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Logistics in the Last Mile
TOOLS FOR REMAINING AGILE DURING A CRISIS



The complexities of last-mile logistics create both frustrations and opportunities for companies of all types and sizes. Today's steady growth of e-commerce and new complexities related to COVID-19 have highlighted clear winners and losers in the market, providing both shippers and outsourced service providers with lessons to be learned.

To begin, we need to define last-mile logistics. At a high level, the last mile is the last leg in the movement of goods that terminates at the final location, which is typically a store or a consumer's home. Industry professionals often view the last-mile component of delivery as an important focal point because of its direct correlation to the consumer experience, which often heavily influences how the customer views the business as a whole. It is also the most expensive leg of the items' entire journey, whether these items were manufactured in a foreign country or created domestically. Optimizing the last mile to support the best possible and most cost-effective consumer experience is especially critical during global crises such as COVID-19. Increased sensitivity to service results in companies having to go beyond the conventional transit time and rate optimization offerings that most Transportation Management Systems (TMSs) offer.

There are specific market solutions that address these last-mile complexities, including vehicle routing and scheduling solutions, Fleet Management Systems (FMSs), Electronic Logging Devices (ELDs), and driver workflow application solutions. These tools are occasionally associated with the well-known TMS, but they all also offer functionalities that are specific to the subset of complexities surrounding last-mile logistics.

Vehicle Routing and Scheduling

A robust vehicle routing and scheduling system performs the function of routing in the last mile. This means that, contrary to most TMSs, the optimization engine considers routes at the street level. Instead of minimizing costs across a set of outsourced service provider rates, a vehicle routing and scheduling system reduces miles traveled against a set of delivery constraints, including time windows, Hours of Service (HOS), fleet capacity, toll roads, hazmat restrictions, noise ordinances, and more.

Shippers and outsourced service providers can leverage both distributed and centralized routing strategies depending on their business. A useful vehicle routing and scheduling tool can support both strategies while also providing data to downstream supply-chain systems.

In the shipper environment, these tools are commonly integrated with order management systems, warehouse management systems, or enterprise resource planning systems. In the outsourced service provider case, the tools are commonly integrated with customer applications, their TMS, their FMS or ELD, and, hopefully, their customer systems. In these cases, routing typically flows to an FMS and then to the driver for execution.

Whether you're working in a shipping or outsourced service provider environment, versatily integrating your systems of choice helps streamline your entire operational process — from the first mile to the last.

Fleet Management Systems

A user can utilize the right FMS to execute routes specific to assets, drivers, and other back-office or logistics employees. Assets encompass specific equipment, such as power units, trailers, step vans, utility vehicles, and personal vehicles. Given that an FMS is the system of record for actuals, it also serves as a ledger for driver pay, proof of delivery repository, on-time delivery, delivery exceptions, and asset maintenance. These key performance indicators provide critical insight into fleet operating efficiency as well as the customer experience.

As mentioned above, a vehicle routing and scheduling system typically feeds the routing to an FMS for execution. Once assets are assigned and dispatched, the FMS will usually send the route details to the driver by way of an in-cab device or driver workflow application. A user can also commonly integrate an FMS with visibility aggregators that distribute data to third-party systems, such as vendors, customers, shippers, receivers, and more. Micro and high-level insight to this data can help inform and even reshape your entire business strategy to best suit consumer, asset, driver, and operational needs.



Electronic Logging Devices and Driver Workflow Applications

Driver workflow applications interact with the solutions that teams utilize to help users proactively execute service in the last mile and assist drivers with pre- and post-trip inspections, driving directions, signature or picture document capture, exception management, and HOS compliance.

Workflow applications are especially pertinent to pay special attention to during a pandemic or global crisis, since they can be changed to support social distancing guidelines. For instance, a company might pivot from a physical signature-based proof of delivery to a link being sent to the recipient to do a contactless electronic signature, or a picture-based workflow, and eliminate the need for paper-based processes. Workflow applications also bring together load, route, customer, and asset data that is transferred to the back office in near real-time for the benefit of the driver's route. To bring the full route-to-door distribution cycle full service, ELDs help drivers remain compliant with HOS regulations and capture and feed data to the FMS.

Last-Mile Differentiation Amid a Pandemic or Global Crisis

The last mile can look very different during a pandemic. Still, TMSs, FMSs, ELDs, and driver workflow applications — no matter the external situation — will allow companies to respond rapidly, evolve their supply-chain networks create and push workflow changes that appear seamless to customers, and be better prepared for future circumstances. For example, a food distributor that historically delivers to retail grocery distribution centers, stores, restaurants, or hotels is forced to shift to a direct-to-customer model. These same tools, when integrated, can support both models, enabling a fast pivot when the time arises.

The pandemic has created new channels, revealed new buying behaviors, and changed the retail landscape. That demand will be replaced, however, in new locations and different types of venues. Pre-COVID route structures versus COVID-route structures are very different, so there is likely an immediate need to exercise a rerouting event. If routing is static, whereby geography and historically expected customer demand drives delivery schedules on pre-determined days, the COVID-related impacts are exacerbated.

A rerouting event will help the fleet better align the territories with current or expected near-term demand. But that may only be useful for the next several months. A second rerouting event will need to happen to adjust to the next new normal. In a genuinely dynamic routing environment, vehicle routing and scheduling is changing daily and automatically based on the orders and the constraints, so these manual routing events do not need to occur. This type of exercise requires a vehicle routing and scheduling application to have a built-in, what-if modeling capability in a separate software environment. Both static and dynamic environments also need to leverage the same what-if capabilities to determine go-forward resource requirements. Driver pool size and fleet sizing, including equipment types, need to be scrutinized so that the business does not carry too much overhead in the short-term and end up with limited capacity in the long-term.

All the transportation tools mentioned above can work together to help fleet professionals optimize the last mile and provide an even more positive consumer experience. This is especially important in times of unique circumstance, like a global pandemic, when the consumer experience must encompass increased personal safety. Vehicle routing and scheduling systems have the optimization capability to plan for temporary road closings and curfews. Fleet management systems distribute real-time data to a variety of consumers that rely on it. Finally, ELD and driver workflow application systems drive guideline compliance in the field and deliver key benefits, including seamless proof and delivery capture and inspection data.

When integrated, these last-mile transportation systems function to keep essential businesses flowing smoothly and safely. Now, more than ever, transportation networks need to be re-evaluated to capture demand and meet consumer needs. With a wide range of experience in transportation consulting, enVista helps companies get the most out of their transportation network. enVista's knowledge in transportation strategy, paired with the experience Omnitrac's has developing robust fleet management solutions, provides companies with the tools to enhance their networks and optimize last-mile logistics. Learn more on how you can find solutions right for your business with [Omnitracs](#) and [enVista](#).

About enVista

Manufacturers, distributors, retailers and logistics service providers benefit from deep domain expertise, operations strategy, and technology applications from Omnitrac's to unlock hard-dollar business case opportunities as companies look to improve service levels, reduce costs, or expand service offerings. In addition to enVista's time-tested systems' implementation methodology, enVista incorporates its intellectual property into the projects where necessary to create a unique blend of consulting, systems integration, and software. enVista owns market-leading software in transportation pricing and costing, integration-platforms as a service, and freight and parcel audit and payment.

enVista takes a cloud-first approach with transportation systems, as it supports a lower total-cost-of-ownership and therefore better time-to-value for its customers. In the logistics service provider segment, it also allows for more flexibility across the customer base, business units, and geographies.

As a global firm, enVista delivers transportation strategy, systems implementation, and modeling and analytics to multi-national organizations across North America, Europe, the Middle East, Africa, Asia-Pacific, and Latin America.

About Omnitrac's

Omnitrac's drives businesses forward by improving the productivity, reliability, routing, safety, and compliance of their transportation assets with innovative software and SaaS fleet management solutions. The company has been committed to helping their over 14,000 customers not just survive, but thrive, in today's complex transportation ecosystem.

In just three decades, Omnitrac's has expanded its vision and teams to provide fleet solutions to transportation companies in over 70 countries. Today, the company pioneer is harnessing the potential of cloud development to amplify the benefits provided by Omnitrac's products.

