WHITE PAPER

B2B WITH ICORE

iCORE

Turning data into profit

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Summary

B2B and EDI tools facilitate cost-effective business communication with customers and suppliers.

Electronic Data Interchange (EDI) is a means to automate business transactions. It provides a fast, efficient and secure way to communicate with business partners. EDI has been developed since the 70's and over the years a number of industry standards have emerged. Today, you can find effective B2B/EDI solutions for enterprises of all sizes and all trades.

E-business web solutions have become a popular complement to automated B2B/EDI solutions. Companies use web based e-business portals to market their products to new and existing customers. Just like B2B/EDI solutions, web based e-business solutions can be adapted to the size of the enterprise and to the required business communication.

Many contemporary integration software providers have their background in B2B/EDI, and their products are often highly compatible with order, purchase, logistics, and invoice systems. However, it is rare that the same vendor offers software for both B2B/EDI and for B2B web portals.

Implementing a B2B strategy is a strategic decision that affects many departments (not just sales and purchasing) and therefore it should be made by the company management.

Implementing B2B can be the first step towards a Service Oriented Architecture (SOA)[1], which can enable business and IT to work more closely together.

Key benefits

A B2B solution makes communication between business partners faster and more secure, and consequently more cost-effective. Implementing a B2B solution can lead to:

- Increased competitiveness.
- Reduced operational costs.
- Increased adaptability in a world where business requirements change fast.
- A first step towards building an agile and service oriented architecture.
- Faster "time to market" for new or changed products or services.
- Increased business flexibility.

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[1] For more information, see *iCore Solutions, White Paper: SOA − The iCore Way*

Why implement a B2B solution?

EDI – in the past and present

EDI – Electronic Data Interchange – was invented in the 1970s as a way to replace slow and expensive document exchange with fast, automated, and secure electronic data. In the beginning, it was mostly used for military applications and within manufacturing companies. Today however, EDI is widely used in e-commerce transactions in most industries and business areas around the world.

EDI was designed for high-volume electronic document exchange between multiple parties. In the 80s, standards such as EDIFACT (in Europe) and ANSI X.12 (in the USA) were established and became widely accepted. Over the years, XML standards came to be developed in the same way as EDIFACT and ANSI X.12.

The use of XML, along with speed, security and accuracy, has made EDI very popular for basic business processes for example order and invoicing. Since EDI standards were designed to be independent of communication and software technologies, EDI has adapted well to new communication methods such as FTP, e-mail, HTTP, AS1 and AS2.

E-business standards are developed by UN/CEFACT, United Nations Centre for Trade Facilitation and Electronic Business. The standardization helps lower transaction costs, simplify data flow and reduce bureaucracy. Work outputs of UN/CEFACT activities include ebXML, UN/CEFACT's Modelling Methodology (UMM) and UN/EDIFACT.

EDI has proved to be one of the most productive technologies for supply chain B2B integration and today, most Fortune 500 companies use EDI-formatted documents to communicate with their business partners.

EDI and the Internet

EDI allows any method to be used for the transmission of documents. The most common method is the Value Added Network (VAN) which, due to its popularity, also offers a lot of additional services.

As the Internet has grown to become the most important communication hub, standards have developed quickly. Some of the most popular communication protocols are the File Transfer Protocol (FTP), Hyper Text Transport Protocol (HTTP) and AS2.

Since EDI works independently of the transmission method, it allows companies to use different communication protocols towards different customers and suppliers. This versatility and adaptability fits well with the requirements of a modern enterprise.

The **iCore B2B/EDI Solution** supports a number of different communication protocols, for example FTP/FTPS/SFTP, HTTP(s) and SMTP. There are also optional solutions such as OFTP, OFTP2 and AS2. You are never tied to any specific solution – you are free to communicate with your business partners as they prefer.

The strategic perspective

Implementing a B2B solution is a strategic decision, and requires you to adapt a comprehensive e-business philosophy. You will not reap the true benefits of e-business if you do not first analyse your processes and figure out which ones would gain the most from integration and automation.

A fully integrated B2B solution will save money in many enterprise processes – from order administration to invoice handling, regardless of whether you are a customer or supplier.

The B2B perspective in today's enterprises usually covers a web solution as well as an automated and integrated EDI solution. The decision on how to implement the solution should be made by the company management, not by the process owners. An integrated B2B solution is a strategic investment, through which you will be able to manage all transactions – not just those of a single department.

B2B from a SOA perspective

A first step towards a Service Oriented Architecture

Successful B2B integration requires well-defined business services, described in a standardized way (often as EDI or XML specifications). Transactions between enterprise units are by their very nature **asynchronous** and **loosely coupled**: these characteristics make B2B integration a suitable first step towards building a service oriented architecture (SOA).

To achieve the same result with a B2B web portal, it must be set up in the same way as automated B2B/EDI – that is, loosely coupled and service oriented. A B2B portal which manages all integrations in an asynchronous, standardized way will be working exactly as a service; which is just what you want.

The **iCore B2B/EDI Solution** provides standardized, reusable and reliable integration between the ERP system, customers, and suppliers. It can also be connected to any enterprise service bus (ESB), central integration platform, or to other applications (thus extending the coverage).

Combining web based e-business and EDI

The combination of automated transactional B2B, EDI and an e-business portal is the ultimate solution for customers who prefer to administer some but not all business processes in a web solution.

iCore offers pre-packaged, advanced accelerators available for configuring a large number of different B2B solutions for well-known business applications or ERP systems. Our technical accelerators may then be used in combination with the selected B2B solution, the application, or ERP accelerator to get a truly loosely coupled SOA environment.

Since the architecture promotes loosely coupled systems, it makes the EDI mappings much easier to perform and more cost-effective in the long run. It means that the ERP system is freed of all "dialects" that exist in the various EDI standards and subsets. The goal is to have one interface per message type and direction, independent of standard or dialect.

An **iCore B2B/EDI Solution** has built-in, pre-defined EDI messages for communication between an ERP system and customers as well as suppliers. The solution includes support for EDIFACT, XML and ANSI X12 message standards.

Recycling

You probably already have a variety of IT systems that are good at different things. However, it is difficult to get the most out of them since they cannot communicate properly. Using integration tools will help you:

- Automate the business processes and maximize your control.

- Use your legacy applications more efficiently and extend their life time, thereby getting more out of previous IT investments.

- Reduce the total cost of ownership of your IT systems.

Keep in mind that it is important not to build a system-specific infrastructure. Instead, you should promote autonomous systems with loose couplings between applications or components. These are the characteristics of a Service Oriented Architecture, which will enhance your flexibility.

Recycling is an important aspect of iCore product development. Our products are designed and developed to let you reuse software code, modules or other components so that specialized applications can be created quickly while also keeping in-house development costs down. Examples of this strategy are our so-called best practises, delivered with the iCore system, and iCore accelerators, pre-packaged but easily configurable to your needs.

B2B with iCore

A cost-effective B2B integration solution

The **iCore B2B/EDI Solution** will act as an EDI or B2B integration gateway between your ERP system and your business partners. To get an outstanding and highly effective solution for e-business management, you can combine the **iCore B2B/EDI Solution** with an accelerator towards a pure B2B web solution.

Connecting the accelerators to an Enterprise Service Bus (ESB) or central integration platform, and then using iCore ERP accelerators for full integration and automation with your ERP system(s), results in a generic, solid and cost-effective B2B integration solution, which reduces the need for administration and maintenance.
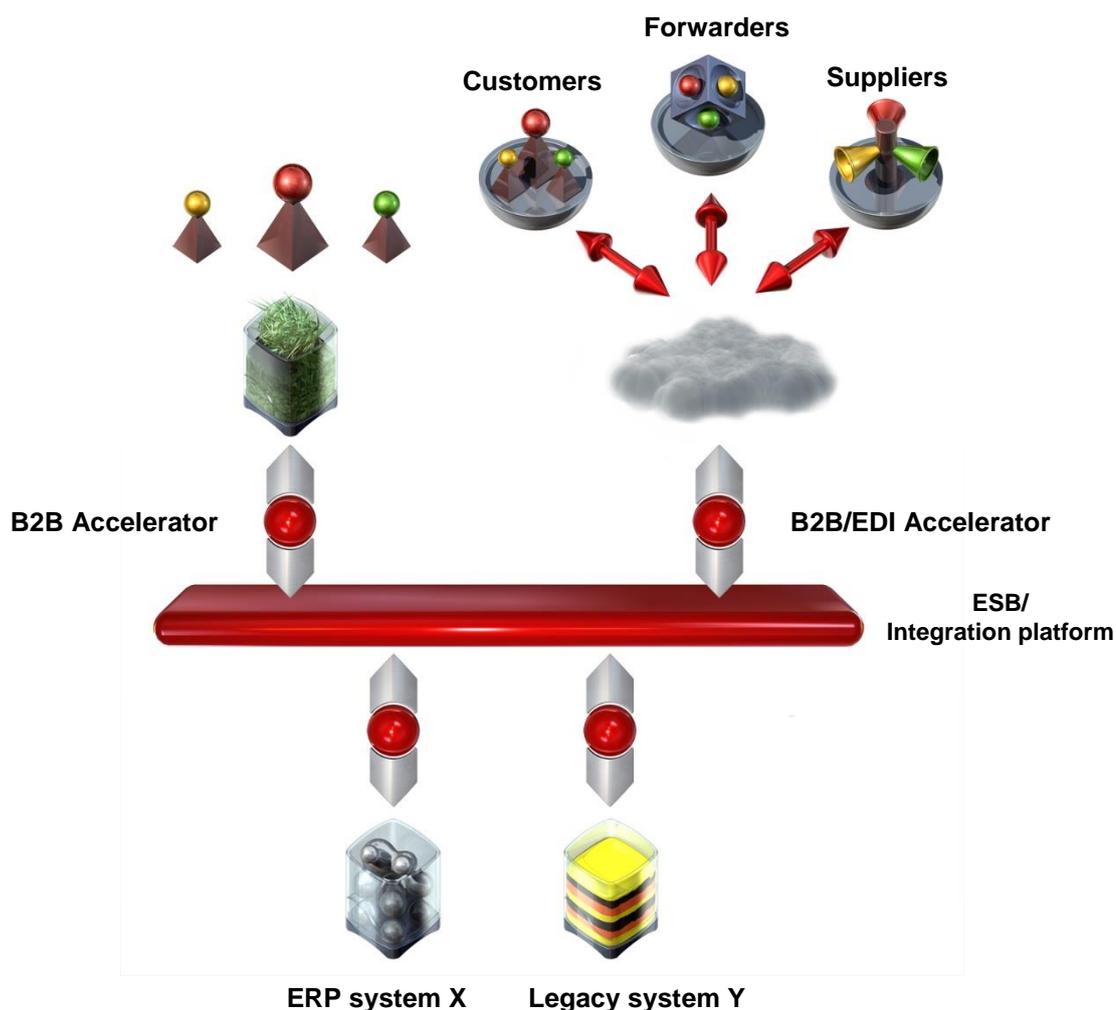
iCore B2B/EDI solution deployed in an e-business scenario

Start small and grow incrementally

We recommend you start B2B integration in a small scale, with a well-defined integration scope covering a small number of business partners and a message types. You can then add partners and message types when your organization is ready for it – iCore products are well suited for incremental B2B integration.

One of the advantages with iCore products is that regardless of whether you have chosen EDI or B2B web portal as your initial B2B solution, you can easily switch or add other options when you are taking the next step in your B2B venture.

Start out small and grow incrementally = ROI from the start!