Simplify Your Shop Floor with EDI

By Langley Melendres
Senior Consultant
Global Shop Solutions

Global Shop
SOLUTIONS
ERP SOFTWARE
We simplify your manufacturing.™

Today's global manufacturing markets demand fast response times, lean shop floor operations, and quality in every part. To help meet these customer demands, growing numbers of manufacturers are turning to <u>electronic data Interchange (EDI)</u> to facilitate simplified and seamless digital communications with customers, vendors and other business partners.

A form of electronic commerce, EDI is the electronic exchange of business documents and data between two companies, called trading partners, using a common format that allows two different computer systems to talk to each other in a common language. In the manufacturing sector, trading partners can include customers, suppliers, vendors, and other companies you regularly exchange information with. Documentation can include sales orders, purchase orders, invoices and any other information required to manage the relationship.

Manufacturers that use EDI report improved efficiencies and simplification in many different areas, including:

1   Saving time with automatic sending and receiving of documents

2   Reducing expenses by eliminating the labor involved in faxing, emailing or mailing documents

3   Lowering administrative costs by eliminating manual data entry of purchase orders, sales orders and more

4   Improving accuracy by eliminating the errors that can occur with manual document exchanges

5   Customer accounts remain in balance without the need for time-consuming reconciliations

6   Faster response time for customers and other trading partners

7   Shop floor personnel and administrative staff always have the most up-to-date version of trading partner documents

EDI can also open the door to new customers, markets and opportunities, as many companies won't do business with companies that don't have EDI capabilities. Ultimately, EDI simplifies the relationship with your trading partners by allowing you to work together more efficiently and effectively.

Simplifying the Order Entry Process

For manufacturers, EDI is ideally suited for sending and receiving invoices, purchase orders, sales orders, shipping notices and other documentation related to a job. When the EDI system is linked to your company's ERP software, it saves time and money by automating the process of sending and receiving these and other documents, thereby simplifying your manufacturing.

By facilitating real-time transfer of data related to jobs and job requirements, EDI eliminates the need to manually input data from customers, as sales orders and purchase orders are automatically entered into your ERP system. This is especially helpful when customers send a file containing multiple purchase orders, or change orders to due dates and quantities that otherwise would have to be manually updated. In return, you can automatically send your customers shipping notices, invoices and other information related to the status of a job – all without having to print, fax, email or mail the documents.

EDI also enables manufacturers to meet customer needs that otherwise would not be possible. For example, one of our customers receives an EDI file every morning containing an average of 80 orders from their top customer, and then ships those orders the same day. Without EDI, this company would have to manually enter each order – a time-consuming process that would require significant labor hours. Even with a large staff of data entry personnel it would be difficult, if not impossible, to process the orders in time for same-day shipment. With EDI, the orders are automatically processed in their system so the company can immediately begin production.

SALES ORDERS, PURCHASE ORDERS AND CHANGE ORDERS ARE FUNNELED INTO THE ERP SYSTEM.

How EDI Works

When trading partners want to electronically exchange information, EDI uses a series of translation and mapping processes that converts the data to and from a format that each company's computer system can recognize. When both partners have EDI implemented and integrated on their systems, it provides a fast, efficient, simple, automated method for exchanging information.

In essence, EDI works much like a post office. Suppose a customer sends you a purchase order. The EDI software reads the file and converts it into a language that your system understands, and then routes the file to the appropriate location where it is automatically entered into your ERP system. The same process occurs when you send a shipping notice or invoice to a customer. You send the file, and the customer's EDI reads and translates it into a language their system can understand. Then it routes it to the appropriate place in the system.

In the manufacturing environment, EDI offers the biggest return on investment when integrated with a company's ERP system. However, if the company doesn't use ERP, or chooses not to integrate the two systems, EDI can also work with standalone software programs such as Quickbooks or other accounting programs. This is often the case when companies have a small number of trading partners or a limited amount of information to exchange electronically.

IN THE MANUFACTURING ENVIRONMENT, EDI OFFERS THE BIGGEST RETURN ON INVESTMENT WHEN INTEGRATED WITH A COMPANY'S ERP SYSTEM.

Two Ways to Implement EDI

Cleo is an EDI provider to companies of all sizes and industries, from small businesses to medium-sized corporations, all the way up to multi-billion-dollar enterprises. Given its many decades of experience implementing EDI solutions for its varied customers, Cleo identifies two basic approaches for implementing EDI in a manufacturing business. The "self-serve" approach involves buying and installing the software and managing the EDI process internally. The other turns the entire process over to an outsourced vendor that specializes in EDI technology and services. Both approaches offer their own advantages and disadvantages.

SELF-SERVE EDI

Self-serve EDI usually requires a larger upfront investment, as you have to buy the software, create the maps to translate the data, and hire someone (or develop internally) to manage the process. It typically requires a VAN (Value Added Network) subscription for communications with trading partners. It also requires a steep learning curve, as EDI is highly sophisticated software that you do not just "plug and play." And the more trading partners you have to exchange information with, the larger and more complex the mapping process in order to translate the data.

The primary advantage of managing EDI internally is that it gives you total control over the process. You own the software, which allows you to install and configure it for your specific needs. You are not dependent on an outside vendor for service or support. And once you have invested in the software and training, you do not pay any monthly EDI service fees required with an ongoing outside service. It does require you to back up the system so you can recover data if it gets lost. But most companies already have systems in place for backing up critical system information.

OUTSOURCED EDI SERVICE

The primary advantage of using an outsourced EDI service is that you get a complete EDI solution. The EDI provider performs all the installation, mapping and translation, and uses its own EDI software to manage the exchange of information with your trading partners. It also provides the minimal training your staff needs to learn how to use the EDI system, as well as ongoing service and support. If the EDI provider has experience with ERP systems, the time for full EDI implementation tends to be shorter due to preconfigured mapping to the ERP that eliminates much of the mapping work.

Upfront costs tend to be lower because you don't have to buy any software or hire new people, but you do pay a monthly service fee based on the number of EDI transactions performed each month. However, this fee is often offset by the fact that you do not have to maintain a staff of EDI analysts, as required with traditional EDI Software. Thus, labor costs are lower with the outsourcing option. And if you experience technical or service issues, the EDI solutions provider has experienced analysts to monitor and resolve them.

Evaluating EDI Vendors

An EDI vendor serves as your outsourced EDI department, so if you choose this route it is important to select a reliable vendor. Cleo recommends interviewing several vendors before making a decision, while paying special attention to three critical areas:

① **Infrastructure.** Make sure the vendor has a stable, redundant EDI infrastructure with a proven track record of reliable performance. "If the system goes down and you can't send or receive purchase orders, invoices and other critical documents, it can affect customer relationships and cash flow," says Cleo.

② **Personnel.** The best EDI vendors are staffed with experienced personnel who specialize in EDI technology and implementation. Also, look for vendors with a stable workforce. High employee turnover can be a sign of mismanagement or other issues that can affect your relationship with the vendor.

③ **Customer Support.** As with any software vendor, knowledgeable, fast, responsive technical support is critical. Talk to several of the vendors' customers to hear what they have to say about the quality of support they receive.

Most important, look for a vendor that has experience with your ERP system. If not, they have to start from square one, which extends their learning curve and can add additional cost to the process. If your vendor has pre-configured adaptors that tie into the ERP system you use, it can significantly simplify and reduce the time required to implement EDI in your company.

> " Once implemented, EDI has a significant impact on your entire production process," says Cleo. "So I tell manufacturers to approach it with the same level of attention and care as when they selected their ERP system. You're not just buying a product; you're buying a relationship that becomes an integral part of your business. "

Determining The Right EDI Approach

Identifying the right approach for your company depends on several factors:

- **How quickly you want to implement**
- **How many trading partners you exchange information with**
- **The level of IT sophistication and resources in your business**
- **Whether you want internal control or feel comfortable with outside specialists managing the process**
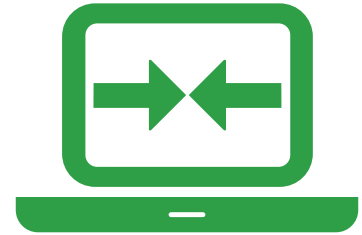
Keep in mind that you do not need an ERP system to use EDI, as it can connect to many different internal applications. You can also use the EDI software by itself, although this is less efficient as a long-term solution. For example, suppose a purchase order comes into your EDI. You can turn around the purchase order and create an invoice, ship notice, or other relevant document within the EDI's web portal. Companies who want to get started quickly with EDI will often take this approach, setting up an EDI web portal and then integrating it with their ERP system over time.

Also, EDI works just as effectively across multiple industries, allowing you to communicate faster and more simply with a wide variety of companies using many different types of documents. For example, it can be used with financial firms and third-party logistics companies, and also has health care applications. Regardless of how you use it, EDI provides a powerful, cost-effective tool for simplifying and speeding up communications, improving the accuracy of those communications, and building stronger relationships with your trading partners.

ABOUT THE AUTHOR

Langley Melendres is a senior ERP Consultant at Global Shop Solutions. Melendres works with manufacturers to design and implement cost-effective EDI solutions that save time and money while helping to lean their shop floors. She also leads workshops for customers who want to learn more about how to use ERP software to simplify their manufacturing processes.

To learn more about how to simplify your shop floor with EDI, call 1.800.364.5958 or visit www.globalshopsolutions.com.

Global Shop
SOLUTIONS
ERP SOFTWARE
We simplify your manufacturing.™