



An Oracle White Paper
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Responding to the Cross-Channel Challenge

*Unify Sales and Fulfillment across All Channels
with Oracle Solutions*

xCommerce: A Revolution in Selling and Fulfillment Practices

Until recently, major changes in sales practices have had surprisingly little impact on the core operations of most businesses. As companies introduced new sales channels – whether a direct sales force, catalog call centers or eCommerce sites – they could often operate each of these channels independently. Each channel could maintain an independent product selection, pricing, inventory and delivery policies. Channels were so well segregated that in some cases, companies chose to outsource web and catalog operations altogether.

Enter the cross-channel shopper: equally comfortable researching and shopping via a web store, using smartphones, PDAs and tablets when on the go, and using kiosks to enhance their in-store experience. Most analysts focus today on

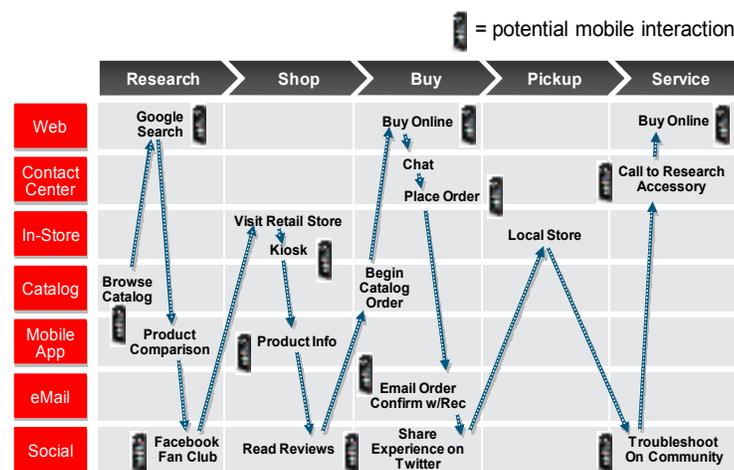


Figure 1. Mobility multiplies the opportunities for cross-channel interactions

mCommerce – mastering the device platforms, content delivery and shopper interactions that are unique to the mobile channel. But others have begun to recognize that mCommerce is part of this more fundamental change: for the cross-channel shopper, there are no separate channels. Whatever method they choose, they expect consistency, not just of product information, pricing and availability, but also of the processes supported. The cross-channel shopper expects to be able to buy online, and pick up in person, or buy through a catalog call center and initiate returns online: one consistent, customer-centric experience. This shift is forcing a seismic shift in retailers approach to channels and supporting IT, and is driving them to develop and

deploy truly cross-channel platform solutions.

Cross-channel commerce is based on the principle that online channels can no longer operate as silos; increasingly, as shoppers freely operate across all of the media at their disposal, sales and fulfillment processes must cross channels with them. Mobile is just one of those channels. xCommerce, rather than mCommerce is the real online commerce revolution, which no business can afford to ignore.

The Challenge of Integrating Merchandising and Fulfillment

As businesses have enabled more sales channels and supply sources, their IT environment has become increasing complex. In fact, according to a 2011 study by RSR Research¹, the majority of retailers now sell through five channels: 1) stores, 2) catalog/call center 3) eCommerce, 4) mobile, and 5) social.

¹ Enabling Buy Anywhere/Get Anywhere: The Future of Cross-Channel, RSR Research 2011 Benchmark Report, July 2011

ORACLE'S CROSS-CHANNEL COMMERCE SOLUTIONS

Oracle can help companies market and deliver in a cross channel environment. Oracle has built the broadest and deepest portfolio of merchandising and fulfillment applications to support cross-channel commerce.

CROSS-CHANNEL MERCHANDISING

Oracle's retail applications enable cross-channel merchandising by providing pricing, promotions and assortments that can be delivered across all sales channels. These retail solutions complement Oracle's innovative commerce solutions, which support interactive merchandising through online content delivery, product recommendations and promotions, shopping carts, order capture, inquiry and interfaces with payment systems across web and mobile channels.

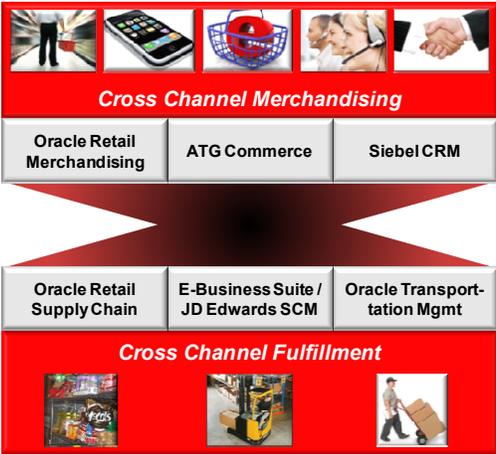


Figure 2. Cross-channel commerce solutions

In addition, Oracle's leading CRM solutions facilitate cross-channel selling through contact centers and the direct sales force, as well as marketing, service and loyalty across all channels.

CROSS-CHANNEL FULFILLMENT

Oracle's retail supply chain solutions manage and optimize inventory, warehousing and replenishment, fulfill customer orders and manage distribution center operations for every vertical. Oracle ERP supply chain management solutions fulfill customer orders, optimize inventory and manage distribution center operations. Finally, Oracle provides transportation management applications that handle the entire delivery process, from sourcing to reverse logistics.

All of Oracle's cross channel solutions are certified on a common, industry standard Oracle Fusion Middleware platform, simplifying deployment, and enhancing integration while allowing each application to be deployed separately. A key component is Oracle Business Intelligence, which delivers order management and retail analytics that complement the transactional application in the suite.

Meanwhile, fulfillment patterns have also become more complex. Companies want to service orders that cross sources of inventory that previously were not connected – fulfillment centers that used to service a single product line, country/geography or industry. They also want to build customer loyalty by offering a “one stop shop” that can deliver not only core high-volume items, but thousands of low volume, “long tail” items that cannot be stocked economically. Increasingly, leading companies forward orders for “long tail” items to suppliers, who drop ship the items directly to the customer. Walmart.com for example, handles 70% of their orders this way.

As long as these channels could operate independently, multiple systems were manageable. But in a cross-channel commerce environment, they must either be consolidated or integrated to support global fulfillment and orders that cross multiple lines of business.

Many companies would ideally like to consolidate their systems to arrive at a single application that can serve all requirements. Systems consolidation can bring many benefits, but mergers, acquisitions, new markets and channels tend to introduce new applications as quickly as they are eliminated. To date, companies have typically tied multiple merchandising and fulfillment systems together with custom integration, supported by a variety of manual processes. As a consequence, order accuracy has declined (with 15% of orders containing errors) and order cycle times have increased, even though fulfillment now accounts for 50% of supply chain expenses. Worse yet, as business models evolve and new channels arise, the inflexibility of integration interfaces thwarts cross-channel activities. Businesses must link their merchandising and fulfillment processes in a more flexible way to remain competitive.

Order Orchestration – the Key to Cross-Channel Fulfillment

Traditionally, order management has been divided into two parts:

1. **Order capture** – the culmination of the merchandising process - identifies the items and quantities being ordered, their associated prices, promotions and delivery terms, as well as customer information, such as the ship-to and bill-to addresses. The output of the order capture process is a *sales order*.

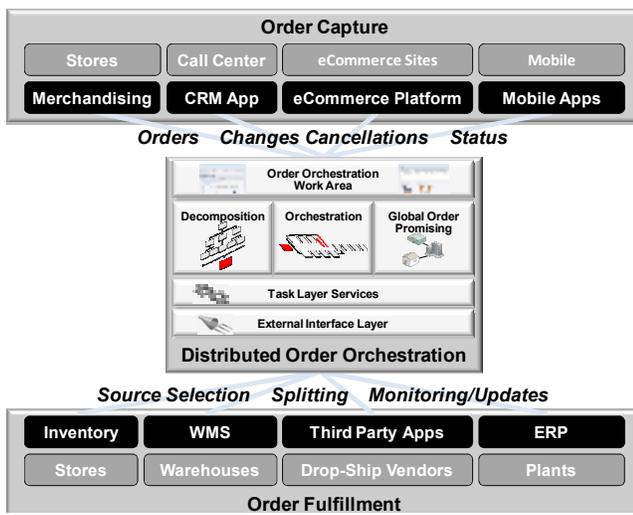


Figure 3. Fusion Distributed Order Orchestration

2. **Order fulfillment** – the culmination of the supply chain management process - is responsible for picking, packing and shipping items in an order, as well as monitoring transportation, delivery confirmation, refusals and returns.

To address the cross channel fulfillment problem, Oracle has added a new component between order capture and fulfillment called **Fusion Distributed Order Orchestration (DOO)**. DOO receives sales orders from multiple order capture systems, determines which fulfillment process and system should handle each item in the order, and then manages the lifecycle of the order through delivery scheduling, shipping, receipt and billing by executing the steps in its order line items' fulfillment processes.

Order orchestration plays a critical role in enabling cross-channel commerce by providing a single point of access to a complex network of fulfillment systems, centralized management of fulfillment policies and line item independent fulfillment processes. In essence, order orchestration creates a “virtual order” that can be managed as if it was a single entity, even though it is distributed across heterogeneous fulfillment systems.

How Oracle Fusion Distributed Order Orchestration Works

Fusion DOO begins by collecting sales order details from order capture systems, and breaking their items into fulfillment lines depending upon the product, the type of order, the customer's location and other details. This step, called **Order Decomposition**, evaluates business rules that define how to handle each order line.

The next step is **Orchestration** – taking the fulfillment order lines through the steps in their lifecycle. As DOO executes each workflow, order administrators can monitor progress graphically through the **Order Orchestration Work Area**. If orders are changed or cancelled, DOO's Orchestration engine determines how to compensate for the steps that have already been completed – eliminating thousands of lines of code that would otherwise need to be written to deal with exceptions.

The final components of Fusion DOO are the **Task Layer Services** and **External Interface Layer**. They isolate order processes from the proprietary details of legacy fulfillment systems by providing a standard set of services and integration/mapping facilities that translate those service calls to the underlying proprietary interface of each system. That way, retailers can add or change fulfillment sources without impacting the rest of the environment.

Conclusion

Cross-channel commerce confronts retailers, distributors and manufacturers alike with the need to reengineer and unify their fulfillment processes. Oracle Fusion Distributed Order Orchestration is a key element of Oracle's comprehensive strategy to enable cross-channel processes, while minimizing the impact on a company's existing commerce and fulfillment systems. Its flexible architecture helps IT organizations accelerate their system roadmap by isolating and integrating legacy applications behind a high-level, easily adapted business process framework. Using Fusion DOO, companies can leverage their distributed resources as a competitive weapon to win and retain the next wave of mobile- and web-savvy customers wherever they decide to shop, buy, receive and return their products.

PROFITING FROM ENHANCED ORDER PROMISING

Regardless of the sales channel, companies need to tell customers when they should expect to receive their goods as they're placing an order. Fusion DOO offers suppliers in complex fulfillment environments a distinct competitive advantage through built-in **Global Order Promising (GOP)**. GOP calculates consistent, accurate delivery dates across the entire network of available sources of supply.

Using Fusion GOP, companies can choose the fastest way to fulfill each order across all available sources. They can also leverage Fusion DOO's "profitable to promise" capability to identify the delivery channel that satisfies an order's lead time requirements at the lowest cost. Its in-memory model can perform real-time what-if simulations of alternative fulfillment scenarios to resolve exceptions.

By integrating tightly with Fusion DOO, Fusion Global Order Processing also helps identify orders that are in jeopardy – in danger of missing their delivery date – so users can intervene, reprioritize orders, expedite transportation, substitute items or take other actions to reduce customer impact.



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