



# ELECTRONIC DATA INTERCHANGE:

KEY INFORMATION YOU NEED TO  
KNOW

**EDI<sup>2</sup>XML**

[WWW.EDI2XML.COM](http://WWW.EDI2XML.COM)

## E-BOOK

By Namtek Consulting Services  
(450) 681-3009 - [www.namtek.ca](http://www.namtek.ca)



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# INTRODUCTION

## Purpose of this eBook

This e-book was created to provide information on Electronic Data Interchange (**EDI**). It was written in view of beginning users, but it will also benefit those who possess technical knowledge. Regardless of the size of your company, or your function, we are sure that you will get important information that will be useful to you in your EDI projects.

## In this e-Book, you'll find:

- An explanation of EDI
- Difference between EDI and none-EDI transmission
- Advantages of EDI
- How does EDI work?
- EDI data transmission system
- How does the Internet EDI (EDI-INT) work?
- Advantages of Internet EDI
- About EDI2XML



# What is EDI?

## EDI - Electronic Data Interchange.

In simple words, EDI is the process of electronically exchanging business documents (in a pre-defined format) between trading partners.

In fact, using EDI in business is practical and efficient. EDI has become widely used in various sectors, especially today EDI technology extensive used in B2B e-commerce.

Read our popular article "[Why EDI is becoming the #1 method for B2B Transactions](#)"

Any standard business documents companies exchange between each other (such as a purchase order, invoice, shipping notice, request for availability of goods) can be transferred by EDI, considering both parties have been setup for such communication.

The **EDI X12** standard is developed at the **American National Standards Institute** (ANSI). In addition there are other standards for electronic data interchange, such as **EDIFACT** developed and managed by the UN (therefore it is called UN/EDIFACT). EDIFACT is widely used in Europe and the transport industry.

**HIPAA** (the Law on the Accounting and Safety of Health Insurance) is designed specifically to match the activities of healthcare institutions with legislation.



# What is the difference between EDI and none-EDI transmission?

**Information transmitted to you by e-mail has an unstructured format.** For example, upon receiving an email with a Purchase order attached, you need to print the document, have a user key-in and create the order in your business management software (accounting or warehouse management) and send the order for processing.



**EDI has a structured format:** With EDI in place, there is less human intervention: For example, to process the same order in the previous example, you will have no user intervention: As soon as your trading partner transmits the order to you in a structured EDI format, the order goes directly into your software system. Result - No human manual input of information is required, thus a better quality of information..



## What are the advantages of EDI?

-  Increased accuracy of information
-  Better quality of information
-  Ability to avoid heavy work, such as entering information manually
-  Efficiency and accurate data transfer
-  Reduced costs per transaction
-  Saving postage costs
-  “Greener” and nature friendly solution



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# How does EDI work?

## Data extraction

The trading partner must create the document he wants to send, whether it's an invoice, an order or a delivery note, etc. Generally, the data necessary to build the outgoing electronic EDI document is available in the computer system of the trading partner. Once EDI document is generated, it will have to be transmitted to the recipient either through point-to-point direct connection protocol or through a third-party value-added network (VAN).

At the receiving side, once the electronic document is sent, an EDI communication software will receive the electronic files, in a real-time mode, translate into a format understood by his own software system, then send an acknowledgment against the initial document to advise receiving.

## Translating received message

Once an EDI document is received by the recipient, it is a requirement to translate into a format understood by the system at the destination, and automatically integrated into the software system. EDI translator verifies that the converted file meets the EDI standards and the guidance of the trading partners.

## Transferring of EDI documents

Whenever a file transfer is required, a communication between the two points should be established. The file is sent either to the destination mailbox either using a point-to-point communication protocol such as FTP, AS2 or HTTP protocol, Or through a VAN.

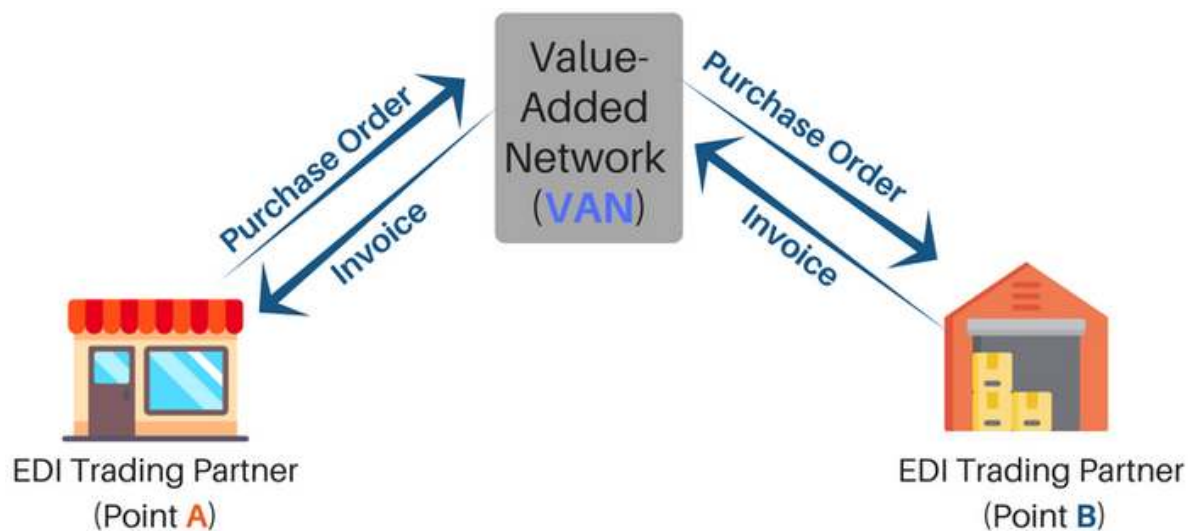
[Read: How does EDI2XML work?](#)

# Which data transmission system should you go with?

One of the most important aspects of EDI is the way electronic data is transferred and communicated, from one place to another, directly or through the VAN.

## VAN (Value Added Network)

**VAN** - is a private network provider, that only transmits EDI transactions in a secured manner between private networks. A VAN is a mediator who moves data from point A to point B. Until recently, this method of transferring data was considered the safest.



Read: EDI Communication and VANs

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## Direct connection

Direct connection - as opposed to VAN, a direct connection allows to transfer data directly between business partners. **Direct connections include: VPN** (Virtual Private Network), **FTP** (File Transfer Protocol), and **EDI-INT** (EDI over the Internet). Usually, EDI-INT is implemented with the participation of AS2 software, which encrypts the data before sending it over the Internet.

## Internet EDI & VAN EDI

Previously, VANs played the role of e-mail services between trading partners who needed to exchange data. For example, company A could send an electronic purchase order to VAN and company B could go to VAN to receive it. If company B claimed that the order was not received, VAN served as an intermediary and confirmed the presence or absence of an order.

In spite of its advantages, VAN EDI had limited distribution, because the price of VAN is high. While there was no possibility of data exchange via the Internet, about 80% of suppliers in any supply chain communicated via fax, telephone, and mail because they couldn't afford the significant costs that VAN EDI required. As a result, supply chains were experiencing malfunctions, such as lost or unread orders, late invoices and late replenishment of the item assortment., etc.

With the advent of a better and more affordable solution - data exchange via the Internet, large and small companies had the opportunity to communicate with their trading partners electronically by using EDI.





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# How does the Internet EDI (EDI-INT) work?

Internet EDI (EDI-INT) consists of approved standards for a safe data transfer over the Internet. Internet EDI standards are **AS1**, **AS2**, and **AS3**.

- **The AS1** standard allows transferring documents securely over the Internet via the SMTP (e-mail) protocol.
- **The AS2** standard is used for secure transmission of EDI and XML documents over the Internet via HTTP / HTTPS
- **The AS3** standard for using FTP to transfer files.

Although HTTP/S and FTP/S are secured, EDI-INT adds a complementary level of security including public and private keys.

The primary principle that stands behind the EDI-INT standards is secured data transmission over the Internet. The four foundations principles are:

**Privacy** - provides security for the transmission of the information contained in a message, encrypting the data. (Only sender or receiver can see them)

**Authentication** - is done through verification of the sender's electronic signature.

**The accuracy** of the message - is achieved through the use of message location alerts for checksums and completely excludes the ability to modify the document without the recipient's knowledge.

The reliability of the message is achieved through the use of MDN (message location notifications) for checksums and completely excludes the possibility of changing the document without the recipient's knowledge

**Inability to deny receipt of a message** - the recipient signs the document's location alert, sends it back to the sender, and thus can no longer claim to have not received it.

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# Advantages of Internet EDI

Internet EDI allows thousands of companies around the world to communicate and carry out secure business transactions. Easy transfer of information over the Internet allows organizations to conduct business much faster.

With the advent of the AS1 standard, the data is promptly transmitted via e-mail.

The **AS2** standard provides the possibility continuously transmit data because direct HTTP transmissions are used. **Today, leading retailers and manufacturers find even more advantages of the AS2 standard.** The list of companies includes Wal-Mart, Shaw's, Target, Lowe's, Wegmans, Procter & Gamble, Hershey Foods, Campbell's and many others. Many of these organizations are attracting their trading partners to use this technology to successfully conduct business in the trading community.

## Summary of the advantages of Internet EDI:

- **High speed of information transfer**
- **Reduce costs / reduce possible errors**
- **Data is entered only once**
- **Time-saving and unnecessary paperwork**
- **100% secure electronic data transmission**
- **No communication costs**

# About EDI2XML

**EDI2XML** was created and is managed by our team of developers and EDI experts at **Namtek Consulting Services**.

Namtek Consulting Services is a leading Canadian IT firm, providing the latest software solutions and IT services to businesses of small and medium sizes and from various industries.

EDI2XML was designed to simplify the once-complex B2B EDI communication process. This flexible solution is easy to use and can be integrated with any ERP application in order to streamline the EDI integration process.

For more information about EDI technology, EDI integration and EDI implementation, read our **Company Blog**. Contact us today to learn more about how we can help YOU. Visit [www.edi2xml.com](http://www.edi2xml.com)



We Integrate. We Simplify. We Improve.

The Best Solution for your Business

**Contact us today**  
 400 Blvd Curé-Labelle,  
 Suite 304  
 Laval, QC H7V 2S7

Tel: +1 450 681-3009  
 Email: [sales@namtek.ca](mailto:sales@namtek.ca)  
[www.namtek.ca](http://www.namtek.ca)