



ebXML – model for the future.

ebXML is a set of XML-based standards enabling electronic business transactions. These standards are intended to be the successor to EDI, and take a heavyweight top-down approach to defining business processes, business agreements, transactional interactions, messages, and all of the machinery needed to interact according to these definitions.

While at least part of the ebXML standard (i.e., the Message Service Specification -- MS) has the nominal support of much of the industry, and is being implemented by several early adopters, vendor implementations of the various ebXML standards are emerging slowly (due both to the complexity of the standards and the lack of market demand), such that organizations are only utilizing a few of them today, e.g., MS. Instead, over the past 18 months much of the focus on business to business (B2B) technology has shifted towards Web services, with its lightweight, bottom-up approach to developing the B2B stack. Accordingly, it is likely that rapid and widespread adoption of Web services standards, coupled with intensely competitive attention on those technologies by major vendors will limit the implementation of the ebXML protocols as specified.

Another limiting factor will be the "good enough" solution of the EDIINT AS2 standard, which provides secure transport of EDI messages over the Internet, but lacks sophisticated business process and trading partner agreement capabilities. For example, WalMart recently adopted AS2, not ebXML, as its next step beyond traditional VAN-based EDI for its 8000 trading partners.

In response to the focus on Web services for B2B integration, ebXML has incorporated at least one low-level Web services standard, i.e., SOAP, and is considering how to incorporate WSDL and UDDI as well. However, the divergence in approaches at the higher levels will be increasingly difficult to work out. For example, the Web services business process language proposed by IBM, Microsoft, and BEA, BPEL4WS, is quite different from ebXML's BPSS.

Accordingly, our expectation is that, while Web services and ebXML B2B concepts will converge, implementation of Web services will effectively displace implementation of ebXML, which will be relegated to serving primarily as a conceptual reference model. In this regard, Web services and ebXML will recapitulate the evolution of the Internet and OSI protocols, with the lightweight Internet protocols effectively displacing the heavyweight OSI protocols, leaving the OSI model as just the standard "seven layer" conceptual reference model.

Of course, like OSI, CORBA, DCE, and other top-down heavyweight standards, before it, ebXML is likely to establish at least a marginal market among the largest organizations (e.g., governments, trade consortia) that prefer standards developed by international standards developing organizations.

Bottom Line: Clients implementing B2B interactions should certainly refer to ebXML standards as a conceptual model. However, they should be aware that ebXML protocols are unlikely to be pervasive over the long term except in specific industry and governmental scenarios. Accordingly, user's primary focus should be on strengthening and extending the ubiquitous Web services protocols to meet the requirements set forth by the ebXML conceptual framework.