Open Standards: building successful e-Business

by Patrick J. Gannon, President and CEO, OASIS

Internet standards are making global electronic business a reality - not just for large, multi-national companies, but also for small-and medium-sized enterprises (SMEs) and governments - in every part of the world.

For years, high-cost, heavyweight technologies like EDI shut out companies in nations without strong technology infrastructures or development budgets. Now, low-cost software tools based on standards such as ebXML and Web services offer exciting opportunities to exploit the promises of the Internet without making previously developed systems obsolete. Passively tracking these standards is not enough, however. In order to take full advantage of the benefits from adopting open standards, organisations must become actively involved in the development efforts that create and guide these specifications.

According to the groundbreaking study conducted by the Delphi Group, ***The Value of Standards***, participation in software standards activities and adoption of open standards is now a financial imperative for Internet-based electronic business. *"In this climate, standards create liquidity -- the ability to leverage IT investment in unforeseen ways."*

With the advent of XML-based Web services technologies, it is an even stronger imperative that a common set of Web services standards is developed in an open process. In this post-dot-com era, end user companies are expecting more liquidity and longevity of their assets. To achieve the ROI, cost reduction and service expansion benefits expected; the widespread deployment of standards-based Web services is essential.

Those companies which have become active participants in open standards efforts have cited many benefits for their involvement. In the Delphi Study, the following three were cited most often as flowing from the adoption of open standards:

1. Increases the value of existing and future investments in information systems,
2. Provides greater software re-usability,
3. Enables greater data portability.

The basic Web services protocols are designed to make application integration simpler and less costly. This provides an initial return on investment (ROI) to justify that project. But to achieve the true liquidity of that investment, the user company needs to be able to reuse components in multiple applications and across different hardware and software platforms. The templates that they create to exchange data with one partner need to be reusable in a way that allows for the greatest portability of their data in multiple applications, with a broad range of trading partners (suppliers and customers), and even potentially across different industries. This is where the service expansion benefits become a competitive advantage, allowing a company to enter new markets or to roll out new services more quickly and with less cost.

Getting Involved

The Delphi study also highlighted other benefits from end-user companies that participated in the standards development process. When asked what were the factors that drove their involvement in standards activities, they selected the following as the top three reasons:

1. Vendor neutral environment.
2. Access to a community of developers.
3. Membership comprised of both end-users and software developers.

So, while participants in standards activities understand that they get their best value when they can gather a shared set of requirements from many different end-users, they also want the technical input from a broad community of end-users. And while there are some joint commercial ventures that bring developers together, this cannot replace the vendor-neutral environment that end-users and, especially, government participants need from a standards setting organisation that enjoys an open governance and technical contribution environment.

It is imperative that governments and users prioritise their need for a secure, reliable and trusted eBusiness infrastructure. Until trusted, interoperable identification and authentication services are widely available; we should not expect to see widespread deployment of Web Services outside the firewalls of enterprises. Given the rapid growth of email spam today (many companies and Internet Service Providers (ISPs) report that over 50% of their email traffic is spam), what is the potential impact of spam on future web services? Will you use a web service if you cannot trust the integrity of the web service provider? Will legitimate Web Service providers want some method to ensure the authentication of the users of their service? If secure and reliable infrastructures for eBusiness and Web services are crucial for business and governments, these requirements need to be clearly articulated through participation and procurement actions.

So how can users get involved and have an influence on the directions of the standards setting process? These five action areas are just a few of the steps that end-users organisations can take to have a positive influence on the process and the outcome.

1. Examine and understand standards that are pertinent to your industry. Find out what similar problems other companies in your industry are having and find open forums where common, standards-based solutions can be identified.
2. Participate in standards bodies that relate to your business practices. Your direct participation enables developers to understand your requirements along with the context of how those requirements need to be satisfied in practical solutions. By participating, you also get to evaluate first-hand a wide range of possible solutions and approaches.
3. Help vendors understand the importance of your requirements for interoperability. By participating with other user companies, you are able to identify the broader cross-organisational interoperability issues.
4. Educate your vendors. It is critical that they have full knowledge of the standards that you have implemented in the past and the ones you expect to implement in the future. This is where you can help set priorities on which functions need to be standardized first.
5. Do not purchase products from vendors who do not support the standards you need. And finally, use your ‘purchase power’ to insist upon the adoption of the open standards that fit your company’s and, ultimately, your industry’s needs. Software vendors are often

very responsive when customers insist on the adoption of specific standards in the technology solutions they offer. It's not enough to provide requirements into the standards-setting process, but users have to insist and demand that vendors work together in open processes to create and implement open and interoperable standards.

"Today, smart IT users hang back from the cutting edge, buying only after standards and best practices solidify," Nicholas G. Carr, Harvard Business Review.

The role of a standards setting organization (SSO) such as OASIS is critical, if businesses are to benefit from what Web Services can provide. Infrastructure issues must be resolved at the standards platform; otherwise, individual software vendors will continue merely to provide their proprietary specifications, rendering open interfaces and exchanges virtually impossible.

OASIS: One Membership – Many Opportunities

OASIS is one organisation with many opportunities for involvement. We have a ten-year track record of success in developing standards for the Web and facilitating their adoption in the business community. We are neutral and independent, with a technical agenda that is driven by members. We maintain close coordination with regional and international standards groups on a global level.

OASIS operates under an open process that attracts software technology vendors, end users, academics, professionals, and government agencies to collaborate in a fertile environment. OASIS provides a very broad range of market-relevant standards activities (see sidebar).

The OASIS Technical Process places high priority on openness, scalebility, and speed. We appreciate that producing quality technical work depends heavily on giving access and equal representation to all interested parties. That's why OASIS offers provisions for membership at a variety of levels, including special categories for SMEs, non-profit agencies, emerging economy governments, educational institutions, and individuals. Our inclusive membership structure sets the lowest possible barrier-to-entry, even allowing non-members to access the activities, discussions, and results of our technical work while providing input to the process.

The Localisation Challenge

OASIS has identified support for a multi-lingual global community as one of our biggest challenges moving forward. Although English is often regarded as the universal language for electronic business, its use is not mandated within OASIS. Each OASIS Technical Committee selects a language in which it will conduct its business.

In a global e-business community, local business and political concerns must be made known to the global community. The OASIS process makes it possible for a technical committee to be formed to advance existing standards within a geographic location or language community. Several Asian and European groups are in the process of organising this kind of committee now, and we encourage organisations in other countries to consider doing the same.

The OASIS organisational model reflects the historical pattern of seeking unity in economic affairs while still retaining local autonomy in language and culture. By enabling groups to come together in an organic fashion to address universal challenges while preserving local control of their own achievements, OASIS creates a global environment that empowers individuals to work openly to advance the common good for mutual benefit.

The Global Connection

The creation of an OASIS Technical Committee to promote the adoption of eBusiness and Web services framework standards in a specific country or specific industry is an ideal way for companies to be represented in the global arena. OASIS has been acknowledged by the four *de jure* Standards Organizations - the International Electrotechnical Commission (IEC), the International Organization for Standardization (ISO), the International Telecommunication Union (ITU), and the United Nations Economic Commission for Europe (UN/ECE). OASIS participates with these groups in a Memorandum of Understanding (MoU) on Electronic Business. OASIS is proud to work in a peer relationship with MoU members on the development of global standards.

A prime example of international cooperation occurred when more than 4,500 representatives from 150 countries in five continents participated in the initial development of ebXML, a joint effort co-sponsored by the United Nations Centre for Trade Facilitation (UN/CEFACT) and the Organization for the Advancement of Structured Information Standards (OASIS) from 1999 to 2001. There were no cost or organisational membership requirements for participation. Not only did that standards setting process result in a family of modular standards that companies, governments and industry associations around the world are adopting - it also produced at least three open software initiatives. This is leading to a plethora of free and low cost solutions, which will fuel the implementation by SMEs and smaller governments, especially those in developing and transitional economy countries. The ebXML framework of standards offers a truly secure electronic business messaging environment, so that companies and governments can communicate business messages electronically locally or worldwide with the confidence that their messages will be delivered reliably to known trading partners.

Why are all of these international organisations and their thousands of members spending so much time and resources on the development and adoption of open software standards for e-Business? A primary reason is that the use of these interoperability standards will enable more companies worldwide to participate in the rapidly growing electronic business arena. This will help to promote sustainable business development in the developed countries as well as in developing countries. Clearly quantifiable benefits will stimulate more investment to further the development of the Internet Age for businesses around the globe.

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Government Leadership – A Catalyst for Small/Medium Business Development

The Australian government's National Office of Information Economy (NOIE), together with Standards Australia, are delivering a significant example of open standards implementation with the BizDex (www.bizdex.com.au) programme. BizDex is a collection of open infrastructure

components that, together with a commercial and governance framework, provide the environment necessary for B2B collaborations to flourish.

This particular programme is of great interest to OASIS because BizDex reflects substantive implementations of current and emerging OASIS standards and specifications. It is clear that this type of confirmation only serves to validate the technical efforts underway at OASIS.

We believe that the NOIE initiative quite specifically benefits the future of eBusiness in Australia by providing and sanctioning a national infrastructure devoted to electronic business that is accessible to all organisations. The BizDex programme infrastructure components such as a library of e-business standards; registry of businesses and their e-business services; and a national trust (PKI) infrastructure, promote interoperability among and between Small Medium Businesses (SMBs) as well as multinational corporations. Australia seems to be unusually well positioned to exploit an opportunity to bring business-to-business capability to all businesses. The choice to implement BizDex using global open standards will enable the SMB participants to also interact with other users of these eBusiness standards around the world. We also see the BizDex programme as an excellent example for other governments to follow.

SIDEBAR:

OASIS Open Standards and Specifications for Electronic Business

ebXML
Enabling enterprises of any size, in any location, to meet and conduct business through the exchange of XML-based messages.

WS-Security
Advancing the WS-Security specification for high-level security services.

SAML
Exchanging authentication and authorization information for security

XACML
Expressing policies for information access over the Internet.

e-Government
Identifying requirements for standards that meet the needs of governments.

CTML
Developing a unified XML vocabulary for international trade of controlled materials .

UDDI: Universal Description, Discovery and Integration
Enabling companies and applications to find and use Web services

Translation Web Services
Creating business process terminology for language translation and localization.

XLIFF
Advancing a multi-lingual data exchange standard.

A complete list of OASIS activities can be found at http://www.oasis-open.org.