



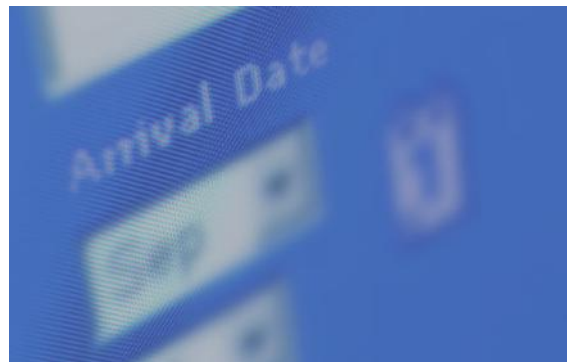
Integration that makes sense

Why Supply Chain Executives Should Care About B2B Integration Technology

Although many supply chain executives are very tech-savvy these days, the “alphabet soup” of technology used for integrating your company's business processes with suppliers, customers, and trading partners can be daunting. You recognize the benefits of directly connecting your systems to your trading partners: lower cost and timely, accurate, and complete information that you can use to optimize current business processes while you innovate for the future.

But why would you care if IT uses FTP, SOAP, REST or AS/2? How does an “enterprise service bus” (ESB) impact the business? What's all this talk about service-oriented architecture (SOA)? Who goes to those meetings on industry standards for XML and why is it worth the time and effort? Shouldn't the decision about whether to use open source versus software from trusted commercial software vendors be left to IT just like you let your transportation department decide whether to buy diesel or gas-powered trucks?

The complete answers to all these questions are far beyond the scope of this paper. But let's look at a few important reasons why you should care. After you've taken a look, I hope you'll call your e-Commerce Director or CIO or enterprise architect in your information technology department. I suspect they're eager to engage in meaningful conversation.



Business Integration Technology, Inc.

1310 Papin Street
First Floor Center
St. Louis, MO 63103

Phone: 314-635-6351
Fax: 314-601-3092
<http://BusinessIntegrationTechnology.com/>
Email: info@BusinessIntegrationTechnology.com

Six reasons why business and IT leaders should talk about integration

Cost

The goal of effective supply chain management is to drive costs out of the supply chain, not shift them! The decision to integrate with trading partners by direct message exchange instead of requiring suppliers to assume the burden of data entry and retrieval on a portal drives costs out of the system by:

- Eliminating data entry labor costs
- Reducing the costs of processing and resolving errors
- Providing more timely information to facilitate early intervention and lower-cost resolution of supply chain problems
- Providing more complete information for cost-effective supply chain planning and execution
- Enabling visibility of shipments to make it possible to shift to lower-cost transportation modes with a managed approach to eliminating out-of-stock conditions by expediting shipments only when necessary



Security

This may be a necessity rather than an option. Homeland Security, Sarbanes-Oxley, Six Sigma, ISO 9000, and many other corporate drivers may force you to care about encryption, authentication, authorization, non-repudiation, and an auditable trail of information sharing. Here are a few thoughts to motivate the conversation:

Encryption is all about making it hard for the wrong people to read, modify or forge information. Ask your tech team about when and where the information is encrypted, which parties have the ability to decrypt, and especially when and where it is decrypted. Information is not secure if it is decrypted outside a secure perimeter of a trusted enterprise. So a bill of lading that is decrypted on a Web server is vulnerable. Make sure that the encryption scheme protects against modification of valid documents and forgery. Ask about the use of lightweight “proxies” that eliminate vulnerabilities in the exposed “DMZ” portion of your and your partners' networks.

The best authentication mechanisms go beyond username/password and include digital certificates and even two-factor authentication that includes something the partner knows as well as something they have (like a smart card). Modern protocols such as widely-accepted AS/2 as well as newer Web service protocols do a much better job at this than legacy FTP (file-transfer protocol) systems. But it's all in the execution! Make sure security experts are involved early in determining protocols so that you can support secure authentication.

Good authentication ensures that you and your trading partners know who's doing what, but determining whether a partner can or cannot perform an action is “authorization.” Your systems and your partners' systems need to have a robust mechanism to control and monitor interactions. Since direct integration is done in the name of an enterprise or a division/department, the usual concepts of privileges for individual users are not easily applied. You'll need to discuss what each authorized role can and cannot do and how to manage auditable changes.

1310 Papin Street
First Floor Center
St. Louis, MO 63103

Phone: 314-635-6351
Fax: 314-601-3092
<http://BusinessIntegrationTechnology.com/>
Email: info@BusinessIntegrationTechnology.com

BUSINESS INTEGRATION TECHNOLOGY, INC.

“Non-repudiation” is a mouthful that means a partner “can't say they didn't do it.” Good security technology and practices can make an electronic exchange suitable for billion-dollar transactions using digital signatures in addition to strong encryption. This is another area where you may need a specialist.

Your internal audit team will need to work closely with you and IT to ensure auditability of every transaction with trading partners as well as all internal integration. Make sure that you store an unmodified copy of every message to and from trading partners before you “map” it to enterprise applications. This will prove invaluable in resolving disputes.

Business agility and time to market

Technical decisions may have a dramatic effect on your ability to respond to changing business needs including the ability to support your customers' initiatives as well as the ability to support your own supply chain innovation. Faced with a customer's demand to collaborate electronically, many enterprises attempt to satisfy the immediate need without giving full weight to the larger scope of integration needs. This can lead to a “point solution” that achieves integration with the current customer for the current business process exchanging the currently anticipated business documents using the current protocol and security mechanisms. But these point solutions can be brittle. They may not even provide adequate support for the single customer's needs over time, much less the needs of the entire customer base - and suppliers - and transportation carriers!

What can you do? How can you anticipate all these needs? The secret here is to “know thyself.” Don't try to build a solution for everyone else. Determine what business content your enterprise needs for each outward-facing business process and build your enterprise integration infrastructure around that. Then you can build “maps” and “adapters” for each integration need that reflect your enterprise approach on one side and can reflect changing external needs without re-architecting the entire scheme every time someone changes something or requests another collaborative process.

Conversely, you will find that you can update internal systems and simply modify the adapter for the specific system rather than redoing all point-to-point connections. This approach is key to the concept of an “enterprise service bus” or “ESB” and provides a foundation for building a service-oriented architecture. IT can't do this for you alone. Only the business people can determine the content and workflow of the business processes. Then IT can build an “agile” solution and the next time you come up with a supply chain innovation, it won't be held back by brittle IT architecture.



Vendor lock-in

This is tricky. A solid relationship with a technology vendor is like being able to leverage a good third-party logistics firm. It provides real value. Your IT department wants to leverage corporate investments in technology architecture and existing software assets. And that's good. But if and when a vendor's solutions lock you into a single source for technology, the enterprise suffers. What you should ask IT is whether the proposed solution adheres to widely-accepted standards and embraces best practices for enterprise architecture. If it does, it will be possible to integrate “best-of-breed” software from other vendors to meet your business needs. You may not choose many products from additional vendors, but the ability to do so can be beneficial with your existing vendors.

1310 Papin Street
First Floor Center
St. Louis, MO 63103

Phone: 314-635-6351
Fax: 314-601-3092
<http://BusinessIntegrationTechnology.com/>
Email: info@BusinessIntegrationTechnology.com

BUSINESS INTEGRATION TECHNOLOGY, INC.

You will be insulated from changes in the strategy of your vendors that shift support and investments away from the software that you used as your foundation. And you will always find it easier to recruit and staff projects that use widely-accepted standards.

Another option to consider is the growing availability of “open source” solutions. There are many business models for open source, but most share a commitment to standards and are available without a license fee. Commercial support is often available as an option, but rarely required. Why would you, as a business person, care? Because a standards-based open source solution can significantly reduce the funding requirements of technology to support a B2B integration initiative. Your enterprise IT can migrate to a commercially-licensed but standards-compliant solution if, and when, they see fit - but after the business value of the solution has been proven.

Customer loyalty

Although your customers may rightly resist “lock-in” with you just as you may resist it with your suppliers, there are reasons why a customer would be more likely to stay with a supplier that has implemented agile and effective collaborative processes. When costs are taken out of the supply chain at any point, all participants benefit. Complete, accurate, and timely information allows each side to optimize their processes. And when your supplier can implement innovative initiatives rapidly and accurately, you would need a compelling reason to look for an alternative supplier. You and your customers can play this game and all will win.

“Alignment” - getting the full business benefit of IT investments

Though the productivity savings for IT are huge, the strategic implications of implementing integration with forward-looking architecture like an enterprise service bus or a service-oriented architecture are just as important. If an enterprise creates enough services, they can start to build a map of the business expressed in technology - a service-oriented architecture (SOA). For IT, this map is the blueprint that guides the development of the integration layer and its two major components: messaging infrastructure and services. For business, an SOA is the big picture of all the business processes and flows of a company. It means businesspeople can visualize, for the first time, how their businesses are constructed in terms of their technology.

About Business Integration Technology



Business Integration Technology Inc. (BIT) is a leader in integration technology for transportation, logistics and supply chain management. BIT designs and implements highly cost-effective business-to-business connections that eliminate the costs of doing business with paper, phone and fax, bringing innovative value to shippers, carriers, 3PLs and companies looking to improve cycle time and reduce cost. BIT was founded by the team that built the messaging engine that runs North American Rail. BIT is also a partly-owned subsidiary of Daugherty Business Solutions, a firm with over 20 years of experience helping their clients achieve their business objectives through the effective use of leading information technology and more than 400 consultants in St. Louis, Atlanta, Minneapolis and Chicago.

1310 Papin Street
First Floor Center
St. Louis, MO 63103

Phone: 314-635-6351
Fax: 314-601-3092
<http://BusinessIntegrationTechnology.com/>
Email: info@BusinessIntegrationTechnology.com