

Welcome to the EDI 101 session

EDI Overview

- EDI is primarily a format for exchanging data allowing companies to buy, sell, and trade information at a rapid pace, shortening the lead-time between receipt and fulfillment of orders.
- EDI is an established standard and as with any valuable legacy investment, it can be expected to be in use for a few more decades. In the evolving business-to-business world, EDI will continue to be an effective tool for large manufacturers and their suppliers.
- Not only is EDI alive more than 20 years after its birth, it's also thriving at companies that use it to exchange purchase orders, invoices and other information with trading partners.
- EDI is the computer-to-computer inter-organizational communication of business transactions in a standard format. With EDI, order information placed by a company is transmitted directly from the company's computer to its suppliers' computers. Suppliers' billing information is transmitted directly from the supplier computers to the ordering company's computer.

What is EDI?

- Electronic Data Interchange (EDI) is a business-to-business, computer-to-computer exchange of transaction information. Such as purchase orders, invoices, and advance shipping notices.
- Transaction types are specifically defined with computer-readable format referred to as Transaction Sets
- EDI documents are exchanged with other businesses referred to as Trading Partners.
- EDI document structure is governed by popular standards development board such as ANSI ASC X12, EDIFACT, or RosettaNet.
- EDI data can be transmitted through communication protocols like Value Added Network (VAN), Internet EDI via AS1, AS2, and FTP.

What is *not* EDI:

In order to understand what EDI is, it's important to understand what EDI isn't

- **EDI is *not* a programming language:** EDI documents are standardized in a machine-readable format intended to be processed by an EDI Translator
- **Not Email:** EDI is used for computer-to-computer exchange of transmissions without any human involvement.
- **Not a custom FTP file:** Sending a proprietary format flat file via FTP to a vendor is also *not* EDI.
- **EDI is *not* new:** EDI usage and standards development have been growing and maturing for about 30 years now.
- **EDI is *not* rocket science:** It is very important to learn the basics. As you go through the process, you will find that once you have a little experience in EDI, any issues encountered can be quickly resolved due to the standards based nature of it.
- **Not just for large companies:** EDI is *not* limited to large enterprise organizations like GM, or Wal-Mart. EDI is accessible and is widely used by small and medium-sized businesses that benefit from the cost savings and workflow advantages of EDI.

Key Benefits of EDI:

- Reduces or eliminates manual data entry errors
- Streamlines transaction processing
- Increases productivity without increasing operating costs
- Real-time exchange of data
- Reduced paper handling saves both time and money
- Greater coordination of activities between you and your trading partners due to more synergistic data sharing
- Can make your company more “Green” due to reduced reliance on paper documents
- Improves the whole quote to cash process

Cost Savings, better workflow, improved customer service, enhanced competitiveness

Source: CR Systems and Goliath

EDI Checklist:

What will I need to do EDI?

- Hardware (PC, ERP system, Order Management system)
- Translation software (parsing software)
- Data mapping software and/or technical support for data mapping
- Business Plan on how your company will use EDI within its business processes
- Communications software to control connectivity and to manage the transfer of computer files.
 - Connectivity to trading partners, such as the VAN, AS2, FTP, (modem seldom used)
- EDI data Implementation guide
- Internal and or external trading partners to conduct business with

EDI Communication/transfer Methods:

VAN (Value Added Network):

A Van is a third-party service that transmits and stores data in the “electronic mailbox” until it is picked up by the appropriate party. It serves a role of being a broker and forwarder of EDI data. It can be compared to a traditional post office, but the exchange of mail is done electronically. Since the EDI message contains addressing information, the VAN routes the message to the mailbox of the recipient.

Direct Connect Method:

Directly connecting to trading partners by peer-to-peer, point-to-point exchange of data. Often used for XML document processing.

Custom Solutions (web-based EDI portals, 3Rd party outsourcing):

By using a web browser interface, web based custom EDI solutions make it quick and easy for small-to-medium size businesses to manage different aspects of EDI, such as creating, sending, receiving, and more.

Web-Based EDI portals are offered by third-party EDI service providers or can be developed in-house for full self service ecommerce solutions.

These solutions offer many features and can be customized to meet the needs of any sized business.

Industries utilizing EDI:

- Apparel
- Banking
- Distribution
- Education
- Freight
- Health Care
- Manufacturing
- Retailers
- Etc

Common Transaction Sets

- 210 - Motor Carrier Freight Invoice
- 214 - Transportation Carrier Shipment Status
- 810 - Invoice**
- 811 - Consolidated Service Invoice/Statement
- 816 - Organizational relationships
- 820 - Payment Order/Remittance Advice**
- 824 - Application Advice
- 832 - Price/Sales Catalogue**
- 844 - Product Transfer Account Adjustment
- 845 - Price Authorization Acknowledgment**
- 849 - Response to Product Transfer Account Adjustment
- 850 - Purchase Order**
- 852 - Product Activity Data
- 855- Purchase Order Acknowledgment**
- 856- Shipment Notice/Manifest**

Manual Transaction vs. EDI Transaction:

Manual PO Entry Process	EDI PO Transaction
Buyer creates purchase order and sends to supplier either through mail, fax or phone call	Buyers Enterprise Resource Planning system triggers a re-order request which generates an EDI Purchase order to the appropriate supplier
Supplier receives purchase order sorts as needed and delivers to appropriate order entry rep.	EDI PO is sent from Buyers ERP system to IDX Network, IDX Network then routes instantly to Suppliers EDI Mailbox on IDX
Order entry rep reviews purchase order form, verifies appropriate customer account, validates pricing, UPC codes, descriptions, quantities, ship to/bill to locations.	Supplier receives EDI PO via their AS2 connection to IDX. Suppliers EDI system parses the EDI PO data into their order management system and applies business rules validating product availability and pricing and requested ship date and sending back an EDI functional acknowledgement (997)
Order entry rep key enters in customer purchase order information into their Order management system, verifies product availability, confirms ship date, else advises customer of backorders, price changes, etc.	Suppliers ERP system is updated with customers order and saved. ERP system creates pick sheets for warehouse to begin gathering ordered items.
Order is saved by Order Entry rep, order confirmation is conveyed either by phone, fax or mail service to customer. Total time to process 3 to 4 hours	Suppliers ERP system generates an EDI PO confirmation (855) which sent back to buyer confirming products orders, pricing and ship date. Total time to process 3 to 4 minutes.

Sample Data

Sample: Raw EDI Data:

```
ISA*00* *00* *01*123456789 *01*987654321IDX  
*020422*0132*U*00401*000000357*0*P*>  
GS*PO*123456789*987654321IDX*20060118*0132*77*X*00401 OVICS  
ST*850*000000335 BEG*00*SA*8485049**20020419 REF*IA*027527  
DTM*010*20020426 N1*BY*STUDIO CITY*92*025  
PO1**48*EA*10.75**UP*638995000127 CTT*1 SE*8*000000335 GE*1*77  
IEA*1*000000268
```

EDI has not been replaced with another Technology:

- EDI is a mature standard
- EDI works - Only switch if new demands warrant the change
- EDI is ubiquitous - it's usage is everywhere!
- EDI is not industry specific
- EDI is network protocol independent, allowing it to work with newer protocol standards like AS2
- While new technologies and techniques like XML, ebXML, will surely increase in usage along with global expansion using EDIFACT; EDI is here to stay!

Questions:

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