

Core Components: Delivering on the ebXML Promise

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Executive summary

This briefing discusses Electronic Business XML or ebXML, a new global standard for conducting e-business, and focuses on the part of ebXML that deals with business semantics, called core components. It provides an overview of this innovative technology, to help business people begin planning for its adoption and benefits.

Once implemented in business software and services, ebXML will make it possible for any company of any size in any industry to do e-business with any other company in any other industry, anywhere in the world. To achieve this ambitious goal, ebXML sets out to do what no other business standard has tried to do, namely develop a way for companies to talk business systematically and accurately across industry or linguistic boundaries.

Core components are the basic data items that business documents can use and reuse from one document to the next. Many common business documents have the same basic structure and underlying data content. However, different industries use different terms for the same ideas, and for businesses to communicate with each other, they need a way of breaking through these semantic barriers, without asking companies to change their long-standing business practices.

With core components, companies can take e-business to an entirely new level, and encourage more innovative business collaborations and improvements in business processes. The ability to relate data from one business document to another makes it easier for companies to share their data in electronic messages with more business partners. This increased data sharing can expand the use of collaborative business planning and supply chain integration. Also, core components can help integrate current company data with systems and vocabularies used in related fields and thus make it easier to expand into new lines of business.

With core components, electronic business messages can identify these underlying common data items, and relate them not only to their counterparts in other business documents, but to earlier e-business technologies (such as Electronic Data Interchange), and the data stored in company business systems. Core components have unique identifiers and a neutral syntax that makes them interchangeable, machine readable, and independent of any vendor's software or network.

The work on core components includes not only the identification of these interchangeable parts in business documents, but the systematic and consistent definition of the business context – the substance of industry business practices and terminology – that give the components their precise meaning in business documents. The systematic combination of core components with context allows for the automatic assembly of e-business documents exchanged with trading partners.

EbXML is still a work in progress. The development phase ended in May 2001, the core components team having completed its basic methodology and proposed a starter set of core components. Since then, the two leading e-business standards organizations have joined to continue the work. Industry organizations and individual companies should consider taking part in this important exercise, since it will likely determine the language of e-business for many years to come.