

# Supply-On-Demand

## UNIFIED SUPPLY CHAINS FOR E-COMMERCE MARKETS

- Retail trends in e-commerce markets need to address multi-channel logistics, controlling inventory and fulfillment costs, and integrating the supply chain.
- Supply-on-Demand processes any-to-many partner transactions and delivers product directly to the consumer in e-commerce time.
- The CommerceHub ONE Connection platform delivers supply-chain integration and fulfillment solutions that unify e-commerce operations.

### RETAIL TRENDS IN E-COMMERCE MARKETS

#### A Multi-Channel E-Commerce World

In today's e-commerce world, retailers are becoming multichanneled in order to satisfy increasingly web-savvy consumers. With competitors just a click away, retailers face the daunting task of increasing product offerings and improving customer service, while reducing operating costs. Optimizing the performance of a retail organization requires an integration strategy that aligns all its sales channels—stores, catalogs, web sites, kiosks, special orders, direct-response television, and now wireless e-commerce applications.

#### Controlling Inventory and Fulfillment Costs

To drive top-line revenues, retailers seek to expand and adjust product offerings to meet market demands. However, physically stocking and fulfilling products is capital intensive and does not scale well. Establishing an inventory and fulfillment model that balances the customer experience with corporate profitability has been elusive for many online retailers.

#### The Need to Integrate the Supply Chain

Retailers build elaborate front-end catalog applications and online transaction systems, but have difficulty addressing a critical e-commerce requirement; the electronic integration of their suppliers' systems with their own. Many retailers and suppliers still process orders, shipments and payments manually via fax, phone, paper mail, and antiquated Electronic Data Interchange (EDI) systems.

#### Addressing Legacy Systems

Complicating the multi-channel retail model are the legacy systems currently in place for both retailers and suppliers. ERP, accounting, warehouse management, and logistics systems were all designed to work within an enterprise. Under an integrated model, a retailer must be able to quickly and reliably coordinate with multiple suppliers and shipping carriers. With information stored in the disparate systems of multiple parties, accessing and managing in a central location is difficult at best.

To further compound system integration, every company is different—different systems, different platforms, and different internal processes. Even modern ERP systems like Oracle, SAP and Enterprise Application Integration (EAI) systems

such as Tibco, WebMethods and Web Sphere do not truly resolve connectivity issues outside the four walls of the retailer. Suppliers often have transportation, warehouse and accounting systems that are not inter-connected.

### MARKET LESSONS IN E-COMMERCE SUPPLY CHAINS

#### Amazon.com

Amazon.com was an early mover in positioning as a completely "virtual" retailer. The excitement surrounding Amazon was that it would have a competitive advantage over its brick and mortar rivals because it would not incur the same costs of warehousing, inventory, or fulfillment. Rather, it would profit on each item it sold by taking a fair markup, and then handing the orders off to the suppliers who would ship their products directly to customers on Amazon's behalf.

Amazon quickly faced supply-chain integration and fulfillment issues. Technical difficulties in properly integrating systems between Amazon and its suppliers led to customer service and fulfillment problems. As order volume increased and customer issues became unmanageable, Amazon was forced to build elaborate brick-and-mortar warehouses to

control the process, ultimately ensuring a positive customer experience. However, the additional expense of warehouses, personnel, inventory, and double shipping and handling rapidly eroded all margins.

The advantages of being a “virtual” retailer could not be realized without comprehensive supply-chain integration and fulfillment management.

### Virtual Warehousing and Drop Ship Fulfillment

Drop ship fulfillment enables the implementation of an inventory-less sales model, where retailers need not own warehouse or inventory in order to sell and fulfill orders. Sales are transacted online, via phone, kiosk, or catalog, then orders are routed to manufacturers or distributors who ship products directly to customers. By tapping into drop ship suppliers, retailers can broaden their offerings to consumers while avoiding inventory-carrying costs and warehouse expenses.

### Why Retailers Fail at Virtual Warehousing

Although the benefits of drop ship fulfillment are plentiful, few retailers have been able to successfully execute a Virtual Warehouse model. The lack of inter-company system integration is even more problematic in the drop ship fulfillment model, because record keeping and track-ability becomes even more critical as thousands of orders are sourced through hundreds of suppliers. In drop ship fulfillment, thousands of orders are being shipped to thousands of locations. The choreography of this is much more complex than single orders with thousands of line items being shipped to a few warehouses.

### Customer Service Nightmares

The quality and fulfillment performance of suppliers presents a continuing challenge that few retailers have been able to overcome. When orders are placed manually, retailers operate on blind faith once orders leave their systems. This severely impacts

customer service because the organization cannot, without triggering a series of costly and time-consuming phone calls, provide customers with an answer to the question, “Where is my order?”

### Branding Packing Slip Problems

The ability to achieve a branded experience through remote suppliers has been a major hurdle for many retailers. Suppliers, large or small, find it difficult to produce retailer-branded packing slips for inclusion with shipments, resulting in delivered orders that do not appear to come directly from the retailer. Third party packages and packing slips create customer confusion and customer service calls. For a proper product brand fulfillment, drop shippers must have the ability to produce retailer branded packing slips that include handling instructions, barcodes, logos, return labels and customized messages.

### Inventory Backorder Problems

Because most retailers are not integrated with their suppliers, backorder scenarios occur when the retailer sells something to a customer that is not in the supplier’s warehouse. This leads to disappointed customers and increased defection rates.

### Complicated Returns Processing

Reverse logistics, the reverse flow of products from customers back to suppliers, continues to be an expensive problem for retailers to overcome. Retailers increasingly want products to be returned directly to stores, but with drop ship suppliers providing fulfillment, it is difficult to enable store clerks to process returns without a unified system in place.

### System Integration is Even More Complex in Drop Ship Fulfillment

In order to properly implement a drop-ship model, a retailer must

integrate tightly with its suppliers to exchange inventory feeds, purchase orders, shipping confirmations, and invoices. Because a single order could be split among different suppliers, the technical complexities of integration become much more daunting.



### QVC & QVC.com

A world leader in television retailing, QVC was having difficulty managing the volume of its large universe of suppliers as they entered e-commerce. The in-house EDI system worked well for the traditional business, but proved to be too heavy when QVC moved to a pure drop ship fulfillment model for e-commerce. QVC.com realized that its manual system needed to be upgraded to an enterprise, exception-based platform that would provide better integration and more efficient communication with its suppliers. The company partnered with CommerceHub to develop an integration and fulfillment management solution on a single platform to seamlessly integrate all of its supply chain partners. QVC was able to successfully and profitably implement an inventory-less selling model, and today offers thousands of products without ever owning, warehousing or distributing a single item. After deploying a CommerceHub Supply-on-Demand platform, QVC was ranked by Forrester Research as the #1 online merchandiser for both customer service and fulfillment.

## SUPPLY-ON-DEMAND: UNIFIED SUPPLY-CHAIN OPERATIONS FOR E-COMMERCE MARKETS

Supply-on-demand addresses the supply-chain issues of e-commerce markets. It integrates trading partners providing bi-directional visibility and virtual warehousing that processes transactions and delivers products directly to the consumer in e-commerce time.

It enables real-time expansion and adjustments to product offerings, eliminating inventory handling and warehousing costs, and drives high levels of customer satisfaction.

In a supply-on-demand environment, multi-channel retailers achieve 100% electronic integration and compliance with all of their suppliers.

### Seamless Integration

The ONE Connection platform translates and normalizes communications for each supply-chain partner, so they can receive electronic purchase orders, change orders and remittance confirmations in their own native file formats and respond accordingly with electronic acknowledgements, shipment confirmations, inventory updates, and invoices.

The ONE Connection is an open, flexible and rapid integration platform that enables seamless data exchange between trading partners, eliminating the integration hurdles posed by file standards movements. It supports any file format: EDI, XML, spreadsheets, flat files, fixed-length files, custom file formats, as well as any connection type: VPN, FTP, VAN, AS2, HTTP or dial-up.

### Virtual Fulfillment

The ONE Connection platform allows retailers to view the status of an order at any point in its lifecycle, from initial purchase, through the supplier network, the carrier and delivery process, directly to their customers.

It provides comprehensive management of order fulfillment, supply-chain visibility, retailer branding, trading partner performance, inventory synchronization, returns processing, carrier tracking, and reverse logistics.

It enables any supplier, large or small, to produce high quality retailer-branded packing slips for inclusion with shipment. Packing slips can include handling instructions, barcodes, logos, return labels and customized messaging.

Real-time carrier tracking capabilities provide instantaneous access to shipping status. By integrating carrier information, ONE Connection retailers can automate order status updates to customers, resulting in reduced call center inquiries.



### Inventory Control

The ONE Connection environment provides full support for reverse logistics, enabling returns to be handled directly by suppliers or stores, eliminating additional handling costs.

It allows inventory and pricing synchronization that provides an item's availability at the point-of-sale, minimizing costly backorder and customer disappointment issues.

It also provides the platform for retailers and suppliers to quickly and efficiently build, manage, and distribute product images and information that can be used to merchandise and sell products via website, catalog or kiosk.

## THE COMMERCEHUB ONE CONNECTION PLATFORM

The CommerceHub ONE Connection platform provides supply-chain integration and fulfillment solutions that unify e-commerce operations. It is a full suite of technologies and services that enables retailers to rapidly expand their product offerings without tying up capital in inventory, reduce warehouse and handling costs, and affords the opportunity to achieve the same levels of customer service and fulfillment as if they owned and stocked the goods themselves.

With nearly a decade of experience working with Top 25 retailers, distribution supply chains and a wide array of major brand-named suppliers, the CommerceHub ONE Connection platform manages nearly \$3 billion in goods annually on behalf of such industry leaders as Costco, QVC, Staples, Home Depot, eToys, Kmart, Kohls, Toys-R-U's, Sears, Walgreens, Dell, Toshiba, Sanyo, Minolta, Gateway and Little Tikes.

## COMMERCEHUB PRODUCTS AND SERVICES

### Universal Connection Hub

The company's Universal Connection Hub is the foundation of CommerceHub's other products. It is an open and flexible integration platform that enables seamless data exchange between trading partners, eliminating the integration hurdles posed by file standards movement. WithCommerceHub's Universal Connection Hub, all parties can transmit and receive data in their preferred file format (EDI,XML, .xls spreadsheets, flat files, etc.), preserving and extending the value of each party's legacy information systems. To ensure widespread adoption, the Universal Connection Hub provides a browser-based option for suppliers who might lack the technological or financial resources to participate otherwise.

### CommerceHub Methodology

CommerceHub's Universal Connection Hub enables true "any-to-many" integration. The platform translates and normalizes communications for each supplier, so they can receive electronic purchase orders, change orders and remittance confirmations in their own native file formats, and respond accordingly with electronic acknowledgements, shipment confirmations, inventory updates, and invoices which, in turn, are transformed by the Universal Connection Hub back into the file format required by the retailer.

Importantly, the Universal Connection Hub does not merely pass data, it breaks down each order to its granular-level detail, analyzes it for error-catching purposes, and then time and date stamps each discrete supply-chain event to enable automated business rule enforcement.

Suppliers who join a CommerceHub powered network enjoy effortless connectivity, reducing technical support costs, simplified order status compliance increasing labor productivity, accurate order histories enhancing validation, and reduced mistakes improving performance.

In effect, CommerceHub's Universal Connection Hub makes it possible for multi-channel retailers to achieve 100% electronic integration and compliance with all of their suppliers, making it both easy and worthwhile for suppliers to participate electronically.

### Support for All Suppliers

CommerceHub's Universal Connection Hub enables the most rapid supplier integration in the industry. CommerceHub has designed its solution for both retailers and suppliers to preserve their existing processes and investments in technology. The Universal Connection Hub provides a variety of connectivity options that enable any supplier to meet any retailer's requirements. The following represent the various ways in which a supplier can plug into the Universal Connection Hub:

#### 1. Internet Browser-Based

A web-based interface enables any supplier to quickly comply with a retailer without making any internal modifications. A PC with Internet access is all that's required to completely process orders, print retailer-branded packingslips, and meet all other retailer requirements. With the browser-based connection, suppliers can be set-up, trained, and receive orders in about an hour.

#### 2. CommerceHub's Proprietary Specifications: Suppliers Map to CommerceHub

The Universal Connection Hub provides pre-built connection kits that support XML, EDI, and flat file formats. Suppliers can map to CommerceHub formats in a matter of days. CommerceHub supports various communication mediums and protocols including: FTP, HTTP, AS2, VPN, and EDI-VAN connections.

#### 3. Tailored Connections: CommerceHub Maps to the Supplier

The Universal Connection Hub allows CommerceHub to perform the mappings to the individual supplier. This is typical in the case of a large supplier that provides its own specifications.

### Value Added Applications

On top of the Universal Connection Hub that provides a single point of interoperability between systems, CommerceHub also offers a suite of innovative supply-chain event applications that enable comprehensive management of order fulfillment, supply chain visibility, retailer branding, trading partner performance, inventory synchronization, returns processing, carrier tracking, and much more. Based on real-world production issues, CommerceHub developed sophisticated applications to solve key operational requirements. These applications are simple, exceptions-focused, and streamlined for all participants.

### Drop-Ship Master Core Application

Drop-Ship Master provides retailers with advanced exception-management capabilities and the performance reporting necessary to ensure that suppliers are fulfilling orders in a manner consistent with the retailer's standards for customer service. Drop-Ship Master allows users to proactively monitor problem orders. This allows the retailer and supplier to resolve problems before they effect delivery to the customer, saving hours of time and increasing the retailer's productivity.



### Visibility and Event Management

CommerceHub provides complete supply-chain event management, allowing a retailer to view the status of an order at any point in its lifecycle, from initial purchase, through its supplier network, the carrier and delivery process, and to its customers. To address the critical issue of supplier performance, CommerceHub enforces retailer specific business rules and provides automated alerts whenever a supplier is out of compliance. This enables retailers to proactively resolve potential fulfillment problems before they ever impact a customer.

### Carrier Integration

Drop-Ship Master enables retailers to monitor transactions from point-of-sale all the way through delivery. Real-time carrier tracking capabilities provide instantaneous access to shipping status. By integrating carrier

information, retailers can automate order status updates to customers, thereby reducing call center inquiries.

### Returns Processing

CommerceHub offers a simple and elegant solution to the problem of supplier-managed returns. By providing full support for reverse logistics, CommerceHub enables returns to be handled directly by suppliers or stores eliminating additional handling costs to the retailer.



### Supplier Report Cards

Supplier report cards are created based on performance metrics, enabling a retailer to optimize fulfillment through remote distribution partners. Evaluation metrics for suppliers include: order fill rate, order acknowledgment, ship time, shipping information, percentage of returns, percentage of back orders, and more.

### Branded Packing Slips

In order to maintain a seamless experience for the customer, Drop-Ship Master enables any supplier, large or small, to produce high quality retailer-branded packing slips for inclusion with shipment. Packing slips can include custom gift messaging, handling instructions, barcodes, logos, return labels, and much more.

### Service Level Manager

CommerceHub's Service Level Manager application provides control and exceptions-based

management above and beyond the global exception alerts included in the core application. By configuring specific service level definitions for specific business situations, a retailer can hone the performance of its fulfillment network and proactively eliminate problems. The Service Level Manager enables administrators or individual users to set up named service level definitions by supplier, group of suppliers, order state, SKU, or business event interval. Definitions can be set up with multiple severity levels ensuring proper prioritization and management of fulfillment issues or delays. When an order breaks the terms of a definition, a service level exception is created and alerts are triggered. Exception alerts can be configured to automatically send an e-mail to the supplier or retailer user. Orders exceptions are quickly made visible to the retailer and supplier through the web interface and require prompt service and attention. With the CommerceHub Service Level Manager, a retailer is able to see and manage what is not happening in its fulfillment network.

### Inventory Management

The Inventory Management application provides for mutual management of inventory between a retailer and a supplier. It consolidates availability feeds into a single feed for the retailer, which is then delivered in the retailer's preferred format as either a full snapshot or a more efficient differential. The retailer has the ability to search in real-time or report against the entire SKU set provided by its suppliers.

Suppliers can provide inventory updates to CommerceHub in a variety of ways including via spreadsheet, XML, EDI, flatfile, customized file formats, and manually via the web. This breadth of options makes it easy for a supplier to comply with the retailer's need for inventory information. Having timely and accurate inventory information greatly reduces the occurrence of backorders and cancellations—the largest sources of customer service problems.

### Delivery & Returns Management

CommerceHub's LastMile tracks the shipment from the time the supplier hands off the product to the carrier, be it the last-mile carrier or an intermediate LTL carrier, through delivery to the customer's home. If the customer returns the item, LastMile provides complete visibility and control over the process, from the carrier pick-up to delivery to the supplier, salvage company, charity or your own warehouse.

Whether the carrier is a regional home delivery agent, national LTL carrier, or local white-glove installer, LastMile utilizes the Universal Connection Hub to level the technological playing field allowing for 100% compliant electronic integration with any carrier. No more faxes, phone calls or emails.

Additionally, combined with CommerceHub's Service Level Management module, LastMile enables retailers to create on-the-fly, customizable service level definitions that allow them to proactively monitor the in-home delivery and returns process, catching delivery and returns issues before they impact the customer.

## THE ONE CONNECTION PLATFORM— COMPELLING BENEFITS

### Speed to Market

In order to integrate properly with suppliers and carriers, a retailer must take the time to understand the requirements of establishing electronic trading-partner relationships; however in order to remain competitive, speed is critical. AMR research claims that for many companies, e-business is too technologically complex to attempt to build a timely solution internally.

CommerceHub offers a pre-built and proven infrastructure that eliminates costly development time and the resources required to build a complex inter-business infrastructure. According to the EDI Group, it takes an average of 79 days to implement the first transaction set with a new EDI trading

partner. In contrast, CommerceHub connected more than 1500 suppliers in 2006 with an average integration time of just 11 days. These integrations included the configuration of complete workflow and business-rules enforcement, customized reporting, and the implementation of uniquely-branded packing slips.

### Return on Investment

K-Mart announced a \$2 billion dollar initiative to integrate its entire supply chain. As an alternative, CommerceHub's solution provides each organization with a "pay per usage" proposition, enabling them to effectively share the costs of the infrastructure with other users.

### 100% Supplier Compliance

While a number of retailers have set high priority initiatives to rapidly expand their electronic connections to their suppliers, most have struggled

to achieve compliance. Many suppliers are simply unable to adapt their systems, and typically lack the in-house capabilities. CommerceHub on the other hand, enables any supplier to quickly and easily satisfy all retailer requirements.

## MARKET LEADING CLIENTS

### Retailers

#### Market Leading Customers

CommerceHub delivers compelling virtual-inventory solutions to major retailers. The company provides supply-chain solutions to some of the world's largest retailers, including Kmart, Coscto and QVC. With proven technology and account references, CommerceHub is in a position to translate market leadership into market domination of direct-to-customer fulfillment space.

### Suppliers

#### Supporting Brand Name Products

CommerceHub already has thousands of suppliers integrated, which collectively represent millions of brandname products. Suppliers include distributors, manufacturers, third-party logistics providers (3PLs), or any other company capable of supplying products to or for a retailer. Many of our suppliers are connected to five or more retailers on our network, allowing them a single point of integration to manage their retailer relationships more efficiently. The transaction fees suppliers pay CommerceHub typically are much less than it would cost the supplier to build a special connection for each and every retailer.

