The Impact of Omni-channel Fulfillment on Distribution Systems
Omni-Channel fulfillment is driving the need for more sophisticated systems to drive efficiency through the distribution process, provide a consistent brand experience and maximize return on capital. But there are trade-offs that must be made between cost/efficiency and service. Understanding the impacts of omni-channel fulfillment on your operations is the first step to determining where your systems are measuring up and where you need to consider making investments.

Omni-channel Challenges

Distribution is in the midst of a significant phase in the evolution from single to multi-channel, and most recently, to true omni-channel commerce—where Retail, Wholesale and eCommerce channels blend together to provide a seamless experience for the customer across the entire brand. You’re expected to ship from anywhere (DC, store, vendor), enable in-store pick-up of online orders, accept returns anywhere (DC, stores) and have complete visibility to manage inventory (shared or separate) across all channels.

Even companies with a great deal of experience in retail and wholesale channels often underestimate how different and difficult it is to efficiently fulfill customer demand from any location and any channel. Many new processes need to be developed that are not typical in retail and wholesale operations. And it’s likely that systems designed for those distribution channels will need a transformation as well. Moving to omni-channel fulfillment requires more robust, integrated systems to support new levels of precision, speed and complexity. There are a number of companies that have spent a year or more laying the foundation before they were ready to move to omni-channel fulfillment. This article highlights several areas where your systems may require changes to accommodate omni-channel commerce.

Inventory Visibility and Order Management

Order management systems designed for the retail channel have been around for a while and are quite mature. But adding eCommerce brings new challenges. Now you’ll want to not only view inventory by channel, but also aggregate inventory and demand across channels and brands for a holistic view.

And developing rules for inventory allocation can get very complex. The demand is much less predictable when it comes to eCommerce orders. Does the retail store or the online order get priority when it comes to inventory allocation? For example, do you fill an eCommerce order (immediate demand) if it means shorting a store (future demand)? These algorithms must be built in one or more of your systems. A strong order management system should balance factors like order fill rate, service levels, delivery times and freight costs to make decisions about how to allocate inventory and service the customer. Systems should support the goal of keeping inventory flexible for as long as possible to fulfill demand regardless of which channel it comes from. At some point in their omni-channel evolution most retailers will undertake significant order management projects because an aggregate view of demand AND inventory is necessary to do omni-channel fulfillment effectively.
New Technologies and Processes Demand More of Your WMS

To support omni-channel distribution, companies often introduce new technology and processes to optimize the different channels (retail and eCommerce). For example, if you want to implement a cross channel batch pick and sort approach for retail, can your WMS and/or ERP system recognize zones and break up orders appropriately? Can your WMS and/or ERP system interface with newer pick-to-light and pick-to-voice solutions? Once you start down the path of omni-channel fulfillment, you’ll need a more sophisticated WMS. If your WMS can’t handle the requirements, consider adding another layer such as warehouse control or order management software to provide that logic.

Picking and Waving Logic Changes in an Omni-channel DC

Having multiple channels means finding the right balance when it comes to your picking and waving logic. For example, a retail-only DC may pick by category so that store shipments arrive for efficient restocking of store shelves (i.e., “store friendly”). An eCommerce-only DC may be organized around SKU velocity to improve the efficiency and speed of processing eCommerce orders. In an omni-channel DC when both channels share the same inventory and picking systems, how will you balance the two? You may have developed efficient processes for picking cartons and pallets, but how will you efficiently pick 1-2 line orders for eCommerce? You have to make decisions like:

- Will you pick to a tote or directly to the shipping container?
- Will you print shipping labels ahead of time?
- Will you hold demand to improve fill rate?
- What are your rules for how to split orders?
- Will you allow back-orders or offer substitutions?
- More importantly, can your WMS support those rules?

Shipping and Transportation Management Systems

Your transportation management system (TMS) should also support making those cost/service tradeoffs for shipping activities. Adding an eCommerce channel can have big impacts on a company’s shipping processes, and often requires an upgrade to a more robust and integrated TMS to handle omni-channel commerce. For example, eCommerce orders are typically sent using parcel or postal carriers as opposed to the dedicated delivery services or fleets used in many retail operations. In addition, an eCommerce customer will expect instant information on shipping costs and order status. eCommerce fulfillment requires real time status feeds and better integration between systems for ordering, inventory and customer management than traditional retail and wholesale channels.
Store Fulfillment Requires a Complex Set of Rules

The decision to use retail stores as distribution nodes to cost-effectively support next-day delivery or “save the sale” can have major impacts as well. It requires complete inventory visibility and involves a complex set of rules around:

- Where and how to allocate inventory
- Which stores to enable as fulfillment centers
- How to split orders between the stores and the DC
- How to pick, pack and ship orders from stores for consistent brand experience

Point-of-Sale systems may need to be modified to accommodate shipping. And parcel carrier agreements may need to be revisited to allow for late pick-up times and better rates. There are many other considerations, including things like space and labor requirements. You can read more about them in “Things to Consider When Using Stores as Distribution Nodes”.

Defining Your Rules

Which changes are needed depends, in part, on your priorities and the rules you set. Consider your answers to the following questions:

- Will you share inventory across channels? How will you purchase inventory and determine demand for each DC or channel?
- How will you promise available inventory? Will you fulfill an order from anywhere (DCs, stores, etc.)? If you do ship-from-store, will your point-of-sale systems support that? Do you have the labor and space in the store to execute on those customer promises? Does this change how you replenish your stores?
- Are you willing to hold demand to improve fill rate? Will you allow backorders or offer substitutions? If you have multiple DCs, will you allow orders to be split across DCs to get better fill rates? What are your rules for how to split orders? Who pays the additional shipping cost?
- Can your customers return products anywhere (order from DC, return to the store)?
- How will you cartonize? How will you determine the number and size of cartons? How do you determine what should be put together in a box? Will you pick to cartons or pick then pack in cartons?
- What is your priority—picking efficiency, fill rate, customer service, freight costs, order cycle time, etc.?

It all comes down to the type of customer experience you want to offer in each of your channels or across all of your channels. Your first steps should be to:

1. **Determine your goals/priorities** (and make this very clear to everyone in the organization) as this drives DC design, slotting, available to promise, shipping, DC operations, etc.
2. **Ensure you have good visibility to total demand and total inventory** (including inbound and in transit inventory).
3. **Define your rules around your service level promise to customers**—and keep your rules simple.

Omni-Channel fulfillment is driving the need for more sophisticated systems to drive efficiency through the distribution process, provide a consistent brand experience and maximize return on capital. But there are trade-offs that must be made between cost/efficiency and service. Understanding the impacts of omni-channel fulfillment on your operations is the first step to determining where your systems are measuring up and where you need to consider making investments.

**How can we help?**

Fortna helps retail companies accelerate and simplify the process of moving to omni-channel fulfillment. We help our Clients understand the total cost and service implications and then lead the design and implementation of the solution. Our focus goes beyond the technology to include operations and overall business impacts. To learn more, ask to speak with one of our associates.

info@fortna.com
www.fortna.com

Don’t miss these other resources on our website:

- *Is Ship-from-Store Distribution Right for You?*
- *Aligning Fulfillment Operations for Your Changing Channel Mix*
- *5 Steps to Designing Omni-Channel Fulfillment Operations*
- *Video: 5 Steps to Designing Omni-Channel Fulfillment Operations*

**ABOUT FORTNA**

For over 60 years, Fortna has partnered with the world’s top brands—companies like ASICS, O’Reilly Auto Parts and MSC—helping them improve their distribution operations and transform their businesses. Companies with complex distribution operations trust Fortna to help them meet customer promises and competitive challenges profitably. We are a professional services firm built on a promise—we develop a solid business case for change and hold ourselves accountable to those results. Our expertise spans supply chain strategy, distribution center operations, material handling, supply chain systems, organizational excellence and warehouse control software.