

White Paper

Supply Chain EDI

Strong ROI Potential for Mid-Sized Companies
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Abstract

This white paper should educate the reader on the exciting opportunities and benefits of Supply Chain EDI. Topics include business benefits, a real world business example and how to overcome the challenges surrounding an EDI Supply Chain Implementation.

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Supply Chain EDI *

Strong ROI Potential for Mid-Sized Companies

For most mid-sized companies, transacting business with customers, suppliers and related business divisions is more costly and inefficient than it should be. Despite the hype surrounding new e-business technologies and supply-chain initiatives, most mid-sized companies still transact business in the same inefficient manner as 20 years ago – paper documents are still the dominate medium for business transactions. To most companies, electronic business documents mean emails or faxes - methods that provide no efficiency benefit to the recipient and relatively little benefit to the sender (other than savings in postage and handling). These “non-integrated” documents must be entered manually into the recipient’s accounting system (also referred to as an ERP - Enterprise Resource Planning System). For the purposes of this discussion, references to “electronic documents” are structured data files that a computer can interpret and automatically integrate into a business application, e.g. a customer purchase order posted into a firm’s internal sales order system.

The goal of this white paper is to educate the reader on the exciting opportunities and benefits of Supply Chain EDI (Electronic Data Interchange). Topics in this paper include the potential savings from Supply Chain EDI, how to overcome the challenges of implementing electronic document exchange, an example of how one U.S. Corporation drives down operating costs using Supply Chain EDI, and a FAQ section about supply chain automation systems.

Opportunities and Benefits of Supply Chain Integration

Huge advances in efficiency can be realized by electronically integrating the business transactions between a firm and its suppliers and customers. Proven results from these initiatives include reduction in overhead, elimination of preventable errors, and simplified business process execution. Companies like General Motors and Walmart save hundreds of millions of dollars annually through their Supply Chain EDI initiatives.

Many mid-market companies are pursuing lean manufacturing initiatives, initiatives seeking reductions in “non-value” added costs; those companies take a close look at Supply Chain EDI solutions.

Electronic Document Exchange Challenges for Mid-sized Companies

The biggest challenges for companies looking to integrate the supply chain electronically include the lack of electronic exchange capability on the part of suppliers/customers, confusion over standards, the lack of integrated solutions that works with the Company’s in-house software applications, and overall investment expense. However, a properly devised Supply Chain EDI solution provides the means to overcome these challenges.

Capabilities - EDI capabilities at North American businesses are surprisingly widespread as more than 1 million companies already use some form of EDI compliance systems. Those that do not can utilize low cost systems that communicate with the firm’s internal supply chain solution.

Standards - One of the emerging technologies in the e-business realm, XML (extensible markup language), has caused some confusion over standards. XML is used in many business applications and e-commerce websites but it suffers from a lack of standards. Most XML documents are custom integrations into individual business systems and the exchange of a single business document such as an invoice transaction between a company and a single customer can be an extensive integration project.

Supply Chain EDI solutions, on the other hand, are built on document standards as devised by ANSI - American National Standards Institute. ANSI’s efforts have solved the standards dilemma by providing very precise and universally accepted standards for business document exchange.

Finally, Supply Chain Automation using EDI is only practical if the solution provides seamless integration between the Company's internal business systems and the outside world – both customers and suppliers. The process also needs to be done in a way that is both secure and virtually free of input errors.

E-Commerce Confusion and Supply Chain Automation

Some technology companies are touting products that improve supply chain efficiency, however few solutions do little in the way of electronic integration of the business transactions.

For example, a Business to Business (B2B) website does not provide true supply chain automation. While useful for generating new business and improved collaboration, these sites provide little benefit to the overall supply chain efficiency equation. While most business customers will welcome the ability to browse products and place one-time orders on a website, repeat orders represent duplicate entry in virtually every situation – i.e. orders entered through the web must also be entered into internal purchasing applications. As a result, customers will usually mail, email or fax orders directly from their purchase order system rather than deal with duplicate entry.

Ideally companies should transmit standardized electronic documents that can be easily integrated into their vendors', customers' and their own internal systems – even if they use different applications. Such transactions should include the inbound/outbound purchase order, the inbound/outbound order acknowledgement, inbound/outbound invoice, payments and, most importantly, the Advanced Ship Notice (ASN)! ASN functionality has revolutionized business operations at many businesses and most Fortune 500 companies either use ASN solutions or have plans to do so.

With advance ship notice functionality, all of the shipment information regarding an order(s) is transmitted at the time the order leaves the facility. This information includes the time of shipment, the transit method and the pack information down to the pallet and carton.

How Target Drives Down Operating Costs Using Supply Chain EDI

When Target (a Fortune 500 retailer) needs to replenish stock, purchase orders are created in Target's internal purchasing application and, simultaneously, electronic purchase order "documents" are placed in a secure electronic mailbox (accessible only by the supplier). This electronic purchase order contains every piece of information needed to pack, label and ship the order.

Because Target's purchase orders are created in a standardized format (the same format as Sears, et al.) the supplier can integrate the Target purchase order (or other retailer) into their sales order system at the "press of a key". This capability is important to the supplier since a single PO can involve shipments to hundreds of stores. Suppliers without integration capability manually enter the purchase orders from a printed document (like a fax) and perform all of the subsequent EDI steps (such as invoicing) by hand in a standalone EDI system.

Once a PO is received, the supplier must quickly send an electronic acknowledgement back to Target confirming that the purchase order receipt was successful. If the acknowledgement is not received, Target will generate a second communication to the supplier stating the acknowledgement has not been received. If the confirmation is not received in a defined time window, the purchase order is cancelled and another generated to an alternative supplier. In this manner, Target proactively avoids miscommunications and resolves impending stock-outs before they occur.

At the time of shipment, Target, like many other retailers, requires very detailed information regarding the shipment including how the goods are packed down to the pallet and carton level. The shipment and packing information has to be carefully recorded and transmitted to Target within hours of shipment. This business document is called an Advance Ship Notice and provides enormous benefits to Target. Target not only gains advanced visibility of the inbound receipt by distribution center and by store but each box and pallet has a special bar-coded shipping labels that corresponds to the detailed ASN.

This special shipping label provides a big payoff when goods are received - the receipt of goods at Target is incredibly efficient. By scanning a single ASN address label the distribution center is provided all of

the information necessary to know – 1) what products have arrived, 2) from whom the goods have arrived and 3) what to do with the goods – i.e. where and when to forward the goods to the stores. There is no need to read manifests, unpack goods or enter receiving transactions etc.

The shipment of goods from Target's distribution warehouses is equally efficient, whether the goods are reshipped on the original pallets or broken down into carton shipments. If the order is designated for redistribution as carton shipments, the bar-coded shipping labels (which are affixed by the supplier) make the shipping process very simple. One scan of the shipping label leaving the distribution warehouse shows the goods in transit and the label scan at the store receives the goods and completes the fulfillment process. Some retailers even transmit detailed sales information and stock positions back to the supplier via an EDI document thus providing valuable sales and planning information!

In conclusion, Target's EDI Supply Chain automation initiatives have greatly contributed to their enormous profitability and success. The same success can be realized by mid-sized firms through the implementation of an affordable EDI supply chain solution like Vantage Point EDI.

Frequently asked Questions about Supply Chain EDI

Will my current accounting system (ERP System) be able to handle EDI?

Most systems handle inbound Purchase Orders from customers but one company - Data Masons Software – offers a solution that provides everything required to institute an EDI Supply Chain network (all business documents handled inbound and outbound). Included in their offering is an EDI integrator, a trading partner network with secure mail boxes, a supplier compliance application and, of course, a comprehensive customer compliance solution.

Outsourcing impact - I contract manufacture and import products from overseas and their systems are very rudimentary – can I still implement EDI for my Supply Chain?

Supply Chain EDI is perfect for these scenarios; miscommunication and incompatible business systems create many supply chain errors. Supply Chain EDI provides a uniform manner to conduct business overseas. There are many offerings that enable suppliers to fulfill EDI compliance using web forms and Vantage Point provides a very low cost supplier compliance application as well.

I use public warehouses to ship goods – they already have EDI – why do I need it?

Most large public warehouses can send EDI documents to your customers but there are also standardized EDI transaction sets to advise public warehouses of incoming goods and outbound shipments. Assuming your business controls the order intake, shipment scheduling and invoicing tasks, you still need to have an EDI solution.

Should I invest in XML technology rather than EDI technology?

XML technology and EDI technology is both similar and compatible with each other. EDI transactions files are very compact data files and, as a result, hard to read in raw form. A translator is often needed to display or print the data in a meaningful way. XML data streams are more readable and offer the ability to devise new standards. Unfortunately there are no universal standards in XML and, as a result, each trading partner integration project can be very expensive.

Virtually all business accounting (ERP) systems that are XML capable are also EDI capable. However many system that are EDI capable are **not** XML capable.

Is EDI going away?

Adoption of EDI standards by businesses worldwide continues to grow and the file format standards are already extremely compact, fast, and designed to communicate complex business information. There is no alternative technology that can supplant these benefits.

Can EDI be converted into XML or XML to EDI?

Yes, a product like Vantage Point EDI from Data Masons Software performs EDI to XML to and XML to EDI translations.

Do EDI standards exist outside North America?

Yes, however the standards are somewhat different. Nevertheless, the principles remain the same and a European firm can transact with a North American company when utilizing the proper systems.

What are the standards?

In North America, the standard was devised by the American National Standards Institute (ANSI) and is the most widely used standard – it is currently referred to as ANSI x.12 standard. In Europe, EDIFACT is the primary standard and it bears many similarities to the ANSI x.12 standard. These standards have evolved over a period of 30 years and can handle both simple transactions and more robust business transactions as well.

Common Misconceptions about Supply Chain EDI

Mid-sized businesses have been slow to adopt supply chain technologies due to misconceptions and, up until the release of Vantage Point EDI Supply Chain, the lack of affordable, integrated products. The misconceptions are as follows:

1. EDI has negative connotations for many companies

For companies that are “mandated” to transact using EDI (usually with large customers like Walmart or Ford), EDI is a confusing and expensive undertaking. Expensive compliance systems, huge fines for compliance failures, mailbox rental fees and transaction fees are some of common images that arise when those 3 letters – EDI – are mentioned. With the advent of affordable compliance applications and sound operating procedures, EDI compliance mandates can help a company run much leaner.

2. My accounting system (ERP) doesn't offer a supply chain EDI system

Actually, there are no mid-sized ERP solutions that offer a full EDI supply chain offering. Most only address the “customer-side” EDI requirements of their customers (e.g. Kroger) if they provide EDI functionality at all. Products like Vantage Point EDI from Data Mason Software integrate with most leading accounting systems and can be adapted to virtually any other accounting system.

3. Implementing an EDI Supply Chain system will cost hundreds of thousands or millions of dollars

If a Company wants to implement an EDI trading partner network solution for customers through host companies like IBM, GXS and Sterling Commerce, they will likely spend millions over the course of time. Large retailers like JC Penney and Home Depot can justify this investment but smaller companies cannot. Vantage Point EDI Supply Chain Edition costs only thousands of dollars to purchase and deploy.

4. My Suppliers and customers won't do it

Today, many companies are EDI capable – this means they are ready to transact with your business electronically. But, not all companies possess this capability. Fortunately, Vantage Point EDI offers a low cost option where your supplier can become EDI capable without imposing an undue burden on the supplier.

Customers, on the other hand, may not be able or willing to take advantage of your EDI capability (but remember it saves them money too). Nevertheless, if your firm has been requested to transact business via EDI you can complete your electronic supply chain integration with Vantage Point EDI!

The final word is that EDI Supply Chain Automation can solve of the largest inefficiencies facing mid-sized companies and can deliver huge ROI. With established standards and availability of an affordable business solution – Vantage Point EDI - the time is right to capitalize on this exciting technology opportunity.

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- * EDI stands for Electronic Data Interchange which represents a standardized format for companies to transmit business documents and transactions electronically. EDI has helped companies streamline business transactions since the 1960's is the recognized business standard for business document exchange. Trillions of dollars of business is transacted annually using EDI technology.

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Vantage Point EDI Supply Chain Edition provides everything necessary to integrate the entire supply chain electronically. Included is an FTP trading partner network with mailboxes, a translator, preconfigured maps, trading partner kits, an application connector to your internal business systems and all of the other required components.

To learn more about our products please visit Data Masons Software at:

http://www.datamasons.com/edi_asn_supply_chain_edi.htm

ABOUT DATA MASONS SOFTWARE, LLC.

Data Masons helps companies meet their EDI compliance requirements efficiently and affordably. Since 1992, Data Masons has created software that makes EDI compliance an operating advantage rather than a nuisance based on the concept that properly designed EDI software can make any business more efficient. The Company's flagship Product – Vantage Point EDI™ - offers a complete EDI supply chain solution that enables companies to transact with both customers and suppliers via EDI and XML data transmissions.