May 2016 – Article - Transportation Best Practices/Trends: Success with last mile starts early

Fleet optimization and delivery tracking solutions improve “last mile” e-commerce deliveries, but success with final delivery depends on a solid process. Beginning upstream with DC network design, implementing fulfillment rules at the order management and WMS levels, and streamlining processes in the DC all pave the way for an efficient last mile.

The “last mile” of e-commerce fulfillment—the processes and systems involved in making sure final delivery is efficient—is getting plenty of attention these days. New models for handling the last mile like “click and collect” locations and added cost pressures in the form of tougher dimensional pricing from parcel carriers are forcing closer scrutiny of last-mile processes.

Adding to the attention is the activity of Amazon, which has been testing its own last-mile, same-day delivery service in San Francisco and using bike messengers in Manhattan. Meanwhile, new services such as “Doorman” in San Francisco seek to appeal to consumers who want their e-commerce purchases collected for them at a secure location and delivered to them in one batch. Then, there is an evolution in courier services for urban areas, in which independent drivers may begin to compete with more established local courier firms in much the same vein that Uber has shaken up taxi services in major cities.

All of these developments revolve around the final leg of the last mile. But focusing just on the last stretch of the last mile can be short sighted, because last-mile success calls for appropriate fulfillment rules and content at the order management and distribution center levels. Sure, shippers need better approaches to processes like fleet scheduling and vehicle tracking, but if front-end systems for fulfillment aren’t set up with the right rules, the last mile suffers.

Effective “final delivery” starts as far upstream as the structure of the distribution network. You can go all the way back to network design and what your network should look like.

Retailers and direct-to-consumer marketplaces need to make decisions about whether they will have traditional DCs complemented by separate fulfillment centers (FCs) geared for picking and packing item-level orders, or whether they’ll have combined DCs/FCs, and determine how much geography each facility should service. These type of network design decisions will drive where your inventory will be stored, which is going to dictate quite a bit about the final delivery that needs to take place.

Last mile might involve hundreds of miles for some shippers, so “final delivery” might be the better term to describe the variation involved. For example, a manufacturer of large marine engines might have a delivery process for emergency repair parts that needs to span halfway across the globe. Additionally, a multi-channel retailer with hundreds of stores may want to leverage its physical stores as mini FCs, whereas a pure online retailer would not have those stores.

But recognizing these differences as well as the scope of the considerations, what is a common sense approach to excelling at last mile?

The answer may lie in a balanced approach, spanning tactical solutions that address the final stretch of the last mile, combined with the proper attention to order fulfillment rules, compliance content and streamlined processes further upstream in distribution.

Rules and content

Many of the rules that drive final delivery should be established at the distributed order management (DOM) level. The DOM level is where retailers establish rules that govern when it makes sense to process orders so that they ship as efficiently as possible. For instance, if a consumer orders three items and only one is in stock at the regional DC that services a customer’s location, it might be cheaper to fill the order from a more distant DC that has all three items in stock if the order promise date can be met, and it results in one shipment rather than two or three.

It’s about having an order management system that is truly functional for e-commerce fulfillment. If you’re sending too many shipments to fill one order, it not only costs a fortune, it’s confusing to the customer.

And, details about the dimensions and weights of items need to be established in back-end systems for ordering or the warehouse management system (WMS). This type of data needs to be highly accurate to ensure that systems used for shipping and carrier selection function properly and to ensure that items can be matched with appropriate-sized shipping boxes. Today, you absolutely have to be able to understand the impact of dimensional pricing.

At a 3PL that offers final-mile solutions, much of the success with last mile actually lies in the establishment of shipping rules and retailer/marketplace compliance details within the order fulfillment software.

For example, if an order comes in for a 55-inch flat screen TV from one of the client’s channels and only a certain courier can handle that size product for that location, the fulfillment system’s rules are aware of this constraint and will select the correct courier and generate the shipping documents. Similarly, the system would be configured to follow retailer- or marketplace-specific rules on factors like label placement, or to distinguish the orders that are best shipped as part of a less-than truckload (LTL) shipment to a store.

This type of automation of fulfillment rules and content doesn’t happen magically, but instead relies on properly configuring the order fulfillment solution. If you’re able to write in those rules on the front end, the whole process runs relatively smoothly when it’s time to execute the final mile.

Order fulfillment solution spans order management, WMS and transportation management system (TMS) functionality. Some companies offers these applications on a software-as-a-service (SaaS) basis and may integrate the software with a client’s enterprise resource planning (ERP) system or WMS to obtain order and inventory data.

Companies can do this type of rules-building on their own, but regardless of who does it—a 3PL/4PL that specializes in fulfillment or a company establishing its own multi-channel order fulfillment platform, it’s crucial that upfront rules building gets done.

The principle of ‘measure twice, cut once’ very much applies to the upfront rules for last-mile fulfillment. If you can sit down and agree on what the rules need to be, and the carrier rates and tariffs are built into your solution, then last mile becomes an automated process that runs much more smoothly.”