simply faced and placed in the scanning zone. Options are available for automated feed conveyors, high-resolution weighing, dimensioning and package imaging. These features can be easily added even after initial installation.

Robust control software and a comprehensive HMI provide a rich set of operational displays and troubleshooting screens. RollerBall's database maintains a complete set of operational records and is designed to integrate easily with a variety of warehouse management systems. RollerBall is an off-the-shelf sorting appliance that takes the complexity out of package sortation. Its sort modules, induction station and control system are all field-proven.

▶ **Regal Rexnord****BOOTH 704**

TRANSFER AND DIVERTING STATION

Designed to solve a range of increasingly challenging transfer and diverting problems that are complicating operations in distribution centers, particularly in retail e-commerce distribution, be sure to check out Regal Rexnord Corporation's ModSort roller-top belt mobile flats sorter, which will be on display in Cincinnati.

The ModSort roller-top station was developed to meet the industry's needs for diverting, transferring and sorting products. Using a matrix of freely rotating balls embedded in a continuous flat belt in conjunction with 24V DC motorized drive rollers, the roller-top belt station uses precise, controlled, impact-free motion to divert and transfer products onto motorized conveyor lines.

The ModSort modular roller-top belt station is a new concept for transferring and diverting a wide variety of package types. With no auxiliary diverting equipment, its smooth and precise positioning control minimizes packaging impact, and its multipurpose, modular design enables it to be positioned wherever it is needed within conveyors for any transfer or diverting application. Although using motion control rather than force to divert objects is a sophisticated concept, the engineering behind it is a model of simplicity.



@PFLDEXPO #pfldexpo22

GET INVOLVED ONLINE!

▶ **Xos Trucks****BOOTH 817**

100% BATTERY-ELECTRIC VEHICLE

The Xos SV05 step van is a 100% battery-electric vehicle that has been purpose-built for commercial use and designed to accommodate a variety of use cases. The company's step vans have been used by commercial fleets since 2018 and are currently operated by multiple nationwide fleets including FedEx, Loomis and UniFirst. The SV05 has a gross vehicle weight

rating (GVWR) total that ranges from 19,500-26,000 lb (8,845-11,800kg). It can also boast a 100- to 150-mile (160-240km) range with 335hp.

To minimize downtime, the step van has a DC charge time of one hour and an L2 charge time of four hours. It features a 350kW fully electric motor, hydraulic disc brakes, direct drive propulsion and leaf spring suspension. The SV05 also includes standard features like alarms, ABS, down-view mirror, regenerative braking, parking brake interlock and power steering. Optional additional upgrades include blind spot detection, lane

departure warning, speed limit indication, stability control and a 360° camera.

To customize its solution to any fleet's needs, Xos works with leading body manufacturers such as Utilimaster and Morgan Olson. Xos's Lyra battery systems are built from the cell level up at the company's Los Angeles headquarters; the chassis are built from the ground up at its Flex Manufacturing facilities in Tennessee and Mexico. With every truck, customer and new facility, Xos aims to decarbonize transportation and make the world a cleaner, more sustainable place.



FREE-TO-ATTEND EXHIBITION! REGISTER ONLINE NOW

www.pfldexpo.com

FREE-TO-ATTEND EXHIBITION! REGISTER ONLINE NOW

www.pfldexpo.com

► Globe Composite

JAM BREAK TOOLS TO MINIMIZE DOWNTIME

BOOTH 617

Globe Composite will showcase its Jam Break Tools and their ability to minimize mechanical downtime, increase operational performance and enhance employee safety.

Whether a delivery company moves thousands or millions of packages, operational inefficiencies, product damage, unsafe practices and downtime can mean the difference between success and failure. Globe created the family of Jam Break Tools to address these issues by providing a lightweight, durable and ergonomic solution.

Made from Brandonite 1000-75D, Globe's Jam Break Tools can withstand the extreme wear and tear normally encountered at distribution centers, airports and warehouses.



Thanks to this resilient material, operators can twist and turn the extremely tough Jam Break Tools without damaging or breaking them.

While designing better conveyor replacement parts, Globe's engineering team noticed that parcel and distribution centers were using bent metal makeshift jam pole tools or conduit pipes to unjam boxes on their conveyor and auto sorter systems. Sometimes the bent metal ends were welded or

fastened and the sharp edges of the tool punctured the package or damaged the product. These heavy, unprofessional solutions cause product damage and are dangerous for employees. Jam Break Tools are a much safer solution than having staff use their hands to adjust packages inside sorting systems.

The company's line of Jam Break products is used by thousands of distribution centers, airports and parcel handlers across the world. Companies choose Globe Composite products because they are extremely durable and can handle a variety of package weights and sizes. In addition to its large and small models, the company offers an overhead roller model for reaching jams in overhead roller conveyors. The unique head easily fits between standard conveyor rollers to break up jams with ease. The durable molded head also features a tapered base to prevent damage to rollers.



Speaker Spotlight

Sustainable retail: designing the future of commerce

Scot Case
VP, corporate social responsibility and sustainability - National Retail Federation

Thursday, July 14, 2022

As retailers race to decarbonize their businesses and to facilitate the decarbonization of their entire value chains, packaging creates a unique conundrum. Consumers, by far the most significant stakeholder for any retailer, are concerned about the environmental impacts of packaging even though, from a retail sustainability perspective, packaging is not the most significant impact. Learn how retailers are addressing consumer concerns while keeping their eyes on the broader sustainability issues important to investors, scientists and governments around the world.

About Scot

The National Retail Federation (NRF) is the world's largest retail trade association. Scot leads the NRF's sustainability council, supporting retailer efforts to use their businesses to make the world a better place. Scot has focused on the intersection of business, environmental and social concerns since the mid 1990s. With strategic leadership experience in the retail, restaurant and non-profit sectors and consulting experience at the White House, World Bank, US Environmental Protection Agency and governments around the world, Scot provides a system-wide perspective to help NRF members thrive in a rapidly changing future.



► Workhorse

BOOTH 904

EXPANDING OPTIONS FOR EV DELIVERY

Workhorse, an electric vehicle (EV) manufacturer based in Cincinnati, Ohio, is looking forward to showing PFLD Expo visitors the capabilities of its W750 and W56 EVs.

Available in the autumn of 2022, the W750 is a heavy-duty Class 4 electric vehicle with a payload capacity of 7,000 lb (3,175kg) and a range of up to 150 miles (240km).

The cab and chassis design offers flexibility for various delivery needs and is certified in the US and Canada.

The W56 will join the line-up of Workhorse vehicles in 2023. This Class 5-6 vehicle will be offered in multiple wheelbase and load rating options for a variety of daily applications. With a range of 100-150 miles (160-240km), Workhorse's W56 is suitable for all delivery needs. Both vehicles offer DC fast charging and wireless charging options and will be manufactured in Workhorse's Union City assembly plant in Indiana.

Workhorse also develops and manufactures state-of-the-art drone

technology that offers last-mile delivery cost savings and commercial applications for multiple uses. The drone delivery business is an integral piece of the last-mile delivery story. Workhorse's Horsefly delivery drone is a custom-built, high-efficiency delivery UAV that is fully integrated with the company's line of electric delivery trucks.

The Horsefly system is designed to conform to the FAA guidelines for UAV operation in the US. Fully integrated with delivery trucks, it is designed so that a driver or driver's assistant can maintain a line-of-sight operation of the UAV delivery process. Combining truck and drone delivery is the basis of the Workhorse model and the future of the EV marketplace. Reducing costs and optimizing efficiencies are the lasting benefits of moving to an EV fleet today and into the future.

With two existing product families – aerospace drones and commercial vehicles – Workhorse is pioneering the transition to zero-emission commercial vehicles.

The company has been producing EVs for the last-mile delivery marketplace since 2015.

FREE-TO-ATTEND EXHIBITION! REGISTER ONLINE NOW

www.pfldexpo.com

► Parcel Perform **BOOTH 833**

MACHINE-LEARNING DELIVERY PREDICTIONS

Parcel Perform's machine learning-enabled Date of Arrival Prediction (DAP) engine analyzes historical data from millions of past shipments to predict the date of delivery with up to 98% accuracy. This solution, which will be showcased at the expo, also works to increase data-centricity and innovation in an increasingly data-first logistics market.

With this solution, Parcel Perform is filling a crucial gap in the industry. Globally, only 5% of carriers provide an estimated date of delivery and this datapoint is often inaccurate. DAP is positioned to meet the needs of e-commerce enterprises and end consumers globally. E-commerce enterprises looking to deliver an outstanding post-purchase experience for

customers have implemented Parcel Perform's solution and not only seen increases of up to 40% in their customer lifetime value but also built customer trust and increased checkout conversions.

Meanwhile, end consumers benefit from this technology as they know when they can expect their parcels to arrive, leading to reduced missed deliveries and increased satisfaction with the delivery experience.

Several proofs of concept and client implementations have led to successful results – the level of accuracy increases through stages from checkout to delivery, based on the availability of fulfillment data including order timestamps, fulfillment events and origin locations. At checkout, the prediction accuracy is up to 90%, increasing up to 98% during the out-for-delivery stage. Parcel Perform partnered with Amazon Web Services to build its DAP engine using machine learning technology. This engine tells customers when their parcels arrive, instead of where they



currently are. With DAP, merchants can get accurate delivery date predictions that automatically update in real time based on changes in the environment.

Parcel Perform is a leading delivery experience platform. Its solutions have connected e-commerce brands, retailers and marketplaces with more than 800 carriers globally to provide real-time parcel tracking for over 100 million parcels. It enables modern e-commerce enterprises to create unique end-to-end customer journeys and optimize logistics operations with powerful data integrations, parcel tracking, delivery notifications and logistics performance reports in real time.



Speaker Spotlight

The e-commerce hangover

Tony Sciarrotta
executive director and
publisher - Reverse
Logistics Association
Wednesday, July 13, 2022

According to the National Retail Federation (NRF), 2021 retail returns represented 16.6% of total retail sales compared with 10.6% in 2020. As the number of returns grows, so do the costs associated with them. Returns are no longer the 'dark side' of the supply chain. Instead, retailers should embrace a well-managed returns process to deliver a great customer experience and competitive edge while managing the costs. In this session, Tony will share best practices in returns management and how to identify how much returns are costing your organization. In addition, he'll share tips on how to use returns to your advantage.

About Tony

In 2016, Tony took over the Reverse Logistics Association and became the executive director and publisher after 12 years of active involvement on the advisory board and on committees. In his 35-plus years in the consumer products industry, he has held various positions including 15 years in returns management at Philips, where he developed new reverse logistics strategies and implemented many new returns initiatives with retail partners and industry groups that are still being used today. An evangelist for improving the customer experience to reduce returns and their associated costs, Tony is considered a subject matter expert in reverse logistics and speaks at conferences all over the world.

► Sew-Eurodrive **BOOTH 408**

AN INTEGRATED AUTOMATION PLATFORM

Sew-Eurodrive will present its flexible one-software, one-hardware automation platform, the Movi-C modular automation system.

This system combines fully integrated drive components, control electronics and automation software – all from one source.

The key to the Movi-C platform is that each of these components has been designed to work together. The Movi-C platform uses its newest technologies – from high-efficiency asynchronous gear motors to ultra-efficient permanent magnet servomotors. Sew-Eurodrive predicts that machine builders will appreciate the seamless integration and the availability of proven, value-adding software kits tailored to the customer's application.

The new Movi-C product family is designed to solve a wide range of motion control challenges ranging from standard shaft spinning applications like simple conveyors all the way to complex multi-axis kinematics and robotics – for beginner or advanced-level engineers. Its approach is more parameterization and less programming. With this modular automation platform, Sew-Eurodrive covers decentralized control architectures as well as centralized approaches, all the way to highly complex multi-axis systems. From



the controller and inverter all the way to the gearbox, this is automation made simple. As an added benefit, the MoviKit pre-built software modules are available for many common motion control applications from simple to complex, including robot control. This makes it easy for engineers of all skill levels to do their own automation.

The Movi-C platform is easy to deploy and intuitive to start up. Plus, with standardized MoviKit pre-built application modules, there is very little programming required, even for advanced automation tasks. Movi-C also integrates with all major PLC manufacturers. Combining Movi-C's ease of use and MoviKit's flexible pre-built modules is the most intuitive way to integrate state-of-the-art drive technology into machines. Customized solutions also include open-loop, closed-loop, functional safety and decentralized applications. Communication compatibility includes Ethernet IP, PROFINET, PROFIsafe, EtherCAT, FSoE and other standards.

► **ARKA: Industrial Automation**

BOOTH 825

EASY-TO-PLACE LOCKERS TO HELP CUT EMISSIONS

Be sure to stop by ARKA: Industrial Automation's booth to check out the AK 300-EKO Autonomous Parcel Locker, developed in part as a solution to help cut delivery vehicle emissions, which continue to increase in line with the growth of e-commerce. In fact, a recent McKinsey report suggests an increase in the number of delivery vehicles could lead to a 25% increase of emissions in city centers. However, this could be circumvented through the use of autonomous lockers that do not require an external power source or an internet connection, thereby allowing courier companies to capitalize on locations with the most potential, rather than

only those that can accommodate such infrastructure.

Using photovoltaic panels, ARKA's parcel machines can operate with autonomy for up to nine years. Moreover, by placing lockers wherever people benefit most, operators bypass the bottleneck of consumer availability, increasing the overall number of delivered parcels. Finally, by having no need of external services, operating costs are much lower compared to conventional lockers. Businesses can therefore reduce carbon emissions, reach more people, allow consumers to pick up parcels whenever they are available, and save greatly on costs generated over time.



Speaker Spotlight

Parcel negotiation advice from former carrier executives

Mike Erickson
CEO, AFMS

Thursday, July 14, 2022

This presentation will offer expert carrier contract negotiation advice that will reduce your shipping costs. Many changes are happening today with UPS, FedEx, DHL and TNT and the levels of complexity surrounding today's contracts. Gain valuable insight to negotiate better transportation pricing contracts and manage carrier contract changes. Learn how you can achieve best-in-class pricing and reduce overall shipping costs by 15-25%. You will walk away from this informative session with a new perspective on how to negotiate with the carriers.

About Mike

With an extensive background in transportation management and contract negotiations, AFMS president and founder Mike Erickson has been involved in the transportation industry for nearly two decades. He founded AFMS in 1992 after spending many years with Airborne Express as one of its top district managers. As the founder and CEO, Mike has overseen the growth of AFMS from a leading regional freight consulting firm to a nationally recognized logistics consulting organization, with offices in key cities throughout the US and Europe.

► **Morgan Olson**

BOOTH 604

ERGONOMIC STEP VAN BODY

Morgan Olson, a subsidiary of JB Poindexter and Co, will display a new, smaller step van body with improved delivery efficiencies and ergonomics compared with cargo van and cutaway delivery vehicles. The model has been designed to provide customers with a low-height, shorter-wheelbase, 'urban road-friendly' step van body.

Ken Klein, director of marketing at Morgan Olson, comments, "Our customers drive our step vans in rural areas often with low-hanging branches and short driveways. This new body size and wheelbase combination offers a shorter height and length step van option to cargo van and cutaway truck owners while providing all the productivity, protection and profitability advantages of a step van."

He continues, "This step van is mirrorless. This 'mirrorless' system eliminates side mirrors and provides

drivers with better visibility than traditional side-view mirrors, especially during inclement weather. The days of standing in the cold and brushing off snow are eliminated, and visibility is improved with this new technology. We look forward to sharing this new step van in its display at the Morgan Olson booth."

Morgan Olson is a leading walk-in step van body manufacturer in North America, producing more than 15,000 vehicles annually. Sarah Shoemaker, the company's director of product and EV strategy, says, "Morgan Olson has always been the forerunner in the step van EV and alternative fuel field, which is why North America's most

successful delivery fleets trust Morgan Olson step vans. Morgan Olson is currently collaborating with all alternative fuel and powertrain solution providers, including Xos, Freightliner Custom Chassis, Ford, Motiv, Roush CleanTech, Lightning eMotors, Sea Electric, REE, Agility and XL Fleet."

The company also partners with the largest EV chassis providers in the industry. Other vital industries served by Morgan Olson include all major parcel and package delivery companies, laundry services, baking and snack foods, service and utility vehicles, and the ever-growing mobile cuisine food trucks.



FREE-TO-ATTEND EXHIBITION! REGISTER ONLINE NOW

www.pfldexpo.com

@PFLDEXPO #pflexpo22
GET INVOLVED ONLINE!



WORKHORSE™

Changing the Way the World Delivers.

Workhorse is on a mission toward zero emissions. We're changing the way the world delivers with clean, capable, and multi-faceted electric fleets built right here in the Midwest.

Visit us at the Package Fulfillment, Logistics & Delivery Expo North America, Booth #904 or Online at workhorse.com

