



**Voluntary Guidelines
For
Direct to Consumer
Commerce**

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INTRODUCTION

Direct to Consumer (D2C) commerce has evolved from the interaction and development of trends surrounding and within the retail environment. These trends involve the retailers and suppliers interested in D2C, the consumers driving the need for it, and the technology that has facilitated the development and growth of this movement. Optimizing the shopping experience has never been more important. Direct to Consumer commerce gives the retailer and supplier the opportunity to offer the consumer a vast number of products in a small amount of real estate with consumer prompting as opposed to mandatory interaction with sales associates. As consumer acceptance of this alternative grows, new relationships between consumers, retailers and suppliers will form. As retailers and suppliers explore this form of commerce, the need to standardize the information flow between the interested parties will occur. The Voluntary Interindustry Commerce Standards Association's (VICS) Direct to Consumer committee was formed to address this issue.

* In this publication the letters "U.P.C" are used solely as an abbreviation for the "Universal Product Code," which is a product identification system. They do not refer to the UPC, which is a federally registered certification-mark of the International Association of Plumbing and Mechanical Officials ("IAPMO") to certify compliance with the Uniform Plumbing Code as authorized by IAPMO.

COMMITTEE BACKGROUND AND GENERAL INFORMATION

The mission of VICS is to take a global leadership role in the ongoing improvement of the product and information flow throughout the entire supply chain in the retail industry.

To further define the purpose set forth in the VICS Certificate of Incorporation, VICS' overall global objective is to improve product availability to the consumer by providing leadership and encouragement in the identification, development and implementation of voluntary standards, protocols, guidelines and other mechanisms that might be required to support our Mission. Such mechanisms, when properly utilized, are expected to lead to better anticipation of, and reaction to, changes in consumer demand for these products with the subsequent optimization of production and carrying costs.

Recent developments in technology, such as kiosks and the Internet, are leading to a proliferation of ways for consumers to purchase goods and services. Consumer acceptance of these new distribution channels has created new relationships between consumers, retailers, suppliers and third-party service firms, and placed additional challenges from a supply chain and information flow perspective. As with previous supply chain initiatives, the goal is to share a common process, and to work from a clear set of industry-level guidelines in order to optimize the supply chain.

VICS formed the Direct to Consumer (D2C) committee and gave it the challenge of examining a variety of these and other issues related to D2C commerce, including the required business practices and the impact they would have on the standards organizations. With this in mind, the committee developed the following mission statement:

Mission Statement

"The mission of the Direct to Consumer (D2C) committee is to facilitate consumers ordering merchandise and related products for direct delivery from the supplier to the consumer. It will recommend data interchange standards and processes to enable these transactions."

Within this mission is the scope of the committee's work. The committee has focused on the three-party relationship - how the consumer, retailer, and supplier relate - and the information flow needed to support the underlying business process. It should be noted when reading this document that parties may participate in D2C transactions in non-traditional roles. Supplier refers to the party that ships the product to the consumer. The supplier may be the manufacturer, a third-party service, or the retailer. The retailer takes the order and collects payment from the consumer. In some cases, the supplier and retailer may be the same company. In that case, the company may choose to use internal processes to complete some portions of the D2C transaction.

The committee made the assumption that it should leverage the existing Electronic Data Interchange (EDI) relationships wherever possible, and periodically evaluate these relationships as the business evolves. The committee has also coordinated with other industry groups to ensure completeness of information, and to avoid either conflicting or redundant work, and will continue to do so.

The Environment for Today and Tomorrow

Retail

A recent worldwide survey of 500 large companies carried out by the Economist and Booz Allen & Hamilton, found that 90% of the top managers believe the Internet will transform or have a big impact on the global marketplace by 2001. Forrester Research endorses that by stating that e-business in America is about to reach a threshold from which it will accelerate into "hyper-growth" in both business-to business (B2B) and business-to-consumer (B2C) arenas. Inter-company trade of goods over the Internet will double every year to reach \$1.3 trillion in 2003.

Forrester's forecasts for business-to-consumer (B2C) in America will rise to \$108 billion by 2003. Online penetration has now increased to 33% of U.S. households and on average those households that buy online have more than doubled the number of online purchases that they made in the previous six months.

Businesses see the urgent need to work out how to adapt their multi-layered supply chains and diverse distribution channels, to say nothing of integration to the mélange of legacy systems to meet the needs of a demanding growing online customer base.

Consumers in all retail formats are demanding more choice and convenience in their shopping. The Internet has provided information about the breadth of product offerings that challenge the limited floor space available at traditional retail stores.

This growth in online purchases and the demands of the consumer for more convenient and less time expensive shopping drive the need to develop guidelines and standards to support Direct to Consumer (D2C) commerce.

Technology

The D2C guidelines in this document utilize EDI documents to communicate business documents between trading partners. In the future, XML will join traditional EDI as a method for communicating business documents.

The Uniform Code Council, Inc. (UCC) has announced an eXtensible Markup Language (XML) Strategy. The UCC XML strategy is targeted towards lowering barriers to enter into the e-commerce arena. The UCC endorses e-commerce solutions that fit the needs of its member companies.

The UCC believes that XML will enable small and medium sized enterprises to implement e-commerce in the global arena. It will level the playing field, allowing these enterprises to enter into market areas that previously were inaccessible due to an inability to implement EDI. In addition, XML will allow rapid development of new business documents that will expand the capabilities of e-commerce solutions. This will also be an advantage to larger companies already using EDI, because they will be able expand their e-commerce solutions beyond what EDI has defined.

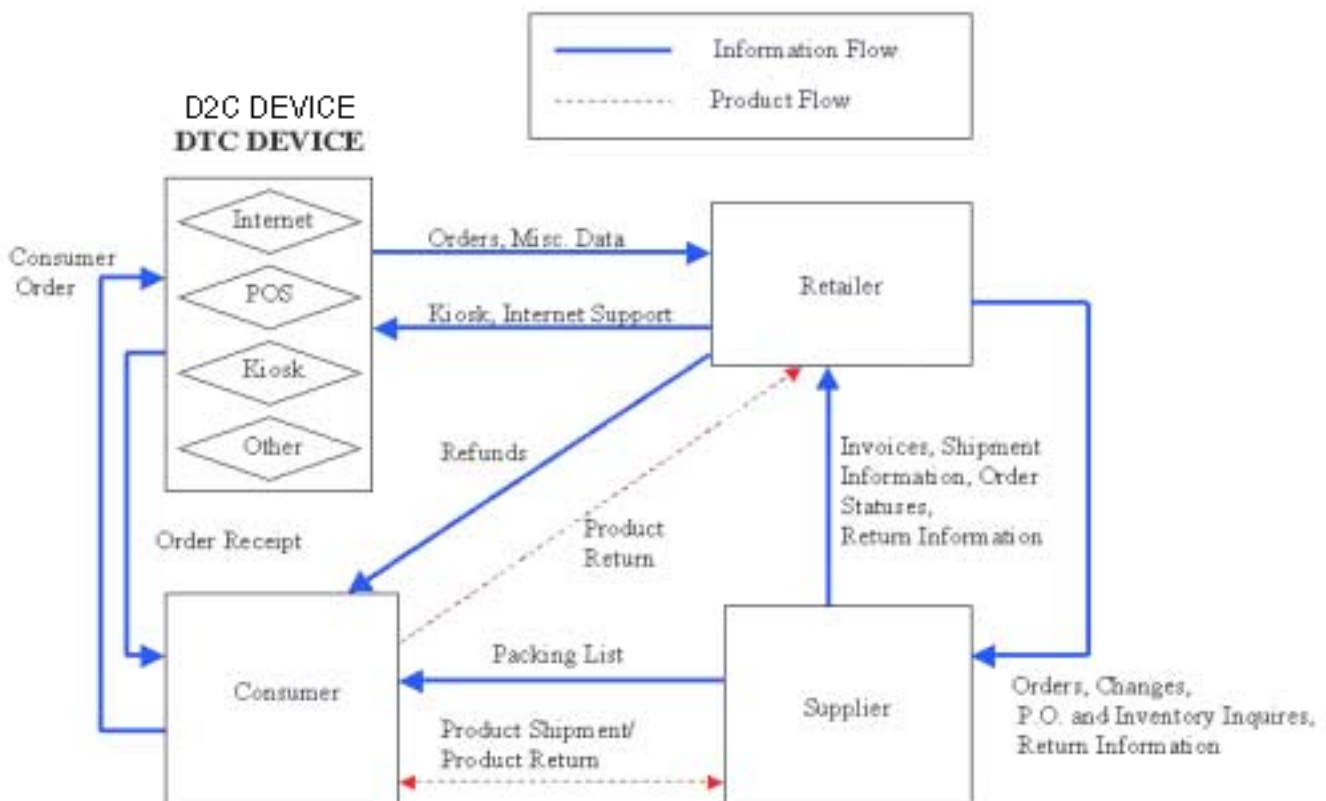
The D2C guidelines will add XML as an option to EDI when the standards are generally available.

OVERVIEW OF RECOMMENDED DIRECT TO CONSUMER (D2C) COMMERCE

The model developed to represent Direct to Consumer commerce between the consumer, retailer, and supplier depicts the flow of information as well as product. It can be divided into three distinct stages of information flow, with a fourth - Product Information Transmission and Receipt - supporting the D2C transaction:

- Product Information Transmission and Receipt
- Order Placement
- Shipment Confirmation/Payment Reconciliation
- Consumer Returns Handling

The following diagram illustrates the recommended product and information flow for each step of the process.



The product and information flow within the Direct to Consumer (D2C) environment requires trading agreements between retailers and suppliers. The committee has addressed the standards and guidelines to facilitate the product and information flow within the D2C environment. However, the retailers and suppliers are responsible for establishing the trade agreements that are essential in determining the success of customer service and ultimately the D2C partnership.

Note: The committee recognizes that the EDI standards were developed to accommodate a wide variety of requirements and implementations. Thus, the following recommended guidelines are not meant to eliminate or reduce the flexibility within the EDI standards, or necessarily require a change to a company's existing D2C program.

Any company using the Uniform Code Council (UCC) VICS EDI transaction sets can request changes or additions to the documents by contacting the UCC to submit a Data Maintenance Request, stating the business requirements. UCC contact information is included in the Resource List in Appendix B.

Product Information Transmission and Receipt

Objective

The objective of the Direct to Consumer Product Transmission and Receipt guidelines is to provide retailers and suppliers with parameters to work within when transmitting the product data required for D2C transactions.

Overview

The first component of the Direct to Consumer commerce transaction is the exchange of product and multimedia information between the retailer and supplier, utilizing the VICS832 Price/Sales Catalog transaction and the ASC X12 102 Associated Data transaction. This information may go directly to the retailer from the supplier or via a third-party value added service.

Issues

The recipient of the product information, marketing message, and multimedia data cannot disassemble the data transmitted for other uses. For example, brand logo's must remain intact with/for the intended message.

Please be aware that rapidly changing technology surrounding multimedia and its characteristics will likely call for changes to the 832 Sales/Price Catalog and the 102 Associated data transaction sets used to communicate this type of product information. As soon as new functionality is identified, a Data Maintenance Request should be submitted to the Uniform Code Council.

Implementation Guidelines

The following types of product information are exchanged between trading partners in EDI transactions:

- Basic product identification and description is communicated in the VICS832 Price/Sales Catalog transaction.
- Marketing Message, nutritional information and pointers to the electronic location of various multimedia product elements (images, sound files, video) are communicated via VICS832 Price/Sales Catalog transaction.

- Binary files can be transmitted in the ASC X12 102 Associated Data transaction with the product identification referenced to the VICS832 Price/Sales Catalog, which will contain the descriptive information about the file.

It is the retailer's responsibility to build the proper application for Direct to Consumer functionality.

Consumer to Retailer Order Placement

Objective

- To provide the right information to consumers so that they can make informed purchases.
- To provide a uniform and consistent delivery of information to consumers via an order receipt for order tracking and customer service.

Overview

The Direct to Consumer transaction is initiated by a consumer purchase at a D2C device such as a kiosk, telephone, the Internet (via PC or wireless device), or a traditional retail Point of Sale (POS). The consumer purchase will be accompanied by a receipt that should include details that the consumer can use to obtain information about the order (delivery status, return process, etc.).

Issues

- Information content and the method of delivery to the consumer for self-assisted environments such as kiosks or the Internet.
- Determination between the retailer and supplier as to which one is responsible for each component of customer service.
- The timing of charging the consumer for credit card purchases.
- The requirement for real-time (or close to real-time) inventory availability.
- If some items are unavailable, will partial shipments be allowed?

Implementation Guidelines

Consumer Order Flow

This process involves two primary areas: the content of the D2C device, and the method of delivery. The content, or what is presented to the consumer in a D2C device, for example, will be determined by the D2C partnerships (e.g., will the D2C device present multiple suppliers' goods, one supplier, many suppliers under one retailer, etc.). The method of delivery will largely be guided by current and future technological advances (e.g., graphics presentation, number of colors, 3D, etc.). Retailers will also be responsible for developing a methodology in terms of billing the consumer (e.g., credit card, debit card, cyber cash, etc). Considerations include maintaining credit authorization until the charge is applied, withholding credit card transactions until ship verification is received, and modifying billing for partial shipment issues such as sales tax and shipping and handling charges.

Order Receipt Flow

For D2C devices or other retail POS systems, issue a single customer receipt, including the following:

- Any special delivery instructions that the consumer specified (i.e., essential information about the order that the consumer might need for reference when dealing with customer service issues).

- One order number that can be used and referenced throughout the order, fulfillment, and return cycles.
- Consumer address and telephone number.
- Ship-to name, address and phone number if different from sold-to consumer address.
- The estimated delivery date by ordered line item based on the product's specified lead time and selected shipment type.
- Special service, paid or unpaid, such as gift wrapping and monogramming.
- A single customer service contact point with one phone number (even if the order contains products from multiple suppliers).
- When the above information applies to the entire order, it can be stated as such. When information varies at the item level, it must be communicated at the item level. Examples include different ship-to names and addresses for each item, or individual monogram information at the item level.

For retailer Internet devices, provide the preceding information where consumers can record information, save data, print information, or all three.

Determining consumer order delivery dates or expected delivery dates should be accommodated based on the supplier's lead time specified in the price sales catalog structure.

Retailer to Supplier Order Placement

Objective

The primary objective of the retailer to supplier order placement guideline is to provide a more efficient means of processing and managing D2C purchase orders.

Overview

Following the consumer purchase, the retailer sends the order information to the supplier. The retailer has the responsibility of exploding consumer orders by different suppliers, different consumers, and different ship-to locations or shipment methods within a consumer order. Then, the retailer uses the UCC VICS EDI 850 Purchase Order to transmit D2C order information.

The supplier responds to the retailer with a UCC VICS EDI 870 Order Status Report if the purchase order will not be fulfilled by the expected delivery date. Retailers can also request an order status from the supplier by sending the UCC VICS EDI 869 Order Inquiry. This inquiry should only be required based on a customer service request or an expired requested delivery date.

Issues

- The frequency of transmitting D2C purchase orders to the supplier.
- Increase in EDI transmission costs to support D2C.
- The shipment method selected by default when the consumer does not specify it.

Implementation Guidelines

Purchase Order Flow

A D2C purchase order represents one consumer, one ship-to address, and one shipment type (e.g., FedEx, UPS, United States Postal Service, or other package carrier).

The retailer is responsible for exploding the consumer orders into individual purchase orders and sending them to the corresponding supplier via the UCC VICS EDI 850 Purchase Order.

Additional purchase order information specific to D2C requirements include:

- Specific designation as a D2C order type in the purchase order header.
- The consumer's assigned order number that was issued with the receipt.
- Ordered-by consumer's telephone number (if the supplier is doing some form of customer service).
- Ship-to recipient's telephone number if different from ordered-by consumer (if the shipping method requires the delivery address phone number).
- Communicating and associating special services such as gift wrapping.

One purchase order should be issued when a purchase order contains two or more line items to the same ship-to address and no shipment method is specified, or least cost method is preferred.

The supplier, upon receipt of the purchase orders, should send the retailer an unsolicited status report via the UCC VICS EDI 870 Order Status Report regarding any purchase orders that cannot be fulfilled.

Purchase Order Status Inquiry Flow

Retailers can request ad hoc purchase order status via the UCC VICS EDI 869 Order Status Inquiry. The order should be referenced by the retailer's purchase order number, not the consumer order number or the supplier's order number. Ideally, the retailer should not have to send an order status inquiry to generate an order status update. The supplier should send an unsolicited order status report if the ordered D2C items will not be fulfilled within the designated lead-time.

Purchase Order Status Report Flow

Suppliers, upon receipt of a purchase order, send the retailer an unsolicited status report via the UCC VICS EDI 870 Order Status Report when order exceptions occur including:

- Cancellations.
- Purchase orders that will not be fulfilled by the specified delivery date (extended ship dates).
- Inability to fill an order because the supplier needs additional information.

If more frequent order status reports are required for customer service commitments, the retailer and supplier should develop a schedule as part of their D2C partnership agreement.

Purchase Order Change Flow

Retailers should transmit any changes to unshipped purchase orders via the UCC VICS EDI 860 Purchase Order Change.

Product Activity Data Flow

Direct to Consumer purchase orders will provide the supplier with detailed sales data regarding D2C commerce which can be used in lieu of the UCC VICS EDI 852 Product Activity Report.

Shipment Confirmation/Payment Reconciliation

Objective

- To provide D2C partners with a standardized way to communicate shipment confirmation and payment reconciliation information.
- To provide these partners with the most concise way to communicate the needed information, eliminating the use of transaction sets or other communication mediums where redundancies exist.

Overview

The Direct to Consumer transaction is completed with the shipment of product from the supplier to the consumer. This initiates the reconciliation of payment between supplier/retailer and retailer/consumer. The invoice required for the supplier/retailer relationship has been addressed by the committee. The simplification of this transaction through the use of the UCC VICS EDI 810 Invoice has been recommended because of the ability to use the transaction as both the invoice and ship notice (with slight modification). The consumer's receipt will serve as an invoice and is not included in this guideline section.

Issues

The exchange of billing and shipping information must satisfy the following business functions:

- Close the order in the retailer's system.
- Bill the consumer (for credit card use only).
- Trigger payment to the supplier.

Customer service issues such as the following:

- When, how, and from where did it ship?
- If not shipped, when will it ship?
- If partially shipped, when will the rest ship?
- Consumer notification of partial shipments.
- Consumer notification of the package or shipment tracking number.
- Requirement of "proof of delivery" and subsequent communication between carrier, supplier, and retailer.
- Timing regarding billing of consumer and method of payment.
- Sales tax issues relevant to partial shipments and the destination address.

Implementation Guidelines

Invoice Flow

Upon confirmation of shipment, the supplier sends an invoice to the retailer. One invoice equals one purchase order. The invoice contains both the billing and shipment information for the purchase order. The functions satisfied by the billing and shipment information needed for Direct to Consumer commerce include:

- Closing the purchase order in the retailer's system, which triggers:

- Billing the consumer.
- Payment to the supplier.
- Providing customer service information to the retailer for the ordered-by consumer and/or the ship-to recipient.

Note: The committee recommends that the UCC VICS EDI 810 Invoice transaction serve as the invoice to the retailer as well as a confirmation of shipment of a purchase order. Some retailer/supplier partnerships may elect to use the more traditional UCC VICS EDI 810 Invoice and VICS EDI 856 Shipment Notice/Manifest to accomplish these objectives.

Shipment Notice/Manifest Flow

According to the trading partner agreement, a retailer may also ask a supplier to send the VICS EDI 856 Shipment Notice/Manifest to detail the actual shipment information of one or more consumer purchase orders.

Note: The committee recognizes that some Efficient Consumer Response/Quick Response systems are moving toward Evaluated Receipt Settlements (ERS - using the VICS EDI 856 to trigger payment to the vendor and eliminate the invoice). This transaction set remains available for those trading partners. It should be noted, however, that ERS is normally predicated on the retailer receiving the goods which is not applicable in D2C shipments.

Consumer Returns Handling

Objective

The primary objective of the consumer returns handling guidelines is to facilitate the most efficient and effective means of handling consumer returns, ensuring the process is simplified for customer service functions.

Overview

The consumer returns handling issue involves the product and information flow related to the return of merchandise. D2C partners will determine where merchandise is returned.

The UCC VICS EDI 180 Return Authorization will be sent, one-for-one, at the purchase order level. It is a bi-directional document that can serve many scenarios. It will be used to notify the retailer or supplier of a consumer return, triggering a credit process to the respective accounts.

Issues

- The decision between D2C partners regarding who handles the various functions in the consumer returns process including customer service, credit due, physical receipt, and inspection of goods.
- The time involved to credit the accounts of the parties involved (i.e., consumer, retailer).

Implementation Guidelines

The Direct to Consumer partners will be responsible for determining who handles consumer returns. Returns procedures should be provided to the consumer.

The party receiving the returned merchandise is responsible for initiating the credit process of the respective accounts through the use of the UCC VICS EDI 180 Return Authorization. The transaction will address most of the standard D2C return scenarios including:

1. Non-Deliverables - Carrier is unable to deliver the order and returns it to the supplier (shipper). The supplier receives the item and notifies the retailer using the UCC VICS EDI 180 as a Return Notification.
2. Refusal - Consumer refuses to take delivery; carrier returns it to the supplier. The supplier receives the item and notifies the retailer using the UCC VICS EDI 180 as a Return Notification.
3. Consumer returns the product to the supplier - The supplier sends a UCC VICS EDI 180 as a Return Notification to the retailer with the appropriate reason codes. This triggers a credit to the consumer's account.
4. Retailer returns the product to the supplier (after the consumer returns it to the retailer) - Business rules are followed per Trading Partner agreement for a merchandise return. The supplier may be notified using the UCC VICS EDI 180 as a Return Notification.
5. Supplier notifies the retailer of disposition of goods using the UCC VICS EDI 180 as a Return Authorization. The Return Authorization may be documented on the corresponding financial transaction (deduction) on the UCC VICS EDI 812 Debit/Credit or the UCC VICS EDI 820 Remittance Advice.

CONCLUSION

Rapid growth of consumer sales transactions that include direct delivery provide retailers with exciting additional sales opportunities coupled with related challenges. Significantly more information must move between trading partners. The ability to deal with these changes in an efficient, cost-effective way requires standards and guidelines that are supported by all parties.

The guidelines have been drafted to give retailers and suppliers direction in the necessary communications entailed by Direct to Consumer commerce. The guidelines are not intended to be an exhaustive list of the issues to be encountered by the D2C parties. However, the committee recommends that before starting D2C, each of the issues from the previous sections be addressed by the retailer/supplier relationship. Many issues, involving both EDI transaction sets and the general responsibilities associated with D2C commerce, will be dealt with by Direct to Consumer partners as their relationships evolve.

Future committee work will address the issues that arise from D2C implementations.

Appendix A: Direct to Consumer Case Studies

In the following case studies, retailers, manufacturers and suppliers illustrate their current Direct to Consumer (D2C) operations. In addition to a project overview, trading requirements, and a process flow, each participant supplied trouble spots, unresolved issues, and proposed future enhancements. The participants in the case studies include:

- A large manufacturer that sells product on the Internet and in retail stores using a fulfillment house to ship directly to the consumer.
- A retailer of home products that participates in a D2C agreement with a supplier of children's playground equipment.
- A well-established chain of department stores including Internet, bridal and mail/phone locations that utilizes a Vendor Direct (drop ship) program with several vendors.
- A large manufacturer of tabletop and giftware products that ships directly to the consumer for a domestic retailer.

The case studies represent actual Direct to Consumer commerce applications currently in place. However, they do not represent recommendations from VICS or the D2C committee as to retail applications for D2C commerce.

Internet Sales: Manufacturer as Retailer / Third-Party Fulfillment

Introduction

In this case study, a large manufacturer sells product on the Internet and in retail stores. They have contracted a fulfillment house to ship directly to the consumer.

The fulfillment house has been in business for fifty years, shipping directly to the consumer for ten years, employing approximately 120 people. The fulfillment house manages inventory for 14,000 stock keeping units (SKU) for 40-50 projects, shipping between 5,000–20,000 orders per day.

The manufacturer has been in business for eighty years. It is a multi-billion dollar U.S. Company with over 20,000 employees. Statistics were unavailable regarding the total number of SKU's manufactured and the number of orders shipped per day.

Project Overview

The supplier/manufacturer sells product on five different web sites and in numerous brick and mortar retail stores with gift/special order Direct to Consumer (D2C) programs. A third-party fulfillment company manages all D2C business. The manufacturer's logistics are better suited to shipping in bulk, rather than handling individual orders and returns. There are approximately 200 SKU's involved in this program. All are eligible for transportation by package carrier.

Trading Partner Requirements

By mutual agreement, all information surrounding the consumer purchase orders for this project is exchanged using EDI. When the manufacturer ships in bulk to the third-party warehouse, the fulfillment house requires a shipping carton label that includes the purchase order number and the quantity contained in the carton in human readable form. They require product identification on the outside of the carton in a bar code.

Process Flow

Exchanging Product Information

The manufacturer provided the fulfillment house with a listing of the product identification numbers and descriptions. This information was keyed into the item master in the warehouse management system of the fulfillment house.

The manufacturer and the third-party fulfiller work together to determine the quantity of product to stock at the fulfillment house based on history and upcoming promotions. The fulfillment house provides inventory level information, on a scheduled basis, to the manufacturer in a UCC VICS EDI 852 Product Activity transaction set.

Order Placement – Consumer

The consumer places an order for a product on one of the five authorized web sites. They do so using the "Shopping Cart" feature on the site, providing their name, ship-to address and credit card information. The total for the order is calculated, including shipping, handling, and any applicable sales tax.

The merchant account software connected to the site authorizes the credit card purchase. Ideally, the confirmation occurs while the consumer is still online. The consumer receives an order number to reference this purchase.

The consumer receives an e-mail thanking them for the order. The e-mail contains their name, address, order number, products ordered, total for the sale, and an estimated ship date. Ship dates are calculated based on the processing time at the fulfillment house, plus an estimated package carrier delivery time. Generally, the fulfillment house ships the same day the order arrives, and it is centrally located. Four to five days are added for delivery.

For the gift/special order transactions in the retail stores, the consumer provides their ship-to information to the store associate who keys it into the point-of-sale device (cash register).

Order Placement – Fulfillment House

The fulfillment house receives purchase orders from various entities; all are transmitted using a UCC VICS EDI 850 Purchase Order. Store orders come from the retailers. Web orders come from the site owner, which may be the manufacturer or a site specializing in the manufacturer's product category.

One UCC VICS EDI 850 Purchase Order is sent for each consumer ship-to address. A UCC VICS EDI 850 Purchase Order may contain multiple items going to the same consumer address. The consumer may want to have the product shipped to their home address, work address or, if ordered from a retail store, to the store for pick-up.

EDI is also used for UCC VICS EDI 860 Purchase Order Changes, UCC VICS EDI 869 Purchase Order Inquiries, and UCC VICS EDI 870 Purchase Order Status Reports.

The fulfillment house follows various rules for partial shipments of orders. Several retail stores permit shipping partial orders at the line level. That is, if a consumer orders multiples of the same item, they must all ship at the same time. However, if they order some of item A, and some of item B, the fulfillment house can ship all of item A, while placing item B on backorder.

Several of the "e-tail" web sites have rules regarding families of products. For example, if item A is the main product and item B is an accessory to item A, the fulfillment house may not ship B without A. They may ship the main product and place the accessory on back order.

Shipment Confirmation/Payment Reconciliation

The fulfillment house prints the shipping label and pack list according to separate rules for each retailer and web site owner, and then ships the product to the consumer. The pack list contains instructions for returning the product.

If the fulfillment house has trouble filling the order, it submits a UCC VICS EDI 870 Order Status Report detailing the problem.

If the fulfillment house does not send an invoice (containing shipping information) by the expected ship date communicated on the purchase order, the retailer or web site owner sends a UCC VICS EDI 869 Purchase Order Inquiry to the fulfillment house asking for order status. The fulfillment house responds with a UCC VICS EDI 870 Order Status Report if the order is not shipped, giving the revised, expected ship date (an e-mail or postcard informs the consumer). This occurs on a very small percentage of the orders.

Once shipped, the fulfillment house sends a UCC VICS EDI 810 Invoice to the original sender of the consumer purchase order. The UCC VICS EDI 810 Invoice contains shipping and handling charges, plus the package carrier's tracking number.

Customer Service

Some web sites send an e-mail to the consumer saying the order was shipped. The e-mail also provides the package tracking number, and a URL reference for the package carrier's web site, where the consumer can follow the tracking number until delivery. The retailers and the other web sites provide toll free customer service lines to answer delivery questions. Their customer service systems are populated with the shipping data from the invoices. Two of the land-based retailers still require UCC VICS EDI 856 Ship Notices for their customer service systems.

Returns

In all cases, the returns go to the fulfillment house. Returns may arrive as non-deliverable or refused orders. In that case, they have not been opened and have the original shipping label, usually, intact. The fulfillment house notifies the web site or the retailer via the UCC VICS EDI 180 Returns Authorization transaction set, or by fax, depending on the capability of the receiver of the information. The consumer is credited for the return on his/her credit card and the product, if undamaged, returns to inventory. The addition of that item in inventory is communicated to the manufacturer via the UCC VICS EDI 852 EDI Product Activity Report.

Trouble Spots/Unresolved Issues

Returns provide the biggest challenge. When a consumer has opened the carton and returned the item because of size, color, or other reasons, the return can come back to the fulfillment house in various conditions. The consumer rarely calls to ask for a return authorization number. They may fill out the back of the packing slip, indicating the reason for return and the disposition of the order (credit their account, send another color/size, order another item, etc.). In this case, the return is handled easily. The challenge arises when a consumer no longer has the original shipping carton or the pack slip/return form. Often, the fulfillment house receives a return with little information regarding who the consumer is or the product identification for the returned item. There are also a small percentage of items returned, which were not originally shipped from the fulfillment house. Handling these returns is labor intensive, and on average, it takes about twice as much time to handle a return as it does to handle the original order.

Proposed Future Enhancements

The fulfillment house and the manufacturer are working on system changes that allow more immediate inventory information to flow to the web site and to the retailer's systems, so that orders cannot be taken on out of stock goods. If the item is not in stock at the warehouse, it will not appear on the web site.

A Retailer's Direct to Consumer Partnership with a Supplier

Introduction

A retailer of home products and a supplier of children's playground equipment participate in a Direct to Consumer (D2C) agreement. The retailer opened in 1968 and today does approximately \$2B annual sales and has approximately 25,000 employees. It has a well developed catalog/mail order business which has been in operation for over 20 years and has provided much experience that applies to many of the direct to consumer and other e-commerce issues that we have implemented today. Direct to consumer shipments that are fulfilled by the supplier and shipped directly to the consumer began in 1990. Today, the retailer has approximately 20 partners that are part of D2C partnerships. The partnership with the swing set supplier in this case study was established in 1996.

Project Overview

This case study involves the purchase of a swing set that can be special ordered either in store, by phone, or on the Internet. This retailer does not stock this item because of the high-end price point and low turnover rate. The swing set is presented using a display model in the store, which widens the product assortment and increases sales. The swing set is shipped directly from the supplier to the consumer. Special considerations include the shipping method and the coordination of assembly service.

Trading Partner Requirements

This partnership requires a supplier that can allocate inventory to be held for special orders from the retailer. They must be able to send and/or receive UCC VICS EDI 850 Purchase Orders, UCC VICS EDI 860 Purchase Order Changes, UCC VICS EDI 810 Invoices, and UCC VICS EDI 856 Ship Notices. They must be able to process special order information included in these documents such as customer information and handling directions. Finally, they must be able to provide customer service to handle returns.

This partnership requires a third-party delivery service that can send and receive electronic information to facilitate the installation of the product if necessary.

Process Flow

Exchanging product information

Merchandisers/buyers meet regularly with the vendor community to review products and look for opportunities to increase sales. One way to increase sales is to provide special order products that will be offered for sale, but the inventory will be housed at the supplier and shipped directly to the consumer. Multiple swing sets are selected with the objective of servicing a consumer who wants the highest quality swing set with the most features where price is not a concern. The terms of the agreement, such as price and lead-time, are finalized by the merchant and the supplier and confirmed on the item setup paperwork. The supplier provides a sample of the item and the retailer creates all the images and marketing materials needed for selling.

Order Placement – Consumer to Retailer

A consumer visits their local retailer searching for a swing set. They want the highest quality swing set with the most features and they are not concerned about the price. Various models are present. The majority

of models are available on site. However, a few select models are labeled "special order only." The consumer selects a special order model, and the sales clerk begins the transaction.

At the register, the clerk scans the special order bar code sheet for the model. The POS displays the assembly price and requires the consumer to select if assembly is desired. In this example, the consumer wants assembly, so the system displays the assembly charge, which is calculated real time, based on the location of the assembly supplier and the delivery location. To simplify the shipping charges, this retailer uses calculated averages and includes this charge in the cost of the product. The estimated shipment date is calculated using the lead-time established for the item and displayed at the POS. Although it is provided to the consumer, the carrier will be required to coordinate the specific delivery date directly since the swing set cannot be delivered via small package and a person must be at home to accept delivery. In this example, the purchase is a gift from the grandparents and the consumer wants a gift card enclosed with the message "Happy Birthday. Love, Granny." This information, as well as the ship-to address and phone numbers, is entered into the system to provide to the supplier. The consumer's receipt is produced and provides a consumer inquiry/tracking number that can be used for any future inquiries. The customer is provided with the retailer's customer service phone number and is instructed to use it for future inquiries on status.

Order Placement – Retailer to Supplier, Retailer to Third-Party Service

The system creates two files. One is a UCC VICS EDI 850 Purchase Order during batch for the supplier that details the items ordered as well as gift card and ship-to information. A second file is created for real-time transmission that contains the assembly details such as item and ship-to data and then is transmitted to the assembly supplier. In addition, a UCC VICS EDI 850 Purchase Order file is transmitted to the Assembly Company to facilitate the turnaround of an electronic invoice.

Note: In this example, real time is not necessarily needed due to supplier shipping; however, this process can also be used when a consumer purchases a retailer stocked item that can be delivered and assembled within hours.

Customers may return to the store and modify the order during the open lead-time. If modifications are made, a UCC VICS EDI 860 Purchase Order Change is generated canceling the original order, and a new UCC VICS EDI 850 Purchase Order is created.

The Assembly Company contacts the consumer independently to verify receipt and schedule assembly.

Shipment Confirmation/Payment Reconciliation

The supplier ships the product and transmits a UCC VICS EDI 810 Invoice and a UCC VICS EDI 856 Ship Notice to the retailer. The ship notice contains the tracking numbers needed to track a shipment before delivery.

Customer Service

The consumer has the option to cancel the order before the ship date. If the customer cancels the order, Customer Service generates a UCC VICS EDI 860 Purchase Order Change to both the supplier and assembly companies.

Returns

When the product is delivered to the consumer, instructions on how to handle returns are included. When the product is shipped directly from the supplier, merchandise returns go to the supplier. However, for

customer service purposes, the retailer can accept returns at the store, which it then returns to the supplier. When a supplier receives a return, it issues a debit on its next invoice, which signals the retailer that a customer credit is required.

Trouble Spots/Unresolved Issues

In this partnership, the only trouble spot was discovered when the size and weight of the product exceeded the amount that standard small package carriers can handle. This required the supplier to locate carriers that can handle both large parcels and make residential deliveries.

Proposed Future Enhancements

We plan to enhance our systems to charge the customer based on the retailer's receipt of the ship notice. Secondly, we want to allow both Internet ordering and tracking of special order merchandise.

A Department Store's Direct to Consumer Program

Introduction

A well-established retailer with 311 department stores and Internet, Bridal and Mail/Phone order capabilities currently utilizes an EDI Direct to Consumer program with several of their tabletop vendors. Presently 13 vendors participate and have approximately 470 patterns available for Direct to Consumer (D2C) processing. Major benefits derived from this process include incremental sales, improved customer satisfaction, and increased efficiencies through the replacement of the division's manual vendor drop-ship programs. The retailer established a D2C program in May 1998.

Project Overview

EDI Direct to Vendor provides a method of automating existing vendor drop-ship programs. The process involves a reservation system, consumer credit applications, generation of EDI Purchase Orders, and use of EDI Advance Ship Notices.

Trading Partner Requirements

- GTIN (U.P.C.) capable.
- Receive UCC VICS EDI 850 Purchase Orders utilizing mapping version 4010.
- Transmit UCC VICS EDI 856 Ship Notice Manifest utilizing mapping version 4010.
- Transmit UCC VICS EDI 810 utilizing mapping version 4010.
- Ship the Purchase Order complete within 7 to 10 days of receiving the UCC VICS EDI 850 Purchase Order.
- Ship the Purchase Order via small package delivery carrier and provide package-level detail using the retailer's customer reservation number as the reference.
- Patterns to be included in the program are provided by the vendor on a computer disk.
- Enclose a Proposition 65 warning when required by California Law.
- Include the following information on the packing slip (all this data will be transmitted in the UCC VICS EDI 850 Purchase Order):
 - Purchaser name
 - Recipient name
 - Customer ship-to address
 - Gift message comments such as Greeting, Closing, and Signature data
 - Retailer's Selling Division and Store Name
 - Retailer's customer reservation number
 - Customer Service message and phone number

Note: Please see the example of the packing list and 4010 UCC VICS EDI 850 Mapping.

- Ability to use the retailer's customer reservation number as a reference in their delivery system. This number is used to assist with shipment tracking.
- If the vendor makes multiple shipments, the retailer should only be charged a one time handling charge.
- A system must be in place to communicate problems concerning merchandise or purchase orders.
- The vendor's handling fee charge must be known.
- Intentional substitutions are not allowed.
- EDI 810 Invoice including freight.

Sample Packing List

(Vendors name) Direct to Customer

Shipped by (Vendor's name) for Retailer's Store Name

Ship to: Customer Name

Customer Street Address

Customer City, State and Zip Code

Retailer's Customer Reservation Number

Name of Purchaser

Gift Card Message (i.e., Best Wishes, Love the Petersons)

Use Retailer's Customer Reservation Number when inquiring about your order.

If problems with this shipment occur, please call the Retailer's customer service number.

Process Flow

Exchanging Product Information

Action Point

1. Meet with vendor.
2. Inform division merchant of D2C program.
3. Determine D2C assortment (10 day ship window).
4. Supply U.P.C. of D2C assortment.
5. Upload U.P.C. information on system to indicate.
6. Develop/Revise D2C Reporting:
 - List of D2C POs
 - Vendor D2C "Report Card"
 - Vendor Order Summary Report
7. Revise Packing Slip Segments:
 - Division and Store Name
 - Retailer's Customer Reservation Number
 - Customer Service Phone Number
8. Develop Automatic ASN Close Out.
9. Revise Packing Slip.
10. Test 4010 Version of UCC VICS EDI:
 - Test incoming PO.
 - Convert information to packing slip.
 - Test outgoing ASN and Invoice.
11. Migrate to 4010 Version of UCC VICS EDI.
12. Repeat Tests in Live Region.
13. Ensure the use of Customer Reservation Number in Carrier System.
14. Develop Customer Service Procedures:
 - Short Ships
 - Damages
 - Customer Returns
 - POD Procedures
15. Store Associate Training.
16. Determine Start Up Date.

Responsible Party

Buyer, Systems Support
Division
Buyer; Vendor
Vendor
System Support D2C
Buyer; System Support

Systems Support

System Support
Vendor
System Support; Vendor

Vendor
System Support, Vendor
Support; Vendor System

Customer Service; Vendor

Division
All Parties

The vendor is contacted and U.P.C.'s that can be shipped directly to the customer within 7 to 10 working days are established and noted on the retailer's item file.

Order Placement

A customer visits the retailer's store and if a product is noted as D2C but is not available, a reservation is made. The customer receives a receipt for the reservation. However, the customer is not charged for the sale until the vendor delivers the merchandise.

The retailer uses a reservation system that is linked to in-store CRT's, point-of-sales registers and Internet selling. The reservation system is U.P.C. driven and relies on multi-phase fulfillment. If at the time of reservation, items are not available on hand but are flagged in the retailer's item file as D2C, the reservation and other pertinent data is used to create a UCC VICS EDI 850 Purchase Order. The Purchase Order is then final approved and transmitted to the vendor. When the merchandise is shipped to the recipient, the vendor transmits a UCC VICS EDI 856 ASN to a mailbox specified by the retailer. Upon receipt of the ASN, the retailer will match the receipt for the Purchase Order to the reservation and close-out the shipment. This will in turn charge the customer.

The vendor may partial ship a purchase order if the 7 to 10 day turn time requirement is met.

Customer Service and Returns

All claims made by the customer are handled directly by the retailer.

If an order is deemed to be undeliverable, the vendor must automatically issue a credit to the retailer.

If requested, the vendor is responsible for providing Proof of Delivery.

If Proof of Delivery is not provided, the vendor will replace the merchandise at no cost to the retailer or the customer. If this condition is not met, the retailer will issue a chargeback to the vendor.

If a customer contacts the retailer's Customer Service Group stating a short shipment against the packing list, the retailer will contact the vendor and request that a replacement be shipped to the customer at no cost and no retail.

If a customer contacts the retailer's Customer Service Group stating that the wrong merchandise was received against the packing list, a call tag will be issued for return to the retailer and the merchandise will be debited back to the vendor. The retailer will credit the customer and contact the vendor to request that a replacement be shipped to the customer at the original cost and retail.

If a customer contacts the retailer's Customer Service Group stating that the merchandise is damaged or defective, a call tag will be issued for return to the retailer and the merchandise will be debited back to the vendor. The retailer will credit the customer and contact the vendor to request that a replacement be shipped to the customer at the original cost and retail.

Consumer cancellations and changes may only be done on the same day the reservation is entered. After the original date of the reservation, the consumer can opt to refuse the package upon receipt, return the package to the nearest Retail store, or contact the retailer's Customer Service Group to issue a call tag to pick up the merchandise for a return credit.

Trouble Spots/Unresolved Issues

Smaller vendors are not EDI compatible, which presents a problem. Also, one vendor had to be dropped from the D2C program for not living up to the agreed upon shipping requirements. Another trouble spot involves returns and refused deliveries because a cumbersome, manual return process is used. Finally, D2C vendors do not offer gift wrap options.

Proposed Future Enhancements

We want to implement a system that enables D2C vendors to gift wrap purchases. Also, we want to develop an expedient, efficient system to control refused shipments and merchandise returns.

A Manufacturer's Relationship with a Retailer in a Direct to Consumer Program

Introduction

A large manufacturer of tabletop and giftware products agreed to work with one of the largest domestic retailers in a new Direct to Consumer (D2C) program.

Project Overview

Both trading partners agreed that the ultimate success of this project would be measured based upon the degree of satisfaction enjoyed by the customer. Several issues were viewed as critical to achieving a positive customer experience.

- Items offered for sale would be limited to a core assortment. Only those products, which were consistently available for immediate shipment, were included.
- Because tabletop products are often purchased as gifts, it was necessary to provide a mechanism for conveying a gift message.
- These orders would have to be flagged by both the retailer and the vendor for high priority processing. This would be necessary to assure that the original credit hold (for the anticipated amount of product plus shipping and handling) would be limited in duration. It would also help to assure that the original authorization did not expire before the product was shipped.
- Shipment tracking information would be readily available to both retailer and vendor.

Trading Partner Requirements

- Orders must be sent using version 4010 or higher of UCC VICS EDI.
- "Ship-To" information must be provided in the N1 through N4 looping structure.
- The BEG02 data element should be valued with DS. (This is an ANSI code value not supported by VICS in version 4010.)
- Gift messages must be communicated using both the N901 and MSG segments.
- If the MSG segment contains a gift message, the N901 must contain a descriptive qualifier. Since VICS does not support a code value other than AH (agreement number), the ANSI code value of SH (sender defined clause) is recommended.
- Supplemental text information (such as a store name) must be sent using additional N9/MSG loops with ANSI qualifiers. For this project, 8M (originating company identifier, a.k.a. store name) and VW (standard, used for help message) are being used.
- The delivery contact should be in the PER segment.
- A direct connection was established with the small package carrier in order to transmit package detail. This connection was considered essential because it permits the vendor to transmit additional data elements that relate to the shipment. For example, both a purchase order number and an order reference number can be sent. This information, along with the tracking number, can provide at least three different ways of finding a missing shipment.

- The ship notices must contain the package tracking number.

Process Flow

1. The retailer submits a UCC VICS EDI 850 Purchase Order. It is retrieved from the network mailbox, usually by 3:00 AM EST.
2. The order is edited and, assuming it contains no errors will allocate by 6:00 AM EST.
3. Invoicing is held until after 8:00 PM EST to take advantage of lower network costs.

Shipping Confirmation/Payment Reconciliation

When the manufacturer ships the order to the customer, an ASN transmission is sent to the retailer to "confirm" the shipment. As with invoices, transmissions are delayed until after 8:00 PM EST. The manufacturer sends package-level detail to UPS as a single file at about 11:00 PM EST which enables the retailer to track the shipment for customer service needs.

Trouble Spots/Unresolved Issues

The small package carrier may find it impossible to complete the delivery because the purchaser provided a bad address or, because the gift recipient refused the delivery. When this situation occurs, the shipment information is not always referred back to the retailer in a timely manner.

Proposed Future Enhancements

The small package carrier has indicated their willingness to send the vendor an unsolicited UCC VICS EDI 214 for any shipment that could not be delivered. The vendor will monitor these messages daily and report back to the retailer within 24 hours of receipt.

Appendix B: Resource List

American Trucking Association

2200 Mill Road

Alexandria, VA 22314-4677

(703) 838-1721

(703) 836-0751 fax

National Retail Federation

325 7th Street, NW

Suite 1000

Washington, DC 20004

(202) 783-7971

(800) 673-4692

(202) 737-2849 fax

<http://www.nrf.com>

Uniform Code Council

Princeton Pike Corporate Center

1009 Lenox Drive, Suite 202-W

Lawrenceville, NJ 08648

(609) 620-0200

(609) 620-1200 fax

<http://www.uc-council.org>

VICS

Princeton Pike Corporate Center

1009 Lenox Drive, Suite 202-W

Lawrenceville, NJ 08648

(609) 620-4590

(609) 620-1201 fax

<http://www.vics.org>