FINAL MILE ROUTING:
ROUTING STRATEGIES TO DRIVE YOUR BUSINESS INTO THE FUTURE
Introduction

The final mile remains one of the most costly and inefficient legs of the supply chain. Increasingly complex fulfillment demands, the growth of e-commerce and the explosion of the crowdsourcing business model have all created new challenges for last mile operations. 2017’s electronic logging device (ELD) mandate has introduced additional complexity to the problem, straining both capital and bandwidth as carriers struggle to meet this year’s deadline. Final mile delivery, while customer-facing, is becoming an important contributor to the overall brand experience. That pressure falls back on carriers to deliver goods with greater efficiency than ever before. These changes introduce new challenges to carriers, but can also serve as distractions from the larger picture.

Given these varied challenges, how can carriers effectively respond while taking proactive steps for the future of their business? By implementing advanced routing and business intelligence, carriers can utilize technology to both address these trends and to look at the larger picture of their future.

Reading the White Lines on the Highway: Final Mile Trends

_E-Commerce Explosion_

Omni-channel distribution is being driven largely by the ongoing growth of e-commerce sales. According to the National Retail Foundation, non-store sales are predicted to grow at 8-12% in 2017, compared to a 3.7-4.2% growth rate for the overall retail industry. This trend is seen in key market segments as well; according to Nielsen, by 2025 e-commerce will capture 20 percent of the $700 billion food and grocery market.

With this, forecasts of digital online sales in the U.S. are expected to reach $523 billion by 2020, composing fully 14 – 16% of all retail.

Responding to this trend requires retailers to adapt or expand their omni-channel distribution models. As retailers and e-commerce businesses grow, carriers will need the technology and systems in place to handle the innate inefficiencies of last mile delivery.
The “On-Demand Economy”

Not too many years ago, shipping of goods with a 7- to 10-day delivery window was considered normal and acceptable to consumers. Now, “the on-demand economy” phenomenon has cut that number to an average of two days, with many consumers now looking for same-day delivery within hours. According to the Harvard Business Review, “The on-demand economy is attracting more than 22.4 million consumers annually and $57.6 billion in spending.” The largest categories driving this trend are online marketplaces, transportation, and food/grocery delivery. Factor in the aging millennial base, and this trend shows no signs of slowing.

With the explosion in e-commerce and the desire for immediate gratification, radical adjustments need to be made in last mile delivery. Deployment of fulfillment centers are moving closer to demand, moving inches closer to their final destination. As consumer delivery demands become shorter and shorter, carriers are challenged with finding ways to improve efficiency in their routes while controlling their overall costs.

The Crowdsourcing Model

While the success of the hub-and-spoke model remains viable in the largest companies, even the giants are examining new methods of distribution. As movement in e-commerce moves closer to the consumer, there is growth in two other areas of parcel delivery. 3PL regional shippers are establishing corridor routes while the crowdsourcing model, both 3PL and marketplace-managed, is also gaining traction. This model is especially popular for same day and one-hour delivery arenas. Players new to distribution such as Uber are introducing new types of competition to traditional carrier models. Even retail giant Walmart has experimented with improving last mile delivery by using retail employees as couriers for local deliveries.

Since the demand for faster delivery shows no sign of slowing, it falls to carriers to implement last mile routing strategies and technologies to exceed, or at least meet consumer expectations.
Using Technology to Improve Routing

Centralized Routing

Companies looking to manage their last mile routing processes require better corporate control of their operations. With the variety of methods to coordinate: hub-and-spoke, regional, digital and smart automation, it still comes down to how well carriers can plan and execute delivery.

With more accurate route schedules, it is easier to meet increasingly complex customer demands and establish repeatable processes. This is especially important as consumer delivery windows become shorter and shorter. By using a routing solution to eliminate excess miles and hours, increase capacity utilization and improve customer service, a positive return on investment (ROI) can be recognized within 3 to 6 months.

Routing software allows carriers to control routing from the top down, reducing miles and dependence on local knowledge, thereby making routes more efficient and accurate.

ADVANTAGES OF A ROUTING SOLUTION

1. Eliminate excess miles and hours
2. Increase capacity utilization
3. Improve customer service
4. Positive ROI in 3 to 6 months
**Advanced Algorithms**

Some of the fastest most optimal route planning algorithms are now available in routing solutions on the market today. By utilizing these algorithms in their last mile planning, companies are seeing more efficient workflows in every step of logistical transition: from analysis, planning, dispatching, tracking and reporting. With the variety of routing needs, having specialized workflows geared to adapt to fixed, dynamic or hybrid routing is imperative.

Routing technology supplements a carrier’s route plans with algorithms that provide logistical analysis (who requires a delivery? how must it be delivered?) and account for operational considerations (maximum work limits, volume capacities, special equipment, cost control). By having the most advanced algorithms, planning can be more accurate with less manual routing: reducing empty miles, improving capacity usage, optimizing manager and driver time and generating cost savings.

**ADVANTAGES OF ROUTING TECHNOLOGY**

- SAVES COSTS
- BETTER ROUTING
- OPTIMIZES TIME

**System Integration**

When a logistics platform does not have a certified integration with large system such as a TMS, WMS or ERP, it reduces the efficiency to little more than a paper log system. With a full suite of APIs, the platform should be prepared to handle integration from pre-sale through final integration. But if the system installers are the only ones who understand and generate reports, again, a system is worthless.

Carriers can utilize integrations to supplement their last mile routing with the overall efficiency and logistics planning features of their TMS. Additionally, the capability for integration ensures that your software solution set will remain scalable as your company grows. When your systems work together, efficiency and higher ROI are more easily recognized.
Power Your Routes with Business Intelligence

Thorough and thoughtful implementation of business intelligence (BI) ultimately shows up in the bottom line. Predictive analytics, from the granular level all the way to last mile delivery is now aided by the Internet of Things (IoT). Telematics, the use of wireless device technologies to transmit data in real time back to an organization, not only provides visibility to fleet activities but can also offer meaningful statistical information on a carrier’s last mile operations.

By compiling and analyzing the breadth of a company’s fleet data, BI solutions can spot trends and allow carriers to make better strategic decisions. For instance, say there is a driver consistently dealing with excessive wait times in a certain delivery area during a certain time window. A BI solution can highlight the issue, allowing the fleet manager to change the routing and/or delivery timing accordingly. BI can help operations fine-tune fuel costs, wages, maintenance data, route profitability and more. Business intelligence offers actionable information for real-time adaptions and long-term planning.

Evolving Routing Strategies

As the final mile changes, companies must reevaluate or consider new routing strategies. Markets served, customer time windows and volume are all factors impacting routing. Carriers in markets with a static customer base and consistent time windows can utilize static routing with little changes on a month-to-month or day-to-day basis. Alternatively, carriers experiencing constantly changing capacity, customers and locations are better served by using a dynamic routing model. Dynamic routing software will account for a driver’s deliveries, geography, customer time windows and other requirements to plan the ideal route for that day and driver. It’s important to note that static and dynamic routing are not mutually exclusive. Companies often employ a combination of these strategies – for instance, a carrier may have two days of a week with static routes and the other three days use dynamic routing.

The rise of e-commerce and crowdsourced freight has introduced new complexities to routing. The varied nature of e-commerce delivery highlights the need for a dynamic or hybrid strategy. As retail continues to cross over with e-commerce (like we’ve seen recently with Amazon’s purchase of Whole Foods), delivery of online orders to retail hubs will also become more common, requiring companies to review and update their routes to account for retail pick-ups.
Volume spikes, caused by increased demand or a larger customer base, also require responsive routing. As demand increases, dynamic routing can help ensure fleets are most efficient during these periods. If demand becomes too high, a fleet’s capability can be supplemented by third-party carriers. When considering additional resources through 3PLs, temp drivers or less-than-truckload (LTL), carriers need to consider the overall costs of service and routes as well as equipment needs. A routing technology can help identify and respond to these issues quickly.

The most successful companies will look towards new trends as an opportunity to evaluate and evolve their routing strategy. By restructuring routes and zones to accommodate changing customer demands, they will be able to improve efficiency and better serve their customer base. As companies look to the future of the final mile, fleets will need technology that can help them implement the best routing strategies to respond to complex demands.

**Looking Toward the Future**

Fortunately for the logistics industry, solutions for advanced routing and business intelligence exist to maximize the ROI of every step of the delivery process, especially when dealing with the challenges of the final mile.

By understanding the trends in the market, such as the remarkable growth in e-commerce, anticipating the future needs of a fleet is easier to project. This market will continue to expand through 2020 and beyond, and newer innovations in transportation will help reduce delivery spend. Knowing that the fulfillment market is already embracing one-hour delivery in some areas will cause a re-evaluation of logistics, made possible by centralized and advanced routing. Addressing crowdsourcing is simplified by logistic solutions who look towards future-proofing your system.

By employing system integration, advanced algorithms, centralized routing, and business intelligence, carriers are well-positioned to respond to delivery trends and win their final mile.
Not sure where to start?
Get our checklist on selecting a final mile technology solution.
Need a powerful routing solution to help you respond to changing customer demands?

WIN YOUR FINAL MILE

Request a demo of Appian FinalMile routing software to see how TMW can help you save time and money.

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