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WHO SHOULD SET THE STANDARDS FOR WEB SERVICES?

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Abstract: *The ability of web services to become a pervasive reality in the marketplace will be dependent in large measure upon the quality of the standards that are created to enable them. The best standards bodies to create those standards will ultimately be decided by the marketplace itself, which can choose among a variety of entities with a range of processes and technical focus. But some degree of inefficiency and confusion may be the inevitable cost for the existence of choice.*

There once was a time when anyone using a computer could employ anything that anyone else had created. No one had to worry whether any information or application resident on a computer could be used by anyone else. IT life was simple and good. Then the second computer was built, and the struggle to return to the Garden of Interoperability was on.

For many years, interoperability was desirable for reasons such as avoiding "lock in" to single vendor solutions, to be able to access a wider, and more price competitive range of products and services, and to broaden the pool of potential IT hires. But with the invention of the Ethernet, and the later advent of the Internet, the need to exchange data and permit the interoperation of enormous, wide area networks has become a matter of even greater urgency. Imagine, for example, managing the IT resources of the United States Federal government and all of its agencies.

There have been many efforts launched over the years to achieve interoperability Nirvana, many of which have focused on the Unix operating system. While today's Linux development efforts add a new open source dimension (and attendant benefits) to the process, the core value of the deliverable remains a stable, open operating system that will facilitate the assembling of interoperable systems.

The latest methodological approach to achieve interoperability is web services -- a series of processes and functions for developing, integrating and deploying network-based software applications. Using the web services approach, software applications are packaged as single entities and "published" to the network, where they can interact with other applications using Internet-standard technologies and connections.

In the grand vision, web services would be used to create open, distributed systems whereby companies and individuals can access information, tools and products quickly, inexpensively and efficiently. In a world architected to support pervasive web services, vendors like IBM and Microsoft see themselves becoming IT "utilities," selling services upon demand across an Internet "grid." ZapThink LLC, a leading XML and Web Services analyst firm, predicts that the web services security market alone will reach $4.4 billion by 2006, and that the total web services market will exceed $25 billion.

Is such a golden world of pervasive web services interoperability just over the horizon? Or are we simply witnessing another example of over-enthusiasm for "The Next Big Thing," in this case even more aggressively hyped in an effort to breath life back into a moribund market for all things IT?

Who knows. But it is certain that the ability to realize even a modest portion of the potential of web services is totally dependent on the continuing evolution -- and pervasive adoption -- of both the base level standards as well as the more specialized specifications that would be needed in the levels above them. For this to happen, the "right" standards bodies will need to support the necessary component processes.

How does one define the "right" standards bodies? In our last issue, we considered whether the market, or the government, should decide the hallmarks of a "good" standard setting process. In this issue, we use the real-world example of web standards and the activities of the principal players in the market to analyze whether the definition of a "good" standards body can be situational, rather than absolute.

We would submit that there is no such thing as a perfect standards body for all purposes. While certain stringent process controls and rules of operation might be essential in certain situations (e.g., where public safety standards are concerned), some of the same controls and rules could be useless drags upon efficiency in another (e.g., where a necessary but non-strategic technical standard in a narrow niche is involved). It is no coincidence that it is in the rapidly evolving world of IT where consortia have flourished, or that the members of those entities have demonstrated a willingness to experiment with process and evolve new methods of operation.

In fact, we believe that it is healthy to accept the appropriateness of a range of stringent process options when constructing the right mechanism for setting a given standard. The instant situation, needs and goals will indicate the process needs, and (fortunately) the diverse range of existing standards bodies may provide an already-existing platform for the project. If not, no one will be more knowledgeable than the technical leaders in a new area to judge what process will best serve the current need.

Recently, some were surprised when Microsoft and IBM decided to offer the BPEL4WS 1.1 specification, which they had co-authored with BEA Systems Inc., SAP AG and Siebel Systems, Inc. to OASIS. Why surprised? Because the widely respected World Wide Web Consortium (W3C) had already commissioned a Web Services Choreography Interface (WSCI) working group to solve many of the same web services needs. With OASIS agreeing to charter a working group to further develop and support the BPEL specification, some feared that Microsoft and IBM were acting against the best interests of the marketplace.

So - from the standpoint of facilitating the orderly enablement of web services, was the contribution to OASIS a good thing, or a bad thing? Time will tell, but already companies such as Oracle, BEA, SAP and Sun Microsystems have announced their intentions to participate in the working groups of both W3C and OASIS, with the goal of ensuring that the work product of the two organizations will be complementary, rather than competitive. IBM, on the other hand, has said that it will not participate in the W3C effort "at this time."

In the view of some, the BPEL contribution is a sign of a fragmenting marketplace. But in the view of others, there is a proper role for both W3C and OASIS in web standards, with W3C continuing to focus on more foundational standards such as XML and SOAP, and organizations like OASIS providing useful contributions at higher levels. In this view, the process and focus of OASIS may offer the most experienced, appropriate platform for an effort at this level.

In fact, we would submit that the diversity of standard setting body choices might often (if not always) achieve a better result. By providing the marketplace with choices, a given standards effort can be launched from the optimal platform. Given that all standards work is ultimately consensual, it is not likely that a standard setting effort will attract a critical mass of participants, or that its work product will become widely adopted, if the market concludes that proprietary motives are manipulating the process or that the technical quality of the work product is poor. Similarly, as with all other aspects of a free market, having competition keeps a standards body nimble and responsive, and less likely to become flaccid or subject to manipulation. Finally, the stress of competition and the inability of any organization to be guaranteed a technical "turf" facilitates the active, healthy evolution of the standard setting process.

Of course, the presence of choice also presents the potential for false starts, duplicative effort, confusion, and delayed take up of new standards in the marketplace. But that same marketplace has a tendency to react dynamically to such threats, with individual companies being more than willing to inform vendors of

their desires, and announcing their standards implementation intentions. And standards organizations themselves have a tradition of establishing liaisons - both formal and informal. Hence, a constant process of adjustment will usually (though admittedly not always) prevent truly destructive divisions to form in the marketplace.

So the question remains: who should set the standards for web services? Just watch and wait -- the market will decide. And that's not a bad thing.

Disclosure: The author of this article is counsel to OASIS.

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