

The Role of XML in B2B Integration

By Mike Parks

To remain competitive in today's global marketplace, manufacturers must manage complex, virtual supply chains, or "webs", that address the growing demand for build-to-order products. High-performance companies are meeting this challenge by successfully applying eBusiness integration strategies and tools to survive, prosper and grow. Effective eBusiness integration improves communication among business partners, streamlines information flows, and shortens both the product design/development cycle and the manufacturing/order fulfillment cycle. XML is fast becoming a key tool in eBusiness integration strategies and solutions.

Let's first define eBusiness integration. EBusiness integration is the process of creating seamless horizontal and vertical information flows. Horizontal integration links business partners across the supply chain (the "extended enterprise"). Vertical integration binds applications and data stores together throughout an enterprise. As the nature of competition changes from "company against company" to "supply chain against supply chain", and as customers demand faster, cheaper, more personalized (and customized) services, horizontal and vertical integration become more critical. This multi-directional integration is the most critical factor in eBusiness success.

Now let's take a closer look at the role XML plays in enabling eBusiness integration. XML provides a robust, human-readable information exchange standard. It is widely accepted throughout the IT community. In fact, the real power of XML is that everyone agrees it provides an acceptable format for enabling both horizontal and vertical exchange of information between applications. Even traditional EDI software vendors are adapting their products to support XML. Thanks to the extensibility of XML, Industry specific XML vocabularies are emerging, which many experts believe will eventually replace today's two EDI standards, X12 and EDIFACT.

One of the most serious drawbacks of existing EDI technology is implementation cost and complexity. This has discouraged or prevented smaller companies, the majority of businesses in any supply chain, from participating in traditional EDI efforts. XML solves this dilemma. While EDI formatted data is hard to read, inextensible, expensive, and batch oriented, XML is easy to read, very extensible, low cost, and works in real-time or batch integration scenarios. XML holds the promise of enabling all business partners in a supply chain, regardless of size, to participate in information exchange. It opens B2B integration opportunities to big and small companies alike, and creates the possibility for true supply chain integration.

There are two main approaches to B2B integration. One uses the "drop-box" approach where the XML document is produced by the sending organization and then "dropped" onto a web server. The document waits in this location to be "picked-up" by an application from the receiving organization. The second approach is real-time transfer of the XML document from the sending organization to the receiving organization using one of several techniques such as XML-RPC or SOAP. This session will demonstrate B2B integration using the "drop-box" approach to exchange product catalog information between trading partners in a fictional supply chain.