## Open Standards Facilitate Global Commerce

Globalization is a reality today. Products designed in Toledo, Ohio may be sold in Toledo, Spain, while software produced in Moscow, Russia could be sold in Moscow, Idaho, or in Melbourne, Australia. Preparing software for sale outside of its country of origin is not a trivial task, and involves the adaptation of the product to be usable in its new market. Adapting a product for sale in another country may involve changing the language of the product and its documentation, adding country-specific features (such as legal or accounting options needed in a different nations), and carefully changing the look and feel to match the expectations of users. Open standards, both technical and practical, help to make this process easier and more reliable. To the extent that the technologies and practices used to take products to a global market are open and accessible to all, all companies entering new markets will benefit, as will consumers, who will have access to affordable quality products suitable for their needs and wants.

Multiple standards organizations address globalization as part of their mandate, including such well-known groups as the World-Wide Web Consortium (W3C), the Unicode Consortium, OASIS, and the International Organization for Standardization (ISO), as well as numerous national and regional standards bodies. Development of global standards has benefitted from recent technological innovations developed under the aegis of these bodies; innovations such as HTML, XML and Unicode have made international product development considerably easier and are coming together to create money- and labor-saving standards to facilitate the process of taking a product to a global market.

One organization, the Localization Industry Standards Association (or LISA, for short), serves as the nexus where all of these standards activities come together. It is possible - and history suggests it is likely - that duplication of effort and conflicts between multiple standards can easily occur, but LISA provides the forum for resolution. LISA also provides the standards participants an opportunity to learn from customers so that they can address the most pressing issues. With regard to open standards one LISA member stated, "accepting standards is like breathing air... how can you refute the value?" In this vein LISA has been instrumental in the creation of standards particular to product globalization, and has cooperated with other groups on areas of mutual interest.

Open standards facilitate improved business practices in a number of ways:

1. Standards eliminate duplication of effort. If every company approaches a common problem in a unique way, companies are essentially reinventing the wheel, often at considerable cost and effort, and the results may be less than satisfactory in some instances. Efforts that result in incompatible solutions also threaten interoperability and tie customers to particular "solutions" (that may introduce yet other problems in need of solutions). The "browser wars" of the 1990s illustrate this problem - as each browser introduced its own "features" that would not work with the competition's browsers, web pages were created that could not be viewed by a substantial portion of those on the Web. Those who did want everyone to be able to view their pages either could not use the latest and greatest technologies, or had to create multiple versions of their pages for the different browsers in common use. Many content creators simply opted to leave

many web users out of luck rather than deal with the difficulties caused by not having effective standards.

In international product development, language- and country-specific standards allow products to take advantage of highly-complex and developed features at a minimum of engineering expense. Many of the problems faced in developing products for international markets would be intractable for all but the largest developers were it not for standards.

- 2. Standards open the playing field and encourage innovation. Some technical problems are difficult enough to solve that smaller companies find the cost of dealing with them on their own to be prohibitive, and thus they cannot enter into fields they otherwise would find very rewarding and in which they could contribute new ideas and skills. Standards, where they exist, eliminate the need for companies to "go it alone" and allow them to focus on adding value in their areas of expertise. This allows companies to focus on their core competencies without having to be involved in every area that pertains to their products. Standards for international products allow companies from anywhere in the world to effectively compete in any market in the world and innovations can come from anywhere.
- 3. Standards lower consumer cost. Use of standards makes products cheaper to produce and cheaper to purchase. Imagine a world in which each country had its own kind of computer monitor, which would not work with monitors or computers from another country. Monitor producers would not be able to take advantage of economies of scale in producing monitors and costs to customers for monitors would be much higher than they are. Open standards even hold the promise of providing universal access to the benefits of technology to people in economically disadvantaged countries by bringing costs down and allowing companies to provide products suitable to users in these regions; the realization of this vision though depends on standards that allow products to be made available at low cost in these countries.
- 4. Standards increase customer choice. Because products that adhere to standards will work with other standards-based products, standards allow customers to select products based on features and cost, selecting the product that best fits their needs for the price they can pay. Standards give customers the power to find the best solution to their unique circumstances, rather than relying on a one-size-fits-all solution from a product developer. Open standards for international products open the market to companies anywhere in the world and bring choice to even the most isolated markets.
- 5. Standards provide users with flexibility. in addition to allowing customers to select from a variety of product, standards also allows them to change providers or products as conditions dictate. Customers are not bound to a service or product because the cost to change to something else would be prohibitive. In a world in which technology changes faster than can be anticipated (and often faster than it can be implemented), flexibility and standards are key to allowing customers to deal with unforeseen needs that can become critical in a very short time. Standards also help product developers make sure that what they are doing today won't limit what they can do in the future and allow them to be flexible in meeting the needs of their customers.

- 6. Standards increase product quality. Standards force companies to compete on the basis of quality, not simply on the basis of being the gatekeepers to needed technologies. When products have to distinguish themselves on the quality with which the perform their job, companies will focus on meeting customer demands if they don't, someone else will. Without standards companies may neglect customer needs. Quality issues have traditionally been a major concern for products sold outside of their home market, but standards used in the adaptation process have helped improve quality at the same time as costs have dropped.
- 7. Standards empower users. Ultimately standards empower users to take control of their needs. As technology barriers are lowered for customers, customers are free build their own solutions without waiting for large companies to provide imperfect solutions to their needs. The standards-based globalization of products open options for users regardless of where they are located or what language they speak.

In short, globalization brings benefits both to product producers and users of products around the world, but the realization of these benefits depends directly on open standards. Increasingly companies are recognizing that standards are in their best interest and contributing to the development and implementation of standards. To ensure that standards being developed will meet present and future needs, companies need to get involved in standards development: they can join relevant standards bodies (such as LISA for international product development) and contribute time and resources towards standards development, they can insist that their partners utilize standards-based solutions, and they can make sure that their own solutions conform to standards where appropriate.

Increasingly major customers are insisting on these actions. According to Glenn Nordin of the U.S. Department of Defense, "Developers as a group need to help their customers understand and use standards in writing specifications. Standards from UNICODE through to LISA's TMX and TBX [globalization-specific standards], will provide the glue to build the virtual translation, translation management, and knowledge warehouse of the future." In keeping with this, tools used in international product creation by the U.S. Government are expected to support standards. Other large consumers are also requiring that their partners support standards relevant to their areas of expertise.

LISA conferences provide a unique opportunity to discuss standards and how they impact the needs of clients. LISA provides a valuable service to customers by presenting a comprehensive, unbiased view of what it means to "go global", while acknowledging the problems that customers encounter and providing information on the technical or process solutions that address those problems.

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Bill Sullivan has worked for IBM for more than a quarter century and in the globalization arena for 12 years. During that time he has worked with hundreds of software and hardware products from laptops to mass spectrometers. He has also served as a globalization consultant to IBM solution and service providers supporting a broad range of industries. He is currently Program

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When unplugged from the world of technology, Bill is an aficionado of Chinese gardening and an instructor in the martial art of t'ai chi ch'uan.