

EDI FAQ Document



ABOUT THIS DOCUMENT

This document is a repository of frequently asked questions relating to:

1. EDI
2. eMessaging Standards
3. Communications & Network Setups

EDI

1. What is meant by EDI?

EDI stands for Electronic Data Interchange. It is simply the computer to computer exchange of business documents between companies. EDI documents use specific computer record formats that are based on widely accepted standards. However, each company may use the flexibility allowed by the standards in a unique way that fits their business needs.

EDI is used in a variety of industries. In fact over 80,000 companies have made the switch to EDI to improve their efficiency. Many of these companies require all of their partners to also use EDI.

2. Who typically uses EDI?

Nearly all major industries use EDI to electronically exchange documents, including Grocery, Aerospace, Automotive, Retail, Healthcare and Finance sectors. EDI is considered the standard for electronic document exchange between one company and another.

3. What are the benefits of implementing EDI?

- Computer-to-computer exchange of information is much less expensive than handling paper documents. Studies have shown that processing a paper-based order can cost \$70 or more while processing an EDI order costs a dollar or less.
- Much less labor time is required.
- Fewer errors occur because computer systems process the documents rather than processing by hand. EDI transactions between companies flow faster and more reliably than paper documents.
- Faster transactions support reduction in inventory levels, better use of warehouse space, fewer out-of-stock occurrences and lower freight costs through fewer emergency expedites. Paper purchase orders can take up to 10 days from the time the buyer prepares the order to when the supplier ships it. EDI orders can take as little as one day.

EDI's efficiency has made it an important contributor to the efficiency of business communications in many industries. Business documents like invoices, purchase orders, and advanced ship notices can all be exchanged between companies through EDI.

4. Why do retailers emphasize the need for EDI in managing supply chains?

- More and more customers want their suppliers to have the ability to reliably exchange EDI documents. They are under pressure to reduce their procurement process costs by automating manual processes such as invoice data entry. As a result, EDI capability is a requirement for doing business with many customers.
- Suppliers want to develop closer customer relationships. They want to make themselves less expensive to buy from by reducing the administrative burden on their customers.
- There is a need to increase efficiency for all businesses. Suppliers are finding they can reduce costs by automating B2B (business-to-business) processes with EDI. Money is saved in improving the speed and accuracy of documents they receive from their customers.
- Both suppliers and their customers have found that inaccurate or late B2B documents create expensive exception processes. Suppliers want to maintain control of their customer relationships and documents. They want to preserve the unique business arrangements they have worked hard to create with their customers and continue selling to their customers in the way they want to buy.

5. What is a 3rd Party Provider? (

A 3rd party provider is a business that manages & distributes software-based services and solutions. It allows companies to outsource aspects of their information technology needs by creating solutions using the right hardware & software components. A 3rd party provider gives a trading partner the benefits of Direct Integration, but without the need of having any inhouse technical knowledge.

Benefits:

- ✓ Removes the need the setup and maintain multiple links with different trading partners
- ✓ Removes the need to find additional resources to perform the necessary fuctions inhouse
- ✓ Concentrate on your core business by outsourcing to the specialists

6. What is an EDI VAN?

A Value Added Network, also referred to as an EDI VAN, is a private network for secure information exchange between companies using Electronic Data Interchange (EDI). Each trading partner has an account with an EDI VAN that serves as an electronic mailbox which is used to send and receive electronic documents. In order to send an electronic transaction, the sender must connect with the EDI VAN, which is used to send the transaction to be stored in the recipient's mailbox. Upon completion, the sender can disconnect from the network. One benefit of this transmission is convenience. At any time, recipients can connect to the EDI VAN and receive their transactions. Another convenient benefit of EDI VANs is the use of alerting services. Most VANs alert the sender once their messages have been sent, as well as alert the recipient when their mailbox contains a new EDI message.

EDI VANs provide several other valuable services in addition to sending and receiving electronic documents, such as trading partner enablement, the management of outsourced EDI, and other EDI integration services. This allows for companies to seamlessly use back office systems together with EDI.

7. What is an EDI ID? Can a company have more than 1 EDI ID?

An EDI ID is a unique identifier for a trading partner. Yes, a company can have more than 1 EDI ID.

8. What is an EDI Trading Partner?

Any company with which you exchange documents is known as an EDI trading partner. Many OEMs have a large network consisting of trading partners. These networks are often referred to as 'Trading Communities'.

9. GS1 – Who are they?

GS1 is a not-for-profit organisation that administers the global multi-industry system of identification and communication for products, services, assets and locations - the GS1 System. The GS1 System was created to help business enterprises become more efficient. To ensure GS1 members receive support, GS1 member organisations operate in more than 100 countries, including Australia and New Zealand.

The main role of a GS1 member organisation is to allocate GS1 numbers (identifiers) and to ensure their membership has a clear understanding of the different aspects of GS1 System – bar codes, e-messaging, global data synchronisation and radio frequency identification (Electronic Product Code - EPC) standards. GS1 member organisations support their members. This ensures GS1 members maintain internationally accepted trading standards. Hence, in turn, allowing businesses to adopt world's best practice supply chain management techniques.

GS1 numbers and other aspects of the GS1 System permit organisations of any size to order, track, trace, deliver and pay for goods across the supply chain, anywhere in the world. The GS1 System is recognised by the International Standards Organisation (ISO), the European Standardisation Committee (CEN) and the American National Standards Institute. Around one million member companies in 145 countries use GS1 standards as part of their daily business communications, representing over five billion scanning transactions a day.

GS1 Australia

GS1 Australia is the Australian GS1 member organisation. It is the role of GS1 Australia to support Australian companies using the GS1 system.

Membership of GS1 Australia enables companies to:

- Access the full range of GS1 standards: - for product identification, electronic communications, global data synchronisation and radio frequency identification.
- Use a GS1 Company Prefix: - this number grants is the foundation of the globally unique numbering for your products, logistic units, etc, that identifies them to trading partners all around the world.
- Access Barcode Verification: - to ensure your barcodes meet global GS1 standards and trading partner requirements.
- Receive support relating to their use of the GS1 Standards: GS1 Australia's Member & Industry Support Team are provide telephone and email based support as well as on site visits for companies who have questions relating to the GS1 System.
- Attend regular education and training sessions to ensure they have the most up to date information about the GS1 System. Training courses are run in various formats to cater for all of the GS1 Australia members, including via seminars, over the internet, and via webinar.
- Access other services provided as part of their membership.

10. What is a GLN?

GLN stands for Global Location Number. GLNs are GS1 identifiers used to identify legal, functional, or physical entities. For example, GLN's can be used to identify a company, department, or a warehouse.

A GLN is a 13-digit number. GLNs are generated and managed by GS1 member organisations that are the same organisations that issue Global Trade Item Numbers (GTINs) used to identify trade items. (Note: GTINs were previously called bar code numbers, APNs (Australian product numbers) or EANs (European Article Numbers)). GS1 typically allocates a GLN per company as part of being a GS1 member. Additional GLN's can then be allocated from a company's existing range of GTINs.

11. What is the significance of GLN's in supply chains?

The uses of GLN's are the first step in moving toward the efficiencies seen within the retail industry. The 13-digit GLN code can be used to identify facilities' ship-to and deliver-to points, which include everything from receiving areas to warehouses and stores. The system easily can replace and improve upon the "messy" methods currently in use that may be required to maintain different sets of customer numbers from every supply partner. GLN can improve efficiencies, save costs and make it easier to conduct e-commerce transactions.

The GLN is a reference key used to retrieve information such as postal addresses, type of location, telephone numbers, contact persons, region or any other information associated with the fixed attributes of a business. It is essential for efficient use in electronic commerce, global data synchronisation and other applications such as store deliveries & cross docking etc.

It is recommended organisations use GLNs to identify trading partners and locations for best business practice eCommerce. The GLN and associated information about the trading partner are communicated at the start of the trading relationship. Once established, GLN's can be used during the trading relationship in any other electronic message such as invoices, purchase orders, credit claims etc.

12. How can a company obtain a GLN?

GLN's are automatically assigned by GS1 Australia to the company when they join as a member. If the company requires more than one GLN then subsequent GLN's can be created using their own GS1 Company Prefix from their pool of numbers.

GS1 Australia can be contacted via the following details:

National Phone Number: 1300 366 033 (8.30am – 5.30pm EST Monday to Friday)

Email: gs1aust@gs1au.org

Web site: www.gs1au.org

13. What is a GTIN?

A GTIN is the abbreviation for the Global Trade Identification Number (also known as TUN – Trade Unit Number). It is GS1 identification number used for trade items. This number consists of a unique Company Prefix followed by an item reference number followed and a check digit.

14. What is the significance of GTIN's in supply chains?

GTINs are designed to be used by trading partners at all points in the supply chain. They are unique identifiers for each different variant of a trade item. Any trade item that needs to be distinguished from others (eg, different

flavours, colours, pack sizes) and identified throughout the supply chain should be allocated a unique GTIN. Different levels of packaging of a trade item are allocated a different GTIN.

The GTIN is allocated by a product brand owner and then communicated to trading partners so that these companies can also use the GTIN to identify the same item. This means that there is no confusion about using different internal company codes to identify the same item and no duplication of internal codes.

GTINs can be encoded in bar codes and communicated to trading partners via electronic messaging.

15. How can a company obtain GTIN's?

GTIN's are allocated by GS1. So a company needs to be a GS1 member. The GS1 annual subscription fees match the size of your business and the quantity of Global Trade Identification Numbers (GTIN's) needed by your organisation. Companies wishing to become GS1 Australia members must complete the relevant sections of the GS1 Australia Licence Agreement Form. GS1 Australia's help desk (phone number 1300 366 033) can help companies with any questions they may have about GS1 Australia membership.

EMESSAGING STANDARDS

1. What are standards?

Standards can be defined as a set of protocols that standardize the interaction or in the case of ecommerce, the format of data between companies. The adoption of standards results in a common approach that results in reduced technology costs and improved efficiency.

2. What is ANSI/EDIFACT?

These are predominant standards for exchanging business documents.

ANSI x12 (American Ecommerce) and EDIFACT (Europe Ecommerce).

In the mid eighties, the United Nations developed a standard which in 1987 was formalised as ISO 9735, EDIFACT (Electronic Data Interchange for Finance, Accountancy, Commerce and Trade). This defined the syntax which could be used for electronic documents and was accompanied by the definition of key documents in terms of their required and allowable information content and sequence, the format and possible content of individual items of information, and extensive codelists which could be used for unambiguous definition of the data items. Together these were known as UN/EDIFACT. Although drawing from earlier standards such as GTDI (used principally in the UK) and ANSI X.12 (prevalent in the USA) this was the first international standard and has gained wide acceptance.

The key features of UN/EDIFACT are;

- Offers a agreed message format for business-oriented transactions, such as purchase orders, invoices, etc
- Uses a set of syntax rules to structure data.
- Standard messages which allow multi-country and multi-industry exchange.

The table below summarises the document types under ANSI X12 standard & the equivalent UN/EDIFACT message type:

ANSI X12	UN/EDIFACT
850 / PO (Purchase Order)	ORDERS (Order)
860 / POC (Purchase Order Change)	ORDCHG (Order Change)
855 / POA (Purchase Order Acknowledgement)	ORDRSP (Order Response)
810 / INV (Invoice)	INVOIC (Invoice)
856 / ASN (Advance Shipping Notice)	DESADV (Despatch Advice)
820 / RCTI (Recipient Created Tax Invoice)	REMADV (Remittance Advice)
852 / PAD (Product Activity Data)	INVRPT (Inventory Report?)
862 / PUS (??)	DELJIT
830 / MRS (Material)	DELFOR
997 / FA (Functional Acknowledgement)	CONTRL (Control Message)

3. What is GS1 – XML?

GS1 is a leading global organisation dedicated to the design and implementation of global standards and solutions to improve the efficiency and visibility of supply and demand chains globally and across sectors. The GS1 system of standards is the most widely used supply chain standards system in the world. XML is an acronym for "eXtensible Markup Language". XML is designed for information exchange over the internet. Within the GS1 set of standards, there are two formats for Electronic Data Interchange – GS1 XML and EANCOM (a subset of UN/EDIFACT).

GS1 XML is part of the wide portfolio of standards and solutions that forms the GS1 System. It is not a stand-alone standard, but is integrated with other supply chain management tools that GS1 offers. The GS1 XML standards are not meant to compete or replace GS1 EANCOM - the GS1 standard for "traditional" EDI. GS1 XML standards are generally being used in parallel with EANCOM.

The key features of GS1 XML are

- Part of the integrated portfolio of supply chain tools.
- Fully compliant with UN/CEFACT methodology.
- Can be implemented by companies from many sectors, anywhere using any technical configuration.
- Based on many years of business experience.

4. What is a MIG (Message Implementation Guide) ?

A MIG is kind of a 'handbook' that defines the layout of the EDI message, the segments and elements which are mandatory, required, recommended, allowed or unused, and the explanation of how the contents of each element is to be used and interpreted. (MIG, in the USA often referred to as an IC or IG). Each partner to an interchange agreement normally complements the MIG with an explanation at data element level of how each field will appear in their in-house file(s) and how their applications should handle it.

NETWORK / COMMUNICATIONS SETUP QUESTIONS

1. What is an Integrated and a Non-Integrated System?

A non-integrated system is one that does not network directly with a trading partners accounting and supply systems. In the context of electronic trading it means that documents originating from one trading partner cannot be integrated directly into another trading partner's procurement system. The documents are generally received either by fax, email or some other means and need to be keyed directly into the trading partners system.

An integrated system is one that can network with a Trading Partners accounting and supply systems. This can be achieved either directly between trading partner or via a 3rdparty provider that converts the data into a format that can readily be absorbed into the trading partners systems.

2. What is the difference between electronic data interchange provided by an EDI VAN and Internet EDI?

A Value Added Network, often referred to as an EDI VAN, is a private network dedicated to the secure exchange of EDI traffic. Trading partners obtain an account with an EDI VAN such as GXS. This account serves as an electronic mailbox for sending and receiving electronic documents. With an EDI VAN, not only can you exchange documents with your trading partner, you can also exchange them between VANs. This is often referred to as an 'interconnect'. These interconnects benefit companies by providing them access to a larger base of trading partners throughout the world. EDI VANs have existed for nearly 30 years. In addition to an EDI VAN, Internet-based EDI enables companies to exchange EDI documents over the Internet using secure methods of encryption. While there are similar business benefits for both methods of exchange, the determining factor of which method to use depends on the specific partner agreement. Optimally, each trading partner needs to use the same mode of transport, whether that mode is an EDI VAN or Internet EDI. Most larger businesses require their suppliers to use the same method of communications for electronic document exchange.

3. What is AS2 & how does it work?

AS2 stands for Applicability Statement2, and is used to perform the task of sending and receiving data via a secure connection. It can be viewed as a kind of 'envelop', in which data is embedded, so that it is possible to send it using the HTTPS (email) protocol. It allows quick & direct transfer, without using a mailbox. AS2 has the ability to transmit every kind of document and is suited for day to day transactions of these documents. The information to be sent is prepared by internal systems and is then transferred via AS2 communication software.

The key features of AS2 are:

- **Interoperable** – The ability to transfer & use information in a uniform & efficient manner across multiple organisations.
- **Cost effective** – Leverages of current internet technologies.
- **Speed and Efficiency** - It offers real-time transaction processing which is faster and more dependable.
- **Secure** - The data sender is provided with proof of delivery and the recipient is assured of the sender's identity. It uses SSL (Secure Socket Layer) to secure the transport pipe by combining the computers IP address with a port number. The message content privacy is provided via data encryption so that a document can only be viewed by the Sender and the

Receiver. A Sender's digital signature ensures that the Sender is actually who they claim to be.

- **Control** - Retain transaction and data management control and can control the transport schedule for batch processing. You receive immediate feedback on the sending of a document.
- **Supportable** – It is quick to set up and easy to support and maintain.
- **Reliability** – “Once and only once” delivery of message (i.e. the message is not duplicated).

Additional Notes:

AS1: Applicability Statement (AS) 1. A protocol developed by the IETF (Internet Engineering Task Force) to implement secure and reliable messaging over SMTP.

AS2: Applicability Statement (AS) 2. A newer protocol developed by the IETF to implement secure and reliable messaging over HTTP. Allows data to be sent over the Internet using the HTTP protocol.

AS3: Applicability Statement (AS) 3. The most recent protocol developed by the IETF to implement secure and reliable messaging over FTP.

4. What is HTTPS & how does it work?

HTTPS stands for Hypertext Transfer Protocol (Secure) and is a secure communications channel that is used to exchange information between a client computer and a server. It uses Secure Sockets Layer (SSL) which secures the connection between the client and server. It should be noted that the “s” at the end of the protocol informs the server that the client is trying to connect securely. If the “s” is omitted in the connection it will not be secure.

The key features of HTTPS are:

- **Secure** - All documents and communications between users and the server are fully encrypted and secure. It uses SSL (Secure Socket Layer) to secure the transport pipe. The document can only be viewed by the Sender and the Receiver authenticates the client and the server with each other before establishing a connection.
- **Cost effective** - Leverages of current Internet technologies.
- **Supportable** – It is quick to set up and easy to support and maintain.
- **Speed and Efficiency** - It offers real-time transaction processing which is faster and more dependable.

5. What is SFTP & how does it work?

SFTP stands for Secure File Transfer Protocol and is a subset of the Secure Shell Protocols (SSH). It is a replacement for the old and insecure File Transfer Protocol (FTP), with the addition of strong Encryption/Authentication. It provides a single connection port for easy firewall navigation, password and public key authentication with strong data encryption, which prevents login, data, and session information from being intercepted and / or modified in transit.

The key features of SFTP are

- **Ease of Administration** – single connection port for transversal of firewalls.

- **Ease of Integration** – one click setup, cross platform support and maximum connectivity coverage.
- **Heightened Security** – greater identity protection through public key authentication.
- **Guaranteed Data Integrity** – built in data checking mechanisms.