EDI Basics
How Successful Businesses Connect, Communicate, and Collaborate Around the World
Preview eBook
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How Does a Company Implement an EDI Program?

In this chapter, you will learn:

- What is involved when you perform all EDI implementation tasks yourself
- What is involved when you outsource many EDI implementation tasks
Many companies need to implement EDI in order to satisfy the requirements of valued customers. For example, Chrysler mandates that its suppliers must either implement a fully integrated EDI solution or, for smaller-volume suppliers, use web-based forms or a service bureau that will generate EDI documents on their behalf. After complying with a business partner’s EDI requirements, a company often sees the potential benefits of instituting its own EDI program with its broader trading community.

If your company has decided to implement EDI as part of a strategic initiative to cut costs and improve efficiency or in order to become easier for customers to do business with, you need to determine whether to do it yourself, outsource it all to a B2B Managed Services provider, or use a combination of the two approaches.

Do-It-Yourself Model

In order to make a decision as to which of the above three models best fits your company’s needs, you need to appreciate the level of effort required to set up a do-it-yourself EDI program. Some companies, such as Walmart, have decided upon the do-it-yourself approach as part of their strategic decision to have complete control over every aspect of their business. Now is an overview of the major tasks that need to be completed for a successful EDI implementation.

Develop the organizational structure

EDI is a significant investment and developing the correct organizational structure from the outset will pay dividends as the program evolves. Some of the key elements of the structure include:

- **EDI Coordinator**: An IT professional with in-depth experience in delivering EDI. The coordinator may come from in-house or be hired externally depending on the EDI resources of the organization.
- **Steering Committee**: Headed by the EDI Coordinator, this committee typically consists of the department heads of affected business units, the head of IT, and legal representatives.
- **Senior Management Sponsor**: As with any major IT program, senior management commitment is critical if the EDI implementation is to be a success.
- **Dedicated EDI Team**: The EDI team will be responsible for the actual implementation of the system.

Tasks in the do-it-yourself model:
- Develop the organizational structure
- Conduct in-depth analysis
- Acquire the EDI infrastructure
- Develop EDI system requirements
- Implement the technical solution
- Roll out the program to your trading partner community
- Manage and maintain your EDI program.
An important aspect of the role of the EDI coordinator is to regularly communicate with all sectors of the company that will be affected by the EDI program in order to ensure their support and buy-in. This ongoing communication is vital for educating the various organizations as to how the EDI program will benefit them and affect their processes.

**Conduct in-depth analysis**

This analysis identifies the most likely corporate applications and documents for EDI deployment and sets priorities for conversion to EDI. To this end, factors to be considered include the number of suppliers, customers, or other trading partners, and the volume and type of transactions to be exchanged. It includes a description of the present systems in each functional area and an explanation of how EDI will improve them.

The generation and receipt of each type of business document is based on a system of human and machine procedures, all of which must be documented and analyzed for EDI efficiencies. For best results, the goal should be to improve the business cycle, rather than simply automate it.

**Develop EDI system requirements**

The result of the previous analysis step provides an organization with the knowledge to develop a comprehensive specification for the EDI system. This includes:

1. the volume of expected EDI traffic and the IT infrastructure needed to support it;
2. the capacity of the internal network infrastructure to support EDI data;
3. the network connections needed to manage traffic with trading partners;
4. the programming required to ensure that internal systems comply with the data required by trading partners and with EDI standards; and
5. the amount of customizing required to integrate the internal and EDI systems.

With this information, EDI system design can begin. A key element of this design is selecting the communications model that best meets your needs. Although companies may choose to implement the do-it-yourself approach, most still choose to use the services of an EDI Network Services provider to connect to all or some of their business partners. Earlier in the book, we discussed the reasons for selecting the right one for your company include:

**Network Reach**

How many of your trading partners already use that particular provider? Does that Provider have a strong presence in your industry? Does that Provider create a global presence, not only for the exchange of documents, but also for providing local customer support?

**Pricing Structure**

EDI Network Services Providers offer various pricing structures, including pay-as-you-go and monthly or annual subscriptions. Most Providers calculate the charge based on the number of kilo(thousand)-characters (KCs) within a document. Other factors that impact the price may include the number of trading partners to be implemented, special requirements such as local language support for international partners, and the length of the commitment period.

**Network Viability**

Does the Provider's network have a proven track record and is it likely to be around for the foreseeable future? Does it provide disaster recovery and the capacity to handle peak loads without degradation of service?

**Value-Added Services Offered**

This includes services such as automatic rejection of documents with bad data before they reach your system, the ability for your line-of-business personnel to independently obtain data and reports on demand, and the ability to view the status of your business transactions at all stages in the supply chain. Quite often, these value-added services are a more important factor in your decision than is cost.
Acquire the EDI infrastructure

Now that your requirements have been defined, it will be necessary to purchase any hardware or software needed to support your EDI solution. This often entails the purchase of a dedicated server, particularly if you will be using the AS2 communications protocol. You will also need to acquire the communications software and the EDI translation software. The translation software creates an EDI document from your internal data and also converts incoming EDI documents into your internal data format.

When selecting an EDI translator, you should be aware that features vary in terms of efficiency in handling large volumes of documents, reporting capabilities, mapping tools for the correlation of your in-house data formats to the EDI format, ERP integration features, and others.

You need to select the EDI translator that is right for your business. And most important, you must have the proper personnel resources to implement and maintain the system. This may require the hiring of new personnel with expertise in communications and EDI.

Implement the technical solution

After purchasing the necessary hardware and/or software to support your EDI solution, a skilled EDI programming staff must next convert the requirements into reality. The staff must be fully knowledgeable of EDI standards, in-house systems, and communications protocols. The basic tasks that need to be performed include:

1. Integrating EDI with your in-house business systems, which means extracting and loading data;
2. Creating the EDI documents by mapping (correlating) the extracted data to the proper segments and data elements of the EDI transaction set, as well as providing the enveloping and other necessary data; and
3. Installing and configuring the communications software for sending and receiving documents.

Each of these processes can be very complex, particularly when you have many trading partners each with its own requirements. That’s why a good, technically skilled staff is essential.

Roll out the program to your trading partner community

If you are the initiator of the program with your business partners—for example, you want all your suppliers to be able to receive your purchase orders via EDI and to return EDI invoices—you must have the skilled resources to develop, manage, and maintain an EDI rollout program to your supplier community. This includes:

1. Surveying your community to understand each supplier’s level of EDI readiness;
2. Developing and implementing a community communication plan to convey your program goals and provide the education needed;
3. Offering various EDI options such as web-based forms or Microsoft Excel-based forms for those suppliers that are not ready to integrate EDI with their back-office systems; and
4. Supporting each supplier through the start-up process.

EDI infrastructure requirements may include dedicated server, communications software, EDI translation software, personnel with EDI and communications expertise
Manage and maintain your program
EDI programs must continually change to meet your evolving business requirements. You may add EDI document types, add EDI partners, or change communications settings. Be prepared with the skilled personnel required to handle these changes. You will need to invest in skilled personnel for the ongoing management of your EDI program in order to:
- Monitor and troubleshoot communications and data issues to ensure documents continue to flow;
- Respond to inquiries from trading partners 24x7 as issues arise;
- Report on trading partner activity and system usage; and
- Make updates to translation maps and/or communications protocols as you or your partners add new documents, make changes to current documents, or upgrade their communications processes.

B2B Managed Services Model
The alternative to the do-it-yourself approach is to use the services of a B2B Managed Services Provider that provides expertise, technical infrastructure, and program and process support on your behalf. With a B2B Managed Services approach you offload all the day-to-day operations of your EDI program to a third party who provides all the services needed, including:
- Integration with your in-house systems;
- Connectivity and protocol mediation with all your trading partners (your customers, suppliers, logistics providers, financial institutions);
- Data translation to and from your document format and the document format of your trading partners;
- Working with each trading partner to fully integrate their processes with yours, including setup, testing, communications monitoring, and 24x7 Help Desk support for you and your trading partners;
- Community rollout and enablement services; and
- Reporting of trading partner activity and system usage.

With B2B Managed Services, you no longer need to manage and/or purchase upgrades to your B2B hardware and software. In addition, if you already have an in-house EDI program in place, then moving to a B2B Managed Services approach enables you to redeploy the personnel currently assigned to the EDI program to support other business needs.

Typically, you pay an up-front implementation fee and then an ongoing monthly fee that is based upon the volume of your EDI document transactions.

Of course, no two companies’ business needs are identical. A solution that meets the needs of one company may not work for another. But one of these three general approaches can be tailored precisely for the challenges that your company must meet in order to adapt, grow, and excel in today’s ever-evolving business environment. All companies now have the opportunity to trade electronically with 100 percent of their trading partners. Easy-to-use options are available that eliminate earlier barriers to full participation by small and medium-size trading partners. These options include customized web based forms and direct integration with Excel or other accounting software. All companies, big and small, can now realize the benefits of using EDI as a core technology component in streamlining their procurement, receiving, invoicing, and payment processes. Moreover, these internet-based options are available worldwide. Therefore, companies that want to leverage emerging markets can now utilize EDI to communicate electronically everywhere in the world, despite the complexities of different time zones, regulations, and languages.
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