THE GUIDE TO EDI

CONNECT IN REAL TIME TO YOUR TRADING PARTNERS

statelake
TRUST. CONNECT. EMPOWER.

FLOW SOFTWARE: SPECIALISTS IN EDI AND SYSTEMS INTEGRATION

EDI: END-TO-END BUSINESS AUTOMATION WITH ELECTRONIC DATA INTERCHANGE

EDI is the structured electronic exchange of business documents and information automatically between different organisations and their business applications.
EDI enables businesses and their key trading partners to exchange business transactions electronically and automatically – straight from the accounting package to their supply chain systems. All you need is a PC or server, a quality accounting package, good telecommunications, plus a great EDI application and you can be up and running in no time at all.

WHY EDI?

Operational efficiency. Automate manual processes to:

• Free up staff to focus on value-adding activities
• Reduce errors from manual processing
• Get real-time visibility into mission-critical operational data
• Reduce costs associated with manual processing

Because your customers want to do business electronically.

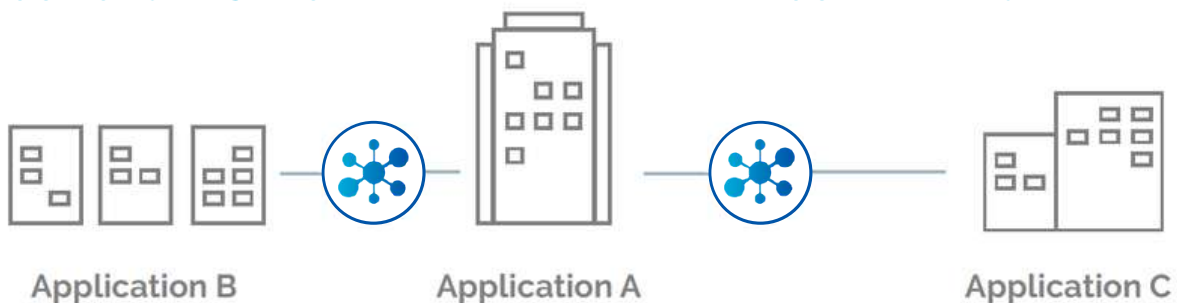**Because your suppliers require you to process orders and invoices electronically.**

HOW DOES EDI WORK?

Businesses are able to connect directly to their trading partners using EDI. EDI allows them to transfer data to customers and suppliers such as purchase orders, invoices, sales orders, ASN's and transportation documentation. The types of transactions that can be exchanged between organisations are limitless.

YOUR ORGANISATION   **YOUR TRADING PARTNER**

Application B   Application A   Application C

There are three essential parts to any EDI set-up to enable its successful functioning. At either end there needs to be a willing party, with electronic business systems that can have connections made to send and/or receive data. Between the parties there is electronic communication transport and a chosen transformation data method.

A series of standards have evolved to ensure consistency in the methods of EDI document processing and transmission. Two sets of standards that were initially developed in the 1980's are still used today.

The standards prescribe the formats, character sets, and data elements used in the exchange of business documents and forms.

UN/EDIFACT: This is the only international standard and is predominant outside of North America. EDIFACT was developed under the United Nations Centre for Trade Facilitation and Electronic Business, and was adopted as ISO standard ISO 9735

ANSI ASC X12: The American National Standards Institute has developed more than 315 EDI standards, and a growing collection of XML schemas. This standard is predominant in North America.

THE BENEFITS OF EDI

- Significant reduction in costs associated with manual data entry
- Elimination of human error
- Improved timeliness, accessibility and accuracy of business data
- Reduction in administrative costs and consumables
- Improved cash flow resulting from electronic transmission of invoices
- Better business relationships with trading partners
- EDI improves accuracy on data such as shipping and billing numbers by eliminating the need to re-key documents on the destination side.
- EDI allows a company to take advantage of the benefits of storing and manipulating data electronically without the cost of manual entry. In situations such as shipping manifests, even when paper documents are maintained in parallel with EDI exchange, electronic exchange and use of exchanged data reduces the handling costs of sorting, distributing, organising and searching paper documents.

EDI makes light work of the complex issues around dealing with multiple suppliers and also satisfies customers with high service delivery expectations. EDI is also a great way for companies to generate customer loyalty. EDI is increasingly becoming a requirement from customers and suppliers - in order to trade with these partners companies need to comply with EDI requirements and conform to specific standards and protocols.

MAKING A DECISION: IS EDI RIGHT FOR YOU?

Adoption of EDI is appropriate when at least one of the following conditions applies:

- Your business handles a significant number of transactions that currently rely on a manual handling aspect.
- Your business has more than one major trading partner.
- You plan to grow your business and in the future you will need to make multiple data connections.
- A trading partner is requesting, or demanding that your business utilise EDI in your transactions with them.
- You are ready to make the investment in EDI to reduce your operational overheads and improve accuracy.

THE EDI JOURNEY

EDI is not an all or nothing scenario. There is often a progression from no EDI to full EDI which can be dependent on data volume and the ROI for an SME implementing a full EDI solution.

MANUAL

Smaller businesses often start out using fully manual processing as the cost of doing EDI is outweighed by the cost to process documents manually or their trading partners do not require them to do EDI.

SEMI-AUTOMATED

As a business grows and the number of transactions and amount of data handling increases businesses will tend to progress to a semi-automated system of data management via the use of a portal for the keying in of data on one side of the trading partner relationships. Many larger retail, building and FMCG chains provide a portal to their suppliers so they can receive the information in an electronic form and treat this as EDI data on their end.
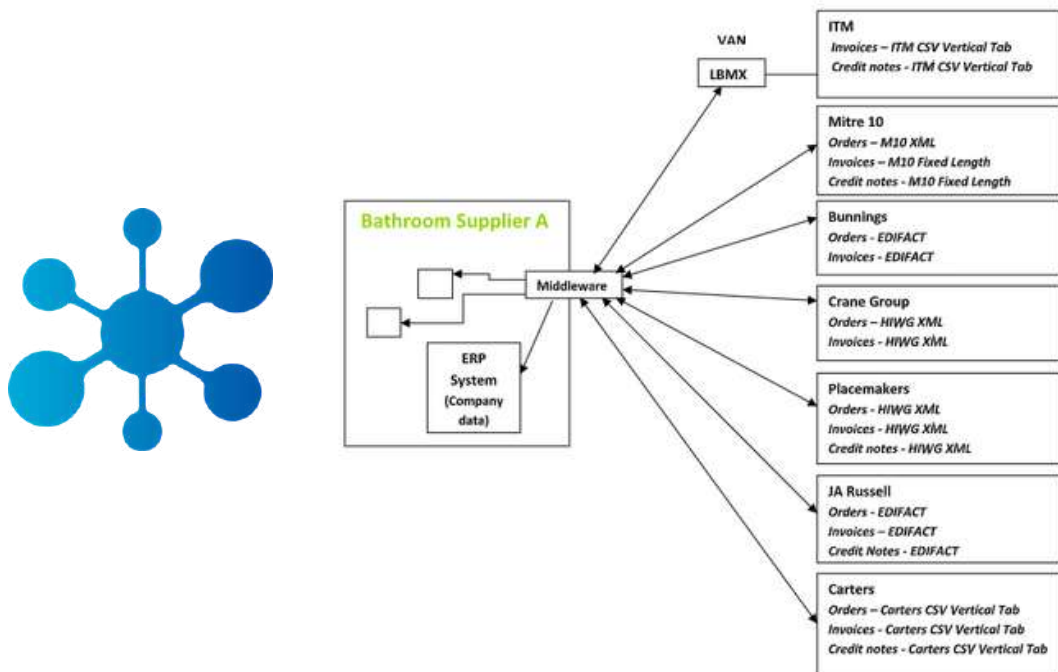
FULL EDI

Full EDI capabilities mean that data is keyed into the system once and automatically flows through to your customer/supplier and back again. While EDI provides the electronic transmission of documents between organisations an important factor to consider is how you will handle the EDI data once it gets delivered to your business. With the use of middleware or integration, EDI data from your customer and suppliers can be received directly into your ERP or other systems such as warehouse management systems (WMS), inventory control systems and e-commerce systems and routed throughout the various applications in your business.

If your business has more than one major trading partner then it will be important to consider that different trading partners will have different requirements. This makes middleware a must to handle these different data requirements in a consistent way inside your business.

EDI EXAMPLE: BATHROOM SUPPLIER A

Below is an example of a business that has EDI set up with multiple trading partners. Note that each trading partner has different document types, EDI format requirements and use of a VAN (value-added network).

With the use of middleware (such as Statelake) along with EDI document exchange, the company is able to meet the different requirements of multiple trading partners and then treat all data the same once it comes into their business. This means that an order from any of their trading partners is inserted uniformly into their applications and is treated the same when going through business processes.

DOES MY BUSINESS NEED A VAN?

There are two ways that EDI transmissions can be facilitated; via a value-added network (VAN), or via an Internet protocol.

In the past, a popular method was to use point-to-point modems to communicate via a VAN. A VAN is provided by an organisation that connects the supplier and purchaser, acting as a clearinghouse. The VAN receives transactions, examines the 'from' and 'to' information, and routes the transaction to the final recipient, with options such as audits, reports and transformation. VAN users usually incur transactional fees which may or may not be covered by the organisation that requires the use of a VAN.

The development of the Internet provided an efficient alternative to VANs. The availability of secure transport protocols made it possible to transmit EDI documents simply and securely. Using protocols such as File Transfer Protocol Secure (FTPS), HyperText Transport Protocol Secure (HTTPS), and Applicability Statement 2 (AS2) over HTTP to transmit EDI documents reduces costs, increases efficiency, and has advantages in terms of redundancy and scalability.

FMCG - BLUEROCK

"We've added a number of additional product categories within the supermarkets over the past year and, with each category requiring a separate purchase order, et cetera, we're very pleased they can be processed much more efficiently by EDI. We've reduced the order processing workload by the equivalent of about one fulltime staff member and it's also made the process much more accurate by reducing the vulnerability to human error.

Before EDI, the workload associated with the volume of business we were doing with Foodstuffs and Woolworths meant we were under pressure in terms of our own service standards, EDI has provided real-time visibility into the business that Bluerock previously didn't have.

Flow Software are clearly experts in what they do. They are experienced in it and they understand it well. They have dealt with these big supermarket groups multiple times and that experience shows through."

Catherine Milliner, Customer Service Manager
Bluerock

EDI OPTIONS

EDI can be approached in a number of ways: through bespoke development, engaging value added networks (VAN) or deploying a middleware platform, with companies commonly deploying a mix of these.

BESPOKE DEVELOPMENT

Bespoke development is relatively expensive to implement but provides the most seamless integration. It is particularly useful where real-time processing needs to be automated. However, it can cause systems rigidity and may limit your ability to upgrade or change applications as your business needs evolve. There is also risk in a small group of individuals holding the IP for your custom system because if a key person moves on, managing or extending the system can be difficult.

VANs

VANs sit outside an organisation and are a method to communicate with external parties. One party generally pays a fee to connect to the VAN, then their trading partners pay transaction fees for each business message processed and the VAN acts as a clearing house for EDI data. VANs generally do not provide direct integration to various internal business applications alternatively providing the EDI data to the business to utilise.

MIDDLEWARE PLATFORMS

Middleware platforms like Flow Software's Statelake provide a structured way for different applications and data formats to communicate, using a configuration rather than a bespoke development approach. The middleware platform takes care of communication with your partners, as well as translation into the data formats your partners understand, therefore replacing the need for a VAN if one isn't already in place. With Middleware, suppliers can meet both these companies' EDI requirements via sending messages to Foodstuffs directly and sending to Progressive via a VAN.

A middleware platform can be deployed on internal servers or in a hosted environment. Another benefit of middleware is that it can be used internally for direct system-to-system integration as well as EDI communication with your partners. This means that once an EDI document has been received into the accounting system or ERP, middleware can be used to send orders to your 3PL provider, update a stock or warehouse management system (WMS) or CRM.

MANUFACTURING - HERMPAC

"Integrating with our trading partners has gone off without a hitch. For each EDI implementation, Flow asks for sample orders, sets them up as tests in the system and works with the recipients. When all parties are happy with the testing, we get an OK, go live and we haven't had an issue. Electronic integration dramatically accelerates invoice processing while eliminating the costs of printing, paper and postage. Customers get their invoices a lot quicker. We save time and money. And it is more reliable.

Flow Software have the expertise, they understand EDI well and they made it work without any headaches or issues. And their lateral thinking is of great value."

Greg Crawford, Group Accountant, Hermpac

WHERE TO FROM HERE?

EDI as a technology is currently well within the reach of SMEs, and can be highly cost-effective and straightforward to implement.

Review how many purchase orders and invoices per month you are currently manually processing in your accounting package. If there is a significant cost to the business, you should investigate EDI as an alternative.

The change to full EDI has several benefits. Full EDI will significantly reduce human error and operating costs within the business and provide the ability to access data directly from your ERP system. Putting in a reliable middleware solution is the key to future-proofing your business.

Flow Software has developed unique EDI technology based on a middleware platform that works with any application or data format and has a simple monthly licence fee, with no limit on the number of transactions and no transaction fees. Flow Software has more than 10 years of experience delivering over 500 installations in market-leading enterprises and large public-sector organisations across a wide range of industries in both Australia, New Zealand and abroad. Statelake supports most accounting packages and business applications.

Whether your business is starting out or is a major enterprise, Statelake is scalable and flexible enough to respond as your needs grow. You can be confident that Flow provides a current market-based technology offering that is feature-rich and delivers benefits beyond your expectations.

FMCG - TEGEL

"On engagement with Flow Software, they looked a perfect fit for the way we wanted to operate. They said it could give our internal IT people a tool which is configurable and easy to manage - and we were interested in finding a streamlined, simple and reliable piece of middleware which would enable robust integrations without the need for expensive external consultants.

The training and demonstration which came as part of the deal was very professional. It spoke to the right levels for our people, from those with technical skillsets, across to those on the business side. Flow Software's people were able to get the points across well, sharing requirements and specifications which made us confident that we could achieve the necessary outcomes ourselves.

Using Flow, we're able to achieve exchanges of data and integrations which were impossible over the last 5 or 6 years. It is second to none. When sending data, we're confident that it is accurate. A lot of what we've sought to do is master data control; thanks to Flow, things that should be controlled centrally, are being controlled centrally now. That has removed some processes, improved others and eliminated a lot of manual work in to a single point of data entry. "

Lee Stewart, Business Analyst, Tegel Foods

SEE MORE. CONNECT MORE. DO MORE

The Statelake integration platform is highly-scalable and future-focused. Built with modern business and technology needs in mind, Statelake takes care of your EDI connections, so you can focus on growing and scaling your business sustainably.

Flow Software's high-performing integration platform Statelake has built-in APIs that enables robust and reliable acquisition and exchange of data. Statelake helps you simplify your complex digital environment and achieve rapid, scalable connectivity, allowing you to supercharge your business growth. Statelake connects your systems. internal and external, old and new, enabling cost-effectively data and process automation. Statelake allows organisations to seamlessly share and exchange information and continuously adopt best-of-breed applications.

Statelake is a cost-effective, powerful and scalable Integration platform, which helps to integrate data in real-time between two applications or businesses. Flow provides the connectivity layer that makes all applications, data, and business processes work together

Since 2005 well over 400 customers across New Zealand, Australia and abroad are integrating hundreds of different business applications and trading partners across different industries with Flow Software.

PRE-BUILT PARTNER CONNECTORS

Flow Software has deployed mission-critical data integration and EDI platforms for hundreds of businesses, specialising in building pre-configured partner adapters to seamlessly connect trading partners. What's more, with Flow in place, businesses can go on to take advantage of the full integration capabilities and operational efficiencies that a middleware platform like Statelake offers.

EXCHANGE CRITICAL DATA IN REAL-TIME THROUGH EDI

With EDI messaging and integration, you'll get real-time exchange of critical data for any application, trading partner or data format. Statelake EDI supports a huge range of formats, including:

DOCUMENTS

- Purchase orders
- PO change PO / SO response
- Supplier order confirmations
- Advanced shipping notices
- Invoices
- Remittance advice

ELECTRONIC FORMAT

- EDIFACT
- ANSI X12
- XML
- ASCII
  - Delimited (eg. CSV, TSV)
  - Fixed length (eg. iDocs)
- JSON
- EXCEL

TRANSMISSION PROTOCOLS

- FTP, FTP/S (TLS)
- SFTP (SSH)
- HTTP(s)
- Web services
- - SOAP, REST
- Email
- - POP, IMAP, SMTP

FEATURES AND BENEFITS OF STATELAKE EDI

Protocol and Format bridging
e.g. XML to JSON format conversion

Data mapping
e.g. mapping field A of APP A with field B of APP B for data synchronisation

Routing
Data can route from one application to another based on configuration

Orchestration
It is responsible for talking to the backend applications and transforming data format into the one that the channel understands. It can also do message routing, transaction management, security, monitoring, error handling etc.

Adapters
e.g. mapping field A of APP A with field B of APP B for data synchronisation

Integration templates
Pre-packaged well defined integration points which can run immediately just by deploying it to the new connector

Integration flow development toolkit
Pre-packaged integration flow that defines a structure for the integration

ESB Enterprise Service Bus
Is an additional design methodology that facilitates messaging between two applications

ETL Extract, Transfer, and Load
A methodology used in data science to pull data, process and warehouse it for utilising later

LET'S TALK

Do you have questions or need more information? Get in touch today.

FLOW SOFTWARE

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