



EDI 101

Learn the Basics of
Electronic Data Interchange



A Publication of the EDI Alliance and GraceBlood LLC

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EDI 101: Chapter 1

What, Why & How Much?



What is EDI?

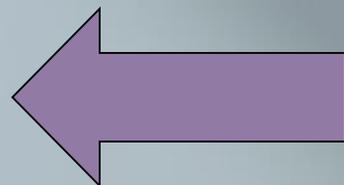
Electronic Data Interchange (EDI) is the computer-to-computer exchange of business data in standard formats.

Information is organized

according to a specified format agreed to by both parties, allowing a "hands-off" computer transaction that requires no rekeying on either end if you integrate your EDI with your order processing system.

All information contained in an EDI transaction set is, for the most part, the same as on a conventionally printed document. No EDI education is complete without also mentioning there are different standards depending where you are in the world such as X12 (US), EDIFACT (Europe) and Tradacoms (UK).

What?



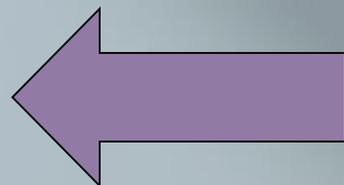
Why Should I do EDI?



The main reason why most people start doing EDI is because one or more of their customers or suppliers (Trading Partners) pressure them to become EDI compliant. However, the good news is that there are many immediate and long term benefits to doing EDI. One of which is customer service improvement by strengthening the link with your Trading Partners.

Also, implementing EDI means reduced errors, improved error detection, increased efficiency and increased information integrity. Furthermore, EDI means less manual data entry which leads to less clerical work. This in turns results in more productivity, faster response time and increased competitiveness within the marketplace.

Why?

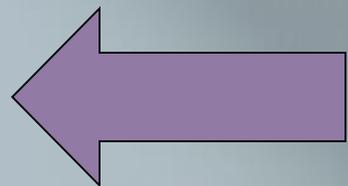


How Much does EDI Cost?

The cost of EDI largely depends on your requirements and the requirements of your Trading Partners. If you are doing business with one Trading Partner and have a limited number of transactions, then a small EDI investment will suffice.

These types of solutions can include a [Web-based](#) solution or [Managed Services](#) and in many cases the your ongoing investment will be no more than the average cell phone bill. However, if you have a technical staff and resources to acquire and maintain hardware, then you may want to consider a bigger EDI investment and purchase on-premise [translation](#) software.

How Much?





EDI 101: Chapter 2

EDI Options



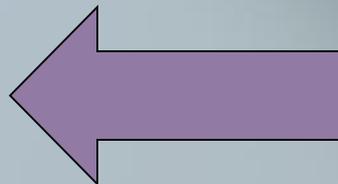
Software

EDI software typically consists of two components: a

[data transformation](#) tool and a [communication vehicle](#) to send and receive data securely. Most of the EDI translation software on the market today can handle data transformation for large, multinational organizations with thousands of electronically enabled trading partners as well as small companies just beginning an e-Commerce program.

The software may have the ability to work with multiple data formats as well as the standard EDI data which will allow you to grow your community by trading with non-e-Commerce enabled partners as well. The software should include the EDI standards used in the United States (ANSI X12) as well as the standards used in Europe (EDIFACT).

Option 1



Web EDI

Web EDI is one of the most cost effective and simple ways for small to medium sized companies to become EDI compliant. [Web-based EDI](#) systems generally have a user friendly interface and are accessible via any computer with an Internet connection, eliminating the need for expensive EDI software. Also, you can be reasonably certain that most Web-based systems will meet your Trading Partner's requirements, whatever they are.

**Looking for a Web EDI Solution?
Click Here Now**

These types of solutions have been expanded in recent years and are now tailored to today's business needs. If you

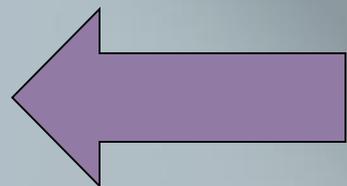


Web EDI (continued)

need GS1-128 bar code labels, most Web EDI solutions can generate them for you. If you need AS2 capability, most Web EDI solutions can provide that. Some can even integrate with your order processing system, saving you valuable time, not to mention the expense of costly data entry errors.

One of the biggest advantages of Web-based EDI is that it requires a relatively low investment which makes being EDI capable more accessible for the small business. The cost structure for these types of solutions is varied. Some will require a higher upfront investment and a low or even no monthly cost. Others might ask for a small upfront investment but a higher monthly cost. Your cost will likely depend on how many Trading Partners you have and what your transaction volume is. Generally speaking, more bells and whistles means a larger investment.

Option 2



Managed Services



For companies interested in outsourcing their EDI,

Managed Services is an option for those companies that have no technical staff or those that simply want it handled for them. Every aspect of the EDI process is managed and monitored, from developing the mapping according to your trading partner's specifications to managing communications between you and your Trading Partner. Testing of your documents is performed and all of your transactions are monitored once you are live with your Trading Partners.

Managed Services can pick up where Web EDI leaves off, and it can offer an easy and relatively inexpensive entry point to EDI integration. In order to choose the right solution, you must first decide what your business goals are. Until you decide what your long term needs are, there is no point in even interviewing EDI providers yet. Once your needs are



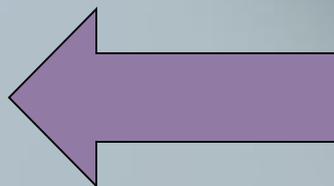
Managed Services (continued)

settled on, it's just a matter of finding a solution that fits.

There are many types of hosted EDI solutions and they all offer different features. Some solutions will offer a Web portal to view your data. Others will work invisibly, but offer email alerts to notify you of a potential problem. Some will even act as a stepping stone, and can be migrated to an in-house EDI software solution saving you thousands of dollars once you reach that level.

Managed Services, cloud services, SaaS (Software as a Service)...these buzz words of the moment can be the answer you're looking for if you've outgrown that Web EDI solution that you've had for 10 years. Just make sure you know what you're getting and you have realistic expectations. EDI providers are not magicians but most reputable ones will offer you an efficient solution OR they will point refer you to the right partner.

Option 3



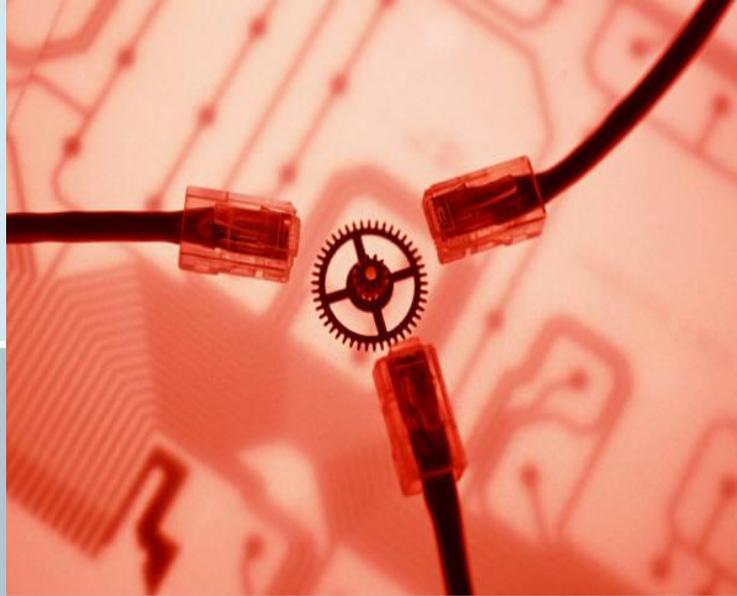


EDI 101: Chapter 3

Special Considerations



EDI Integration



The decision to **integrate** your EDI with your order

processing is a big step toward streamlining and enhancing your business processes. Any company processing more than 20 transactions per day should consider integration. There are certain steps that should be taken when looking for integration.

The first thing to do is find out what sort of import/export and/or EDI capability your order processing system has...flat files, database, XML, built-in EDI module. A full scale ERP system is going to have more flexibility than pop-in-a-CD accounting software. Is it perhaps time to upgrade your ERP system to the latest version? As long as you're considering making the investment to integrate, you might want to reevaluate your accounting system. Is it going to meet your long term business goals?

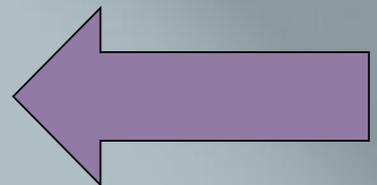
Next, find out which EDI software packages are



EDI Integration (continued)

compatible with your specific file formats and what formats your Trading Partners are requesting. Other questions include...how much manual manipulation do you want to do? Do you need to purchase extra modules and/or integration bridges? Do you need live failover for disaster recovery or scale out processing to handle peak processing issues on your server? How about a testing and development environment? How many Trading Partners do you expect to bring on board? How many maps? Which documents do you need to send or receive? Which documents need to be integrated? Do you want to do the [mapping](#) or do you want your provider or a consultant to do it? Will you communicate via a VAN (Value Added Network) service and/or AS2? These are all critical questions to ask yourself if you want a successful integration project.

Optimization

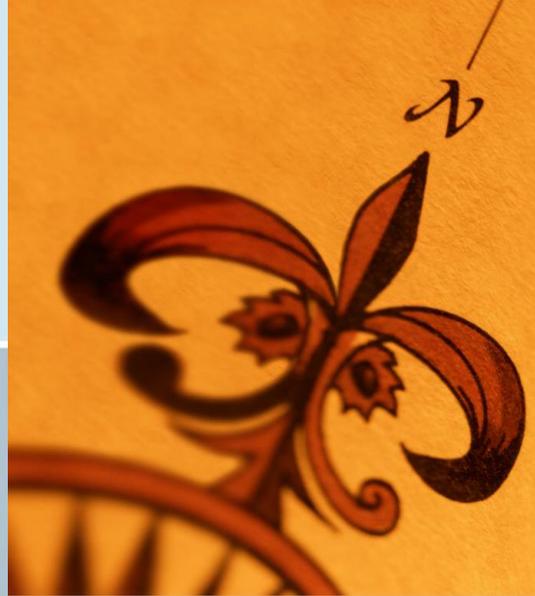


Mapping

EDI mapping is only as easy as the EDI mapping tools you are using. Some EDI mapping software packages offer templates that you can download and only require that certain fields be filled in. Having an any-to-any mapper can offer the flexibility that limited mappers fall short on. An any-to-any mapper can handle multiple formats (flat files, spreadsheets, etc.), not just EDI.

Doing your own [mapping](#) often also means that you will manage all aspects of your EDI operations from exceptions to routine maintenance. This usually requires at least one full-time position who would likely be on call after 5 o'clock. Do you have the staff you can dedicate to EDI?

In any case, it would be advisable to take courses or get extensive training on your mapping tool. Mapping is very detailed and specific so even a simple oversight can cause an error, such as the inclusion of extraneous characters, resulting in chargebacks to your company.

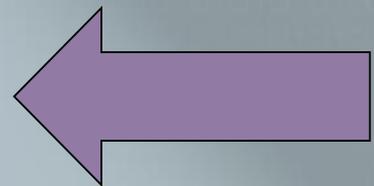


Mapping (continued)

Assume that from time to time you will need some outside help. Even the most proficient EDI professionals using the simplest EDI mapping tools can come up against something that stumps them. That's when it's time to bring in a fresh pair of eyes to help.

Once your Trading Partners have been onboarded, and maps are tested and in production, only daily monitoring of the system should be needed. The monitoring needed can usually be performed by someone without EDI mapping skills. If you have learned mapping skills they now may not be required again until a new Trading Partner or document is added.

Execution



Communication



VAN - A VAN (Value-Added-Network) is a service that acts as a virtual mailbox where your data is picked up by your Trading Partners and you retrieve the data they sent you. There are several ways to connect your computer to a VAN. Communication methods commonly utilized are HTTP, secure FTP and direct connection via AS2. In traditional EDI, VAN communication is the most commonly used method to get your data to your Trading Partners.

The best VANs offer at least 30 days archiving and excellent reporting capabilities. Many have upgrade features such as extended archiving and carbon copy service. EDI VAN providers are plentiful so be sure to consider several possibilities to find the right fit.

AS2 - Another method of EDI communication is AS2 (Applicability Statement 2). AS2, which has become very popular in recent years, refers to a set of standards



Communication (continued)

for transmitting information securely over the Internet. By using digital certificates and encryption, both sender and recipient can ensure the information is secure. The AS2 software creates a digital envelope for data to be sent over the Internet using either HTTP or HTTPS protocol.

Furthermore, communicating your EDI data to your Trading Partners via AS2 creates a “point to point” connection. This “point to point” connection is sometimes required by retailers...in fact, AS2 communication has become almost synonymous with Walmart.

One of the biggest benefits of AS2 is that for companies that have large amounts of data being transmitted to a small number of Trading Partners, AS2 as a VAN alternative is often more cost effective than a traditional VAN. Most traditional VANs charge monthly based on your volume of data, whereas once you purchase AS2 software, your only cost is annual maintenance. Some EDI software packages even include AS2 capability as part of their communication

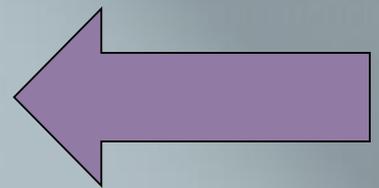


Communication (continued)

module. In those cases, the AS2 can even be used to transmit data TO a traditional VAN if needed. So for those companies using AS2, EDI communication is secure and economical.

Some of the drawbacks to using AS2 communication include the need to ensure that you are protected from malicious attacks. It's wise to remember that you are allowing information to come in from the Internet. The most typical method for ensuring that only data from trusted sources is received is through the use of a firewall which will filter the information according what rules are put in place. Another drawback is the need to manage digital certificates. Certificates expire and if you try to send data with expired certificates, your data may be rejected so it's important to stay on top of them.

Connection



Bar Code Labels



If your customer is requesting the Advance Ship Notice (ASN), chances are they will also ask you to provide GS1-128 bar code labels. The purpose of a GS1-128 label is to let your customer know what is in a carton. When the receiving department scans the carton label, it automatically refers back to the Advance Ship Notice they have already received, thus confirming receipt of the package, carton, pallet, etc. The information on these carton labels must match the data on the Advance Ship Notice.

Your EDI or order processing software may determine how you will create and print the GS1-128 label. You may have to purchase bar code software if that function is not part of your existing software. The investment for bar code software runs the gamut from very inexpensive to very expensive, depending on what sort of functionality you need. As with any software or hardware, the more

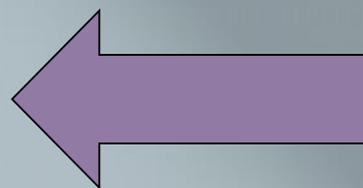


Bar Code Labels (continued)

sophisticated the technology, the bigger the investment. The software will allow you to import files that contain information used for the label. However, if you use a Web-based EDI solution, most will include the capability to generate GS1-128 labels. You will still need a printer to print them though.

This technology allows the supply chain to run much more smoothly by automating the receiving piece of the process. Where busy receiving docks used to be rampant with chaos, they are now run like well-oiled machines. Cartons are scanned and sent off to their appropriate warehouse destinations without even lifting a box cutter. This is just another example of how EDI and the accompanying technologies have improved business processes.

Production



Thank You

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