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Research Note
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Q&A: What to Expect From Web Services Now ... and Later

At Gartner's Spring U.S. Symposium/ITxpo 2002, clients posed several key questions regarding Web services, including what to do with Web services today, and what Web services ultimately will achieve.

Core Topic
Internet Platforms and Web Services: Web Services and Dynamic Business Webs

Key Issue
What are Web services, and how is this approach different from previous approaches?

Web services will require the major vendors (such as Microsoft, Sun Microsystems and IBM) to play nicely together. Does Gartner foresee this happening?

As with any technology, Web services adoption will be accelerated by vendors working together. Thus far, many vendors have cooperated together on Web services. However, it would be naive to believe that vendors will put aside their own interests "for the good of the industry" or to make the lives of their users any easier. After all, they are all public, for-profit companies. Although efforts such as the Web Services Interoperability Organization (WS-I), the Liberty Alliance and the World Wide Web Consortium (W3C) have the potential to assist with the standards-setting process, they will continue to be rife with politics. Web services adoption will, therefore, not occur as quickly as it might have. However, there is already agreement on the basic standards, such as Universal Description, Discovery and Integration (UDDI) registry, Web Services Description Language (WSDL) and Simple Object Access Protocol (SOAP). This is sufficient for work to begin on many applications. Projects that need to advance beyond the state of these standards must rely on proprietary or potential standard technologies. At this point, given the current situation regarding Web services standards, we estimate the delay in adoption will be approximately 18 months.

Does the Web services vision of multiple components that can be assembled into specific solutions spell the end of single-vendor-dominated, monolithic applications in areas such as customer relationship management (CRM) and enterprise resource planning (ERP)?

As with components and objects, Web services have excited many people with their potential to provide highly advanced

capabilities. The vision of "mix and match" and software created and delivered automatically may sound compelling but, in reality, there is no magic in Web services or any of the previous technologies that will make these capabilities possible. Enterprises should first be realistic in focusing on real benefits that Web services can immediately deliver — for example, reaching out to make use of external functionality, simplified integration or even dynamism — before attempting to solve the most difficult problems.

Aren't more-specific standards (such as ebXML) needed for successful interenterprise adoption of Web services? For example, how would an order be sent without a specific definition of what an order is?

Standards such as ebXML are needed for constructs such as orders and other complex, higher-level business-to-business (B2B) interactions. However, these are more the domain of B2B standards, such as RosettaNet and ebXML, rather than Web services. There is no concept of "an order" in Web services; the building blocks are much simpler. Over time, B2B implementations will increasingly run with Web services technologies as their underpinning.

Will Web services ultimately replace traditional enterprise application integration?

Web services are more about interoperability than integration. Interoperability is when systems speak the same language or protocols. Integration is bridging and translating between systems that don’t speak the same language; a standard may be used between two proprietary implementations, but not always. Web services increase interoperability — especially as they’re added to middleware and integration products. This results in less need for integration, but only at the simplest level. Integration still remains a big issue for enterprises. The addition of Web services will help vendors and users alike focus on more-difficult integration problems by reducing the need to focus on the simple ones. Because there is no shortage of difficult integration problems to focus on, Web services will be a key enabling technology for allowing integration to move forward.

What should I do with Web services today?

Enterprises should set goals for success in Web services adoption which do not require lengthy projects pegged to major vendor truces. Development projects should target particular functions or business problems with broad but shallow impacts (such as improving real-time access to a largely obscured database). Web services will have immediate benefits that do not

rely on their ultimate conversion into well-behaved Web services, with complex shuttling back-and-forth of data in a dynamically negotiated realm. Setbacks should be presumed, particularly in vendor interoperability conflicts, but ensuing layers of metadata and ad hoc collaboration at low levels should ensure "good enough" solutions.