

How to Successfully Execute Order Routing in an Omnichannel World

A Guide to Effective Distributed Order Management

E-BOOK

What Is Order Routing?

Order routing is a key function of a distributed order management system (DOM) also known as an order management system (OMS). It takes the orders that are captured from a source (e.g., an e-commerce website) and then sends or routes them to a specific fulfillment location, like a store or a distribution center (DC). Next, an associate sees the orders on an interface and then proceeds to pick and pack. The location the system selects is based on business rules that include geographic location and inventory availability.



Types of Order Fulfillment

Before we get into more detail about order routing and why it is important to omnichannel retail, we must understand the underlying concept behind intelligent order routing which is multi-node fulfillment.

Multi-node fulfillment is a supply chain practice where inventory is spread across multiple locations — not just one — and sourced from each location based on business rules, not least of which is geographic proximity to the final delivery location. This differs from traditional fulfillment where one warehouse stored and shipped inventory for an entire geographic area.



Traditional Fulfillment

In this example, one DC fulfilling orders for all customers — regardless of their location — is a relatively straightforward operation. Orders can be sent from the source (e.g., an e-commerce website, a portal, etc.) straight to the DC into the warehouse management system (WMS) interface, enterprise resource planning system (ERP) or even just by email or fax, and then picked and packed.



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Multi-node Fulfillment

With multi-node fulfillment, orders need to be routed to the optimal fulfillment node. As mentioned earlier, the criteria for routing to one location versus another can be based on its geographic location but can include the type of inventory carried at each location, whether inventory is available, the stock level of available inventory, etc. and any combination of these as well. These business rules *can* be configured in an ERP system or rudimentary order management system **– but only if the rules are not overly complex and the number of orders is manageable for the system.**



Omnichannel Fulfillment / Store Fulfillment / Micro-fulfillment



Now imagine if in addition to traditional distribution centers, a retailer's stores were part of the supply chain network. That means every order placed online needs to be routed to a store to be fulfilled. That could mean millions of orders per year, sometimes thousands per second, routed to tens, hundreds or thousands of different retail locations.

That model would look something like what is illustrated above, with each store serving a geographic location (a zip code or group of zip codes) and multiplied to any number of locations a retailer may have.

This is where the **order routing** functionality of an OMS brings value to a retailer's omnichannel fulfillment operation. **It enables store fulfillment and micro-fulfillment supply chain strategies.** It optimizes fulfillment by sending orders to the location that will result in the most favorable outcome for the customer and retailer, depending on the service level agreement (SLA). The results: the lowest delivery cost, the fastest delivery or the highest fill rate, based on the rules you set.



Benefits of Order Routing

Order routing is about getting customer orders fulfilled as quickly and profitably as possible. That could mean employing an effective **ship-from-store** strategy by leveraging available store inventory (with **inventory visibility**) and using insights on the delivery costs associated to each fulfillment node to your advantage. It also means having the flexibility to change fulfillment priorities as business dynamics shift.

Tecsys' Omni[™] OMS is a powerful order routing engine to help retailers:



Deliver faster to your customers

Route orders to the location closest to the customer for fulfillment and shipping. This minimizes shipping distance thus getting orders to your customers faster.



Reduce stockouts

Hot item? Find the location in your network that has the inventory to fulfill and ship from this location. No more disappointed customers.

Lower your carbon footprint

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By fulfilling and shipping orders from the store closest to the customer, the last mile is shortened. While that means quicker and cheaper delivery, it also means less distance for the order to travel resulting in lower emissions and less congestion on the roads.

Decrease shipping costs

By fulfilling and shipping from the location closest to your customer, the delivery costs to your operations are reduced because the distance is minimized.

Enable click-and-collect

Click-and-collect, curbside pickup, buy online, pickup in-store, whatever you call it, this delivery feature is enabled by order routing. It sends the order to the store selected by the customer, to be fulfilled onsite and then picked up.





Core Features of Order Routing with Omni[™] OMS

High Capacity

As order volumes grow, your OMS needs the power to handle the additional load. Tecsys' Omni[™] OMS engine gives you the power to handle complex routing permutations and lets you optimize the routing to your specific business built on the Microsoft Azure[™] platform. Tecsys' SaaS-native OMS is built for scalability, that means you can rest assured that as a **tried and true** engine, it can handle extreme variability and effectively manage peak order volumes.

Inventory Balancing

Tecsys' Omni[™] OMS routing engine enables fulfillment locations shifting to boost inventory movement at different locations, prioritizing locations with overstock. Order routing helps you balance inventory levels across stock locations and lets you optimize fulfillment to lower shipping costs. Reduce slow moving SKUs and boost inventory turnover across sites.

Shipment Minimization

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Delivery costs are at an all-time high, which is why Tecsys' Omni[™] OMS works to keep orders together whenever possible. The system fulfills from the location most likely to provide a single shipment. Conversely, you can turn off this rule when speed is the priority. As business conditions change, shipment minimization dynamically adjusts to your needs.

Key Functionality

Intelligent order routing rules.

Layered priority conditions.

Unlimited rule building.

Intuitive user interface.

Real-time order reassignment (automatic or manual).

Shipment minimization.

No programming required.

Speak to a Retail Supply Chain Expert





About **Tecsys**

Since our founding in 1983, so much has changed in supply chain technology. But one thing has remained consistent across industries, geographies and decades — by transforming their supply chains, good organizations can become great.

Our solutions and services create clarity from operational complexity with end-to-end supply chain visibility. Our customers reduce operating costs, improve customer service and uncover optimization opportunities.

We believe that visionary organizations should have the opportunity to thrive. And they should not have to sacrifice their core values and principles as they grow. Our approach to supply chain transformation enables growing organizations to realize their aspirations.

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